

Aquila Municipal Trust

Aquila Tax-Free Trust of Arizona
Aquila Tax-Free Fund of Colorado
Aquila Churchill Tax-Free Fund of Kentucky
Aquila Narragansett Tax-Free Income Fund
Aquila Tax-Free Trust of Oregon
Aquila Tax-Free Fund For Utah

(each, a “Fund” and collectively, the “Funds”)

**Supplement dated March 12, 2024
to the Summary Prospectus, Prospectus and Statement of Additional Information
Dated July 27, 2023**

The following disclosure supplements any information to the contrary in each Fund’s Summary Prospectus, Prospectus and Statement of Additional Information:

Aquila Investment Management LLC (“Aquila”), each Fund’s investment adviser, and New York Life Investment Management LLC (“New York Life Investments”) announced that they have entered into a definitive agreement for Aquila to sell assets used in its investment advisory business relating to the Funds to New York Life Investments (the “transaction”).

Under the terms of the agreement, subject to Fund shareholder approval, each of the Funds are expected to be reorganized into either an existing series or newly created series of MainStay Funds Trust (collectively, the “MainStay Funds”) (each, a “Reorganization” and collectively, the “Reorganizations”), and subsequently will be advised by New York Life Investments and subadvised by MacKay Shields LLC. The Board of Trustees of the Funds (the “Board”) has unanimously approved each of the proposed Reorganizations. The proposed Reorganizations are listed below:

<u>Aquila Funds</u>	<u>Acquiring MainStay Funds</u>
Aquila Tax-Free Trust of Arizona	MainStay MacKay Arizona Muni Fund
Aquila Tax-Free Fund of Colorado	MainStay MacKay Colorado Muni Fund
Aquila Churchill Tax-Free Fund of Kentucky	MainStay MacKay Strategic Municipal Allocation Fund
Aquila Narragansett Tax-Free Income Fund	MainStay MacKay Strategic Municipal Allocation Fund
Aquila Tax-Free Trust of Oregon	MainStay MacKay Oregon Muni Fund
Aquila Tax-Free Fund For Utah	MainStay MacKay Utah Muni Fund

Each Reorganization is contingent upon the completion of certain conditions, including approval by the shareholders of the applicable Fund. If all conditions are satisfied and approvals obtained, the transaction and proposed Reorganizations are expected to close in the third quarter of 2024.

The foregoing disclosure is not intended to solicit a proxy from any Fund shareholder. The solicitation of proxies to effect each Reorganization will only be made by a final, effective Registration Statement on Form N-14, which includes a definitive Proxy Statement/Prospectus, after that Registration Statement is declared effective by the Securities and Exchange Commission (the “SEC”). The Registration Statement on Form N-14 has yet to be filed with the SEC. After the Registration Statement on Form N-14 is filed with the SEC, it may be amended or withdrawn and the Proxy Statement/Prospectus will not be distributed to Fund shareholders unless and until the Registration Statement on Form N-14 is declared effective by the SEC.

Fund shareholders are urged to read the Proxy Statement/Prospectus relating to the Reorganization of their Fund and other documents filed with the SEC carefully and in their entirety when they become available because these documents will contain important information about the proposed Reorganizations. The Proxy Statement/Prospectus will contain information with respect to the investment objectives, risks, charges and expenses of the MainStay Funds and other important information that Fund shareholders should carefully consider.

Please retain this supplement for future reference.

**Supplement dated November 30, 2023
to the Prospectus and Statement of Additional Information of:**

Aquila Funds Trust

Aquila High Income Fund
Aquila Opportunity Growth Fund
Dated April 27, 2023

Aquila Municipal Trust

Aquila Tax-Free Trust of Arizona
Aquila Tax-Free Fund of Colorado
Aquila Churchill Tax-Free Fund of Kentucky
Aquila Tax-Free Trust of Oregon
Aquila Narragansett Tax-Free Income Fund
Aquila Tax-Free Fund For Utah
Dated July 27, 2023

Hawaiian Tax-Free Trust

Dated July 27, 2023

The following disclosure supplements any information to the contrary in each Fund's Prospectus and Statement of Additional Information:

Broker-Defined Sales Charge Waiver Policies

The information below has been provided by the named financial intermediaries. Please contact the applicable financial intermediary with any questions regarding how it applies the policies described below or for assistance in determining whether you may qualify for a particular sales charge waiver or discount.

Merrill Lynch:

Purchases or sales of front-end (i.e. Class A) or level-load (i.e., Class C) mutual fund shares through a Merrill platform or account will be eligible only for the following sales load waivers (front-end, contingent deferred, or back-end waivers) and discounts, which differ from those disclosed elsewhere in this Fund's prospectus. Purchasers will have to buy mutual fund shares directly from the mutual fund company or through another intermediary to be eligible for waivers or discounts not listed below.

It is the client's responsibility to notify Merrill at the time of purchase or sale of any relationship or other facts that qualify the transaction for a waiver or discount. A Merrill representative may ask for reasonable documentation of such facts and Merrill may condition the granting of a waiver or discount on the timely receipt of such documentation.

Additional information on waivers and discounts is available in the Merrill Sales Load Waiver and Discounts Supplement (the "Merrill SLWD Supplement") and in the Mutual Fund Investing at Merrill pamphlet at ml.com/funds. Clients are encouraged to review these documents and speak with their financial advisor to determine whether a transaction is eligible for a waiver or discount.

Front-end Load Waivers Available at Merrill

- Shares of mutual funds available for purchase by employer-sponsored retirement, deferred compensation, and employee benefit plans (including health savings accounts) and trusts used to fund those plans provided the shares are not held in a commission-based brokerage account and shares are held for the benefit of the plan. For purposes of this provision, employer-sponsored retirement plans do not include SEP IRAs, Simple IRAs, SAR-SEPs or Keogh plans
- Shares purchased through a Merrill investment advisory program

- Brokerage class shares exchanged from advisory class shares due to the holdings moving from a Merrill investment advisory program to a Merrill brokerage account
- Shares purchased through the Merrill Edge Self-Directed platform
- Shares purchased through the systematic reinvestment of capital gains distributions and dividend reinvestment when purchasing shares of the same mutual fund in the same account
- Shares exchanged from level-load shares to front-end load shares of the same mutual fund in accordance with the description in the Merrill SLWD Supplement
- Shares purchased by eligible employees of Merrill or its affiliates and their family members who purchase shares in accounts within the employee's Merrill Household (as defined in the Merrill SLWD Supplement)
- Shares purchased by eligible persons associated with the fund as defined in this prospectus (e.g. the fund's officers or trustees)
- Shares purchased from the proceeds of a mutual fund redemption in front-end load shares provided (1) the repurchase is in a mutual fund within the same fund family; (2) the repurchase occurs within 90 calendar days from the redemption trade date, and (3) the redemption and purchase occur in the same account (known as Rights of Reinstatement). Automated transactions (i.e. systematic purchases and withdrawals) and purchases made after shares are automatically sold to pay Merrill's account maintenance fees are not eligible for Rights of Reinstatement

Contingent Deferred Sales Charge ("CDSC") Waivers on Front-end, Back-end, and Level Load Shares Available at Merrill

- Shares sold due to the client's death or disability (as defined by Internal Revenue Code Section 22(e)(3))
- Shares sold pursuant to a systematic withdrawal program subject to Merrill's maximum systematic withdrawal limits as described in the Merrill SLWD Supplement
- Shares sold due to return of excess contributions from an IRA account
- Shares sold as part of a required minimum distribution for IRA and retirement accounts due to the investor reaching the qualified age based on applicable IRS regulation
- Front-end or level-load shares held in commission-based, non-taxable retirement brokerage accounts (e.g. traditional, Roth, rollover, SEP IRAs, Simple IRAs, SAR-SEPs or Keogh plans) that are transferred to fee-based accounts or platforms and exchanged for a lower cost share class of the same mutual fund

Front-end Load Discounts Available at Merrill: Breakpoints, Rights of Accumulation & Letters of Intent

- Breakpoint discounts, as described in this prospectus, where the sales load is at or below the maximum sales load that Merrill permits to be assessed to a front-end load purchase, as described in the Merrill SLWD Supplement
- Rights of Accumulation (ROA), as described in the Merrill SLWD Supplement, which entitle clients to breakpoint discounts based on the aggregated holdings of mutual fund family assets held in accounts in their Merrill Household
- Letters of Intent (LOI), which allow for breakpoint discounts on eligible new purchases based on anticipated future eligible purchases within a fund family at Merrill, in accounts within your Merrill Household, as further described in the Merrill SLWD Supplement

Edward D. Jones & Co., L.P. ("Edward Jones"):

Policies Regarding Transactions Through Edward Jones

The following information has been provided by Edward Jones:

Effective on or after January 1st, 2024, the following information supersedes prior information with respect to transactions and positions held in fund shares through an Edward Jones system. Clients of Edward Jones (also referred to as “shareholders”) purchasing fund shares on the Edward Jones commission and fee-based platforms are eligible only for the following sales charge discounts (also referred to as “breakpoints”) and waivers, which can differ from discounts and waivers described elsewhere in the mutual fund prospectus or statement of additional information (“SAI”) or through another broker-dealer. In all instances, it is the shareholder's responsibility to inform Edward Jones at the time of purchase of any relationship, holdings of Aquila Group of Funds, or other facts qualifying the purchaser for discounts or waivers. Edward Jones can ask for documentation of such circumstance. Shareholders should contact Edward Jones if they have questions regarding their eligibility for these discounts and waivers.

Breakpoints

- Breakpoint pricing, otherwise known as volume pricing, at dollar thresholds as described in the prospectus.

Rights of Accumulation (“ROA”)

- The applicable sales charge on a purchase of Class A shares is determined by taking into account all share classes (except certain money market funds and any assets held in group retirement plans) of Aquila Group of Funds held by the shareholder or in an account grouped by Edward Jones with other accounts for the purpose of providing certain pricing considerations (“pricing groups”). If grouping assets as a shareholder, this includes all share classes held on the Edward Jones platform and/or held on another platform. The inclusion of eligible fund family assets in the ROA calculation is dependent on the shareholder notifying Edward Jones of such assets at the time of calculation. Money market funds are included only if such shares were sold with a sales charge at the time of purchase or acquired in exchange for shares purchased with a sales charge.
- The employer maintaining a SEP IRA plan and/or SIMPLE IRA plan may elect to establish or change ROA for the IRA accounts associated with the plan to a plan-level grouping as opposed to including all share classes at a shareholder or pricing group level.
- ROA is determined by calculating the higher of cost minus redemptions or market value (current shares x NAV).

Letter of Intent (“LOI”)

- Through a LOI, shareholders can receive the sales charge and breakpoint discounts for purchases shareholders intend to make over a 13-month period from the date Edward Jones receives the LOI. The LOI is determined by calculating the higher of cost or market value of qualifying holdings at LOI initiation in combination with the value that the shareholder intends to buy over a 13-month period to calculate the front-end sales charge and any breakpoint discounts. Each purchase the shareholder makes during that 13-month period will receive the sales charge and breakpoint discount that applies to the total amount. The inclusion of eligible fund family assets in the LOI calculation is dependent on the shareholder notifying Edward Jones of such assets at the time of calculation. Purchases made before the LOI is received by Edward Jones are not adjusted under the LOI and will not reduce the sales charge previously paid. Sales charges will be adjusted if LOI is not met.
- If the employer maintaining a SEP IRA plan and/or SIMPLE IRA plan has elected to establish or change ROA for the IRA accounts associated with the plan to a plan-level grouping, LOIs will also be at the plan-level and may only be established by the employer.

Sales Charge Waivers

Sales charges are waived for the following shareholders and in the following situations:

- Associates of Edward Jones and its affiliates and other accounts in the same pricing group (as determined by Edward Jones under its policies and procedures) as the associate. This waiver will continue for the remainder of the associate's life if the associate retires from Edward Jones in good-standing and remains in good standing pursuant to Edward Jones' policies and procedures.
- Shares purchased in an Edward Jones fee-based program.
- Shares purchased through reinvestment of capital gains distributions and dividend reinvestment.
- Shares purchased from the proceeds of redeemed shares of the same fund family so long as the following conditions are met: the proceeds are from the sale of shares within 60 days of the purchase, the sale and purchase are made from a share class that charges a front load and one of the following:
 - The redemption and repurchase occur in the same account.
 - The redemption proceeds are used to process an: IRA contribution, excess contributions, conversion, recharacterizing of contributions, or distribution, and the repurchase is done in an account within the same Edward Jones grouping for ROA.
- Shares exchanged into Class A shares from another share class so long as the exchange is into the same fund and was initiated at the discretion of Edward Jones. Edward Jones is responsible for any remaining CDSC due to the fund company, if applicable. Any future purchases are subject to the applicable sales charge as disclosed in the prospectus.
- Exchanges from Class C shares to Class A shares of the same fund, generally, in the 84th month following the anniversary of the purchase date or earlier at the discretion of Edward Jones.
- Purchases of Class 529-A shares through a rollover from either another education savings plan or a security used for qualified distributions.
- Purchases of Class 529 shares made for re-contribution of refunded amounts.

Contingent Deferred Sales Charge (“CDSC”) Waivers

If the shareholder purchases shares that are subject to a CDSC and those shares are redeemed before the CDSC is expired, the shareholder is responsible to pay the CDSC except in the following conditions:

- The death or disability of the shareholder.
- Systematic withdrawals with up to 10% per year of the account value.
- Return of excess contributions from an Individual Retirement Account (IRA).
- Shares redeemed as part of a required minimum distribution for IRA and retirement accounts if the redemption is taken in or after the year the shareholder reaches qualified age based on applicable IRS regulations.
- Shares redeemed to pay Edward Jones fees or costs in such cases where the transaction is initiated by Edward Jones.
- Shares exchanged in an Edward Jones fee-based program.
- Shares acquired through NAV reinstatement.
- Shares redeemed at the discretion of Edward Jones for Minimums Balances, as described below.

Other Important Information Regarding Transactions Through Edward Jones

Minimum Purchase Amounts

- Initial purchase minimum: \$250
- Subsequent purchase minimum: none

Minimum Balances

- Edward Jones has the right to redeem at its discretion fund holdings with a balance of \$250 or less. The following are examples of accounts that are not included in this policy:
 - A fee-based account held on an Edward Jones platform

- A 529 account held on an Edward Jones platform
- An account with an active systematic investment plan or LOI

Exchanging Share Classes

- At any time it deems necessary, Edward Jones has the authority to exchange at NAV a shareholder's holdings in a fund to Class A shares of the same fund.

Please retain this supplement for future reference.

AQL-EJMLPS-1123

**Supplement dated September 15, 2023
to the Summary Prospectus, Statutory Prospectus
and Statement of Additional Information of:**

Aquila Funds Trust

Aquila High Income Fund
Aquila Opportunity Growth Fund
Dated April 27, 2023

Aquila Municipal Trust

Aquila Tax-Free Trust of Arizona
Aquila Tax-Free Fund of Colorado
Aquila Churchill Tax-Free Fund of Kentucky
Aquila Tax-Free Trust of Oregon
Aquila Narragansett Tax-Free Income Fund
Aquila Tax-Free Fund For Utah
Dated July 27, 2023

Hawaiian Tax-Free Trust

Dated July 27, 2023

The following disclosure supplements any information to the contrary in each Fund's Summary Prospectus, Prospectus and Statement of Additional Information:

Purchase, Redemption and Exchange of Fund Shares

The following disclosure supplements the information in each Fund's Summary Prospectus and Prospectus under the headings "Purchase and Sale of Fund Shares," "Purchases," "Redeeming an Investment," and "Exchanges," as applicable, and in the Statement of Additional Information under the heading "Purchase, Redemption, and Pricing of Shares:"

Effective October 2, 2023, shareholders that hold an Aquila Group of Funds account directly with the Funds may purchase, redeem and exchange shares of a Fund with the Fund's transfer and shareholder servicing agent through an online investor portal, which can be accessed via the Funds' website at aquilafunds.com/myaccount. Shareholders may also continue to purchase, redeem and exchange shares of a Fund in writing, by telephone or through a financial intermediary, as applicable, as set forth in the Summary Prospectus, Prospectus and Statement of Additional Information.

Broker-Defined Sales Charge Waiver Policies

The following disclosure supplements the information in the Prospectus under the heading "Broker-Defined Sales Charge Waiver Policies:"

J.P. Morgan Securities LLC

Effective September 29, 2023, if you purchase or hold Fund shares through an applicable J.P. Morgan Securities LLC brokerage account, you will be eligible for the following sales charge waivers (front-end sales charge waivers and contingent deferred sales charge ("CDSC"), or back-end sales charge, waivers), share class conversion policy and discounts, which may differ from those disclosed elsewhere in the Fund's Prospectus or Statement of Additional Information.

Front-end sales charge waivers on Class A shares available at J.P. Morgan Securities LLC

- Shares exchanged from Class C (i.e. level-load) shares that are no longer subject to a CDSC and are exchanged into Class A shares of the same fund pursuant to J.P. Morgan Securities LLC's share class exchange policy.
- Qualified employer-sponsored defined contribution and defined benefit retirement plans, nonqualified deferred compensation plans, other employee benefit plans and trusts used to fund those plans. For purposes of this provision, such plans do not include SEP IRAs, SIMPLE IRAs, SAR-SEPs or 501(c)(3) accounts.
- Shares of funds purchased through J.P. Morgan Securities LLC Self-Directed Investing accounts.
- Shares purchased through rights of reinstatement.
- Shares purchased through reinvestment of capital gains distributions and dividend reinvestment when purchasing shares of the same fund (but not any other fund within the fund family).
- Shares purchased by employees and registered representatives of J.P. Morgan Securities LLC or its affiliates and their spouse or financial dependent as defined by J.P. Morgan Securities LLC.

Class C to Class A share conversion

- A shareholder in the Fund's Class C shares will have their shares converted to Class A shares (or the appropriate share class) of the same Fund if the shares are no longer subject to a CDSC and the conversion is consistent with J.P. Morgan Securities LLC's policies and procedures.

CDSC waivers on Class A and C shares available at J.P. Morgan Securities LLC

- Shares sold upon the death or disability of the shareholder.
- Shares sold as part of a systematic withdrawal plan as described in the Fund's Prospectus.
- Shares purchased in connection with a return of excess contributions from an IRA account.
- Shares sold as part of a required minimum distribution for IRA and retirement accounts pursuant to the Internal Revenue Code.
- Shares acquired through a right of reinstatement.

Front-end load discounts available at J.P. Morgan Securities LLC: breakpoints, rights of accumulation & letters of intent

- Breakpoints as described in the prospectus.
- Rights of Accumulation ("ROA") which entitle shareholders to breakpoint discounts as described in the fund's prospectus will be automatically calculated based on the aggregated holding of fund family assets held by accounts within the purchaser's household at J.P. Morgan Securities LLC. Eligible fund family assets not held at J.P. Morgan Securities LLC (including 529 program holdings, where applicable) may be included in the ROA calculation only if the shareholder notifies their financial advisor about such assets.
- Letters of Intent ("LOI") which allow for breakpoint discounts based on anticipated purchases within a fund family, through J.P. Morgan Securities LLC, over a 13-month period of time (if applicable).

Please retain this supplement for future reference.

**Aquila Tax-Free Trust of Arizona
Aquila Tax-Free Fund of Colorado
Aquila Churchill Tax-Free Fund of Kentucky
Aquila Tax-Free Trust of Oregon
Aquila Narragansett Tax-Free Income Fund
Aquila Tax-Free Fund For Utah
each a series of**

AQUILA MUNICIPAL TRUST

**120 West 45th Street, Suite 3600
New York, NY 10036
212-697-6666**

For shareholder account inquiries, call the Funds' Shareholder Servicing Agent at:

800-437-1000

The telephone number for Financial Professionals is:

800-437-1020

	<u>Class A</u>	<u>Class C</u>	<u>Class F</u>	<u>Class I</u>	<u>Class Y</u>
Aquila Tax-Free Trust of Arizona	AZTFX	AZTCX	AZFFX	—	AZTYX
Aquila Tax-Free Fund of Colorado	COTFX	COTCX	COFFX	—	COTYX
Aquila Churchill Tax-Free Fund of Kentucky	CHTFX	CHKCX	CHKFX	CHKIX	CHKYX
Aquila Tax-Free Trust of Oregon	ORTFX	ORTCX	ORFFX	—	ORTYX
Aquila Narragansett Tax-Free Income Fund	NITFX	NITCX	NIFFX	NITIX	NITYX
Aquila Tax-Free Fund For Utah	UTAHX	UTACX	UTAFX	—	UTAYX

STATEMENT OF ADDITIONAL INFORMATION

July 27, 2023

This Statement of Additional Information (the "SAI") has been incorporated by reference into the Prospectus for the Funds dated July 27, 2023. The SAI is not a prospectus. The SAI should be read in conjunction with the Prospectus.

The Prospectus may be obtained from the Funds' Distributor, Aquila Distributors LLC
120 West 45th Street, Suite 3600, New York, NY 10036
212-697-6666

or

from Aquila Group of Funds' website at www.aquilafunds.com,
or toll-free at:
800-437-1000

Financial Statements

The financial statements and financial highlights for Aquila Tax-Free Trust of Arizona (File Nos. 33-1857 and 811-4503) for the fiscal year ended March 31, 2023, which are contained in the Annual Report for that fiscal year, filed with the Securities and Exchange Commission on June 5, 2023 (Accession No. 0000784056-23-000014), are hereby incorporated herein by reference into this SAI.

The financial statements and financial highlights for Aquila Tax-Free Fund of Colorado (File Nos. 33-1857 and 811-4503) for the fiscal year ended March 31, 2023, which are contained in the Annual Report for that fiscal year, filed with the Securities and Exchange Commission on June 5, 2023 (Accession No. 0000784056-23-000014), are hereby incorporated herein by reference into this SAI.

The financial statements and financial highlights for Aquila Churchill Tax-Free Fund of Kentucky (File Nos. 33-1857 and 811-4503) for the fiscal year ended March 31, 2023, which are contained in the Annual Report for that fiscal year, filed with the Securities and Exchange Commission on June 5, 2023 (Accession No. 0000784056-23-000014), are hereby incorporated herein by reference into this SAI.

The financial statements and financial highlights for Aquila Tax-Free Trust of Oregon (File Nos. 33-1857 and 811-4503) for the fiscal year ended March 31, 2023, which are contained in the Annual Report for that fiscal year, filed with the Securities and Exchange Commission on June 5, 2023 (Accession No. 0000784056-23-000014), are hereby incorporated herein by reference into this SAI.

The financial statements and financial highlights for Aquila Narragansett Tax-Free Income Fund (File Nos. 33-1857 and 811-4503) for the fiscal year ended March 31, 2023, which are contained in the Annual Report for that fiscal year, filed with the Securities and Exchange Commission on June 5, 2023 (Accession No. 0000784056-23-000014), are hereby incorporated herein by reference into this SAI.

The financial statements and financial highlights for Aquila Tax-Free Fund For Utah (File Nos. 33-1857 and 811-4503) for the fiscal year ended March 31, 2023, which are contained in the Annual Report for that fiscal year, filed with the Securities and Exchange Commission on June 5, 2023 (Accession No. 0000784056-23-000014), are hereby incorporated herein by reference into this SAI.

These financial statements have been audited by Tait, Weller & Baker LLP, independent registered public accounting firm, whose reports thereon are incorporated herein by reference. These Annual Reports can be obtained without charge by calling 800-437-1000 toll-free.

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Fund History

Aquila Municipal Trust is a Massachusetts business trust formed in 1986. Prior to April 10, 2013, the Trust was named Tax-Free Trust of Arizona. Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon, Aquila Narragansett Tax-Free Income Fund and Aquila Tax-Free Fund For Utah (each, a “Fund”) are series of Aquila Municipal Trust. Each Fund is an open-end, non-diversified management investment company.

Prior to October 11, 2013, Aquila Tax-Free Trust of Arizona was known as Tax-Free Trust of Arizona. Each of Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon, Aquila Narragansett Tax-Free Income Fund and Aquila Tax-Free Fund For Utah (each, a “Successor Fund”) is a series of Aquila Municipal Trust. Each Successor Fund was established in connection with the reorganization into the Fund of a fund with identical investment objectives and principal investment strategies as the Successor Fund (each, a “Predecessor Fund”) (each, a “Reorganization”), as follows:

Predecessor Fund	Successor Fund	Date of Reorganization
Tax-Free Fund of Colorado	Aquila Tax-Free Fund of Colorado	October 11, 2013
Churchill Tax-Free Fund of Kentucky, a series of Churchill Tax Free Trust	Aquila Churchill Tax-Free Fund of Kentucky	October 11, 2013
Aquila Tax-Free Trust of Oregon, a series of The Cascades Trust	Aquila Tax-Free Trust of Oregon	June 26, 2020
Aquila Narragansett Tax-Free Income Fund	Aquila Narragansett Tax-Free Income Fund	October 11, 2013
Tax-Free Fund For Utah	Aquila Tax-Free Fund For Utah	October 11, 2013

Investment Objective, Investment Strategies and Risks

The Funds’ Prospectus discusses each Fund’s investment objective and strategies. The following discussion supplements the description of the Funds’ investment strategies in their Prospectus.

Aquila Tax-Free Trust of Arizona:

Investment Objective

The Fund’s objective is to provide you as high a level of current income exempt from Arizona state and regular Federal income taxes as is consistent with preservation of capital.

Principal Investment Strategies

Under normal circumstances, at least 80% of the Fund’s net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Arizona state and regular Federal income taxes, the income upon which will not be subject to the Federal alternative minimum tax on individuals.

Aquila Tax-Free Fund of Colorado:

Investment Objective

The Fund’s objective is to provide you as high a level of current income exempt from Colorado state and regular Federal income taxes as is consistent with preservation of capital.

Principal Investment Strategies

Under normal circumstances, at least 80% of the Fund’s net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Colorado state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.

Aquila Churchill Tax-Free Fund of Kentucky

Investment Objective

The Fund's objective is to provide you as high a level of current income exempt from Kentucky state and regular Federal income taxes as is consistent with preservation of capital.

Principal Investment Strategies

Under normal circumstances, at least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Kentucky income and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.

Aquila Tax-Free Trust of Oregon:

Investment Objective

The Fund's objective is to provide you as high a level of current income exempt from Oregon state and regular Federal income taxes as is consistent with preservation of capital.

Principal Investment Strategies

Under normal circumstances, at least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Oregon state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.

Aquila Narragansett Tax-Free Income Fund

Investment Objective

The Fund's objective is to provide you as high a level of current income exempt from Rhode Island state and regular Federal income taxes as is consistent with preservation of capital.

Principal Investment Strategies

Under normal circumstances, at least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Rhode Island state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.

Aquila Tax-Free Fund For Utah

Investment Objective

The Fund's objective is to provide you as high a level of current income exempt from Utah state and regular Federal income taxes as is consistent with preservation of capital.

Principal Investment Strategies

Under normal circumstances, at least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Utah state individual and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.

Supplemental Information Regarding Principal Investment Strategies (All Funds)

The following provides additional information about the Funds' principal investment strategies and risks and the securities in which the Funds may invest.

Percentage Limitations

Each Fund's compliance with its investment limitations and requirements is determined at the time of investment unless otherwise stated herein or in the Fund's policies and procedures. If a percentage limitation is complied with at the time of an investment, any subsequent change in percentage resulting from a change in values or assets, or a change in credit quality, will not constitute a violation of that limitation.

Ratings

The ratings assigned by Moody's Investors Service, Inc. ("Moody's"), Standard & Poor's ("S&P") and Fitch Ratings ("Fitch"), nationally recognized statistical rating organizations, represent their respective opinions of the quality of the municipal bonds and notes which they undertake to rate. It should be emphasized, however, that ratings are general and not absolute standards of quality. Consequently, obligations with the same maturity, stated interest rate and rating may have different yields, while obligations of the same maturity and stated interest rate with different ratings may have the same yield.

Rating agencies consider municipal obligations that have only the fourth highest credit rating to be of medium quality. Thus, they may present investment risks which do not exist with more highly rated obligations. Such obligations possess less attractive investment characteristics. Changes in economic conditions or other circumstances are more likely to lead to a weakened capacity to make principal and interest payments than is the case for higher-grade bonds.

Credit rating or credit quality of a security is determined at the time of purchase. If, after purchase, the credit rating on a security is downgraded or the credit quality deteriorates, or if the duration of a security is extended, the Funds' investment adviser (or, if applicable, Sub-Adviser) will decide whether the security should continue to be held or sold.

See Appendix A to this SAI for further information about the ratings of these organizations that apply to the various rated obligations which a Fund may purchase.

Additional Information About State Economies

Many complex political, social and economic forces influence each state's economy and finances, which may in turn affect the state's financial plan. These forces may affect a state or territory unpredictably from fiscal year to fiscal year and are influenced by governments, institutions and events that are not subject to the state's control.

Arizona - Aquila Tax-Free Trust of Arizona intends to invest a high proportion of its assets in Arizona municipal obligations. Payment of interest and preservation of principal is dependent upon the continuing ability of Arizona issuers and/or obligors of state, municipal and public authority debt obligations to meet their obligations thereunder.

Information concerning certain factors affecting the economy of the State of Arizona is set forth in Appendix B to this SAI.

Colorado - Aquila Tax-Free Fund of Colorado intends to invest a high proportion of its assets in Colorado municipal obligations. Payment of interest and preservation of principal is dependent upon the continuing ability of Colorado issuers and/or obligors of state, municipal and public authority debt obligations to meet their obligations thereunder.

Information concerning certain factors affecting the economy of the State of Colorado is set forth in Appendix C to this SAI.

Kentucky - Aquila Churchill Tax-Free Fund of Kentucky intends to invest a high proportion of its assets in Kentucky municipal obligations. Payment of interest and preservation of principal is dependent upon the continuing ability of Kentucky issuers and/or obligors of state, municipal and public authority debt obligations to meet their obligations thereunder.

Information concerning certain factors affecting the economy of the Commonwealth of Kentucky is set forth in Appendix D to this SAI.

Oregon - Aquila Tax-Free Trust of Oregon intends to invest a high proportion of its assets in Oregon municipal obligations. Payment of interest and preservation of principal is dependent upon the continuing ability of Oregon issuers and/or obligors of state, municipal and public authority debt obligations to meet their obligations thereunder.

Information concerning certain factors affecting the economy of the State of Oregon is set forth in Appendix E to this SAI.

Rhode Island- Aquila Narragansett Tax-Free Income Fund intends to invest a high proportion of its assets in Rhode Island municipal obligations. Payment of interest and preservation of principal is dependent upon the continuing ability of Rhode Island issuers and/or obligors of state, municipal and public authority debt obligations to meet their obligations thereunder.

Information concerning certain factors affecting the economy of the State of Rhode Island is set forth in Appendix F to this SAI.

Utah - Aquila Tax-Free Fund For Utah intends to invest a high proportion of its assets in Utah municipal obligations. Payment of interest and preservation of principal is dependent upon the continuing ability of Utah issuers and/or obligors of state, municipal and public authority debt obligations to meet their obligations thereunder.

Information concerning certain factors affecting the economy of the State of Utah is set forth in Appendix G to this SAI.

There can be no assurance that current or future economic difficulties in the United States or a state and the resulting impact on that state will not adversely affect the market value of municipal obligations held by a Fund or the ability of particular issuers to make timely payments of debt service on these obligations. It should also be noted that the fiscal condition and creditworthiness of a state may not have a direct relationship to the fiscal condition or creditworthiness of other issuers or obligors of municipal obligations. There is no obligation on the part of a state to make payments on those securities in the event of default.

Municipal Bonds

The two principal classifications of municipal bonds are “general obligation” bonds and “revenue” bonds. General obligation bonds are secured by the issuer’s pledge of its full faith, credit and taxing power for the payment of principal and interest. Revenue or special tax bonds are payable only from the revenues derived from a particular facility or class of facilities or projects or, in a few cases, from the proceeds of a special excise or other tax, but are not supported by the issuer’s full taxing power. There are, of course, variations in the security of municipal bonds, both within a particular classification and between classifications, depending on numerous factors. The yields of municipal bonds depend on, among other things, general financial conditions, general conditions of the municipal bond market, the size of a particular offering, the maturity of the obligation and the rating of the issue.

Since each Fund may invest in industrial development bonds or private activity bonds, a Fund may not be an appropriate investment for entities that are “substantial users” of facilities financed by those bonds or for investors who are “related persons” of such users. Generally, an individual will not be a “related person” under the Internal Revenue Code of 1986, as amended (the “Code”), unless such investor or his or her immediate family (spouse, brothers, sisters and lineal descendants) owns directly or indirectly in the aggregate more than 50 percent of the equity of a corporation or is a partner of a partnership which is a “substantial user” of a facility financed from the proceeds of those bonds. A “substantial user” of such facilities is defined generally as a “non-exempt person who regularly uses a part of a facility” financed from the proceeds of industrial development or private activity bonds.

As indicated in each Fund’s Prospectus, there are certain securities in which a Fund may invest the interest on which is subject to the Federal alternative minimum tax on individuals. While a Fund may purchase these obligations, it may, on the other hand, refrain from purchasing particular securities due to this tax consequence. Also, as indicated in each Fund’s Prospectus, a Fund generally will not purchase obligations of issuers the interest on which is subject to regular Federal income tax. The foregoing may reduce the number of issuers of obligations that are available to a Fund for investment.

Municipal Downgrades and Bankruptcies. Municipal bonds may be more susceptible to being downgraded, and issuers of municipal bonds may be more susceptible to default and bankruptcy, during recessions or similar periods of economic stress. Factors contributing to the economic stress on municipalities may include lower property tax collections as a result of lower home values, lower sales tax revenue as a result of consumers cutting back from spending, and lower income tax revenue as a result of a high unemployment rate. In addition, as certain municipal obligations may be secured or guaranteed by banks and other institutions, the risk to a fund could increase if the banking or financial sector suffers an economic downturn and/or if the credit ratings of the institutions issuing the guarantee are downgraded or at risk of being downgraded by a national rating organization. Such a downward revision or risk of being downgraded may have an adverse effect on the market prices of the bonds and thus the value of a fund’s investments.

Certain municipal issuers either have been unable to issue bonds or access the market to sell their issues or, if able to access the market, have issued bonds at much higher rates, which may reduce revenues available for municipal issuers to pay existing obligations. Should the State or municipalities fail to sell bonds when and at the rates projected; the State could experience significantly increased costs in the General Fund and a weakened overall cash position in the current fiscal year.

Further, an insolvent municipality may file for bankruptcy. For example, Chapter 9 of Title 11 of the United States Code (the “Bankruptcy Code”) provides a financially distressed municipality protection from its creditors while it develops and negotiates a plan for reorganizing its debts. “Municipality” is defined broadly by the Bankruptcy Code as a “political subdivision or public agency or instrumentality of a state” and may include various issuers of securities in which the fund invests. The reorganization of a municipality’s debts may be accomplished by extending debt maturities, reducing the amount of principal or interest, refinancing the debt or other measures which may significantly affect the rights of creditors and the value of the securities issued by the municipality and the value of a fund’s investments.

When-Issued and Delayed Delivery Obligations

Each Fund may buy obligations on a when-issued or delayed delivery basis. The purchase price and the interest rate payable on a when-issued or delayed delivery basis are fixed on the transaction date. At the time a Fund makes the commitment to purchase obligations on a when-issued or delayed delivery basis, it will record the transaction and thereafter reflect the value each day of such obligations in determining its net asset value. A Fund will make commitments for such when-issued transactions only when it has the intention of actually acquiring the obligations.

Zero Coupon Securities

Each Fund may invest in zero coupon securities. Zero coupon bonds are issued and traded at a discount from their face value. They do not entitle the holder to any periodic payment of interest prior to maturity.

The income-producing securities that a Fund might invest in include securities that make periodic interest payments as well as those that make interest payments on a deferred basis or pay interest only at maturity (e.g., Treasury bills or zero coupon bonds).

Current Federal income tax law requires holders of zero coupon securities to report the portion of the original issue discount on such securities that accrues during a given year as interest income, even though the holders receive no cash payments of interest during the year. In order to qualify for treatment as a “regulated investment company” under the Code, each Fund must generally distribute substantially all of its net income, including the original issue discount accrued on zero coupon bonds. Because a Fund would not receive cash payments on a current basis in respect of accrued original-issue discount on zero coupon bonds during the period before interest payments begin, in some years the Fund might have to distribute cash obtained from other sources in order to satisfy the distribution requirements under the Code. The Fund might obtain such cash from selling other portfolio holdings which might cause the Fund to incur capital gains or losses on the sale. Additionally, these actions would be likely to reduce the assets to which Fund expenses could be allocated and may reduce the rate of return for the Fund. In some circumstances, such sales might be necessary in order to satisfy cash distribution requirements even though investment considerations might otherwise make it undesirable for the Fund to sell the securities at the time.

Generally, the market prices of zero coupon securities are more volatile than the prices of securities that pay interest periodically and in cash and are likely to respond to changes in interest rates to a greater degree than other types of debt securities having similar maturities and credit quality.

Futures Contracts and Options

Although the Funds do not presently do so, each Fund is permitted to buy and sell futures contracts, including futures contracts relating to municipal security indices (“Municipal Security Index Futures”) and to U.S. Government securities (“U.S. Government Securities Futures,” together referred to as “Futures”), and exchange-traded options based on Futures as a possible means of protecting the asset value of the Fund during periods of changing interest rates. The following discussion is intended to explain briefly the workings of Futures and options on them which would be applicable if a Fund were to use them.

Unlike when a Fund purchases or sells a municipal security, no price is paid or received by the Fund upon the purchase or sale of a Future. Initially, however, when such transactions are entered into, the Fund will be required to deposit with the futures commission merchant (“broker”) an amount of cash or municipal obligations equal to a varying specified

percentage of the contract amount. This amount is known as initial margin. Subsequent payments, called variation margin, to and from the broker, will be made on a daily basis as the price of the underlying index or security fluctuates making the Future more or less valuable, a process known as marking to market. Insolvency of the broker may make it more difficult to recover initial or variation margin. Changes in variation margin are recorded by the Fund as unrealized gains or losses. Margin deposits do not involve borrowing by the Fund and may not be used to support any other transactions. At any time prior to expiration of the Future, the Fund may elect to close the position by taking an opposite position which will operate to terminate the Fund's position in the Future. A final determination of variation margin is then made. Additional cash is required to be paid by or released to the Fund and it realizes a gain or a loss. Although Futures by their terms call for the actual delivery or acceptance of cash, in most cases the contractual obligation is fulfilled without having to make or take delivery. All transactions in the futures markets are subject to commissions payable by the Fund and are made, offset or fulfilled through a clearing house associated with the exchange on which the contracts are traded. Although the Fund intends to buy and sell Futures only on an exchange where there appears to be an active secondary market, there is no assurance that a liquid secondary market will exist for any particular Future at any particular time. In such event, or in the event of an equipment failure at a clearing house, it may not be possible to close a futures position.

Municipal Security Index Futures are futures contracts based on an index of municipal bonds. Daily values are assigned to the bonds included in the index based on the independent assessment of a pricing service, and the value of the index fluctuates with changes in those constituent values. The two parties to the contract agree to take or make delivery of a cash amount based on the difference between the value of the index on the last trading day of the contract and the price at which the contract was originally struck.

There are, as of the date of this Statement of Additional Information, U.S. Government Securities Futures contracts based on long-term Treasury bonds, Treasury notes, GNMA Certificates and three-month Treasury bills. U.S. Government Securities Futures have traded longer than Municipal Security Index Futures, and the depth and liquidity available in the trading markets for them are in general greater.

Call Options on Futures Contracts. Each Fund may also purchase and sell exchange-traded call and put options on Futures. The purchase of a call option on a Future is analogous to the purchase of a call option on an individual security. Depending on the pricing of the option compared to either the Future upon which it is based, or upon the price of the underlying debt securities, it may or may not be less risky than ownership of the futures contract or underlying debt securities. Like the purchase of a futures contract, the Fund may purchase a call option on a Future to hedge against a market advance when the Fund is not fully invested.

The writing of a call option on a Future constitutes a partial hedge against declining prices of the securities, which are deliverable upon exercise of the Future. If the price at expiration of the Future is below the exercise price, the Fund will retain the full amount of the option premium which provides a partial hedge against any decline that may have occurred in the Fund's portfolio holdings.

Put Options on Futures Contracts. The purchase of put options on a Future is analogous to the purchase of protective put options on portfolio securities. The Fund may purchase a put option on a Future to hedge the Fund's portfolio against the risk of rising interest rates.

The writing of a put option on a Future constitutes a partial hedge against increasing prices of the securities which are deliverable upon exercise of the Future. If the Future price at expiration is higher than the exercise price, the Fund will retain the full amount of the option premium which provides a partial hedge against any increase in the price of securities which the Fund intends to purchase.

The writer of an option on a Future is required to deposit initial and variation margin pursuant to requirements similar to those applicable to Futures. Premiums received from the writing of an option will be included in initial margin. The writing of an option on a Future involves risks similar to those relating to Futures.

Risk Factors in Futures Transactions and Options

One risk in employing Futures or options on Futures to attempt to protect against the price volatility of the Fund's investments in municipal and other securities is that the Manager or, if applicable, Sub-Adviser, could be incorrect in its expectations as to the extent of various interest rate movements or the time span within which the movements take place. For example, if the Fund sold a Future in anticipation of an increase in interest rates, and then interest rates went down instead, the Fund would lose money on the sale.

Another risk as to Futures or options on them arises because of the imperfect correlation between movement in the price of the Future and movements in the prices of the securities which are the subject of the hedge. The risk of imperfect correlation increases as the composition of the Fund's portfolio diverges from the municipal securities included in the applicable index or from the securities underlying the U.S. Government Securities Futures. The price of the Future or option may move more than or less than the price of the securities being hedged. If the price of the Future or option moves less than the price of the securities which are the subject of the hedge, the hedge will not be fully effective but, if the price of the securities being hedged has moved in an unfavorable direction, a Fund would be in a better position than if it had not hedged at all. If the price of the securities being hedged has moved in a favorable direction, this advantage will be offset by the Future or option. If the price of the Future or option has moved more than the price of the securities, the Fund will experience either a loss or gain on the Future or option which will not be completely offset by movements in the price of the securities which are the subject of the hedge. To compensate for the imperfect correlation of movements in the price of the securities being hedged and movements in the price of the Futures or options, the Fund may buy or sell Futures or options in a greater dollar amount than the dollar amount of the securities being hedged if the historical volatility of the prices of the securities being hedged is less than the historical volatility of the debt securities underlying the hedge. It is also possible that, where the Fund has sold Futures or options to hedge its portfolio against decline in the market, the market may advance and the value of the securities held in the Fund's portfolio may decline. If this occurred the Fund would lose money on the Future or option and also experience a decline in value of its portfolio securities.

Where Futures or options are purchased to hedge against a possible increase in the price of securities before the Fund is able to invest in them in an orderly fashion, it is possible that the market may decline instead; if the Fund then decides not to invest in the securities at that time because of concern as to possible further market decline or for other reasons, the Fund will realize a loss on the Futures or options that is not offset by a reduction in the price of the securities which it had anticipated purchasing.

The particular municipal securities comprising the index underlying Municipal Security Index Futures will vary from the bonds held by a Fund. The correlation of the hedge with such bonds may be affected by disparities in the average maturity, ratings, geographical mix or structure of the Fund's investments as compared to those comprising the Index, and general economic or political factors. In addition, the correlation between movements in the value of the Municipal Security Index may be subject to change over time, as additions to and deletions from the Municipal Security Index alter its structure. The correlation between U.S. Government Securities Futures and the municipal bonds held by the Fund may be adversely affected by similar factors and the risk of imperfect correlation between movements in the prices of such Futures and the prices of municipal obligations held by the Fund may be greater.

Trading in Municipal Security Index Futures may be less liquid than trading in other Futures. The trading of Futures and options is also subject to certain market risks, such as inadequate trading activity or limits on upward or downward price movements which could at times make it difficult or impossible to liquidate existing positions.

The "sale" of a Future means the acquisition by a Fund of an obligation to deliver an amount of cash equal to a specified dollar amount times the difference between the value of the index or government security at the close of the last trading day of the Future and the price at which the Future is originally struck (which the Fund anticipates will be lower because of a subsequent rise in interest rates and a corresponding decline in the index value). This is referred to as having a "short" Futures position. The "purchase" of a Future means the acquisition by a Fund of a right to take delivery of such an amount of cash. In this case, the Fund anticipates that the closing value will be higher than the price at which the Future is originally struck. This is referred to as having a "long" futures position. No physical delivery of the bonds making up the index or the U.S. government securities, as the case may be, is made as to either a long or a short futures position.

Each Fund will comply with Rule 18f-4 under the 1940 Act with respect to any investments in futures, options or other derivatives.

Supplemental Information Regarding Other Investment Strategies and Practices

The following provides additional information about other investment strategies and practices that the Funds may use.

Cash Management and Defensive Investing

Cash Management. Each Fund may invest its assets in money market funds, any type of taxable money market instrument and short-term debt securities, or may hold cash uninvested.

Defensive Investing. Each Fund may depart from its principal investment strategies in response to adverse market, economic or political conditions by taking temporary defensive positions and investing in shares of money market funds, any type of taxable money market instrument and short-term debt securities or holding cash uninvested without regard to any percentage limitations. Although a Fund has the ability to take defensive positions, the Fund’s Manager or, if applicable, Sub-Adviser, may choose not to do so for a variety of reasons, even during volatile market conditions.

Money market instruments or short-term debt securities held by a Fund for defensive investing purposes can fluctuate in value. Like other fixed income securities, they are subject to risk, including market, interest rate and credit risk. If a Fund holds cash uninvested, it will be subject to the credit risk of the depository institution holding the cash. In addition, the Fund will not earn income on the cash and the Fund’s yield will go down. If a significant amount of a Fund’s assets are used for defensive investing purposes, it will be more difficult for the Fund to achieve its investment objectives.

Supplemental Information Regarding Other Risks

Cybersecurity Issues

With the increased use of technologies such as the Internet to conduct business, each Fund is susceptible to operational, information security and related risks. In general, cyber incidents can result from deliberate attacks or unintentional events. Cyber attacks include, but are not limited to, attempts to gain unauthorized access to digital systems (e.g., through “hacking” or malicious software coding) for purposes of misappropriating assets or sensitive information, corrupting data, denying access, or causing other operational disruption. Cyber attacks may also be carried out in a manner that does not require gaining unauthorized access, such as causing denial-of-service attacks on websites (i.e., efforts to make network services unavailable to intended users). The Funds’ service providers regularly experience such attempts, and expect they will continue to do so. The Funds are unable to predict how any such attempt, if successful, may affect the Funds and their shareholders. While the Funds’ service providers have established business continuity plans in the event of, and risk management systems to prevent, limit or mitigate, such cyber attacks, there are inherent limitations in such plans and systems including the possibility that certain risks have not been identified. Furthermore, the Funds cannot control the cybersecurity plans and systems put in place by service providers to the Funds such as the Sub-Adviser, The Bank of New York Mellon, the Funds’ Custodian, and BNY Mellon Investment Servicing (US) Inc., the Funds’ Shareholder Servicing Agent. In addition, many beneficial owners of Fund shares hold them through accounts at broker-dealers, retirement platforms and other financial market participants over which neither the Funds nor the Manager exercises control. Each of these may in turn rely on service providers to them, which are also subject to the risk of cyber attacks. Cybersecurity failures or breaches at the Manager or the Funds’ service providers or intermediaries have the ability to cause disruptions and impact business operations potentially resulting in financial losses, interference with a Fund’s ability to calculate its net asset value (“NAV”), impediments to trading, the inability of Fund shareholders to effect share purchases, redemptions or exchanges or receive distributions, loss of or unauthorized access to private shareholder information and violations of applicable privacy and other laws, regulatory fines, penalties, reputational damage, or additional compliance costs. Such costs and losses may not be covered under any insurance. In addition, maintaining vigilance against cyber attacks may involve substantial costs over time, and system enhancements may themselves be subject to cyber attacks.

Interfund Lending

To satisfy redemption requests or to cover unanticipated cash shortfalls, a Fund may enter into lending agreements (“Interfund Lending Agreements”) under which the Fund would lend money and borrow money for temporary purposes directly to and from another fund in the Aquila Group of Funds through a credit facility (“Interfund Loan”), subject to meeting the conditions of an SEC exemptive order granted to the Funds permitting such interfund lending. All Interfund Loans will consist only of uninvested cash reserves that the Fund otherwise would invest in short-term repurchase agreements or other short-term instruments.

If a Fund has outstanding borrowings, any Interfund Loans to the Fund (a) will be at an interest rate equal to or lower than any outstanding bank loan, (b) will be secured at least on an equal priority basis with at least an equivalent percentage of collateral to loan value as any outstanding bank loan that requires collateral, (c) will have a maturity no longer than any outstanding bank loan (and in any event not over seven days) and (d) will provide that, if an event of default occurs under any agreement evidencing an outstanding bank loan to the Fund, the event of default will automatically (without need for action or notice by the lending Fund) constitute an immediate event of default under the Interfund Lending Agreement entitling the lending Fund to call the Interfund Loan (and exercise all rights with respect to any collateral) and that such call will be made if the lending bank exercises its right to call its loan under its agreement with the borrowing Fund.

A Fund may make an unsecured borrowing through the credit facility if its outstanding borrowings from all sources immediately after the interfund borrowing total 10% or less of its total assets; provided, that if the Fund has a secured loan outstanding from any other lender, including but not limited to another fund in the Aquila Group of Funds, the Fund's interfund borrowing will be secured on at least an equal priority basis with at least an equivalent percentage of collateral to loan value as any outstanding loan that requires collateral. If a Fund's total outstanding borrowings immediately after an interfund borrowing would be greater than 10% of its total assets, the Fund may borrow through the credit facility on a secured basis only. A Fund may not borrow through the credit facility nor from any other source if its total outstanding borrowings immediately after the interfund borrowing would be more than 33 1/3% of its total assets.

No Fund may lend to another Fund through the interfund lending credit facility if the loan would cause its aggregate outstanding loans through the credit facility to exceed 15% of the lending Fund's net assets at the time of the loan. A Fund's Interfund Loans to any one Fund shall not exceed 5% of the lending Fund's net assets. The duration of Interfund Loans is limited to the time required to receive payment for securities sold, but in no event more than seven days. Loans effected within seven days of each other will be treated as separate loan transactions for purposes of this condition. Each Interfund Loan may be called on one business day's notice by a lending Fund and may be repaid on any day by a borrowing Fund.

The limitations detailed above and the other conditions of the SEC exemptive order permitting interfund lending are designed to minimize the risks associated with interfund lending for both the lending Fund and the borrowing Fund. However, no borrowing or lending activity is without risk. When a Fund borrows money from another Fund, there is a risk that the loan could be called on one day's notice or not renewed, in which case the Fund may have to borrow from a bank at higher rates if an Interfund Loan were not available from another Fund. A delay in repayment to a lending Fund could result in a lost opportunity or additional lending costs.

Portfolio Turnover

For reporting purposes, each Fund's portfolio turnover rate is calculated by dividing the lesser of purchases or sales of portfolio securities for the fiscal year by the monthly average of the value of the portfolio securities owned by the Fund during the fiscal year. In determining such portfolio turnover, all securities whose maturities at the time of acquisition were one year or less are excluded. A 100% portfolio turnover rate would occur, for example, if all of the securities in a Fund's investment portfolio (other than short-term money market securities) were replaced once during the fiscal year.

In the event that portfolio turnover increases, this may indicate greater transaction costs which must be paid by a Fund. To the extent the portfolio trading results in recognition of net short-term capital gains, shareholders will be taxed on distributions of such gains at ordinary tax rates (except shareholders who invest through IRAs and other retirement plans which are not taxed currently on accumulations in their accounts).

Portfolio turnover will not be a limiting factor should the Manager or Sub-Adviser, if applicable, deem it advisable to purchase or sell securities.

Aquila Tax-Free Trust of Arizona's annual portfolio turnover rate for the fiscal years ended March 31, 2023 and March 31, 2022 was 32% and 35%, respectively.

Aquila Tax-Free Fund of Colorado's annual portfolio turnover rate for the fiscal years ended March 31, 2023 and March 31, 2022 was 12% and 14%, respectively.

Aquila Churchill Tax-Free Fund of Kentucky's annual portfolio turnover rate for the fiscal years ended March 31, 2023 and March 31, 2022 was 10% and 7%, respectively.

Aquila Tax-Free Trust of Oregon's annual portfolio turnover rate for the fiscal years ended March 31, 2023 and March 31, 2022 was 12% and 13%, respectively.

Aquila Narragansett Tax-Free Income Fund's annual portfolio turnover rate for the fiscal years ended March 31, 2023 and March 31, 2022 was 3% and 12%, respectively.

Aquila Tax-Free Fund For Utah's annual portfolio turnover rate for the fiscal years ended March 31, 2023 and March 31, 2022 was 12% and 19%, respectively.

Fund Policies

Investment Restrictions

Each Fund has adopted certain fundamental investment policies which, along with the Fund's investment objective, may not be changed without the affirmative vote of the holders of a "majority of the outstanding voting securities" (as defined in the 1940 Act) of the Fund. For this purpose, a majority of the outstanding shares of a Fund means the vote of the lesser of (a) 67% or more of the dollar value of the Fund's shares present at a meeting or represented by proxy if the holders of more than 50% of the dollar value of its shares are so present or represented; or (b) more than 50% of the dollar value of the Fund's outstanding shares. The Board may change non-fundamental investment policies at any time. Each Fund's fundamental policies are set forth below:

- (1) The Fund may not borrow money except as permitted by the 1940 Act.
- (2) The Fund may not engage in the business of underwriting the securities of other issuers except as permitted by the 1940 Act.
- (3) The Fund may lend money or other assets to the extent permitted by the 1940 Act.
- (4) The Fund may not issue senior securities except as permitted by the 1940 Act.
- (5) The Fund may not purchase or sell real estate except as permitted by the 1940 Act.
- (6) The Fund may purchase or sell commodities or contracts related to commodities to the extent permitted by the 1940 Act.
- (7) ***Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Narragansett Tax-Free Income Fund and Aquila Tax-Free Fund For Utah only:*** The Fund may not make any investment if, as a result, the Fund's investments will be concentrated in any one industry, except as permitted by the 1940 Act.
Aquila Tax-Free Trust of Oregon only: Except as permitted by exemptive or other relief or permission from the SEC, SEC staff or other authority of competent jurisdiction, the Fund may not make any investment if, as a result, the Fund's investments will be concentrated in any one industry.
- (8) ***Aquila Tax-Free Trust of Arizona only:*** At least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Arizona state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.
- (9) ***Aquila Tax-Free Fund of Colorado only:*** At least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Colorado state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.
- (10) ***Aquila Churchill Tax-Free Fund of Kentucky only:*** At least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Kentucky income and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.
- (11) ***Aquila Tax-Free Trust of Oregon only:*** At least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt in the opinion of bond counsel from Oregon state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals
- (12) ***Aquila Narragansett Tax-Free Income Fund only:*** At least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Rhode Island state and regular Federal income taxes, the income paid upon which will not be subject to the Federal alternative minimum tax on individuals.
- (13) ***Aquila Tax-Free Fund For Utah only:*** At least 80% of the Fund's net assets will be invested in municipal obligations that pay interest exempt, in the opinion of bond counsel, from Utah state individual and regular Federal income taxes, the income paid upon which will not be subject to the alternative minimum tax on individuals.

With respect to the fundamental policy relating to borrowing money set forth in (1) above, the 1940 Act permits a Fund to borrow money in amounts of up to one-third of the Fund's total assets from banks for any purpose, and to borrow up to 5% of the Fund's total assets from banks or other lenders for temporary purposes (the fund's total assets include the amounts being borrowed). To limit the risks attendant to borrowing, the 1940 Act requires a Fund to maintain at all times an

“asset coverage” of at least 300% of the amount of its borrowings. Asset coverage means the ratio that the value of the Fund’s total assets (including amounts borrowed), minus liabilities other than borrowings, bears to the aggregate amount of all borrowings. Borrowing money to increase a Fund’s investment portfolio is known as “leveraging.” Borrowing, especially when used for leverage, may cause the value of a Fund’s shares to be more volatile than if the Fund did not borrow. This is because borrowing tends to magnify the effect of any increase or decrease in the value of the Fund’s portfolio holdings. Borrowed money thus creates an opportunity for greater gains, but also greater losses. To repay borrowings, a Fund may have to sell securities at a time and at a price that is unfavorable to the Fund. There also are costs associated with borrowing money, and these costs would offset and could eliminate a Fund’s net investment income in any given period. Currently, no Fund contemplates borrowing for leverage, but if a Fund does so, it will not likely do so to a substantial degree. The policy in (1) above will be interpreted to permit a Fund to engage in trading practices and investments that may be considered to be borrowing to the extent permitted by the 1940 Act. Short-term credits necessary for the settlement of securities transactions and arrangements with respect to securities lending will not be considered to be borrowings under the policy. Practices and investments that may involve leverage but are not considered to be borrowings are not subject to the policy.

Each Fund may pledge its assets and guarantee the securities of another company without limitation, subject to the Fund’s investment policies (including the fund’s fundamental policy regarding borrowing) and applicable laws and interpretations. Pledges of assets and guarantees of obligations of others are subject to many of the same risks associated with borrowings and, in addition, are subject to the credit risk of the obligor for the underlying obligations. To the extent that pledging or guaranteeing assets may be considered the issuance of senior securities, the issuance of senior securities is governed by the Funds’ policies on senior securities. If a Fund were to pledge its assets, the Fund would take into account any then-applicable legal guidance, including any applicable SEC staff position, would be guided by the judgment of the Fund’s Board, Manager and, if applicable, Sub-Adviser, regarding the terms of any credit facility or arrangement, including any collateral required, and would not pledge more collateral than, in their judgment, is necessary for the Fund to obtain the credit sought. Shareholders should note that in 1973, the SEC staff took the position in a no-action letter that a mutual fund could not pledge 100% of its assets without a compelling business reason. In more recent no-action letters, including letters that address the same statutory provision of the 1940 Act (Section 17) addressed in the 1973 letter, the SEC staff has not mentioned any limitation on the amount of collateral that may be pledged to support credit obtained. This does not mean that the staff’s position on this issue has changed.

With respect to the fundamental policy relating to underwriting set forth in (2) above, the 1940 Act does not prohibit a Fund from engaging in the underwriting business or from underwriting the securities of other issuers; in fact, the 1940 Act permits a Fund to have underwriting commitments of up to 25% of its assets under certain circumstances. Those circumstances currently are that the amount of the Fund’s underwriting commitments, when added to the value of the Fund’s investments in issuers where the Fund owns more than 10% of the outstanding voting securities of those issuers, cannot exceed the 25% cap. A Fund engaging in transactions involving the acquisition or disposition of portfolio securities may be considered to be an underwriter under the Securities Act of 1933, as amended (the “1933 Act”). Under the 1933 Act, an underwriter may be liable for material omissions or misstatements in an issuer’s registration statement or prospectus. Securities purchased from an issuer and not registered for sale under the 1933 Act are considered restricted securities. There may be a limited market for these securities. If these securities are registered under the 1933 Act, they may then be eligible for sale but participating in the sale may subject the seller to underwriter liability. These risks could apply to a Fund investing in restricted securities. Although it is not believed that the application of the 1933 Act provisions described above would cause a Fund to be engaged in the business of underwriting, the policy in (2) above will be interpreted not to prevent a Fund from engaging in transactions involving the acquisition or disposition of portfolio securities, regardless of whether the Fund may be considered to be an underwriter under the 1933 Act.

With respect to the fundamental policy relating to lending set forth in (3) above, the 1940 Act does not prohibit a Fund from making loans; however, SEC staff interpretations currently prohibit funds from lending more than one-third of their total assets, except through the purchase of debt obligations or the use of repurchase agreements. (A repurchase agreement is an agreement to purchase a security, coupled with an agreement to sell that security back to the original seller on an agreed-upon date at a price that reflects current interest rates. The SEC frequently treats repurchase agreement as loans.) While lending securities may be a source of income to a Fund, as with other extensions of credit, there are risks of delay in recovery or even loss of rights in the underlying securities should the borrower fail financially. However, loans would be made only when the Manager or, if applicable, Sub-Adviser believes the income justifies the attendant risks. A Fund also will be permitted by this policy to make loans of money, including to other funds. The policy in (3) above will be interpreted not to prevent a Fund from purchasing or investing in debt obligations and loans. In addition, collateral arrangements with respect to options, forward currency and futures transactions and other derivative instruments, as well as delays in the settlement of securities transactions, will not be considered loans.

With respect to the fundamental policy relating to issuing senior securities set forth in (4) above, “senior securities” are defined as Fund obligations that have a priority over a Fund’s shares with respect to the payment of dividends or the distribution of Fund assets. The 1940 Act prohibits a Fund from issuing senior securities except that a Fund may borrow money in amounts of up to one-third of the Fund’s total assets from banks for any purpose. A Fund also may borrow up to 5% of the Fund’s total assets from banks or other lenders for temporary purposes, and these borrowings are not considered senior securities. The issuance of senior securities by a Fund can increase the speculative character of the Fund’s outstanding shares through leveraging. Leveraging of a Fund’s portfolio through the issuance of senior securities magnifies the potential for gain or loss on monies, because even though the Fund’s net assets remain the same, the total risk to investors is increased. The policy in (4) above will be interpreted not to prevent collateral arrangements with respect to swaps, options, forward or futures contracts or other derivatives, or the posting of initial or variation margin.

With respect to the fundamental policy relating to real estate set forth in (5) above, the 1940 Act does not prohibit a Fund from owning real estate; however, a Fund is limited in the amount of illiquid assets it may purchase. Investing in real estate may involve risks, including that real estate is generally considered illiquid and may be difficult to value and sell. Owners of real estate may be subject to various liabilities, including environmental liabilities. To the extent that investments in real estate are considered illiquid, rules under the 1940 act generally limit a Fund’s purchases of illiquid securities to 15% of net assets. The policy in (5) above will be interpreted not to prevent a Fund from investing in real estate-related companies, companies whose businesses consist in whole or in part of investing in real estate, instruments (like mortgages) that are secured by real estate or interests therein, or real estate investment trust securities.

With respect to the fundamental policy relating to commodities set forth in (6) above, the 1940 Act does not prohibit a Fund from owning commodities, whether physical commodities and contracts related to physical commodities (such as oil or grains and related futures contracts), or financial commodities and contracts related to financial commodities (such as currencies and, possibly, currency futures). However, a Fund is limited in the amount of illiquid assets it may purchase. To the extent that investments in commodities are considered illiquid, rules under the 1940 Act generally limit a Fund’s purchases of illiquid securities to 15% of net assets. If a Fund were to invest in a physical commodity or a physical commodity-related instrument, the Fund would be subject to the additional risks of the particular physical commodity and its related market. The value of commodities and commodity-related instruments may be extremely volatile and may be affected either directly or indirectly by a variety of factors. There also may be storage charges and risks of loss associated with physical commodities. The policy in (6) above will be interpreted to permit investments in exchange traded funds that invest in physical and/or financial commodities.

With respect to the fundamental policy relating to concentration set forth in (7) above, the 1940 Act does not define what constitutes “concentration” in an industry. The SEC has taken the position that investment of 25% or more of a Fund’s total assets in one or more issuers conducting their principal activities in the same industry or group of industries constitutes concentration. It is possible that interpretations of concentration could change in the future. A Fund that invests a significant percentage of its total assets in a single industry may be particularly susceptible to adverse events affecting that industry and may be more risky than a Fund that does not concentrate in an industry. The policy in (7) above will be interpreted to refer to concentration as that term may be interpreted from time to time. The policy also will be interpreted to permit investment without limit in the following: securities of the U.S. government and its agencies or instrumentalities; tax-exempt securities of state, territory, possession or municipal governments and their authorities, agencies, instrumentalities or political subdivisions; and repurchase agreements collateralized by any such obligations. Accordingly, issuers of the foregoing securities will not be considered to be members of any industry. The Funds characterize investments in securities the interest upon which is paid from revenues of similar type projects by the type or types of projects. Each Fund may invest more than 25% of its assets in industrial development bonds under the policy. In the case of an industrial development bond, if the bond is backed only by assets and revenues of a non-governmental user, then the non-governmental user would be deemed to be the sole issuer and such issuer would be subject to the 25% limit. The policy also will be interpreted to give broad authority to the fund as to how to classify issuers within or among industries. When identifying industries for purposes of its concentration policy, a Fund may rely upon available industry classifications.

The Funds’ fundamental policies are written and will be interpreted broadly. For example, the policies will be interpreted to refer to the 1940 Act and the related rules as they are in effect from time to time, and to interpretations and modifications of or relating to the 1940 Act by the SEC and others as they are given from time to time. When a policy provides that an investment practice may be conducted as permitted by the 1940 Act, the policy will be interpreted to mean either that the 1940 Act expressly permits the practice or that the 1940 Act does not prohibit the practice.

Management of the Funds

The Board of Trustees

The business and affairs of the Funds are managed under the direction and control of the Funds' Board of Trustees. The Board of Trustees has authority over every aspect of the Funds' operations, including approval of the advisory and any sub-advisory agreements and their annual renewal, contracts with all other service providers and payments under each Fund's Distribution Plan and Shareholder Services Plan.

The Funds have an Audit Committee, consisting of Patricia L. Moss, Heather R. Overby and Glenn P. O'Flaherty, each of whom is "independent" and not an interested person of the Funds. The Committee determines what independent registered public accounting firm will be selected by the Board of Trustees, reviews the methods, scope and result of audits and the fees charged, and reviews the adequacy of the Funds' internal accounting procedures and controls. The Audit Committee held three meetings during the fiscal year ended March 31, 2023.

The Funds have a Nominating Committee, consisting of all of the non-interested Trustees. The Nominating Committee held three meetings during the fiscal year ended March 31, 2023. The committee will consider nominees recommended by the shareholders who may send recommendations to the Trust at its principal address for the attention of the Chair of the Nominating Committee.

The Funds have a Governance Committee, consisting of Diana P. Herrmann, Ernest Calderón, Gary C. Cornia, Grady Gammage, Jr., Patricia L. Moss and Lauren L. White. The Governance Committee oversees Board governance and related Trustee matters. The Governance Committee held one meeting during the fiscal year ended March 31, 2023.

The Funds face a number of risks, such as investment risk, counterparty risk, valuation risk, reputational risk, cybersecurity risk, risk of operational failure or lack of business continuity, and legal, compliance and regulatory risk. The Board of Trustees seeks continuously to be alert to potential risks regarding the Funds' business and operations as an integral part of its responsibility for oversight of the Funds. The goal of risk management is to identify and address risks, i.e., events or circumstances that could have material adverse effects on the business, operations, shareholder services, investment performance or reputation of the Funds. Under the overall oversight of the Board of Trustees, the Funds and the Manager, Sub-Adviser and other service providers to the Funds, employ a variety of processes, procedures and controls in an effort to identify, address and mitigate risks. Operational or other failures, including cybersecurity failures, at any one or more of the Funds' service providers could have a material adverse effect on the Funds and their shareholders.

The Board of Trustees has a Chair who is an Independent Trustee. The Board of Trustees and its Chair address risk management as a regular part of their oversight responsibilities through contact with the Chief Compliance Officer and other key management personnel, and through policies and procedures in place for regulation of the Funds' activities and conduct.

In addition, a Risk Group, consisting of the Chief Compliance Officer, President and Treasurer of the Funds (who are also officers and/or employees of the Manager), as well as the Co-Presidents of the Distributor, meets and reports to the Board of Trustees as to significant risks and compliance matters. Issues raised are considered by the Board of Trustees as it deems appropriate. Service providers to the Funds, such as the Funds' independent accountants, also make periodic reports to the Board of Trustees with respect to various aspects of risk management.

The Board of Trustees recognizes that not all risks that may affect the Funds can be identified, that it may not be practical or cost-effective to eliminate or mitigate certain risks, that it may be necessary to bear certain risks (such as investment-related risks) to achieve the Funds' goals, that the processes, procedures and controls employed to address certain risks may be limited in their effectiveness, and that some risks are simply beyond the control of the Funds, the Manager, a Sub-Adviser or other service providers. Because most of the Funds' operations are carried out by various service providers, the Board's oversight of the risk management processes of those service providers, including processes to address cybersecurity and other operational failures, is inherently limited (see "Cybersecurity Issues" above). As a result of the foregoing and other factors, the Board of Trustees' risk management oversight is subject to substantial limitations.

The Board of Trustees has determined that its leadership structure is appropriate because it serves to facilitate the orderly and efficient flow of information to the Trustees from management, including the Manager and the Sub-Adviser (if applicable), and otherwise enhance the Board of Trustees' oversight role. The Board of Trustees has also determined that its leadership structure is appropriate given the circumstances that the Funds invest primarily in municipal obligations issued by certain states, counties and various other local authorities, and the Board of Trustees uses the local knowledge of its Trustees as well as their business experience.

Trustees and Officers

The following material includes information about the Trustees and officers of the Trust.

Name and Year of Birth ⁽¹⁾	Positions Held with Trust and Length of Service ⁽²⁾	Principal Occupation(s) During Past 5 Years	Number of Portfolios in Fund Complex Overseen by Trustee	Other Directorships Held by Trustee During Past 5 Years
Interested Trustee⁽³⁾				
Diana P. Herrmann New York, NY (1958)	Vice Chair of Aquila Municipal Trust since 2014, Trustee since 1994 and President since 1998	Chair (since 2016 and previously Vice Chair since 2004) and Chief Executive Officer (since 2004) of Aquila Management Corporation, Founder and Sponsor of the Aquila Group of Funds ⁽⁴⁾ and parent of Aquila Investment Management LLC, Manager, President since 1997, Chief Operating Officer, 1997-2008, a Director since 1984, Secretary, 1986-2016, and previously its Executive Vice President, Senior Vice President or Vice President, 1986-1997; Chief Executive Officer (since 2004) and Chair (since 2016 and previously Vice Chair since 2004), President and Manager since 2003, and Chief Operating Officer (2003-2008), of the Manager; Chair, Vice Chair, President, Executive Vice President and/or Senior Vice President of funds in the Aquila Group of Funds since 1986; Manager of the Distributor since 1997; Governor, Investment Company Institute (the U.S. mutual fund industry trade organization dedicated to protecting shareholder interests and educating the public about investing) for various periods since 2004, and Chair of its Small Funds Committee, 2004-2009; active in charitable and volunteer organizations.	9	Director of ICI Mutual Insurance Company, a Risk Retention Group, for various periods since 2006; formerly Vice Chair and Trustee of Pacific Capital Funds of Cash Assets Trust (three money-market funds in the Aquila Group of Funds) 2004-2012
Non-interested Trustees				
Patricia L. Moss Bend, OR (1953)	Chair of the Board of Aquila Municipal Trust effective January 1, 2023; Trustee of Aquila Municipal Trust since 2020	Vice Chairman, Cascade Bancorp and Bank of the Cascades 2012-2017, President and Chief Executive Officer 1997-2012; member, Oregon Investment Council 2018-2021; active in community and educational organizations; Trustee of various funds in the Aquila Group of Funds 2002-2005 and since 2015.	8	First Interstate BancSystem, Inc.; MDU Resources Group, Inc.

Name and Year of Birth⁽¹⁾	Positions Held with Trust and Length of Service⁽²⁾	Principal Occupation(s) During Past 5 Years	Number of Portfolios in Fund Complex Overseen by Trustee	Other Directorships Held by Trustee During Past 5 Years
Ernest Calderón Phoenix, AZ (1957)	Trustee of Aquila Municipal Trust since 2004	Attorney (currently, Partner, Calderón Law Offices, PLC); Regent emeritus and President emeritus Arizona Board of Regents; Adjunct Professor, Northern Arizona University; Doctor of Education in Organizational Change and Educational Leadership, University of Southern California; served seven Arizona governors by appointment; Past President, Grand Canyon Council of Boy Scouts of America; Past President, State Bar of Arizona, 2003-2004; member, American Law Institute; Trustee of various funds in the Aquila Group of Funds since 2004.	6	None
Gary C. Cornia St. George, UT (1948)	Trustee of Aquila Municipal Trust since 2009	Emeritus Dean and Professor, Marriott School of Management, Brigham Young University 2014-present; Professor, Marriott School of Management, Brigham Young University, 1980-2014; Chair, Utah State Securities Commission, 2019-2021, Commissioner, 2013–2021; Dean, Marriott School of Management, 2008-2013; Past President, National Tax Association; Fellow, Lincoln Institute of Land Policy, 2002-present; Trustee of various funds in the Aquila Group of Funds since 1993.	8	International Center for Land Policies and Training, Taipei, Taiwan, Director and Chair of Executive Committee.
Grady Gammage, Jr. Phoenix, AZ (1951)	Trustee of Aquila Municipal Trust since 2001	Founding partner, Gammage & Burnham, PLC, a law firm, Phoenix, Arizona, since 1983; director, Central Arizona Water Conservation District, 1992-2004; Senior Fellow, Morrison Institute for Public Policy and Kyl Institute for Water Policy; Adjunct Professor, Sandra Day O’Connor College of Law; W. P. Carey School of Business; active with Urban Land Institute; Author, “The Future of the Suburban City” Island Press, 2016; Trustee of various funds in the Aquila Group of Funds since 2001.	8	None
Glenn P. O’Flaherty Granby, CO (1958)	Trustee of Aquila Municipal Trust since 2013	Chief Financial Officer and Chief Operating Officer of Lizard Investors, LLC, 2008; Co-Founder, Chief Financial Officer and Chief Compliance Officer of Three Peaks Capital Management, LLC, 2003-2005; Vice President – Investment Accounting, Global Trading and Trade Operations, Janus Capital Corporation, and Chief Financial Officer and Treasurer, Janus Funds, 1991-2002; Trustee of various funds in the Aquila Group of Funds since 2006.	9	Granby Ranch Metropolitan District (quasi-municipal corporation); formerly Trustee of Pacific Capital Funds of Cash Assets Trust (three money-market funds in the Aquila Group of Funds) 2009-2012.

Name and Year of Birth⁽¹⁾	Positions Held with Trust and Length of Service⁽²⁾	Principal Occupation(s) During Past 5 Years	Number of Portfolios in Fund Complex Overseen by Trustee	Other Directorships Held by Trustee During Past 5 Years
Heather R. Overby Prospect, KY (1971)	Trustee of Aquila Municipal Trust since September 2022	Vice President, Finance & Accounting/Chief Financial Officer, Kentucky Municipal Energy Agency (wholesale electricity sale – governmental), June 2018 – Present; Chairman, Kentucky School Facilities Construction Commission (state commission), December 2018 – Present; Interim Chief Financial Officer, Kentucky Municipal Energy Agency (wholesale electricity sale – governmental), February 2017 – May 2018; Chief Financial Officer, Kentucky Municipal Power Agency, (wholesale electricity sale – governmental), November 2009 – May 2018.	6	None
Laureen L. White ⁽⁵⁾ North Kingstown, RI (1959)	Trustee of Aquila Municipal Trust since 2013	President, Greater Providence Chamber of Commerce, since 2005, Executive Vice President 2004-2005 and Senior Vice President, 1989-2002; Executive Counselor to the Governor of Rhode Island for Policy and Communications, 2003-2004; Trustee of various funds in the Aquila Group of Funds since 2005.	6	None

(1) The mailing address of each Trustee is c/o Aquila Municipal Trust, 120 West 45th Street, Suite 3600, New York, NY 10036.

(2) Each Trustee holds office until his or her successor is elected or his or her earlier retirement or removal.

(3) Ms. Herrmann is an “interested person” of the Trust, as that term is defined in the Investment Company Act of 1940, as amended (the “1940 Act”), as an officer of the Trust, as a director, officer and shareholder of the Manager’s corporate parent, as an officer and Manager of the Manager, and as a Manager of the Distributor.

(4) The “Aquila Group of Funds” includes: Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Hawaiian Tax-Free Trust, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon, Aquila Narragansett Tax-Free Income Fund (Rhode Island) and Aquila Tax-Free Fund For Utah, each of which is a tax-free municipal bond fund and are called the “Aquila Municipal Bond Funds”; Aquila Opportunity Growth Fund, which is an equity fund; and Aquila High Income Fund, which is a high-income corporate bond fund.

(5) Keith Kelly, President of Citizens Bank, Rhode Island at Citizens Financial Group, Inc., is a member of the Board of Directors of the Greater Providence Chamber of Commerce. Ms. White is the President of the Greater Providence Chamber of Commerce. Clarfeld Financial Advisors, LLC, the Sub-Adviser of Aquila Narragansett Tax-Free Income Fund, is a wholly-owned subsidiary of Citizens Bank, N.A., a bank subsidiary of Citizens Financial Group, Inc.

Name and Year of Birth ⁽¹⁾	Positions Held with Trust and Length of Service ⁽²⁾	Principal Occupation(s) During Past 5 Years
Officers		
Stephen J. Caridi New York, NY (1961)	Senior Vice President of Aquila Municipal Trust since 2013	Regional Sales Manager (since 2009) and registered representative (since 1986) of the Distributor; Vice President of the Distributor 1995-2009; Vice President, Hawaiian Tax-Free Trust since 1998; Senior Vice President, Aquila Municipal Trust (which includes Aquila Narragansett Tax-Free Income Fund) since 2013; Vice President, Aquila Funds Trust since 2013; Senior Vice President, Aquila Narragansett Tax-Free Income Fund 1998-2013, Vice President 1996-1997; Senior Vice President, Aquila Tax-Free Fund of Colorado 2004-2009; Vice President, Aquila Opportunity Growth Fund 2006-2013.
Paul G. O'Brien New York, NY (1959)	Senior Vice President of Aquila Municipal Trust since 2010	President, Aquila Distributors LLC since 2019, Co-President 2010-2019, Managing Director, 2009-2010; Senior Vice President of all funds in the Aquila Group of Funds since 2010; held various positions to Senior Vice President and Chief Administrative Officer of Evergreen Investments Services, Inc., 1997-2008; Mergers and Acquisitions Coordinator for Wachovia Corporation, 1994-1997.
Robert C. Arnold Peoria, AZ (1973)	Vice President of Aquila Municipal Trust since 2019	Vice President, Aquila Municipal Trust (which includes Aquila Tax-Free Trust of Arizona) since 2019; Regional Sales Manager, Aquila Distributors LLC (since 2019); Financial Advisor, Prudential Advisors, 2017 – 2019.
Royden P. Durham Louisville, KY (1951)	Vice President of Aquila Municipal Trust since 2013; Lead Portfolio Manager of Aquila Churchill Tax-Free Fund of Kentucky (since 2011); Portfolio Manager of Aquila Tax-Free Trust of Arizona (since 2017), Aquila Tax-Free Fund of Colorado (since 2023) and Aquila Tax-Free Fund For Utah (since 2017)	Portfolio Manager of Aquila Churchill Tax-Free Fund of Kentucky (since 2011); Portfolio Manager of Aquila Tax-Free Trust of Arizona and Aquila Tax-Free Fund For Utah (since 2011); Co-Portfolio Manager of Aquila Tax-Free Fund of Colorado (since 2023); Vice President, Aquila Municipal Trust (since 2013) and Aquila Churchill Tax-Free Fund of Kentucky 2011-2013; President, advEnergy solutions LLC, 2007-2011; Vice President and Trust Advisor, JP Morgan Chase, 2005-2006; Vice President and Trust Officer, Regions Morgan Keegan Trust, 2003-2005; Vice President Fixed Income and Equity Portfolios, The Sachs Company / Louisville Trust Company, 1986-2003.
Vasilios Gerasopoulos Lakewood, CO (1973)	Assistant Vice President of Aquila Municipal Trust and Co-Portfolio Manager of Aquila Tax-Free Fund of Colorado since March 2023	Assistant Vice President of Aquila Municipal Trust, Co-Portfolio Manager of Aquila Tax-Free Fund of Colorado and Credit Analyst of Aquila Tax-Free Trust of Oregon since March 2023; Credit Analyst at Davidson Fixed Income Management, Inc., doing business as Kirkpatrick Pettis Capital Management, from 2015 to 2023; Senior Financial Analyst, Bond and Debt, for Jefferson County, Colorado from December 2012 to 2015.

Name and Year of Birth ⁽¹⁾	Positions Held with Trust and Length of Service ⁽²⁾	Principal Occupation(s) During Past 5 Years
Timothy Iltz Happy Valley, OR (1975)	Vice President of Aquila Municipal Trust since March 2023; Co-Portfolio Manager of Aquila Tax-Free Fund of Colorado since December 2022 and Lead Portfolio Manager of Aquila Tax-Free Trust of Oregon since December 2022; Effective August 1, 2023, Co-Portfolio Manager of Aquila Tax-Free Trust of Arizona and Aquila Tax-Free Fund For Utah	Vice President of Aquila Municipal Trust since March 2023, Co-Portfolio Manager of Aquila Tax-Free Fund of Colorado since December 2022 and Lead Portfolio Manager of Aquila Tax-Free Trust of Oregon since December 2022; Effective August 1, 2023, Co-Portfolio Manager of Aquila Tax-Free Trust of Arizona and Aquila Tax-Free Fund For Utah; Vice President and Municipal Bond Credit Analyst at Davidson Fixed Income Management, Inc., doing business as Kirkpatrick Pettis Capital Management, from 2011 to 2018. Vice President and Portfolio Manager at Davidson Fixed Income Management, Inc., doing business as Kirkpatrick Pettis Capital Management, from 2018 to 2023.
Troy Miller Louisville, KY (1971)	Vice President of Aquila Municipal Trust since March 2022	Vice President, Aquila Municipal Trust (which includes Aquila Churchill Tax-Free Fund of Kentucky) since March 2022; Regional Sales Manager of the Distributor since January 2022; Financial Consultant, Fidelity Investments (wealth management), May 2020 – February 2021; Vice President, Manager-Life Planning Strategies, June 2017 – October 2019, and Vice President, Manager-Retirement Products, April 2010 – June 2017, Baird Trust Company (formerly known as Hilliard Lyons Trust Company) (wealth management).
Christine L. Neimeth Portland, OR (1964)	Vice President of Aquila Municipal Trust since 2020	Vice President of Aquila Funds Trust since 2013 and Aquila Municipal Trust (which includes Aquila Tax-Free Trust of Oregon) since 2020; formerly Vice President, Aquila Opportunity Growth Fund 1999 – 2013 and Aquila Tax-Free Trust of Oregon 1998 – 2020; Regional Sales Manager and/or registered representative of the Distributor since 1999.
Anthony A. Tanner Phoenix, AZ (1960)	Vice President of Aquila Municipal Trust, Lead Portfolio Manager of Aquila Tax-Free Trust of Arizona; Portfolio Manager of Aquila Churchill Tax-Free Fund of Kentucky (since 2018), Aquila Tax-Free Trust of Oregon (since 2023) and Aquila Tax-Free Fund For Utah (since 2018)	Vice President of Aquila Municipal Trust (since 2018); Portfolio Manager of Aquila Tax-Free Trust of Arizona, Aquila Churchill Tax-Free Fund of Kentucky and Aquila Tax-Free Fund For Utah (since 2018); Co-Portfolio Manager of Aquila Tax-Free Trust of Oregon (since 2023); Senior Portfolio Manager at BNY Mellon Wealth Management from 2016 to 2018; a Senior Client Advisor at BMO Private Bank from 2014 to 2015; and Senior Fixed Income Manager at Wells Fargo Private Bank from 2010 to 2014.

Name and Year of Birth ⁽¹⁾	Positions Held with Trust and Length of Service ⁽²⁾	Principal Occupation(s) During Past 5 Years
James T. Thompson Bountiful, Utah (1955)	Vice President of Aquila Municipal Trust and Lead Portfolio Manager of Aquila Tax-Free Fund For Utah since 2009; Portfolio Manager, Aquila Tax-Free Trust of Arizona (since 2017), Aquila Churchill Tax-Free Fund of Kentucky (since 2017) and Aquila Tax-Free Trust of Oregon (since 2023)	Portfolio Manager of Aquila Tax-Free Fund For Utah, Aquila Churchill Tax-Free Fund of Kentucky and Aquila Tax-Free Trust of Arizona (since 2009); Co-Portfolio Manager of Aquila Tax-Free Trust of Oregon (since 2023); Vice President Aquila Municipal Trust (since 2013) and Aquila Tax-Free Fund For Utah (2009 – 2013); Senior Vice President, First Security Bank/Wells Fargo Brokerage Services LLC, Salt Lake City, Utah 1991-2009.
M. Kayleen Willis South Jordan, UT (1963)	Vice President of Aquila Municipal Trust since 2013	Vice President, Aquila Municipal Trust (which includes Aquila Tax-Free Fund For Utah) since 2013; Vice President, Aquila Tax-Free Fund For Utah 2003-2013, Assistant Vice President, 2002-2003; Vice President, Aquila Opportunity Growth Fund, 2004-2013 and Aquila Funds Trust since 2013.
Eric D. Okerlund Highland, UT (1961)	Assistant Vice President of Aquila Municipal Trust since March 2021	Assistant Vice President, Aquila Municipal Trust (which includes Aquila Tax-Free Fund For Utah) since March 2021; Credit Analyst (for Aquila Tax-Free Fund For Utah and Aquila Tax-Free Fund of Colorado), Aquila Investment Management LLC, since January 2021; Budget Officer, City of West Jordan, Utah, 2000-2020; Senior Accountant, Provo City Corporation, Provo, Utah, 1989-2000; Auditor, Defense Contract Audit Agency, Anaheim, California, 1989; Revenue Agent, Internal Revenue Service, Los Angeles, California, 1987-1989.
Randall S. Fillmore New York, NY (1960)	Chief Compliance Officer of Aquila Municipal Trust since 2012	Chief Compliance Officer of all funds in the Aquila Group of Funds, the Manager and the Distributor since 2012; Managing Director, Fillmore & Associates, 2009-2012; Fund and Adviser Chief Compliance Officer (2002-2009), Senior Vice President - Broker Dealer Compliance (2004-2009), Schwab Funds Anti Money Laundering Officer and Identity Theft Prevention Officer (2004-2009), Vice President - Internal Audit (2000-2002), Charles Schwab Corporation; National Director, Information Systems Risk Management - Consulting Services (1999-2000), National Director, Investment Management Audit and Business Advisory Services (1992-1999), Senior Manager, Manager, Senior and Staff Roles (1983-1992), PricewaterhouseCoopers LLP.
Joseph P. DiMaggio New York, NY (1956)	Chief Financial Officer of Aquila Municipal Trust since 2003 and Treasurer since 2000	Chief Financial Officer of all funds in the Aquila Group of Funds since 2003 and Treasurer since 2000.

Name and Year of Birth⁽¹⁾	Positions Held with Trust and Length of Service⁽²⁾	Principal Occupation(s) During Past 5 Years
Anita Albano, CPA New York, NY (1973)	Secretary of Aquila Municipal Trust since 2020, Assistant Secretary 2018-2019	Secretary of all funds in the Aquila Group of Funds since 2020, Assistant Secretary 2018 – 2019; Senior Vice President and Chief Financial Officer of Aquila Investment Management LLC and Aquila Management Corporation since 2018; Treasurer of Aquila Investment Management LLC and Aquila Management Corporation since 2005.
Yolonda S. Reynolds New York, NY (1960)	Assistant Treasurer of Aquila Municipal Trust since 2010	Assistant Treasurer of all funds in the Aquila Group of Funds since 2010; Director of Fund Accounting for the Aquila Group of Funds since 2007.
Lori A. Vindigni New York, NY (1966)	Assistant Treasurer of Aquila Municipal since 2000	Assistant Treasurer of all funds in the Aquila Group of Funds since 2000; Assistant Vice President of the Manager or its predecessor and current parent since 1998; Fund Accountant for the Aquila Group of Funds, 1995- 1998.

(1) The mailing address of each officer is c/o Aquila Municipal Trust, 120 West 45th Street, Suite 3600, New York, NY 10036.

(2) The term of office of each officer is one year.

The specific experience, qualifications, attributes or skills that led to the conclusion that these persons should serve as Trustees of the Funds in light of the Funds' business and structure, in addition to those listed above, were as follows.

- Diana P. Herrmann: Over 40 years of experience in the financial services industry, 35 of which have been in mutual fund management, most recently as the Chair, Chief Executive Officer, President and Director of Aquila Management Corporation ("Aquila"), Founder and Sponsor of the Aquila Group of Funds and parent of the adviser, manager or administrator of each fund of the Aquila Group of Funds, and previously as the Chief Operating Officer, Executive Vice President, Senior Vice President or Vice President of Aquila.
- Ernest Calderón: Knowledgeable about economic and governmental affairs as a lawyer and educator active in public affairs in the region as detailed above; knowledgeable about operation and governance of mutual funds as an investment company board member for over 18 years.
- Gary C. Cornia: Experienced educator knowledgeable about business and finance as a business school dean as detailed above; knowledgeable about operation and governance of mutual funds as an investment company board member for 30 years.
- Grady Gammage, Jr.: Knowledgeable about economic and governmental affairs as a lawyer, and educator active in land use, water issues and other public affairs in the state and region as detailed above; knowledgeable about operation and governance of mutual funds as an investment company board member for 21 years.
- Patricia L. Moss: Experience in and knowledgeable about banking, finance, business development and management through her positions as an executive as detailed above; knowledgeable about the Oregon economy and local, state and regional issues; experience as a board member of various organizations as detailed above, including public companies; knowledgeable about the operation and governance of mutual funds as a Trustee of Aquila Tax-Free Trust of Oregon from 2003 to 2005 and from June, 2015 until present.
- Glenn P. O'Flaherty: Knowledgeable about financial markets and operation of mutual funds as a chief financial officer, chief operating officer and chief compliance officer of various investment management firms as detailed above and as an investment company board member for 16 years.
- Heather R. Overby: Knowledgeable about economic and local government affairs as a chief financial officer of various state agencies and commissions as detailed above.
- Laureen L. White: Knowledgeable about local government affairs as a chamber of commerce executive as detailed above; knowledgeable about operation and governance of mutual funds as an investment company board member for over 17 years.

References to the qualifications, attributes and skills of Trustees are pursuant to the requirements of the SEC, do not constitute holding out of the Board or any Trustee as having special expertise or experience, and shall not impose any greater responsibility or liability on any such person or on the Board by reason thereof.

Securities Holdings of the Trustees
(as of 6/30/23)

Following is information regarding the holdings of each Trustee in the Funds. All shares listed as held by a Trustee are Class A Shares unless indicated otherwise.

Name of Trustee	Dollar Range of Ownership in Aquila Tax-Free Trust of Arizona ⁽¹⁾	Dollar Range of Ownership in Aquila Tax-Free Fund of Colorado ⁽¹⁾	Dollar Range of Ownership in Aquila Churchill Tax-Free Fund of Kentucky ⁽¹⁾	Dollar Range of Ownership in Aquila Tax-Free Trust of Oregon ⁽¹⁾	Dollar Range of Ownership in Aquila Narragansett Tax-Free Income Fund ⁽¹⁾	Dollar Range of Ownership in Aquila Tax-Free Fund For Utah ⁽¹⁾	Aggregate Dollar Range of Ownership in funds in the Aquila Group of Funds ⁽¹⁾
Interested Trustee							
Diana P. Herrmann	C	C	C	C	C	C	E
Non-interested Trustees							
Ernest Calderón	C	C	C	C	C	C	E
Gary C. Cornia	C	C	C	C	C	E	E
Grady Gammage, Jr.	E	C	C	C	C	C	E
Patricia L. Moss	B	B	B	E	B	B	E
Glenn P. O’Flaherty	B	C	B	B	B	B	E
Heather R. Overby	B	B	C	B	B	B	C
Laureen L. White	B	B	B	B	C	B	C

- (1) A. None
B. \$1-\$10,000
C. \$10,001-\$50,000
D. \$50,001-\$100,000
E. Over \$100,000

None of the non-interested Trustees or their immediate family members holds of record or beneficially any securities of the Manager, the Sub-Adviser or the Distributor.

Trustee Compensation

The Funds do not currently pay fees to any of the Trust’s officers or to Trustees affiliated with the Manager or a Sub-Adviser.

For the fiscal year ended March 31, 2023, Aquila Tax-Free Trust of Arizona paid a total of \$72,075 in compensation to the Trustees, Aquila Tax-Free Fund of Colorado paid a total of \$67,681 in compensation to the Trustees, Aquila Churchill Tax-Free Fund of Kentucky paid a total of \$57,728 in compensation to the Trustees, Aquila Tax-Free Trust of Oregon paid a total of \$153,189 in compensation to the Trustees, Aquila Narragansett Tax-Free Income Fund paid a total of \$72,895 in compensation to the Trustees and Aquila Tax-Free Fund For Utah paid a total of \$116,949 in compensation to the Trustees.

Each Fund is a fund in the Aquila Group of Funds, which, as of the date of this SAI, consist of seven tax-free municipal bond funds, a high-income corporate bond fund and an equity fund. The following table lists the compensation of all non-interested Trustees who received compensation from the Funds and the compensation they received during the fiscal year ended March 31, 2023 from each of the Funds and from other funds in the Aquila Group of Funds. None of such Trustees has any pension or retirement benefits from any of the funds in the Aquila Group of Funds.

Name of Trustee	Aquila Tax-Free Trust of Arizona - Compensation as Trustee from the Fund for the Fiscal Year ended March 31, 2023	Aquila Tax-Free Fund of Colorado - Compensation as Trustee from the Fund for the Fiscal Year ended March 31, 2023	Aquila Churchill Tax-Free Fund of Kentucky - Compensation as Trustee from the Fund for the Fiscal Year ended March 31, 2023	Aquila Tax-Free Trust of Oregon - Compensation as Trustee from the Fund for the Fiscal Year ended March 31, 2023	Aquila Narragansett Tax-Free Income Fund - Compensation as Trustee from the Fund for the Fiscal Year ended March 31, 2023	Aquila Tax-Free Fund For Utah - Compensation as Trustee from the Fund for the Fiscal Year ended March 31, 2023	Compensation as Trustee from All Funds in the Aquila Group of Funds for the Fiscal Year ended March 31, 2023	Number of Funds in the Aquila Group of Funds Overseen by the Trustee for the Fiscal Year ended March 31, 2023
	Ernest Calderón	\$8,579.20	\$8,053.87	\$6,880.44	\$18,176.55	\$8,681.68	\$13,902.61	\$64,274.36
Thomas A. Christopher ⁽¹⁾	\$11,455.96	\$10,762.64	\$9,070.87	\$24,602.92	\$11,592.83	\$18,765.61	\$86,250.83	6
Gary C. Comia	\$7,647.84	\$7,142.73	\$6,012.99	\$16,947.52	\$7,744.08	\$12,778.06	\$99,407.68	8
Grady Gammage, Jr.	\$7,830.07	\$7,315.02	\$6,147.59	\$17,291.75	\$7,928.56	\$13,099.67	\$101,808.28	8
James A. Gardner ⁽²⁾	\$2,789.28	\$2,645.33	\$2,117.89	\$6,099.17	\$2,802.22	\$4,629.97	\$21,083.86	6
Patricia L. Moss	\$8,800.21	\$8,211.11	\$6,941.14	\$19,558.21	\$8,910.10	\$14,739.01	\$109,294.55	8
Glenn P. O'Flaherty	\$11,831.64	\$11,249.03	\$9,900.91	\$22,742.96	\$11,941.59	\$17,861.88	\$218,581.68	9
Heather R. Overby ⁽³⁾	\$4,609.04	\$4,285.13	\$3,814.52	\$9,643.68	\$4,662.95	\$7,356.22	\$34,371.54	6
Laureen L. White	\$8,277.80	\$7,781.99	\$6,651.58	\$17,625.13	\$8,369.78	\$13,372.12	\$62,078.41	6

(1) Mr. Christopher retired as a Trustee of the Trust effective March 31, 2023.

(2) Mr. Gardner retired as a Trustee of the Trust on June 30, 2022.

(3) Ms. Overby became a Trustee of the Trust effective September 10, 2022.

Class A Shares of each Fund may be purchased without a sales charge by the Fund's Trustees and officers. (See "Reduced Sales Charges for Certain Purchases of Class A Shares," below.)

Ownership of Securities

Aquila Tax-Free Trust of Arizona

Institutional 5% Shareholders

On June 30, 2023, the following persons held 5% or more of any class of Aquila Tax-Free Trust of Arizona's outstanding shares. On the basis of information received from the institutional holders, the Trust's management believes that all of the shares indicated are held by them for the benefit of clients.

Record Holder	Share Class	Number of Shares	Percent of Class
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 211 Main Street San Francisco, CA 94105	Class A	1,225,977.073	7.90%
	Class Y	359,098.461	6.88%
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 101 Montgomery Street San Francisco, CA 94104-4122	Class Y	1,434,251.768	27.49%
Edward D. Jones & Co. For the Exclusive Benefit of Customers 12555 Manchester Road St. Louis, MO 63131-3729	Class A	1,336,994.243	8.62%
Wells Fargo Clearing Services LLC Special Custody Acct For the Exclusive Benefit of Customers 2801 Market Street St. Louis, MO 63103	Class A	3,104,183.205	20.01%
	Class C	160,529.178	73.58%
	Class Y	519,468.042	9.96%
LPL Financial 4707 Executive Drive San Diego, CA 92121	Class Y	512,985.192	9.83%
Pershing LLC 1 Pershing Plaza Jersey City, NJ 07399-0002	Class Y	453,385.302	8.69%

Additional 5% Shareholders

Record Holder	Share Class	Number of Shares	Percent of Class
Eugenia S H Pang Trustee Hester Chu Pang Rlt Agmt 5104 North 32 nd St, Unit 150 Phoenix, AZ 85018-0000	Class C	18,560.591	8.51%

The Trust's management is not aware of any other person beneficially owning more than 5% of any class of Aquila Tax-Free Trust of Arizona's outstanding shares as of such date.

Management Ownership

As of the date of this SAI, all of the Trustees and officers of the Trust as a group owned less than 1% of Aquila Tax-Free Trust of Arizona's outstanding shares.

Aquila Tax-Free Fund of Colorado

Institutional 5% Shareholders

On June 30, 2023, the following persons held 5% or more of any class of Aquila Tax-Free Fund of Colorado's outstanding shares. On the basis of information received from the institutional holders, the Trust's management believes that all of the shares indicated are held by them for the benefit of clients.

Record Holder	Share Class	Number of Shares	Percent of Class
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 211 Main Street San Francisco, CA 94105	Class A Class Y	1,636,269.530 329,175.063	12.76% 7.96%
Edward D. Jones & Co. For the Exclusive Benefit of Customers 12555 Manchester Road St. Louis, MO 63131-3729	Class A	1,407,575.488	10.98%
LPL Financial 4707 Executive Drive San Diego, CA 92121	Class A Class Y	1,437,797.625 613,285.048	11.22% 14.82%
Morgan Stanley Smith Barney LLC For the Exclusive Benefit of Its Customers 1 New York Plaza, Fl. 12 New York, NY 10004-1901	Class A Class C Class Y	1,073,101.079 65,264.414 376,890.657	8.37% 29.71% 9.11%
Wells Fargo Clearing Services LLC Special Custody Acct For the Exclusive Benefit of Customers 2801 Market Street St. Louis, MO 63103	Class A Class C Class Y	2,220,293.228 78,945.965 1,029,255.888	17.32% 35.94% 24.88%
Raymond James & Associates, Inc. FBO Rodney Lee Page 1535 Vivian Street Longmont, CO 80501-2526353	Class C	28,345.325	12.90%
UBS WM USA Spec Cdy A/C Exl Ben Customers of UBSFI 1000 Harbor Blvd Weehawken, NJ 07086	Class Y	310,205.026	7.50%

Additional 5% Shareholders

The Trust's management is not aware of any other person beneficially owning more than 5% of any class of Aquila Tax-Free Fund of Colorado's outstanding shares as of such date.

Management Ownership

As of the date of this SAI, all of the Trustees and officers of the Trust as a group owned less than 1% of Aquila Tax-Free Fund of Colorado's outstanding shares.

Aquila Churchill Tax-Free Fund of Kentucky

Institutional 5% Shareholders

On June 30, 2023, the following persons held 5% or more of any class of Aquila Churchill Tax-Free Fund of Kentucky's outstanding shares. On the basis of information received from the institutional holders, the Trust's management believes that all of the shares indicated are held by them for the benefit of clients.

Record Holder	Share Class	Number of Shares	Percent of Class
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 211 Main Street San Francisco, CA 94105	Class A Class C Class I Class Y	3,937,557.292 75,349.374 612,488.696 1,633,583.237	34.78% 40.23% 98.97% 36.18%
Edward D. Jones & Co. For the Exclusive Benefit of Customers 12555 Manchester Road St. Louis, MO 63131-3729	Class A Class C Class F	1,908,383.966 46,131.279 80,313.041	16.86% 24.63% 98.13%
Pershing LLC 1 Pershing Plaza Jersey City, NJ 07399-0002	Class C	27,009.915	14.42%
Wells Fargo Clearing Services LLC Special Custody Acct For the Exclusive Benefit of Customers 2801 Market Street St. Louis, MO 63103	Class A	1,051,827.536	9.29%
National Financial Services LLC 499 Washington Blvd. Jersey City, NJ 07310	Class Y	1,063,402.636	23.55%

Additional 5% Shareholders

Record Holder	Share Class	Number of Shares	Percent of Class
Jennifer R Stumph and James D Stumph JTWROS 807 Kurtz Street Bardstown, KY 40004-1226	Class C	11,280.654	6.02%

The Trust's management is not aware of any other person beneficially owning more than 5% of any class of Aquila Churchill Tax-Free Fund of Kentucky's outstanding shares as of such date.

Management Ownership

As of the date of this SAI, all of the Trustees and officers of the Trust as a group owned less than 1% of Aquila Churchill Tax-Free Fund of Kentucky's outstanding shares.

Aquila Tax-Free Trust of Oregon

Institutional 5% Shareholders

On June 30, 2023, the following persons held 5% or more of any class of Aquila Tax-Free Trust of Oregon's outstanding shares. On the basis of information received from the institutional holders, the Fund's management believes that all of the shares indicated are held by them for the benefit of clients.

Record Holder	Share Class	Number of Shares	Percent of Class
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 211 Main Street San Francisco, CA 94105	Class A	5,216,890.499	19.41%
	Class C	21,505.254	7.08%
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 101 Montgomery Street San Francisco, CA 94104-4122	Class Y	2,548,648.981	14.87%
Pershing LLC 1 Pershing Plaza Jersey City, NJ 07399-0002	Class A	2,679,816.016	9.97%
	Class C	47,711.643	15.71%
	Class Y	1,575,600.738	9.19%
Morgan Stanley Smith Barney LLC For the Exclusive Benefit of Its Customers 1 New York Plaza, Fl. 12 New York, NY 10004-1901	Class A	2,284,133.949	8.50%
Wells Fargo Clearing Services LLC Special Custody Acct For the Exclusive Benefit of Customers 2801 Market Street St. Louis, MO 63103	Class C	36,842.389	12.13%
Edward D. Jones & Co. For the Exclusive Benefit of Customers 12555 Manchester Road St. Louis, MO 63131-3729	Class A	6,472,397.169	24.08%
	Class C	41,070.498	13.52%
	Class F	664,011.413	99.79%
Band & Co. c/o US Bank NA 1555 N. Rivercenter Drive Ste 302 Milwaukee, WI 53212	Class Y	4,924,427.458	28.74%
UBS WM USA Spec Cdy A/C Exl Ben Customers of UBSFSI 1000 Harbor Blvd Weehawken, NJ 07086	Class C	29,465.235	9.70%

Additional 5% Shareholders

Record Holder	Share Class	Number of Shares	Percent of Class
James L Bela TOD Cheryl I Bela Subject to Fund TOD Rules 3412 SE 160 th Avenue Portland, OR 97236-1759	Class C	36,870.325	12.14%

The Trust's management is not aware of any other person beneficially owning more than 5% of any class of Aquila Tax-Free Trust of Oregon's outstanding shares as of such date.

Management Ownership

As of the date of this SAI, all of the Trustees and officers of the Trust as a group owned less than 1% of Aquila Tax-Free Fund of Oregon's outstanding shares.

Aquila Narragansett Tax-Free Income Fund

Institutional 5% Shareholders

On June 30, 2023, the following persons held 5% or more of any class of Aquila Narragansett Tax-Free Income Fund's outstanding shares. On the basis of information received from the institutional holders, the Trust's management believes that all of the shares indicated are held by them for the benefit of clients.

Record Holder	Share Class	Number of Shares	Percent of Class
Merrill Lynch Pierce Fenner & Smith Inc. For the Sole Benefit of Its Customers 4800 Deer Lake Drive East Jacksonville, FL 32246-6484	Class A Class C	1,430,210.462 14,152.922	14.99% 15.29%
Edward D. Jones & Co. For the Exclusive Benefit of Customers 12555 Manchester Road St. Louis, MO 63131-3729	Class A Class C Class F	2,912,230.960 22,009.853 505,236.550	30.53% 23.77% 100.00%
Morgan Stanley Smith Barney LLC For the Exclusive Benefit of Its Customers 1 New York Plaza, Fl. 12 New York, NY 10004-1901	Class C Class I	12,187.030 502.455	13.16% 7.26%
SEI Private Trust Company One Freedom Valley Drive Oaks, PA 19456	Class I Class Y Class Y	1,672.545 777,466.542 489,879.775	24.15% 8.00% 5.04%
Wells Fargo Clearing Services LLC Special Custody Acct For the Exclusive Benefit of Customers 2801 Market Street St. Louis, MO 63103	Class I	4,748.809	68.57%
National Financial Services LLC 499 Washington Blvd. Jersey City, NJ 07310	Class C Class Y	4,962.991 2,526,441.144	5.36% 25.99%
LPL Financial 4707 Executive Drive San Diego, CA 92121	Class C	9,234.006	9.97%
Pershing LLC 1 Pershing Plaza Jersey City, NJ 07399-0002	Class C	6,429.792	6.94%

Additional 5% Shareholders

Record Holder	Share Class	Number of Shares	Percent of Class
Michael Absi & Barbara Santilli-Absi TTees Michael A Absi & Barbara H Santilli-Absi Rev Tr 6 Kiwanis Road West Warwick, RI 02893-5522	Class C	6,547.758	7.07%
Michael J Carpenter PO Box 5047 Newport, RI 02841-0100	Class C	5,794.777	6.26%

The Trust's management is not aware of any other person beneficially owning more than 5% of any class of Aquila Narragansett Tax-Free Income Fund's outstanding shares as of such date.

Management Ownership

As of the date of this SAI, all of the Trustees and officers of the Trust as a group owned less than 1% of Aquila Narragansett Tax-Free Income Fund's outstanding shares.

Aquila Tax-Free Fund For Utah

Institutional 5% Shareholders

On June 30, 2023, the following persons held 5% or more of any class of Aquila Tax-Free Fund For Utah's outstanding shares. On the basis of information received from the institutional holders, the Trust's management believes that all of the shares indicated are held by them for the benefit of clients.

Record Holder	Share Class	Number of Shares	Percent of Class
Merrill Lynch Pierce Fenner & Smith Inc. For the Sole Benefit of Its Customers 4800 Deer Lake Drive East Jacksonville, FL 32246-6484	Class A	1,122,866.858	6.30%
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 211 Main Street San Francisco, CA 94105	Class A	1,490,990.108	8.36%
Charles Schwab & Co. Inc. Special Custody Account FBO Customers Attn Mutual Funds 101 Montgomery Street San Francisco, CA 94104-4122	Class Y	959,503.610	6.85%
Pershing LLC 1 Pershing Plaza Jersey City, NJ 07399-0002	Class A Class C Class Y	1,485,288.253 49,424.318 1,161,348.512	8.33% 5.42% 8.29%
Edward D. Jones & Co. For the Exclusive Benefit of Customers 12555 Manchester Road St. Louis, MO 63131-3729	Class A Class C Class F	3,490,579.882 58,564.420 590,860.007	19.58% 6.43% 99.62%
LPL Financial 4707 Executive Drive San Diego, CA 92121	Class C	201,325.250	22.09%
Wells Fargo Clearing Services LLC Special Custody Acct For the Exclusive Benefit of Customers 2801 Market Street St. Louis, MO 63103	Class A Class C Class Y	3,871,526.065 325,807.528 1,427,263.077	21.71% 35.75% 10.19%
Morgan Stanley Smith Barney LLC For the Exclusive Benefit of Its Customers 1 New York Plaza, Fl. 12 New York, NY 10004-1901	Class A Class C	978,341.025 82,545.589	5.49% 9.06%

Additional 5% Shareholders

The Trust's management is not aware of any other person beneficially owning more than 5% of any class of Aquila Tax-Free Fund For Utah's outstanding shares as of such date.

Management Ownership

As of the date of this SAI, all of the Trustees and officers of the Trust as a group owned less than 1% of Aquila Tax-Free Fund For Utah's outstanding shares.

Investment Advisory and Other Services

Information About the Manager, the Sub-Advisors and the Distributor

Management Fees

During the fiscal years listed below, the Funds incurred management fees (investment advisory fees) as follows:

Aquila Tax-Free Trust of Arizona

Year	Fee	Waivers
March 31, 2023	\$870,840	\$0 was waived.
March 31, 2022	\$1,125,093	\$0 was waived.
March 31, 2021	\$1,087,718	\$0 was waived.

Aquila Tax-Free Fund of Colorado

Year	Fee	Waivers
March 31, 2023	\$1,003,420	\$40,137 was waived.
March 31, 2022	\$1,350,722	\$54,029 was waived.
March 31, 2021	\$1,393,867	\$55,755 was waived.

Aquila Churchill Tax-Free Fund of Kentucky

Year	Fee	Waivers
March 31, 2023	\$675,688	\$0 was waived.
March 31, 2022	\$757,430	\$0 was waived.
March 31, 2021	\$722,623	\$0 was waived.

Aquila Tax-Free Trust of Oregon

Year	Fee	Waivers
March 31, 2023	\$1,993,417	\$19,671 was waived.
March 31, 2022	\$2,678,046	\$53,902 was waived.
March 31, 2021	\$2,655,851	\$52,793 was waived.

Aquila Narragansett Tax-Free Income Fund

Year	Fee	Waivers
March 31, 2023	\$1,105,787	\$165,867 was waived.
March 31, 2022	\$1,324,370	\$198,656 was waived.
March 31, 2021	\$1,243,754	\$188,823 was waived.

Aquila Tax-Free Fund For Utah

Year	Fee	Waivers
March 31, 2023	\$1,849,882	\$74,503 was waived.
March 31, 2022	\$2,401,124	\$112,090 was waived.
March 31, 2021	\$2,266,360	\$101,309 was waived.

The management fees are treated as Fund expenses and, as such, are allocated to each class of shares based on the relative net assets of that class.

Aquila Distributors LLC, 120 West 45th Street, Suite 3600, New York, NY 10036 is each Fund's Distributor. The Distributor currently handles the distribution of the shares of the funds in the Aquila Group of Funds, including the Fund. Under the Distribution Agreement, the Distributor is responsible for the payment of certain printing and distribution costs relating to prospectuses and reports as well as the costs of supplemental sales literature, advertising and other promotional activities.

The Distributor is a wholly-owned subsidiary of Aquila Management Corporation ("AMC"), founder and sponsor of each fund in the Aquila Group of Funds.

The Advisory and Administration Agreement

Each Fund's Advisory and Administration Agreement provides that, subject to the direction and control of the Board of Trustees, the Manager shall:

- (i) supervise continuously the investment program of the Fund and the composition of its portfolio;
- (ii) determine what securities shall be purchased or sold by the Fund;
- (iii) arrange for the purchase and the sale of securities held in the portfolio of the Fund; and
- (iv) at its expense provide for pricing of the Fund's portfolio daily using a pricing service or other source of pricing information satisfactory to the Fund and, unless otherwise directed by the Board of Trustees, provide for pricing of the Fund's portfolio at least quarterly using another such source satisfactory to the Fund.

Each Fund's Advisory and Administration Agreement provides that the Manager shall give to the Fund the benefit of its best judgment and effort in rendering services hereunder, but the Manager shall not be liable for any loss sustained by reason of the adoption of any investment policy or the purchase, sale or retention of any security, whether or not such purchase, sale or retention shall have been based upon (i) its own investigation and research or (ii) investigation and research made by any other individual, firm or corporation, if such purchase, sale or retention shall have been made and such other individual, firm or corporation shall have been selected in good faith by the Manager. Nothing therein contained shall, however, be construed to protect the Manager against any liability to the Fund or its security holders by reason of willful misfeasance, bad faith or gross negligence in the performance of its duties, or by reason of its reckless disregard of its obligations and duties under the Agreement.

Each Fund's Advisory and Administration Agreement provides that nothing in it shall prevent the Manager or any affiliated person (as defined in the 1940 Act) of the Manager from acting as investment adviser or manager for any other person, firm or corporation and shall not in any way limit or restrict the Manager or any such affiliated person from buying, selling or trading any securities for its own or their own accounts or for the accounts of others for whom it or they may be acting, provided, however, that the Manager expressly represents that, while acting as Manager, it will undertake no activities which, in its judgment, will adversely affect the performance of its obligations to the Fund under the Agreement. It is agreed that the Manager shall have no responsibility or liability for the accuracy or completeness of the Fund's Registration Statement under the 1940 Act and the Securities Act of 1933, except for information supplied by the Manager for inclusion therein. The Manager shall promptly inform the Fund as to any information concerning the Manager appropriate for inclusion in such Registration Statement, or as to any transaction or proposed transaction, which might result in an assignment (as defined in the 1940 Act) of the Agreement. To the extent that the Manager is indemnified under the Fund's Declaration of Trust with respect to the services provided by the Manager, the Fund agrees to provide the benefits of such indemnification.

Each Fund's Advisory and Administration Agreement provides that, subject to the termination provisions described below, the Manager may at its own expense delegate to a qualified organization ("Sub-Adviser"), affiliated or not affiliated with the Manager, any or all of the above duties. Any such delegation of the duties set forth in (i), (ii) or (iii) above shall be by a written agreement (the "Sub-Advisory Agreement") approved as provided in Section 15 of the 1940 Act. With respect to Aquila Tax-Free Fund of Colorado, Aquila Tax-Free Trust of Oregon and Aquila Narragansett Tax-Free Income Fund, the Manager has delegated all of such functions to the Sub-Adviser in the Sub-Advisory Agreement.

Each Fund's Advisory and Administration Agreement also provides that, subject to the direction and control of the Board of Trustees of the Fund, the Manager shall provide all administrative services to the Fund other than those relating to its investment portfolio which have been delegated to a Sub-Adviser of the Fund under the Sub-Advisory Agreement; as part of such administrative duties, the Manager shall:

- (i) provide office space, personnel, facilities and equipment for the performance of the following functions and for the maintenance of the headquarters of the Fund;
- (ii) oversee all relationships between the Fund and any sub-adviser, transfer agent, custodian, legal counsel, auditors and principal underwriter, including the negotiation of agreements in relation thereto, the supervision and coordination of the performance of such agreements, and the overseeing of all administrative matters which are necessary or desirable for the effective operation of the Fund and for the sale, servicing or redemption of the Fund's shares;
- (iii) maintain the Fund's books and records, and prepare (or assist counsel and auditors in the preparation of) all required proxy statements, reports to the Fund's shareholders and Trustees, reports to and other filings with the Securities and Exchange Commission and any other governmental agencies, and tax returns, and oversee the insurance relationships of the Fund;
- (iv) prepare, on behalf of the Fund and at the Fund's expense, such applications and reports as may be necessary to register or maintain the registration of the Fund and/or its shares under the securities or "Blue-Sky" laws of all such jurisdictions as may be required from time to time; and
- (v) respond to any inquiries or other communications of shareholders of the Fund and broker/dealers, or if any such inquiry or communication is more properly to be responded to by the Fund's shareholder servicing and transfer agent or distributor, oversee such shareholder servicing and transfer agent's or distributor's response thereto.

In addition, the Advisory and Administration Agreement for each of Aquila Tax-Free Fund of Colorado and Aquila Tax-Free Trust of Oregon provides that the Manager shall either keep the accounting records of the Fund, including the computation of net asset value per share and the dividends (provided that if there is a Sub-Adviser, daily pricing of the Fund's portfolio shall be the responsibility of the Sub-Adviser under the Sub-Advisory Agreement) or, at its expense and responsibility, delegate such duties in whole or in part to a company satisfactory to the Fund.

Each Fund's Advisory and Administration Agreement provides that any investment program furnished by the Manager shall at all times conform to, and be in accordance with, any requirements imposed by: (1) the 1940 Act and any rules or regulations in force thereunder; (2) any other applicable laws, rules and regulations; (3) the Declaration of Trust and By-Laws of the Fund as amended from time to time; (4) any policies and determinations of the Board of Trustees of the Fund; and (5) the fundamental policies of the Fund, as reflected in its registration statement under the 1940 Act or as amended by the shareholders of the Fund.

Each Fund's Advisory and Administration Agreement provides that nothing in it shall prevent the Manager or any affiliated person (as defined in the 1940 Act) of the Manager from acting as investment adviser or manager for any other person, firm or corporation and shall not in any way limit or restrict the Manager or any such affiliated person from buying, selling or trading any securities for its own or their own accounts or for the accounts of others for whom it or they may be acting, provided, however, that the Manager expressly represents that, while acting as Manager, it will undertake no activities which, in its judgment, will adversely affect the performance of its obligations to the Fund under the Agreement. It is agreed that the Manager shall have no responsibility or liability for the accuracy or completeness of the Fund's Registration Statement under the 1940 Act and the Securities Act of 1933, except for information supplied by the Manager for inclusion therein. The Manager shall promptly inform the Fund as to any information concerning the Manager appropriate for inclusion in such Registration Statement, or as to any transaction or proposed transaction which might result in an assignment (as defined in the 1940 Act) of the Agreement. To the extent that the Manager is indemnified under the Fund's Declaration of Trust with respect to the services provided by the Manager, the Manager agrees to provide the sub-adviser, if any, the benefits of such indemnification.

Each Fund's Advisory and Administration Agreement provides that the Manager shall, at its own expense, pay all compensation of Trustees, officers, and employees of the Fund who are affiliated persons of the Manager.

Each Fund's Advisory and Administration Agreement provides that the Fund bears the costs of preparing and setting in type its prospectuses, statements of additional information and reports to its shareholders, and the costs of printing or otherwise producing and distributing those copies of such prospectuses, statements of additional information and reports as are sent to its shareholders. All costs and expenses not expressly assumed by the Manager under the agreement or otherwise by the Manager, administrator or principal underwriter or by any sub-adviser shall be paid by the Fund, including, but not limited to (i) interest and taxes; (ii) brokerage commissions; (iii) insurance premiums; (iv) compensation and expenses of its Trustees other than those affiliated with the Manager or such sub-adviser, administrator or principal underwriter except for certain expenses of those who are officers of the Fund; (v) legal and audit expenses; (vi) custodian and transfer agent, or shareholder servicing agent, fees and expenses; (vii) expenses incident to the issuance of its shares (including issuance on the payment of, or reinvestment of, dividends); (viii) fees and expenses incident to the registration under Federal or State securities laws of the Fund or its shares; (ix) expenses of preparing, printing and mailing reports and notices and proxy material to shareholders of the Fund; (x) all other expenses incidental to holding meetings of the Fund's shareholders; and (xi) such non-recurring expenses as may arise, including litigation affecting the Fund and the legal obligations for which the Fund may have to indemnify its officers and Trustees. In addition, each Fund except for Aquila Tax-Free Fund of Colorado bears the expenses of keeping the Fund's accounting records including the computation of net asset value per share and the dividends.

Each Fund's Advisory and Administration Agreement provides that it may be terminated by the Manager at any time without penalty upon giving the Fund sixty days' written notice (which notice may be waived by the Fund) and may be terminated by the Fund at any time without penalty upon giving the Manager sixty days' written notice (which notice may be waived by the Manager), provided that such termination by the Fund shall be directed or approved by a vote of a majority of its Trustees in office at the time or by a vote of the holders of a majority (as defined in the 1940 Act) of the voting securities of the Fund outstanding and entitled to vote. The specific portions of the Advisory and Administration Agreement which relate to providing investment advisory services will automatically terminate in the event of the assignment (as defined in the 1940 Act) of the Advisory and Administration Agreement, but all other provisions relating to providing services other than investment advisory services will not terminate, provided however, that upon such an assignment: with respect to Aquila Tax-Free Trust of Arizona, the annual fee payable monthly and computed on the net asset value of the Fund as of the close of business each business day shall be reduced to the annual rate of 0.25 of 1% of such net asset value and provided further, that for any day that the Fund pays or accrues a fee under the Distribution Plan of the Fund based upon the assets of the Fund, the annual fee shall be payable at the annual rate of 0.20 of 1% of such asset value; with respect to Aquila Tax-Free Fund of Colorado, the annual fee payable monthly and computed on the net asset value of the Fund as of the close of business each business day shall be reduced to the annual rate of 0.30 of 1% from current fees of 0.50 of 1% of such net asset value; with respect to Aquila Churchill Tax-Free Fund of Kentucky, the annual fee payable monthly and computed on the net asset value of the Fund as of the close of business each business day shall be reduced to the annual rate of 0.33 of 1% of such net asset value and provided further, that for any day that the Fund pays or accrues a fee under the Distribution Plan of the Fund based upon the assets of the Fund, the annual fee shall be payable at the annual rate of 0.26 of 1% of such asset value; with respect to Aquila Tax-Free Trust of Oregon, the annual fee payable monthly and computed on the net asset value of the Fund as of the close of business each business day shall be reduced to the annual rate of 0.27 of 1% of such net asset value and provided further, that for any day that the Fund pays or accrues a fee under the Distribution Plan of the Fund based upon the assets of the Fund, the annual fee shall be payable at the annual rate of 0.22 of 1% of such asset value; with respect to Aquila Narragansett Tax-Free Income Fund, the annual fee payable monthly and computed on the net asset value of the Fund as of the close of business each business day shall be reduced to the annual rate of 0.27 of 1% of such net asset value; and with respect to Aquila Tax-Free Fund For Utah, the annual fee payable monthly and computed on the net asset value of the Fund as of the close of business each business day shall be reduced to the annual rate of 0.27 of 1% of such net asset value.

Aquila Tax-Free Trust of Arizona: For its services with respect to Aquila Tax-Free Trust of Arizona, the Manager is entitled to receive a fee which is payable monthly and computed as of the close of business each business day at the annual rate of 0.50 of 1% of such net asset value; provided, however, that for any day that the Trust pays or accrues a fee under the Distribution Plan of the Fund based upon the assets of the Fund, the annual fee shall be payable at the annual rate of 0.40 of 1% of such net asset value.

Aquila Tax-Free Fund of Colorado: For its services with respect to Aquila Tax-Free Fund of Colorado, the Manager is entitled to receive a fee which is payable monthly and computed as of the close of business each day at the annual rate of 0.50 of 1% of net assets of the Fund.

Aquila Churchill Tax-Free Fund of Kentucky: For its services with respect to Aquila Churchill Tax-Free Fund of Kentucky, the Manager is entitled to receive a fee which is payable monthly and computed as of the close of business each business day at the annual rate of 0.50 of 1% of such net asset value; provided, however, that for any day that the Trust pays or accrues a fee under the Distribution Plan of the Fund based upon the assets of the Fund, the annual fee shall be payable at the annual rate of 0.40 of 1% of such net asset value.

Aquila Tax-Free Trust of Oregon: For its services with respect to Aquila Tax-Free Trust of Oregon, the Manager is entitled to receive a fee which is payable monthly and computed as of the close of business each business day at the annual rate of 0.50 of 1% of such net asset value; provided, however, that for any day that the Trust pays or accrues a fee under the Distribution Plan of the Fund based upon the assets of the Fund, the annual fee shall be payable at the annual rate of 0.40 of 1% of such net asset value.

Aquila Narragansett Tax-Free Income Fund: For its services with respect to Aquila Narragansett Tax-Free Income Fund, the Manager is entitled to receive a fee which is payable monthly and computed as of the close of business each day at the annual rate of 0.50 of 1% of net assets of the Fund.

Aquila Tax-Free Fund For Utah: For its services with respect to Aquila Tax-Free Fund For Utah, the Manager is entitled to receive a fee which is payable monthly and computed as of the close of business each day at the annual rate of 0.50 of 1% of net assets of the Fund.

Expense Waiver and Reimbursement - Aquila Tax-Free Fund of Colorado

The Manager has contractually undertaken to waive its fees so that management fees are equivalent to 0.48 of 1% of net assets of the Fund up to \$400,000,000; 0.46 of 1% of net assets above \$400,000,000 up to \$1,000,000,000; and 0.44 of 1% of net assets above \$1,000,000,000 through September 30, 2024. The Manager may not terminate the arrangement without the approval of the Board of Trustees.

Expense Waiver and Reimbursement - Aquila Tax-Free Trust of Oregon

The Manager has contractually undertaken to waive its fees so that management fees are equivalent to 0.40 of 1% of net assets of the Fund up to \$400,000,000; 0.38 of 1% of net assets above \$400,000,000 up to \$1,000,000,000; and 0.36 of 1% of net assets above \$1,000,000,000 through September 30, 2024. The Manager may not terminate the arrangement without the approval of the Board of Trustees.

Expense Waiver and Reimbursement - Aquila Narragansett Tax-Free Income Fund

Manager has contractually undertaken to waive its fees so that management fees are equivalent to 0.48 of 1% of net assets of the Fund up to \$400,000,000; 0.46 of 1% of net assets above \$400,000,000 up to \$1,000,000,000; and 0.44 of 1% of net assets above \$1,000,000,000 through September 30, 2024. The Manager may not terminate the arrangement without the approval of the Board of Trustees.

Expense Waiver and Reimbursement - Aquila Tax-Free Fund For Utah

The Manager has contractually undertaken to waive its fees so that management fees are equivalent to 0.48 of 1% of net assets of the Fund up to \$400,000,000; 0.46 of 1% of net assets above \$400,000,000 up to \$1,000,000,000; and 0.44 of 1% of net assets above \$1,000,000,000 through September 30, 2024. The Manager may not terminate the arrangement without the approval of the Board of Trustees.

Sub-Advisory Fees - Aquila Tax-Free Fund of Colorado

Davidson Fixed Income Management Inc. doing business in Colorado as Kirkpatrick Pettis Capital Management (“Kirkpatrick Pettis”) served as the sub-adviser of the Fund until March 5, 2023. For its services to the Fund, Kirkpatrick Pettis was entitled to receive a fee from the Manager at the annual rate of 0.20 of 1% of the net asset value of the Fund. The Sub-Adviser contractually agreed to waive its fees so that sub-advisory fees were equivalent to 0.16 of 1% of net assets of the Fund up to \$400,000,000; 0.14 of 1% of net assets above \$400,000,000 up to \$1,000,000,000; and 0.12 of 1% of net assets above \$1,000,000,000. During the fiscal years listed, the Manager accrued sub-advisory fees to the Sub-Adviser as follows:

Year	Fee	Waivers
2023	\$338,617	\$37,624
2022	\$486,260	\$54,029
2021	\$501,792	\$55,755

Sub-Advisory Fees - Aquila Tax-Free Trust of Oregon

Davidson Fixed Income Management Inc. doing business in Oregon as Kirkpatrick Pettis Capital Management (“Kirkpatrick Pettis”) served as the sub-adviser of the Fund until March 5, 2023. For its services to the Fund, Kirkpatrick Pettis was entitled to receive a fee from the Manager at the annual rates of 0.18 of 1% of the net asset value of the Fund on net assets of the Fund up to \$400,000,000; 0.16 of 1% of the Fund’s net assets above that amount to \$1,000,000,000 and 0.14 of 1% of the Fund's net assets above \$1,000,000,000. The Sub-Adviser contractually agreed to waive its fees so that sub-advisory fees were equivalent to 0.16 of 1% of net assets of the Fund up to \$400,000,000; 0.14 of 1% of net assets above \$400,000,000 up to \$1,000,000,000; and 0.12 of 1% of net assets above \$1,000,000,000. During the fiscal years listed, the Manager accrued sub-advisory fees to the Sub-Adviser as follows:

Year	Fee	Waivers
2023	\$743,799	\$18,673
2022	\$1,071,219	\$53,902
2021	\$1,062,341	\$52,793

Sub-Advisory Agreement and Sub-Advisory Fees - Aquila Narragansett Tax-Free Income Fund

The services of Clarfeld Financial Advisors, LLC, the Sub-Adviser for Aquila Narragansett Tax-Free Income Fund, are rendered under the Sub-Advisory Agreement between the Manager and the Sub-Adviser, which provides, subject to the control of the Board of Trustees, for investment supervision and at the Sub-Adviser’s expense for pricing of the Fund’s portfolio daily using a pricing service or other source of pricing information satisfactory to the Fund and, unless otherwise directed by the Board of Trustees, for pricing of the Fund’s portfolio at least quarterly using another such source satisfactory to the Fund.

The Sub-Advisory Agreement provides that any investment program furnished by the Sub-Adviser shall at all times conform to, and be in accordance with, any requirements imposed by: (1) the 1940 Act and any rules or regulations in force thereunder; (2) any other applicable laws, rules and regulations; (3) the Declaration of Trust and By-Laws of the Fund as amended from time to time; (4) any policies and determinations of the Board of Trustees of the Fund; and (5) the fundamental policies of the Fund, as reflected in its registration statement under the 1940 Act or as amended by the shareholders of the Fund.

The Sub-Advisory Agreement provides that the Sub-Adviser shall give to the Manager, and to the Fund the benefit of its best judgment and effort in rendering services thereunder, but the Sub-Adviser shall not be liable for any loss sustained by reason of the adoption of any investment policy or the purchase, sale or retention of any security, whether or not such purchase, sale or retention shall have been based upon (i) its own investigation and research or (ii) investigation and research made by any other individual, firm or corporation, if such purchase, sale or retention shall have been made and such other individual, firm or corporation shall have been selected in good faith by the Sub-Adviser.

Nothing therein contained shall, however, be construed to protect the Sub-Adviser against any liability to the Fund or its security holders by reason of willful misfeasance, bad faith or gross negligence in the performance of its duties, or by reason of its reckless disregard of its obligations and duties under the Agreement.

The Sub-Advisory Agreement provides that nothing in it shall prevent the Sub-Adviser or any affiliated person (as defined in the 1940 Act) of the Sub-Adviser from acting as investment adviser or manager for any other person, firm or corporation and shall not in any way limit or restrict the Sub-Adviser or any such affiliated person from buying, selling or trading any securities for its own or their own accounts or for the accounts of others for whom it or they may be acting, provided, however, that the Sub-Adviser expressly represents that, while acting as Sub-Adviser, it will undertake no activities which, in its judgment, will adversely affect the performance of its obligations to the Fund under the Agreement. It is agreed that the Sub-Adviser shall have no responsibility or liability for the accuracy or completeness of the Fund’s Registration Statement under the 1940 Act and the Securities Act of 1933, except for information supplied by the Sub-Adviser for inclusion therein. The Sub-Adviser shall promptly inform the Fund as to any information concerning the Sub-Adviser

appropriate for inclusion in such Registration Statement, or as to any transaction or proposed transaction which might result in an assignment (as defined in the 1940 Act) of the Agreement. To the extent that the Manager is indemnified under the Fund’s Declaration of Trust with respect to the services provided by the Sub-Adviser, the Manager agrees to provide the Sub-Adviser the benefits of such indemnification.

The Sub-Advisory Agreement provides that the Sub-Adviser agrees to maintain, and to preserve for the periods prescribed, such books and records with respect to the portfolio transactions of the Fund as are required by applicable law and regulation, and agrees that all records which it maintains for the Fund on behalf of the Manager shall be the property of the Fund and shall be surrendered promptly to the Fund or the Manager upon request. The Sub-Adviser agrees to furnish to the Manager and to the Board of Trustees of the Fund such periodic and special reports as each may reasonably request.

The Sub-Advisory Agreement provides that the Sub-Adviser shall bear all of the expenses it incurs in fulfilling its obligations under the Agreement. In particular, but without limiting the generality of the foregoing: the Sub-Adviser shall furnish the Fund, at the Sub-Adviser’s expense, all office space, facilities, equipment and clerical personnel necessary for carrying out its duties under the Agreement. The Sub-Adviser shall supply, or cause to be supplied, to any investment adviser, administrator or principal underwriter of the Fund all necessary financial information in connection with such adviser’s, administrator’s or principal underwriter’s duties under any agreement between such adviser, administrator or principal underwriter and the Fund. The Sub-Adviser at its expense will provide for pricing of the Fund's portfolio daily using a pricing service or other source of pricing information satisfactory to the Fund and, unless otherwise directed by the Board of Trustees, will provide for pricing of the Fund's portfolio at least quarterly using another such source satisfactory to the Fund. The Sub-Adviser at its expense will provide for pricing of the Fund's portfolio daily using a pricing service or other source of pricing information satisfactory to the Fund and, unless otherwise directed by the Board of Trustees, will provide for pricing of the Fund's portfolio at least quarterly using another such source satisfactory to the Fund. The Sub-Adviser will also pay all compensation of the Fund’s officers, employees, and Trustees, if any, who are affiliated persons of the Sub-Adviser.

The Sub-Advisory Agreement provides that it shall, unless terminated as therein provided, continue in effect from year to year so long as such continuance is specifically approved at least annually (1) by a vote of the Fund’s Board of Trustees, including a vote of a majority of the Trustees who are not parties to the Agreement or “interested persons” (as defined in the 1940 Act) of any such party, with votes cast in person at a meeting called for the purpose of voting on such approval, or (2) by a vote of the holders of a “majority” (as so defined) of the dollar value of the outstanding voting securities of the Fund and by such a vote of the Trustees.

The Sub-Advisory Agreement provides that it may be terminated by the Sub-Adviser at any time without penalty upon giving the Manager and the Fund sixty days’ written notice (which notice may be waived). It may be terminated by the Manager or the Fund at any time without penalty upon giving the Sub-Adviser sixty days’ written notice (which notice may be waived by the Sub-Adviser), provided that such termination by the Manager or the Fund shall be directed or approved by a vote of a majority of its Trustees in office at the time or by a vote of the holders of a majority (as defined in the 1940 Act) of the dollar value of the voting securities of the Fund outstanding and entitled to vote. The Sub-Advisory Agreement will automatically terminate in the event of its assignment (as defined in the 1940 Act) or the termination of the Investment Advisory Agreement.

For its services, the Sub-Adviser is entitled to receive a fee from the Manager which is payable monthly and computed on the net asset value of the Fund as of the close of business each business day at the annual rates of 0.23 of 1% of such net asset value. The Sub-Adviser has contractually undertaken to waive its fees to the extent necessary so that the annual sub-advisory fee rate is equivalent to 0.175% of 1% of the Fund’s average annual net assets. This contractual undertaking is in effect until September 30, 2024.

During the fiscal years listed, the Manager accrued sub-advisory fees to the Sub-Adviser as follows:

Year	Fee	Waivers
2023	\$508,662	\$121,637
2022	\$463,530	\$145,681
2021	\$572,127	\$136,813

Information about the Manager and the Sub-Adviser

The Funds' Manager is a wholly-owned subsidiary of Aquila Management Corporation ("AMC"), founder and sponsor of each fund in the Aquila Group of Funds. As of May 31, 2023, the Aquila Group of Funds consisted of seven tax-free municipal bond funds, a high income corporate bond fund and an equity fund, with aggregate assets of approximately \$2.25 billion, of which approximately \$2.03 billion consisted of assets of the tax-free municipal bond funds. AMC's address is the same as that of the Manager. AMC was founded in 1984 and is owned by Diana P. Herrmann and members of her family. Ms. Herrmann is Vice Chair, a Trustee and the President of the Trust and Chair and Chief Executive Officer of AMC.

Clarfled Financial Advisors, LLC, 520 White Plains Road, Tarrytown, NY 10591, is a wholly-owned subsidiary of Citizens Bank, N.A., a bank subsidiary of Citizens Financial Group, Inc. ("CFG"). The Sub-Adviser has approximately \$7.6 billion in assets under management and \$4.2 billion in assets under advisement as of March 31, 2023. CFG is a commercial bank holding company with total assets of \$222.3 billion. It is headquartered in Providence, Rhode Island, and, through its subsidiaries, has 1,100 branches and nearly 19,000 employees. It operates its branch network in 14 states and has non-branch retail and commercial offices in select markets nationwide.

Additional Information About the Portfolio Managers

Aquila Tax-Free Trust of Arizona: The portfolio management team consists of Mr. Tony Tanner, Mr. James Thompson, Mr. Royden Durham, and Mr. Timothy Iltz (effective August 1, 2023), who are responsible for the day-to-day management of the Fund. Mr. Thompson plans to retire as a portfolio manager on December 31, 2023. Members of the portfolio management team also manage Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon and Aquila Tax-Free Fund For Utah. The portfolio managers do not manage any other investment companies, pooled investment vehicles or separate accounts.

There are in general no situations where the Fund's opportunities or the execution of its investment program may be compromised or limited by the investments of the other accounts (funds), except that there may be occurrences where a scarcity of bonds of Arizona issuers hinders the execution of the Fund's investment program.

The portfolio managers are each employed and compensated by the Manager, not the Fund. They receive a fixed salary, with a discretionary bonus. Their compensation is not performance-based. Like all of the Manager's employees, they are eligible to participate in the Manager's 401(k) Plan and are participants in the Manager's Employee Stock Ownership Plan. The Manager's overall compensation and benefits program is designed to attract and retain highly qualified investment management professionals and to motivate such individuals to align their interests with those of the Fund's shareholders. Mr. Tanner owns securities of the Fund in the range of \$10,001 - \$50,000. Mr. Durham and Mr. Thompson each own securities of the Fund in the range of \$1 - \$10,000. Mr. Iltz does not own securities of the Fund.

Aquila Tax-Free Fund of Colorado: The portfolio management team consists of Mr. Royden Durham, Mr. Vasilios Gerasopoulos and Mr. Timothy Iltz, who are responsible for the day-to-day management of the Fund. Members of the portfolio management team also manage Aquila Tax-Free Trust of Arizona, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon and Aquila Tax-Free Fund For Utah. The portfolio managers do not manage any other investment companies, pooled investment vehicles or separate accounts.

There are in general no situations where the Fund's opportunities or the execution of its investment program may be compromised or limited by the investments of the other accounts (funds), except that there may be occurrences where a scarcity of bonds of Colorado issuers hinders the execution of the Fund's investment program.

The portfolio managers are each employed and compensated by the Manager, not the Fund. They receive a fixed salary, with a discretionary bonus. Their compensation is not performance-based. Like all of the Manager's employees, they are eligible to participate in the Manager's 401(k) Plan and are participants in the Manager's Employee Stock Ownership Plan. The Manager's overall compensation and benefits program is designed to attract and retain highly qualified investment management professionals and to motivate such individuals to align their interests with those of the Fund's shareholders. Mr. Gerasopoulos owns securities of the Fund in the range of \$10,001-\$50,000. Mr. Durham and Mr. Iltz each own securities of the Fund in the range of \$1 - \$10,000.

Aquila Churchill Tax-Free Fund of Kentucky: The portfolio management team consists of Mr. Royden Durham, Mr. Tony Tanner, and Mr. James Thompson, who are responsible for the day-to-day management of the Fund. Mr. Thompson plans to retire as a portfolio manager on December 31, 2023. Members of the portfolio management team also

manage Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Tax-Free Trust of Oregon and Aquila Tax-Free Fund For Utah. The portfolio managers do not manage any other investment companies, pooled investment vehicles or separate accounts.

There are in general no situations where the Fund's opportunities or the execution of its investment program may be compromised or limited by the investments of the other accounts (funds), except that there may be occurrences where a scarcity of bonds of Kentucky issuers hinders the execution of the Fund's investment program.

The portfolio managers are each employed and compensated by the Manager, not the Fund. They receive a fixed salary, with a discretionary bonus. Their compensation is not performance-based. Like all of the Manager's employees, they are eligible to participate in the Manager's 401(k) Plan and are participants in the Manager's Employee Stock Ownership Plan. The Manager's overall compensation and benefits program is designed to attract and retain highly qualified investment management professionals and to motivate such individuals to align their interests with those of the Fund's shareholders. Mr. Durham owns securities of the Fund in the range of \$10,001 - \$50,000. Mr. Tanner and Mr. Thompson each own securities of the Fund in the range of \$1 - \$10,000.

Aquila Tax-Free Trust of Oregon: The portfolio management team consists of Mr. Timothy Iltz (lead portfolio manager), Mr. Anthony Tanner and Mr. James Thompson, who are responsible for the day-to-day management of the Fund. Mr. Thompson plans to retire as a portfolio manager on December 31, 2023. Members of the portfolio management team also manage Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky and Aquila Tax-Free Fund For Utah. The portfolio managers do not manage any other investment companies, pooled investment vehicles or separate accounts.

There are in general no situations where the Fund's opportunities or the execution of its investment program may be compromised or limited by the investments of the other accounts (funds), except that there may be occurrences where a scarcity of bonds of Oregon issuers hinders the execution of the Fund's investment program.

The portfolio managers are each employed and compensated by the Manager, not the Fund. They receive a fixed salary, with a discretionary bonus. Their compensation is not performance-based. Like all of the Manager's employees, they are eligible to participate in the Manager's 401(k) Plan and are participants in the Manager's Employee Stock Ownership Plan. The Manager's overall compensation and benefits program is designed to attract and retain highly qualified investment management professionals and to motivate such individuals to align their interests with those of the Fund's shareholders. Mr. Iltz owns securities of the Fund in the range of \$10,001 - \$50,000. Mr. Tanner does not own securities of the Fund. Mr. Thompson owns securities of the Fund in the range of \$1 - \$10,000.

Aquila Narragansett Tax-Free Income Fund: Mr. Jeffrey K. Hanna is the portfolio manager responsible for the day-to-day management of the Fund.

Mr. Hanna also manages approximately 75 other relationships, with aggregate assets of \$696,228,152 as of May 31, 2023. Mr. Hanna does not manage other investment company portfolios or pooled investment vehicles.

The compensation paid by the clients varies, based on the type of account and services provided, and, in some situations, it is individually negotiated. Generally, compensation by these clients and the funds is computed as a percentage of assets under management. No account or fund has performance based fees.

There are in general no situations where the Fund's opportunities or the execution of its investment program may be compromised or limited by the investments of the other accounts, except that there may be occurrences where a scarcity of bonds of Rhode Island issuers hinders the execution of the Fund's investment program. The minimum block sizes and maturity requirements of purchases for the Fund typically differ from the investment requirements of other accounts managed by the portfolio manager.

Mr. Hanna is employed and compensated by Citizens Bank, N.A., of which the Sub-Adviser is a wholly-owned subsidiary. As of May 31, 2023, Mr. Hanna received fixed compensation not based upon the value of assets or the investment performance of the Fund and accounts that he manages. Mr. Hanna may be eligible to receive a bonus which is not dependent upon the value of assets or the performance of the Fund or the performance of other accounts he manages. The method of determining compensation of the portfolio manager is the same for the Fund as for all other accounts he manages.

In addition, as of May 31, 2023, Mr. Hanna's compensation included a participation in the Bank's Retirement Savings Plan. Like all employees of the Bank, Mr. Hanna is eligible to participate in the Bank's Retirement Savings Plan and

Employee Stock Purchase Plan. Under the Retirement Savings Plan, various types of contributions are made for employees by the Bank including profit sharing, value sharing, and matching contributions.

Currently, Mr. Hanna has an interest or owns securities of the Fund in the range of \$10,001 - \$50,000.

Aquila Tax-Free Fund For Utah: The portfolio management team consists of Mr. James Thompson, Mr. Royden Durham, Mr. Tony Tanner, and Mr. Timothy Iltz (effective August 1, 2023), who are responsible for the day-to-day management of the Fund. Mr. Thompson plans to retire as a portfolio manager on December 31, 2023. Members of the portfolio management team also manage Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon and Aquila Tax-Free Fund For Utah. The portfolio managers do not manage any other investment companies, pooled investment vehicles or separate accounts.

There are in general no situations where the Fund’s opportunities or the execution of its investment program may be compromised or limited by the investments of the other accounts (funds), except that there may be occurrences where a scarcity of bonds of Utah issuers hinders the execution of the Fund’s investment program.

The portfolio managers are each employed and compensated by the Manager, not the Fund. They receive a fixed salary, with a discretionary bonus. Their compensation is not performance-based. Like all of the Manager’s employees, they are eligible to participate in the Manager’s 401(k) Plan and are participants in the Manager’s Employee Stock Ownership Plan. The Manager’s overall compensation and benefits program is designed to attract and retain highly qualified investment management professionals and to motivate such individuals to align their interests with those of the Fund’s shareholders. Mr. Thompson owns securities of the Fund in the range of \$10,001 - \$50,000. Mr. Durham and Mr. Tanner each own securities of the Fund in the range of \$1 - \$10,000. Mr. Iltz does not own securities of the Fund.

Underwriting Commissions

During the fiscal years listed, the aggregate dollar amount of sales charges on sales of Class A shares of each Fund and the amount retained by the Distributor, respectively, were as follows:

Aquila Tax-Free Trust of Arizona

	Sales Charges	Retained by Distributor
<i>Fiscal Year Ended March 31, 2023</i>	\$18,398	\$4,317
<i>Fiscal Year Ended March 31, 2022</i>	\$45,457	\$15,156
<i>Fiscal Year Ended March 31, 2021</i>	\$51,349	\$15,483

Aquila Tax-Free Fund of Colorado:

	Sales Charges	Retained by Distributor
<i>Fiscal Year Ended March 31, 2023</i>	\$10,648	\$8,607
<i>Fiscal Year Ended March 31, 2022</i>	\$14,557	\$12,921
<i>Fiscal Year Ended March 31, 2021</i>	\$44,629	\$12,591

Aquila Churchill Tax-Free Fund of Kentucky:

	Sales Charges	Retained by Distributor
<i>Fiscal Year Ended March 31, 2023</i>	\$14,634	\$3,393
<i>Fiscal Year Ended March 31, 2022</i>	\$27,399	\$6,340
<i>Fiscal Year Ended March 31, 2021</i>	\$46,566	\$6,980

Aquila Tax-Free Trust of Oregon

	Sales Charges	Retained by Distributor
<i>Fiscal Year Ended March 31, 2023</i>	\$18,598	\$9,852
<i>Fiscal Year Ended March 31, 2022</i>	\$62,008	\$19,613
<i>Fiscal Year Ended March 31, 2021</i>	\$120,752	\$29,599

Aquila Narragansett Tax-Free Income Fund:

	Sales Charges	Retained by Distributor
<i>Fiscal Year Ended March 31, 2023</i>	\$23,944	\$8,720
<i>Fiscal Year Ended March 31, 2022</i>	\$81,115	\$18,270
<i>Fiscal Year Ended March 31, 2021</i>	\$103,121	\$18,697

Aquila Tax-Free Fund For Utah:

	Sales Charges	Retained by Distributor
<i>Fiscal Year Ended March 31, 2023</i>	\$38,442	\$12,423
<i>Fiscal Year Ended March 31, 2022</i>	\$80,830	\$21,283
<i>Fiscal Year Ended March 31, 2021</i>	\$175,565	\$29,876

Class A Shares - In connection with sales of Class A Shares, the Distributor pays a portion of the sales charge on such shares to dealers in the form of discounts and to brokers in the form of agency commissions (together, “Commissions”), in amounts that vary with the size of the sales charge as follows:

Amount of Purchase Plus Value of All Other Shares Held by a Single Purchaser	Sales Charge as Percentage of Public Offering Price	Commissions as Percentage of Offering Price
Less than \$50,000	3.00%	2.50%
\$50,000 to \$99,999	2.50%	2.00%
\$100,000 to \$249,999	2.00%	1.50%

Since the offering price is calculated to two decimal places using standard rounding methodology, the dollar amount of the sales charge as a percentage of the offering price and the net amount invested (the amount of your investment less the sales charge) for any particular purchase of Fund shares may be higher or lower due to rounding.

Distribution Plan

Each Fund has adopted a Distribution Plan under Rule 12b-1 under the 1940 Act. Each Fund’s Distribution Plan has four parts, relating respectively to distribution payments with respect to Class A Shares (Part I), to distribution payments relating to Class C Shares (Part II), to distribution payments relating to Class I Shares (Part III) (if the Fund offers Class I Shares), and to certain defensive provisions (Part IV).

For purposes of Parts I, II and III, the Distributor will consider shares which are not Qualified Holdings of broker/dealers unaffiliated with the Manager, Sub-Adviser or Distributor to be Qualified Holdings of the Distributor and will authorize Permitted Payments to the Distributor with respect to such shares whenever Permitted Payments are being made under the Plan.

Provisions Relating to Class A Shares (Part I)

Part I of the Plan applies only to the Front-Payment Class Shares (“Class A Shares”) of each Fund (regardless of whether such class is so designated or is redesignated by some other name).

As used in Part I of the Plan, “Qualified Recipients” shall mean broker/dealers or others selected by Aquila Distributors LLC (the “Distributor”), including but not limited to any principal underwriter of the Fund, with which the Fund or the Distributor has entered into written agreements in connection with Part I (“Class A Plan Agreements”) and which have

rendered assistance (whether direct, administrative, or both) in the distribution and/or retention of the Fund's Front-Payment Class Shares or servicing of shareholder accounts with respect to such shares. "Qualified Holdings" shall mean, as to any Qualified Recipient, all Front-Payment Class Shares beneficially owned by such Qualified Recipient, or beneficially owned by its brokerage customers, other customers, other contacts, investment advisory clients, or other clients, if the Qualified Recipient was, in the sole judgment of the Distributor, instrumental in the purchase and/or retention of such shares and/or in providing administrative assistance or other services in relation thereto.

Subject to the direction and control of the Fund's Board of Trustees, the Fund may make payments ("Class A Permitted Payments") to Qualified Recipients, which Class A Permitted Payments may be made directly, or through the Distributor or shareholder servicing agent as disbursing agent, which may not exceed, for any fiscal year of the Fund (as adjusted for any part or parts of a fiscal year during which payments under the Plan are not accruable or for any fiscal year which is not a full fiscal year), up to 0.15 of 1% of the average annual net assets of Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon and Aquila Narragansett Tax-Free Income Fund represented by the Front-Payment Class Shares, and up to 0.20 of 1% of the average annual net assets of Aquila Tax-Free Fund For Utah represented by the Front-Payment Class Shares. Such payments shall be made only out of the Fund's assets allocable to the Front-Payment Class Shares. With respect to Aquila Tax-Free Fund of Colorado, the Board of Trustees has currently authorized a distribution fee of 0.075 of 1% of all of the average annual net assets of the Fund represented by the Front-Payment Shares class of shares.

The Distributor shall have sole authority (i) as to the selection of any Qualified Recipient or Recipients; (ii) not to select any Qualified Recipient; and (iii) as to the amount of Class A Permitted Payments, if any, to each Qualified Recipient provided that the total Class A Permitted Payments to all Qualified Recipients do not exceed the amount set forth above. The Distributor is authorized, but not directed, to take into account, in addition to any other factors deemed relevant by it, the following: (a) the amount of the Qualified Holdings of the Qualified Recipient; (b) the extent to which the Qualified Recipient has, at its expense, taken steps in the shareholder servicing area with respect to holders of Front-Payment Class Shares, including without limitation, any or all of the following activities: answering customer inquiries regarding account status and history, and the manner in which purchases and redemptions of shares of a Fund may be effected; assisting shareholders in designating and changing dividend options, account designations and addresses; providing necessary personnel and facilities to establish and maintain shareholder accounts and records; assisting in processing purchase and redemption transactions; arranging for the wiring of funds; transmitting and receiving funds in connection with customer orders to purchase or redeem shares; verifying and guaranteeing shareholder signatures in connection with redemption orders and transfers and changes in shareholder designated accounts; furnishing (either alone or together with other reports sent to a shareholder by such person) monthly and year-end statements and confirmations of purchases and redemptions; transmitting, on behalf of a Fund, proxy statements, annual reports, updating prospectuses and other communications from the Fund to its shareholders; receiving, tabulating and transmitting to the Fund proxies executed by shareholders with respect to meetings of shareholders of a Fund; and providing such other related services as the Distributor or a shareholder may request from time to time; and (c) the possibility that the Qualified Holdings of the Qualified Recipient would be redeemed in the absence of its selection or continuance as a Qualified Recipient. Notwithstanding the foregoing two sentences, a majority of the Independent Trustees (as defined below) may remove any person as a Qualified Recipient. Amounts within the above limits accrued to a Qualified Recipient but not paid during a fiscal year may be paid thereafter; if less than the full amount is accrued to all Qualified Recipients, the difference will not be carried over to subsequent years.

While Part I is in effect, the Funds' Distributor shall report at least quarterly to the Funds' Trustees in writing for their review on the following matters: (i) all Class A Permitted Payments made under the Plan, the identity of the Qualified Recipient of each payment, and the purposes for which the amounts were expended; and (ii) all fees of the Fund paid to the Manager, Sub-Adviser or Distributor or accrued during such quarter. In addition, if any such Qualified Recipient is an affiliated person, as that term is defined in the 1940 Act, of the Fund, Manager, Sub-Adviser or Distributor, such person shall agree to furnish to the Distributor for transmission to the Board of Trustees of the Fund an accounting, in form and detail satisfactory to the Board of Trustees, to enable the Board of Trustees to make the determinations of the fairness of the compensation paid to such affiliated person, not less often than annually.

Part I will, unless terminated as hereinafter provided, continue in effect from year to year so long as such continuance is specifically approved at least annually by each Fund's Trustees and its Independent Trustees with votes cast in person at a meeting called for the purpose of voting on such continuance. Part I may be terminated at any time by the vote of a majority of the Independent Trustees or by the vote of the holders of a "majority" (as defined in the 1940 Act) of the dollar value of the outstanding voting securities of the Fund to which Part I applies. Part I may not be amended to increase materially the amount of payments to be made without shareholder approval of the class or classes of shares affected by Part I, and all material amendments must be approved by each Fund's Trustees and its Independent Trustees in the manner set forth above.

In the case of a Qualified Recipient which is a principal underwriter of a Fund, the Class A Plan Agreement shall be the agreement contemplated by Section 15(b) of the 1940 Act since each such agreement must be approved in accordance with, and contain the provisions required by, the Rule. In the case of Qualified Recipients which are not principal underwriters of the Fund, the Class A Plan Agreements with them shall be (i) their agreements with the Distributor with respect to payments under the Fund's Distribution Plan in effect prior to April 1, 1996 or (ii) Class A Plan Agreements entered into thereafter.

Provisions Relating to Class C Shares (Part II)

Part II of the Plan applies only to the Level-Payment Class Shares ("Class C Shares") of each Fund (regardless of whether such class is so designated or is redesignated by some other name).

As used in Part II of the Plan, "Qualified Recipients" shall mean broker/dealers or others selected by the Distributor, including but not limited to any principal underwriter of a Fund, with which the Fund or the Distributor has entered into written agreements in connection with Part II ("Class C Plan Agreements") and which have rendered assistance (whether direct, administrative, or both) in the distribution and/or retention of the Fund's Level-Payment Class Shares or servicing of shareholder accounts with respect to such shares. "Qualified Holdings" shall mean, as to any Qualified Recipient, all Level-Payment Class Shares beneficially owned by such Qualified Recipient, or beneficially owned by its brokerage customers, other customers, other contacts, investment advisory clients, or other clients, if the Qualified Recipient was, in the sole judgment of the Distributor, instrumental in the purchase and/or retention of such shares and/or in providing administrative assistance or other services in relation thereto.

Subject to the direction and control of the Fund's Board of Trustees, each Fund may make payments ("Class C Permitted Payments") to Qualified Recipients, which Class C Permitted Payments may be made directly, or through the Distributor or shareholder servicing agent as disbursing agent, which may not exceed, for any fiscal year of the Fund (as adjusted for any part or parts of a fiscal year during which payments under the Plan are not accruable or for any fiscal year which is not a full fiscal year), 0.75 of 1% of the average annual net assets of the Fund represented by the Level-Payment Class Shares. Such payments shall be made only out of the Fund's assets allocable to the Level-Payment Class Shares. The Distributor shall have sole authority (i) as to the selection of any Qualified Recipient or Recipients; (ii) not to select any Qualified Recipient; and (iii) as to the amount of Class C Permitted Payments, if any, to each Qualified Recipient provided that the total Class C Permitted Payments to all Qualified Recipients do not exceed the amount set forth above. The Distributor is authorized, but not directed, to take into account, in addition to any other factors deemed relevant by it, the following: (a) the amount of the Qualified Holdings of the Qualified Recipient; (b) the extent to which the Qualified Recipient has, at its expense, taken steps in the shareholder servicing area with respect to holders of Level-Payment Class Shares, including without limitation, any or all of the following activities: answering customer inquiries regarding account status and history, and the manner in which purchases and redemptions of shares of the Fund may be effected; assisting shareholders in designating and changing dividend options, account designations and addresses; providing necessary personnel and facilities to establish and maintain shareholder accounts and records; assisting in processing purchase and redemption transactions; arranging for the wiring of funds; transmitting and receiving funds in connection with customer orders to purchase or redeem shares; verifying and guaranteeing shareholder signatures in connection with redemption orders and transfers and changes in shareholder designated accounts; furnishing (either alone or together with other reports sent to a shareholder by such person) monthly and year-end statements and confirmations of purchases and redemptions; transmitting, on behalf of the Fund, proxy statements, annual reports, updating prospectuses and other communications from the Fund to its shareholders; receiving, tabulating and transmitting to the Fund proxies executed by shareholders with respect to meetings of shareholders of the Fund; and providing such other related services as the Distributor or a shareholder may request from time to time; and (c) the possibility that the Qualified Holdings of the Qualified Recipient would be redeemed in the absence of its selection or continuance as a Qualified Recipient. Notwithstanding the foregoing two sentences, a majority of the Independent Trustees (as defined below) may remove any person as a Qualified Recipient. Amounts within the above limits accrued to a Qualified Recipient but not paid during a fiscal year may be paid thereafter; if less than the full amount is accrued to all Qualified Recipients, the difference will not be carried over to subsequent years.

While Part II is in effect, the Funds' Distributor shall report at least quarterly to the Funds' Trustees in writing for their review on the following matters: (i) all Class C Permitted Payments made under the Plan, the identity of the Qualified Recipient of each payment, and the purposes for which the amounts were expended; and (ii) all fees of the Fund paid to the Manager, Sub-Adviser or Distributor or accrued during such quarter. In addition, if any such Qualified Recipient is an affiliated person, as that term is defined in the 1940 Act, of the Funds, Manager, Sub-Adviser or Distributor such person shall agree to furnish to the Distributor for transmission to the Board of Trustees of the Funds an accounting, in form and detail satisfactory to the Board of Trustees, to enable the Board of Trustees to make the determinations of the fairness of the compensation paid to such affiliated person, not less often than annually.

Part II will, unless terminated as therein provided, continue in effect from year to year so long as such continuance is specifically approved at least annually by each Fund's Trustees and its Independent Trustees with votes cast in person at a meeting called for the purpose of voting on such continuance. Part II may be terminated at any time by the vote of a majority of the Independent Trustees or by the vote of the holders of a "majority" (as defined in the 1940 Act) of the dollar value of the outstanding voting securities of the Fund to which Part II applies. Part II may not be amended to increase materially the amount of payments to be made without shareholder approval of the class or classes of shares affected by Part II, and all material amendments must be approved by each Fund's Trustees and its Independent Trustees in the manner set forth above.

In the case of a Qualified Recipient which is a principal underwriter of a Fund, the Class C Plan Agreement shall be the agreement contemplated by Section 15(b) of the 1940 Act since each such agreement must be approved in accordance with, and contain the provisions required by, the Rule. In the case of Qualified Recipients which are not principal underwriters of the Fund, the Class C Plan Agreements with them shall be (i) their agreements with the Distributor with respect to payments under the Fund's Distribution Plan in effect prior to April 1, 1996 or (ii) Class C Plan Agreements entered into thereafter.

Provisions Relating to Class I Shares (Part III) (Aquila Churchill Tax-Free Fund of Kentucky and Aquila Narragansett Tax-Free Income Fund only)

Part III of the Plan applies only to the Financial Intermediary Class Shares ("Class I Shares") of Aquila Churchill Tax-Free Fund of Kentucky and Aquila Narragansett Tax-Free Income Fund (regardless of whether such class is so designated or is redesignated by some other name).

As used in Part III of the Plan, "Qualified Recipients" shall mean broker/dealers or others selected by the Distributor, including but not limited to any principal underwriter of a Fund, with which the Fund or the Distributor has entered into written agreements in connection with Part III ("Class I Plan Agreements") and which have rendered assistance (whether direct, administrative, or both) in the distribution and/or retention of the Fund's Class I Shares or servicing of shareholder accounts with respect to such shares. "Qualified Holdings" shall mean, as to any Qualified Recipient, all Class I Shares beneficially owned by such Qualified Recipient, or beneficially owned by its brokerage customers, other customers, other contacts, investment advisory clients, or other clients, if the Qualified Recipient was, in the sole judgment of the Distributor, instrumental in the purchase and/or retention of such shares and/or in providing administrative assistance or other services in relation thereto.

Subject to the direction and control of the Fund's Board of Trustees, each Fund may make payments ("Class I Permitted Payments") to Qualified Recipients, which Class I Permitted Payments may be made directly, or through the Distributor or shareholder servicing agent as disbursing agent, which may not exceed, for any fiscal year of the Fund (as adjusted for any part or parts of a fiscal year during which payments under the Plan are not accruable or for any fiscal year which is not a full fiscal year), 0.25 of 1% of the average annual net assets of the Fund represented by Class I Shares. A distribution fee of up to 0.15 of 1% of the average annual net assets of each Fund represented by Class I Shares is currently authorized by the Trustees. Such payments shall be made only out of a Fund's assets allocable to Class I Shares. The Distributor shall have sole authority (i) as to the selection of any Qualified Recipient or Recipients; (ii) not to select any Qualified Recipient; and (iii) as to the amount of Class I Permitted Payments, if any, to each Qualified Recipient provided that the total Class I Permitted Payments to all Qualified Recipients do not exceed the amount set forth above. The Distributor is authorized, but not directed, to take into account, in addition to any other factors deemed relevant by it, the following: (a) the amount of the Qualified Holdings of the Qualified Recipient; (b) the extent to which the Qualified Recipient has, at its expense, taken steps in the shareholder servicing area with respect to holders of Class I Shares, including without limitation, any or all of the following activities: answering customer inquiries regarding account status and history, and the manner in which purchases and redemptions of shares of the Fund may be effected; assisting shareholders in designating and changing dividend options, account designations and addresses; providing necessary personnel and facilities to establish and maintain shareholder accounts and records; assisting in processing purchase and redemption transactions; arranging for the wiring of funds; transmitting and receiving funds in connection with customer orders to purchase or redeem shares; verifying and guaranteeing shareholder signatures in connection with redemption orders and transfers and changes in shareholder designated accounts; furnishing (either alone or together with other reports sent to a shareholder by such person) monthly and year-end statements and confirmations of purchases and redemptions; transmitting, on behalf of the Fund, proxy statements, annual reports, updating prospectuses and other communications from the Fund to its shareholders; receiving, tabulating and transmitting to the Fund proxies executed by shareholders with respect to meetings of shareholders of the Fund; and providing such other related services as the Distributor or a shareholder may request from time to time; and (c) the possibility that the Qualified Holdings of the Qualified Recipient would be redeemed in the absence of its selection or continuance as a Qualified Recipient. Notwithstanding the foregoing two sentences, a majority of the Independent Trustees (as defined below) may remove any person as a Qualified Recipient. Amounts within the above limits accrued to a Qualified

Recipient but not paid during a fiscal year may be paid thereafter; if less than the full amount is accrued to all Qualified Recipients, the difference will not be carried over to subsequent years.

While Part III is in effect, the Funds' Distributor shall report at least quarterly to the Funds' Trustees in writing for their review on the following matters: (i) all Class I Permitted Payments made under the Plan, the identity of the Qualified Recipient of each payment, and the purposes for which the amounts were expended; and (ii) all fees of the Fund paid to the Manager, Sub-Adviser or Distributor or accrued during such quarter. In addition, if any such Qualified Recipient is an affiliated person, as that term is defined in the 1940 Act, of the Funds, Manager, Sub-Adviser or Distributor such person shall agree to furnish to the Distributor for transmission to the Board of Trustees of the Funds an accounting, in form and detail satisfactory to the Board of Trustees, to enable the Board of Trustees to make the determinations of the fairness of the compensation paid to such affiliated person, not less often than annually.

Part III will, unless terminated as hereinafter provided, continue in effect from year to year so long as such continuance is specifically approved at least annually by each Fund's Trustees and its Independent Trustees with votes cast in person at a meeting called for the purpose of voting on such continuance. Part III may be terminated at any time by the vote of a majority of the Independent Trustees or by the vote of the holders of a "majority" (as defined in the 1940 Act) of the dollar value of the outstanding voting securities of the Fund to which Part III applies. Part III may not be amended to increase materially the amount of payments to be made without shareholder approval of the class or classes of shares affected by Part III, and all material amendments must be approved by each Fund's Trustees and its Independent Trustees in the manner set forth above.

In the case of a Qualified Recipient which is a principal underwriter of a Fund, the Class I Plan Agreement shall be the agreement contemplated by Section 15(b) of the 1940 Act since each such agreement must be approved in accordance with, and contain the provisions required by, the Rule. In the case of Qualified Recipients which are not principal underwriters of the Fund, the Class I Plan Agreements with them shall be (i) their agreements with the Distributor with respect to payments under the Fund's Distribution Plan in effect prior to April 1, 1996 or (ii) Class I Plan Agreements entered into thereafter.

Defensive Provisions (Part IV)

Another part of each Plan (Part IV) states that if and to the extent that any of the payments listed below are considered to be "primarily intended to result in the sale of" shares issued by a Fund within the meaning of Rule 12b-1, such payments are authorized under the Plan: (i) the costs of the preparation of all reports and notices to shareholders and the costs of printing and mailing such reports and notices to existing shareholders, irrespective of whether such reports or notices contain or are accompanied by material intended to result in the sale of shares of the Fund or other funds or other investments; (ii) the costs of the preparation and setting in type of all prospectuses and statements of additional information and the costs of printing and mailing all prospectuses and statements of additional information to existing shareholders; (iii) the costs of preparation, printing and mailing of any proxy statements and proxies, irrespective of whether any such proxy statement includes any item relating to, or directed toward, the sale of the Fund's shares; (iv) all legal and accounting fees relating to the preparation of any such reports, prospectuses, statements of additional information, proxies and proxy statements; (v) all fees and expenses relating to the registration or qualification of the Fund and/or its shares under the securities or "Blue-Sky" laws of any jurisdiction; (vi) all fees under the Securities Act of 1933 and the 1940 Act, including fees in connection with any application for exemption relating to or directed toward the sale of the Fund's shares; (vii) all fees and assessments of the Investment Company Institute or any successor organization, irrespective of whether some of its activities are designed to provide sales assistance; (viii) all costs of the preparation and mailing of confirmations of shares sold or redeemed or share certificates, and reports of share balances; and (ix) all costs of responding to telephone or mail inquiries of investors or prospective investors.

The Plan states that while it is in effect, the selection and nomination of those Trustees of a Fund who are not "interested persons" of the Fund shall be committed to the discretion of such disinterested Trustees but that nothing in the Plan shall prevent the involvement of others in such selection and nomination if the final decision on any such selection and nomination is approved by a majority of such disinterested Trustees.

The Plan defines as a Fund's Independent Trustees those Trustees who are not "interested persons" of the Fund as defined in the 1940 Act and who have no direct or indirect financial interest in the operation of the Plan or in any agreements related to the Plan. The Plan, unless terminated as therein provided, continues in effect from year to year only so long as such continuance is specifically approved at least annually by each Fund's Board of Trustees and its Independent Trustees with votes cast in person at a meeting called for the purpose of voting on such continuance. In voting on the implementation or continuance of the Plan, those Trustees who vote to approve such implementation or continuance must conclude that there is a reasonable likelihood that the Plan will benefit the Fund and its shareholders. The Plan may be terminated at any time by

vote of a majority of the Independent Trustees or by the vote of the holders of a “majority” (as defined in the 1940 Act) of the dollar value of the outstanding voting securities of the Fund. The Plan may not be amended to increase materially the amount of payments to be made without shareholder approval and all amendments must be approved in the manner set forth above as to continuance of the Plan.

The Plan and each Part of it shall also be subject to all applicable terms and conditions of Rule 18f-3 under the 1940 Act as now in force or hereafter amended. Specifically, but without limitation, the provisions of Part V shall be deemed to be severable, within the meaning of and to the extent required by Rule 18f-3, with respect to each outstanding class of shares of a Fund.

Payments Under the Plan

During its fiscal year ended March 31, 2023, payments were made by the Aquila Tax-Free Trust of Arizona under Part I and Part II of the Plan. All payments were to Qualified Recipients and were for compensation. No payments were made by Aquila Tax-Free Trust of Arizona under Part III of the Plan because no Class I Shares were outstanding during the fiscal year ended March 31, 2023.

During its fiscal year ended March 31, 2023, payments were made by Aquila Tax-Free Fund of Colorado under Part I and Part II of the Plan. All payments were to Qualified Recipients and were for compensation. No payments were made by Aquila Tax-Free Fund of Colorado under Part III of the Plan because no Class I Shares were outstanding during the fiscal year ended March 31, 2023.

During its fiscal year ended March 31, 2023, payments were made by Aquila Churchill Tax-Free Fund of Kentucky under Part I, Part II and Part III of the Plan. All payments were to Qualified Recipients and were for compensation.

During its fiscal year ended March 31, 2023, payments were made by Aquila Tax-Free Trust of Oregon under Part I and Part II of the Plan. All payments were to Qualified Recipients and were for compensation. No payments were made by Aquila Tax-Free Trust of Oregon under Part III of the Plan because no Class I Shares were outstanding during the fiscal year ended March 31, 2023.

During its fiscal year ended March 31, 2023, payments were made by Aquila Narragansett Tax-Free Income Fund under Part I, Part II and Part III of the Plan. All payments were to Qualified Recipients and were for compensation.

During its fiscal year ended March 31, 2023, payments were made by Aquila Tax-Free Fund For Utah under Part I and Part II of the Plan. All payments were to Qualified Recipients and were for compensation. No payments were made under Part III of the Plan because no Class I Shares were outstanding during the fiscal year ended March 31, 2023.

Payments to Qualified Recipients

During the fiscal year ended March 31, 2023, payments to Qualified Recipients by the Funds under each part of the Plan and the amounts of such payments to the Distributor and others were as follows:

Aquila Tax-Free Trust of Arizona

	To All Qualified Recipients	To the Distributor	To Other Qualified Recipients
Part I	\$241,542	\$27,307	\$214,235
Part II	\$25,361	\$8,376	\$16,985

Aquila Tax-Free Fund of Colorado

	To All Qualified Recipients	To the Distributor	To Other Qualified Recipients
Part I	\$77,618	\$5,545	\$72,073
Part II	\$23,758	\$8,033	\$15,725

Aquila Churchill Tax-Free Fund of Kentucky

	To All Qualified Recipients	To the Distributor	To Other Qualified Recipients
Part I	\$173,066	\$9,635	\$163,431
Part II	\$21,979	\$8,236	\$13,743
Part III	\$6,149	\$0	\$6,149

Aquila Tax-Free Trust of Oregon

	To All Qualified Recipients	To the Distributor	To Other Qualified Recipients
Part I	\$462,704	\$21,489	\$441,215
Part II	\$37,627	\$13,783	\$23,844

Aquila Narragansett Tax-Free Income Fund

	To All Qualified Recipients	To the Distributor	To Other Qualified Recipients
Part I	\$157,614	\$11,029	\$146,585
Part II	\$10,210	\$3,844	\$6,366
Part III	\$247	\$0	\$247

Aquila Tax-Free Fund For Utah

	To All Qualified Recipients	To the Distributor	To Other Qualified Recipients
Part I	\$392,394	\$15,278	\$377,116
Part II	\$91,315	\$29,883	\$61,432

All payments to Other Qualified Recipients, most of whom are broker/dealers, and to the Distributor, were for compensation. Payments with respect to Class C Shares during the first year after purchase are paid to the Distributor and thereafter to Other Qualified Recipients.

Amounts paid under the Plan as compensation to Qualified Recipients, including the Distributor, are not based on the recipient's expenses in providing distribution, retention and/or shareholder servicing assistance to the Fund and, accordingly, are not regarded as reimbursement of such expenses.

Shareholder Services Plan

Separate from the Fund's Distribution Plan, each Fund has adopted a Shareholder Services Plan (the "Services Plan") to provide for the payment with respect to Class C Shares and Class I Shares of the Fund (if the Fund offers Class I Shares) of "Service Fees" within the meaning of the Conduct Rules of the National Association of Securities Dealers (as incorporated in the rules of the Financial Industry Regulatory Authority (FINRA)). The Services Plan applies only to the Class C Shares and Class I Shares of each Fund (regardless of whether such class is so designated or is redesignated by some other name).

Provisions for Level-Payment Class Shares (Class C Shares) (Part I)

As used in Part I of each Fund's Services Plan, "Qualified Recipients" shall mean broker/dealers or others selected by the Distributor, including but not limited to the Distributor and any other principal underwriter of a Fund, who have, pursuant to written agreements with the Fund or the Distributor, agreed to provide personal services to shareholders of Level-Payment Class Shares and/or maintenance of Level-Payment Class Shares shareholder accounts. "Qualified Holdings" shall mean, as to any Qualified Recipient, all Level-Payment Class Shares beneficially owned by such Qualified Recipient's customers, clients or other contacts. "Manager" shall mean Aquila Investment Management LLC or any successor serving as manager or administrator of the Fund.

Subject to the direction and control of each Fund's Board of Trustees, the Fund may make payments ("Service Fees") to Qualified Recipients, which Service Fees (i) may be paid directly or through the Distributor or shareholder servicing agent as disbursing agent and (ii) may not exceed, for any fiscal year of the Fund (as adjusted for any part or parts of a fiscal year during which payments under the Services Plan are not accruable or for any fiscal year which is not a full fiscal year), 0.25 of 1% of the average annual net assets of the Fund represented by the Level-Payment Class Shares. Such payments shall be made only out of the Fund's assets allocable to the Level-Payment Class Shares. The Distributor shall have sole authority with respect to the selection of any Qualified Recipient or Recipients and the amount of Service Fees, if any, paid to each Qualified Recipient, provided that the total Service Fees paid to all Qualified Recipients may not exceed the amount set forth above and provided, further, that no Qualified Recipient may receive more than 0.25 of 1% of the average annual net asset value of shares sold by such Recipient. The Distributor is authorized, but not directed, to take into account, in addition to any other factors deemed relevant by it, the following: (a) the amount of the Qualified Holdings of the Qualified Recipient and (b) the extent to which the Qualified Recipient has, at its expense, taken steps in the shareholder servicing area with respect to holders of Level-Payment Class Shares, including without limitation, any or all of the following activities: answering customer inquiries regarding account status and history, and the manner in which purchases and redemptions of shares of the Fund may be effected; assisting shareholders in designating and changing dividend options, account designations and addresses; providing necessary personnel and facilities to establish and maintain shareholder accounts and records; assisting in processing purchase and redemption transactions; arranging for the wiring of funds; transmitting and receiving funds in connection with customer orders to purchase or redeem shares; verifying and guaranteeing shareholder signatures in connection with redemption orders and transfers and changes in shareholder designated accounts; and providing such other related services as the Distributor or a shareholder may request from time to time. Notwithstanding the foregoing two sentences, a majority of the Independent Trustees (as defined below) may remove any person as a Qualified Recipient. Amounts within the above limits accrued to a Qualified Recipient but not paid during a fiscal year may be paid thereafter; if less than the full amount is accrued to all Qualified Recipients, the difference will not be carried over to subsequent years. Service Fees with respect to Class C Shares will be paid to the Distributor.

During the fiscal year ended March 31, 2023, \$8,454 was paid to the Distributor under Part I of the Plan with respect to Aquila Tax-Free Trust of Arizona; \$7,919 was paid to the Distributor under Part I of the Plan with respect to Aquila Tax-Free Fund of Colorado; \$7,326 was paid to the Distributor under Part I of the Plan with respect to Aquila Churchill Tax-Free Fund of Kentucky; \$12,543 was paid to the Distributor under Part I of the Plan with respect to Aquila Tax-Free Trust of Oregon; \$3,403 was paid to the Distributor under Part I of the Plan with respect to Aquila Narragansett Tax-Free Income Fund; and \$30,439 was paid to the Distributor under Part I of the Plan with respect to Aquila Tax-Free Fund For Utah.

Provisions for Financial Intermediary Class Shares (Class I Shares) (Part II) (Aquila Churchill Tax-Free Fund of Kentucky and Aquila Narragansett Tax-Free Income Fund only)

As used in Part II of the Services Plan for Aquila Churchill Tax-Free Fund of Kentucky and Aquila Narragansett Tax-Free Income Fund, "Qualified Recipients" shall mean broker/dealers or others selected by the Distributor, including but not limited to the Distributor and any other principal underwriter of the Fund, who have, pursuant to written agreements with the Fund or the Distributor, agreed to provide personal services to shareholders of Financial Intermediary Class Shares, maintenance of Financial Intermediary Class Shares shareholder accounts and/or pursuant to specific agreements entering confirmed purchase orders on behalf of customers or clients. "Qualified Holdings" shall mean, as to any Qualified Recipient, all Financial Intermediary Class Shares beneficially owned by such Qualified Recipient's customers, clients or other contacts. "Manager" shall mean Aquila Investment Management LLC or any successor serving as manager or administrator of the Fund.

Subject to the direction and control of each Fund's Board of Trustees, the Fund may make payments ("Service Fees") to Qualified Recipients, which Service Fees (i) may be paid directly or through the Distributor or shareholder servicing agent as disbursing agent and (ii) may not exceed, for any fiscal year of the Fund (as adjusted for any part or parts of a fiscal year during which payments under the Services Plan are not accruable or for any fiscal year which is not a full fiscal year), 0.25 of 1% of the average annual net assets of the Fund represented by the Financial Intermediary Class Shares. Such payments shall be made only out of the Fund's assets allocable to the Financial Intermediary Class Shares. The Distributor shall have sole authority with respect to the selection of any Qualified Recipient or Recipients and the amount of Service Fees, if any, paid to each Qualified Recipient, provided that the total Service Fees paid to all Qualified Recipients may not exceed the amount set forth above and provided, further, that no Qualified Recipient may receive more than 0.25 of 1% of the average annual net asset value of shares sold by such Recipient. The Distributor is authorized, but not directed, to take into account, in addition to any other factors deemed relevant by it, the following: (a) the amount of the Qualified Holdings of the Qualified Recipient and (b) the extent to which the Qualified Recipient has, at its expense, taken steps in the shareholder servicing area with respect to holders of Financial Intermediary Class Shares, including without limitation, any or

all of the following activities: answering customer inquiries regarding account status and history, and the manner in which purchases and redemptions of shares of the Fund may be effected; assisting shareholders in designating and changing dividend options, account designations and addresses; providing necessary personnel and facilities to establish and maintain shareholder accounts and records; assisting in processing purchase and redemption transactions; arranging for the wiring of funds; transmitting and receiving funds in connection with customer orders to purchase or redeem shares; verifying and guaranteeing shareholder signatures in connection with redemption orders and transfers and changes in shareholder designated accounts; and providing such other related services as the Distributor or a shareholder may request from time to time. Notwithstanding the foregoing two sentences, a majority of the Independent Trustees (as defined below) may remove any person as a Qualified Recipient. Amounts within the above limits accrued to a Qualified Recipient but not paid during a fiscal year may be paid thereafter; if less than the full amount is accrued to all Qualified Recipients, the difference will not be carried over to subsequent years.

During the fiscal year ended March 31, 2023, payments made to Qualified Recipients under Part II of the Plan with respect to Aquila Churchill Tax-Free Fund of Kentucky's Class I Shares amounted to \$15,373. During the fiscal year ended March 31, 2023, payments made to Qualified Recipients under Part of the Plan with respect to Aquila Narragansett Tax-Free Income Fund's Class I Shares, together with amounts paid with respect to the same shares under Part III of the Fund's Distribution Plan, amounted to \$616. No Class I Shares of Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Tax-Free Trust of Oregon or Aquila Tax-Free Fund For Utah were outstanding during such Funds' fiscal year ended March 31, 2023.

General Provisions

While each Fund's Services Plan is in effect, the Funds' Distributor shall report at least quarterly to the Funds' Trustees in writing for their review on the following matters: (i) all Service Fees paid under the Services Plan, the identity of the Qualified Recipient of each payment, and the purposes for which the amounts were expended; and (ii) all fees of the Fund paid to the Distributor or accrued during such quarter. In addition, if any Qualified Recipient is an "affiliated person," as that term is defined in the 1940 Act, of the Fund, Manager, Sub-Adviser or Distributor, such person shall agree to furnish to the Distributor for transmission to the Board of Trustees of the Fund an accounting, in form and detail satisfactory to the Board of Trustees, to enable the Board of Trustees to make the determinations of the fairness of the compensation paid to such affiliated person, not less often than annually.

Each Fund's Services Plan has been approved by a vote of the Trustees, including those Trustees who, at the time of such vote, were not "interested persons" (as defined in the 1940 Act) of the Fund and had no direct or indirect financial interest in the operation of the Services Plan or in any agreements related to the Services Plan (the "Independent Trustees"), with votes cast in person at a meeting called for the purpose of voting on the Services Plan. It will continue in effect for a period of more than one year from its original effective date only so long as such continuance is specifically approved at least annually as set forth in the preceding sentence. It may be amended in like manner and may be terminated at any time by vote of the Independent Trustees.

Each Fund's Services Plan shall also be subject to all applicable terms and conditions of Rule 18f-3 under the 1940 Act as now in force or hereafter amended.

While each Fund's Services Plan is in effect, the selection and nomination of those Trustees of the Fund who are not "interested persons" of the Fund, as that term is defined in the 1940 Act, shall be committed to the discretion of such disinterested Trustees. Nothing therein shall prevent the involvement of others in such selection and nomination if the final decision on any such selection and nomination is approved by a majority of such disinterested Trustees.

Codes of Ethics

Each Fund, the Manager, each Sub-Adviser, and the Distributor have adopted codes of ethics pursuant to Rule 17j-1 under the 1940 Act. The codes permit personnel of these organizations who are subject to the codes to purchase securities, including the types of securities in which the Fund invests, but only in compliance with the provisions of the codes.

Transfer Agent, Custodian and Independent Registered Public Accounting Firm

Each Fund's Shareholder Servicing Agent (transfer agent and dividend-paying agent) is BNY Mellon Investment Servicing (US) Inc., 118 Flanders Road, Westborough, Massachusetts 01581.

Each Fund's Custodian, The Bank of New York Mellon, 240 Greenwich Street, New York 10286, is responsible for holding the Fund's assets.

Each Fund's independent registered public accounting firm, Tait, Weller & Baker LLP, Two Liberty Place, 50 South 16th Street, Suite 2900, Philadelphia, Pennsylvania 19102 performs an annual audit of the Fund's financial statements.

Brokerage Allocation and Other Practices

During the fiscal years ended March 31, 2023, 2022 and 2021, all of the Funds' portfolio transactions were principal transactions and no brokerage commissions were paid.

The Manager or Sub-Adviser (with respect to Aquila Tax-Free Fund of Colorado, Aquila Narragansett Tax-Free Income Fund and Aquila Tax-Free Trust of Oregon) shall select such broker/dealers ("dealers") as shall, in the Manager or Sub-Adviser's judgment, as applicable, implement the policy of the Fund to seek to achieve "best execution," i.e., prompt, efficient, and reliable execution of orders at the most favorable net price. Municipal obligations, including state obligations, purchased and sold by a Fund are generally traded in the over-the-counter market on a net basis (*i.e.*, without commission) through broker-dealers and banks acting for their own account rather than as brokers, or otherwise involve transactions directly with the issuer of such obligations. Such firms attempt to profit from such transactions by buying at the bid price and selling at the higher asked price of the market for such obligations, and the difference between the bid and asked price is customarily referred to as the spread. A Fund may also purchase municipal obligations from underwriters, and dealers in fixed-price offerings, the cost of which may include undisclosed fees and concessions to the underwriters. On occasion it may be necessary or appropriate to purchase or sell a security through a broker on an agency basis, in which case a Fund will incur a brokerage commission. In allocating transactions to dealers, the Manager or Sub-Adviser, as applicable, is authorized to consider, in determining whether a particular dealer will provide best execution, the dealer's reliability, integrity, financial condition and risk in positioning the securities involved, as well as the difficulty of the transaction in question, and thus need not pay the lowest spread or, if applicable, commission available if the Manager or Sub-Adviser, as applicable, determines in good faith that the amount of the spread or, if applicable, commission is reasonable in relation to the value of the brokerage and research services (as those terms are defined in Section 28(e) of the Securities Exchange Act of 1934, as amended) provided by the dealer, viewed either in terms of the particular transaction or the Manager or Sub-Adviser's overall responsibilities. If, on the foregoing basis, the transaction in question could be allocated to two or more dealers, the Manager or Sub-Adviser, as applicable, is authorized, in making such allocation, to consider whether a dealer has provided such brokerage or research services. Each Fund recognizes that no dollar value can be placed on such brokerage or research services and that such brokerage or research services may or may not be useful to the Fund and may be used for the benefit of the Manager or Sub-Adviser or their other clients.

The Sub-Adviser to Aquila Tax-Free Fund of Colorado and Aquila Tax-Free Trust of Oregon may use its affiliated broker-dealer, D.A. Davidson & Co. to execute a portion of the Fund's portfolio securities transactions. Any such transactions are subject to compliance with the 1940 Act and with the requirement that the Sub-Adviser seek to achieve "best execution" for such transactions, as discussed above. None of the Funds engaged in any such affiliated brokerage transactions during its fiscal years ended March 31, 2022, 2021 and 2020.

Capital Stock

The Funds currently offer the following classes of shares.

* **Front-Payment Class Shares ("Class A Shares")** are offered to investors at net asset value plus a sales charge, paid at the time of purchase, at the maximum rate of 3.0% of the public offering price, with lower rates for larger purchases including previous purchases of shares of any class of any of the funds in the Aquila Group of Funds. There is no sales charge on purchases of \$250,000 or more, but redemptions of shares so purchased are generally subject to a contingent deferred sales charge ("CDSC"). Class A Shares of Aquila Tax-Free Trust of Arizona, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon and Aquila Narragansett Tax-Free Income Fund are subject to a fee under the Fund's Distribution Plan at the rate of up to 0.15 of 1% of the average annual net assets represented by the Class A Shares. Class A Shares of Aquila Tax-Free Fund of Colorado are subject to a fee under the Fund's Distribution Plan at the rate of up to 0.15 of 1% (currently 0.075 of 1%) of the average annual net assets represented by the Class A Shares. Class A Shares of Aquila Tax-Free Fund For Utah are subject to a fee under the Fund's Distribution Plan at the rate of 0.20 of 1% of the average annual net assets represented by the Class A Shares.

* **Level-Payment Class Shares (“Class C Shares”)** are offered to investors at net asset value with no sales charge payable at the time of purchase but with a level charge for service and distribution fees for six years after the date of purchase at the aggregate annual rate of 1% of the average annual net assets of the Class C Shares of each Fund. Six years after the date of purchase, Class C Shares are automatically converted to Class A Shares. If you redeem Class C Shares before you have held them for 12 months from the date of purchase you will pay a CDSC; this charge is 1%, calculated on the net asset value of the Class C Shares at the time of purchase or at redemption, whichever is less. There is no CDSC after Class C Shares have been held beyond the applicable period. For purposes of applying the CDSC and determining the time of conversion, the 12-month and six-year holding periods are considered modified by up to one month depending upon when during a month your purchase of such shares is made. Class C Shares are subject to a fee under each Fund’s Distribution Plan at the rate of 0.75 of 1% of the average annual net assets represented by the Class C Shares and a service fee of 0.25 of 1% of such assets.

* **Fiduciary Class Shares (“Class F Shares”)** are offered and sold only through financial intermediaries with which the Distributor has entered into sales agreements, and are not offered directly to retail customers. Class F Shares are offered at net asset value with no sales charge, no contingent deferred sales charge, and no distribution fee.

***Financial Intermediary Class Shares (“Class I Shares”)** (Aquila Churchill Tax-Free Fund of Kentucky and Aquila Narragansett Tax-Free Income Fund only) are offered and sold only through financial intermediaries with which Aquila Distributors LLC has entered into sales agreements, and are not offered directly to retail customers. Class I Shares of each Fund are offered at net asset value with no sales charge and no redemption fee or contingent deferred sales charge, although a financial intermediary may charge a fee for effecting a purchase or other transaction on behalf of its customers. Class I Shares may carry a distribution fee of up to 0.25 of 1% of average annual net assets allocable to Class I Shares. A distribution fee of up to 0.15 of 1% of such net assets is currently authorized by the Board of Trustees of each Fund. In addition, Class I Shares of each Fund may pay a service fee of up to 0.25 of 1% of such assets.

***Institutional Class Shares (“Class Y Shares”)** are offered and sold only through institutions acting for investors in a fiduciary, advisory, agency, custodial or similar capacity, and are not offered directly to retail customers. Class Y Shares of each Fund are offered at net asset value with no sales charge, no redemption fee, no contingent deferred sales charge and no distribution fee.

As an open-end management investment company, each Fund continuously offers its shares to the public and under normal conditions must redeem its shares upon the demand of any shareholder at the next determined net asset value per share less any applicable CDSC. See “Purchase, Redemption and Pricing of Shares.” When issued and paid for in accordance with the terms of the prospectus and statement of additional information, shares of each Fund are fully paid and non-assessable. Shares will remain on deposit with the Funds’ transfer agent and certificates are no longer issued.

Each Fund is a series of Aquila Municipal Trust, a Massachusetts business trust. The Trustees have authorized the issuance of the following classes of shares of each Fund, designated as Class A, Class C, Class F, Class I and Class Y shares. Each share of a class of a Fund represents an equal proportionate interest in the assets of the Fund allocable to that class. Upon liquidation of a Fund, shareholders of each class of the Fund are entitled to share pro rata in the Fund’s net assets allocable to such class available for distribution to shareholders. The Trust reserves the right to create and issue additional series or classes of shares, in which case the shares of each class of a series would participate equally in the earnings, dividends and assets allocable to that class of the particular series.

The shares of each class of a Fund represent an interest in the same portfolio of investments of the Fund. Each class has identical rights (based on relative net asset values) to assets and liquidation proceeds. Share classes can bear different class-specific fees and expenses such as transfer agent and distribution fees. Differences in class-specific fees and expenses will result in differences in net investment income and, therefore, the payment of different dividends by each class. Share classes have exclusive voting rights with respect to matters affecting only that class, including with respect to the distribution plan for that class.

The Funds’ Declaration of Trust provides for shareholder voting as required by the 1940 Act or other applicable laws. The Funds are not required to hold an annual meeting of shareholders, but a Fund will call special meetings of shareholders whenever required by the 1940 Act or by the terms of the Declaration. Shareholders are entitled to one vote for each dollar value of net asset value (number of shares owned times net asset value per share) represented by the shareholder’s shares in the Funds, on each matter on which that shareholder is entitled to vote. All shareholders of all series and classes of the Trust vote together, except where required by the 1940 Act to vote separately by series or by class, or when the trustees have determined that a matter affects only the interests of one or more series or classes of shares.

The Trustees may establish the number of Trustees and that vacancies on the Board may be filled by the remaining Trustees, except when election of Trustees by the shareholders is required under the 1940 Act. Trustees are then elected by a plurality of votes cast by shareholders at a meeting at which a quorum is present. The Declaration also provides that a mandatory retirement age may be set by action of two-thirds of the Trustees and that Trustees may be removed from office (a) with or without cause by action of the holders of the majority of shares of the Funds present in person or by proxy at any meeting of shareholders, provided that a quorum is present or (b) for cause by action of at least two-thirds (2/3) of the remaining Trustees. A Trustee also may be removed from office without cause by unanimous action of the remaining Trustees.

The Trustees are authorized to amend the Declaration of Trust without the vote of shareholders under certain circumstances. However, the Trustees are required to submit a future amendment to a vote of shareholders if such a vote were required by applicable law or if the amendment diminishes or eliminates any voting rights of shareholders under the Declaration. The Declaration provides that shareholders generally have the power to vote (a) with respect to the merger, reorganization or sale of assets of a Fund, (b) under certain circumstances, with respect to the termination of the Trust or a series or a class of the Trust, and (c) for the election or removal of Trustees. The Trust or a series or a class of the Trust may be terminated (i) if such action is recommended by the vote of a majority of the Trustees, by vote of at least a majority of shares present in person or by proxy at any meeting of shareholders, provided that a quorum is present; or (ii) by unanimous vote of the Trustees with notice to, but without the approval of, shareholders.

Each Fund may issue an unlimited number of shares for such consideration and on such terms as the Trustees may determine. Shareholders are not entitled to any appraisal, preemptive, conversion, exchange or similar rights, except as the Trustees may determine. Each Fund may involuntarily redeem a shareholder's shares upon certain conditions as may be determined by the Trustees, including, for example, if the shareholder fails to provide a Fund with identification required by law, if a Fund is unable to verify the information received from the shareholder, or if a determination is made that direct or indirect ownership of shares has become concentrated in a shareholder to an extent that would disqualify a Fund as a regulated investment company under the Code. Additionally, as discussed below, shares may be redeemed in connection with the closing of small accounts.

The Declaration of Trust specifically requires shareholders, upon demand, to disclose to a Fund information with respect to the direct and indirect ownership of shares in order to comply with various laws or regulations, and the Fund may disclose such ownership if required by law or regulation.

The Declaration of Trust provides that a Fund may close out a shareholder's account by redeeming all of the shares in the account if the account falls below a minimum account size (which may vary by class) that may be set by the Trustees from time to time. Alternately, the Declaration of Trust permits a Fund to assess a fee for small accounts (which may vary by class) and redeem shares in the account to cover such fees, or convert the shares into another share class that is geared to smaller accounts.

The Declaration of Trust gives broad authority to the Trustees to establish additional series and classes and to determine the rights and preferences of the shares of the series and classes, and to change those rights and preferences from time to time. The Declaration of Trust provides that shares of a series represent an interest in that series only and not in the assets of any other series or the Trust generally.

The Trust is an entity of the type commonly known as a "Massachusetts business trust." Under Massachusetts law, shareholders of a Fund, may, under certain circumstances, be held personally liable as partners for the obligations of the Trust. For shareholder protection, however, an express disclaimer of shareholder liability for acts or obligations of a Fund is contained in the Declaration of Trust, which requires that notice of such disclaimer be given in each agreement, obligation, or instrument entered into or executed by a Fund or the Trustees. The Declaration of Trust provides for indemnification out of a Fund's property of any shareholder held personally liable for the obligations of the Fund. The Declaration of Trust also provides that a Fund shall, upon request, assume the defense of any claim made against any shareholder for any act or obligation of the Fund and satisfy any judgment thereon. Thus, the risk of a shareholder incurring financial loss on account of shareholder liability is limited to the relatively remote circumstances in which a Fund itself would be unable to meet its obligations.

The Declaration of Trust provides that no Trustee, officer or employee of the Trust shall owe any duty, or have any related liability to any person (including without limitation any shareholder) other than to the Trust or any series of the Trust. The Declaration of Trust provides that no Trustee, officer or employee of the Trust shall be liable to a Fund or to any shareholder for any action or failure to act except for his or her own bad faith, willful misfeasance, gross negligence or

reckless disregard of his or her duties involved in the conduct of the individual's office, and for nothing else, and shall not be liable for errors of judgment or mistakes of fact or law. The Declaration of Trust requires the Funds to indemnify each Trustee, director, officer, employee, or agent of the Trust to the extent permitted by law against liability and against all expenses reasonably incurred in connection with any claim, action, suit or proceeding in which the Trustee, officer or employee becomes involved as a party or otherwise by virtue of being or having been such a Trustee, director, officer, employee, or agent and against amounts paid or incurred in settlement thereof. The 1940 Act currently provides that no officer or director shall be protected from liability to a Fund or shareholders for willful misfeasance, bad faith, gross negligence, or reckless disregard of the duties of office. The Declaration of Trust extends to trustees, officers and employees of the Fund, the full protection from liability that the law allows. The Declaration of Trust provides that the appointment, designation or identification of a Trustee as chairperson, a member of a committee, an expert, lead independent trustee, or any other special appointment, designation or identification shall not impose any heightened standard of care or liability on such Trustee.

The Declaration of Trust provides a detailed process for the bringing of derivative or direct actions by shareholders in order to permit legitimate inquiries and claims while avoiding the time, expense, distraction and other harm that can be caused to a Fund or its shareholders as a result of spurious shareholder demands and derivative actions. Prior to bringing a derivative action, a demand by three unrelated shareholders must first be made on a Fund's Trustees. The Declaration of Trust details various information, certifications, undertakings and acknowledgements that must be included in the demand. Following receipt of the demand, the trustees have a period of 90 days, which may be extended by an additional 60 days, to consider the demand. If a majority of the Trustees who are considered independent for the purposes of considering the demand determine that maintaining the suit would not be in the best interests of the Fund, the Trustees are required to reject the demand and the complaining shareholders may not proceed with the derivative action unless the shareholders are able to prove to a court that the decision of the Trustees was not a good faith exercise of their business judgment on behalf of the Fund. The Declaration of Trust further provides that shareholders owning shares representing at least 10% of the voting power of the Fund or class of shares of the Fund must join in bringing the derivative action. If a demand is rejected, the complaining shareholders will be responsible for the costs and expenses (including attorneys' fees) incurred by the Fund in connection with the consideration of the demand, if a court determines that the demand was made without reasonable cause or for an improper purpose. If a derivative action is brought in violation of the procedures required by the Declaration of Trust, the shareholders bringing the action may be responsible for the Fund's costs, including attorneys' fees, if a court determines that the action was brought without reasonable cause or for an improper purpose.

The Declaration of Trust provides that no shareholder may bring a direct action claiming injury as a shareholder of the Trust or any series or class thereof, where the matters alleged (if true) would give rise to a claim by the Trust or by the Trust on behalf of a series or class, unless the shareholder has suffered an injury distinct from that suffered by shareholders of the Trust, or the series or class, generally. Under the Declaration of Trust, a shareholder bringing a direct claim must be a shareholder of the series or class with respect to which the direct action is brought at the time of the injury complained of, or have acquired the shares afterwards by operation of law from a person who was a shareholder at that time.

The Declaration of Trust further provides that a Fund shall be responsible for payment of attorneys' fees and legal expenses incurred by a complaining shareholder only if required by law, and any attorneys' fees that a Fund is obligated to pay shall be calculated using reasonable hourly rates. The Declaration of Trust also requires that any direct or derivative shareholder action against or on behalf of the Trust, its trustees, officers or employees must be brought in the United States District Court for the District of Massachusetts, in Boston, Massachusetts, or if such action cannot be brought in such court, then in Massachusetts Superior Court, Business Litigation Session, in Boston, Massachusetts. In addition, shareholders have no right to jury trial for such an action.

The Declaration of Trust also provides that shareholders have no rights, privileges, claims or remedies under any contract or agreement entered into by the Trust with any service provider or other agent or contract with the Trust, including, without limitation, any third party beneficiary rights, except as may be expressly provided in any service contract or agreement.

Purchase, Redemption, and Pricing of Shares

The following supplements the information about purchase, redemption and pricing of shares set forth in the Prospectus.

The availability of certain sales charge waivers and discounts may depend on whether you purchase your shares directly from a Fund or through a financial intermediary. Specific intermediaries may have different policies and procedures regarding the availability of front-end sales load waivers or contingent deferred (back-end) sales load (“CDSC”) waivers, which are discussed below. In all instances, it is the purchaser’s responsibility to notify the Fund or the purchaser’s financial intermediary at the time of purchase of any relationship or other facts qualifying the purchaser for sales charge waivers or discounts. **For waivers and discounts not available through a particular intermediary, shareholders will have to purchase Fund shares directly from a Fund or through another intermediary to receive these waivers or discounts. Please see the section “Broker-Defined Sales Charge Waiver Policies” in the Prospectus to determine any sales charge discounts and waivers that may be available to you through your financial intermediary.**

Sales Charges for Purchases of \$250,000 or More of Class A Shares

You will not pay a sales charge at the time of purchase when you purchase “CDSC Class A Shares.” CDSC Class A Shares include:

- (i) Class A Shares issued in a single purchase of \$250,000 or more by a single purchaser; and
- (ii) Class A Shares issued when the value of the purchase, together with the value (based on purchase cost or current net asset value, whichever is higher) of shares of the Fund or any other fund in the Aquila Group of Funds that are owned by the purchaser, is \$250,000 or more.

CDSC Class A Shares do not include Class A Shares purchased without a sales charge as described under “General” below.

Broker/Dealer Compensation - Class A Shares

Upon notice to all selected dealers, the Distributor may distribute up to the full amount of the applicable sales charge to broker/dealers. Under the Securities Act of 1933, broker/dealers may be deemed to be underwriters during periods when they receive all, or substantially all, of the sales charge.

Redemption of CDSC Class A Shares

Aquila Narragansett Tax-Free Income Fund only:

If you redeem all or part of your CDSC Class A Shares during the two years after you purchase them, you may have to pay a special CDSC upon redemption of those shares. CDSC Class A Shares purchased without a sales charge pursuant to a Letter of Intent are subject to the CDSC (see “Reduced Sales Charges for Certain Purchases of Class A Shares” below). The CDSC will not apply to shares acquired through the reinvestment of dividends or distributions on CDSC Class A Shares.

When a CDSC is calculated, it will be applied to the lower of the original cost of the shares being redeemed or the current market value of those shares. Therefore, you do not pay a sales charge on amounts representing appreciation or depreciation. The rate used to calculate the CDSC is based on the value of all shares of funds in the Aquila Group of Funds (“Aquila Fund Shares”) that you own at the time the shares being redeemed were originally purchased and will vary based on the time elapsed since the CDSC Class A Shares were purchased.

The CDSC rate and holding period applicable to the redemption of CDSC Class A Shares is set forth in the following table:

Value of All Aquila Fund Shares at Time Shares Being Redeemed were Originally Purchased	CDSC Rate on Shares Redeemed	
	During First Year After Purchase	During Second Year After Purchase
\$250,000 and up to \$2,499,999	0.75%	0.50%
\$2.5 million and up to \$4,999,999	0.50%	0.25%
\$5 million and more	0.25%	None

The CDSC will not apply to CDSC Class A Shares held for longer than two years.

Each time you place a request to redeem shares, the Fund will first redeem any shares in your account that are not subject to a contingent deferred sales charge, and then will redeem shares in your account that are subject to the lowest CDSC rate, unless otherwise instructed. A series of investments may increase the total value of all shares of funds in the Aquila Group of Funds that you own so that subsequent purchases may qualify for a shorter holding period and a lower CDSC rate, as described in the table above, without altering the holding period or CDSC rate for shares acquired when the total value of Aquila Fund Shares you owned was lower.

The Fund will treat all CDSC Class A Share purchases made during a calendar month as if they were made on the first business day of that month at the average cost of all purchases made during that month. Therefore, the two-year holding period will end on the first business day of the 24th calendar month after the date of those purchases. Accordingly, the holding period may, in fact, be almost one month less than the full 24 months depending on when your actual purchase was made.

Aquila Tax-Free Trust of Arizona, Aquila Tax-Free Fund of Colorado, Aquila Churchill Tax-Free Fund of Kentucky, Aquila Tax-Free Trust of Oregon and Aquila Tax-Free Fund For Utah only:

If you redeem all or part of your CDSC Class A Shares during the one-year period after you purchase them, you may have to pay a special CDSC upon redemption of those shares. CDSC Class A Shares purchased without a sales charge pursuant to a Letter of Intent are subject to the CDSC (see “Reduced Sales Charges for Certain Purchases of Class A Shares” below). The CDSC will not apply to shares acquired through the reinvestment of dividends or distributions on CDSC Class A Shares.

When a CDSC is calculated, it will be applied to the lower of the original cost of the shares being redeemed or the current market value of those shares. Therefore, you do not pay a sales charge on amounts representing appreciation or depreciation. The rate used to calculate the CDSC is based on the value of all shares of funds in the Aquila Group of Funds (“Aquila Fund Shares”) that you own at the time the shares being redeemed were originally purchased and will vary based on the time elapsed since the CDSC Class A Shares were purchased.

The CDSC rate and holding period applicable to the redemption of CDSC Class A Shares is set forth in the following table:

Value of All Aquila Fund Shares at Time Shares Being Redeemed were Originally Purchased	CDSC Rate on Shares Redeemed	
	During First Year After Purchase	During 13 to 18 Months After Purchase
\$250,000 and up to \$2,499,999	0.75%	0.50%
\$2.5 million and up to \$4,999,999	0.50%	None
\$5 million and more	0.25%	None

The CDSC will not apply to CDSC Class A Shares held for longer than 18 months.

Each time you place a request to redeem shares, the Fund will first redeem any shares in your account that are not subject to a contingent deferred sales charge, and then will redeem shares in your account that are subject to the lowest CDSC rate, unless otherwise instructed. A series of investments may increase the total value of all shares of funds in the Aquila Group of Funds that you own so that subsequent purchases may qualify for a shorter holding period and a lower CDSC rate, as described in the table above, without altering the holding period or CDSC rate for shares acquired when the total value of Aquila Fund Shares you owned was lower.

The Fund will treat all CDSC Class A Share purchases made during a calendar month as if they were made on the first business day of that month at the average cost of all purchases made during that month. Therefore, the period will end on the first business day of the 18th calendar month after the date of those purchases. Accordingly, the holding period may, in fact, be almost one month less than the full 18 months depending on when your actual purchase was made.

Aquila Tax-Free Fund of Colorado and Aquila Tax Free Trust of Oregon – Shares Originally Purchased Prior to April 14, 2023:

The CDSC rate and holding period applicable to the redemption of CDSC Class A Shares of Aquila Tax-Free Fund of Colorado and Aquila Tax-Free Trust of Oregon originally purchased prior to April 14, 2023 is set forth in the following table:

Value of All Aquila Fund Shares at Time Shares Being Redeemed were Originally Purchased	CDSC Rate on Shares Redeemed	
	During First Year After Purchase	During Second Year After Purchase
\$250,000 and up to \$2,499,999	0.75%	0.50%
\$2.5 million and up to \$4,999,999	0.50%	0.25%
\$5 million and more	0.25%	None

The CDSC will not apply to CDSC Class A Shares held for longer than two years.

All Funds:

The CDSC will be waived for:

- Redemption following the death of the shareholder or beneficial owner.
- Redemption by the Fund when an account falls below the minimum required account size.
- Redemption by an investor who purchased \$250,000 or more without an initial sales charge if the securities dealer of record waived or deferred its commission in connection with the purchase, with notice to the investor and the Fund at the time of purchase.

The availability of certain sales charge waivers and discounts may depend on whether you purchase your shares directly from a Fund or through a financial intermediary. Please see “Broker-Defined Sales Charge Waiver Policies” in the Prospectus more information.

Broker/Dealer Compensation-CDSC Class A Shares

The Distributor currently intends to pay any dealer executing a purchase of CDSC Class A Shares as follows:

Amount of Purchase	Amount Distributed to Broker/Dealer as a Percentage of Purchase Price
\$250,000 and up to \$2,499,999	0.75%
\$2.5 million and up to \$4,999,999	0.50%
\$5 million and more	0.25%

Reduced Sales Charges for Certain Purchases of Class A Shares

Rights of Accumulation

“Single purchasers” may qualify for a reduced sales charge in accordance with the schedule set forth in the Prospectus when making subsequent purchases of Class A Shares. A reduced sales charge applies if the cumulative value (based on purchase cost or current net asset value, whichever is higher) of shares previously purchased, together with Class A Shares of your subsequent purchase, amounts to \$25,000 or more.

Letters of Intent

“Single purchasers” may also qualify for reduced sales charges, in accordance with the same schedule, after a written Letter of Intent (included in the New Account Application) is received by the Distributor. The Letter of Intent confirms that you intend to purchase, with a sales charge, within a thirteen-month period, Class A Shares of the Fund through a single selected dealer or the Distributor. Class A Shares of the Fund which you previously purchased, also with a sales charge, and which you still own may also be included in determining the applicable reduction. For more information, including escrow provisions, see the Letter of Intent provisions of the New Account Application.

General

As noted above, availability of certain sales charge waivers and discounts may depend on whether you purchase your shares directly from a Fund or through a financial intermediary. Specific intermediaries may have different policies and procedures regarding the availability of front-end sales load waivers or, if applicable, CDSC waivers, from those set forth below. Please see “Broker-Defined Sales Charge Waiver Policies” in the Prospectus more information.

Class A Shares may be purchased without a sales charge by:

- current and former Trustees and officers of any funds in the Aquila Group of Funds;
- the directors, managers, officers and certain employees, former employees and representatives of the Manager, the Distributor, and the sub-adviser of any fund in the Aquila Group of Funds and the parents and/or affiliates of such companies;
- broker dealers, their officers and employees and other investment professionals;
- certain persons connected with firms providing legal, advertising or public relations assistance to the Funds;
- certain family members of, and plans for the benefit of, the foregoing; and
- plans for the benefit of trust or similar clients of banking institutions over which these institutions have full investment authority.

Purchasers must give written assurance that the purchase is for investment and that the Class A Shares will not be resold except through redemption. Since there may be tax consequences of these purchases, your tax advisor should be consulted.

Class A Shares may also be issued without a sales charge in a merger, acquisition or exchange offer made pursuant to a plan of reorganization to which a Fund is a party.

Each Fund permits the sale of its Class A Shares at prices that reflect the elimination of the sales charge to investors who are members of certain qualified groups.

A qualified group is a group or association that

- (i) satisfies uniform criteria which enable the Distributor to realize economies of scale in its costs of distributing shares;
- (ii) gives its endorsement or authorization (if it is a group or association) to an investment program to facilitate solicitation of its membership by a broker or dealer; and
- (iii) complies with the conditions of purchase that make up an agreement between the Fund and the group, representative or broker or dealer.

At the time of purchase, the Distributor must receive information sufficient to permit verification that the purchase qualifies for a reduced sales charge, either directly or through a broker or dealer.

Examples of a qualified group include, but are not limited to:

- certain wrap accounts, asset allocation programs or other fee-based arrangements for the benefit of clients of investment professionals or other financial intermediaries; and
- certain retirement plans that are part of a retirement plan or platform offered by banks, broker-dealers, financial advisors or insurance companies, or serviced by recordkeepers.

Class A Shares may be purchased without a sales charge by investors who purchase shares through a self-directed brokerage account program offered by an intermediary that has entered into an agreement with the fund’s distributor. Intermediaries offering such programs may or may not charge transaction fees.

Class A purchases at net asset value may be available to group employer-sponsored retirement plans. Waivers for group employer-sponsored retirement plans do not apply to traditional IRAs, Roth IRAs, SEPs, SARSEPs, SIMPLE IRAs, KEOGHs, individual 401(k) or individual 403(b) plans, or to shares held in commission-based broker-dealer accounts.

The foregoing sales charge waivers are generally available for qualified purchases through all financial intermediaries that offer shares of the Funds, except as set forth under “Broker-Defined Sales Charge Waiver Policies” in the Prospectus.

Investors may exchange securities acceptable to the Manager and Sub-Adviser (if applicable) for shares of the Fund. The Funds believe such exchange provides a means by which holders of certain securities may invest in a Fund without the expense of selling the securities in the open market. The investor should furnish, either in writing or by FAX or e-mail, to the Manager a list with a full and exact description (including CUSIP numbers) of all securities proposed for exchange. The Manager will then notify the investor as to whether the securities are acceptable and, if so, will send a letter of transmittal to be completed and signed by the investor. The Manager has the right to reject all or any part of the securities offered for exchange. The securities must then be sent in proper form for transfer with the letter of transmittal to the Custodian of the Fund’s assets. The investor must certify that there are no legal or contractual restrictions on the free transfers and sale of the securities. Upon receipt by the Custodian of the securities and all required documents for transfer, the securities will be valued as of the close of business on that day in the same manner as the Fund’s portfolio securities are valued each day. Shares of the Fund having an equal net asset value as of the close of the same day will be registered in the investor’s name. Applicable sales charges, if any, will apply, but there is no charge for making the exchange and no brokerage commission on the securities accepted, although applicable stock transfer taxes, if any, may be deducted. The exchange of securities by the investor pursuant to this offer may constitute a taxable transaction and may result in a gain or loss for Federal income tax purposes. The tax treatment experienced by investors may vary depending upon individual circumstances. Each investor should consult a tax adviser to determine Federal, state and local tax consequences.

Additional Compensation for Financial Intermediaries

The Distributor and/or its related companies may pay compensation out of their own assets to certain broker/dealers and other financial intermediaries (“financial advisors”) above and beyond sales commissions, 12b-1 or certain service fees and certain recordkeeping/sub-transfer agency fees paid by the Funds, in connection with the sale, servicing or retention of Fund shares. This compensation, which may be significant in dollar amounts to the Distributor and/or its related companies, could create an incentive for a financial advisor to sell Fund shares. You should ask your financial advisor to obtain more information on how this additional compensation may have influenced your advisor’s recommendation of a Fund.

Such additional compensation (which is sometimes referred to as “revenue sharing”) is paid out of the Distributor’s (or related company’s) own resources, without additional charge to a Fund or its shareholders, although such resources may include profits derived from services provided to the Funds. Additional cash payments may be based on a percentage of gross sales, a percentage of assets or number of accounts maintained or serviced by the financial advisor, and/or a fixed dollar amount, and is different for different financial advisors.

At its discretion, the Distributor determines whether to pay additional compensation and the amount of any such payments based on factors the Distributor deems relevant. Factors considered by the Distributor generally include the financial advisor’s reputation, training of the financial advisor’s sales force, quality of service, ability to attract and retain assets for the Funds, expertise in distributing a particular class of shares of the Fund, and/or access to target markets. The Distributor (or related companies) may pay additional compensation for services with respect to the Funds and other funds in the Aquila Group of Funds without allocation for services provided to particular funds.

Typically, additional compensation in the form of education and/or marketing support payments is made towards one or more of the following:

- assistance in training and educating the financial advisor’s personnel;
- participation in the financial advisor’s conferences and meetings;
- advertising of the Funds’ shares;
- payment of travel expenses, including lodging, for attendance at sales seminars by qualifying registered representatives;
- other incentives or financial assistance to financial advisors in connection with promotional, training or educational seminars or conferences;
- shareholder education events;
- exhibit space or sponsorships at regional or national events of financial intermediaries;

- participation in special financial advisor programs;
- continued availability of the Fund's shares through the financial advisor's automated trading platform;
- access to the financial advisor's sales representatives and national sales management personnel by the Distributor or Fund representatives;
- inclusion of the Funds and/or the Aquila Group of Funds on preferred or recommended sales lists; and
- other comparable expenses at the discretion of the Distributor.

The financial advisors to whom the Distributor may pay, or has paid additional compensation in the form of education and/or marketing support payments since January 1, 2023 include: 1st Global Capital Corp., American Enterprise Investment, AXA Advisors LLC, Bankoh Investment Services Inc., Cetera Advisor Network, Charles Schwab, CUSO Financial Services, Edward D Jones & Co LP, Farm Bureau Financial Services, Fidelity / National Financial Services LLC, Hilltop Securities Inc., Independent Wealth Network Inc, Janney Montgomery Scott LLC, JP Morgan, LPL Financial, Merrill, Morgan Stanley, Pershing LLC, Raymond James & Associates, Raymond James Financial, RBC Capital Markets LLC, Roosevelt & Cross Inc., Stifel Nicolaus & Company Inc., TD Ameritrade Inc., UBS Financial Services Inc., US Bancorp Investments Inc., Vanguard, Voya Financial Advisors Inc., Waddell & Reed Inc., Wedbush Securities Inc., Wells Fargo Advisors LLC, and Western International Securities Inc.

The Distributor and/or related companies may compensate financial advisors not listed above. The Distributor and/or related companies may enter into additional compensation arrangements or change arrangements at any time without notice.

The Distributor and/or its related companies currently compensate financial advisors on a case by case basis. Any of the foregoing payments to be made by the Distributor may be made instead by the Manager out of its own funds, directly or through the Distributor.

Class F Shares are only available in cases where the intermediary will not receive additional compensation with respect to Class F Shares.

Systematic Withdrawal Plan (Class A Shares Only)

You may establish a Systematic Withdrawal Plan if you own or purchase Class A Shares of the Fund having a net asset value of at least \$5,000. The Systematic Withdrawal Plan is not available for Class C Shares, Class F Shares, Class I Shares (if the Fund offers Class I Shares) or Class Y Shares.

Under a Systematic Withdrawal Plan you will receive a monthly or quarterly check in a stated amount, not less than \$50. If such a plan is established, all dividends and distributions must be reinvested in your shareholder account. Redemption of shares to make payments under the Systematic Withdrawal Plan will generally give rise to a gain or loss for tax purposes. (See the Systematic Withdrawal Plan provisions of the New Account Application.)

Purchases of additional Class A Shares concurrently with withdrawals are undesirable because of sales charges when purchases are made. Accordingly, you may not maintain a Systematic Withdrawal Plan while simultaneously making regular purchases. While an occasional lump sum investment may be made, such investment should normally be an amount at least equal to three times the annual withdrawal or \$5,000, whichever is less.

Share Certificates

The Funds no longer issues share certificates. If you own certificated shares and have lost the certificates, you may incur delay and expense when redeeming the shares.

Reinvestment Privilege (Class A and C Shares Only)

If you reinvest proceeds of a redemption of Class A or Class C Shares within 120 days of the redemption, you will not have to pay any additional sales charge on the reinvestment, and any CDSC deducted upon the redemption will be refunded. You must reinvest in the same class as the shares redeemed. You may exercise this privilege only once a year, unless otherwise approved by the Distributor.

The Distributor will refund to you any CDSC deducted at the time of redemption by adding it to the amount of your reinvestment. The Class C or CDSC Class A Shares purchased upon reinvestment will be deemed to have been outstanding from the date of your original purchase of the redeemed shares, less the period from redemption to reinvestment.

Exchanging Shares

Shareholders of each Fund have an exchange privilege as set forth below. Exchanges can be made among this Fund and other funds in the Aquila Group of Funds. All exchanges are subject to certain conditions described below.

Generally, you can exchange shares of any class of a Fund for shares of the same class of another Fund in the Aquila Group of Funds without the payment of a sales charge or any other fee.

Because excessive trading in Fund shares can be harmful to the Fund and its other shareholders, the right is reserved to revise or terminate the exchange privilege, to limit the number of exchanges or to reject any exchange if (i) the Fund or any of the other Funds in the Aquila Group of Funds believe that it or they would be harmed or be unable to invest effectively or (ii) it or they receive or anticipate receiving simultaneous orders that may significantly affect the Fund or any other Fund in the Aquila Group of Funds.

The following important information should be noted:

CDSCs Upon Redemptions of Shares Acquired Through Exchanges. If you exchange shares subject to a CDSC, no CDSC will be imposed at the time of exchange, but the shares you receive in exchange for them will be subject to the applicable CDSC if you redeem them before the requisite holding period has expired.

Each of the funds in the Aquila Group of Funds reserves the right to reject any exchange into its shares, if shares of the fund into which exchange is desired are not available for sale in your state of residence. The Fund may also modify or terminate this exchange privilege at any time on not less than 60 days' written notice to shareholders.

All exercises of the exchange privilege are subject to the conditions that (i) the shares being acquired are available for sale in your state of residence; (ii) the aggregate net asset value of the shares surrendered for exchange is at least equal to the minimum investment requirements of the investment company whose shares are being acquired; (iii) the ownership of the accounts from which and to which the exchange is made are identical; and (iv) the exchange privilege is available with the share class owned.

To make a telephone exchange, please call 800-437-1000.

Note: Aquila Group of Funds, the Distributor and BNY Mellon Investment Servicing (US) Inc., the Funds' transfer agent, will not be responsible for any losses resulting from unauthorized telephone transactions if reasonable procedures are followed to verify the identity of the caller. Some or all of the following information may be requested: account name(s) and number, name of the caller, the social security number registered to the account and personal identification. Calls may be recorded. You should verify the accuracy of confirmation statements immediately upon receipt.

Exchanges will be effected at the relative exchange prices of the shares being exchanged next determined after receipt by the transfer agent of your exchange request. The exchange prices will be the respective net asset values of the shares.

An exchange is generally treated for Federal tax purposes as a redemption and purchase of shares and will generally result in the realization of a short- or long-term capital gain or loss, depending on the value of the shares received in the exchange, the cost or other tax basis of the shares exchanged and the holding period. Should any capital loss be realized, no representation is made as to its deductibility.

Dividends paid by a fund whose shares you receive in an exchange may be taxable to you. You should consult your tax adviser before acquiring shares of another fund under the exchange privilege arrangement.

If you are considering an exchange into one of the other funds in the Aquila Group of Funds, you should obtain a copy of and carefully read its Prospectus.

Same Fund Exchanges

Certain shareholders may be eligible to exchange their shares for shares of another class of the same Fund. If eligible, no sales charges or other charges will apply to any such exchange. Generally, shareholders will not recognize a gain or loss for Federal income tax purposes upon such an exchange. Investors should contact their financial intermediary to learn more about same fund exchanges.

Conversion of Class C Shares

Class C Shares automatically convert to Class A Shares six years after the date of purchase. Conversion of Class C Shares into Class A Shares will be effected at relative net asset values after the sixth anniversary of your purchase of Class C Shares, on the 15th day of the month (or the next business day thereafter), except as noted below. Accordingly, if the sixth anniversary of your purchase of Class C Shares occurs on or after the 15th day of the month, conversion will be effected on the 15th day of the following month. Thus, the holding period applicable to your Class C Shares may be up to five weeks more than the six years depending upon when your actual purchase was made during a month. Because the per share value of Class A Shares may be higher than that of Class C Shares at the time of conversion, you may receive fewer Class A Shares than the number of Class C Shares converted. If you have made one or more exchanges of Class C Shares among the Aquila Group of Funds under the Exchange Privilege, the six-year holding period is deemed to have begun on the date you purchased your original Class C Shares of the Fund or of another of the Aquila Group of Funds.

“Transfer on Death” Registration (Not Available for Class I Shares (if the Fund offers Class I Shares) or Class Y Shares)

Each of the funds in the Aquila Group of Funds permits registration of its shares in beneficiary form, subject to the funds’ rules governing Transfer on Death (“TOD”) registration, if the investor resides in a state that has adopted the Uniform Transfer on Death Security Registration Act (a “TOD State”; for these purposes, Missouri is deemed to be a TOD State). This form of registration allows you to provide that, on your death, your shares are to be transferred to the one or more persons that you specify as beneficiaries. To register shares of a Fund in TOD form, complete the special TOD Registration Request Form and review the Rules Governing TOD Registration on the back of the form. A TOD Registration Request Form is available on www.aquilafunds.com or through your financial intermediary. The Rules, which are subject to amendment upon 60 days’ notice to TOD account owners, contain important information regarding TOD accounts with the Funds; by opening such an account you agree to be bound by them, and failure to comply with them may result in your shares’ not being transferred to your designated beneficiaries. If you open a TOD account with the Fund that is otherwise acceptable but, for whatever reason, neither the Fund nor the transfer agent receives a properly completed TOD Registration Request Form from you prior to your death, the Fund reserves the right not to honor your TOD designation, in which case your account will become part of your estate.

You are eligible for TOD registration only if, and as long as, you reside in a TOD State. If you open a TOD account and your account address indicates that you do not reside in a TOD State, your TOD registration will be ineffective and the Fund may, in its discretion, either open the account as a regular (non-TOD) account or redeem your shares. Such a redemption may result in a gain or loss to you and may have tax consequences. Similarly, if you open a TOD account while residing in a TOD State and later move to a non-TOD State, your TOD registration will no longer be effective. In both cases, should you die while residing in a non-TOD State the Fund reserves the right not to honor your TOD designation. At the date of this SAI, almost all states are TOD States, but you should consult your tax advisor regarding the circumstances in your state of residence.

An investor in Class F, Class I or Class Y should discuss the availability of TOD registration with the investor’s financial intermediary.

Computation of Net Asset Value

The net asset value of the shares of each Fund’s classes is determined on each day that the New York Stock Exchange is open, as of the scheduled close of regular trading (normally 4:00 p.m., New York time), by dividing the value of the Fund’s net assets allocable to each class by the total number of its shares of such class then outstanding. Portfolio securities generally are valued on the basis of market valuations furnished by a pricing service, which may use market prices or broker/dealer quotations or a variety of fair valuation techniques and methodologies to determine valuation. Any securities or assets for which pricing services are unable to supply prices, or if the prices supplied are determined to be unreliable are valued at their fair value. The Adviser has been designated as each Fund’s Valuation Designee, with responsibility for fair valuation subject to oversight by the Trust’s Board of Trustees.

As indicated above, the net asset value per share of each Fund's shares will be determined on each day that the New York Stock Exchange is open. The New York Stock Exchange annually announces the days on which it will not be open. The most recent announcement indicates that it will not be open on the following days: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Good Friday, Memorial Day, Juneteenth National Independence Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. However, the Exchange may close on days not included in that announcement.

Purchases and Redemptions of Shares

Each Fund has authorized one or more financial intermediaries to receive on its behalf purchase and redemption orders for shares of the Fund; one or more of those financial intermediaries are also authorized to designate other intermediaries to receive purchase and redemption orders on a Fund's behalf. The Fund will be deemed to have received a purchase or redemption order when an authorized financial intermediary or, if applicable, the financial intermediary's authorized designee receives the order. Such orders will be priced at the Fund's net asset value next determined after they are received by the authorized financial intermediary or, if applicable, its authorized designee and accepted by the Fund.

Purchases and Redemptions Through Financial Intermediaries

A financial intermediary may charge its customers a processing or service fee in connection with the purchase or redemption of Fund shares. The amount and applicability of such a fee is determined and should be disclosed to its customers by each individual financial intermediary. These processing or service fees are typically fixed, nominal dollar amounts and are in addition to the sales and other charges described in the Prospectus and this SAI. Your financial intermediary should provide you with specific information about any processing or service fees you will be charged.

Limitation of Redemptions in Kind

Each Fund has elected to be governed by Rule 18f-1 under the 1940 Act, pursuant to which the Fund is obligated to redeem shares solely in cash up to the lesser of \$250,000 or 1 percent of the net asset value of the Fund during any 90-day period for any one shareholder. Should redemptions by any shareholder exceed such limitation, a Fund will have the option of redeeming the excess in cash or in kind. If shares are redeemed in kind, the redeeming shareholder might incur brokerage costs in converting the assets into cash. The method of valuing securities used to make redemptions in kind will be the same as the method of valuing portfolio securities described under "Net Asset Value Per Share" in the Prospectus, and such valuation will be made as of the same time the redemption price is determined.

Disclosure of Portfolio Holdings

Under Fund policies, the Manager publicly discloses the complete schedule of each Fund's portfolio holdings, as reported at the end of each calendar quarter, generally by the 15th day after the end of each calendar quarter. Such information will remain accessible until the next schedule is made publicly available. It may also publicly disclose other portfolio holdings as of a specified date. You may obtain a copy of each Fund's schedule of portfolio holdings for the most recently completed period by accessing the information on the Fund's website at www.aquilafunds.com.

In addition, the Manager may share a Fund's non-public portfolio holdings information with pricing services and other service providers to the Fund who require access to such information in order to fulfill their contractual duties to the Fund. The Manager may also disclose non-public information regarding a Fund's portfolio holdings to certain mutual fund analysts and rating and tracking entities, or to other entities that have a legitimate business purpose in receiving such information on a more frequent basis. Exceptions to the frequency and recipients of the disclosure may be made only with the advance authorization of the Funds' Chief Compliance Officer upon a determination that such disclosure serves a legitimate business purpose and is in the best interests of the Fund and will be reported to the Board of Trustees at the next regularly scheduled board meeting. Any permitted release of non-public holdings information is provided in accordance with the then-current policy on approved methods or arrangements for communicating confidential information.

Whenever portfolio holdings disclosure made pursuant to these procedures involves a possible conflict of interest between a Fund's shareholders and the Fund's Manager, Sub-Adviser (if applicable), Distributor or any affiliated person of the Fund, the disclosure may not be made unless a majority of the independent Trustees or a majority of a board committee consisting solely of independent Trustees approves such disclosure. The Funds, the Manager and a Sub-Adviser shall not enter into any arrangement providing for the disclosure of non-public portfolio holdings information for the receipt of compensation or benefit of any kind. Any material changes to the policies and procedures for the disclosure of portfolio holdings will be reported to the Board on at least an annual basis.

Each Fund currently provides holdings information to the following service providers with which it has ongoing relationships:

1. Intercontinental Exchange (pricing services and liquidity classification vendor) on a daily basis with no lag;
2. Innocap (co-liquidity asset classification firm) on a daily basis on a one day lag.
3. Tait, Weller & Baker LLP, its independent registered public accounting firm, as soon as practicable following the Fund's fiscal year-end and on an as-needed basis;
4. Bloomberg L.P. (tracking and pricing entity) on a daily basis with no lag;
5. The Bank of New York Mellon (custodian, fund accountant and liquidity classification vendor) on a daily basis with no lag;
6. The Distributor on a daily basis with no lag;
7. InvestorTools (portfolio analytics service) on a daily basis with no lag;
8. Fitch Group, its financial printer, as soon as practicable following each fiscal quarter-end;
9. Investment Company Institute following each fiscal quarter-end;
10. ComplySci (compliance platform) on a daily basis with a two day lag; and

Each Fund also currently provides holdings information to Morningstar, Fact Set and Lipper Analytical Services (analysts, rating and tracking entities) on a quarterly basis with a 15-day lag.

Additional Tax Information

The following is a summary of certain material U.S. Federal income tax considerations affecting each Fund and its shareholders. The discussion is very general. Current and prospective shareholders are therefore urged to consult their own tax advisers with respect to the specific Federal, state, local and foreign tax consequences of investing in a Fund. The summary is based on the laws in effect on the date of this SAI and existing judicial and administrative interpretations thereof, all of which are subject to change, possibly with retroactive effect.

Each Fund and Its Investments

Each Fund will be treated as a separate taxpayer for U.S. Federal income tax purposes. Each Fund has elected to be treated, and intends to qualify each year, as a “regulated investment company” or “RIC” under Subchapter M of the Code. To so qualify, each Fund must, among other things: (a) derive at least 90% of its gross income in each taxable year from dividends, interest, payments with respect to certain securities loans, and gains from the sale or other disposition of stock or securities or foreign currencies, or other income (including, but not limited to, gains from options, futures or forward contracts) derived with respect to its business of investing in such stock, securities or currencies, and net income derived from interests in “qualified publicly traded partnerships” (i.e., partnerships that are traded on an established securities market or tradable on a secondary market, other than partnerships that derive 90% of their income from interest, dividends, capital gains, and other traditionally permitted mutual fund income); and (b) diversify its holdings so that, at the end of each quarter of the Fund’s taxable year, (i) at least 50% of the market value of the Fund’s assets is represented by cash, securities of other regulated investment companies, U.S. Government securities and other securities, with such other securities limited, in respect of any one issuer, to an amount not greater than 5% of the Fund’s assets and not greater than 10% of the outstanding voting securities of such issuer and (ii) not more than 25% of the value of its assets is invested in the securities (other than U.S. Government securities or securities of other regulated investment companies) of any one issuer, in the securities (other than the securities of other regulated investment companies) of any two or more issuers that the Fund controls and that are determined to be engaged in the same or similar trades or businesses or related trades or businesses, or in the securities of one or more “qualified publicly traded partnerships.”

As a regulated investment company, a Fund will not be subject to U.S. Federal income tax on the portion of its taxable investment income and capital gains that it distributes to its shareholders, provided that it satisfies a minimum distribution requirement. To satisfy the minimum distribution requirement, each Fund must distribute to its shareholders at least the sum of (i) 90% of its “investment company taxable income” for the taxable year (i.e., generally, the taxable income of a RIC other than its net capital gain, plus or minus certain other adjustments) computed without regard to the dividends-paid deduction, and (ii) 90% of its net tax-exempt income for the taxable year. Each Fund will be subject to income tax at the regular corporate tax rate on any taxable income or gains that it does not distribute to its shareholders.

If, for any taxable year, a Fund were to fail to qualify as a regulated investment company under the Code or were to fail to meet the distribution requirement, it would be taxed in the same manner as an ordinary corporation, and distributions to its shareholders would not be deductible by the Fund in computing its taxable income. In addition, in the event of a failure to qualify, a Fund's distributions, to the extent derived from current or accumulated earnings and profits, including any distributions of net tax-exempt income and net long-term capital gains, would be taxable to shareholders as ordinary dividend income for Federal income tax purposes. However, such dividends would be eligible, subject to any generally applicable limitations, (i) to be treated as qualified dividend income in the case of shareholders taxed as individuals and (ii) for the dividends-received deduction in the case of corporate shareholders. Moreover, if a Fund were to fail to qualify as a regulated investment company in any year, it would be required to pay out its earnings and profits accumulated in that year in order to qualify again as a regulated investment company. Under certain circumstances, a Fund may cure a failure to qualify as a regulated investment company, but in order to do so the Fund may incur significant Fund-level taxes and may be forced to dispose of certain assets. If a Fund failed to qualify as a regulated investment company for a period greater than two taxable years, the Fund would generally be required to recognize any net built-in gains with respect to certain of its assets upon a disposition of such assets within ten years of qualifying as a regulated investment company in a subsequent year.

The Code imposes a 4% nondeductible excise tax on a Fund to the extent it does not distribute by the end of any calendar year at least the sum of (i) 98% of its ordinary income for that year and (ii) 98.2% of its capital gain net income (both long-term and short-term) for the one-year period ending, as a general rule, on October 31 of that year. For this purpose, however, any ordinary income or capital gain net income that is retained by a Fund and subject to corporate income tax will be considered to have been distributed by year-end. In addition, the minimum amounts that must be distributed in any year to avoid the excise tax will be increased or decreased to reflect any under-distribution or over-distribution, as the case may be, from the previous year. Each Fund anticipates that it will pay such dividends and will make such distributions as are necessary to avoid the application of this excise tax.

Each Fund's transactions in zero coupon securities, foreign currencies, forward contracts, options and futures contracts (including options and futures contracts on foreign currencies), if any, will be subject to special provisions of the Code (including provisions relating to "hedging transactions" and "straddles") that, among other things, may affect the character of gains and losses realized by the Fund (i.e., may affect whether gains or losses are ordinary or capital), accelerate recognition of income to the Fund, and defer Fund losses. These rules could therefore affect the character, amount and timing of distributions to shareholders. These provisions also (a) will require each Fund to "mark to market" certain types of the positions in its portfolio (i.e., treat them as if they were closed out at the end of each year) and (b) may cause a Fund to recognize income prior to the receipt of cash with which to pay dividends or make distributions in amounts necessary to satisfy the distribution requirements for avoiding income and excise taxes. In order to distribute this income and avoid a tax on the Fund, a Fund might be required to liquidate portfolio securities that it might otherwise have continued to hold, potentially resulting in additional taxable gain or loss. Each Fund intends to monitor its transactions, make the appropriate tax elections and make the appropriate entries in its books and records when it acquires any zero coupon securities, foreign currency, forward contract, option, futures contract or hedged investment in order to mitigate the effect of these rules and maintain qualification for treatment as a regulated investment company.

A Fund may be required to treat amounts as taxable income or gain, subject to the distribution requirements referred to above, even though no corresponding amounts of cash are received concurrently, as a result of (1) mark-to-market rules, constructive sale rules or rules applicable to certain options, futures or forward contracts, or "appreciated financial positions" or (2) tax rules applicable to debt obligations acquired with "original issue discount," including zero-coupon or deferred payment bonds and pay-in-kind debt obligations, or to market discount if an election is made with respect to such market discount. In order to distribute this income and avoid a tax on the Fund, a Fund might be required to liquidate portfolio securities that it might otherwise have continued to hold, potentially resulting in additional taxable gain or loss. A Fund might also meet the distribution requirements by borrowing the necessary cash, thereby incurring interest expense.

For U.S. Federal income tax purposes, net short- and long-term capital losses may generally be carried forward without limit. Carryforwards are available to offset future net realized gains on securities transactions to the extent provided for in the Code. Under certain circumstances, a Fund may elect to treat certain losses as though they were incurred on the first day of the taxable year immediately following the taxable year in which they were actually incurred.

Under Section 163(j) of the Code, a taxpayer's business interest expense is generally deductible to the extent of its business interest income plus certain other amounts. If a Fund earns business interest income, it may report a portion of its dividends as "Section 163(j) interest dividends," which its shareholders may be able to treat as business interest income for purposes of Section 163(j) of the Code. Each Fund's "Section 163(j) interest dividend" for a tax year will be limited to the excess of its business interest income over the sum of its business interest expense and other deductions properly allocable to

its business interest income. In general, a Fund’s shareholders may treat a distribution reported as a Section 163(j) interest dividend as interest income only to the extent the distribution exceeds the sum of the portions of the distribution reported as other types of tax-favored income (which would generally include exempt-interest income). To be eligible to treat a Section 163(j) interest dividend as interest income, a shareholder may need to meet certain holding period requirements in respect of the shares and must not have hedged its position in the shares in certain ways.

Aquila Tax-Free Trust of Arizona: At March 31, 2023, the Fund had short-term capital loss carryforwards and long-term capital loss carryforwards as follows:

Carryforward	Character
\$1,998,542	Short-term
\$642,882	Long-term

Aquila Tax-Free Fund of Colorado: At March 31, 2023, the Fund had short-term and long-term capital loss carryforwards as follows:

Carryforward	Character
\$3,512,376	Short-term
\$2,706,961	Long-term

Aquila Churchill Tax-Free Fund of Kentucky: At March 31, 2023, the Fund had short-term and long-term capital loss carryforwards as follows:

Carryforward	Character
\$675,352	Short-term
\$18,959	Long-term

Aquila Tax-Free Trust of Oregon: At March 31, 2023, the Fund had short-term and long-term capital loss carryforwards as follows:

Carryforward	Character
\$4,399,507	Short-term
\$7,915,754	Long-term

Aquila Narragansett Tax-Free Income Fund: At March 31, 2023, the Fund had short-term and long-term capital loss carryforwards as follows:

Carryforward	Character
\$996,256	Short-term
\$467,494	Long-term

Aquila Tax-Free Fund For Utah: At March 31, 2023, the Fund had short-term and long-term capital loss carryforwards as follows:

Carryforward	Character
\$4,108,410	Short-term
\$5,722,176	Long-term

Taxation of U.S. Shareholders

Dividends and other distributions by a Fund are generally treated under the Code as received by the shareholders at the time the dividend or distribution is made. However, if any dividend or distribution is declared by a Fund in October, November or December of any calendar year and payable to shareholders of record on a specified date in such a month but is actually paid during the following January, such dividend or distribution will be deemed to have been received by each shareholder of that Fund on December 31 of the year in which the dividend was declared.

Each Fund intends to distribute annually to its shareholders substantially all of its investment company taxable income (computed without regard to the dividends-paid deduction), and any net realized long-term capital gains in excess of net realized short-term capital losses (including any capital loss carryforwards). If, however, a Fund retains for investment an amount equal to all or a portion of its net long-term capital gains in excess of its net short-term capital losses (including any capital loss carryforwards), it will be subject to a corporate tax on the amount retained. In that event, the applicable Fund will designate such retained amounts as undistributed capital gains in a notice to its shareholders who (a) will be required to include in income for U.S. Federal income tax purposes, as long-term capital gains, their proportionate shares of the undistributed amount, (b) will be entitled to credit their proportionate shares of the income tax paid by the Fund on the undistributed amount against their U.S. Federal income tax liabilities, if any, and to claim refunds to the extent their credits exceed their liabilities, if any, and (c) will be entitled to increase their tax basis, for U.S. Federal income tax purposes, in their shares by an amount equal to the excess of the amount of undistributed net capital gain included in their respective income over their respective income tax credits. Organizations or persons not subject to U.S. Federal income tax on such capital gains will be entitled to a refund of their pro rata share of such taxes paid by a Fund upon timely filing appropriate returns or claims for refund with the Internal Revenue Service (the "IRS").

Exempt-interest dividends paid by a Fund are exempt from regular Federal income taxes. Distributions of taxable net investment income and net realized short-term capital gains are taxable to a U.S. shareholder as ordinary income, whether paid in cash or in shares. Distributions of net capital gain (i.e., the excess of net long-term capital gain over net short-term capital loss), if any, that a Fund reports as capital gain dividends are taxable as long-term capital gains, whether paid in cash or in shares, and regardless of how long a shareholder has held shares of the Fund. None of a Fund's distributions are expected to be eligible for the dividends-received deduction for corporate shareholders or for any favorable tax rate that may apply to "qualified dividend income" in the hands of an individual shareholder.

Dividends and distributions from a Fund (other than exempt-interest dividends) and net gains from redemptions of Fund shares are generally taken into account in determining a shareholder's "net investment income" for purposes of the Medicare contribution tax applicable to certain individuals, estates and trusts.

Certain tax-exempt educational institutions will be subject to a 1.4% tax on net investment income. For these purposes, certain dividends (other than exempt-interest dividends) and capital gain distributions, and certain gains from the disposition of a Fund's shares (among other categories of income), are generally taken into account in computing a shareholder's net investment income.

Distributions in excess of a Fund's current and accumulated earnings and profits will, as to each shareholder, be treated as a tax-free return of capital to the extent of a shareholder's basis in his or her shares of the Fund, and as a capital gain thereafter (if the shareholder holds his or her shares of the Fund as capital assets). Each shareholder who receives distributions in the form of additional shares will generally be treated for U.S. Federal income tax purposes as receiving a distribution in an amount equal to the amount of money that the shareholder would have received if he or she had instead elected to receive cash distributions. The shareholder's aggregate tax basis in shares of the applicable Funds will be increased by such amount.

Investors considering buying shares just prior to a capital gain distribution should be aware that, although the price of shares purchased at that time may reflect the amount of the forthcoming distribution, such dividend or distribution may nevertheless be taxable to them.

Because each Fund will distribute exempt-interest dividends, interest on indebtedness incurred by shareholders, directly or indirectly, to purchase or carry shares in a Fund is not deductible for U.S. Federal income tax purposes. Investors receiving social security or railroad retirement benefits should be aware that exempt-interest dividends may, under certain circumstances, cause a portion of such benefits to be subject to Federal income tax. Furthermore, a portion of any exempt-interest dividend paid by a Fund that represents income derived from certain revenue or private activity bonds held by the Fund may not retain its tax-exempt status in the hands of a shareholder who is a "substantial user" of a facility financed by such bonds, or a "related person" thereof. Moreover, some or all of the exempt-interest dividends distributed by a Fund may be a specific preference item, or a component of an adjustment item, for purposes of the Federal alternative minimum tax.

Shareholders should consult their own tax advisors as to whether they are (i) "substantial users" with respect to a facility or "related" to such users within the meaning of the Code or (ii) subject to a Federal alternative minimum tax, the Federal "branch profits" tax, or the Federal "excess net passive income" tax.

Sales of Shares

Upon the sale or exchange of his or her shares (other than an exchange for shares of another share class of the same Fund), a shareholder will generally recognize a taxable gain or loss equal to the difference between the amount realized and his or her basis in the shares. A redemption of shares by a Fund will normally be treated as a sale for this purpose. Such gain or loss will be treated as capital gain or loss if the shares are capital assets in the shareholder's hands, and will be long-term capital gain or loss if the shares are held for more than one year and short-term capital gain or loss if the shares are held for one year or less. Any loss realized on a sale or exchange will be disallowed to the extent the shares disposed of are replaced, including replacement through the reinvesting of dividends and capital gains distributions in a Fund, within a 61-day period beginning 30 days before and ending 30 days after the disposition of the shares. In such a case, the basis of the shares acquired will be increased to reflect the disallowed loss. Any loss realized by a shareholder on the sale of Fund shares held by the shareholder for six months or less will be treated for U.S. Federal income tax purposes as a long-term capital loss to the extent of any distributions or deemed distributions of long-term capital gains received by the shareholder (including amounts credited to the shareholder as undistributed capital gains) with respect to such shares.

If a shareholder incurs a sales charge in acquiring shares of a Fund, disposes of those shares within 90 days and then acquires, before February 1 of the calendar year following the calendar year of the disposition, shares in a mutual fund for which the otherwise applicable sales charge is reduced by reason of a reinvestment right (e.g., an exchange privilege), the original sales charge will not be taken into account in computing gain or loss on the original shares to the extent the subsequent sales charge is reduced. Instead, the disregarded portion of the original sales charge will be added to the tax basis in the newly acquired shares. Furthermore, the same rule also applies to a disposition of the newly acquired shares made within 90 days of the second acquisition. This provision prevents a shareholder from immediately deducting the sales charge by shifting his or her investment within a family of mutual funds.

If a shareholder recognizes a loss with respect to a Fund's shares of \$2 million or more for an individual shareholder or \$10 million or more for a corporate shareholder (or certain greater amounts over a combination of years), the shareholder must file with the IRS a disclosure statement on IRS Form 8886. Direct shareholders of portfolio securities are in many cases excepted from this reporting requirement, but under current guidance, shareholders of a regulated investment company are not excepted. The fact that a loss is so reportable does not affect the legal determination of whether the taxpayer's treatment of the loss is proper.

Backup Withholding

A Fund may be required in certain circumstances to apply backup withholding on dividends (including exempt-interest dividends), distributions and redemption proceeds payable to non-corporate shareholders who fail to provide the Fund with their correct taxpayer identification numbers or to make required certifications, or who have been notified by the IRS that they are subject to backup withholding. The backup withholding rate is currently 24%. Backup withholding is not an additional tax and any amount withheld may be credited against a shareholder's U.S. Federal income tax liabilities.

Notices

Shareholders will receive, if appropriate, various written notices after the close of a Fund's taxable year regarding the U.S. Federal income tax status of certain dividends, distributions and redemption proceeds that were paid (or that are treated as having been paid) by the Fund to its shareholders during the preceding taxable year.

Non-U.S. Shareholders

Ordinary dividends (other than certain dividends reported by the Fund as (i) interest-related dividends, to the extent such dividends are derived from the Fund's "qualified net interest income," or (ii) short-term capital gain dividends, to the extent such dividends are derived from the Fund's "qualified short-term gain") and certain other payments made by a Fund to non-U.S. shareholders are generally subject to Federal withholding tax at a 30% rate or such lower rate as may be determined in accordance with any applicable treaty. "Qualified net interest income" is the Fund's net income derived from U.S.-source interest and original issue discount, subject to certain exceptions and limitations. "Qualified short-term gain" generally means the excess of the net short-term capital gain of the Fund for the taxable year over its net long-term capital loss, if any. In order to obtain a reduced rate of withholding, a non-U.S. shareholder will be required to provide an IRS Form W-8BEN or similar form certifying its entitlement to benefits under a treaty. This 30% withholding tax generally does not apply to exempt-interest dividends, capital gain dividends or redemption proceeds. The withholding tax does not apply to regular dividends paid to a non-U.S. shareholder who provides an IRS Form W-8ECI, certifying that the dividends are effectively connected with the non-U.S. shareholder's conduct of a trade or business within the United States. Instead, the

effectively connected dividends will be subject to regular U.S. Federal income tax as if the non-U.S. shareholder were a U.S. shareholder. A non-U.S. corporation receiving effectively connected dividends may also be subject to additional “branch profits tax” imposed at a rate of 30% (or a lower treaty rate). A non-U.S. shareholder who fails to provide an IRS Form W-8BEN or other applicable form may be subject to backup withholding at the appropriate rate. Backup withholding will not be applied to payments that have already been subject to the 30% withholding tax.

Unless certain non-U.S. entities that hold Fund shares comply with IRS requirements that will generally require them to report information regarding U.S. persons investing in, or holding accounts with, such entities, a 30% withholding tax may apply to Fund distributions (other than exempt-interest dividends) payable to such entities. A non-U.S. shareholder may be exempt from the withholding described in this paragraph under an applicable intergovernmental agreement between the U.S. and a foreign government, provided that the shareholder and the applicable foreign government comply with the terms of such agreement. Shareholders should consult their own tax advisers on these matters and on state, local, foreign and other applicable tax laws.

Basis Reporting

Each Fund or your broker will report to the IRS the amount of proceeds that a shareholder receives from a redemption or exchange of Fund shares. For redemptions or exchanges of shares acquired on or after January 1, 2012, each Fund will also report the shareholder’s basis in those shares and the character of any gain or loss that the shareholder realizes on the redemption or exchange (i.e., short-term or long-term), and certain related tax information. For purposes of calculating and reporting basis, shares acquired prior to January 1, 2012 and shares acquired on or after January 1, 2012 will generally be treated as held in separate accounts. If a shareholder has a different basis for different shares of a Fund held in the same account (e.g., if a shareholder purchased Fund shares held in the same account when the shares were at different prices), the Fund will calculate the basis of the share sold using its default method unless the shareholder has properly elected to use a different method. Each Fund’s default method for calculating basis is the average basis method, under which the basis per share is reported as an average of the bases of the shareholder’s Fund shares in the account.

Shareholders may instruct a Fund to use a method other than average basis for an account, but the application of that other method will depend on whether shares have previously been redeemed or exchanged. Shareholders who hold shares through a broker should contact the broker for further assistance or for information regarding the broker’s default method for calculating basis and procedures for electing to use an alternative method. Prior to redeeming shares, shareholders should consult their tax advisers concerning the tax consequences of applying the average basis method or electing another method of basis calculation.

The foregoing is only a summary of certain material U.S. Federal income tax consequences (and, where noted, state and local tax consequences) affecting each Fund and its shareholders. Current and prospective shareholders are advised to consult their own tax advisers with respect to the particular tax consequences to them of an investment in a Fund.

Underwriters

The Distributor acts as each Fund's principal underwriter in the continuous public offering of all of the Fund's classes of shares. The Distributor is not obligated to sell a specific number of shares. Under the Distribution Agreement, the Distributor is responsible for the payment of certain printing and distribution costs relating to prospectuses and reports as well as the costs of supplemental sales literature, advertising and other promotional activities.

Payments of the amounts listed below for each of the Funds for the fiscal year ended March 31, 2023 were as follows:

Aquila Tax-Free Trust of Arizona

Name of Principal Underwriter	Net Underwriting Discounts and Commissions	Compensation on Redemptions and Repurchases	Brokerage Commissions	Other Compensation
Aquila Distributors LLC	\$4,317	None	None	None*

* Amounts paid to the Distributor under the Fund's Distribution Plan are for compensation.

Aquila Tax-Free Fund of Colorado:

Name of Principal Underwriter	Net Underwriting Discounts and Commissions	Compensation on Redemptions and Repurchases	Brokerage Commissions	Other Compensation
Aquila Distributors LLC	\$8,607	None	None	None*

* Amounts paid to the Distributor under the Fund's Distribution Plan are for compensation.

Aquila Churchill Tax-Free Fund of Kentucky:

Name of Principal Underwriter	Net Underwriting Discounts and Commissions	Compensation on Redemptions and Repurchases	Brokerage Commissions	Other Compensation
Aquila Distributors LLC	\$3,393	None	None	None*

* Amounts paid to the Distributor under the Fund's Distribution Plan are for compensation.

Aquila Tax-Free Trust of Oregon:

Name of Principal Underwriter	Net Underwriting Discounts and Commissions	Compensation on Redemptions and Repurchases	Brokerage Commissions	Other Compensation
Aquila Distributors LLC	\$9,852	None	None	None*

* Amounts paid to the Distributor under the Fund's Distribution Plan are for compensation.

Aquila Narragansett Tax-Free Income Fund:

Name of Principal Underwriter	Net Underwriting Discounts and Commissions	Compensation on Redemptions and Repurchases	Brokerage Commissions	Other Compensation
Aquila Distributors LLC	\$8,720	None	None	None*

* Amounts paid to the Distributor under the Fund's Distribution Plan are for compensation.

Aquila Tax-Free Fund For Utah:

Name of Principal Underwriter	Net Underwriting Discounts and Commissions	Compensation on Redemptions and Repurchases	Brokerage Commissions	Other Compensation
Aquila Distributors LLC	\$12,423	None	None	None*

* Amounts paid to the Distributor under the Fund's Distribution Plan are for compensation.

Proxy Voting Policies

Information regarding how the Funds voted proxies (if any) relating to portfolio securities during the most recent 12-month period ended June 30 is publicly available without charge (1) by calling Aquila Group of Funds at 800-437-1000, (2) at www.aquilafunds.com, and (3) on the SEC's website at www.sec.gov. The Manager's proxy voting policies and procedures follow:

Background and Scope of Applicability: The purposes of these proxy voting policies and procedures is to set forth the principles, guidelines and procedures by which Aquila Investment Management LLC (the "Firm" or "AIM") votes the securities for which the AIM exercises voting authority and discretion ("Proxies"). Generally, Aquila Municipal Trust (the "Trust") does not purchase or hold voting securities. As a result, it is not likely that the Trust will hold securities whose issuers issue proxies. However, the Trust is permitted to invest in money market funds whose issuers may periodically issue proxies pursuant to requirements under the Investment Company Act of 1940. Because of the nature of voting subject matters that might arise in the context of a money market fund proxy, AIM perceives relatively less risk with money market fund proxies in contrast to the proxies of corporate operating companies. Accordingly, this procedure has been designed and implemented to address matters that might arise in conjunction with voting money market fund proxies.

It is the general policy of the Firm to vote on all matters presented to security holders in any money market fund proxy in which the Trust is eligible to vote, and these policies and procedures have been designed with that in mind. However, the Firm reserves the right to abstain on any particular vote or otherwise withhold its vote on any matter if in the judgment of the Firm, the costs associated with voting such Proxy outweigh the benefits to the Trust, or if the circumstances make such an abstention or withholding otherwise advisable and in the best interests of the Trust.

In the event the Trust holds a voting security and is eligible to vote in a proxy solicitation, these Proxy Voting Policies and Procedures will be used in determining how to cast a vote, whether to abstain from casting a vote, casting actual votes, maintaining required records and publicly disclosing the results of proxy voting.

Philosophy Governing Guidelines: AIM believes that shareholders will do best investing in companies in which the interests of corporate management are properly aligned with the long term interests of shareholders. In addition, AIM believes that investors are best served by managements and boards of directors that exhibit sound corporate governance. AIM does not support company managements and boards of directors that attempt to enrich themselves disproportionately at the expense of shareholders or that do not exhibit sound governance practices. AIM has established these proxy voting guidelines, but believes they cannot anticipate all situations that may arise. These proxy voting guidelines are guidelines, not rigid rules. There may be instances in which the specific situation requires a vote that does not follow the guidelines. However, generally, proxies will be voted in the best interests of Fund shareholders in a manner designed to maximize shareholder value and/ or promote strong mutual fund governance practices.

Proxy Voting Procedures: The "named" Portfolio Manager of each respective Fund with the Trust will receive, read and vote proxies using the philosophies and guidelines as described herein. AIM will work with the Trust's Custodian to identify voting securities, receive relevant proxy materials, if any, and distribute such proxy materials to the respective Portfolio Manager. Proxies may be voted either electronically or manually via paper ballots delivered via the U. S. Mail.

Generally, the factor(s) considered in voting proxies may include:

- Does the proposed action help or hurt long-term shareholder value?
- Does the proposed action help or hurt mutual fund governance practices?
- Is the proposed action otherwise in the best interest of Fund shareholders?
- Other relevant factors.

If the Portfolio Manager needs further input on a voting matter, they may consult with the Fund's Chief Compliance Officer, Fund officers or Fund legal counsel. Voting records will be maintained in a dedicated file for proxy votes in AIM's headquarters

In cases where votes may require additional analysis, the Portfolio Manager may document the reasoning for the vote and supplement the Fund's voting records. AIM will rely on the Securities and Exchange Commission's (SEC) EDGAR (Electronic Data Gathering and Retrieval) system to provide proxy statement documentation. AIM will make all required Form N-PX filings with the SEC and will post the Trust's Proxy Voting Policies and Procedures and proxy voting results on the Aquila Group of Funds website located at www.aquilafunds.com.

APPENDIX A

DESCRIPTION OF RATINGS

The ratings of Moody's Investors Service, Inc., S&P Global Ratings and Fitch Ratings represent their opinions as to the quality of various debt obligations. It should be emphasized, however, that ratings are not absolute standards of quality. Consequently, debt obligations with the same maturity, coupon and rating may have different yields while debt obligations of the same maturity and coupon with different ratings may have the same yield. As described by the rating agencies, ratings are generally given to securities at the time of issuances. While the rating agencies may from time to time revise such ratings, they undertake no obligation to do so.

Moody's Investors Service, Inc. Global Rating Scales

Ratings assigned on Moody's global long-term and short-term rating scales are forward-looking opinions of the relative credit risks of financial obligations issued by non-financial corporates, financial institutions, structured finance vehicles, project finance vehicles, and public sector entities. Moody's defines credit risk as the risk that an entity may not meet its contractual financial obligations as they come due and any estimated financial loss in the event of default or impairment. The contractual financial obligations¹ addressed by Moody's ratings are those that call for, without regard to enforceability, the payment of an ascertainable amount, which may vary based upon standard sources of variation (e.g., floating interest rates), by an ascertainable date. Moody's rating addresses the issuer's ability to obtain cash sufficient to service the obligation, and its willingness to pay.² Moody's ratings do not address non-standard sources of variation in the amount of the principal obligation (e.g., equity indexed), absent an express statement to the contrary in a press release accompanying an initial rating.³ Long-term ratings are assigned to issuers or obligations with an original maturity of one year or more and reflect both on the likelihood of a default or impairment on contractual financial obligations and the expected financial loss suffered in the event of default or impairment. Short-term ratings are assigned for obligations with an original maturity of thirteen months or less and reflect both on the likelihood of a default or impairment on contractual financial obligations and the expected financial loss suffered in the event of default or impairment.^{4,5}

Moody's issues ratings at the issuer level and instrument level on both the long-term scale and the short-term scale. Typically, ratings are made publicly available although private and unpublished ratings may also be assigned.⁶

Moody's differentiates structured finance ratings from fundamental ratings (i.e., ratings on nonfinancial corporate, financial institution, and public sector entities) on the global long-term scale by adding (sf) to all structured finance ratings.⁷ The addition of (sf) to structured finance ratings should eliminate any presumption that such ratings and fundamental ratings at the same letter grade level will behave the same. The (sf) indicator for structured finance security ratings indicates that otherwise similarly rated structured finance and fundamental securities may have different risk characteristics. Through its current methodologies, however, Moody's aspires to achieve broad expected equivalence in structured finance and fundamental rating performance when measured over a long period of time.

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- (1) In the case of impairments, there can be a financial loss even when contractual obligations are met.
 - (2) In some cases the relevant credit risk relates to a third party, in addition to, or instead of the issuer. Examples include credit-linked notes and guaranteed obligations.
 - (3) Because the number of possible features or structures is limited only by the creativity of issuers, Moody's cannot comprehensively catalogue all the types of non-standard variation affecting financial obligations, but examples include indexed values, equity values and cash flows, prepayment penalties, and an obligation to pay an amount that is not ascertainable at the inception of the transaction.
 - (4) For certain structured finance, preferred stock and hybrid securities in which payment default events are either not defined or do not match investors' expectations for timely payment, long-term and short-term ratings reflect the likelihood of impairment and financial loss in the event of impairment.
 - (5) Debts held on the balance sheets of official sector institutions – which include supranational institutions, central banks and certain government-owned or controlled banks – may not always be treated the same as debts held by private investors and lenders. When it is known that an obligation is held by official sector institutions as well as other investors, a rating (short-term or long-term) assigned to that obligation reflects only the credit risks faced by non-official sector investors.
 - (6) For information on how to obtain a Moody's credit rating, including private and unpublished credit ratings, please see Moody's Investors Service Products.
 - (7) Like other global scale ratings, (sf) ratings reflect both the likelihood of a default and the expected loss suffered in the event of default. Ratings are assigned based on a rating committee's assessment of a security's expected loss rate (default probability multiplied by expected loss severity), and may be subject to the constraint that the final expected loss rating assigned would not be more than a certain number of notches, typically three to five notches, above the rating that would be assigned based on an assessment of default probability alone. The magnitude of this constraint may vary with the level of the rating, the seasoning of the transaction, and the uncertainty around the assessments of expected loss and probability of default.

Description of Moody's Investors Service, Inc.'s Global Long-Term Ratings:

Aaa—Obligations rated Aaa are judged to be of the highest quality, subject to the lowest level of credit risk.

Aa—Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.

A—Obligations rated A are judged to be upper-medium grade and are subject to low credit risk.

Baa—Obligations rated Baa are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.

Ba—Obligations rated Ba are judged to be speculative and are subject to substantial credit risk.

B—Obligations rated B are considered speculative and are subject to high credit risk.

Caa—Obligations rated Caa are judged to be speculative of poor standing and are subject to very high credit risk.

Ca—Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.

C—Obligations rated C are the lowest rated and are typically in default, with little prospect for recovery of principal or interest.

Note: Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category. Additionally, a "(hyb)" indicator is appended to all ratings of hybrid securities issued by banks, insurers, finance companies, and securities firms.

By their terms, hybrid securities allow for the omission of scheduled dividends, interest, or principal payments, which can potentially result in impairment if such an omission occurs. Hybrid securities may also be subject to contractually allowable write-downs of principal that could result in impairment. Together with the hybrid indicator, the long-term obligation rating assigned to a hybrid security is an expression of the relative credit risk associated with that security.

Description of Moody's Investors Service, Inc.'s Global Short-Term Ratings:

P-1—Ratings of Prime-1 reflect a superior ability to repay short-term debt obligations.

P-2—Ratings of Prime-2 reflect a strong ability to repay short-term debt obligations.

P-3—Ratings of Prime-3 reflect an acceptable ability to repay short-term obligations.

NP—Issuers (or supporting institutions) rated Not Prime do not fall within any of the Prime rating categories.

Description of Moody's Investors Service, Inc.'s US Municipal Ratings:

U.S. Municipal Short-Term Obligation Ratings:

Moody's uses the global short-term Prime rating scale for commercial paper issued by US municipalities and nonprofits. These commercial paper programs may be backed by external letters of credit or liquidity facilities, or by an issuer's self-liquidity. For other short-term municipal obligations, Moody's uses one of two other short-term rating scales, the Municipal Investment Grade (MIG) and Variable Municipal Investment Grade (VMIG) scales discussed below.

Moody's uses the MIG scale for US municipal cash flow notes, bond anticipation notes and certain other short-term obligations, which typically mature in three years or less. Under certain circumstances, Moody's uses the MIG scale for bond anticipation notes with maturities of up to five years.

MIG 1—This designation denotes superior credit quality. Excellent protection is afforded by established cash flows, highly reliable liquidity support, or demonstrated broad-based access to the market for refinancing.

MIG 2—This designation denotes strong credit quality. Margins of protection are ample, although not as large as in the preceding group.

MIG 3—This designation denotes acceptable credit quality. Liquidity and cash-flow protection may be narrow, and market access for refinancing is likely to be less well-established.

SG—This designation denotes speculative-grade credit quality. Debt instruments in this category may lack sufficient margins of protection.

Demand Obligation Ratings:

In the case of variable rate demand obligations (VRDOs), a two-component rating is assigned. The components are a long-term debt rating and a short-term demand obligation rating. The long-term rating addresses the issuer’s ability to meet scheduled principal and interest payments. The short-term demand obligation rating addresses the ability of the issuer or the liquidity provider to make payments associated with the purchase-price-upon-demand feature (“demand feature”) of the VRDO. The short-term demand obligation rating uses the VMIG scale. VMIG ratings with liquidity support use an input the short-term Counterparty Risk Assessment of the support provider, or the long-term rating of the underlying obligor in the absence of third party liquidity support. Transitions of VMIG ratings of demand obligations with conditional liquidity support differ from transitions on the Prime scale to reflect the risk that external liquidity support will terminate if the issuer’s long-term rating drops below investment grade.

Moody’s typically assigns the VMIG short-term demand obligation rating if the frequency of the demand feature is less than every three years. If the frequency of the demand feature is less than three years but the purchase price is payable only with remarketing proceeds, the short-term demand obligation rating is “NR”.

VMIG 1—This designation denotes superior credit quality. Excellent protection is afforded by the superior short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.

VMIG 2—This designation denotes strong credit quality. Good protection is afforded by the strong short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.

VMIG 3—This designation denotes acceptable credit quality. Adequate protection is afforded by the satisfactory short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.

SG-This designation denotes speculative-grade credit quality. Demand features rated in this category may be supported by a liquidity provider that does not have an investment grade short-term rating or may lack the structural and/or legal protections necessary to ensure the timely payment of purchase price upon demand.

Description of Moody’s Investors Service, Inc.’s National Scale Long-Term Ratings:

Moody’s long-term National Scale Ratings (NSRs) are opinions of the relative creditworthiness of issuers and financial obligations within a particular country. NSRs are not designed to be compared among countries; rather, they address relative credit risk within a given country. Moody’s assigns national scale ratings in certain local capital markets in which investors have found the global rating scale provides inadequate differentiation among credits or is inconsistent with a rating scale already in common use in the country.

In each specific country, the last two characters of the rating indicate the country in which the issuer is located or the financial obligation was issued (e.g., Aaa.ke for Kenya).

Long-Term NSR Scale

Aaa.n Issuers or issues rated Aaa.n demonstrate the strongest creditworthiness relative to other domestic issuers and issuances.

Aa.n Issuers or issues rated Aa.n demonstrate very strong creditworthiness relative to other domestic issuers and issuances.

A.n Issuers or issues rated A.n present above-average creditworthiness relative to other domestic issuers and issuances.

Baa.n Issuers or issues rated Baa.n represent average creditworthiness relative to other domestic issuers and issuances.

Ba.n Issuers or issues rated Ba.n demonstrate below-average creditworthiness relative to other domestic issuers and issuances.

B.n Issuers or issues rated B.n demonstrate weak creditworthiness relative to other domestic issuers and issuances.

Caa.n Issuers or issues rated Caa.n demonstrate very weak creditworthiness relative to other domestic issuers and issuances.

Ca.n Issuers or issues rated Ca.n demonstrate extremely weak creditworthiness relative to other domestic issuers and issuances.

C.n Issuers or issues rated C.n demonstrate the weakest creditworthiness relative to other domestic issuers and issuances.

Note: Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

Description of S&P Global Ratings' Long-Term Issue Credit Ratings:

Long-Term Issue Credit Ratings are based, in varying degrees, on S&P Global Ratings' analysis of the following considerations: (1) the likelihood of payment—the capacity and willingness of the obligor to meet its financial commitment on a financial obligation in accordance with the terms of the obligation; (2) the nature and provisions of the financial obligation, and the promise S&P Global Ratings imputes; and (3) the protection afforded by, and relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

An issue rating is an assessment of default risk, but may incorporate an assessment of relative seniority or ultimate recovery in the event of default. Junior obligations are typically rated lower than senior obligations, to reflect lower priority in bankruptcy, as noted above. (Such differentiation may apply when an entity has both senior and subordinated obligations, secured and unsecured obligations, or operating company and holding company obligations.)

AAA—An obligation rated “AAA” has the highest rating assigned by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is extremely strong.

AA—An obligation rated “AA” differs from the highest-rated obligations only to a small degree. The obligor's capacity to meet its financial commitments on the obligation is very strong.

A—An obligation rated “A” is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitments on the obligation is still strong.

BBB—An obligation rated “BBB” exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments on the obligation.

BB, B, CCC, CC, and C—Obligations rated “BB”, “B”, “CCC”, “CC”, and “C” are regarded as having significant speculative characteristics. “BB” indicates the least degree of speculation and “C” the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.

BB—An obligation rated “BB” is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments on the obligation.

B—An obligation rated “B” is more vulnerable to nonpayment than obligations rated “BB”, but the obligor currently has the capacity to meet its financial commitments on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments on the obligation.

CCC—An obligation rated “CCC” is currently vulnerable to nonpayment, and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation. In the event

of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments on the obligation.

CC—An obligation rated “CC” is currently highly vulnerable to nonpayment.

The “CC” rating is used when a default has not yet occurred, but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.

C—An obligation rated “C” is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared with obligations that are rated higher.

D—An obligation rated “D” is in default or in breach of an imputed promise. For non-hybrid capital instruments, the “D” rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within five business days in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. The “D” rating also will be used upon the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. A rating on an obligation is lowered to “D” if it is subject to a distressed exchange offer.

Ratings from “AA” to “CCC” may be modified by the addition of a plus (+) or minus (–) sign to show relative standing within the rating categories.

Description of S&P Global Ratings’ Short-Term Issue Credit Ratings:

A-1—A short-term obligation rated “A-1” is rated in the highest category by S&P Global Ratings. The obligor’s capacity to meet its financial commitments on the obligation is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor’s capacity to meet its financial commitments on these obligations is extremely strong.

A-2—A short-term obligation rated “A-2” is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor’s capacity to meet its financial commitments on the obligation is satisfactory.

A-3—A short-term obligation rated “A-3” exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken an obligor’s capacity to meet its financial commitments on the obligation.

B—A short-term obligation rated “B” is regarded as vulnerable and has significant speculative characteristics. The obligor currently has the capacity to meet its financial commitments; however, it faces major ongoing uncertainties that could lead to the obligor’s inadequate capacity to meet its financial commitments.

C—A short-term obligation rated “C” is currently vulnerable to nonpayment and is dependent on favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation.

D—A short-term obligation rated “D” is in default or in breach of an imputed promise. For non-hybrid capital instruments, the “D” rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings’ believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The “D” rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. A rating on an obligation is lowered to “D” if it is subject to a distressed debt restructuring.

Description of S&P Global Ratings’ Municipal Short-Term Note Ratings Definitions:

An S&P Global Ratings U.S. municipal note rating reflects S&P Global Ratings opinion about the liquidity factors and market access risks unique to the notes. Notes due in three years or less will likely receive a note rating. Notes with an original maturity of more than three years will most likely receive a long-term debt rating. In determining which type of rating, if any, to assign, S&P Global Ratings’ analysis will review the following considerations: (1) amortization schedule—the larger the final maturity relative to other maturities, the more likely it will be treated as a note; and (2) source of payment—the more dependent the issue is on the market for its refinancing, the more likely it will be treated as a note.

SP-1—Strong capacity to pay principal and interest. An issue determined to possess a very strong capacity to pay debt service is given a plus (+) designation.

SP-2-Satisfactory capacity to pay principal and interest, with some vulnerability to adverse financial and economic changes over the term of the notes.

SP-3-Speculative capacity to pay principal and interest.

D—“D” is assigned upon failure to pay the note when due, completion of a distressed debt restructuring, or the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions.

Long-Term Issuer Credit Ratings

AAA An obligor rated “AAA” has extremely strong capacity to meet its financial commitments. “AAA” is the highest issuer credit rating assigned by S&P Global Ratings.

AA An obligor rated “AA” has very strong capacity to meet its financial commitments. It differs from the highest-rated obligors only to a small degree.

A An obligor rated “A” has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.

BBB An obligor rated “BBB” has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor’s capacity to meet its financial commitments.

BB, B, CCC, and CC Obligors rated “BB”, “B”, “CCC”, and “CC” are regarded as having significant speculative characteristics. “BB” indicates the least degree of speculation and “CC” the highest. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.

BB An obligor rated “BB” is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor’s inadequate capacity to meet its financial commitments.

B An obligor rated “B” is more vulnerable than the obligors rated “BB”, but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor’s capacity or willingness to meet its financial commitments.

CCC An obligor rated “CCC” is currently vulnerable and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.

CC An obligor rated “CC” is currently highly vulnerable. The “CC” rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.

SD and D An obligor is rated “SD” (selective default) or “D” if S&P Global Ratings considers there to be a default on one or more of its financial obligations, whether long- or short-term, including rated and unrated obligations but excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms. A “D” rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An “SD” rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. A rating on an obligor is lowered to “D” or “SD” if it is conducting a distressed debt restructuring. Ratings from “AA” to “CCC” may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the rating categories.

Description of S&P Global Ratings’ Dual Ratings:

Dual ratings may be assigned to debt issues that have a put option or demand feature. The first component of the rating addresses the likelihood of repayment of principal and interest as due, and the second component of the rating addresses only the demand feature. The first component of the rating can relate to either a short-term or long-term transaction and accordingly use either short-term or long-term rating symbols. The second component of the rating relates to the put option and is assigned a short-term rating symbol (for example, “AAA/A-1+” or “A-1+/A-1”). With U.S. municipal short-term demand debt, the U.S. municipal short-term note rating symbols are used for the first component of the rating (for example, “SP-1+/A-1+”).

Description of S&P Global Ratings' Active Qualifiers:

S&P Global Ratings uses the following qualifiers that limit the scope of a rating. The structure of the transaction can require the use of a qualifier such as a “p” qualifier, which indicates the rating addresses the principal portion of the obligation only. A qualifier appears as a suffix and is part of the rating.

Federal deposit insurance limit: “L” qualifier. Ratings qualified with “L” apply only to amounts invested up to federal deposit insurance limits.

Principal: “p” qualifier. This suffix is used for issues in which the credit factors, the terms, or both, that determine the likelihood of receipt of payment of principal are different from the credit factors, terms or both that determine the likelihood of receipt of interest on the obligation. The “p” suffix indicates that the rating addresses the principal portion of the obligation only and that the interest is not rated.

Preliminary ratings: “prelim” qualifier. Preliminary ratings, with the “prelim” suffix, may be assigned to obligors or obligations, including financial programs, in the circumstances described below. Assignment of a final rating is conditional on the receipt by S&P Global Ratings of appropriate documentation. S&P Global Ratings reserves the right not to issue a final rating. Moreover, if a final rating is issued, it may differ from the preliminary rating.

- Preliminary ratings may be assigned to obligations, most commonly structured and project finance issues, pending receipt of final documentation and legal opinions.
- Preliminary ratings may be assigned to obligations that will likely be issued upon the obligor’s emergence from bankruptcy or similar reorganization, based on late-stage reorganization plans, documentation and discussions with the obligor. Preliminary ratings may also be assigned to the obligors. These ratings consider the anticipated general credit quality of the reorganized or post-bankruptcy issuer as well as attributes of the anticipated obligation(s).
- Preliminary ratings may be assigned to entities that are being formed or that are in the process of being independently established when, in S&P Global Ratings’ opinion, documentation is close to final. Preliminary ratings may also be assigned to the obligations of these entities.
- Preliminary ratings may be assigned when a previously unrated entity is undergoing a well-formulated restructuring, recapitalization, significant financing or other transformative event, generally at the point that investor or lender commitments are invited. The preliminary rating may be assigned to the entity and to its proposed obligation(s). These preliminary ratings consider the anticipated general credit quality of the obligor, as well as attributes of the anticipated obligation(s), assuming successful completion of the transformative event. Should the transformative event not occur, S&P Global Ratings would likely withdraw these preliminary ratings.
- A preliminary recovery rating may be assigned to an obligation that has a preliminary issue credit rating.

Termination structures: “t” qualifier. This symbol indicates termination structures that are designed to honor their contracts to full maturity or, should certain events occur, to terminate and cash settle all their contracts before their final maturity date.

Counterparty instrument rating: “cir” qualifier. This symbol indicates a counterparty instrument rating (CIR), which is a forward-looking opinion about the creditworthiness of an issuer in a securitization structure with respect to a specific financial obligation to a counterparty (including interest rate swaps, currency swaps, and liquidity facilities). The CIR is determined on an ultimate payment basis; these opinions do not take into account timeliness of payment.

Description of Fitch Ratings' Corporate Finance Obligation Ratings:

Ratings of individual securities or financial obligations of a corporate issuer address relative vulnerability to default on an ordinal scale. In addition, for financial obligations in corporate finance, a measure of recovery given default on that liability is also included in the rating assessment. This notably applies to covered bonds ratings, which incorporate both an indication of the probability of default and of the recovery given a default of this debt instrument. On the contrary, ratings of debtor-in-possession (DIP) obligations incorporate the expectation of full repayment.

The relationship between the issuer scale and obligation scale assumes a generic historical average recovery. Individual obligations can be assigned ratings, higher, lower, or the same as that entity's issuer rating or Issuer Default Rating (IDR), based on their relative ranking, relative vulnerability to default or based on explicit Recovery Ratings. As a result, individual obligations of entities, such as corporations, are assigned ratings higher, lower, or the same as that entity's issuer rating or IDR, except DIP obligation ratings that are not based off an IDR. At the lower end of the ratings scale, Fitch publishes explicit Recovery Ratings in many cases to complement issuer and obligation ratings.

AAA: Highest credit quality. "AAA" ratings denote the lowest expectation of credit risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very high credit quality. "AA" ratings denote expectations of very low credit risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High credit quality. "A" ratings denote expectations of low credit risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good credit quality. "BBB" ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.

BB: Speculative. "BB" ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial alternatives may be available to allow financial commitments to be met.

B: Highly speculative. "B" ratings indicate that material credit risk is present.

CCC: Substantial credit risk. "CCC" ratings indicate that substantial credit risk is present.

CC: Very high levels of credit risk. "CC" ratings indicate very high levels of credit risk.

C: Exceptionally high levels of credit risk. "C" indicates exceptionally high levels of credit risk.

The ratings of corporate finance obligations are linked to Issuer Default Ratings (or sometimes Viability Ratings for banks) by i) recovery expectations, including as often indicated by Recovery Ratings assigned in the case of low speculative grade issuers and ii) for banks an assessment of non-performance risk relative to the risk captured in the Issuer Default Rating or Viability Rating (e.g. in respect of certain hybrid securities).

For performing obligations, the obligation rating represents the risk of default and takes into account the effect of expected recoveries on the credit risk should a default occur.

If the obligation rating is higher than the rating of the issuer, this indicates above average recovery expectations in the event of default. If the obligations rating is lower than the rating of the issuer, this indicates low expected recoveries should default occur.

Ratings in the categories of "CCC", "CC" and "C" can also relate to obligations or issuers that are in default. In this case, the rating does not opine on default risk but reflects the recovery expectation only.

Description of Fitch Ratings' Issuer Default Ratings:

Rated entities in a number of sectors, including financial and non-financial corporations, sovereigns, insurance companies and certain sectors within public finance, are generally assigned Issuer Default Ratings (IDRs). IDRs are also assigned to certain entities or enterprises in global infrastructure, project finance and public finance. IDRs opine on an entity's relative vulnerability to default (including by way of a distressed debt exchange) on financial obligations. The threshold default risk addressed by the IDR is generally that of the financial obligations whose non-payment would best reflect the uncured failure of that entity. As such, IDRs also address relative vulnerability to bankruptcy, administrative receivership or similar concepts.

In aggregate, IDRs provide an ordinal ranking of issuers based on the agency's view of their relative vulnerability to default, rather than a prediction of a specific percentage likelihood of default.

AAA: Highest credit quality. “AAA” ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very high credit quality. “AA” ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High credit quality. “A” ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good credit quality. “BBB” ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.

BB: Speculative. “BB” ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists that supports the servicing of financial commitments.

B: Highly speculative. “B” ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.

CCC: Substantial credit risk. Default is a real possibility.

CC: Very high levels of credit risk. Default of some kind appears probable.

C: Near default. A default or default-like process has begun, or the issuer is in standstill, or for a closed funding vehicle, payment capacity is irrevocably impaired. Conditions that are indicative of a “C” category rating for an issuer include:

- the issuer has entered into a grace or cure period following non-payment of a material financial obligation;
- the issuer has entered into a temporary negotiated waiver or standstill agreement following a payment default on a material financial obligation;
- the formal announcement by the issuer or their agent of a distressed debt exchange;
- a closed financing vehicle where payment capacity is irrevocably impaired such that it is not expected to pay interest and/or principal in full during the life of the transaction, but where no payment default is imminent

RD: Restricted default. “RD” ratings indicate an issuer that in Fitch’s opinion has experienced:

- an uncured payment default or distressed debt exchange on a bond, loan or other material financial obligation, but
- has not entered into bankruptcy filings, administration, receivership, liquidation, or other formal winding-up procedure, and has not otherwise ceased operating. This would include:
 - the selective payment default on a specific class or currency of debt;
 - the uncured expiry of any applicable grace period, cure period or default forbearance period following a payment default on a bank loan, capital markets security or other material financial obligation;
 - the extension of multiple waivers or forbearance periods upon a payment default on one or more material financial obligations, either in series or in parallel; ordinary execution of a distressed debt exchange on one or more material financial obligations.

D: Default. “D” ratings indicate an issuer that in Fitch’s opinion has entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure or that has otherwise ceased business.

Default ratings are not assigned prospectively to entities or their obligations; within this context, non-payment on an instrument that contains a deferral feature or grace period will generally not be considered a default until after the expiration of the deferral or grace period, unless a default is otherwise driven by bankruptcy or other similar circumstance, or by a distressed debt exchange.

In all cases, the assignment of a default rating reflects the agency's opinion as to the most appropriate rating category consistent with the rest of its universe of ratings and may differ from the definition of default under the terms of an issuer's financial obligations or local commercial practice.

Description of Fitch Ratings' Structured Finance Long-Term Obligation Ratings:

Ratings of structured finance obligations on the long-term scale consider the obligations' relative vulnerability to default. These ratings are typically assigned to an individual security or tranche in a transaction and not to an issuer.

AAA: Highest credit quality.

"AAA ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very high credit quality.

"AA" ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High credit quality.

"A" ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good credit quality.

"BBB" ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate, but adverse business or economic conditions are more likely to impair this capacity.

BB: Speculative.

"BB" ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time.

B: Highly speculative.

"B" ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.

CCC: Substantial credit risk.

Default is a real possibility.

CC: Very high levels of credit risk.

Default of some kind appears probable.

C: Exceptionally high levels of credit risk.

Default appears imminent or inevitable.

D: Default.

Indicates a default. Default generally is defined as one of the following:

- failure to make payment of principal and/or interest under the contractual terms of the rated obligation;
- bankruptcy filings, administration, receivership, liquidation or other winding-up or cessation of the business of an issuer/obligor; or
- distressed exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation to avoid a probable payment default.

Description of Fitch Ratings' Country Ceilings Ratings:

Country Ceilings are expressed using the symbols of the long-term issuer primary credit rating scale and relate to sovereign jurisdictions also rated by Fitch on the Issuer Default Rating (IDR) scale. They reflect the agency's judgment regarding the risk of capital and exchange controls being imposed by the sovereign authorities that would prevent or materially impede the private sector's ability to convert local currency into foreign currency and transfer to non-resident creditors — transfer and convertibility (T&C) risk. They are not ratings but expressions of a cap for the foreign currency issuer ratings of most, but not all, issuers in a given country. Given the close correlation between sovereign credit and T&C risks, the Country Ceiling may exhibit a greater degree of volatility than would normally be expected when it lies above the sovereign Foreign Currency Rating.

Description of Fitch Ratings' Public Finance and Global Infrastructure Obligation Ratings:

Ratings of public finance obligations and ratings of infrastructure and project finance obligations on the long-term scale, including the financial obligations of sovereigns, consider the obligations' relative vulnerability to default. These ratings are assigned to an individual security, instrument or tranche in a transaction. In some cases, considerations of recoveries can have an influence on obligation ratings in infrastructure and project finance. In limited cases in U.S. public finance, where Chapter 9 of the Bankruptcy Code provides reliably superior prospects for ultimate recovery to local government obligations that benefit from a statutory lien on revenues, Fitch reflects this in a security rating with limited notching above the IDR. Recovery expectations can also be reflected in a security rating in the U.S. during the pendency of a bankruptcy proceeding under the Code if there is sufficient visibility on potential recovery prospects.

AAA: Highest credit quality. "AAA" ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very high credit quality. "AA" ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High credit quality. "A" ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good credit quality. "BBB" ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.

BB: Speculative. "BB" ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time.

B: Highly speculative. "B" ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.

CCC: Substantial credit risk. Default is a real possibility.

CC: Very high levels of credit risk. Default of some kind appears probable.

C: Exceptionally high levels of credit risk. Default appears imminent or inevitable.

D: Default. Indicates a default. Default generally is defined as one of the following:

- failure to make payment of principal and/or interest under the contractual terms of the rated obligation;
- bankruptcy filings, administration, receivership, liquidation or other winding-up or cessation of the business of an issuer/obligor where payment default on an obligation is a virtual certainty; or
- distressed exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation to avoid a probable payment default.

Notes: In U.S. public finance, obligations may be pre-refunded, where funds sufficient to meet the requirements of the respective obligations are placed in an escrow account. When obligation ratings are maintained based on the escrowed funds and their structural elements, the ratings carry the suffix "pre" (e.g. "AAApre", "AA+pre").

Structured Finance Defaults

“Imminent” default, categorized under “C”, typically refers to the occasion where a payment default has been intimated by the issuer, and is all but inevitable. This may, for example, be where an issuer has missed a scheduled payment, but (as is typical) has a grace period during which it may cure the payment default. Another alternative would be where an issuer has formally announced a distressed debt exchange, but the date of the exchange still lies several days or weeks in the immediate future.

Additionally, in structured finance transactions, where analysis indicates that an instrument is irrevocably impaired such that it is not expected to pay interest and/or principal in full in accordance with the terms of the obligation’s documentation during the life of the transaction, but where no payment default in accordance with the terms of the documentation is imminent, the obligation will typically be rated in the “C” category.

Structured Finance Write-downs

Where an instrument has experienced an involuntary and, in Fitch Ratings’ opinion, irreversible “write-down” of principal (*i.e.*, other than through amortization, and resulting in a loss to the investor), a credit rating of “D” will be assigned to the instrument. Where Fitch Ratings believes the “write-down” may prove to be temporary (and the loss may be “written up” again in future if and when performance improves), then a credit rating of “C” will typically be assigned. Should the “write-down” then later be reversed, the credit rating will be raised to an appropriate level for that instrument. Should the “write-down” later be deemed as irreversible, the credit rating will be lowered to “D”.

Notes: In the case of structured and project finance, while the ratings do not address the loss severity given default of the rated liability, loss severity assumptions on the underlying assets are nonetheless typically included as part of the analysis. Loss severity assumptions are used to derive pool cash flows available to service the rated liability.

The suffix “sf” denotes an issue that is a structured finance transaction.

Enhanced Equipment Trust Certificates (EETCs) are corporate-structured hybrid debt securities that airlines typically use to finance aircraft equipment. Due to the hybrid characteristics of these bonds, Fitch's rating approach incorporates elements of both the structured finance and corporate rating methodologies. Although rated as asset-backed securities, unlike other structured finance ratings, EETC ratings involve a measure of recovery given default akin to ratings of financial obligations in corporate finance, as described above.

Description of Fitch Ratings’ Short-Term Ratings Assigned to Issuers and Obligations:

A short-term issuer or obligation rating is based in all cases on the short-term vulnerability to default of the rated entity or security stream and relates to the capacity to meet financial obligations in accordance with the documentation governing the relevant obligation. Short-term deposit ratings may be adjusted for loss severity. Short-Term Ratings are assigned to obligations whose initial maturity is viewed as “short term” based on market convention.⁸ Typically, this means up to 13 months for corporate, sovereign, and structured obligations, and up to 36 months for obligations in U.S. public finance markets.

F1—Highest short-term credit quality. Indicates the strongest intrinsic capacity for timely payment of financial commitments; may have an added “+” to denote any exceptionally strong credit feature.

(8) A long-term rating can also be used to rate an issuer with short maturity.

F2—Good short-term credit quality. Good intrinsic capacity for timely payment of financial commitments.

F3—Fair short-term credit quality. The intrinsic capacity for timely payment of financial commitments is adequate.

B—Speculative short-term credit quality. Minimal capacity for timely payment of financial commitments, plus heightened vulnerability to near term adverse changes in financial and economic conditions.

C—High short-term default risk. Default is a real possibility.

RD—Restricted default. Indicates an entity that has defaulted on one or more of its financial commitments, although it continues to meet other financial obligations. Typically applicable to entity ratings only.

D—Default. Indicates a broad-based default event for an entity, or the default of all short-term obligations.

APPENDIX B

ADDITIONAL INFORMATION ABOUT THE ARIZONA ECONOMY AND ARIZONA OBLIGATIONS

The following information is a summary of certain factors affecting the credit and financial condition of the State of Arizona (“Arizona” or the “State”). The sources of payment for Arizona municipal obligations and the marketability thereof may be affected by financial or other difficulties experienced by the State and certain of its municipalities and public authorities. This summary does not purport to be a complete description and is derived solely from information contained in publicly available documents, including reports prepared by State government and budget officials and statements of issuers of Arizona municipal obligations, as available on the date of this Statement of Additional Information. Any characterizations of fact, assessments of conditions, estimates of future results and other projections are statements of opinion made by the State in, and as of the date of, such reports and are subject to risks and uncertainties that may cause actual results to differ materially. The Fund is not responsible for information contained in such reports and has not independently verified the accuracy, completeness or timeliness of information contained in such reports. Such information is included herein without the express authority of any Arizona issuer and is provided without regard to any events that have occurred since the date of the most recent publicly available report.

Economic and Demographic Information

General

Located in the country’s sunbelt, Arizona continues to be one of the fastest growing areas in the United States. Based on 2010 census figures, Arizona ranked 16th in U.S. population. Over the last several decades, Arizona has outpaced most other regions of the country in virtually every major category of growth, including population, personal income, gross state product and job creation.

Geographically, Arizona is the nation’s sixth largest state in terms of area (113,909 square miles). It is divided into three distinct topographic regions: northern Arizona - high plateau country traversed by deep canyons such as the Grand Canyon National Park; central Arizona - rugged, mountainous and heavily forested; and southern Arizona - encompassing desert areas and flat, fertile agricultural lands in valleys between mountains rich in mineral deposits. These topographic areas all have different climates, which have distinctively influenced development in each region. Land ownership is vested largely in the federal and State governments: 42.1 percent is owned by the federal government, 27.6 percent is held as Federal Trust Land (Indian), 17.6 percent is privately owned and 12.7 percent is held by the State.

Arizona is divided into 15 counties. Two of these counties, Maricopa County, Arizona (“Maricopa County”) and Pima County, Arizona (“Pima County”), are more urban in nature and account for over 75 percent of total population and over 84 percent of total wage and salary employment in Arizona, based on 2018 estimates. Located within Maricopa County is the greater Phoenix metropolitan area, which consists of the City of Phoenix, the sixth largest city in the United States, and surrounding cities including Scottsdale, Tempe, Mesa, Glendale, Chandler, Peoria, Gilbert and Avondale. Located within Pima County is the Tucson metropolitan area, which is dominated by the City of Tucson, Arizona, the State’s second most populous city.

Economic Condition and Outlook

Summary of Outlook

The Office of Economic Opportunity (OEO) projects that employment in Arizona will increase from 3,241,387 to 3,332,012 jobs in from the 2nd Quarter of 2022 through the 2nd quarter of 2024. This represents an increase of 90,625 jobs, or 1.4% annualized growth.

Job gains are projected for 10 of the 11 Arizona supersectors, with Manufacturing (3.4% annualized growth) and Information (3.3% annualized growth) projected to record the fastest job growth rates. Trade, Transportation and Utilities (18,557 jobs) and Leisure and Hospitality (17,458 jobs) are projected to record the largest job gains.

Supersectors projected to record the lowest rates of growth include Natural Resources and Mining (0.3% annualized growth) and Government (0.4% annualized growth). Natural Resources and Mining (248 jobs) and Government (1,392 jobs) also are projected to record the fewest job gains over the two-year period. Financial Activities is the only supersector projected to record a loss (-2,796 jobs, or -0.6%).

Ten of 11 supersectors are projected to gain jobs in Arizona from Q2 2022 to Q2 2024. Highlights of this job growth include the following:

- Manufacturing employment is projected to grow by 13,300 jobs (3.4% annually). Much of this job growth is projected to be driven by the Computer and Electronic Product Manufacturing industry, which is projected to grow by 3,567 (5.2% annually). This represents 26.8% of job growth in the Manufacturing supersector. Transportation Equipment Manufacturing is projected to gain 2,509 jobs (3.2% annually), representing 18.9% of Manufacturing job growth over the two-year period.
- Information employment is projected to increase by 3,514 jobs (3.3% annually). Within the Information supersector, the Motion Picture and Sound Recording industry is projected to gain 1,548 (13.7% annually), representing 44.1% of growth in the supersector.
- Leisure and Hospitality employment is projected to grow by 17,458 jobs (2.4% annually) to 373,675 in Q2 2024 from 356,217 in Q2 2022. The Food Services and Drinking Places industry is projected to grow by 8,681 (1.7% annually), representing 49.7% of projected job growth in the Leisure and Hospitality supersector.
- Professional and Business Services employment is projected to grow by 17,457 jobs (1.8% annually). Most of this growth is projected to be driven by the Professional, Scientific, and Technical Services industry, which is projected to gain 10,353 jobs (2.9% annually), representing 59.3% of projected growth in the Professional and Business Services supersector.
- Trade, Transportation and Utilities employment is projected to grow by 18,557 jobs (1.5% annually). Much of this job growth is projected to be driven by the Warehousing and Storage industry, which is projected to gain 4,505 jobs (4.4% annually). This represents 24.3% of job growth in the Trade, Transportation and Utilities supersector.
- Education and Health Services employment is projected to grow by 15,822 jobs (1.2% annually). Most of this job growth is projected to be driven by the Ambulatory Health Care Services industry, which is projected to gain 12,126 jobs (3.1% annually), representing 76.6% of projected growth in the Education and Health Services supersector.

Each of the 15 Arizona counties is projected to gain jobs over the two-year projected period. Greenlee County (3.6% annualized growth), Pinal County (1.8% annualized growth), and Graham County (1.6% annualized growth) are projected to record the largest job growth rates. Maricopa County (72,670 jobs), Pima County (6,009 jobs), and Pinal County (2,694 jobs) are projected to record the largest job gains. Maricopa County is projected to account for 80.2% of the jobs gained in the state over the two-year projected period, while Pima County is projected to account for 6.6% and Pinal County is projected to account for 3.0%.

Employment

For the five years leading up to the pandemic, Arizona was among the nation’s leaders in job creation. That momentum helped the state’s job market weather the pandemic and recover lost jobs relatively quickly.

Looking ahead to 2023, the pace of job growth in the state will be heavily influenced by, first, whether the Federal Reserve can achieve its “soft landing” objectives and, second, the depth of a slowdown in the housing sector.

Arizona’s housing shortage should work to the housing sector’s advantage, but tighter monetary policy is likely to suppress new-home prices and sales volume, which would dampen employment prospects in residential construction and related sectors.

Manufacturing

Arizona has prospered in attracting manufacturers looking to relocate.

In 2022, growth in manufacturing jobs exploded, as the state was on pace to add about 15,000 manufacturing jobs – the highest growth in decades.

The health of manufacturing in Arizona is important for overall job growth, because of manufacturing’s distinctive ability to sustain a net flow of income into the state and provide residual benefits to other businesses and sectors.

Since the turn of the century, one of the most important growth drivers for Arizona has been its strength in aerospace and electronics manufacturing. In recent years, the manufacturing sector has seen both a resurgence in traditional segments and diversification with a blossoming automobile sector.

Looking ahead, the national political climate and recently passed federal legislation, which includes a focus on green energy initiatives and domestic semiconductor production, aligns well with Arizona's business climate and should continue to drive capital investment in 2023 and beyond.

At the same time, competition for new facilities incorporating advanced manufacturing capabilities will require a knowledge-based workforce equipped with analytical skills required to operate and maintain complex production operations. States that are successful in this competition will have workforces trained and ready to meet this challenge.

Construction

In 2023, the pace of construction job growth will be greatly influenced by how the overall housing sector responds to the Fed's fiscal moves, relatively high mortgage rates, rising labor costs, and implementation of the federal Infrastructure and Jobs Act.

In contrast to 2019, when the state's 12,000 new construction jobs ranked Arizona among the top five states, job growth fell in 2022 to about 6,000 on a year-over-year basis. That is a significant shortfall from expectations at the start of the year, when many economists and industry leaders predicted that the housing sector and the injection of infrastructure investments would underpin the sector.

The bright picture that the sector projected just a year ago has dimmed, and construction job creation for 2023 is likely to continue to fall short of recent expectations.

Personal Income

Historically, nominal personal income growth has been a reliable barometer of overall economic growth in the state, as it encompasses both overall employment and income growth. Arizona has regularly been among the nation's leaders in this measurement.

However, 2020 and 2021 were unusual years. Large federal transfer payments in the second quarter of 2020 and the first quarter of 2021 led to personal-income surges despite relatively high unemployment rates. With the loss of this injection in 2022, overall personal income growth slowed to about 3%, even though wages and salaries alone surged by nearly 10%. Consequently, overall personal income will be less of a reliable measure of economic performance until later in 2023 and beyond.

In assessing the overall income figure, the volatility of both capital gains income and income from the real estate sector merits consideration. Current estimates suggest that Arizona capital gains realizations in 2021 surged to more than \$33 billion, by far the highest on record and over \$15 billion higher than average gains realizations in the years leading up to the pandemic.

Moreover, the 2021 real estate boom buoyed incomes for individuals and businesses that rely on real estate-related sales. The likely decline in capital gains income and income from real estate transactions will adversely affect overall income in Arizona throughout 2023.

In-migration

Arizona has historically been a people magnet for both domestic and international immigrants, and, according to decades-long IRS data, the state continues to rank among the nation's leaders in domestic in-migration.

More recent census data suggests that Arizona ranked third in net domestic migration in 2021 and has been among the top five for much of the past decade. Among major metropolitan areas, the Phoenix area has held the top position for five of the past six years.

Since the middle of the 20th century, Arizona's consistent attraction has stemmed from plentiful job opportunities, affordable housing, pleasant weather, beautiful scenery, and the opportunity to enjoy a Southwest lifestyle. While many of these attributes remain in place, income growth is not keeping pace with the cost of housing.

Nonetheless, recent statistics suggest that the state and, in particular, metro Phoenix remain top destinations for all categories of new residents, including young adults.

Risks

In contrast to late 2021, when the economic picture looked very bright, 2023 is ushered in by concerns and uncertainties ranging from recessionary prospects at home to global energy strains stemming from Russia's invasion of Ukraine.

As a result, considerable caution influences Arizona's economic outlook. There are also some reasons to be optimistic.

Pessimistic economists point to Arizona's historical tendency to do well in the upswing in the real estate cycle and to struggle through the downswing. Fed tightening has taken mortgage rates from 3% to 7%, and it appears resolved to eliminate inflation even if it requires higher rates. More aggressive action on inflation will most likely lead to more slowing in the real estate sector and delayed plans for business expansion.

While potential impacts of drought and climate change are both short term and long term in nature, any increase in the threats of these factors will dampen prospects for growth, as with many other states.

On a more positive note, Arizona is well positioned for business expansion, with its attractiveness as an in-migration destination for movers and the continued interest in Arizona by relocating businesses. Maintaining a stable, predictable business climate that is attractive to young and innovative workers can help sustain growth for years to come.

Revenue Outlook

While forecasting the State's General Fund revenue is never a sure thing, the current cycle offers a particular set of uncertainties.

First, the future trajectory of the economy is debatable. There is a high probability – though not a certainty – of recession. The strength of the Arizona economy heading into any recession may help buffer some of the negative consequences, but the degree to which sales tax collections and other revenues were inflated by atypical consumption patterns during the pandemic, inflationary increases, and the 2021 surge in real estate transactions, is still unclear.

Similarly, data now suggest that FY 2022 revenues were significantly boosted by record levels of capital gains and the unprecedented federal stimulus, which make it difficult, prior to any downturn considerations, to determine the true nature of the State's revenue base.

Finally, State tax cuts enacted in calendar years 2021 and 2022 have further reductions slated for 2023, which will further erode revenues. The State is likely to see significant slowing in personal income tax revenue collections in the spring of 2023 and continuing through the calendar year, with implications for FY 2023 and FY 2024. The speed and magnitude of a post-recessionary rebound in FY 2024 and beyond will depend on the strength and duration of a possible economic downturn and the pace at which inflation rates decline.

Arizona Office of Economic Opportunity Employment Report – March 2023

The Arizona seasonally adjusted (SA) unemployment rate decreased to 3.7% in February 2023 from 3.8% in January 2023. The U.S. SA unemployment rate increased to 3.6% in February 2023 from 3.4% in January 2023. Month over month, Arizona's SA labor force increased by 5,015 individuals, or 0.1%. Year over year, the SA labor force increased by 78,292 individuals, or 2.2%. Month over month, Arizona not-seasonally adjusted (NSA) total nonfarm employment increased by 18,300 jobs. Year over year, NSA total nonfarm employment increased by 71,000 jobs, or 2.3%. Arizona SA total nonfarm employment increased by 5,700 individuals, or 0.2%, month over month.

Month Over Month - Arizona NSA nonfarm employment increased by 18,300 jobs in February. Prior to the pandemic (2010-2019), NSA nonfarm employment gained 25,100 jobs on average in February. The government sector recorded a gain of 7,200 jobs in February, less than the pre-pandemic (2010-2019) average gain of 11,200 jobs. Employment gains in the government sector occurred primarily within Local Government (4,800 jobs). The private sector recorded a gain of 11,100 jobs in February, led by gains in Leisure & Hospitality (5,400 jobs) and Private Education & Health Services (4,400 jobs). Prior to the pandemic (2010-2019), private sector employment averaged a gain of 13,800 jobs in February.

Employment gains were reported in the following sectors: Government (7,200 jobs); Leisure & Hospitality (5,400 jobs); Private Education & Health Services (4,400 jobs); Construction (2,400 jobs); Other Services (1,800 jobs); Trade, Transportation & Utilities (700 jobs); and Natural Resources & Mining (200 jobs).

Employment losses were reported in the following sectors: Professional & Business Services (-3,100 jobs); Information (-300 jobs); Manufacturing (-200 jobs); and Financial Activities (-200 jobs).

Year Over Year - Arizona NSA nonfarm employment increased by 71,000 jobs or 2.3% in February year over year. Private sector employment increased by 62,600 jobs year over year, while government employment increased by 8,400 jobs year over year.

Employment gains were reported in the following sectors: Private Education & Health Services (24,700 jobs); Leisure & Hospitality (14,200 jobs); Professional & Business Services (10,000 jobs); Government (8,400 jobs); Manufacturing (6,700 jobs); Construction (5,000 jobs); Financial Activities (3,400 jobs); Other Services (1,400 jobs); and Natural Resources & Mining (1,200 jobs).

Employment losses were reported in the following sectors: Trade, Transportation & Utilities (-3,800 jobs); and Information (-200 jobs).

Arizona Joint Legislative Budget Committee Staff Report – March 2023

Economic Indicators – National

The U.S. Bureau of Economic Analysis' (BEA) second estimate for the U.S. Real Gross Domestic Product (GDP) in the 4th quarter of 2022 is an annual growth rate of 2.7%. This estimate was revised from their preliminary estimate of 2.9%.

The Conference Board's Consumer Confidence Index, declined to 102.9 in February, a decrease of (2.9)% from the previous month. Consumers' perspective of the present situation improved for the 3rd straight month because of a favorable view of labor market conditions. However, this was offset by declining future expectations due to escalating recession concerns. The consumer confidence index is (2.6)% below what it was in February 2022.

The U.S. Leading Economic Index (LEI), published by the Conference Board, decreased by (0.3)% to 110.3 points in January, marking the 11th consecutive month of decline. Strong labor markets and stock market growth were offset by reduced manufacturing orders, consumer expectations, and rising interest rates. Over the past 6 months, the LEI has decreased (3.6)%. The Conference Board's February press release states that it "expects high inflation, rising interest rates, and contracting consumer spending to tip the U.S. economy into recession in 2023".

The U.S. Bureau of Labor Statistics' Consumer Price Index (CPI) increased 0.4% month-over-month (after seasonal adjustment) in February. Increased shelter and food prices offset a decline in energy prices during the month. Compared to last February, the overall CPI has increased 6.0%; food prices increased 9.5%; energy prices rose 5.2% (including a (2.0)% decrease for gasoline and 9.2% increase for oil); and shelter costs increased 8.1%. Excluding food and energy, the year-over-year "core" CPI increased by 5.5% in February.

Economic Indicators – Arizona

Housing

In January, Arizona's 12-month total of single-family building permits was 34,948. This was a reduction of (6.6)% from December and (25.0)% below January 2022's 12-month total. January was the 20th consecutive month with a year-over-year decline.

In January, Arizona's 12-month total of 22,083 multi-family building permits was 16.4% greater than the same 12-month period ending in January 2022. January 2023 is the 17th consecutive month with an annual growth rate greater than 10%.

The median home price in Maricopa County fell to \$445,000 in January, representing a (1.1)% decrease from December's median sale price and a (3.1)% decrease below January 2022's figure. This is the first month since at least 2014 to have a lower median home sale price than the same month in the prior year.

Tourism

In January, revenue per available room increased to \$104.16, representing a 19.2% gain over December's figure and a 23.9% increase over last January's revenue per room.

Hotel occupancy was 63.7% in January, which is 3.0% greater than December's occupancy rate and 4.7% above that of January 2022.

Phoenix Sky Harbor Airport Ridership was about 3.9 million in January, which is a (0.6)% decrease from December's figure and 0.3% above January 2020 ridership. This is the fourth month since September 2022 with higher ridership than for the same month in 2019 (i.e., before start of the pandemic).

Employment

As a result of the annual benchmarking revision of establishment survey data, the Office of Economic Opportunity (OEO) reported in March that Arizona's nonfarm employment was revised upward for 2021 and 2022. The revised 2021 annual average employment level was 2,970,700 jobs, an upward revision of 13,100 jobs. The revised 2022 annual average employment level was 3,095,400, an upward revision of 28,100 jobs. As a result of this benchmark revision, the 2022 average annual net employment gain was increased from 109,700 jobs to 124,700 jobs, or from an annual growth rate of 3.7% to 4.2%, which is the largest percentage gain since 2006.

According to the latest employment report released by OEO, the state lost (32,600) nonfarm jobs in January compared to the prior month. Prior to the pandemic, nonfarm employment recorded an average loss of (51,000) jobs in January (2010-2019).

Compared to the same month in the prior year, the state gained 98,400 jobs, an increase of 3.2%. Job gains were reported in all 11 employment categories, with the largest gains recorded in Private Education & Health Services (+26,100 jobs) and Professional & Business Services (+18,700 jobs).

The state's seasonally adjusted unemployment rate decreased to 3.8% in January from 4.0% in December. The U.S. seasonally adjusted unemployment rate declined from 3.5% in December to 3.4% in January.

OEO reported that a total of 3,121 initial claims for unemployment insurance were filed in Arizona in the week ending on March 4th. For the same week in the prior year, 2,508 initial claims were filed, which is an increase of 24.4%. Compared to the same week in 2022, the number of initial claims has been trending up since the start of the current calendar year.

According to OEO, for the week ending on February 25th, there were a total of 19,712 continued claims for unemployment insurance in Arizona. At this time last year, the number of continued claims was 13,199, which represents an increase of 49.3%. Compared to the same week in the prior year, the number of continued claims has been trending up since November of 2022.

State Agency Data

As of March 1, 2023, the total AHCCCS caseload was 2.47 million members. Total monthly enrollment increased 0.5% in March over February and increased 6.8% compared to a year ago. Parent and child enrollment in the Traditional population increased by 0.1% in March or 4.2% higher than a year ago.

Other Acute Care enrollment, including Prop 204 Childless Adults, Other Prop 204, Adult Expansion, and KidsCare, was 1,125,807 – an increase of 0.9% over February and 10.0% above last year. For March 2023, the Elderly, Physically Disabled and Developmental Disabilities Long-Term Care population increased by 0.2%. At 67,452, this population is 3.1% higher than a year ago.

There were 11,341 TANF Cash Assistances cases in February 2023, representing a 0.1% increase from January 2023. The year-over-year number of cash benefit recipients has decreased by (11.8)%.

The Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps, provides assistance to low-income households to purchase food. In February 2023, 892,197 people received food stamp assistance. This was a (1.1)% decrease from January 2023 and a 7.9% increase from February 2022.

The Arizona Department of Correction's inmate population was 33,745 as of February 28, 2023. This was a (0.2)% decrease from January 31, 2023 and a 0.6% increase since February 2022.

Based on information the Department of Child Safety provided for January 2023, reports of child maltreatment totaled 46,712 over the last 12 months, a decrease of (5.6)% from the prior year. There were 11,633 children in out-of-home care as of January 2023, or (12.5)% less than in January 2022. Compared to the prior month, the number of out-of-home children decreased by (0.8)%.

FY 2024 Baseline Summary Prepared by the Arizona Joint Legislative Budget Committee (JLBC) Staff

Summary of the General Fund Budget Outlook

- After a 17% increase in FY 2022, base General Fund revenue growth is expected to moderate to 7.5% in FY 2023 and 2.0% in FY 2024.
- The declining growth rate is related to recession concerns as the Federal Reserve Board attempts to reduce inflation by raising interest rates.
- This projected growth path plus prior legislative commitments results in an available one-time balance of \$1.8 billion in FY 2024 for new initiatives. The current forecast does not provide additional resources for ongoing initiatives. Since we project an \$1 million balance at the end of FY 2025, any new ongoing spending in FY 2024 would create a shortfall in FY 2025.
- Given the economic uncertainty, our estimate of available resources could change considerably as we go through the FY 2024 budget process.

General Fund and Budget Stabilization Fund Balances

- The projected ending balance is falling over time, from \$4.7 billion in FY 2022 to \$2.3 billion in FY 2023 to \$2.1 billion in FY 2024 before finally falling to \$1 million in FY 2025.
- In addition to the General Fund balance, the Budget Stabilization Fund will have an estimated balance of \$1.4 billion in FY 2024.

General Fund Baseline Revenues

- The projected overall General Fund revenues, including the beginning balance, is \$17.9 billion in FY 2023 and \$17.6 billion in FY 2024. The change is due to a combination of factors:
 - 2% base revenue growth
 - A decline in the carry-forward balances from the prior year
 - A revenue increase from eliminating \$2.3 billion in one-time diversions from the state share of FY 2023 transaction privilege tax (TPT) revenues to agency funds, including:
 - \$946.1 million to the State Highway and Aviation Fund for transportation and road projects.
 - \$544.2 million to the Border Security Fund.
 - \$425.0 million to the Budget Stabilization Fund.
 - \$334.0 million to the Long-Term Water Augmentation Fund.
 - \$38.2 million to the State Parks Revenue Fund for capital projects.
 - \$(764) million revenue loss primarily from the 2nd year of the 2-year phase down of the income tax rate to a flat 2.5%.
 - \$(458) million revenue loss from an increase in the cities' share of income tax collections from 15% to 18%.
- The General Fund base revenue estimates are a product of the JLBC Staff's 4-sector forecast process. The forecast equally weights the projections for major revenue categories of 2 University of Arizona econometric models, the consensus of the private and public sector economists on the Finance Advisory Committee and the JLBC Staff.

General Fund Baseline Spending

- The January Baseline FY 2024 spending estimates essentially reflect changes in the cost of statutory funding formulas as well as any adjustments required by the FY 2023 3-year budget plan.
- FY 2024 General Fund Baseline spending is projected to be \$15.55 billion compared to \$15.59 billion in FY 2023, or a decrease of \$(47) million, or (0.3)% based on the following assumptions:
 - A \$464 million increase in ongoing spending.
 - A \$(511) million decrease in one-time spending.
- The entire FY 2024 state budget, including both appropriated and non-appropriated funds, is projected to be approximately \$61.0 billion.
- The main drivers of FY 2024 Baseline spending are delineated below by function of government.

Long Term Projections

A.R.S. § 35-125 requires that the General Appropriation Act delineate the revenue and expenditure estimates for the budget year and the following 2 years. The expenditure estimates are based on statutory revenue and funding requirements:

- FY 2025 revenues are projected to be \$16.23 billion compared to FY 2025 spending of \$16.22 billion. This would result in a cash balance of \$1 million in FY 2025. The Baseline assumes that \$259 million of the FY 2024 ending balance is carried into FY 2025 and counted as FY 2025 revenue. Without that carryforward, the FY 2025 budget would have a shortfall of \$(258) million.
- FY 2026 revenues are projected to be \$16.81 billion compared to FY 2026 spending of \$16.57 billion with an ending cash balance of \$241.5 million.

Education

Department of Education

- ADE General Fund spending increases by \$469.7 million, or 6.8%, including:
 - \$425.0 million for an additional 55,180 enrollees in the Empowerment Scholarship program. The 55,180 increase includes an estimated 52,500 enrollees in the Universal ESA program established by Laws 2022, Chapter 388. Under our assumptions, grand total ESA program enrollment would grow to 68,380 in FY 2024.
 - A decrease of \$(22.5) million for enrollment changes in district and charter schools. This amount consists of:
 - * A decrease of \$(57.8) million for an FY 2023 base adjustment associated with lower-than-budgeted enrollment during FY 2023.
 - * An increase of \$35.3 million for FY 2024 district and charter enrollment growth. Total unweighted public school Average Daily Membership (ADM) would reach an estimated 1,101,705 in FY 2024.
 - \$157.7 million for a 2.0% statutory inflation adjustment of funding levels for the per pupil base level, transportation and charter additional assistance.
 - \$(143.9) million in savings due to property tax and land trust earning increases as well as the elimination of one-time funding.
 - \$29.0 million to increase the per pupil amounts of the District Additional Assistance (DAA) and Charter Additional Assistance formulas pursuant to Section 127 of the FY 2023 General Appropriation Act.
 - \$13.0 million to increase the Group B formula weight for pupils eligible for the federal Free and Reduced-Price Lunch (FRPL) program pursuant to Section 127 of the FY 2023 General Appropriation Act.

- \$6.9 million to provide funding for early literacy initiatives in accordance with the 3-year spending plan associated with the enacted FY 2023 budget. The \$6.9 million was previously covered with Federal Funds.
 - \$4.5 million for all other miscellaneous adjustments.
- The Baseline assumes ADE will require a supplemental appropriation of \$200.0 million in FY 2023 to cover higher-than-budgeted expenses for Basic State Aid. This amount assumes that enrollment in the Universal ESA program will reach 42,700 by the end of FY 2023. The enacted FY 2023 budget did not include adjustments to Basic State Aid to account for enrollment increases associated with universal eligibility for the ESA program as established by Laws 2022, Chapter 388.
- The Baseline assumes that Proposition 123 will expire as scheduled at the end of FY 2025 without a replacement. Proposition 123 increased the level of distributions from the state land trust. Without further statutory changes, the General Fund will be required to replace the reduced level of land trust earnings, which is estimated to be \$300 million in FY 2026.

Arizona Department of Administration/School Facilities Division (SFD)

- SFD General Fund spending decreases by \$(171.9) million, or (52.9)%, including:
 - \$11.4 million for a net increase in new school construction costs. The Baseline funds a total of \$124.5 million for new construction, including the completion of 3 FY 2023 schools and the initial funding for 8 FY 2024 schools in the Agua Fria, Glendale, Liberty, Queen Creek (3), Saddle Mountain, and Snowflake School Districts.
 - \$(183.3) million for a decrease in one-time building renewal grant monies.

Universities

- University General Fund spending decreases by \$(122.0) million, or (11.1)%, including:
 - \$589,100 for adjustments to capital appropriations.
 - \$(80.0) million to remove one-time operating and capital funding for ASU and NAU.
 - \$(36.6) million to remove one-time UA funding for numerous agriculture-related and other initiatives.
 - \$(6.0) million to remove one-time funding for the Arizona Veterinary Loan Assistance Program.
- Fall 2022 enrollment increased by 6,520 full-time equivalent students, or 3.3% above Fall 2021, for total enrollment of 203,640.

Community Colleges

- Community College General Fund spending decreases by \$(21.4) million, or (18.6%), including:
 - \$3.8 million for formula adjustments.
 - \$(7.0) million to remove one-time rural aid and \$(18.2) million for other site-specific initiatives.
- The Community College funding formula is based on student counts from 2 years prior. FY 2021 rural district enrollment increased by 2,124 full-time equivalent students, or 9.3%, for a total rural enrollment of 24,954. Including the Maricopa and Pima districts, total enrollment decreased by (1,731), or (1.9)%, for total enrollment of 89,004.

Health and Welfare

AHCCCS

- AHCCCS General Fund spending increases by \$187.5 million, or 8.1%, including:
 - \$201.4 million for formula adjustments, including a caseload decline of (19.5)%, a 3.1% capitation rate increase, the reduction of the regular match rate from 69.56% to 66.29%, and the gradual reduction of the enhanced match rate throughout CY 2023. Under current federal law, AHCCCS was not able to disenroll individuals due to income changes from March 18, 2020 until April 1, 2023. The January Baseline assumes AHCCCS will disenroll some of these individuals over a 14-month period.
 - \$10.0 million for secure behavioral health residential facility rate increases in accordance with the 3-year spending plan associated with the enacted FY 2023 budget.
 - \$(25.7) million to remove one-time funding.
 - \$1.8 million for other miscellaneous changes.
- AHCCCS enrollment is projected to decline to 1.8 million recipients by June 2024. This level represents a caseload decrease of (439,200), or (19.5)%, from June 2023.
- The FY 2023 enacted budget assumed the state would not be receiving any enhanced match in FY 2023. The federal government has extended the 6.2% enhanced match through March 2023. Additionally, from April 2023 through June 2023, AHCCCS will receive a 5.0% enhanced match. Compared to the enacted budget, state will generate an additional \$(482.0) million in FY 2023 General Fund savings across 3 federal match rate agencies (AHCCCS, DES, and DCS).

Department of Child Safety (DCS)

- DCS General Fund spending decreases by \$(18.4) million, or (3.9)%, including:
 - \$4.3 million and a corresponding decrease of \$(4.3) million from Child Safety Expenditure Authority to offset a FY 2024 net decrease in the Title IV-E Federal Medical Assistance Percentage (FMAP) rate.
 - \$2.5 million to expand the Healthy Families Arizona Program and replace expiring federal grant monies in line with the FY 2023 budget's 3-year spending plan.
 - \$(25.1) million to remove prior year funding to address an expected loss in Congregate Care federal funding designated as one-time in FY 2022 and FY 2023.

Department of Economic Security (DES)

- DES General Fund spending increases by \$105.6 million, or 9.8%, including:
 - \$103.8 million for Developmental Disabilities (DD) formula adjustments, including 4.5% enrollment growth, a 3.1% capitation rate increase, the reduction of the regular match rate from 69.56% to 66.29%, and the gradual reduction of the enhanced match rate throughout CY 2023.
 - In line with the FY 2023 budget's 3-year spending plan, \$1.0 million for homeless youth assistance and \$4.4 million for Arizona Early Intervention Program provider rate increases.
 - \$(3.7) million to remove one-time funding.
- Medicaid Developmental Disability caseloads are projected to grow to 42,091 by June 2024. This level represents a caseload increase of 1,812, or 4.5%, above June 2023.

Department of Health Services (DHS)

- DHS General Fund spending decreases by \$(61.4) million, or (31.5)%, including:
 - \$(64.4) million to remove one-time funding for accelerated nursing programs (\$50.0 million) and other initiatives.

Criminal Justice/Public Safety

Department of Corrections (ADC)

- ADC General Fund spending decreases by \$(2.3) million, or 0.2%, including:
 - \$7.2 million for net increased costs associated with the third and final year of the phased closure of the Florence prison in line with the FY 2023 budget's 3-year spending plan.
 - \$(9.5) million for the elimination of one-time funding.
- The systemwide prison population at the end of FY 2022 was 33,371, a decrease of (2,622) or (7.3)% below the population at the end of FY 2021.

Department of Emergency and Military Affairs (DEMA)

- DEMA General Fund spending decreases by \$(13.3) million, or (44.9)%, to remove one-time funding to address the readiness maintenance center backlog.
- The Baseline also includes a \$(209.2) million Border Security Fund spending decrease to remove one-time funding for border security initiatives. The \$209.2 million consists of monies diverted from the state share of TPT General Fund revenues to the Border Security Fund.

Judiciary

- Judiciary General Fund spending increases by \$2.5 million, or 1.6%, including:
 - \$4.5 million for partial-year implementation of a salary increase for judges and the completed phase-in of Court of Appeals expansion with 6 additional judges and staff.
 - \$(2.0) million to remove one-time automation funding.

Department of Public Safety (DPS)

- DPS General Fund spending decreases by \$(30.2) million, or (8.3)%, including:
 - \$7.0 million for the 2nd year of a 3-year phase in of funding for a new major incident division.
 - \$(37.2) million to remove one-time funding.

Natural Resources

Department of Forestry and Fire Management (DFFM)

- Forestry General Fund spending decreases by \$(79.5) million, or (61.4)%, including:
 - The elimination of \$(65.0) million for removal of one-time wildfire emergency response funding and \$(14.5) million in other one-time initiatives.

Water Infrastructure Finance Authority (WIFA)

- WIFA spending increased by \$323.0 million, including:
 - \$(10.0) million for removal of one-time water assistance grants.
 - \$333.0 million for the 2nd of a 3-year Long-Term Water Augmentation Fund deposit. Laws 2022, Chapter 366 appropriates this amount in FY 2024 and FY2025 for deposit to the Long-Term Water Augmentation Fund. In FY 2023, the fund also received a transfer \$334,000,000 from the state's share TPT revenues, for a total of \$1.0 billion over 3 years.

General Government

Arizona Commerce Authority (ACA)

- ACA spending decreases by \$(15.0) million, or (36.5)%, to remove one-time funding for Pinal County water infrastructure grants.

State Employees

- The Baseline increases the Total Appropriated Funds Full-Time Equivalent (FTE) ceiling by 74 FTE Positions in FY 2024. These adjustments would bring the total FTE Position ceiling to 54,393.5 in FY 2024.
- The Baseline includes a decrease of \$(103.2) million from the General Fund and \$(172.8) million in Total Funds for the removal of a one-time FY 2023 health insurance adjustment.

Capital

- The Baseline includes \$42.4 million from Other Funds for building renewal at ADC, Arizona Department of Transportation (ADOT), Arizona Department of Administration (ADOA), Game and Fish, and the State Lottery.
- The Baseline includes \$60.5 million for capital projects excluding State Highway Fund projects in line with the FY 2023 budget's 3-year spending plan. Of this amount, \$41.4 million is financed from the General Fund for projects at ADC and ADOT and \$19.1 million is financed from Other Funds for projects at State Parks.
- The Baseline eliminates \$(278.3) million in one-time General Fund monies for capital and building renewal projects at ADOA, ADC, ASDB, DEMA, the Judiciary, DJC, the Legislature, DPS, University of Arizona, and pass-through grants for local and tribal projects.

Debt

- At the end of FY 2024, the state's projected level of lease-purchase and bonding capital obligations will be \$5.6 billion. The associated annual debt service payment is \$602.3 million.
- Of the \$5.6 billion in total lease-purchase and bonding obligations, the General Fund share is \$873.1 million. The General Fund annual debt service is projected to be \$89.7 million in FY 2024.
- Of the \$873.1 million, \$346.6 million is related to the state's share of Phoenix Convention Center costs and \$491.7 million is for university capital projects.

State Revenues and Expenditures

The State receives revenues from taxes, fees and other sources, the most significant of which are the transaction privilege (sales) tax, the personal income tax and the corporate income tax. The State expends money on a variety of programs and services, the most significant elements of which include education (both kindergarten through twelfth grade and higher education), health and human services, correctional programs, transportation and debt service.

General Fund

The monies of the State are segregated into the General Fund and various other funds, including special, agency and trust funds. The General Fund consists of revenues received by the State and not required by law to be credited to any other fund, as well as earnings from the investment of State monies not allocable to another fund. The General Fund is the principal operating fund for the majority of governmental activities and is the depository of most of the major revenue sources of the State.

State Budget

The State's fiscal year begins on July 1 and ends on June 30 of the next calendar year. State law specifies that an annual budget shall be proposed by the Governor by the second Tuesday in January of each year for the next fiscal year (the "Governor's Budget"). Under State law, the Governor's Budget cannot provide for projected expenditures in excess of projected revenues for the ensuing fiscal year. Following the Governor's Budget, the JLBC staff releases a baseline legislative budget for the next fiscal year. The Governor's Budget and the JLBC budget form the basis for final negotiations between the Governor and Legislature to reach agreement on appropriations and other legislation to fund State government for the ensuing fiscal year (the "Budget Act"). The Budget Act must be approved by a simple majority vote of each House of the Legislature.

Over the years, a number of laws and constitutional amendments have been enacted, often through voter initiatives, which have made it more difficult for the State to raise taxes, imposed certain mandatory expenditures by the State, or otherwise limited the Legislature and the Governor's budgetary discretion.

THE STATE BUDGET AND APPROPRIATIONS PROCESS

General

Historically, the State Legislature has adopted an annual operating and capital outlay budget for all agencies of the State. The budget process is initiated by the Governor submitting the Governor's Budget by the second Tuesday in January for the next fiscal year to the State Legislature that includes proposed expenditures for the State and its agencies and the means of funding those expenditures. Thereafter, the staff of the JLBC analyzes the Governor's Budget and prepares a baseline budget. Public hearings are then conducted during the Legislative session and, generally prior to July 1, the budget is adopted through passage of appropriations bills. State agencies are then responsible, under the oversight of the Department's General Accounting Office, for exercising budgetary control and ensuring that expenditures do not exceed appropriations. The State Legislature has authority during the fiscal year to make additions, deletions or amendments to the adopted budget.

The accounts of the State are organized on the basis of funds and account groups, each of which is considered a separate accounting entity. The General Fund is used for all financial resources except those required to be accounted for in another fund. General Fund revenues are derived primarily from the collection of taxes, specifically transaction privilege (also referred to herein as "sales tax"), income (individual and corporate), motor vehicle, insurance premium and other taxes. Other State funds include special revenue funds, capital projects, debt service, enterprise, internal service, university, and trust and agency funds.

Constraints on the Budget Process

Over the years, a number of laws have been enacted, often through voter initiatives, which have increased the difficulty of raising State taxes, imposed certain mandatory expenditures by the State, or otherwise limited the Legislature and the Governor's budgetary discretion. In the event the State desires to increase the tax and fee revenues deposited in the General Fund, the State Constitution requires that any legislation that provides for a net increase in such State revenues requires the affirmative vote of two-thirds of the members of each house of the State Legislature. If the legislation receives the necessary two-thirds votes, the legislation will become effective immediately upon the signature of the Governor. If the Governor vetoes the measure, then the legislation will not become effective unless it is approved by an affirmative vote of three-fourths of the members of each house of the State Legislature. This constitutional requirement applies to legislation that would provide for a net increase in State revenues in the form of: (1) the imposition of any new tax, (2) an increase in a tax rate or rates, (3) a reduction or elimination of a tax deduction, exemption, exclusion, credit or other tax exemption feature in computing tax liability, (4) an increase in a statutorily prescribed State fee or assessment or an increase in a statutorily prescribed maximum limit for an administratively set fee, (5) the imposition of any new State fee or assessment or the authorization of any new administrative set fee, (6) the elimination of an exemption from a statutorily prescribed State fee or assessment, (7) a change in the allocation among the State, counties or cities of Arizona transaction privilege, severance, jet fuel and use, rental occupancy, or other taxes, or (8) any combination of the foregoing. This constitutional requirement does

not apply to the effects of inflation, increasing assessed valuation or any other similar effect that increases State revenue but which is not caused by an affirmative act of the State Legislature. In addition, the requirement does not apply to fees and assessments that are authorized by statute, but are not prescribed by formula, amount or limit, and are set by a State officer or agency, and does not apply to taxes, fees or assessments that are imposed by counties, cities, towns and other political subdivisions of the State.

STATE FINANCES

The General Fund

The monies of the State are segregated into the General Fund and various other funds, including special, agency and trust funds. The General Fund consists of revenues received by the State Treasury and not required by law to be credited to any other fund, as well as earnings from the investment of State monies not allocable to another fund. The General Fund is the principal operating fund for the majority of governmental activities, is the depository of most of the major revenue sources of the State. The General Fund may be expended as a consequence of appropriation or funding measures enacted by the Legislature and approved by the Governor (including the annual Budget Act), as well as appropriations pursuant to various voter initiatives.

Budget Reserves - Budget Stabilization Fund (BSF)

The BSF, which acts as a budgetary reserve for the State, is funded with General Fund revenues and was established to normalize (over time) the fluctuations of the State's high and low growth rates and to help protect the State from unforeseen revenue reductions and/or unanticipated expenditure increases. The amount of funds transferred to or from the BSF is established by statutory formula, but may also be specified by additional acts of the Legislature. No operating expenditures may be directly incurred from monies in the BSF. Other than transfers from the General Fund, interest earned on pooled investments held by the State Treasurer is the primary revenue source of the BSF. Given its stated use and purpose, balances in the BSF fluctuate depending on the fiscal condition of the State and the State General Fund.

Sources of Tax Revenue

The following is a summary of the State's major tax revenues.

Sales and Use Tax

The transaction privilege (or sales) tax is levied upon the gross receipts from business activities within the State that are subject to the tax. However, exemptions have been provided for certain essentials such as food for home consumption, prescription drugs and gas delivered through mains. Other exemptions provide relief for a variety of sales ranging from custom computer software to aircraft.

The Arizona use tax is imposed at the same rates as the transaction privilege tax on consumers of tangible personal property that is used, consumed, or stored in the State. Use tax applies to purchases from out-of-state vendors that are not required to collect tax on their sales. Use tax also applies to most leases of tangible personal property.

Personal Income Tax

The Arizona personal income tax was historically modeled after the federal income tax law. Beginning in 2022, and pursuant to S.B. 1828, Arizona's four marginal individual tax brackets collapsed into two. Individuals with taxable income up to \$27,272 (\$54,544 for joint filers) will be taxed at a rate of 2.55 percent, and any taxable income exceeding that amount will be taxed at a rate of 2.98 percent. For the 2023 tax year, Arizona will move to a 2.5 percent flat tax for all income levels.

Taxes on capital gains realizations, which are largely linked to stock market performance, can add a significant dimension of volatility to personal income tax receipts.

Corporate Income Tax

The corporate income tax is levied on corporations that engage in business within Arizona. The tax rate currently is 4.9 percent of taxable income.

State Appropriations Limit

Article IX, Section 17 of the Arizona Constitution imposes a limit on the amount of State revenues that the Legislature may appropriate for a fiscal year to a percentage of Arizona personal income. Currently, this limit is 7.41 percent of Arizona personal income. The Constitutional provision also defines the type of State revenues that are subject to the appropriations limit, which include taxes, university collections, licenses, fees and permits. Certain revenues are excluded from the limitation, including interest and dividends, sales for services and rentals, federal grants and funding, donations and gifts, and amounts received in trust.

The JLBC staff, in consultation with the Governor's Office of Strategic Planning and Budgeting ("OSP"), is required by statute to report the appropriations subject to the Constitutional limit. This calculation is prepared by February 15th of each year and indicates the appropriations that are or will be subject to the limit in the previous, current and subsequent fiscal years.

GOVERNMENT-WIDE FINANCIAL ANALYSIS

The State's overall financial position and operations for the fiscal year ended June 30, 2021 for the primary government are summarized, as follows, based on the information included in the government-wide financial statements.

For the year ended June 30, 2021, the State's combined net position totaled \$37.8 billion reflecting an increase of \$6.7 billion during the current fiscal year.

The largest portion of the State's net position (68.6%) represents net investment in capital assets of \$26.0 billion. Additions to land, roads and bridges provided the majority of the governmental activities increase in net investment in capital assets of \$704.6 million. The State uses these capital assets to provide services to citizens; consequently, these assets are not available for future spending. Although the State's investment in its capital assets is reported net of accumulated depreciation and related debt, it should be noted that the resources needed to repay this debt are planned to be provided from other sources, since the capital assets themselves are not typically used to liquidate these liabilities.

The State's net position also included \$12.2 billion (32.1%) of resources that are subject to external restrictions on how they may be used. The governmental activities increase in restricted net position of \$2.2 billion is largely a result of a \$2.3 billion increase in the amount restricted by the State's Constitution for basic education funded by the Land Endowments Fund and an increase of \$766.8 million restricted for debt service that is mostly due to the State appropriation in fiscal year 2021 to defease two certificates of participation (COPs) and a revenue bond after fiscal year end. The business-type activities increase in restricted net position of \$209.4 million is primarily due to an increase of \$96.8 million in the amount restricted for the Unemployment Compensation Fund as the fund received an increase in intergovernmental revenue and due to an increase of \$82.4 million in the Universities' restricted expendable funds as a result of a rise in the fair value of endowments.

After accounting for the above net position restrictions, the State has a remaining deficit of \$290.2 million (0.8%) reported as unrestricted net position.

Change in Net Position

Governmental Activities - Net Position increased by \$6.2 billion representing a 22% increase from fiscal year 2020. Reported sales and income tax revenues grew by \$1.3 billion, or 16% and \$819.8 million, or 14%, from fiscal year 2020, respectively. The increase in tax collections generally reflects improved economic activity in the State during fiscal year 2021. Net taxable sales rose by 16% from fiscal year 2020, resulting in the increased reported sales tax revenue. The largest increases in net taxable sales during fiscal year 2021 were in retail, remote seller/marketplace facilitator, and contracting. The increase in income tax revenue for the State during fiscal year 2021 reflects increased withholding, individual, and corporate tax collections. The gain on sale of trust land increased by \$792.6 million as the State experienced the highest fiscal year total value of land sale auctions on record. The Permanent Fund investment portfolio also experienced an increase of \$1.8 billion in the fair value of investments. Furthermore, operating grants and contributions increased by \$6.8 billion (40%) compared to fiscal year 2020. This increase is mostly attributable to the rise in federal and local government grants received by the Arizona Health Care Cost Containment System (AHCCCS) due to an increase in the Federal Medical Assistance Percentage of 6.2% from the Families First Coronavirus Response Act as well as increases in the funding received for the designated State health programs for the targeted investment program, access to professional services initiative and hospital assessment collections. The increase in health and welfare expenses of \$4.4 billion (24%) is mostly due to AHCCCS utilization, capitation rate increases, the COVID-19 behavioral health grants, the Hospital Enhanced Access Leading to Health Improvements Initiative, and enrollment growth. The increase in general government expenses of \$585.3 million (49%) was primarily due to increased distributions of \$364.8 million by the Governor's office for COVID-19 relief to local governments

and other organizations. Intergovernmental revenue sharing also increased by \$544.0 million (14%) mostly as a result of increased tax revenue disbursements due to increased tax collections for the fiscal year. Additionally, the Governor's office received \$2.2 billion in Coronavirus State and Local Fiscal Recovery Fund monies from the federal government all of which was unearned at June 30, 2021.

A comparison of the net cost (income) of services by function for the State's governmental activities is shown below for fiscal years 2020 and 2021. Net cost (income) is the total cost less revenues generated by the activities and shows the financial burden placed upon the State's taxpayers by each of these functions.

Business-type Activities - Net Position increased by \$525.6 million from fiscal year 2020, or 18%. This increase is primarily due to increases in net position for the Universities and the Unemployment Compensation Fund of \$360.0 million and \$96.8 million, respectively. Non-operating revenues and transfers from the General Fund more than offset the Universities' operating loss of \$1.8 billion. The Universities' non-operating revenues increased by \$586.0 million over fiscal year 2020 mostly due to an increase in intergovernmental revenue from federal and State responses to the COVID-19 pandemic and increases in investment income due to realized and unrealized gains in the fair value of endowments. Also, the Unemployment Compensation Fund's operating revenue increased by \$3.7 billion due to a rise in intergovernmental revenue. This was offset by increased operating expenses of \$2.6 billion as the fund continued to experience higher than normal activity due to the COVID-19 pandemic.

Governmental Funds

The general government functions are contained in the general, special revenue, debt service, capital projects, and permanent funds. The focus of the State's governmental funds is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the State's financing requirements.

General Fund

The General Fund is the chief operating fund of the State. At June 30, 2021, the non-spendable, restricted and committed fund balances were: \$14.5 million, \$582.4 million, and \$284.8 million, respectively.

The fund balance of the State's General Fund increased \$736.3 million during the fiscal year. Revenues exceeded expenditures by \$2.3 billion, before other financing sources and uses. However, other financing sources and uses offset this excess by \$1.6 billion, which consisted primarily of transfers to debt service funds to fund the fiscal year 2022 defeasance of two COPs and a revenue bond in the amount \$799.4 million and transfers to the Universities in support of higher education in the amount of \$729.1 million, offset by legislative transfers from other funds to the General Fund. Overall revenues increased by \$7.2 billion (23%) and expenditures increased by \$6.5 billion (22%) from fiscal year 2020. Primary reasons for increases in fund balance during the fiscal year are increased sales and income taxes and increased intergovernmental revenue, including a rise in federal and local government funding received by AHCCCS and the Department of Education. Primary reasons for decreases in fund balance during the fiscal year are due to expenditure increases for health and welfare, general government and intergovernmental revenue sharing.

Transportation and Aviation Planning, Highway Maintenance and Safety Fund

The Transportation and Aviation Planning, Highway Maintenance and Safety Fund is responsible for the repair and maintenance of existing roads, paying the debt service for roads that are built from the issuance of revenue bonds and grant anticipation notes, and providing technical assistance with road construction provided by contractors hired by the Arizona Department of Transportation (ADOT). Total fund balance increased by \$272.3 million during fiscal year 2021. Although revenues exceeded expenditures by \$581.1 million, transfers to non-major governmental funds of \$313.2 million, to pay debt service, largely offset this excess. Overall, revenue increased by \$429.9 million (13%) and expenditures increased by \$38.6 million (1%), as compared to the prior fiscal year.

Land Endowments Fund

The Land Endowments Fund was established when the federal government granted Arizona statehood. Both the State's Constitution and the federal government require that the land grants given to the State be maintained indefinitely, and the earnings from the land grants should be used for public education, primarily K-12. For fiscal year 2021, the Land Endowments Fund total fund balance increased by \$1.8 billion. Endowment investments increased by \$1.8 billion at fiscal year end, mainly due to a net increase in the fair value of investments of \$1.7 billion, realized gains of \$138.5 million, and increased land sales of \$210.1 million. This was partially offset by increased distributions resulting from Proposition 123.

GENERAL FUND BUDGETARY HIGHLIGHTS

During the fiscal year, the original budget was amended by various supplemental appropriations and appropriation revisions. Differences between the original budget and the final amended budget resulted in a \$6.5 billion net increase in appropriations for the General Fund. Some of the significant changes in the General Fund appropriations were:

- \$510.0 million increase due to prior fiscal year obligations that were paid in the current fiscal year per A.R.S. § 35-191.
- The \$2.9 billion increase to the AHCCCS' original budget is primarily due to supplemental appropriation increases for traditional Medicaid services, Proposition 204 services, and for the ACA Adult Expansion Services program.
- The \$1.3 billion increase to the Department of Education's original budget is primarily due to the basic state aid deferred payment from fiscal year 2020, which was appropriated as a supplemental appropriation in the fiscal year 2021 budget, as well as teacher salary increases and additional funding for school districts and charter schools.
- The \$995.0 million increase to the Arizona Department of Administration's (ADOA) original budget is primarily due to supplemental appropriations for the defeasance of two COPs with the Department of Administration, a COP with the School Facilities Board, and the State Lottery revenue bond.
- The \$308.8 million increase to the General Accounting Office's original budget is primarily due to the General Fund transfers for the Drought Mitigation Fund to develop sustainable water supplies and conservation projects for many regions in the State; for the Water Supply Development Revolving Fund to assist water providers in the State to construct water supply projects and obtain additional water supplies; for the State Aviation Fund to plan, construct, develop and improve county, city and town airports; for the Universities for the Capital Infrastructure Fund; for the Children's Behavioral Health Services Fund; for the Elected Officials' Retirement Plan Fund to supplement the normal cost plus an amount to amortize the unfunded accrued liability; and a one-time deposit for the new School Facilities Fund.
- The \$209.3 million increase to the Department of Economic Security's original budget is primarily due to supplemental appropriations to the Child Care Development Fund Block Grant for child care services; for physical and behavioral health services; and for funding reimbursement grants from the Budget Stabilization Fund.

The actual expenditures were less than the final budget by \$3.4 billion. Of this amount, \$234.2 million will continue as legislative multiple fiscal year spending authority for fiscal years 2022 and beyond, depending upon the budgetary guidelines of the Legislature. The remaining \$3.2 billion represents the unused portion of the State's legislatively authorized annual operating budget.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The State's investment in capital assets for its governmental and business-type activities as of June 30, 2021 totaled \$32.7 billion, net of accumulated depreciation. The total primary government increase in capital assets for the current period was 2%, with a 2% increase in capital assets used for governmental activities and a 4% increase for business-type activities. Depreciation charges of the governmental and business-type activities for the fiscal year totaled \$532.3 million.

Major capital asset activity during the current fiscal year included the following:

- The ADOT started or completed roads and bridges totaling \$690.0 million during the fiscal year.
- The Universities' additions to capital assets totaled \$767.3 million and included increased investments in buildings to support instruction, research, and public service missions, as well as building renewal and other capital projects.

For the government-wide financial statement presentation, all depreciable assets were depreciated from the acquisition date to the end of the current fiscal year. Capital asset purchases of the governmental funds are reported in the fund-level financial statements as expenditures.

As provided by GASB Statement No. 34, the State has elected to record its infrastructure assets, which the ADOT is responsible for maintaining, using the modified approach as described in Note 1.G. Assets accounted for under the modified approach include 9,449 center lane miles of roads (21,532 travel lane miles) and 4,920 bridges.

The State manages its roads using the Present Serviceability Rating (PSR), which measures the condition of the pavement and its ability to serve the traveling public. The PSR uses a five-point scale (5 excellent, 0 impassable) to characterize the condition of the roadway. The State's serviceability rating goal is 3.23 for the overall system. The most recent assessment indicated that an overall rating of 3.5 was achieved for fiscal year 2021.

The State manages its bridges using the Bridge Management System. To comply with federal standards, the State is expected to maintain its bridges to a condition where not more than 10.0% are classified as poor. The State's most recent assessment indicated that 0.6% of the bridges were so classified for fiscal year 2021.

Long-Term Debt

The State issues no general obligation debt instruments. The Arizona Constitution, under Article 9, Section 5, provides that the State may contract debts not to exceed \$350 thousand. This provision has been interpreted to restrict the State from pledging its credit as a sole payment for debts incurred for the operation of the State government. As a result, the State pledges either dedicated revenue streams or the constructed building or equipment acquired as security for the repayment of long-term debt instruments.

Major long-term debt activity during the current fiscal year included the following:

- The ADOT retired \$205.8 million in revenue bonds.
- The ADOA retired \$22.2 million in revenue refunding bonds and \$69.1 million on COPs and refunding COPs.
- The SFA retired \$49.4 million in refunding COPs.
- The Universities issued revenue bonds and revenue refunding bonds for \$664.6 million primarily to fund the purchase, construction and renovation of capital facilities and to refund existing debt. The Universities also retired \$291.7 million in revenue bonds and revenue refunding bonds.

ECONOMIC CONDITION AND OUTLOOK

The following budgetary information is based on the State of Arizona's Fiscal Year 2023 Appropriations Report.

Summary of General Fund Forecast

The enacted FY 2023 budget assumes total net General Fund revenues of \$16.83 billion. This amount is a decrease of (2.8)% compared to enacted FY 2022 General Fund revenues.

Excluding the beginning balance, one-time revenues, Urban Revenue Sharing, and the impact of enacted tax legislation, base revenue under the enacted budget forecast is projected to decline by (0.6)% in FY 2023.

General Fund Revenue Forecast

FY 2022

The original FY 2022 budget enacted in June 2021 was based on total General Fund revenues of \$13.03 billion. The January 2022 Baseline forecast, which is based on the 4-sector consensus process described below, increased the FY 2022 General Fund revenue forecast to \$15.57 billion, or \$2.54 billion above the amount projected in the June 2021 enacted budget. The large forecast revision under the January Baseline was due to a significant improvement in the revenue outlook during the first two quarters of FY 2022.

In its 2022 Regular Session revisions to the FY 2022 budget, the Legislature adopted a projected ongoing growth rate of 15.1%. (Adjusted for the impact on FY 2022 growth of the income tax deferral from April to July 2020, the growth rate is an estimated 19.5%.) In terms of total revenue, the revised FY 2022 budgeted amount is \$17.31 billion, or 19.5% above FY 2021. This is a General Fund revenue increase of \$1.75 billion relative to the January Baseline forecast and this revision is attributable to:

- Significantly higher-than-projected revenue collections in the period from January through May. As a result, the enacted budget added \$1.04 billion to the January Baseline forecast.
- Court ruling that invalidated Proposition 208 in the spring of 2022. Absent this ruling, Proposition 208 would have imposed a 3.5% surcharge on taxable income above \$250,000/\$500,000, beginning in TY 2021. Certain income tax provisions enacted in 2021 intended to mitigate the impact of Proposition 208 on taxpayers would have cost the General Fund an estimated \$(705) million in lost revenues in FY 2022. The invalidation of Proposition 208 meant that the General Fund would not incur such loss in FY 2022.

FY 2023

The enacted FY 2023 budget forecasts total General Fund revenues of \$16.83 billion, or a (2.8)% reduction from FY 2022. Excluding one-time revenues and Urban Revenue Sharing, ongoing revenues are projected to be \$15.77 billion, or a (8.1)% decrease relative to FY 2022.

Long-Term Projections

The ongoing revenue growth rates included in the FY 2024 and FY 2025 revenue planning estimates under the June adopted budget are 2.8% in FY 2024 and 2.4% in FY 2025. Without tax law changes enacted in the 2021 and 2022 Regular Sessions, the growth rate would be an estimated 4.8% in FY 2024 and 4.7% in FY 2025.

4-Sector Forecast

The projected growth rates for the “Big 4” revenue categories of sales, individual income, corporate income, and insurance premium taxes are initially developed and revised using a 4-sector consensus process. This process is based on averaging the results of the following 4 forecasts:

- Finance Advisory Committee panel forecast. Consisting of 12 public and private sector economists, this independent panel normally meets 3 times a year to provide the Legislature with guidance on the status of the Arizona economy.
- The University of Arizona Economic and Business Research (EBR) General Fund Baseline model. The model is a simultaneous-equation model consisting of more than 100 equations that are updated on a regular basis to reflect changes in the economy. The model uses more than 200 variables related to Arizona’s economy and is updated quarterly.
- EBR’s conservative forecast model, and
- JLBC Staff projections.

The estimates for the remaining revenue categories, which constitute about 5% of the total, were based on JLBC Staff projections.

The January Baseline as well as the April update are typically based on the 4-sector consensus forecast.

However, based on actual FY 2022 year-to-date revenue collections through March, the JLBC Staff determined that the April 4-sector consensus forecast for FY 2022 was unrealistically low. For this reason, the April forecast update for FY 2022 was solely based on the JLBC Staff sector. For FY 2023 through FY 2025, the April forecast update used the same revenue growth rates as under the January Baseline.

Budget Legislation

Each year there are statutory tax law and other revenue changes that affect the state’s net revenue collections. These may include tax rate or tax exemption changes, conformity to federal tax law changes, or the implementation of programs that affect revenue collections. Following is a description of previously and newly enacted budget legislation with an ongoing revenue impact in FY 2022 through FY 2025.

Pre-2022 Enacted Budget Legislation

1) Tax Omnibus – Laws 2021, Chapter 412 (Tax Omnibus) reduced the individual income tax rates to 2.55% for taxable income up to \$27,272/\$54,544 and 2.98% for taxable income above \$27,272/\$54,544 in TY 2022/FY 2023. Further rate reductions are contingent upon the state receiving more than forecast as determined in September of each year. Excluding the beginning balance, the "trigger" target is set at \$12.8 billion in FY 2022 and \$13.0 billion in FY 2023 and each year thereafter. Laws 2022, Chapter 321 requires that a total of \$2.29 billion in TPT distributions to various non-General Fund agencies in FY 2023 be added to the actual amount of General Fund revenue reported for FY 2023, excluding the beginning balance, for the purpose of determining whether the \$13.0 billion trigger level has been met.

If the state receives more than the FY 2022 trigger level, the rates will be reduced to 2.53%/2.75% starting in TY 2023/FY 2024. If the state receives more than \$13.0 billion in FY 2023 or any subsequent year, the rate will be reduced to a single rate of 2.5% in the following Tax Year. Since the enacted budget forecast exceeds the FY 2022 and FY 2023 trigger levels, the lower tax rates will go into effect. The reduction of the individual income tax rates is estimated to reduce General Fund revenues by \$(1.27) billion in FY 2023, \$(1.64) billion in FY 2024, and \$(2.08) billion in FY 2025.

2) 4.5% Maximum Income Tax Rate – Pursuant to Laws 2021, Chapter 411, beginning in TY 2021, the total individual income tax rate for taxable income above \$250,000/\$500,000, including the Proposition 208 surcharge, cannot exceed 4.5%.

As a result of a court decision in the spring of 2022, Proposition 208 was ruled invalid. This also had the effect of eliminating the cost of the 4.5% Maximum Tax Rate provision under Chapter 411.

3) Alternative Income Tax Rate (SB 1783) – Laws 2021, Chapter 436 (SB 1783) provides an option for individuals with certain types of income, such as interest and dividends, business profits, and capital gains from the sale of certain capital assets, to be taxed under either the regular individual income tax or an alternative income tax established by SB 1783. An individual who elects to be taxed under SB 1783's alternative income tax would not be subject to the 3.5% surcharge under Proposition 208. Instead, SB 1783 alternative income tax collections would be deposited into the General Fund.

The SB 1783 alternative tax rate is 3.5% in TY 2021 and 3.0% in TY 2022. The rate will be further reduced to 2.8% in TY 2023 and TY 2024 and 2.5% in TY 2025.

Due to the invalidation of Proposition 208, this provision will no longer have an effect.

4) Other Tax Omnibus Provisions – Besides the rate reduction described under *item 1*, Laws 2021, Chapter 412 made other changes to Arizona tax statutes, including the following:

- Provides a full individual income tax exemption for benefits, annuities, and pensions received by military retirees, beginning in TY 2021. This provision is estimated to reduce General Fund revenues by \$(48.3) million in FY 2022, \$(37.9) million in FY 2023, \$(36.8) million in FY 2024, and \$(35.7) million in FY 2025.
- Adjusts for inflation the percentage of charitable contributions that standard deduction filers can claim over and above the regular standard deduction, beginning in TY 2022. This provision is estimated to reduce General Fund revenues by \$(2.0) million in FY 2023, \$(3.9) million in FY 2024, and \$(5.8) million in FY 2025.
- Increases the credit cap for contributions by corporations and insurers to School Tuition Organizations (STO) for displaced/disabled students from \$5 million to \$6 million, beginning in FY 2022. This provision is expected to have an annual revenue impact of \$(1.0) million, starting in FY 2022.
- Creates a new nonrefundable income tax credit for the processing of qualified forest products, beginning in TY 2021. The credit, which has an annual cap of \$0.5 million per taxpayer and \$2 million in the aggregate, is estimated to reduce General Fund revenues by \$(395,800) annually, beginning in FY 2022.
- Expands the eligibility for students receiving "switcher" individual or low-income corporate STO scholarships to include those who were homeschooled, moved from out of state, or held an Empowerment Scholarship Account (ESA), beginning in TY 2021. The provision is expected to result in an annual revenue reduction of \$(0.4) million, beginning in FY 2022.

- Allows public service corporations to deduct for income tax purposes any amount of monies or other property contributed to them to expand, improve, or replace their water system or sewage disposal facilities, beginning in TY 2021. This provision is estimated to reduce General Fund revenues by \$(0.4) million annually, beginning in FY 2022.
- Phases down the Class 1 (commercial) property assessment ratio from 18% to 16% over 4 years, beginning in TY 2022. This provision is estimated to increase K-12 school funding formula costs by \$4.4 million in FY 2023 and \$9.0 million in FY 2024. Since the state does not levy a property tax, there is no General Fund revenue impact.
- Increases the Homeowner's Rebate on primary school district property taxes levied on Class 3 (residential) property from 47.19% to 50.0%, beginning in TY 2022. This provision is estimated to increase K-12 school funding formula costs by \$30.0 million in FY 2023 and \$30.8 million in FY 2024. Since the state does not levy a property tax, there is no General Fund revenue impact.

5) Affordable Housing Tax Credit – Laws 2021, Chapter 430 creates a new nonrefundable affordable housing tax credit that is equal to at least 50% of the amount of the federal low-income housing credit for qualified projects placed in service after June 30, 2022. The Arizona Department of Housing is authorized to allocate a total of \$4 million in tax credits per year from TY 2022 to TY 2025. Each of these 4 award cycles is available for 10 years. The credit is estimated to have a revenue impact of \$(4.0) million in FY 2024 and \$(8.0) million in FY 2025.

6) Reduction of State Treasurer Transfer – Pursuant to A.R.S. § 35-316, the State Treasurer is required to deposit any management fees on investment earnings in excess of its Operating Fund appropriation to the General Fund. The FY 2022 General Appropriation Act (Laws 2021, Chapter 408) increased the State Treasurer's Operating Fund appropriation by \$224,200. Since the increased appropriation reduces the excess fund balance by the same amount, General Fund revenue is reduced by \$(224,200) annually, beginning in FY 2022.

7) Reduction of DHS Transfer – Laws 2021, Chapter 409 eliminates the requirement that the first \$300,000 in radiation regulatory fees collected be deposited in the General Fund, beginning in FY 2022.

2022 Enacted Budget Legislation

1) Increased Depreciation of Business Personal Property – Laws 2022, Chapter 103 sets the full cash value of business and agricultural personal property initially classified in TY 2022 or later to 2.5% of the property's acquisition cost. Under the valuation tables in place prior to Chapter 103, it generally took between 3 and 30 years for such property to depreciate to 2.5% of its acquisition cost. Laws 2022, Chapter 103 was not scored as part of the 3-year budget plan. Under a separate fiscal analysis by the JLBC Staff, Chapter 103 was estimated to increase General Fund K-12 funding formula costs by \$9.2 million in FY 2023, \$19.2 million in FY 2024, and \$29.6 million in FY 2025. Since the state does not levy a property tax, there is no General Fund revenue impact.

2) Reduction of Class 1 (Commercial) Property Assessment – Laws 2022, Chapter 171 reduces the Class 1 (commercial) property assessment ratio from 16.0% in TY 2025 to 15.5% in TY 2026 and 15.0%, beginning in TY 2027. The JLBC Fiscal Note estimated that the Class 1 assessment ratio reduction will increase General Fund K12 funding formula costs by \$3.8 million in FY 2027 and \$6.9 million, beginning in FY 2028. Since the state does not levy a property tax, there is no General Fund revenue impact.

3) Reduction of Department of Real Estate Transfer – Laws 2022, Chapter 298 eliminates the statutory minimum fees for real estate licenses. The elimination of the minimum fees under Chapter 298 is expected to reduce the transfer of excess revenue to the General Fund by \$(708,000) annually, beginning in FY 2023.

4) Reduction of Liquor Licenses Fund Transfer – Pursuant to A.R.S. § 4-120, any monies remaining in the Liquor Licenses Fund in excess of \$700,000 at the end of each fiscal year must be deposited in the General Fund. The FY 2023 General Appropriation Act (Laws 2022, Chapter 313) provides changes to the Department of Liquor Licenses and Control's operating budget, which resulted in the appropriation from the Liquor Licenses Fund to the department being increased by \$2.4 million in FY 2023. Since these changes reduce the excess fund balance by the same amount, General Fund revenue is reduced by \$(2.4) million annually, beginning in FY 2023.

5) Change of Reimbursements from Apache/Greenlee – Laws 2022, Chapter 315 (Higher Education BRB) reduces the out-of-county reimbursement amounts due from Apache and Greenlee counties to the community college districts and requires the difference to be paid by the General Fund. This change has the effect of reducing General Fund revenue by \$(2,293,500) annually, beginning in FY 2023.

6) TPT Exemption for Used Agricultural Machinery – Laws 2022, Chapter 321 (Tax Omnibus) expands an existing Transaction Privilege tax (TPT) and Use Tax exemption to include the purchase of used (as opposed to only new) agricultural machinery and equipment and short-term rentals of agricultural machinery and equipment (leases for less than 2 years). This provision is estimated to reduce General Fund revenue by \$(583,000) annually, beginning in FY 2023.

7) Change to Aircraft License Tax – Laws 2022, Chapter 321 (Tax Omnibus) limits the annual increase of the average fair market value of aircraft for the purpose of assessing the aircraft license tax to the annual change of the U.S. Consumer Price Index. In addition, Chapter 321 benchmarks the FY 2022 value of aircraft to the 2019 average fair market value. These changes to the aircraft license tax are estimated to reduce General Fund revenue by \$(1.9) million in FY 2023, and \$(950,000) annually, beginning in FY 2024.

8) Veterans' Property Tax Exemption – Laws 2022, Chapter 341 provides a property tax exemption for veterans with service- or nonservice-connected disabilities in direct proportion to the percentage rating of the veteran's disability. If approved by voters in the November 2022 General Election, the veterans' exemption is estimated to result in a General Fund K-12 funding formula savings of \$1.0 million, beginning in FY 2024. The savings is due to a property tax shift from homes owned by veterans to owners of other types of property. Since the state does not levy a property tax, there is no General Fund revenue impact. Chapter 341 is contingent on voter approval of Proposition 130 at the November 2022 General Election.

9) Adjusting QCO/QFCO Credit Caps for Inflation – Laws 2022, Chapter 385 annually adjusts for inflation the income tax credit limit for donations to Qualifying Charitable Organizations (QCO) and Qualifying Foster Care Charitable Organizations (QFCO). The current cap for the QCO credit is \$400 for single filers and \$800 for married filers whereas the cap for the QFCO credit is \$500 for single filers and \$1,000 for married filers. The change to the QCO and QFCO credit caps is estimated to reduce General Fund revenue by \$(1.0) million in FY 2023, \$(2.0) million in FY 2024, and \$(4.0) million in FY 2025.

10) Motion Picture Production Tax Credit – Laws 2022, Chapter 387 creates a motion picture production income tax credit, beginning in TY 2023. The credit program will be implemented and administered by the Arizona Commerce Authority (ACA). Chapter 387 authorizes ACA to pre-approve up to \$75 million in refundable credits in Calendar Year (CY) 2023, \$100 million in CY 2024, and \$125 million, beginning in CY 2025. Laws 2022, Chapter 387 was not scored as part of the 3-year budget plan. The JLBC Fiscal Note estimated that during the first 3 years of the credit program, Chapter 387 would reduce General Fund revenues by less than half of the credit cap. The JLBC analysis did not attempt to quantify the indirect impacts of any additional economic activity associated with the bill.

Urban Revenue Sharing

The Urban Revenue Sharing (URS) program provides that a percentage of state income tax revenues (including both individual and corporate income tax) be shared with incorporated cities and towns within the state. The amount that is currently distributed to cities and towns is 15% of net income tax collections from 2 years prior. Laws 2021, Chapter 412 increases the URS distribution from 15% to 18%, beginning in FY 2024.

Total URS distributions will increase from \$756 million in FY 2022 to \$1.11 billion in FY 2023. This URS increase will result in General Fund revenue loss of \$(351) million in FY 2023 relative to FY 2022.

One-Time Financing

The budget adopted in June 2022 includes the following one-time financing sources:

FY 2022

DWR Infrastructure Repayment

The FY 2020 General Appropriation Act (Laws 2019, Chapter 263) appropriated \$20.0 million from the General Fund to the Department of Water Resources' (DWR) Temporary Groundwater and Irrigation Efficiency Projects Fund to construct, rehabilitate and lease wells and infrastructure related to the withdrawal and efficient delivery of groundwater by qualified irrigation districts. The appropriated monies were reimbursed to the General Fund in December 2021.

Balance Forward

The FY 2021 General Fund ending balance carried forward into FY 2022 was \$894.6 million.

ARPA Transfer

The enacted budget assumed a one-time transfer of \$635 million from American Rescue Plan Act (ARPA) funds to the General Fund in FY 2022. Due to federal requirements, the Executive later decided to achieve a comparable level of General Fund savings through spending offsets in certain agencies.

FY 2023

Transaction Privilege Tax (TPT) Diversion The enacted budget diverts a total of \$2.29 billion of General Fund TPT revenues to various non-General Fund agency funds in FY 2023. The diverted amount will be allocated as follows:

- ADOT State Highway Fund: \$925.4 million
- ADOT State Aviation Fund: \$20.6 million
- DEMA Border Security Fund: \$209.2 million
- Park Board State Parks Revenue Fund: \$38.2 million
- Budget Stabilization Fund: \$425.0 million
- DEMA Border Security Fund (Border Fencing): \$335.0 million
- DWR Long-Term Water Augmentation Fund: \$334.0 million

TPT Distribution for Public Infrastructure

Under current law, the State Treasurer is authorized to distribute prime contracting TPT revenue generated from qualifying projects to a municipality or county to fund up to 80% of the costs of public infrastructure improvements (such as roads, water, and wastewater facilities) needed to support the activities of a qualifying manufacturing facility located in that municipality or county. The amount of state tax dollars paid to cities and counties statewide is currently capped at \$50 million through September 30, 2033. Laws 2022, Chapter 321 increases the cap from \$50 million to \$100 million, which is expected to result in a one-time revenue reduction of \$(50) million in FY 2023.

Liquor Licenses Fund Transfer Reduction

Laws 2022, Chapter 309 (Capital Outlay) appropriates \$3.5 million one-time from the Liquor Licenses Fund in FY 2023 to the Department of Liquor Licenses and Control for the cost of remodeling and expanding their existing office space. As explained under *Item 11* in the *Budget Legislation* section, this has the effect of reducing the transfer of excess revenue from the Liquor Licenses Fund to the General Fund by \$(3.5) million in FY 2023.

Balance Forward

The FY 2022 General Fund ending balance carried into FY 2023 is projected to be \$4.5 billion.

FY 2024

Balance Forward

The FY 2023 General Fund ending balance carried into FY 2024 is projected to be \$1.1 billion.

FY 2025

Balance Forward

The FY 2024 General Fund ending balance carried into FY 2025 is projected to be \$678.8 million.

STATE RETIREMENT SYSTEM

Retirement Benefits

The State contributes to four separate pension plans for the benefit of all full-time employees and elected officials.

The Arizona State Retirement System (“ASRS”), a cost-sharing, multiple employer defined benefit plan, has reported increases in its unfunded liabilities. The Board of ASRS adopts annual contribution rates for the system.

The Arizona Public Safety Personnel Retirement System (“PSPRS”), an agent multiple-employer defined benefit plan that covers public safety personnel who are regularly assigned to hazardous duties, for which the Arizona State Legislature establishes and may amend active plan members’ contribution rate, has reported increases in its unfunded liabilities. The effect of the increase in the PSPRS’s unfunded liabilities is expected to result in increased contributions by the State and its employees. However, the specific impact on the State, or on the State’s and its employees’ future annual contributions to the PSPRS, cannot be determined at this time.

The Corrections Officers Retirement Plan (“CORP”) is a multiple-employer defined benefit plan that covers certain State employees whose primary duties require direct inmate contact, for which the Arizona State Legislature establishes and may amend active plan members’ and the State’s contribution rates. The CORP has reported increases in its unfunded liabilities. The effect of the increase in the CORP’s unfunded liabilities is expected to result in increased contributions by the State and its employees, however the specific impact on the State, or on the State’s and its employees’ future annual contributions to the CORP, cannot be determined at this time.

The Elected Officials Retirement Plan (“EORP”), a cost sharing multiple-employer defined benefit plan that covers State elected officials and judges, for which the Arizona State Legislature establishes and may amend active plan members’ contribution rate, has reported increases in its unfunded liabilities. The EORP is governed by the same Board of Trustees that manages the PSPRS plan. As of January 1, 2014 EORP is closed to new members. Pursuant to Arizona statute, the annual contribution for active members of EORP is 7.00 or 13 percent of the members’ annual covered payroll, as applicable. This amount is distributed to EORP, the Elected Officials Defined Contribution Retirement System (EODCRS) and the Arizona State Retirement (defined benefit) System (ASRS), depending on the retirement program in which each eligible employee participates.. The EORP employer contribution is additionally funded each year with designated state and county court fees and a \$5,000,000 appropriation from the State general fund.

It should be noted that Senate Bill 1609, which was passed by the State Legislature in 2011, increased member contribution rates in PSPRS and in EORP over a four-year period. It also added conditions to future benefit increases for benefit recipients. However, those provisions faced a legal challenge in *Hall vs. EORP*. A Superior Court ruling declared both provisions to be unconstitutional, and that decision was upheld by the Arizona Supreme Court. Based on that opinion, member contribution rates for certain active members had to be reduced back to their pre-SB 1609 levels, and refunds for contributions made at the higher rates were made in fiscal years 2017 and 2018. Likewise, some retirees received additional increases in their pensions in fiscal year 2018.

The Government Accounting Standards Board adopted Statement Number 68, *Accounting and Financial Reporting for Pensions* (“GASB 68”), which, beginning with fiscal years starting after June 15, 2014, requires cost-sharing employers to report their “proportionate share” of the plan’s net pension liability in their government-wide financial statements. GASB 68 also requires that the cost-sharing employer’s pension expense component include its proportionate share of the plan’s pension expense, the net effect of annual changes in the employer’s proportionate share and the annual differences between the employer’s actual contributions and its proportionate share. Additionally, GASB 68 requires agent-employers to report their plan’s net pension liability in their government-wide financial statements, along with pension expense reported for changes in components of the net pension liability. The State’s employees participate in the several pension plans provided by the State, and both the State and each covered employee contribute to the State plans.

Other Post-Employment Benefits

The Government Accounting Standards Board adopted Statement Number 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (“GASB 75”), which, beginning with the fiscal year starting after June 15, 2017, requires single agent employers to report their plan’s net Other Post-Employment Benefits (“OPEB”) liability in their government-wide financial statements, along with OPEB expense reported for changes in components of the net OPEB liability.

State employees, their spouses and survivors may be eligible for certain retiree health care benefits under health care programs provided through the State. Employees on long-term disability and their spouses may also qualify for retiree health care benefits through the State. It is expected that substantially all State employees that reach normal or early retirement age while working for the State will become eligible for such benefits. Currently, such retirees may obtain the health care benefits offered by the State by paying 100 percent of the applicable health care insurance premium available to all participants, whether retired or not, in the State's health care program. The State makes no payments for OPEB costs for such retirees. Even though the retirees are paying 100 percent of the insurance premiums, premium rates are based on a blend of active employee and retiree experience, resulting in a contribution basis which is lower than the expected claim costs for retirees only, which results in an implicit subsidization of retirees by the State under GASB 75.

The State commissioned an actuarial valuation of the OPEB costs associated with the health care programs available to retirees through the State in order to meet the requirements of GASB 75.

Litigation

The State is party to numerous legal proceedings, many of which normally occur in government operations. In addition, the State is involved in certain other legal proceedings that, if decided against the State, might require the State to make significant future expenditures or substantially impair future revenue sources. Because of the prospective nature of these proceedings, it is not presently possible to predict the outcome of such litigation, estimate the potential impact on the ability of the State to pay debt service costs on its obligations, or determine what impact, if any, such proceedings may have on a fund's investments.

APPENDIX C

ADDITIONAL INFORMATION ABOUT THE COLORADO ECONOMY AND COLORADO OBLIGATIONS

The following information is a summary of certain factors affecting the credit and financial condition of the State of Colorado (“Colorado” or the “State”). The sources of payment for Colorado municipal obligations and the marketability thereof may be affected by financial or other difficulties experienced by the State and certain of its municipalities and public authorities. This summary does not purport to be a complete description and is derived solely from information contained in publicly available documents, including the June 2023 Economic and Revenue Forecast prepared by the Colorado Legislative Council Staff, and other reports prepared by state government and budget officials and statements of issuers of Colorado municipal obligations, as available on the date of this Statement of Additional Information. Any characterizations of fact, assessments of conditions, estimates of future results and other projections are statements of opinion made by the State in, and as of the date of, such reports and are subject to risks and uncertainties that may cause actual results to differ materially. The Fund is not responsible for information contained in such reports and has not independently verified the accuracy, completeness or timeliness of information contained in such reports. Such information is included herein without the express authority of any Colorado issuer and is provided without regard to any events and that occurred since the date of the most recent publicly available report.

General Profile

Colorado became the 38th state of the United States of America when it was admitted to the union in 1876. Its borders encompass 103,718 square miles of the high plains and the Rocky Mountains, with elevations ranging from 3,315 to 14,433 feet above sea level. The current population of the State is approximately 5.8 million. The State’s major economic sectors include agriculture, professional and business services, manufacturing, technology, tourism, energy production and mining. Considerable economic activity is generated in support of these sectors by government, wholesale and retail trade, transportation, communications, public utilities, finance, insurance, real estate and other services.

Organization

The State maintains a separation of powers utilizing three branches of government: executive, legislative and judicial. The executive branch comprises four major elected officials: the Governor, State Treasurer, Attorney General and Secretary of State. The chief executive power is allocated to the Governor, who has responsibility for administering the budget and managing the executive branch. The State Constitution empowers the General Assembly to establish up to 20 principal departments in the executive branch. Most departments of the State report directly to the Governor; however, the Departments of Treasury, Law and State report to their respective elected officials, and the Department of Education reports to the elected State Board of Education. The elected officials serve four-year terms. The current term of such officials commenced in January of 2023 (following the general election held in November of 2022) and will expire on the second Tuesday in January of 2027. No elected executive official may serve more than two consecutive terms in the same office.

The General Assembly is bicameral, consisting of the 35-member Senate and 65-member House of Representatives. Senators serve a term of four years and representatives serve a term of two years. No senator may serve more than two consecutive terms, and no representative may serve more than four consecutive terms. The State Constitution allocates to the General Assembly legislative responsibility for, among other things, appropriating State money to pay the expenses of State government. The General Assembly meets annually in regular session beginning no later than the second Wednesday of January of each year. Regular sessions may not exceed 120 calendar days. Special sessions may be convened by proclamation of the Governor or by written request of two-thirds of the members of each house of the General Assembly to consider only those subjects for which the special session is requested.

Cyber Security Risks

The State, like other large public and private entities, relies on a large and complex technology environment to conduct its operations. As a recipient and provider of personal, private or sensitive information, the State is a potential target for a variety of cyber threats, including, but not limited to, hacking, viruses, malware and other attacks on computer and other sensitive digital networks and systems. Entities or individuals may attempt to gain unauthorized access to the State’s digital systems for the purposes of misappropriating assets or information or causing operational disruption and damage. Recognizing the potential damage that could be caused by any such attacks, the State has established the Governor’s Office of Information Technology (“OIT”) as the single source for the State’s cybersecurity readiness and awareness. The OIT has promulgated a series of policies and standards for State agencies and information security and provides mandatory training for State employees except those in the Department of Law, who receive training from the Department’s own cybersecurity

specialist due to the nature of the work performed by that Department. In addition, the State has procured insurance coverage for data breaches and other security and privacy incidents. On October 7, 2020, the Colorado Department of Personnel & Administration (“DPA”) became aware that a spreadsheet containing state employee personal information, including social security numbers, dates of birth, and other similar information, was inadvertently emailed to 38 benefit administrators at certain institutions of higher education. Upon learning this information, DPA requested the recipients delete the email and spreadsheet and confirm that they had done so. The email was delivered in encrypted fashion, so DPA believes the information was protected while in transit. DPA has stated that it has no evidence that employee information was misused or compromised in any fashion. Affected employees were notified and given information to take action to protect themselves against identity theft. In addition, employee computers at the Colorado Department of Transportation were the subject of a ransomware attack in February 2018. Nevertheless, no assurance can be given that the State’s efforts to manage cyber threats and attacks will be successful or that any such attack will not materially impact the operations or finances of the State.

Climate Change Risks

The State is at risk from climate change impacts and other force majeure events, such as extreme weather events, wildfires and other natural occurrences. Increased frequency and intensity of storms, including excessive snowstorms and tornadoes, droughts and fires may have an adverse impact on the State’s respective operations and infrastructure. The State Legislature has enacted numerous laws addressing climate issues, including the collection of climate change data, improvement of fire mitigation strategies and the establishment of greenhouse gas emission standards. Although the State has taken steps to implement various sustainability programs, there can be no assurances that any mitigation measures will reduce the impacts of climate change locally or globally. In addition to the direct effects of climate change described above, there are pending and potential regulations aimed at reducing the effects of climate change and, in particular, state, federal and international regulations and accords pertaining to greenhouse gas (“GHG”) emissions. Such regulatory changes could directly and/or indirectly affect the State’s operations, infrastructure and financial conditions. The State is unable to predict what additional laws and regulations with respect to GHG emissions or other environmental issues will be adopted, or what effects such laws and regulations will have on the State or the State economy. The future effects of climate change on the State’s operations and infrastructure are complex, difficult to predict, depend on many factors outside of the State’s control and could have material adverse effects. Furthermore, actual events may differ from any scientific climate change studies or forecasts. Accordingly, the State is unable to forecast when adverse climate change effects or the confluence of these events or effects of climate change will occur or whether and what magnitude of adverse economic effects may impact the State or the State’s economy. Although the State has attempted to mitigate the risk of loss from many of these occurrences by purchasing commercial property and casualty insurance and business interruption insurance, no assurance can be given that such insurance will always be available in sufficient amounts, at a reasonable cost or available at all, or that insurers will pay claims in a timely manner or at all.

Economic Outlook

The following discussion is based on the June 2023 Economic and Revenue Forecast prepared by the Colorado Legislative Council Staff.

The U.S. economy is entering a crucial stage. To this point, the nation has avoided a recession despite assertive actions by the Federal Reserve to rein in runaway inflation. Now inflation is finally beginning to cool, but the consequences of contractionary monetary policy are showing wear on business activity, investment, and construction. The second half of 2023 is a key period for the Fed to bring the economy to a soft landing. If the damage done to economic activity is too severe, the economy could enter a recession.

Some of the most significant downside risks to our March forecast have dissipated over the last three months. Congress and the Biden Administration reached an agreement to end the standoff over the federal debt ceiling. And, after worrying signs as three banks failed in March and April, the banking sector seems to have averted a cascading financial crisis. An overly restrictive course of monetary policy remains the primary risk to the economic expansion. At its June meeting, the Federal Reserve acknowledged falling inflation nationally and chose not to raise interest rates, characterizing this change as a “pause.” To this point, inflation, labor market data, and the Fed’s communicated monetary policy plans suggest that the probability of a near-term recession is receding, but the probability of continued inflation above the Federal Reserve’s target rate is high.

Consistent with our earlier forecasts, the U.S. and Colorado economies are slowing after a period of strong labor market growth and consumer spending along with record corporate profits. Employment and real GDP growth remain positive but have decelerated. This forecast anticipates further slow growth through 2023, and a return to a modest pace of expansion in 2024 and 2025. The expansion is expected to be supported by slowly dissipating inflation, a resilient labor market, and continued improvement in real wages, bolstering real spending.

Gross Domestic Product

U.S. real gross domestic product (GDP) rose 2.1 percent in 2022, following a rebound of 5.9 percent in 2021 from the pandemic trough. GDP fell in the first two quarters of 2022 as the economy faced the war in Ukraine, elevated crude oil prices, inflation, and tighter monetary policy. Positive growth resumed in the second half of the year as inflation moderated and consumer demand remained firm. Though economic activity continues to grow, momentum has slowed. GDP increased at a 1.3 percent annualized rate in the first quarter of the 2023, compared to 3.2 percent and 2.6 percent in the third and fourth quarters of 2022, respectively.

- With inflation weighing on growth, real U.S. GDP growth is expected to increase by just 1.4 percent in 2023. As the pace of expansion slowly regains momentum, real economic output is projected to increase at rates of 1.7 percent in 2024 and 2.3 percent in 2025.

Consumer spending accelerates in the first quarter, bolstering growth. Consumer spending makes up more than two-thirds of total economic activity. Despite higher borrowing costs and prices, consumer spending increased by 2.8 percent in 2022, after growing by a brisk 8.3 percent in 2021. Consumer spending continued to pick up momentum in the first quarter of 2023, growing by 3.8 percent from the prior quarter. As high interest rates limit business investment, a strong dollar limits exports, and post-pandemic federal spending wanes, consumer activity is expected to be the most important determinant of the economic expansion over the forecast period. This forecast expects consumer activity to strengthen as inflation recedes, but dwindling household savings could suppress consumer confidence.

Business investment declines in the first quarter. Business investment is an important contributor to GDP, but tends to be volatile quarter to quarter. In the first quarter of 2023, total business investment declined by 11.5 percent after growing by 4.5 percent in the previous quarter. Despite the drop in the most recent quarter, business investment is still up 2.5 percent compared to the same period one year ago.

A drop in residential investment continues to be offset by the improvement in intellectual property products (computer equipment and software). Inflation-adjusted residential outlays have steadily declined since the second quarter of 2021, as rising mortgage rates and borrowing costs have dampened demand for new and existing housing units. On the other hand, intellectual property investment increased by 8.8 percent in 2022, and grew at a 5.2 percent annualized rate in the first quarter of 2023. Investment in nonresidential structures remains strong, growing by 11.0 percent in the first quarter of the year, after improving by 15.8 percent in the last quarter of 2022. Outlays on private nonresidential structures like gas and oil well drilling continue to help boost total business investment.

International trade has contributed to growth, but now faces headwinds. Net exports, calculated as total exports minus total imports, improved in 2022. Exports significantly increased in the third and fourth quarters of the year. Many U.S. suppliers, specifically natural gas and fertilizer producers, have stepped up in providing key commodities to Europe. Though net exports are expected to continue to aid U.S. economic growth, a strong U.S. dollar and weakening global demand are expected to raise headwinds for exports over the next year.

Government spending is no longer a major source of economic stimulus. Government expenditures declined by 0.6 percent in 2022 as various pandemic-era stimulus programs ended. Federal expenditures declined by 2.5 percent, while state and local government spending increased by 0.5 percent from the prior year. Total government spending grew by 5.2 percent in the first quarter of the 2023, with positive contributions from all government sectors (federal, state and local). Total government outlays have increased steadily since the third quarter of 2022. However, a debt ceiling agreement that limits new federal spending, together with sagging state revenue collections nationwide, suggests receding contributions from the public sector through 2024 at least.

Colorado's economic growth in perspective. Prior to the pandemic-induced recession, Colorado had enjoyed more than a decade of strong economic growth, outpacing most other states in the nation across economic indicators, including employment, personal income, and GDP growth. Coming off a period of very strong increases, growth rates for the state are expected to trend closer to the national average. This forecast anticipates that Colorado's economy will modestly outperform the U.S. economy through 2025, with faster income growth and lower unemployment rates balanced against higher inflation. The forecast expects faster job growth nationally than in Colorado, in part due to the presence of more labor market slack (share of the workforce that is unemployed or underemployed) at the national level.

Labor Markets

The labor market in the state and nation remains strong, but tightening monetary policy has triggered isolated job losses in certain industries. Sectors sensitive to interest rates like finance, insurance, and real estate have shed employees as

interest rates rise. However, slower, persistent job growth alongside low unemployment rates suggest that a soft landing is possible for most areas of the economy. There are continued downside risks as confidence erodes and monetary policy tightens further. Employment growth is expected to slow in the near term for both Colorado and the U.S.

- U.S. nonfarm employment growth was 4.3 percent in 2022, and is expected to slow in 2023 and 2024, to 2.2 percent and 1.3 percent, respectively. The U.S. unemployment rate is expected to remain at its 2022 level, 3.6 percent, in 2023, before increasing to 3.8 percent in 2024.
- In Colorado, nonfarm employment grew by 4.2 percent in 2022. Employment is expected to grow at a slightly slower pace than the nation throughout the forecast period, with growth decelerating to 1.8 percent in 2023 and 1.2 percent in 2024. The Colorado unemployment rate is expected to fall from 3.0 percent in 2022 to 2.9 percent in 2023, before rising to 3.2 percent in 2024.

Colorado's unemployment rate remains low amid slowed job gains consistent with a soft landing. Colorado's unemployment rate has remained below 3.0 percent since April 2022, and at 2.8 percent, remains well below the nation's rate of 3.7 percent in May. Ranked lowest to highest, Colorado has the nation's 17th lowest unemployment rate, equal to Massachusetts and Oklahoma. The lowest unemployment rate belongs to Nebraska, New Hampshire, and South Dakota (1.9 percent), and the highest to Nevada (5.4 percent). Colorado's labor force participation rate ticked up to 68.7 percent in May 2023, well ahead of the nationwide rate of 62.6 percent and the fourth highest among the 50 states behind North Dakota (69.7 percent), Nebraska (69.5 percent), and Utah (69.4 percent). At 54.6 percent, Mississippi and West Virginia have the lowest labor force participation rates. Colorado average hourly earnings grew by 3.9 percent year-over-year in May 2023, slowing, but still well above pre-pandemic levels. However, nominal wage growth has not kept up with inflation, resulting in a 1.9 percent decline in real wages.

The employment recovery in Colorado continues to hold up, though job gains are slowing, consistent with monetary policy objectives to tame inflation with a soft landing. Employers added 3,900 jobs in May 2023, for an average monthly gain of 2,120 jobs this year. A marked slowdown in job gains has occurred since May 2022, which roughly coincides with the start of the Federal Reserve's interest rate hikes. In the past twelve months, Colorado gained 2,500 jobs on average compared with average monthly job gains of 12,500 in the twelve months prior.

Impacts of inflation, monetary policy tightening, and banking instability differ across sectors. Year-over-year, statewide job growth slowed to 0.8 percent in April 2023 (1.3 percent with expected revisions, as discussed below), below the pre-pandemic trend of about 2.4 percent. The largest job gains by supersector were in leisure and hospitality, up by 5.1 percent (17,300 jobs), and professional and business services, up by 2.5 percent (12,300 jobs). Employment in leisure and hospitality only just surpassed February 2020 levels in December 2022 and is now up by 5,400 jobs, while employment in professional and business services surpassed February 2020 levels in April 2021, and is now up by 49,100 jobs.

Supersectors with job losses year-over-year in April 2023 were trade, transportation, and utilities, down 1.9 percent (9,800 jobs); financial activities, down 5.1 percent (9,300 jobs); information, down 2.1 percent (1,700 jobs); construction, down 0.4 percent (700 jobs); and other services, down 0.2 percent (200 jobs). Inflation, high interest rates, and banking sector instability added to volatility in these supersectors, which include interest-sensitive activities such as construction, real estate, and information technology as well as banking and other financial activities. Expected revisions in the March 2024 benchmarked job series may alter some of these results.

Nominal wage growth moderates nationally, while real wage growth turns positive. According to the Atlanta Federal Reserve Wage Growth Tracker, median nominal wage growth (not adjusted for inflation) was 6.4 percent year-over-year in April 2023, down from a peak of 7.1 percent in June 2022, while inflation was 5.0 percent, down from a peak of 8.9 percent in June 2022. Inflation exceeded nominal wage growth from April 2021 until February 2023, resulting in a declining real wage and the erosion of purchasing power for more than 50 percent of workers during that period. Prior to that period, the last time real wage growth was negative was in 2011.

Wage growth varied across industries, ranging from 6.9 percent in leisure and hospitality and 6.7 percent in trade and transportation, to 5.8 percent in construction and mining, and education and health. Wage growth also varied across groups of workers, with workers aged 55 and over and job stayers experiencing the slowest wage growth at 4.7 percent and 5.6 percent, respectively, while workers aged 16 to 24, job switchers, and low wage workers (in the bottom half of the wage distribution) experiencing the highest wage growth at 11.5 percent, 7.6 percent and 6.9 percent, respectively. Workers in the mountain region, which includes Colorado, experienced 7.5 percent wage growth in April 2023, the highest among U.S. regions. It is important to note that there is wide variation in wage growth across individuals, but in general, groups of workers with the highest median wage growth are those with the highest share of positive real wage growth.

Nominal wage growth continues to cool in Colorado, while real wages decline. Nominal wages were up by 4.5 percent in April 2023, up from 4.2 percent in March, with inflation adjusted wages down by 0.4 percent, and falling behind inflation since July 2022. Real wage growth within Colorado varied, with Colorado Springs, Pueblo, and Grand Junction showing year-over-year real wage increases. Notable declines in real wages occurred in Greeley, Boulder, Fort Collins, and the Denver metro area.

Personal Income and Savings

Personal income includes household income from wages and salaries, business ownership, investments, and government support. Personal income signals household contributions to income tax revenue, and foreshadows current and future consumer spending and sales tax receipts.

Total Colorado personal income was 5.9 percent higher in the fourth quarter of 2022 compared to a year prior. Wage and salary income was up 7.6 percent compared to one year ago due to employment gains and strong nominal wage growth. Total nonfarm employment increased by 2.5 percent, while average hourly wages increased by 6.5 percent between the fourth quarter of 2021 and the fourth quarter of 2022. Proprietors' income, employer contributions, and dividends, interest, and rent have also contributed to positive gains in total personal income.

- Personal income in the United States is expected to grow 5.9 percent in 2023 before decelerating to 5.4 percent in 2024. Wages and salaries will contribute more than other sources of personal income, growing by 6.8 percent in 2023 and 5.8 percent in 2024.
- Incomes in Colorado will behave similarly, but outpace national growth levels. Personal income will rise 6.0 percent in 2023 and 5.7 percent in 2024, while wages and salaries will grow 7.2 percent this year and 5.9 percent next year.

Real incomes declined in 2022. Even with strong growth in nominal wage and salary earnings, households also contended with rapidly inflating prices in 2022. Per-capita personal income adjusted for inflation fell in 2022 for both Colorado and the U.S. despite high nominal wage growth. However, Colorado's real per-capita income is still 2.6 percent higher than it was in 2020, due to strong growth in 2021. With real wage growth turning positive as of April 2023 and inflation expected to slow through the forecast period, real per-capita personal income is expected to rebound to positive growth for both the U.S. and Colorado in 2023 and 2024.

As real incomes stalled in 2022, households began spending a larger share of their disposable incomes, demonstrated by a drop in the personal savings rate. The personal savings rate is calculated as the ratio of personal saving as a percentage of disposable personal income. The savings rate reached a trough at 2.7 percent in June 2022, its lowest level since 2005. Personal savings have rebounded since June, up to 4.1 percent in April, but are still well below the historical average of 7.5 percent. A low savings rate signals that high inflation is diminishing the purchasing power of household incomes, causing households to spend a higher percentage of their incomes.

Household debt and financial obligations remain at a healthy level. Although the savings rate is low, the level of household debt is consistent with a healthy economy. The financial obligations ratio measures the percentage of disposable income that is obligated toward debt service payments, rental payments, and other financial obligations. Higher rates of financial obligations imply that households will have less available to spend on additional goods and services, and may be more likely to default on debt. The financial obligations ratio rose during 2022 after reaching historical lows in 2021, but remains 1.6 percentage points below the historical average as of the fourth quarter of 2022. This signals that households have more financial obligations than during the early days of the pandemic, but that borrowing remains at a healthy level.

Consumer Activity

Consumer spending is the main driver of the U.S. economy and continues to buoy the economic expansion. Consumers are adjusting to lower household savings, higher interest rates, tightening credit conditions and inflationary pressures. However, the strong labor market and healthy household balance sheets continue to drive demand. Downside risks remain present as household financial expectations worsen and consumer sentiment remains low.

Real U.S. consumer spending accelerates in the first quarter. In the first quarter of 2023, advanced estimates indicate real (inflation-adjusted) personal consumption expenditures rose at an annualized 3.8 percent rate, faster than the 1 percent pace in the prior quarter and the fastest pace posted since the second quarter of 2021. The surge in spending was largely due to a jump in spending on motor vehicles and parts, that rose at an annualized pace of 44.3 percent in the first quarter. Other durable goods categories performed well in the first quarter after weakness throughout 2022, including

recreational goods and vehicles. The first quarter surge in durable goods spending will boost 2023 spending higher than anticipated in the March forecast. Despite the surge in durable goods, nondurable goods spending grew less than 1 percent in the first quarter, extending weaker activity following the surge in pandemic-related spending on food at home, and a post-pandemic bounce in clothing. Nondurable goods spending is expected to remain fairly flat in 2023 before picking up somewhat over the rest of the forecast period.

In the first quarter, spending on services continued to grow at a steady pace as consumers increasingly returned to pre-pandemic activities, led by resurgent spending on health care and food services and accommodations. Spending on health care was up 7.7 percent in the first quarter, and food services and accommodations rose 4.6 percent. Each sector has bounced back to trend growth recorded during the last economic expansion. Spending on services is expected to grow steadily through the forecast period, supporting overall consumer spending and economic growth as other areas of the economy fluctuate. Health care is expected to contribute to spending growth due to an aging population and rising demand, as many delayed elective procedures during the pandemic.

Inflation expected to outpace retail sales until 2024. Although the nation's retail trade and food services sales were up 4.1 percent through the first four months of the year, sales failed to keep pace with rising prices. Along with a slower residential real estate market and durable goods correction, sales were down in categories like furniture and home furnishings, electronics and appliances, and building materials and garden supplies. Lower retail gas prices impacted sales of gasoline, posing a drag on sales growth. In contrast, sales over the past year were largely boosted by spending at food services and drinking places, which were up 15 percent year-to-date.

Business Activity

Growth in business activity is slowing after its post-pandemic surge. Despite headwinds, business income and profits and industrial production continued to expand in 2022. Business incomes, including corporate profits and nonfarm proprietors' incomes, showed positive growth, setting record highs. Corporate profits fell by 5.9 percent in the fourth quarter of 2022 compared to the preceding quarter, but ended the year up 4.4 percent relative to 2021. Even as interest rates rose, nominal business investment in nonresidential intellectual property and equipment grew at a healthy pace, up 12.3 percent from the year prior.

Several key indicators show weakening business activity to begin 2023. Total industrial production, which measures real output from manufacturing, mining, and utilities, has stalled. Industrial production showed virtually no growth over the year ending in April 2023, with production up just 0.2 percent. Monthly data show that industrial output has flagged to begin the year. Declining production in utilities was just barely offset by increases in manufacturing and mining.

On the upside, disruptions to global supply chains are diminishing. Over the past two years, supply chain disruptions stalled deliveries and increased prices across the world as a result of labor shortages and restrictions from the COVID-19 pandemic. The Federal Reserve Bank of New York's index of global supply chain pressures measures the impact of global transportation costs, delivery times, and backlogs. Based on this measure, supply chain pressure has fallen dramatically since its peak in December 2021, and returned to normal levels. This decline is broad-based across most subcomponents of the index. As virus concerns wane and demand for labor comes more in line with supply, supply chains are expected to stabilize. However, a deteriorating global economic and political environment poses a risk to the supply chain outlook.

Despite strong growth in national business activity and slowing supply chain pressures, business activity in the Tenth Federal Reserve District (which includes Colorado and several surrounding states) has started to fall. Since October, the composite manufacturing index had a value of zero or less, indicating that manufacturing is contracting slightly.

Many subcomponents of the index were negative, including production, volume of shipments, and volume of new orders, meaning that more respondents were seeing declines in these areas than were seeing increases. The majority of survey respondents indicated prices of raw inputs are still increasing, but the number of respondents reporting increases has declined sharply since April 2022, further evidence that supply chain issues are easing. The diffusion index for average employee workweek was negative, and the number of employees was positive, indicating that labor shortages may be less of a burden as businesses have been able to hire additional workers.

Monetary Policy and Inflation

Headline inflation is falling in the United States, but remains elevated. Following a historic rise in prices in 2022, data suggest that inflation is slowing. As measured by the U.S. city average consumer price index (CPI-U), the average change in the price of goods and services faced by consumers peaked in June 2022, with average prices 8.9 percent higher

than they were in June 2021. Inflation has moderated considerably since, but remains well above the Federal Reserve's target with May 2023 prices 4.0 percent higher than they were a year ago.

- Headline prices for U.S. urban consumers are expected to rise by 4.4 percent in 2023 and 2.9 percent in 2024.

The surge in inflation in early 2022 was boosted by energy prices, which increased by 41.6 percent year-over-year in June 2022. Transportation was the largest contributor to inflation in 2021 and early 2022, but has dropped off steeply as gas and vehicle prices have stabilized over the past year.

Despite the softening in transportation prices, inflation remains high by historical standards, driven primarily by rising housing costs. Housing is by far the largest component of CPI and currently makes up about 70 percent of U.S. headline inflation. The housing component includes costs for rent payments (or for homeowners, the income a homeowner foregoes by choosing not to rent out their home), utilities, and other housing-related goods and services. Because the housing component of the CPI includes prices paid by all households rather than just those moving to a new home, the housing component tends not to change quickly in aggregate, as most renters' payments are only subject to change once annually.

Housing costs are up 7.4 percent year-over-year in April, much higher than the typical rate of housing inflation before the pandemic, which was about 2.7 percent. A May 2022 study found that over half of the surge in rental and home prices can be attributed to the increase in remote work due to the pandemic. Remote work increases demand for housing because it requires more space for work activities to be completed at home. Because the shift to remote work is expected to be permanent, demand for housing is likely to stabilize at this new higher level, meaning that prices are not likely to come back down but are expected to increase at a slower rate moving forward. Month-over-month growth in housing prices slowed in March and April, a trend that is expected to continue.

Inflation in Denver-Aurora-Lakewood remains elevated, driven by housing costs. As at the national level, headline inflation in Colorado peaked early last year but has fallen steadily since. In March 2022, year-over-year headline inflation reached 9.1 percent and has since declined to 5.1 percent as of May 2023, still well above normal and well above the national average for urban consumers.

- Headline inflation in the Denver-Aurora-Lakewood combined statistical area is expected to be slightly higher than the U.S. at 4.6 percent in 2023 and 3.2 percent in 2024.

As is the case nationally, housing and food and beverage prices are putting upward pressure on headline inflation, while softening motor fuel prices have reduced the impact of prices for transportation. Housing costs have had a greater impact in the Denver area as prices are up 7.8 percent year-over-year, compared to 6.8 percent for the nation, as the Denver area has a higher percentage of remote workers and tends to have a tighter housing market. Increases in rental prices were a large, sustained contributor to inflation throughout 2022. This forecast expects that housing inflation has passed its peak and will cool slowly throughout the forecast period.

The Fed did not hike rates at its June meeting, but the real federal funds rate is expected to rise. In response to accelerating inflation, the Federal Reserve began aggressively tightening monetary policy beginning in early 2022. Starting from near zero, the Federal Reserve has increased the range for its benchmark interest rate, the federal funds rate, by a combined 5.0 percentage points across ten rate hikes. The nominal federal funds rate is now at its highest level since 2007. In conjunction with rate hikes, the Fed also began reducing its balance sheet, first by tapering asset purchases and then by beginning to allow a portion of its traditional portfolio of U.S. treasuries to run off.

In response to falling rates of inflation before its June 2023 meeting, the Fed chose to maintain its target percentage for the federal funds rate rather than increasing rates again. The Fed characterized the decision as a "pause" from rate hikes, rather than an end to them, as the Fed reevaluates what comes next for monetary policy in light of cooling inflation. This forecast expects that the nominal federal funds rate will remain near its current level for the remainder of the year.

The real federal funds rate (the difference between the nominal effective federal funds rate and inflation) has turned slightly positive at 0.1 percent for the first time since 2019. Having a federal funds rate that is below the rate of inflation is considered expansionary monetary policy, as the cost of borrowing is less than the rate of depreciation caused by inflation. On the other hand, a positive real federal funds rate is contractionary. The real federal funds rate is expected to increase through 2023 as inflation abates and the nominal federal funds rate remains near its current level.

A rising real federal funds rate will raise the cost of borrowing and, in turn, help to ease inflationary pressures. However, there is still significant uncertainty regarding the effect of these changes on prices, and whether the Federal Reserve can engineer a soft landing amid shifting geopolitical tensions, banking liquidity concerns, and high housing costs.

Tightening monetary policy raises new demand-side risks as access to credit for would-be borrowers, including homebuyers, becomes scarce. Inflation is expected to remain above the Federal Reserve's target through 2023 and into 2024.

Real Estate and Construction Activity

U.S. and Colorado home prices peaked in mid-2022. Housing prices around the country skyrocketed through early 2022, peaking in June, on high household savings and low interest rates. Both of these contributors changed direction over the course of the year. Prices in the Case-Shiller 20-city composite index increased by about 19 percent over the year ending in June 2022. Prices in Denver surged even more than their national counterparts, up more than 19 percent over the same period, and increases were fairly consistent across homes priced at different levels.

The market entered a downturn over the summer as rising mortgage rates limited buying power for prospective purchasers. The number of homes available for sale jumped after hovering near historical lows, and prices began to fall. Through the end of the year, both Case-Shiller national home price indices showed prices down by almost 12.9 percent from their June peak, and prices in the Denver Metro area were down 15.7 percent from their May peak. Home prices stabilized over the first half of 2023, but have not returned to peak levels. New listings combined with a dearth of new builds are expected to keep prices from falling dramatically.

Interest rates are significantly higher than at this time last year. The average interest rate for a new 30-year mortgage was 6.7 percent in early June, up from 5.2 percent from the same period last year but below the peak of 6.9 percent in November 2022. High home prices coupled with rising borrowing costs are expected to squeeze many would-be homebuyers, especially first-time buyers, out of a wide array of markets across the United States. In Colorado, housing affordability is deteriorating even in previously affordable communities, and high housing costs are expected to constrain net migration into the state.

Homebuilders are responding with decreased activity. Sales of new single family houses in the U.S. were down 17.0 percent in 2022. In addition, the number of new housing permits issued has been on the decline since last March. Colorado's homebuilding collapse was more severe, with builders pulling just over 23,700 single family permits in 2022, down more than 30 percent from the prior year. Meanwhile, multifamily homebuilding was relatively resilient, remaining roughly flat year-over-year.

Builders continue to face considerable headwinds in responding to low inventory, including construction supply chain disruptions and a shortage of skilled labor. Home losses from natural disasters, including the December 2021 Marshall Fire, are expected to compound these pressures on home construction costs and exacerbate the existing backlog of pandemic-related delays in homebuilding.

- Residential construction activity in Colorado is expected to fall from its still-elevated level, with the number of permits issued declining by 21 percent in 2023 before rebounding to grow 10 percent in 2024.

Nonresidential construction activity continues to slow. U.S. nonresidential construction spending, not adjusted for inflation, was up 7.9 percent in 2022 compared to the previous year. Total spending slowed in the second half of the year as high interest rates weighed on the industry. Spending on new office and manufacturing properties has been strong, increasing by 39.7 percent and 53.6 percent, respectively, over the year ending in January 2023. Though vacancy rates for the office market continue to rise, firms with continued on-site work arrangements are seeking new, amenity-rich buildings. Activity for new commercial and education properties has slowed.

Colorado's nonresidential construction growth outpaced the nation's in 2022 – largely due to groundbreaking for a \$400 million Pepsi manufacturing plant near Denver International Airport, the state's largest manufacturing project in at least the past ten years. According to Associated Builders and Contractors, many contractors continue to report that they are operating at capacity even as construction activity underwhelms, suggesting that the nonresidential construction market continues to be hindered by supply chain disruptions and worker shortages. Higher interest rates and deteriorating confidence in the economy are impacting profit margins, suppressing appetites for additional investment. There is a growing risk of project postponements as costs continue to increase.

Investors in nonresidential real estate anticipate a bumpy road ahead. Demand for hotels and other lodging is not expected to return to 2019 levels until beyond the current forecast period. Likewise, the shift toward remote work has dampened the outlook for office space. Low demand is expected to limit construction activity in these areas, suppressing headline figures despite growth opportunities in other areas, including warehouses and industrial space. Public sector investment is expected to remain elevated into 2024 as funds disseminated through the 2021 Infrastructure Investment and Jobs Act are spent.

- The value of nonresidential construction starts in Colorado is expected to decline in 2023, dropping by 20.5 percent in 2023 before rebounding to grow by 17.2 percent in 2024.

Energy Markets

Oil and gas prices are falling in 2023 after rapid post-pandemic price increases. Oil and gas prices have decreased significantly since peaking in mid-2022. The average monthly price of oil in May 2023 was down about 38 percent from its peak in June 2022, and natural gas prices were down about 76 percent from their August 2022 peak. Both markets were impacted by supply and demand disruptions during the pandemic and subsequent recovery, as well as the war in Ukraine. In 2023, the price per barrel of West Texas Intermediate crude is expected to average \$80 per barrel, a 16 percent decline from the average recorded in 2022.

The latest report from the Energy Information Administration (EIA) notes that oil prices continue to fall despite lower production from Russia and a planned cut from OPEC and partner countries through the end of 2023. Prices are down due to reduced demand with weakening global economic conditions, risks in the global financial sector, and persistent inflation. The forecast anticipates lower oil prices each year through the forecast period. On the natural gas side, prices in 2023 have been impacted by a relatively warm winter in Europe and many parts of the eastern and central United States that led to less consumption and rising natural gas inventories. Prices are expected to be further impacted by precipitation in the western U.S. that will boost hydropower and reduce demand for natural gas for electricity. The EIA predicts natural gas prices will average \$2.91 in 2023, down about 55 percent from \$6.42 in 2022. The EIA forecasts prices will rise to \$3.72 in 2024, but prices will be influenced longer term by less demand from the electric power sector as more renewable sources of electricity come online.

Although oil prices have fallen, the retail price of gasoline increased between December and May, partly due to refinery outages to start the year, and later from revamped inventory and the seasonal lead up to higher summer gas prices. However, retail gas prices in 2023 are expected to average 16 percent lower than 2022, and fall further in 2024 along with lower crude oil prices. In Colorado, an outage at the Suncor refinery in Commerce City pushed the state's gasoline prices higher than the national average over the first three months of the year. The outage resulted in supplies being trucked and piped into the state from neighboring regions. Further maintenance at the refinery was announced in April. The shutdowns have impacted prices in the first half of 2023.

Recovery of oil and gas production in Colorado lags behind the nation. During the post-pandemic recovery, U.S. crude oil production rebounded, while Colorado's production experienced a larger pull-back and a slower recovery. Colorado's oil production stagnated over the latter half of 2022, and was down 3.7 percent year-to-date in February 2023. In contrast, U.S. production was up 7.4 percent year-to-date. As of June 2023, Colorado had 17 active drilling rigs, down from 22 as recently as December 2022, and from a monthly average of 30 active rigs in 2019. Similarly, U.S. natural gas production has rebounded, while Colorado's production continues to trend downward.

Looking ahead, the EIA anticipated U.S. crude oil production will continue to increase through 2024, along with modest increases in natural gas. However, expected price declines are expected to weigh on Colorado's oil and gas production over the next year, resulting in flat or declining production in our state.

Agriculture

The outlook for the U.S. agricultural economy generally remains positive, with persistent headwinds expected to dampen farm income growth. Higher interest and other expenses increase the cost of production, yet prices of key crops and livestock remain elevated. Measures of financial stress remain historically low in the Federal Reserve's Tenth District, which includes Colorado, with balance sheets bolstered by multiple years of strong incomes.

Agricultural prices remain elevated, but have started to fall. A nationwide index of agricultural prices declined in the first quarter of 2023, but remained almost 30 percent above the average of the past decade. Price declines in major commodities, including dairy, hogs, and chicken eggs offset increases in other categories, including corn, soybeans, and cattle.

Wheat prices have stabilized, with renewal of the Black Sea export corridor agreement between Russia and Ukraine through mid-July. Widespread drought in wheat- and cattle-producing regions in the U.S., including eastern Colorado, has impacted forage and hay production, and likely affected the winter wheat harvest, even as spring precipitation produced favorable conditions for spring corn planting. Colorado corn, wheat, and hay prices soared in 2021 and 2022, with twelve-month moving averages at or near new peaks through March 2023. Colorado wheat came off a record high of \$10.30 per

bushel reached in June 2022 to settle at around \$8.00 per bushel in 2023. Corn prices declined from highs of over \$8.00 per bushel to \$7.75 per bushel in March 2023, but hay prices have yet to peak, reaching a multi-year high of \$274 per ton.

Agricultural credit conditions remained strong in the first quarter of 2023, despite rising interest costs. Nominal U.S. farm income reached a ten-year high in 2022, with existing operations receiving support from rising farm real estate values and strong commodity prices. Farm loan interest rates have risen sharply since early 2022, reaching their highest levels since 2007, creating headwinds for many producers. Costs associated with drought and feed purchases have limited profitability in the livestock sector, with lower cattle inventories expected to place downward pressure on meat production. Farmland values continued to grow, but at a slower pace, as farm income moderated alongside a slight pullback in commodity prices. Tenth District farm income and credit conditions remain strong but with financing costs softening the outlook. Some lenders are expecting deterioration in the months ahead, according to the Federal Reserve's Survey of Agricultural Credit Conditions.

Food price inflation is easing, led by falling egg prices. Food price inflation has slowed in recent months, but at 7.7 percent year-over-year in April 2023, remains well above the 20-year historical average of 2.8 percent. Month-over-month, prices for eight food-at-home categories declined, with the largest percentage decline, 1.5 percent, in egg prices. While the outbreak of highly pathogenic avian influenza (HPAI) has reduced the U.S. egg-layer flock, retail egg prices have declined since peaking in January 2023, with no new confirmed case of HPAI in egg layers since December 2022. Egg prices increased by 32 percent in 2022 and, according to the USDA food price outlook, are expected to increase a further 17 percent in 2023, a downward revision from the January 2023 forecast. Overall food price inflation is expected to slow to 6.2 percent, still well above historical rates.

Drought conditions substantially improved throughout Colorado. According to the U.S. Drought Monitor, the area of severe, extreme, or exceptional drought was 0.3 percent in early June, down from 7.9 percent in March, reflecting improved conditions across the state. The area of no drought has expanded to 98.7 percent, up from 63.5 percent three months ago and 16.4 percent one year ago. As indicated by the Drought Severity and Coverage Index, Colorado's drought conditions are substantially improved in 2023, to levels not seen since 2020.

Global Economy and International Trade

Inflationary concerns, central bank tightening, the war in Ukraine, and slow growth in China detracted from global economic growth in 2022, with the added specter of financial market instability weighing further on global growth in 2023. Risks of an economic downturn remain elevated worldwide.

The International Monetary Fund downgrades 2023 outlook, citing financial sector instability amidst lackluster growth and sticky inflation. The International Monetary Fund (IMF) projects growth in global economic output will fall from an estimated 3.4 percent in 2022 to 2.7 percent in 2023 before rising to 3.0 percent in 2024, still well below the historical average of 3.8 percent. The IMF revised its 2023 expectations down by 0.1 percentage points since January 2023, citing recent financial sector turmoil amidst still historically slow economic growth and stubbornly high inflation requiring central banks to keep monetary policy tighter for longer. The slowdown is largely driven by advanced economies. The IMF anticipates global inflation to fall, but more slowly than anticipated in its January outlook, from 8.7 percent in 2022 to 7.0 percent in 2023 and 4.9 percent in 2024, still above the pre-pandemic level of about 3.5 percent.

While the global economy's gradual recovery from both the pandemic and Russia's invasion of Ukraine remains on track, recent banking instability has tilted risks once again to the downside and highlighted the fragility of the still-nascent recovery. Inflation remains stickier than anticipated, with year-end core inflation expectations revised upward, to 5.1 percent, from the January outlook, suggesting that central banks will need to tighten monetary policy further and longer than previously anticipated. Last year's monetary policy tightening has raised funding costs, exposed vulnerability in some banks' bottom lines, and led to a reduction in lending and strained credit markets. A sharp tightening of global financial conditions triggered by nervous investors could slow GDP growth even further, and the risk of such a deterioration remains elevated amidst substantial uncertainty.

Slower economic growth is expected to weigh on trade as oil prices decline. In April, the IMF outlook for global trade growth remained little changed, at 2.4 percent in 2023, down from 5.1 percent in 2022. Slower growth in global output is expected to translate into fewer imports and exports of goods and services, with much of the slowdown concentrated in advanced economies. The oil price outlook is substantially downgraded from January, with a 24.1 percent decline in oil prices expected in 2023, following a 39.2 percent increase in 2022.

U.S. trade volume is flat in 2023. The dollar value of U.S. trade was flat through March 2023, after ending the year up by 16 percent from the 2021 level, according to data from WiserTrade. Key export markets include Canada, Mexico, and China, with exports to China up by 7 percent through March 2023 and showing signs of recovering on the heels of China's reopening. Exports grew by 7 percent through March 2023, while imports were down by 4 percent, reducing the trade deficit that widened during the pandemic. Notably, imports from China were down 28 percent through March 2023, potentially signaling shifting trade patterns as pandemic-related disruptions and U.S. trade policy spur companies to shift production hubs to Mexico and other markets closer to the U.S.

U.S. exports pulled back in the second half of 2022 due to easing energy prices, a strong dollar, and slowing global economic growth. Oil and gas products, industrial and electric machinery, vehicles, and aircraft comprise the top categories of U.S. exports. Exports of services continues a steady but slower recovery from pandemic disruptions, with the volume of international visitors to the U.S. still about 80 percent of 2019 levels. Net exports are expected to continue to increase slowly in 2023 as global growth outpaces that of the U.S.

Colorado import expenses are falling as crude oil prices decline. The nominal value of Colorado's exports and imports declined by 1.6 percent through March 2023, after finishing 2022 up 21 percent from 2021. Canada remains Colorado's largest trade partner, with exports up by 6 percent and imports down by 13 percent, largely due to falling oil prices reducing the dollar value of crude oil imports. Other significant trading partners in 2023 include Mexico, China, and Taiwan. Key export commodities include beef, electronic integrated circuits, aircraft, surgical instruments, and gold. The dollar value of crude oil imports, by far Colorado's most significant import, is down by 21 percent through March 2023.

Risks to the Forecast

This forecast expects the U.S. and Colorado economies to grow at a slow pace through 2023 as high interest rates limit business activity. Households are expected to contribute to growth, with low unemployment, rising wages, and dissipating inflation allowing sustained growth in real consumer spending. However, the expansion is fragile and risks to the forecast are significant.

Downside risks. The principal downside risk, discussed throughout this outlook, is that tightening monetary policy will trigger a recession. High interest rate environments raise the costs of borrowing, limiting business investment and economic dynamism. The goal of high rates is to constrain activity enough to rein in inflation, but too aggressive a course could break the expansion rather than nurturing its recovery.

Consumer spending is expected to drive growth if spending can outpace inflation. However, inflation remains high and is eroding the majority of the nominal increase in household incomes. Higher than expected inflation could cause spending to decline in real (inflation-adjusted) terms, a "stagflation" scenario where inflation subsumes growth opportunities.

Finally, the economy is in a fragile state. Outside shocks due to unforeseen national or international events are more likely than usual to push the economy off of its growth trajectory.

Upside risks. The forecast expects inflation to dissipate, but a faster-than-expected decline in inflation would allow for healthier economic gains while eliminating the need for further interest rate hikes. While supply chain constraints have improved, an end to Russia's war in Ukraine would alleviate the economic strain on Europe and resolve additional inflationary pressures in the U.S. Finally, the forecast expects that opportunities for further employment growth will be limited by business spending and labor supply, but sustained job growth would promote a stronger near-term expansion than expected.

STATE FINANCIAL INFORMATION

The State Treasurer

The State Constitution provides that the State Treasurer is to be the custodian of public funds in the State Treasurer's care, subject to legislative direction concerning safekeeping and management of such funds. The State Treasurer is the head of the statutorily created Department of the Treasury (the "State Treasury"), which receives all State money collected by or otherwise coming into the hands of any officer, department, institution or agency of the State (except certain institutions of higher education). The State Treasurer deposits and disburses those monies in the manner prescribed by law. Every officer, department, institution and agency of the State (except for certain institutions of higher education) tasked with the responsibility of collecting taxes, licenses, fees and permits imposed by law and of collecting or accepting tuition, rentals, receipts from the sale of property, and other money accruing to the State from any source is required to transmit those monies to the State Treasury under procedures prescribed by law or by fiscal rules promulgated by the Office of the State Controller

(the “State Controller”). The State Treasurer and the State Controller may authorize any department, institution or agency collecting or receiving State money to deposit such money to a depository to the State Treasurer’s credit in lieu of transmitting such money to the State Treasury.

The State Treasurer has discretion to invest in a broad range of interest-bearing securities described by statute. All interest derived from the deposit and investment of State money must be credited to the General Fund unless otherwise expressly provided by law.

Taxpayer’s Bill of Rights

General. Article X, Section 20 of the State Constitution, entitled the Taxpayer’s Bill of Rights and commonly known as “TABOR,” imposes various fiscal limits and requirements on the State and its local governments, excluding “enterprises,” which are defined in TABOR as government-owned businesses authorized to issue their own revenue bonds and receiving less than 10% of their annual revenues in grants from all State and local governments combined. Certain limitations contained in TABOR may be exceeded with prior voter approval.

TABOR provides a limitation on the amount of revenue that may be kept by the State in any particular Fiscal Year, regardless of whether that revenue is actually spent during the Fiscal Year. This revenue limitation is effected through a limitation on “fiscal year spending” as discussed hereafter. Any revenue received during a Fiscal Year in excess of the limitations provided for in TABOR must be refunded to the taxpayers during the next Fiscal Year unless voters approve a revenue change.

TABOR also requires prior voter approval for the following, with certain exceptions: (i) any new State tax, State tax rate increase, extension of an expiring State tax or State tax policy change directly causing a net revenue gain to the State; or (ii) the creation of any State “multiple fiscal year direct or indirect ... debt or other financial obligation.”

TABOR further requires the State to maintain an emergency reserve equal to 3% of its fiscal year spending (the “TABOR Reserve”), which may be expended only upon: (i) the declaration of a State emergency by passage of a joint resolution approved by a two-thirds majority of the members of both houses of the General Assembly and subsequently approved by the Governor; or (ii) the declaration of a disaster emergency by the Governor. The annual Long Appropriation Bill (the “Long Bill”) designates the resources that constitute the TABOR Reserve, which historically have consisted of portions of various State funds plus certain State real property. The OSPB March 2023 Revenue Forecast states that the TABOR Reserve requirement for Fiscal Year 2022-23 was \$500.2 million, and forecasts that the TABOR Reserve requirement for Fiscal Years 2023-24 and 2024-25 will be \$542.7 and \$570.9 million, respectively.

Fiscal Year Revenue and Spending Limits; Referendum C. As noted above, unless otherwise approved by the voters, TABOR limits annual increases in State revenues and fiscal year spending, with any excess revenues required to be refunded to taxpayers. Fiscal year spending is defined as all expenditures and reserve increases except those for refunds made in the current or next Fiscal Year or those from gifts, federal funds, collections for another government, pension contributions by employees and pension fund earnings, reserve transfers or expenditures, damage awards or property tax sales.

The maximum annual percentage change in State fiscal year spending is limited by TABOR to inflation (determined as the percentage change in U.S. Bureau of Labor Statistics Consumer Price Index for Denver, Boulder and Greeley, all items, all urban consumers, or its successor index) plus the percentage change in State population in the prior calendar year, adjusted for revenue changes approved by voters after 1991, being the base year for calculating fiscal year spending. The operation of TABOR created State budget challenges in the early years following its passage, and in 2005 several measures were passed by the General Assembly in an effort to address these challenges, including one, designated “Referendum C,” that was submitted to and approved by State voters and thereafter codified as Sections 24-77-103.6 and 106.5, C.R.S. Referendum C authorized the State to retain and spend any amount in excess of the TABOR limit in Fiscal Years 2005-06 through 2009-10. In addition, for Fiscal Years 2010-11 and thereafter, Referendum C created an Excess State Revenues Cap, or “ESRC,” as a voter-approved revenue change under TABOR that now serves as the limit on the State’s fiscal year revenue retention. The base for the ESRC was established as the highest annual State TABOR revenues received in Fiscal Years 2005-06 through 2009-10. This amount, which was determined to be the revenues received in Fiscal Year 2007-08, is then adjusted for each subsequent Fiscal Year for inflation, the percentage change in State population, the qualification or disqualification of enterprises and debt service changes, each having their respective meanings under TABOR and other applicable State law. However, per SB 17-267, the ESRC for Fiscal Year 2017-18 was an amount equal to (i) the ESRC for Fiscal Year 2016-17 calculated as provided above (ii) less \$200 million. For subsequent Fiscal Years, the ESRC is calculated as provided above utilizing the ESRC for the immediately preceding Fiscal Year as the base amount.

SB 17-267 also: (i) replaced the Hospital Provider Fee with the Healthcare Affordability and Sustainability Fee, which fee is exempt from TABOR as it is collected by an enterprise created by SB 17-267 within the Department of Health Care Policy and Financing; (ii) exempts retail marijuana from the 2.9% State sales tax, which resulted in less revenue subject to TABOR in Fiscal Years 2017-18 and thereafter; and (iii) extends and expanded the income tax credit for business personal property taxes paid, which reduced income tax collections in Fiscal Years 2018-19 and thereafter, but is offset in part by the distribution of a portion of the special sales tax on retail marijuana sales to the General Fund on an ongoing basis.

As a result of Referendum C, the State was able to retain various amounts in excess of the previously applicable TABOR limit in Fiscal Years 2005-06 through 2013-14, and no refunds were required because such revenues were below the ESRC. In Fiscal Year 2014-15, TABOR revenues exceeded the TABOR limit and resulted in the State being \$169.7 million above the ESRC, thus triggering a TABOR refund. TABOR revenues again exceeded the TABOR limit in Fiscal Years 2015-16 and 2016-17 but were below the ESRC. In Fiscal Years 2017-18 and 2018-19, TABOR revenues exceeded the TABOR limit and resulted in the State being \$18.5 million and \$428.3 million above the ESRC for such Fiscal Years, respectively, in each case triggering a TABOR refund. In Fiscal Year 2019-20, TABOR revenues did not exceed the TABOR limit. In Fiscal Years 2020-21 and 2021-22, TABOR revenues exceeded the TABOR limit and resulted in the State being \$525.5 million and \$3,728.4 million above the ESRC for such Fiscal Years, respectively, in each case triggering a TABOR refund. TABOR revenues are forecast in the OSPB March 2023 Revenue Forecast to exceed the TABOR limit in each of Fiscal Years 2022-23 through 2024-25, resulting in the State exceeding the ESRC by \$2,506.3 million in Fiscal Year 2022-23, \$720.9 million in Fiscal Year 2023-24 and \$1,210.1 million in Fiscal Year 2024-25, thus triggering TABOR refunds.

SB 17-267 also changed the TABOR refund mechanisms. Under prior law, the means by which revenues in excess of the ESRC could be refunded to taxpayers included: (i) a sales tax refund to all taxpayers, (ii) the earned income tax credit to qualified taxpayers and (iii) a temporary income tax rate reduction, the particular refund mechanism used to be determined by the amount that needs to be refunded. Per SB 17-267, beginning with Fiscal Year 2017-18, there was added as the first refund mechanism the amount reimbursed by the State Treasurer to county treasurers in the year of the TABOR refund for local property tax revenue losses attributable to the property tax exemptions for qualifying seniors and disabled veterans.

Referendum C also created the “General Fund Exempt Account” within the General Fund, to which there is to be credited money equal to the amount of TABOR revenues in excess of the TABOR limit that the State retains for a given Fiscal Year pursuant to Referendum C. Such money may be appropriated or transferred by the General Assembly for the purposes of: (i) health care; (ii) public elementary, high school and higher education, including any related capital construction; (iii) retirement plans for firefighters and police officers if the General Assembly determines such funding to be necessary; and (iv) strategic transportation projects in the Colorado Department of Transportation Strategic Transportation Project Investment Program.

Voter Approval to Retain and Spend Certain Marijuana Taxes Associated with Proposition AA. At the general election held on November 3, 2015, the State’s voters authorized the State to retain and spend \$66.1 million in sales and excise taxes on the sale of marijuana and marijuana products (“Marijuana Taxes”) authorized by Proposition AA approved by the State’s voters in November of 2013 that otherwise would have been subject to a required refund to taxpayers in Fiscal Year 2015-16 pursuant to TABOR. HB 15-1367, which referred the measure to the State’s voters as Proposition BB, also provides for the allocation of the retained amount for public school capital construction, for various purposes such as law enforcement, youth programs and marijuana education and prevention programs and for use by the General Fund for any purpose. SB 17-267 increased the special sales tax on retail marijuana sales from 10% to 15% effective July 1, 2017.

State Funds

The principal operating fund of the State is the General Fund. All revenues and money not required by the State Constitution or statutes to be credited and paid into a special State fund are required to be credited and paid into the General Fund. The State also maintains several statutorily created special funds for which specific revenues are designated for specific purposes.

Budget Process and Other Considerations

Phase I (Executive). The budget process begins in June of each year when State departments reporting to the Governor prepare both operating and capital budgets for the Fiscal Year beginning 13 months later. In August, these budgets are submitted to the OSPB, a part of the Governor’s office, for review and analysis. The OSPB advises the Governor on departmental budget requests and overall budgetary status. Budget decisions are made by the Governor following consultation with affected departments and the OSPB. Such decisions are reflected in the first budget submitted in November for each department to the Joint Budget Committee of the General Assembly, as described below. In January, the Governor makes additional budget recommendations to the Joint Budget Committee for the budget of all branches of the State

government, except that the elected executive officials, the judicial branch and the legislative branch may make recommendations to the Joint Budget Committee for their own budgets.

Phase II (Legislative). The Joint Budget Committee, consisting of three members from each house of the General Assembly, develops the legislative budget proposal embodied in the Long Bill, which is introduced in and approved by the General Assembly. Following receipt of testimony by State departments and agencies, the Joint Budget Committee marks up the Long Bill and directs the manner in which appropriated funds are to be spent. The Long Bill includes: (i) General Fund appropriations, supported by general purpose revenue such as taxes; (ii) General Fund Exempt appropriations primarily funded by TABOR-exempt or excess TABOR revenues retained under Referendum C; (iii) cash fund appropriations supported primarily by grants, transfers and departmental fees for services; (iv) reappropriated amounts funded by transfers and earnings appropriated elsewhere in the Long Bill; and (v) estimates of federal funds to be expended that are not subject to legislative appropriation. The Long Bill usually is reported to the General Assembly in March or April with a narrative text. Under current practice, the Long Bill is reviewed and debated in party caucuses in each house. Amendments may be offered by each house, and the Joint Budget Committee generally is designated as a conference committee to reconcile differences. The Long Bill always has been adopted prior to commencement of the Fiscal Year in July. Specific bills creating new programs or amending tax policy are considered separately from the Long Bill in the legislative process. The General Assembly takes action on these specific bills, some of which include additional appropriations separate from the Long Bill.

Phase III (Executive). The Governor may approve or veto the Long Bill or any specific bills. In addition, the Governor may veto line items in the Long Bill or any other bill that contains an appropriation. The Governor's vetoes are subject to override by a two-thirds majority of each house of the General Assembly.

Phase IV (Legislative). During the Fiscal Year for which appropriations have been made, the General Assembly may increase or decrease appropriations through supplemental appropriations. Any supplemental appropriations are considered amendments to the Long Bill and are subject to the line item veto of the Governor.

Revenues and Unappropriated Amounts. For each Fiscal Year, a statutorily defined amount of unrestricted General Fund year-end balances is required to be retained as a reserve (as previously defined, the "Unappropriated Reserve"), which may be used for possible deficiencies in General Fund revenues. Unrestricted General Fund revenues that exceed the required Unappropriated Reserve, based upon revenue estimates, are then available for appropriation, unless they are obligated by statute for another purpose. In response to economic conditions and their effect on estimated General Fund revenues, the General Assembly periodically modifies the required amount of the Unappropriated Reserve.

Expenditures; The Balanced Budget and Statutory Spending Limitation. The State Constitution mandates that expenditures for any Fiscal Year may not exceed available resources for such Fiscal Year. Total unrestricted General Fund appropriations for each Fiscal Year are limited as provided in Section 24-75-201.1, C.R.S. For the Fiscal Years 2009-10 and thereafter, total General Fund appropriations are limited to: (i) such money as are necessary for reappraisals of any class or classes of taxable property for property tax purposes as required by Section 39-1-105.5, C.R.S., plus (ii) an amount equal to 5% of Colorado personal income (as reported by the U.S. Bureau of Economic Analysis for the calendar year preceding the calendar year immediately preceding a given Fiscal Year).

Excluded from this appropriations limit are: (i) any General Fund appropriation that, as a result of any requirement of federal law, is made for any new program or service or for any increase in the level of service for any existing program beyond the existing level of service; (ii) any General Fund appropriation that, as a result of any requirement of a final State or federal court order, is made for any new program or service or for any increase in the level of service for an existing program beyond the existing level of service; or (iii) any General Fund appropriation of any money that are derived from any increase in the rate or amount of any tax or fee that is approved by a majority of the registered electors of the State voting at any general election.

The limitation on the level of General Fund appropriations may be exceeded for a given Fiscal Year upon the declaration of a State fiscal emergency by the General Assembly, which may be declared by the passage of a joint resolution approved by a two-thirds majority vote of the members of both houses of the General Assembly and approved by the Governor.

Fiscal Year Spending and Emergency Reserves. Through TABOR, the State Constitution imposes restrictions on increases in fiscal year spending without voter approval and requires the State to maintain a TABOR Reserve.

State Budget and Revenue Outlook

The following discussion is based on the June 2023 Economic and Revenue Forecast prepared by the Colorado Legislative Council Staff.

General Fund Budget Overview

FY 2022-23. The General Fund is expected to end FY 2022-23 with a 17.5 percent reserve, \$337.5 million above the statutorily required 15.0 percent reserve. Expectations for the year-end excess reserve were revised up by \$124.2 million over the March forecast, mostly because of reductions in FY 2022-23 appropriations enacted during the 2023 legislative session. General Fund revenue collections are expected to equal their FY 2021-22 level, and state revenue subject to TABOR is expected to exceed the Referendum C cap by \$3.31 billion.

FY 2023-24. Incorporating appropriations adopted in the Long Bill and other 2023 legislation, as well as forecast expectations for revenue, transfers, rebates and expenditures, and the TABOR refund obligation, the General Fund is expected to end FY 2023-24 with a 15.2 percent reserve, \$26.0 million above the 15.0 percent reserve requirement. In addition to normal forecast revisions, ballot measures approved at the November 2023 election, supplemental appropriations adopted during the 2024 legislative session, and other legislative changes to appropriations and transfers will affect this amount.

General Fund revenue collections are expected to grow minimally, by 0.4 percent, with modest increases in revenue from individual income and sales taxes more than offsetting declines from the record level of corporate income tax revenue expected in FY 2022-23. State revenue subject to TABOR is expected to exceed the Referendum C cap by \$2.06 billion.

FY 2024-25 (Unbudgeted). General Fund revenue is expected to grow 4.5 percent, more than in FY 2022-23 and FY 2023-24, but still below the historical trend growth rate. The forecast anticipates moderate growth contributions from individual income and sales tax revenue as the economy begins to reaccelerate. State revenue subject to TABOR is expected to exceed the Referendum C cap by \$1.97 billion. Because a budget has not yet been enacted for FY 2024-25, this forecast presents two scenarios for the General Fund budget outlook.

Scenario A: Holds appropriations constant in FY 2024-25. Based on this forecast, the General Assembly will have \$1.09 billion, or 6.1 percent, more available to spend or save than in FY 2023-24. This amount assumes current law obligations for FY 2024-25, including transfers, rebates, and expenditures, as well as a 15.0 percent reserve requirement and the projected TABOR refund obligation. The \$1.09 billion amount is a cumulative amount that reflects the FY 2023-24 budget situation and projected year-end balance. Any changes in revenue or adjustments made to the budget for FY 2023-24 will carry forward into FY 2024-25. This amount holds FY 2023-24 appropriations constant and therefore does not reflect any caseload, inflationary, or other budget pressures.

Scenario B: Projected obligations based on current law. Scenario B presents the amount of revenue in excess or deficit of the statutorily required 15 percent reserve after the application of a set of assumptions for growth in appropriations and transfers consistent with the General Assembly's budget actions for FY 2023-24. These assumptions include:

- anticipated changes in budget requests funded through the Long Bill, including primarily Medicaid and K-12 education;
- a JBC Staff estimate for the incremental cost of a 3.0 percent inflationary increase for higher education institutions and financial aid;
- increases in employee compensation and community provider rates consistent with the increases approved for FY 2023-24;
- increases in the statutory reserve requirement that follow from the assumed changes in appropriations;
- FY 2024-25 costs for capital construction and IT capital projects funded for FY 2023-24; and
- a placeholder amount for capital transfers for controlled maintenance, consistent with the State Architect's recommendation for annual controlled maintenance expenditures.

In total, the assumptions in Scenario B add \$1.17 billion in General Fund obligations for appropriations, transfers, and the statutory reserve in excess of the current law appropriations and transfers incorporated in Scenario A. Under Scenario B, the year-end General Fund reserve would fall short of the 15 percent statutory requirement by \$77.6 million.

Scenario B is meant to be illustrative of possible budgetary circumstances for FY 2024-25, and should not be interpreted as a policy recommendation by Legislative Council Staff.

Risks to the General Fund Budget Outlook

Recession risk threatens the budget outlook. The economy has entered a crucial period. This forecast assumes that the Federal Reserve will navigate the narrow path to a soft landing, but acknowledges high recession risk over the second half of 2023 and into 2024. A recession would likely reduce revenue below the Referendum C cap, thereby reducing the amount available for the General Fund budget in FY 2023-24 and beyond.

Costs for governments will continue to rise. Consumer price inflation has begun to cool, but certain costs for governments, including employee wages and capital project costs, are expected to continue to rise faster than their long-term trend. Higher costs put pressure on state government spending and the General Fund budget.

Higher-than-expected cash funds revenue will increase General Fund budget pressures. Some cash funds—including severance tax revenue, which is the state’s most volatile revenue stream—are subject to the TABOR limit. Because TABOR surpluses are refunded using General Fund money, higher than expected cash fund revenue would create additional budgetary pressures for the General Fund.

The corporate income tax outlook is especially uncertain. Corporate income tax collections are poised to increase by an estimated 44.2 percent in FY 2022-23, an unprecedented rise that follows another mammoth increase last year. Corporate collections are surging around the country with record profits in 2022. The forecast anticipates a sizeable 14.7 decline in next year’s collections, but identifies significant bidirectional risk. In the near term, forecast error would initially result in a higher or lower TABOR refund obligation with no downstream impact on the state budget. However, especially volatile corporate collections could exacerbate the budget consequences of a potential recession.

State Education Fund Transfers

The Colorado Constitution (Amendment 23) requires that one-third of 1 percent of taxable income be credited to the State Education Fund. In FY 2022-23, the State Education Fund is expected to receive \$1.07 billion as a result of this requirement. The amount credited to the SEF is expected to be similar, \$1.06 billion, in FY 2023-24, and to grow to \$1.11 billion in FY 2024-25.

In addition, the General Assembly has at different times authorized additional transfers from the General Fund to the State Education Fund. Notably, House Bill 22-1390, as modified by Senate Bill 22-202, transferred \$290 million in FY 2022-23. Money in the State Education Fund is required to be used to fund kindergarten through twelfth grade public education.

Finally, Proposition EE, which was approved by voters in the November 2020 election, also transfers revenue from increased cigarette, tobacco and nicotine taxes to the State Education Fund for three fiscal years. Proposition EE transfers were \$4.9 million in FY 2020-21 and \$151.3 million in FY 2021-22, and are estimated at \$136.9 million in FY 2022-23. These amounts represent a portion of the transfers from the General Fund to the 2020 Tax Holding Fund under House Bill 20-1427.

General Fund Transfers for Transportation and Capital Construction

General Fund contributions to transportation. Legislation enacted in 2022 directs \$85.5 million to transportation-related cash funds in FY 2022-23, as follows:

- \$31.4 million to the Highway Users Tax Fund (HB 22-1351);
- \$0.5 million to the Unused State-Owned Real Property Fund (SB 22-176); and
- \$53.6 million to the State Highway Fund (\$47.1 million from HB 22-1351; \$6.5 million from SB 22-176).

One bill from 2023, Senate Bill 23-283, directs \$5.0 million to the State Highway Fund in FY 2023-24.

Finally, Senate Bill 21-260, enacted in 2021, will direct annual transfers from the General Fund to the State Highway Fund (\$107.0 million) and the Multimodal Transportation and Mitigation Options Fund (\$10.5 million) beginning in FY 2024-25. These transfers continue annually at the same amounts through FY 2028-29 and then are reduced to smaller amounts beginning in FY 2029-30.

General Fund transfers for capital projects. Legislation enacted in 2022 directs \$462.2 million in FY 2022-23 for capital construction and IT capital projects. Legislation enacted in 2023 as part of the supplemental budget package directs an additional \$6.1 million for capital projects in FY 2022-23.

Legislation enacted in 2023 directs transfers of \$312.4 million in FY 2023-24 for capital construction and IT projects, including \$294.2 million under SB 23-243 and \$18.2 million under SB 23-294.

Fiscal Policies Dependent on Revenue Conditions

Certain fiscal policies are dependent upon forecast revenue conditions. These policies are summarized below.

Partial refundability of the conservation easement tax credit is expected to be available for tax years 2022 through 2025. The conservation easement income tax credit is available as a nonrefundable credit in most years. In tax years when the state refunds a TABOR surplus, taxpayers may claim an amount up to \$50,000, less their income tax liability, as a refundable credit. The state collected a TABOR surplus in FY 2021-22, and this forecast expects a TABOR surplus in each of FY 2022-23, FY 2023-24, and FY 2024-25. Therefore, partial refundability of the credit is expected to be available for tax years 2022, 2023, 2024, and 2025.

Contingent transfers for affordable housing. House Bill 19-1322 created conditional transfers from the Unclaimed Property Trust Fund (UPTF) to the Housing Development Grant Fund for affordable housing projects for three fiscal years. House Bill 20-1370 delayed the start of these contingent transfers until FY 2022-23. The transfers are contingent based on the balance in the UPTF as of June 1 and this Legislative Council Staff June 2023 forecast and subsequent June forecasts. For the fiscal year in which the June forecast is published, if revenue subject to TABOR is projected to fall below a “cutoff” amount equal to the projected Referendum C cap minus \$30 million dollars, a transfer will be made. The transfer is equal to the lesser of \$30 million or the UPTF fund balance.

Statute requires that this June forecast and subsequent June forecasts report estimates of state revenue subject to TABOR and the cutoff amount, and the calculated transfer amount based on these estimates for the current fiscal year.

Because this forecast projects that revenue subject to TABOR will exceed the cutoff amount, no transfer will be made for FY 2022-23. Based on this forecast, no transfer is expected for FY 2023-24 or FY 2024-25, as revenue subject to TABOR is expected to come in well above the cutoff amount in both years.

TABOR Outlook

In FY 2021-22, state revenue subject to TABOR exceeded the Referendum C cap, creating a state obligation for TABOR refunds to taxpayers in FY 2022-23. State revenue subject to TABOR is projected to exceed the Referendum C cap in each of FY 2022-23, FY 2023-24, and FY 2024-25, creating a state obligation for TABOR refunds to taxpayers in each of, FY 2023-24, FY 2024-25, and FY 2025-26.

FY 2021-22. The audited Annual Comprehensive Financial Report shows that state revenue subject to TABOR exceeded the Referendum C cap by \$3.73 billion in FY 2021-22. After accounting for an outstanding refund obligation attributable to under-refunds of prior TABOR surpluses, the state is obligated to refund \$3.85 billion in the current FY 2022-23. The FY 2021-22 surplus is being refunded to taxpayers via the TABOR refund mechanisms under current law.

Forecasts for FY 2022-23 through FY 2024-25. State revenue subject to TABOR is projected to exceed the Referendum C cap throughout the forecast period. In the current FY 2022-23, revenue is expected to exceed the Referendum C cap by \$3.31 billion before exceeding the cap by \$2.06 billion in FY 2023-24 and by \$1.97 billion in FY 2024-25, even with high 2022 inflation resulting in a doubling of the growth rate used to calculate the FY 2023-24 Referendum C cap. Refunds of those amounts are expected to be returned to taxpayers in the fiscal year following each surplus. The actual refund obligation in any given year will incorporate any over- or under-refund of prior year surpluses.

Relative to the March forecast, expectations for revenue subject to TABOR were increased through the forecast period, by about \$560 million in FY 2022-23, \$30 million in FY 2023-24, and \$170 million in FY 2024-25, primarily due to higher expectations for General Fund revenue subject to TABOR. The FY 2023-24 TABOR limit growth rate is 8.5 percent based on inflation and population growth for calendar year 2022.

Enterprise disqualification and requalification. When a state program no longer satisfies the requirements to qualify as a TABOR enterprise, it is “disqualified.” The program’s revenue becomes subject to TABOR and an upward adjustment equal to that revenue amount is also made to the Referendum C cap. Similarly, downward adjustments are made to both revenue and the Referendum C cap when an enterprise requalifies. This forecast includes enterprise adjustments for the Auraria Higher Education Center’s Tivoli Center and for Adams State University, which were disqualified in FY 2021-22 and are assumed to requalify in FY 2022-23. Single-year enterprise adjustments have no net impact on the amount to be refunded to taxpayers. However, if an enterprise remains disqualified for multiple years, growth in that enterprise’s revenue between those years may increase (or decrease) the TABOR refund obligation if its revenue grows faster (or slower) than the TABOR limit.

Risks to the forecast. Estimates of the TABOR surplus and TABOR refund obligation represent the amount by which state revenue subject to TABOR is expected to exceed the Referendum C cap. Therefore, any error in the General Fund or cash funds revenue forecasts will result in an error of an equal amount in the TABOR refund forecast. Any forecast error for inflation or population growth will also impact the TABOR situation by resulting in higher or lower allowable growth in the Referendum C cap.

In an environment where large TABOR refunds are expected, TABOR insulates the General Fund budget from the impacts of error in the General Fund revenue forecast. Greater than expected General Fund revenue will result in a larger General Fund obligation for TABOR refunds, with no net impact on the amount available for the General Fund budget. Lower than expected General Fund revenue will result in a smaller obligation for TABOR refunds, and will impact the budget only if the error is great enough to erase the entire projected TABOR surplus.

By contrast, error in the forecast for cash fund revenue subject to TABOR poses a risk to the outlook for the General Fund budget. Greater than expected revenue from cash fund sources would increase the General Fund obligation for TABOR refunds, thereby reducing the amount available for the budget.

TABOR refund mechanisms. Current state law includes two ongoing and two temporary TABOR refund mechanisms, with a potential further temporary TABOR refund mechanism subject to approval by voters at Colorado’s November 2023 state-wide election.

The two ongoing refund mechanisms include the property tax exemptions for seniors and veterans with a disability and the six-tier sales tax refund mechanism based on taxpayers’ incomes. Amendment E, approved by voters in November 2022, extends property tax exemptions to Gold Star spouses starting in tax year 2023. A third refund mechanism, the temporary reduction in the income tax rate from 4.55 percent to 4.50 percent was rendered inoperable by Proposition 121, which permanently reduces the income tax rate to 4.40 percent beginning in tax year 2022.

Based on this forecast, both ongoing refund mechanisms are expected to be used for tax years 2023, 2024, and 2025. The \$795.7 million in sales tax refunds for tax year 2022 set by the Department of Revenue in September 2022 is expected to result in an under-refund of \$149.0 million in the current fiscal year, which would have been refunded via the temporary reduction in the income tax rate if not for the passage of Proposition 121 and is now expected to be refunded in FY 2023-24 instead.

Senate Bill 22-238 establishes an additional refund mechanism to refund a portion of the FY 2022-23 surplus for tax year 2023 through reductions in the assessed valuations of residential and nonresidential property, which determine property taxes. A portion of local governments’ foregone property tax revenue as a result of the bill is reimbursed by the state government, and reimbursements up to \$240 million are accounted as a TABOR refund mechanism under the bill. The mechanism is estimated to refund \$230.6 million in property tax year 2023. This estimate includes a small downward revision relative to the March forecast because of a provision in Senate Bill 23-303 that takes effect regardless of the electoral outcome of Proposition HH.

House Bill 23-1311 establishes a new temporary refund mechanism that is contingent on voters approving proposition HH at the November 2023 state-wide election. If proposition HH is approved, the sales tax refund mechanism for refunds payable in the 2023-24 state fiscal year will be paid in equal amounts to qualifying taxpayers instead of via a six-tier sales tax refund mechanism.

Senate Bill 23-303 (“Proposition HH”) put a property tax bill on the ballot for November 2023 which, if approved by voters, would reduce property tax rates, and thereby slow the growth of property tax bills, for property owners across Colorado. The referendum would also authorize a reduction in TABOR refunds to “backfill” some of the revenue that would be lost by local governments and schools. A suit seeking to prevent the implementation of Senate Bill 23-303 has been filed.

Senate Bill 23-303 changes property tax assessments beginning for the 2023 tax year, and allows the state to retain additional revenue subject to the TABOR limit beginning in FY 2023-24. For FY 2022-23, a portion of revenue that would otherwise be refunded via the six-tier sales tax refund mechanism would instead be paid as reimbursements to local governments for foregone property tax revenue. For TABOR refunds that would otherwise be paid in FY 2023-24 via the six-tier sales tax refund mechanism, House Bill 23-1311 establishes a new refund mechanism that would instead pay equal amounts to all taxpayers who qualify for the six-tier sales tax refund.

Refunds made via property tax reductions reduce obligations that would otherwise be paid from General Fund revenue. Refunds made via the sales tax refund are paid to taxpayers when they file their state income tax returns. TABOR refund mechanisms are accounted for as an offset against the amount of surplus revenue restricted to pay TABOR refunds, rather than as a revenue reduction.

Proposition EE TABOR refund requirement. Revenue from the increased taxes on cigarettes, tobacco products, and nicotine products in Proposition EE totaled \$208.5 million in FY 2021-22, exceeding the estimate of FY 2021-22 tax revenue published in the 2020 Blue Book by \$21.5 million. TABOR requires that this amount be refunded to taxpayers, however, state law currently does not include a mechanism to issue this refund. House Bill 23-1290 refers a ballot measure (“Proposition II”) to voters in November 2023 which, if passed, would allow the state to keep and spend the excess revenue, plus interest, totaling \$23.65 million. If Proposition II fails, the bill specifies that the \$23.65 million would be refunded to sellers of cigarettes, tobacco products, and nicotine products.

General Fund Revenue

This section presents the outlook for General Fund revenue, the state’s main source of funding for discretionary operating appropriations. The three primary sources of General Fund revenue are individual income tax, sales tax, and corporate income tax collections. It also consists of excise taxes (retail marijuana, tobacco, and liquor) and other sources (insurance premium tax, pari-mutuel tax, court receipts, and investment income).

FY 2021-22. As reported in the annual comprehensive financial report, General Fund revenue collections increased 23.7 percent over FY 2020-21 levels to total \$17.7 billion in FY 2021-22.

Forecast for FY 2022-23 through FY 2024-25. General Fund revenue is expected to stay essentially flat in FY 2022-23, totaling \$17.7 billion. Individual income tax receipts are expected to drop by 8.0 percent, reflecting the income tax rate cut in Proposition 121, and declines from last year’s peak payments that reflected unusual taxpayer decision making in response to an uncertain economy and evolving tax policy environment. This decrease in revenue is expected to be fully offset by exceptional growth in corporate income tax revenue, which is projected to exceed last year’s collections by \$694 million. The forecast for FY 2023-24 and FY 2024-25 was also impacted by legislation passed in the 2023 legislative session.

General Fund revenue is forecast to increase by 0.4 percent in FY 2023-24 as corporate revenue regresses from its 2022 peak. Revenue is expected to grow 4.5 percent in FY 2024-25 as the economy is expected to return to a more moderate pace of expansion.

Risks to the forecast. Risks to the General Fund revenue forecast are elevated as economic conditions remain uncertain. On the upside, revenue collections have consistently outperformed forecast expectations since the beginning of the pandemic recession. Higher inflationary pressures and stronger-than-expected wage gains could boost sales tax and individual income tax collections above the amounts projected in this forecast. Downside risks include depressed capital gains on ongoing near-term equity market volatility or slower-than-expected economic activity in response to monetary policy tightening.

Income Tax

Taxable income earned by all Colorado individuals and corporations is taxed at a flat rate. As a result of Proposition 121, approved by voters in November 2022, the income tax rate was lowered from 4.55 percent to 4.40 percent for 2022 and all future years. Revenue is credited to the General Fund and is subject to TABOR, except that:

- an amount equal to one third of one percent of taxable income is transferred to the State Education Fund (SEF) and exempt from TABOR under Amendment 23, approved by voters in 2000;
- beginning January 2023, an amount equal to one-tenth of one percent of taxable income is transferred to the State Affordable Housing Fund and exempt from TABOR under Proposition 123, approved by voters in November 2022; and

- beginning January 2023, non-corporate taxpayers with adjusted gross incomes over \$300,000 are required to add back a portion of their federal standard or itemized deductions when computing their Colorado taxable income. The additional revenue collected from this change is credited to the General Fund, exempt from TABOR, and required to be spent for the healthy school meals program created in Proposition FF, approved by voters in November 2022.

Individual Income Tax

Individual income tax revenue is the largest source of General Fund revenue, accounting for about 66 percent of revenue to the General Fund in FY 2021-22, net of the SEF transfer.

FY 2021-22. In FY 2021-22, individual income tax collections reached \$11.72 billion before the SEF transfer, an increase of 23.6 percent over year-ago levels, as tax receipts surged. An increase in refunds was offset by significant increases in withholding, estimated payments, and final cash payments. The rapid increase in wage withholding is consistent with rapid wage and salary growth, estimated at 9.4 percent in 2021, compared with 2.5 percent in 2020. However, income tax revenue volatility that exceeds growth in personal incomes illustrates the effects of federal and state tax policy changes, as well as taxpayer decision making in response to an uncertain economy and evolving tax policy environment.

Forecast for FY 2022-23. Individual income tax collections are expected to decline by 8.0 percent in FY 2022-23 to total \$10.78 billion before the SEF and affordable housing transfers. The forecast anticipates a \$942 million decline in revenue relative to FY 2021-22, largely reflecting the reduced income tax rate in Proposition 121. Expectations for revenue were decreased by \$235 million relative to the March 2023 forecast. During the spring tax filing season, revenue from cash with returns came in lower than the prior year while refunds came in higher (down 38.2 percent and up 48.5 percent, respectively, January through May 2023 compared with the same period last year). Estimated payments were also lower for tax year 2023 thus far (down 54.4 percent February through May 2023 compared with the same period last year). Growth in wage withholding is also dampened, and at 3.8 percent between February through May 2023, withholding is not keeping pace with the forecast increase of 7.2 percent in wage and salary income in 2023.

Beginning in FY 2022-23, the forecast for individual income tax revenue includes an upward adjustment for Proposition FF, which requires taxpayers with adjusted gross income over \$300,000 to add back a portion of their federal standard or itemized deductions. This amount is accounted as General Fund revenue, but is TABOR-exempt and required to be spent for the healthy school meals program. The estimated half-year impact for FY 2022-23 is \$48.7 million on an accrual accounting basis.

For most taxpayers, final payments for tax year 2022 were due on April 18, 2023. While data on final payments are incomplete, available data suggest that net tax receipts for the 2022 tax year were relatively flat compared with 2021 net tax receipts. An increase in refunds and reduction in cash with returns was offset by increases in wage withholding and estimated payments. The forecast of income tax revenue for FY 2022-23 is less than estimated tax year 2022 payments because it includes accruals of anticipated tax revenue for tax year 2023.

Forecast for FY 2023-24 and FY 2024-25. Individual income tax collections are expected to grow by 3.4 percent in FY 2023-24 to \$11.1 billion, and by 5.1 percent in FY 2024-25 to \$11.7 billion. Estimates for both years were revised downward on net relative to the March 2023 forecast, with expected declines reflecting expectations for slowing economic growth. The revenue outlook is less certain than normal, owing to significant changes in state and federal tax policy compounding already-high uncertainty in the underlying economic outlook, with the specter of financial instability significantly raising risks to the outlook.

Legislative adjustments. This forecast includes significant adjustments for the future impacts of recent legislation passed by the General Assembly on individual income tax revenue. For tax year 2024, House Bill 23-1112 expands the state Earned Income and Child Tax Credits. House Bill 23-1272 establishes several new tax credits including for innovative motor vehicles and trucks, industrial clean energy, electric bicycles, heat pumps, geothermal energy, and sustainable aviation fuel. Eight bills enacted during the 2023 legislative session establish or extend income tax credits, and are expected to reduce income tax revenue by between \$136 million and \$209 million annually during the forecast period. This forecast also includes adjustments for the federal tax treatment of retirement plans, which is expected to increase state tax revenue by between \$20 million and \$25 million in FY 2023-24 and FY 2024-25.

Anschutz v. Colorado Department of Revenue. The federal Coronavirus Aid, Relief, and Economic Security Act (CARES Act), enacted in March 2020, retroactively expanded federal income tax deductions that reduced federal taxable income for tax years 2018 and 2019. The Colorado Department of Revenue issued an emergency rule in June 2020, interpreting state statute in a manner that prohibited taxpayers from applying the retroactive changes to federal taxable

income to reduce their Colorado taxable income for tax years 2018 and 2019 and receive refunds of state income tax paid. The Legislative Council Staff June 2020 forecast included an upward adjustment to the income tax forecast as a result of the emergency rule.

On November 17, 2022, a three-judge panel of the Colorado Court of Appeals ruled in *Anschutz v. Colorado Department of Revenue* that the Colorado statute in question automatically incorporates Congressional amendments to the Internal Revenue Code, including retroactive amendments, and remanded the case for further proceedings. Subsequently, the plaintiffs in *Anschutz* filed a motion for dismissal of the case in April 2023 in Denver District Court, and the court dismissed the case with prejudice. Whether there was a settlement has not been publicly disclosed. Pursuant to the ruling by the Colorado Court of Appeals, the state will be required to pay the state income tax refunds sought by similarly-situated taxpayers and the forecast for FY 2022-2023 incorporates downward adjustments totaling \$30 million for individual income tax revenue in FY 2022-23 and FY 2023-24. Any additional refunds issued pursuant to the decision will reduce revenue relative to the forecast and therefore pose a significant downside risk to the income tax revenue outlook.

Corporate Income Tax

Generally, every C corporation that is organized or commercially domiciled in Colorado or that has property, payroll, or sales in Colorado in excess of certain thresholds is subject to the state corporate income tax. Corporate income taxes have historically been a volatile revenue source because they are highly responsive to economic conditions and to federal tax policy. In addition, many corporations have access to resources to make strategic tax decisions about when and how to claim credits and deductions, which makes it harder to estimate the amount of corporate tax revenue. Colorado corporate income tax revenue has exceeded expectations for the last two fiscal years. Revenue is expected to post a record high in the current FY 2022-23 and remain near historical highs through the forecast period. Between July 2022 and May 2023, the state collected almost \$2 billion in corporate income taxes, nearly 60 percent more than the same period in the previous fiscal year.

Forecast for FY 2022-23. After two years of extraordinary growth, Colorado corporate income tax revenue is expected to total \$2.3 billion in FY 2022-23, up 44.2 percent from the prior year. The surge in corporate revenue incorporates an anticipated \$74.2 million reduction in corporate income taxes in FY 2022-23 attributable to the rate cut enacted in Proposition 121. Despite the rate cut, corporate income tax revenue expectations were revised upward by \$775.2 million relative to the March forecast. Corporate estimated payments continue to come in much stronger than expectations. In April, corporate estimated payments came in close to \$400 million, the highest amount on record.

Forecast for FY 2023-24 and FY 2024-25. Corporate income tax collections are expected to fall somewhat in FY 2023-24 but remain near historical highs. Revenue is expected to total \$1.93 billion in FY 2023-24 and \$1.99 billion in FY 2024-25. Relative to the March forecast, revenue was revised upward by \$519.4 million in FY 2023-24 and \$635.0 million in FY 2024-25.

Why does corporate revenue continue to exceed expectations? Corporate income tax revenue has been surprisingly high in many states across the country. Payments in the current fiscal year are up 8 percent in Arkansas, 55.4 percent in Florida, and 8.5 percent in Maine compared to previous fiscal year. State economists around the country are still investigating this surge, but some point to the 2017 Federal Tax Cuts and Jobs Act, which made changes to federal corporate credits and deductions, increasing federal taxable income. Colorado's corporate taxable income is based on federal taxable income such that any changes to federal additions and deductions will flow through to Colorado's tax base. Finally, some states report that corporations are overpaying their taxes to reduce their future tax liability.

This forecast anticipates that corporate income taxes will decline from their FY 2022-23 peak but remain well above trend levels from the 2010s. Recent volatility illustrates how sensitive corporate income tax collections are to policy changes and economic conditions, and points to elevated, bidirectional risk to the corporate income tax forecast.

Sales Tax

The 2.9 percent state sales tax is assessed on the purchase of goods, except those specifically exempted, and a relatively small collection of services. Growing throughout the pandemic and subsequent recovery, sales tax receipts have been supported by robust consumer and business activity, large fiscal stimulus measures, excess household savings, and a return by consumers to businesses selling taxable services. Boosted by inflation at four-decade highs, sales tax revenues were up 19.6 percent in FY 2021-22.

Relative to last year, growth has moderated as price pressures have eroded real wage gains and many households have spent down excess savings. Retail sales are expected to slow further in FY 2023-24 as consumer activity weakens amid tighter lending standards, and as consumers shift away from some taxable goods and back to more nontaxable services after the pandemic. Additionally, households have expressed more trepidation over their expected financial situations in the year ahead, and spending expectations have moderated. Inflationary pressures continue to weigh on consumer confidence and interest rates have impacted household wealth and purchases of durable goods. The outlook anticipates these factors will continue to dampen purchases of goods amid softening price pressures. Growth will also be impacted by legislative adjustments, including new exemptions and temporary business tax relief.

Sales tax receipts are expected to increase 5.1 percent in FY 2022-23 and 4.4 percent in FY 2023-24. In FY 2024-25, sales tax receipts are expected to rise 5.2 percent as spending patterns normalize and consumers adjust to higher interest rates.

Use Tax

The 2.9 percent state use tax is generally due when sales tax is owed, but is not collected at the point or time of sale by the vendor. Use tax revenue is largely driven by capital investment among manufacturing, energy, and mining firms.

Use tax revenues have recorded a strong start to the fiscal year, and are expected to increase 8.9 percent in FY 2022-23. Revenues have likely been supported by oil and gas investment and construction activity. However, rising interest rates are expected to weigh on investment during the forecast period as firms continue to manage rising costs and a tight labor market. Moving through the forecast period, oil and gas investment and construction activity is expected to slow significantly, putting downward pressure on use tax. In FY 2023-24, use tax is expected to grow at a slower pace of 4.1 percent, before increasing by 7.0 percent in FY 2024-25.

Proposition EE Cigarette, Tobacco, and Nicotine Taxes

Proposition EE increased cigarette and tobacco taxes, created a new tax on nicotine products, and created a minimum price for cigarette sales. Revenue from the new taxes is exempt from TABOR as a voter-approved revenue change. Proposition EE revenue is deposited in the General Fund, transferred to the 2020 Tax Holding Fund, and distributed to fund affordable housing, eviction legal defense, rural schools, tobacco education programs and, beginning in FY 2023-24, preschool programs. Proposition EE taxes totaled \$208.0 million in FY 2021-22 on a cash basis.

The 2020 Blue Book estimated that Proposition EE would bring in \$186.5 million in its first full fiscal year, FY 2021-22. However, actual revenue came in at \$208.0 million in FY 2021-22, exceeding the Blue Book estimate. When a Blue Book estimate is exceeded, TABOR requires the General Assembly to refund the excess revenue to taxpayers and reduce the tax rates in proportion to the excess, or refer a ballot measure asking voters for permission not to do so. House Bill 23-1290 referred Proposition II to the 2023 ballot, which asks voters for permission to retain the excess revenue and maintain the tax rates that were approved in Proposition EE. House Bill 23-1290 also clarified that if that ballot measure fails, then the tax rates will be reduced by 11.53 percent. Therefore, this forecast assumes that each of the tax rates will be reduced by 11.53 percent beginning in January 2024. If Proposition II passes, the December 2023 forecast will reflect revenue collections at the higher rates that were approved in Proposition EE.

Revenue from Proposition EE is expected to grow by 11.6 percent in FY 2022-23, mostly driven by a \$33.9 million one-time accounting adjustment. Revenue is expected to fall by 17.0 percent in FY 2023-24 for three primary reasons. First, cigarette consumption tends to decline over time, but has fallen much more than anticipated over the past four months, resulting in a downward revision in expectations for consumption. Secondly, this forecast assumes that tax rates will be reduced by 11.53 percent beginning in January 2024, resulting in less revenue. Lastly, the \$33.9 million accounting adjustment affects FY 2022-23 only, meaning that FY 2023-24 is growing off of an artificially high base. Revenue is expected to increase again in FY 2024-25 when higher tax rates go into effect.

Cash Fund Revenue

Typically, the largest cash fund revenue sources subject to TABOR are motor fuel taxes and other transportation-related revenue, gaming taxes, and severance taxes. The end of this section also presents the forecasts for marijuana tax revenue, federal mineral lease payments, the Unemployment Insurance Trust Fund, and the family and medical leave insurance program. These forecasts are presented separately because they are not subject to TABOR limitations.

Forecast. Cash fund revenue subject to TABOR in the current FY 2022-23 is expected to total \$2.77 billion. Revenue will increase by 3.9 percent with most of the growth occurring in transportation-related revenue and other cash funds revenue. Cash fund revenue growth is expected to increase by 3.8 percent in FY 2023-24 and by 5.7 percent in FY

2024-25. Relative to March, the cash fund forecast for FY 2022-23 was revised up by a modest \$43.0 million, while forecast revisions were minimal for both FY 2023-24 and FY 2024-25.

Transportation-related revenue subject to TABOR is expected to increase by 2.5 percent in FY 2022-23 as travel activity continues to improve and road usage fees and retail delivery fees have taken effect. Revenue is expected to increase by 12.9 percent in FY 2023-24, when road usage fees will first apply for a full year, and by 6.5 percent in FY 2024-25.

Motor fuel tax revenue makes up about half of transportation-related revenue and is its largest component, followed by revenue from vehicle registrations. Fuel tax revenue dropped slightly to begin the current fiscal year due to low collections in July 2022, and is expected to end the year with down by 0.4 percent. While fuel consumption is expected to grow through the forecast period, improving vehicle fuel efficiency and permanent shifts to remote or hybrid work for some dampen expectations for growth.

Revenue collections in FY 2022-23 were influenced by multiple changes under Senate Bill 21-260 and other recent legislation. Policy changes bolstered revenue collections beginning in FY 2022-23 by creating retail delivery fees that went into effect on July 1, 2022, and road usage fees that began on April 1, 2023. The state retail delivery fee is assessed on all retail deliveries except deliveries from small businesses, and is expected to bring in \$18.4 million to the Highway Users Tax Fund and \$7.5 million to the Multimodal Transportation and Mitigation Options Fund in FY 2022-23. SB 23-143 created an exemption from the state retail delivery fee for small and new businesses, and revenue from the fee is expected to decrease slightly compared to forecast in FY 2022-23 with larger decreases expected in subsequent fiscal years. Road usage fees are applied to the purchase of gasoline and diesel, and are expected to bring in \$14.3 million in FY 2022-23 and \$92.9 million in FY 2023-24.

Growing revenue from fuel taxes, retail delivery fees, and road usage fees is expected to be partially offset by reduced revenue from the road safety surcharge through FY 2023-24. Senate Bill 21-260 and House Bill 22-1351 temporarily reduced the road safety surcharge by \$11.10 in calendar years 2022 and 2023, and it will return to its original rate in 2024. Due to the rate reduction, revenue from registrations is expected to fall by 11.3 percent in FY 2022-23.

Most fuel taxes and vehicle registration fees are credited to the Highway Users Tax Fund (HUTF) and disbursed to the Department of Transportation, the State Patrol within the Department of Public Safety, the Division of Motor Vehicles within the Department of Revenue, the Department of Natural Resources, and to county and municipal governments. The State Patrol, Department of Revenue, and Department of Natural Resources receive HUTF funds through appropriations. The remaining revenue is allocated to the Department of Transportation via the State Highway Fund, counties, and municipalities based on how much revenue is collected. Revenue is distributed based on multiple formulas that differ between revenue streams.

Severance tax revenue, including interest earnings, totaled \$325.0 million in FY 2021-22, an increase from \$14.7 million in the prior year. Severance tax revenue is expected to end FY 2022-23 up another 9.4 percent before declining in FY 2023-24 as oil and gas prices recede from historic highs and ad valorem tax credit utilization increases. Severance tax revenue is more volatile than other revenue sources due to the boom-bust nature of the oil and gas sector and Colorado's tax structure.

Severance tax collections from oil and natural gas reached historic levels in FY 2021-22, totaling \$308.7 million, as a result of skyrocketing oil and gas prices. Despite oil and gas prices falling significantly from highs recorded last summer, collections were up 12.3 percent through March year-to-date, and are expected to end the year up 8.8 percent. Collections are expected to decline in FY 2023-24 to \$202.3 million as lower oil and natural gas prices, muted production, and increased ad valorem tax credits weigh on collections. Downward pressures are expected to be partially offset by legislative adjustments beginning tax year 2024. Higher natural gas prices and legislative adjustments are expected to contributed to growing collections in FY 2024-25.

After increasing by 68 percent in FY 2021-22 to \$3.2 million, coal severance tax revenue is expected to increase in FY 2022-23 by another 39.6 percent, to \$4.5 million. Similar to many other commodities, coal prices increased significantly in 2021 and 2022, which put upward pressure on coal severance tax revenue, and production in Colorado has trended upward since 2021. The market was also boosted by high natural gas prices that resulted in a short-term boost for coal electricity generation. Despite some price moderation, increased production through FY 2023-24 and legislative adjustments are expected to boost revenues. In FY 2024-25, ongoing reductions in demand from the electricity sector are expected to contribute to declines, consistent with the longer-term trend.

Metal and molybdenum mines paid approximately \$2.7 million in severance taxes on the value of minerals produced in FY 2021-22 and are expected to pay \$0.8 million in FY 2022-23, a decline of more than 70 percent. Prices rose significantly at the end of 2022 and into the first quarter of 2023 and are expected to boost severance tax collections in FY 2023-24.

Finally, interest earnings on severance tax revenue were approximately \$10.3 million in FY 2021-22 and are forecast to increase to \$14.5 million in FY 2022-23. Interest earnings are forecast to rise modestly through the forecast period.

Limited gaming revenue includes taxes, fees, and interest earnings collected in the Limited Gaming Fund and the State Historical Fund. The state limited gaming tax is a graduated tax assessed on casino adjusted gross proceeds, the amount of wagers collected less the amount paid to players in winnings. Casinos on tribal lands in southwestern Colorado are not subject to the state tax. Tax revenue is expected to grow by 6.8 percent in FY 2022-23, increase another 3.6 percent in FY 2023-24, then slow to 2.1 percent in FY 2024-25.

Gaming revenue is subject to TABOR except for revenue attributable to gaming expansions enacted under Amendment 50 and Amendment 77 (extended limited gaming), which is TABOR-exempt. Senate Bill 22-216 modified the allocation of limited and extended limited gaming revenue through the forecast period. The bill set limited gaming tax revenue subject to TABOR at about \$117.4 million for FY 2022-23. With fees and interest, total limited gaming revenue subject to TABOR is estimated at \$119.4 million in FY 2022-23. As tax revenues grow, total gaming revenue subject to TABOR is expected to increase by 3.0 percent in FY 2023-24 and 2.1 percent in FY 2024-25.

Sports betting was legalized in the state after the passage of Proposition DD at the November 2019 election. Betting launched on May 1, 2020, and has grown significantly since. Revenue collected from sports betting activity includes licensing fees set at between \$1,200 and \$2,000 per operator, a master license charged biannually, an operations fee, and tax revenue, which is set at 10 percent of casinos' net sports betting proceeds. As voter-approved revenue, sports betting tax revenue is not subject to the TABOR limit; however, fee revenues are subject to TABOR.

Sports betting revenue subject to TABOR ended FY 2021-22 up 2.7 percent over the prior fiscal year, reaching \$2.3 million. Sports betting revenue subject to TABOR is expected to increase slightly in future years with a projection of \$2.3 million in FY 2022-23, \$2.3 million in FY 2023-24, and \$2.4 million in FY 2024-25. This revenue is included in the Other Cash Funds forecast.

In FY 2021-22, sports betting taxes exempt from TABOR totaled \$12.5 million, up about 52.5 percent from FY 2020-21. Betting activity continues to grow, and combined with legislative changes that will limit the amount of free bets that can be deducted from net sports betting proceeds, robust growth is anticipated through the forecast period. Sports betting revenue not subject to TABOR is expected to more than double in the current fiscal year, to \$27.1 million. Exempt sports betting revenue is forecast to reach \$32.7 million in FY 2023-24 and \$34.6 million in FY 2024-25.

Marijuana tax revenue declined substantially beginning in August 2021, experiencing its first annual decline in revenue in FY 2021-22 since recreational marijuana was introduced in 2014. Marijuana collections increased dramatically during and after the COVID-19 recession, and have recently returned back to 2019 levels as travel and activity restrictions have faded. Concurrently, a growing number of states are legalizing recreational and medical marijuana use, including some of Colorado's bordering states, which has reduced marijuana tourism to Colorado. Revenue collections have stabilized in the previous three months, but remain well below 2021 levels. Marijuana tax revenue is expected to rebound throughout FY 2023-24 and FY 2024-25, albeit with slower growth rates than seen historically. The majority of the revenue from the marijuana industry is voter-approved revenue exempt from TABOR; however, the 2.9 percent state sales tax is subject to the state's revenue limit.

Marijuana tax revenues declined by 12.9 percent in FY 2021-22 and are forecast to decline again in FY 2022-23 by 22.8 percent to \$285.6 million. The decline in marijuana tax revenue is largely due to a return to normal consumption patterns after the COVID pandemic, alongside reduced marijuana tourism from neighboring states.

The special sales tax is the largest source of marijuana revenue and is imposed at a rate of 15 percent of the retail price of marijuana. The special sales tax generated \$258.7 million in FY 2021-22. Revenue from the special sales tax is expected to decline to \$220.6 million in FY 2022-23, a 14.7 percent decrease from the prior year. Revenue is expected to grow slowly month-over-month through the rest of the forecast period, for annual totals of \$218.6 million in FY 2023-24 and \$230.1 million by FY 2024-25. The state distributes 10 percent of the special sales tax to local governments and retains the rest in the Marijuana Tax Cash Fund, the General Fund, and the State Public School Fund.

The excise tax is the second-largest source of marijuana revenue and is dedicated to the BEST Fund for school construction. Marijuana excise tax revenue fell in FY 2021-22 and is forecast to fall again in FY 2022-23. Slowing demand and declining wholesale prices will continue to weigh on excise tax collections through the current year. Revenue from marijuana excise taxes totaled \$99.4 million in FY 2021-22, and is expected to fall further, to \$56.9 million in FY 2022-23 and \$59.7 million in FY 2023-24. Revenue collections are expected to grow modestly through the rest of the forecast period.

The excise tax is based on the calculated or actual wholesale price of marijuana when it is transferred from the cultivator to the retailer. Therefore, the wholesale price is a significant determinant of excise tax revenue. After facing upward pressure in 2020 due to increased demand and constrained supply, the wholesale price has declined since. The wholesale price is down to \$649 per pound in the most recent quarter, compared to its 2021 peak of \$1,721.

The 2.9 percent state sales tax rate applies to medical marijuana and marijuana accessories purchased at a retail marijuana store. The medical marijuana sales tax generated \$9.2 million in FY 2021-22, and is expected to bring in \$5.9 million in FY 2022-23. The number of medical marijuana card holders has declined significantly in recent months, and is expected to result in falling medical marijuana tax revenue. Retail marijuana dispensaries remitted \$2.3 million in sales tax in FY 2021-22. Collections are expected to decline in FY 2022-23 to \$2.0 million and stay fairly flat throughout the rest of the forecast period. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

Federal Mineral Lease (FML) revenue is the state's portion of the money the federal government collects from mineral production on federal lands. Collections are mostly determined by the value of mineral production on federal land and royalty rates negotiated between the federal government and mining companies. Since FML revenue is exempt from TABOR, the forecast is presented separately from other sources of state revenue.

FML revenue totaled \$125.1 million in FY 2021-22, a 51.3 percent increase from FY 2020-21. In FY 2022-23, FML revenue is forecast to increase 30.3 percent to \$163 million. The rapid increase in natural gas prices that started in 2021 has led to elevated FML revenues, though lower prices over the forecast period could drive down revenue. As of June, prices were down significantly from the peak of \$8.81 per million BTU in August 2022, averaging about \$2.00 for the month. Prices are expected to average about \$2.91 in 2023, leading to declining FML revenues in FY 2023-24.

Revenue to the Unemployment Insurance (UI) Trust Fund is not subject to TABOR. Revenue to the Employment Support Fund and Benefit Recovery Fund, which receive a portion of the UI premium surcharge, is subject to TABOR. The UI Trust Fund began FY 2022-23 with a deficit of \$133.1 million, improved from a deficit of \$1.0 billion at the end of the previous fiscal year. Declining benefits payments combined with legislative measures helped restore the fund balance from pandemic-related disruptions in 2020 and 2021. Senate Bill 20-207 suspended the solvency surcharge for 2021 and 2022, and, beginning in 2022, incrementally increases the chargeable wage base to \$17,000 in 2022, \$20,400 in 2023, and \$23,800 in 2024. Senate Bill 22-234 continued the suspension of the solvency surcharge for 2023, and allocated American Rescue Plan Act funds for repayment of interest and loans from the Federal Unemployment Account (FUA). Pursuant to Senate Bill 22-234, \$580 million was used to repay outstanding FUA loans in May 2022, while \$20 million was set aside for the required September 30, 2022, interest payment on remaining outstanding loans. Colorado repaid the remaining federal loan balance with a \$33.1 million private loan in November 2022, but resumed FUA borrowing to cover benefits payments in the first quarter of 2023. Colorado has now repaid the outstanding federal loan balance of \$77.0 million.

The amount of UI benefits paid is expected to increase to \$509.9 million in FY 2022-23 as an uptick in the resolution of back payments and increasing average benefits paid offset continued strength in the state's labor market. Benefits paid are expected to increase in FY 2023-24 and FY 2024-25, to \$535.1 million and \$589.9 million, respectively, with softening labor markets expected as monetary policy slows economic growth and average weekly wages continue to rise with inflation. Revenues to the fund are expected to total \$827 million in FY 2022-23, including a \$33.1 million infusion of private loan funds to repay outstanding federal loans in 2022, thereby avoiding an increase in federal UI premiums that would have otherwise occurred on January 1, 2023.

The forecast includes estimated diversions to the UITF from the Employment Support Fund (ESF) pursuant to Senate Bill 23-232, which creates a new cap on the amount of money in the ESF at the end of any fiscal year beginning in FY 2023-24. The solvency surcharge is expected to be applied in FY 2023-24 and FY 2024-25, as the June 30, 2023, and June 30, 2024, fund balances are expected to fall short of the 0.7 percent of annual private wages threshold required to turn it off. The UI Trust Fund is expected to end FY 2022-23 with a balance of \$73.9 million. Fund revenues are expected to increase through the forecast period, allowing continued improvement of the UITF balance. With a \$1.2 billion balance expected on June 30, 2025, 0.60 percent of annual private wages, this forecast expects a shift to a lower premium rate schedule for calendar year 2026.

Family and Medical Leave Insurance. Proposition 118, approved by voters at the November 2020 election, created a paid family and medical leave insurance (FAMLI) program for Colorado employees that provides up to 12 weeks of paid leave for eligible employees to care for themselves or a family member. Starting January 1, 2023, employers and employees were required to begin paying a payroll premium for FAMLI benefits, for which eligible employees may file claims beginning January 1, 2024. Employers were required to remit payments by April 30, 2023, to the FAMLI Fund administered by the Colorado Department of Labor and Employment (CDLE). The fund balance in June 2023 is \$358.6 million, and revenue is expected to total about \$660 million in FY 2022-23. Revenue to the fund is exempt from TABOR because the program is administered by an enterprise.

Fiscal Controls and Financial Reporting

No moneys may be disbursed to pay any appropriations unless a commitment voucher has been prepared by the agency seeking payment and submitted to the central accounting system, which is managed by the Office of the State Controller, a division of the Department of Personnel & Administration. The State Controller is the head of the Office of the State Controller. The State Controller or his delegate have statutory responsibility for reviewing each commitment voucher submitted to determine whether the proposed expenditure is authorized by appropriation, whether the appropriation contains sufficient funds to pay the expenditure and whether the prices are fair and reasonable. All payments from the State Treasury are made by warrants or checks signed by the State Controller and countersigned by the State Treasurer, or by electronic funds transfer. The signature of the State Controller on a warrant or check is full authority for the State Treasurer to pay the warrant or check upon presentation.

The State Controller is appointed by the Executive Director of the Department of Personnel & Administration. Except for certain institutions of higher education which have elected to establish their own fiscal rules, the State Controller has statutory responsibility for coordinating all procedures for financial administration and financial control in order to integrate them into an adequate and unified system, conducting all central accounting and issuing warrants or checks for payment of claims against the State. The State Controller prepares an Annual Comprehensive Financial Report, or “ACFR,” in accordance with generally accepted accounting principles (“GAAP”) applicable to governmental entities, with certain statutory exceptions for budget compliance and reporting.

THE STATE GENERAL FUND

The General Fund

The General Fund is the principal operating fund of the State. All revenues and moneys not required by the State Constitution or statutes to be credited and paid into a special State fund are required to be credited and paid into the General Fund. As required by changes in GAAP, the General Fund reported in the State’s Fiscal Year 2010-11 ACFR and subsequent ACFRs includes a large number of statutorily created special State funds that do not meet the GAAP requirements to be presented as Special Revenue Funds. To make the distinction between the statutory General Fund and the GAAP General Fund, the ACFR refers to the statutory General Fund as the General Purpose Revenue Fund. The revenues in the General Purpose Revenue Fund are not collected for a specific statutory use but rather are available for appropriation for any purpose by the General Assembly.

General Fund Revenue Sources

The major revenue sources to the General Fund are individual and corporate income taxes and sales and use taxes. The State also imposes excise taxes on the sale of cigarettes, tobacco products, marijuana, and liquor, and receives revenues from a diverse group of other sources such as insurance taxes, pari-mutuel taxes, interest income, court receipts and gaming taxes.

STATE PENSION SYSTEM

General Description

Overview. The State of Colorado, like most other state and local governments, provides post-employment benefits to its employees based on their work tenure and earnings history. By statute, the State created PERA, which administers cost-sharing, multiple-employer defined benefit plans to provide retirement, death and disability benefits through the State Division Trust Fund (generally for State employees) (the “State Division”), the Judicial Division Trust Fund (for judges in the State), the School Division Trust Fund (for employees of school districts other than Denver County School District No. 1, commonly known as Denver Public Schools), the Denver Public Schools Division (for employees of Denver Public Schools) and the Local Government Division Trust Fund (for employees of numerous municipalities and other local governmental entities). The defined benefit plan for the State Division is referred to herein as the “State Division Plan.”

As described in more detail under the caption “Funding of the State Division Plan” below, the State Division Plan is funded with payments made by the State and by each employee, the amounts of which are determined and established by statute. Benefits provided through the State Division Plan are paid from the State Division Trust Fund. State employees hired after 2005 may, in lieu of participating in the State Division Plan, elect to participate in a defined contribution plan (the “State Division DC Plan”) which is also administered by PERA. However, the majority of State employees participate in the State Division Plan. Except to the extent provided in SB 18-200, the State has no obligation to make contributions or fund benefits in Divisions other than the State Division and Judicial Division of PERA.

The majority of State employees participate in the State Division Plan and not in the State Division DC Plan, and the number of judges employed by the State that participate in the Judicial Division is relatively small in comparison to the number of other State employees.

The State does not participate in the federal Old-Age, Survivors and Disability Insurance (Social Security) program.

PERA. PERA is a legal entity created by statute in 1931 that is separate from the State as further described in Article 51 of Title 24, C.R.S. (the “PERA Act”). Management of PERA is vested in a 16-member Board of Trustees (the “PERA Board”). PERA has fiduciary responsibility for several separate divisions, including the State Division, the School Division, the Local Government Division, the Judicial Division and the Denver Public Schools Division. The State represents the majority, but not all, of the State Division employers and employees. Each Division operates as a separate legal trust. PERA also operates two cost-sharing, multiple-employer post-employment benefit plans through the Health Care Trust Fund and the Denver Public Schools Health Care Trust Fund that provide health care premium subsidies to participating PERA benefit recipients who choose to enroll in one of PERA’s health care plans.

Basic Provisions of the State Division Plan

Members of the State Division Plan who meet minimum age and service requirements are eligible to receive a monthly retirement benefit based on their employment and earnings history with the State. Calculation of retirement benefits, and eligibility requirements, differ depending on the employee’s original hire date. In response to funding challenges, the General Assembly has enacted changes to State Division Plan benefits at various times. Some of such changes have been applied prospectively to newly hired employees. As a result, there are several tiers of employee benefits and related provisions that are based on employee hire dates and other factors.

Implementation by PERA of GASB 67

In 2012, GASB issued Statement No. 67, “Financial Reporting for Pension Plans - An Amendment of GASB Statement No. 25” (“GASB 67”), which establishes new standards for financial reporting and note disclosure by defined benefit pension plans administered through qualified trusts, and note disclosure requirements for defined contribution pension plans administered through qualified trusts. GASB 67 is effective for accounting periods beginning after June 15, 2013, and, accordingly, PERA implemented GASB 67 beginning with its Annual Comprehensive Financial Report for the Plan Year ended December 31, 2014.

The objective of GASB 67 as stated therein is to improve financial reporting by state and local governmental pension plans. The requirements of GASB 67 are intended to improve financial reporting primarily through enhanced note disclosures and schedules of required supplementary information. A related statement, GASB Statement No. 68, “Accounting and Financial Reporting for Pensions,” applies to governmental employers and was implemented by the State beginning with the State’s Fiscal Year 2014-15 ACFR.

GASB 67 establishes a shift in financial disclosure requirements from a funding-based approach to an accounting-based approach. Implementation of GASB 67 requires the preparation of two actuarial valuations, one for funding purposes and one for accounting and financial disclosure purposes. The purpose of the funding valuation is to guide the PERA Board’s actions necessary to ensure the long-term sustainability of PERA’s trust funds. The funding valuation aids this action by allowing PERA to assess the sufficiency of the current statutory contribution rates and analyze the sufficiency of future contributions to meet current and future benefit obligations. The actuarial valuation for accounting purposes emphasizes the obligation an employer incurs to employees through the employment-exchange process. The primary purpose of the valuation for accounting purposes is to provide a consistent, standardized methodology that allows comparability of amounts and increased transparency of the pension liability across U.S. pension plans complying with this new reporting standard. To accomplish this, GASB 67 requires a different approach for determining net pension liability as compared to the previously disclosed unfunded actuarial accrued liability, or “UAAL.” Actuarial accrued liability (“AAL”) is the excess of the present value of a pension fund’s total of future benefits (payable to the plan participants) and fund administration expenses over the present value of the future normal cost of those benefits. Unfunded actuarial accrued liability is the difference between the AAL and the valuation assets of the fund.

Net pension liability is to be measured as the total pension liability of the plan less the amount of the plan's fiduciary net position. Total pension liability is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of plan member service in conformity with the requirements of GASB 67. For purposes of application to the requirements of GASB 67, AAL is the equivalent of total pension liability. Fiduciary net position equals assets plus deferred outflows of resources and less liabilities and deferred inflows of resources at the end of the plan's reporting period.

Another major change in the new standard is the rate used to discount projected benefit payments. The new standard states the long-term expected rate of return on the investments of the plan should be applied only to available plan assets that are expected to be invested using a strategy to achieve that return. If there comes a point in the projections when plan fiduciary net position and contributions related to active and inactive employees are no longer projected to be greater than or equal to projected benefit payments related to those employees and administrative expenses (crossover point), then from that point forward the plan will be required to discount the projected benefit payments after the crossover point using a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale).

GASB 67 also enhances the standards for footnote disclosure and required supplementary information for pension plans, including, among other things, disclosing the plan's net pension liability, ratio of fiduciary net position to total pension liability and actuarial methods and assumptions.

Actuarial Valuations

Many of the measures used to determine and evaluate the financial condition and funding status of the State Division Plan are based on actuarial valuations. An actuarial valuation is the determination, as of the actuarial valuation date, of the service cost, total pension liability and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by GASB. Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The actuarial valuations for each of PERA's defined benefit plans, including the State Division Plan, are prepared by PERA's actuaries based on a set of actuarial methods and assumptions that by State law are the responsibility of the PERA Board. The valuations for the State Division Plan examine the assets of the Plan compared to actuarial liabilities, compare past and future trends and determine the net pension liability of the Plan. The actuarial valuation for funding purposes applies an asset valuation method that recognizes a four-year smoothed market value of assets for purposes of determining the UAAL, while the actuarial valuation for accounting and financial reporting purposes applies the fair value of assets (determined in conformity with GASB standards) to determine the net pension liability.

The PERA 2021 ACFR states that the PERA Board studies all economic and demographic actuarial assumptions at least every five years and approves changes to those assumptions. Recently, the PERA Board has reviewed the economic assumptions on a more frequent basis. The PERA Board last completed an experience study in 2020, for the period January 1, 2016 to December 31, 2019, and on November 20, 2020, adopted various revisions to its economic and demographic assumptions effective for the December 31, 2020, actuarial valuations and measurement date.

No assurance can be given that any of the assumptions underlying the actuarial valuations of the State Division Plan will reflect the actual results experienced by the Plan. Variances between the assumptions and actual results may cause an increase or decrease in the actuarial value of Plan assets, the net pension liability of the Plan and other valuation and performance measures determined on the basis of such actuarial valuations.

Funding of the State Division Plan

Statutorily Required Contributions. The State Division Plan is funded with payments made by the State and by each eligible employee as provided in the PERA Act. The State's contributions to the Plan are based on percentages of employee wages and are set by statute. These contribution percentages are referred to herein as the statutorily required contribution, or "SRC," of the State.

Effective July 1, 2022, the baseline SRC required to be made by the State for most State employees will be 21.40% of includable compensation (24.10% for State Troopers). As required by statute, participants in the State Division Plan are also required to contribute a portion of their wages to the Plan. Per S.B. 18-200 discussed in the next paragraph, the participant contribution rate is to increase incrementally a total of 2% over a period of two years commencing July 1, 2019, as well as increases due to the automatic adjustment provision, which will result in the member contribution rate effective July 1, 2022, of 11.00% of includable compensation (13.00% of includable compensation for State Troopers).

The General Assembly enacted legislation in 2004, 2006 and 2010 to gradually increase employer contributions to the State Division Plan by authorizing the Amortization Equalization Disbursement (“AED”) and the Supplemental Amortization Equalization Disbursement (“SAED”) in order to shorten the amount of time over which the unfunded liability of the Plan is amortized. Both the AED and the SAED are paid by the State as contributions to the State Division Plan as a percentage of employee wages, but the SAED payment comes from money that would otherwise have been used to provide market-based salary increases to employees. The AED and the SAED applicable to the State Division Plan were effective as of January 1, 2006, and January 1, 2008, respectively, and were each initially payable at the rate of 0.5% of total covered payroll with annual increases in the contribution rate through 2017. As of July 1, 2020, the AED and SAED rates applicable to the State Division Plan were each 5.0%, and the total SRC applicable to the State Division Plan (net of 1.02% apportioned to the Health Care Trust Fund per the PERA Act) was 19.38% of employee wages (22.08% for State Troopers and CBI agents).

In addition, SB 18-200, enacted by the General Assembly in 2018, provides for automatic adjustments to employee and employer contribution rates within certain statutory parameters so as to stay within the legislation’s 30 year funding goal as discussed in “Funding Status of the State Division Plan” below. Previously, such adjustments required action by the General Assembly. SB 18-200 also provides that effective January 1, 2021, and every year thereafter, employer contribution rates for the State Division Plan are to be adjusted to include a defined contribution supplement.

SB 18-200 further requires the State to make an annual direct distribution to PERA of \$225 million (actual dollars) from State funds beginning in Fiscal Year 2018-19 and continuing annually on July 1 until there are no unfunded actuarial accrued liabilities in the trust fund of any Division that receives such distribution. PERA is to allocate the distribution to the State Division Trust Fund, the School Division Trust Fund, the Judicial Division Trust Fund and the Denver Public Schools Division Trust Fund based upon the covered payroll of each such Division.

Under certain circumstances adjustments may be made to this distribution pursuant to the Automatic Adjustment Provision provided in SB 18-200. The July 1, 2020, distribution required by SB 18-200 was suspended per HB 20-1379 due to the actual and forecast impact of COVID-19 on the State’s revenues. However, per HB 22-1029, in order to fully recompense PERA for the suspended distribution, the State Treasurer is directed to make a supplemental distribution to PERA in the amount of \$380 million (in addition to the amount otherwise required to be distributed to PERA on July 1, 2022, pursuant to SB 18-200) on the effective date of HB 22-1379 (June 7, 2022) or as soon as possible thereafter. HB 22-1029 further provides that the amount to be distributed to PERA on July 1, 2023, pursuant to SB 18-200 is to be reduced by the sum of \$155 million plus an amount equal to 7.25% multiplied by \$380 million, provided that if the 2021 annual rate of return on investments as reported in PERA’s annual report for 2021 exceeds 7.25%, then such reduction is to be the sum of \$155 million plus an amount equal to PERA’s rate of return on investments multiplied by \$380 million, but not less than \$155 million nor greater than \$190 million. As reported in the PERA 2021 ACFR, the total fund investment return for 2021 was 16.1%. Therefore, per HB 22-1029, the July 1, 2023, distribution is to be reduced by \$190 million, resulting in a payment of \$35 million. Per HB 22-1029, the amount to be distributed to PERA on July 1, 2024, pursuant to SB 18-200 is to be reduced by the lesser of an amount equal to 7.25% multiplied by \$380 million or an amount equal to PERA’s annual rate of return on investments as reported in PERA’s annual report for 2022 multiplied by \$380 million, except that there is to be no reduction if the rate of return is zero or less. Due to PERA experiencing a negative investment return for its total fund in 2022, an unreduced direct distribution of \$225 million to PERA is required to be made on July 1, 2024. SB 23-056 also requires a restorative payment of approximately \$14.5 million.

Changes to the statutorily required contributions to the State Division Plan by the State and its employees, or to other provisions of the Plan, could be made by the General Assembly through future legislative action, which changes could impact the SRC, the funding status and/or the financial condition of the Plan as described herein. The State cannot predict if or when any such legislative changes might be enacted or the impact that any such changes, if enacted, might have on the State Division Plan or the State’s funding obligations with respect to the Plan.

The SRC is paid from the State General Fund as well as from certain federal funds and State cash funds and is typically paid from the same funding source as the employee’s salary and other benefits. Although the rate of the SRC is set by statute, payment of the SRC nevertheless is subject to annual appropriation through the State budgeting process. The State has consistently contributed the full amount of the SRC to the State Division Plan.

Actuarially Determined Contribution. As a result of the shift in financial disclosure requirements under GASB 67 from a funding-based approach to an accounting-based approach, the historical disclosure and use of the annual required contribution, or “ARC,” as a funding benchmark by PERA was no longer required. Rather, this philosophical shift necessitated the development and use of a plan-specific actuarially determined contribution (“ADC”) benchmark against which to gauge the adequacy of the SRC for the State Division Plan. The ADC represents the amount needed to fund benefits over time, and constitutes a target or recommended employer contribution for the reporting period determined in conformity

with (i) Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted and (ii) the PERA Board's funding policies. The ADC for each trust fund is developed annually and reported by management to be used as a benchmark for contributions two years in the future. An ADC deficiency arises when actual employer contributions are less than the ADC, and interest accrues on the ADC deficiency at the plan's expected long-term rate of return.

Change in PERA Funding Policy. In response to the new GASB 67 standards, the PERA Board adopted a revised pension funding policy in March 2015 (and last revised in November 2018) with regard to its trust funds. The purpose of the revised funding policy, as stated in the PERA 2021 ACFR, is to: (i) define the overall funding benchmarks of PERA's defined benefit pension trust funds; (ii) assess the adequacy of the contribution rates which are set by the General Assembly by comparing these rates to an ADC rate; and (iii) define the annual actuarial metrics that will assist the PERA Board in assessing the sustainability of the plan. The results of these three items are intended to guide the PERA Board when considering whether to pursue or support proposed legislation pertaining to changes in plan contribution and/or benefit provisions.

Historical ADC and State Contributions. The State annually contributes the full amount of the SRC to the State Division Plan; however, these amounts have been less than the applicable ARC or ADC.

The ADC rates, as a percentage of covered payroll, are calculated as of December 31 two years prior to the end of the year in which the ADC amounts are reported. The following actuarial methods and assumptions from the December 31, 2019, actuarial valuation were used to determine contribution rates reported for the year ended December 31, 2021: (i) the actuarial cost method is based on the entry age of participants; (ii) the Plan's amortization period is based on a level percent of payroll over a 30-year closed period layered 26 years; (iii) for valuation purposes the actuarial value of assets is based on gains and losses smoothed in over a four-year period as permitted by GASB standards; (iv) price inflation is assumed to be 2.40%; (v) real wage growth is assumed to be 1.10%; (vi) salary increases (including assumed wage inflation of 3.50%) are projected to range from 3.50% to 10.45%; (vii) the long-term investment rate of return (net of pension plan investment expense, including price inflation) is assumed to be 7.25%; and (viii) post-retirement benefit increases for pre-2007 hires are assumed to 1.50% compounded annually and post-retirement benefit increases for post-2006 hires are assumed to be financed by the Annual Increase Reserve. Other assumptions include, without limitation, future retiree participation and contribution rates and mortality rates.

Funding Status of the State Division Plan

The State Division Plan currently is significantly underfunded. The AED and SAED were implemented in 2006 and 2008, respectively, and other changes were made to the Plan design by SB 10-001, all in an effort to improve the funding status of the State Division Plan. However, investment returns on Plan assets declined following the global economic downturn that began in 2008. As a result, the actuarial assumptions as to the investment rate of return on Plan assets and the discount rate on actuarially accrued liabilities were lowered by the PERA Board from 8.50% to 8.00% in 2009, to 7.50% at the end of 2013 and to 7.25% as of December 31, 2017, and other economic assumptions, including the amortization period, were changed over this period as well, to reflect actual results and new estimates about the future. Notwithstanding these changes, PERA reported that at December 31, 2016, the State Division Plan a UAAL of approximately \$11.644 billion and a funded ratio (i.e., the actuarial value of Plan assets divided by the AAL) of only 54.6%, which UAAL would have amortized over a 65-year period based on contribution rates as of the date of calculation.

In order to address the funding status of PERA's defined benefit plans, including the State Division Plan, in 2018 the General Assembly enacted SB 18-200 which made changes to the defined benefit plans administered by PERA with the goal of eliminating the UAAL of such plans, and thereby reach a 100% funded ratio for each of such plans, within a 30-year period. Among other things, SB 18-200 phases-in a 2% increase in contribution rates for most employees, suspended the cost of living adjustment for retirees through 2019, changes the definition of salary and highest average salary, reduces maximum annual cost of living adjustments, adjusts employee and employer contribution rates, funds unfunded PERA liability from political subdivisions that terminate their affiliation with PERA and provides for a direct annual distribution to PERA from the State General Fund of \$225 million (actual dollars) beginning with Fiscal Year 2020-21. Due to the actual and forecast impact of the COVID-19 pandemic on the State's revenues in Fiscal Years 2019-20 and 2020-21, this distribution was suspended for Fiscal Year 2020-21 per HB 20-1379, but was subsequently been restored per HB 22-1029. S.B. 18-200 also provides for automatic adjustments to employee and employer contribution rates, annual cost of living increases and the State's annual direct contribution to PERA within certain statutory parameters so as to stay within the 30-year funding goal. Previously, such adjustments required action by the General Assembly.

The PERA 2022 ACFR reports that at December 31, 2022, the actuarial value of assets of the State Division Plan was approximately \$18.372 billion and the AAL of the Plan was approximately \$27.647 billion, resulting in a UAAL of approximately \$9.276 billion, a funded ratio of 66.5%, and an amortization period (including consideration of the AAP adjustments effective July 1, 2022), of 20 years. The actuarial value of assets of the State Division Plan is determined by using an asset valuation method of smoothing the difference between the market value of assets and the actuarial value of assets over a four-year period to prevent extreme fluctuations that may result from short-term or cyclical economic and market conditions. Based on the market value of assets of the State Division Plan, the PERA 2022 ACFR reports that at December 31, 2022, the UAAL of the Plan was approximately \$11.157 billion and the funded ratio was 59.6%. Since contribution rates to the State Division Plan are fixed by statute, unless changes are made to such rates or changes are made to Plan provisions to reduce benefit payments, improvements in the funding status of the State Division Plan are expected to come primarily from increases in investment returns on Plan assets or changes in the actuarial assumptions used to determine the value of Plan assets and the AAL. Changes to contribution rates or other Plan provisions, or the use of alternative Plan funding strategies, would require legislative action by the General Assembly, of which there can be no assurance.

Investment of State Division Plan Assets

State law authorizes the investment of PERA's funds by the PERA Board, subject to the following limitations:

- The aggregate amount of investment trust shares, corporate stocks, corporate bonds and convertible debentures cannot exceed 65% of the book value of the fund.
- Neither common nor preferred stock of a single corporation can exceed 5% of the book value of the fund.
- The fund cannot acquire more than 12% of the outstanding stocks or bonds of a single corporation.

Implementation of Changes in Pension Accounting Standards Applicable to the State - GASB 68 and GASB

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GASB 68. GASB Statement No. 68, "Accounting and Financial Reporting for Pensions" ("GASB 68") is a GASB pronouncement that is a companion to GASB 67 and applicable to governmental entities, such as the State, that provide their employees with pension benefits. GASB 68 was effective for fiscal years beginning after June 15, 2014, and accordingly was implemented beginning with the State's Fiscal Year 2014-15 ACFR. GASB 68 revised and established new financial reporting requirements for governmental entities, and, among other things, requires cost-sharing employers participating in defined benefit plans to record their proportionate share of the unfunded pension liability.

In the State Fiscal Year 2021-22 ACFR, the State reported a total net pension liability at June 30, 2022, of approximately \$8.411 billion, of which approximately \$8.286 billion constitutes its proportionate share of the net pension liability with respect to the PERA administered defined benefit pension trusts. The balance constitutes the net pension liability associated with a defined benefit pension plan administered by the University of Colorado for certain of its employees. This compares to a net pension liability at June 30, 2021, reported in the State Fiscal Year 2020-21 ACFR of approximately \$9.245 billion, of which approximately \$9.125 billion constituted its proportionate share of the net pension liability with respect to the PERA administered defined benefit pension, and the balance constituted the net pension liability associated with the University of Colorado administered a defined benefit pension plan. The amounts presented for each Division were determined as of the calendar year-end that occurred within the Fiscal Year.

There is a difference between the net pension liability for the State reported by PERA and the State in their respective financial statements. The difference results from PERA's inclusion of employers in the State Division and the Judicial Division which are not included in the State's financial statement reporting entity. The PERA Board has statutory authority to assign employers to the State Division and Judicial Division that are not part of the State's financial statement reporting entity as defined by GASB Statement No. 14, as amended by GASB Statements No. 39 and 61. Examples of these employers in the State Division include Pinnacle Insurance, Fire and Police Pension Association and District Attorneys. Denver County Courts is the only Judicial Division employer that is not part of the State's financial statement reporting entity. The State includes in its financial statements a percentage of the net pension liability reported by PERA in its financial statements for each Division to determine the State's proportionate share in accordance with requirements of GASB 68.

GASB 75. GASB Statement No. 75, “Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions” (“GASB 75”), is effective for fiscal years beginning after June 15, 2017, and accordingly was first implemented in the State’s Fiscal Year 2018-19 ACFR. GASB 75 requires, for purposes of governmental financial reporting, that the State recognize a liability for its proportionate share of the net Other Post-Employment Benefits (“OPEB”) liability (of all employers for benefits provided through the OPEB plan), *i.e.*, the collective net OPEB liability. The State is also required to recognize OPEB expense and report deferred outflows of resources and deferred inflows of resources related to OPEB for its proportionate shares of collective OPEB expense and collective deferred outflows of resources and deferred inflows of resources related to OPEB. GASB 75 also requires additional footnote disclosures about the pension trust fund in the financial statements.

Current Litigation

The State is a defendant in a number of lawsuits or is subject to potentially be named as a party to lawsuits that are associated with its normal governmental operations. Although the outcomes are uncertain, some of these litigations could involve substantial losses. However, the State believes in most cases that it will not incur a resulting liability that would have a material or adverse effect on the State’s financial condition. Should the State incur a loss through an unfavorable outcome, some of the losses may be covered through liability insurance.

Plaintiffs filed a class action suit on behalf of at least 160 women against the Department of Corrections, alleging violations of the Colorado Anti-Discrimination Act (CADA) for discrimination in a place of public accommodation based on sexual orientation and disability. The State will vigorously defend against an estimated \$150.0 million of damage claims in the action, including by invoking any available immunity defenses. The State also intends to reopen discussions with Plaintiffs about potential settlement including changes to CDOC policies and practices.

Multiple lawsuits have been filed against the Department of Higher Education on behalf of all students enrolled at the University of Colorado and Colorado State University who have paid tuition and the mandatory student fees for the Spring 2020 semester. Plaintiffs allege breach of contract and, in the alternative, unjust enrichment. The dispute relates to transition to remote delivery of educational services for the latter portion of the Spring 2020 semester in response to the COVID-19 pandemic. Although the likelihood of an unfavorable outcome is uncertain, should the court award a full refund of fees paid for the portion of the semester during which educational services were delivered remotely to all enrolled students, each institution’s liability could potentially exceed \$10.0 million.

The Department of Public Health & Environment has been named as a defendant related to a claim that it ordered a regulatory taking by prohibiting a corporate entity from legally distributing wastewater. Although the plaintiff seeks \$70 million in compensatory damages, a reliable loss or range of loss cannot be estimated at this time.

A lawsuit filed against the Colorado Department of Transportation (CDOT) arises from the design and construction of approximately one mile of I-25 between City Center Drive and Santa Fe Drive in Pueblo, CO. The plaintiff is claiming that CDOT forced the plaintiff to accelerate construction, and claims that it is entitled to an additional \$13.0 million in payments from CDOT due to purported scheduling changes allegedly caused by CDOT.

A dispute entering arbitration filed against the Colorado Department of Transportation (CDOT) arises from the construction of a new peak period shoulder lane on I-70 near Idaho Springs. The contractor alleges that CDOT caused the delays and cost overruns, and claims that it is entitled to additional payments from CDOT. CDOT and its counsel at the Attorney General’s office are vigorously defending this matter, but the range of loss is \$2.5 to \$12.0 million.

APPENDIX D

ADDITIONAL INFORMATION ABOUT THE COMMONWEALTH OF KENTUCKY AND KENTUCKY OBLIGATIONS

The following information is a summary of certain factors affecting the credit and financial condition of the Commonwealth of Kentucky (“Kentucky” or the “Commonwealth”). The sources of payment for Kentucky municipal obligations and the marketability thereof may be affected by financial or other difficulties experienced by the Commonwealth and certain of its municipalities and public authorities. This summary does not purport to be a complete description and is derived solely from information contained in publicly available documents, including the Commonwealth of Kentucky Quarterly Economic & Revenue Report Third Quarter Fiscal Year 2023, and other reports prepared by state government and budget officials and statements of issuers of Kentucky municipal obligations, as available on the date of this Statement of Additional Information. Any characterizations of fact, assessments of conditions, estimates of future results and other projections are statements of opinion made by the State in, and as of the date of, such reports and are subject to risks and uncertainties that may cause actual results to differ materially. The Fund is not responsible for information contained in such reports and has not independently verified the accuracy, completeness or timeliness of information contained in such reports. Such information is included herein without the express authority of any Kentucky issuer and is provided without regard to any events that have occurred since the date of the most recent publicly available report.

General

The Commonwealth of Kentucky, nicknamed the Bluegrass State, was the fifteenth state. Kentucky is bounded by the Ohio River to the north and the Mississippi River to the west, and is bordered by the States of Illinois, Indiana, Ohio, West Virginia, Tennessee, Missouri and the Commonwealth of Virginia.

Kentucky has established a diverse economic climate that supports businesses internationally. In 2021, Kentucky’s total exports reached \$29.5 billion in goods and services shipped abroad, making Kentucky the nation’s 19th largest exporter. Ranking number one in bourbon exports, vehicle production per capita, and foreign direct investment jobs, the Commonwealth boasts a positive economic environment. While best known for its signature bourbon and equine industries, the world’s longest cave system in Mammoth Cave National Park, and the greatest length of navigable waterways and streams in the contiguous United States, Kentucky heritage is also deeply rooted in the automotive, manufacturing, aerospace, primary metals, logistics, chemicals, healthcare, plastic and rubber industries.

Debt Structure

Kentucky’s indebtedness is classified as either appropriation supported debt or non-appropriation supported debt. Appropriation supported debt carries the name of Kentucky and is either (i) a general obligation of Kentucky or (ii) a revenue obligation of one of its debt-issuing agencies, which is subject to state appropriation for all or a portion of the debt service on the bonds. General obligation bonds pledge the full faith, credit and taxing power of Kentucky for the repayment of the debt. The Kentucky Constitution requires voter approval by general referendum prior to the issuance of general obligation bonds in amounts exceeding \$500,000. Kentucky has not issued general obligation bonds since 1966 and has no general obligation bonds outstanding.

Project revenue notes and bonds are issued by various debt issuing authorities of Kentucky. The revenues produced by the projects funded by the debt are pledged as security for repayment of the debt. Project revenue debt is not a direct obligation of Kentucky. Project revenues are, in some cases, derived partially or solely from biennial appropriations of the Kentucky General Assembly. In other cases, the direct revenues generated from the funded project constitute the only source of payment.

Non-appropriation or moral obligation debt carries the name of Kentucky for the benefit and convenience of other entities or agencies within Kentucky. The bonds are special obligations of the issuer, secured and payable solely from the sources pledged for the payment thereof and do not constitute a debt, liability, obligation or a pledge of the faith and credit or taxing powers of Kentucky. The Kentucky General Assembly does not intend to appropriate any funds to fulfill the financial obligations represented by these types of bonds.

The payment of debt service by the state universities is enhanced by the requirement that, in the event of a default, the Secretary of the Kentucky Finance Cabinet must intercept any funds appropriated to the university but not yet disbursed and must use those funds to remedy the default.

Because the Kentucky Constitution requires the vote of a majority of the state's electorate to approve the issuance of state general obligation indebtedness and until 1998 required the vote of two-thirds of a municipality's electorate to approve the issuance of general obligation indebtedness by any city, county, or other municipality within the state, most Kentucky state and local government indebtedness had been issued not as general obligation indebtedness but as either debt payable only from revenues produced by the particular project or as indebtedness subject to biennial, in the case of the state, or annual, in the case of a local government, legislative appropriation for the payment of debt service. Such appropriation-backed indebtedness is customarily issued in the form of lease revenue bonds by a public authority or public holding company which uses the proceeds of the bonds to finance the particular public project and leases the project to the state or local government pursuant to a lease renewable each fiscal biennium (in the case of the state) or each fiscal year (in the case of a local government). Failure of the lessee government to renew the lease would terminate the lessee's obligation to make further rental payments and would leave the bondholders with recourse only against the property which was subject to the lease and any other security pledged for the payment of the bonds. An amendment to the state constitution approved by the electorate in 1994 authorized the Kentucky General Assembly to enact legislation permitting local governments (exclusive of school districts) to issue general obligation indebtedness without voter approval but subject to prescribed limitations on the maximum amount of indebtedness that may be incurred based on the assessed value of the taxable property within the municipality and such additional limitations and conditions as may be prescribed by statute. The Kentucky General Assembly enacted such enabling legislation in 1996 and the Kentucky courts issued a final judgment in 1998 upholding the validity of the constitutional amendment. Beginning in 1998, local governments (exclusive of school districts) in Kentucky began to issue general obligation indebtedness under the authority of the constitutional amendment and the enabling legislation, in addition to or instead of lease revenue bonds.

Neither Kentucky nor any of its agencies has ever defaulted in the payment of principal or interest on general obligation indebtedness or project revenue obligations.

Budgetary Process in the Commonwealth

General. The General Assembly is required by the Kentucky Constitution to adopt measures providing for the state's revenues and appropriations for each fiscal year. The Governor is required by law to submit a biennial State Budget (the "State Budget") to the General Assembly during the legislative session held in each even numbered year. State Budgets have generally been adopted by the General Assembly during those legislative sessions, which end in mid-April, to be effective upon the Governor's signature for appropriations commencing for a two-year period beginning the following July 1.

In the absence of a legislatively enacted budget, the Supreme Court has ruled that the Governor has no authority to spend money from the state treasury except where there is a statutory, constitutional or federal mandate and the Commonwealth may be prevented from expending funds for certain state governmental functions, including the ability to pay principal of, premium, if any, and interest, when due, on obligations that are subject to appropriation.

Fiscal Year 2019

The Commonwealth's combined net position (governmental and business-type activities) totaled (\$14.2) billion at the end of fiscal year 2019, as compared to (\$16.8) billion at the end of the previous year.

The largest portion of the Commonwealth's net position, \$23.6 billion, is net investment in capital assets (e.g. land, infrastructures, buildings and improvements and machinery and equipment), minus any related debt, which is still outstanding and used to acquire those assets. The Commonwealth uses these capital assets to provide services to its citizens; therefore, these assets are not available for future spending. The second largest portion of the Commonwealth's net position, totaling \$2.2 billion, is restricted and represents resources that are subject to either external restrictions or legislative restrictions on how they may be used. The remaining balance is unrestricted net position. The unrestricted net position, if they have a positive value, could be used at the Commonwealth's discretion. However, the unrestricted balance is (\$40.1) billion; therefore, funds are not available for discretionary purposes. A contributing factor to the negative balance is that liabilities are recognized on the government-wide statement of net position when the obligation is incurred. Accordingly, the Commonwealth recognizes long-term liabilities (such as general bonded debt, compensated absences, unfunded employer pension cost, and contingent liabilities) on the statement of net position.

The Commonwealth received program revenues of \$15.7 billion and general revenues (including transfers) of \$13.4 billion for total revenues of \$29.1 billion during fiscal year 2019. Expenses for the Commonwealth during fiscal year 2019 were \$26.5 billion, which resulted in a total increase of the Commonwealth's net position in the amount of \$2.6 billion, net of contributions, transfers and special items.

The change in net position resulted in an increase from the previous year. The increase in net position of governmental activities was \$2.6 billion. Approximately 47.8 percent of the governmental activities' total revenue came from taxes, while 43.5 percent resulted from grants and contributions (including federal aid). Overall, program revenues were insufficient to cover program expenses for governmental activities. Therefore, the net program expenses of these governmental activities were supported by general revenues, mainly taxes.

At June 30, 2019, the Commonwealth's governmental funds reported combined ending fund balances of \$2.4 billion, a net increase of \$10 million in comparison with the prior year. \$72 million is non-spendable and is comprised of inventories, notes receivables, cash with fiscal agents, and restricted cash that must remain intact. The \$1.9 billion is restricted for certain purposes and is not available to fund current operations. The \$427 million is considered unrestricted (committed, assigned, or unassigned). When the unrestricted balance is positive it is available for spending either at the government's discretion or upon legislative approval.

The General Fund balance at June 30, 2019, was \$233 million. The balance reported reflects an increase of \$289 million from the previously reported amount. The major factor for the increase in fund balance was increased tax revenue and the reduction of TRS Pension and Other Post Employment Liabilities. On August 20, 2019, the State Budget Director reported a General Fund Surplus balance of \$130.1 million and a Budget Reserve Trust Fund balance of \$129.1 million, or 1.1% of General Fund Revenue.

The General Fund balance is segregated into non-spendable and spendable amounts with the spendable amounts further segregated as restricted, committed, assigned, and unassigned. Inventory of \$7.4 million represents the non-spendable amount.

The major special revenue funds experienced normal cyclical changes in revenues and expenditures. The revenues increased by \$739 million from the previous year, a change of 5.2 percent. Expenditures increased by \$636 million from the previous year, a change of 4.6 percent. The Transportation Fund experienced a slight increase in revenues and an increase in expenditures, resulting in a decrease in fund balance of \$25.3 million.

The Commonwealth of Kentucky's bonded debt decreased by \$484 million to \$6.3 billion, a 7.1 percent decrease during the current fiscal year. The major factors in this decrease is a result of the refunding of old issues by the FY19 new issues. The remaining liability on the retired bonds plus the FY19 principal payments on the remaining bonds outstanding were greater than the FY19 issues for new projects. No general obligation bonds were authorized or outstanding at June 30, 2019.

Fiscal Year 2020

The Commonwealth's combined net position (governmental and business-type activities) totaled \$(11.5) billion at the end of fiscal year 2020, as compared to \$(14.2) billion at the end of the previous year.

The largest portion of the Commonwealth's net position, \$24.4 billion, is net investment in capital assets (e.g. land, infrastructures, buildings and improvements and machinery and equipment), minus any related debt, which is still outstanding and used to acquire those assets. The Commonwealth uses these capital assets to provide services to its citizens; therefore, these assets are not available for future spending. The second largest portion of the Commonwealth's net position, totaling \$1.6 billion, is restricted and represents resources that are subject to either external restrictions or legislative restrictions on how they may be used. The remaining balance is unrestricted net position. The unrestricted net position, if they have a positive value, could be used at the Commonwealth's discretion. However, the unrestricted balance is \$(37.6) billion; therefore, funds are not available for discretionary purposes. A contributing factor to the negative balance is that liabilities are recognized on the government-wide statement of net position when the obligation is incurred. Accordingly, the Commonwealth recognizes long-term liabilities (such as general bonded debt, compensated absences, unfunded employer pension cost, and contingent liabilities) on the statement of net position.

The Commonwealth received program revenues of \$17.0 billion and general revenues (including transfers) of \$16.7 billion for total revenues of \$33.7 billion during fiscal year 2020. Expenses for the Commonwealth during fiscal year 2020 were \$31.0 billion, the total net position of the Commonwealth increased in the amount of \$2.7 billion, net of contributions, transfers and special items.

The governmental activities resulted in an increase in the Commonwealth's net position by \$3.6 billion. Approximately 46.0 percent of the governmental activities' total revenue came from taxes, while 46.0 percent resulted from grants and contributions (including federal aid). Overall, program revenues were insufficient to cover program expenses for governmental activities. Therefore, the net program expenses of these governmental activities were supported by general

revenues, mainly taxes. At June 30, 2020, the Commonwealth's governmental funds reported combined ending fund balances of \$3.0 billion, a net increase of \$584.1 million in comparison with the prior year. \$5.4 million is non-spendable and is comprised of inventories, notes receivables, cash with fiscal agents, and restricted cash that must remain intact. The \$2.3 billion is restricted for certain purposes and is not available to fund current operations. The \$668.8 million is considered unrestricted (committed, assigned, or unassigned). When the unrestricted balance is positive it is available for spending either at the government's discretion or upon legislative approval.

The General Fund is the primary operating fund of the Commonwealth. The fund balance at June 30, 2020, was \$610 million. The balance reported reflects an increase of \$377.5 million from the previously reported amount. The major factor for the increase in fund balance was increased tax revenue and the reduction of TRS Pension and Other Post Employment Liabilities. On August 19, 2020, the State Budget Director reported a General Fund Surplus deposit of \$162.5 million to the Budget Reserve Trust Fund. The deposit brought the total balance to \$465.7 million, or 4% of General Fund revenue.

The major special revenue funds experienced normal cyclical changes in revenues and expenditures. The revenues increased by \$1.59 billion from the previous year, a change of 10.6 percent. Expenditures increased by \$1.6 billion from the previous year, a change of 11.0 percent. The Transportation Fund experienced a slight decrease in revenues and a decrease in expenditures, resulting in an increase in fund balance of \$238 thousand.

The Commonwealth of Kentucky's bonded debt decreased by \$317 million to \$5.9 billion, a 5.1 percent decrease during the current fiscal year. The major factor in this decrease is a result of the refunding of old issues by the FY2020 new issues. The remaining liability on the retired bonds plus the FY2020 principal payments on the remaining bonds outstanding were greater than the FY2020 issues for new projects. No general obligation bonds were authorized or outstanding at June 30, 2020.

Fiscal Year 2021

The Commonwealth's combined net position (governmental and business-type activities) totaled \$(5.4) billion at the end of fiscal year 2021, as compared to \$(11.6) billion at the end of the previous year.

The largest portion of the Commonwealth's net position, \$25.0 billion, is net investment in capital assets (e.g., land, infrastructures, buildings and improvements and machinery and equipment), minus any related debt, which is still outstanding and used to acquire those assets. The Commonwealth uses these capital assets to provide services to its citizens; therefore, these assets are not available for future spending. The second largest portion of the Commonwealth's net position, totaling \$2.4 billion, is restricted and represents resources that are subject to either external restrictions or legislative restrictions on how they may be used. The remaining balance is unrestricted net position. The unrestricted net position, if they have a positive value, could be used at the Commonwealth's discretion. However, the unrestricted balance is \$(32.8) billion; therefore, funds are not available for discretionary purposes. A contributing factor to the negative balance is that liabilities are recognized on the government-wide statement of net position when the obligation is incurred. Accordingly, the Commonwealth recognizes long-term liabilities (such as general bonded debt, compensated absences, unfunded employer pension cost, and contingent liabilities) on the statement of net position.

The Commonwealth received program revenues of \$21.5 billion and general revenues (including transfers) of \$18.0 billion for total revenues of \$39.5 billion during fiscal year 2021. For fiscal year 2021, expenses for the Commonwealth were \$33.4 billion, and the total net position of the Commonwealth increased by \$6.2 billion, net of contributions, transfers and special items.

The governmental activities resulted in an increase in the Commonwealth's net position by \$5.7 billion. Approximately 42.0 percent of the governmental activities' total revenue came from taxes, while 50.6 percent resulted from grants and contributions (including federal aid). Overall, program revenues were not sufficient to cover program expenses for governmental activities. Therefore, the net program expenses of these governmental activities were supported by general revenues, mainly taxes. At June 30, 2021, the Commonwealth's governmental funds reported combined ending fund balances of \$5.4 billion, a net increase of \$2.4 billion in comparison with the prior year. Of that \$5.4 billion in governmental funds, \$73.5 million is non-spendable and is comprised of inventories, notes receivables, cash with fiscal agents, and restricted cash that must remain intact, \$2.8 billion is restricted for certain purposes and is not available to fund current operations, and \$2.5 billion is considered unrestricted (committed, assigned, or unassigned). When the unrestricted balance is positive, it is available for spending either at the government's discretion or upon legislative approval.

The General Fund is the primary operating fund of the Commonwealth. The fund balance at June 30, 2021, was \$2.5 billion. The balance reported reflects an increase of \$1.9 billion from the previously reported amount. The major factor for the increase in fund balance was increased tax revenue and the reduction of TRS Pension and Other Post Employment Liabilities. On August 4, 2021, the State Budget Director reported a General Fund surplus deposit of \$1.17 billion to the Budget Reserve Trust Fund. The deposit brought the total balance to \$1.92 billion, or 16% of General Fund appropriations.

The major special revenue funds experienced normal cyclical changes in revenues and expenditures. The fiscal year 2021 revenues increased by \$4.4 billion from the previous year, a change of 26.7 percent. Fiscal year 2021 expenditures increased by \$4.0 billion from the previous year, a change of 25.1 percent. The Transportation Fund experienced a slight increase in revenues and a decrease in expenditures, resulting in an increase in fund balance of \$246.8 million.

The Commonwealth of Kentucky's bonded debt decreased by \$532.2 million to \$5.7 billion, an 8.6 percent decrease during fiscal year 2021. The major factor in this decrease is a result of the refunding of old issues by the FY2021 new issues. The remaining liability on the retired bonds, plus the FY2021 principal payments on the remaining bonds outstanding were greater than the FY2021 issues for new projects. No general obligation bonds were authorized or outstanding at June 30, 2021.

Fiscal Year 2022 (unaudited)

As reported by the Office of the State Budget Director on July 11, 2022, General Fund receipts rose 13.0 percent in June 2022 compared to the same month of the previous fiscal year. The individual income tax, business taxes, and sales tax all grew by double digits in June 2022 and throughout fiscal year 2022. Collections for fiscal year 2022 grew at the highest rate in 31 years, by 14.6 percent over the previous fiscal year. Total receipts were \$14.7 billion, exceeding the budgeted estimate by \$945.5 million.

Road Fund revenues for fiscal year 2022 totaled \$1.67 billion, an increase of 2.0 percent from the previous fiscal year. Total receipts were \$33.0 million more than fiscal year 2021 as all but two of the major accounts grew. Road Fund collections for fiscal year 2022 were below the official consensus forecast by \$4.7 million, or 0.3 percent.

On August 17, 2022, the State Budget Director reported a General Fund surplus deposit of \$1.01 billion to the Budget Reserve Trust Fund. The deposit brought the total balance to a record \$2.7 billion, or 19.5% of Fiscal Year 2023 General Fund appropriations. Also reported was a Road Fund surplus of \$70.3 million, which was deposited to the Highways-State Construction Account.

Fiscal Year 2023 (unaudited)

As reported by the Office of the State Budget Director on September 12, 2022, General Fund receipts for August increased by 6.6 percent compared to the same month of the previous fiscal year. Total revenues for the month were \$999.2 million, compared to \$937.7 million during August 2021. General Fund receipts have increased 8.2 percent during the first two months of Fiscal Year 2023. Based on August's results, receipts can decline 8.6 percent over the rest of the fiscal year and still meet the revenue estimate.

Road Fund revenues for August totaled \$145.7 million, a 1.7 percent decrease compared to August 2021. The official Road Fund revenue estimate for Fiscal Year 2023 calls for revenue to increase 2.7 percent compared to Fiscal Year 2022 actual receipts. Based on year-to-date collections, revenues must increase 3.5 percent for the rest of the fiscal year to meet budgeted levels.

On August 26, 2022, the Governor signed into law House Bill 1 of the 2022 Extraordinary Session of the General Assembly. The bill established the Eastern Kentucky State Aid Funding for Emergencies ("EKSAFE") fund, extended the end date of the West Kentucky State Aid Funding for Emergencies fund, provided relief to Western and Eastern Kentucky school districts impacted by tornado and flooding emergencies, appropriated \$200,000,000 of General Fund moneys from the Budget Reserve Trust Fund to EKSAFE, and appropriated \$12,662,200 of Federal Funds (State Fiscal Recovery Fund of the American Rescue Plan Act of 2021) to EKSAFE for water and sewer infrastructure.

Recent changes in Kentucky's tax laws provide for the gradual, potential reduction (and possible elimination) of Kentucky's current 5 percent individual income tax. If the Kentucky Department of Revenue determines that the "reduction" conditions as specified in the bill (based on balances in the state treasury and the cost of a rate reduction) exist at the end of the current fiscal year, the rate will drop by 0.5 percent for the tax year beginning on January 1, 2023. A similar exercise would repeat in future years until the tax is fully phased out.

Consensus Forecasting Group; Official Revenue Forecasts

The Consensus Forecasting Group (“CFG”), in conjunction with the Office of the State Budget Director (“OSBD”), is statutorily charged with the responsibility of developing budget planning reports, preliminary revenue estimates, and official revenue estimates for each branch of government and the General and Road funds, pursuant to KRS 48.120 and KRS 48.115. The CFG is staffed by the Legislative Research Commission (“LRC”) but receives econometric and modeling support from the Governor’s Office for Economic Analysis, an organizational unit of the OSBD. Members of the CFG are jointly selected by the State Budget Director and the LRC.

Subject to modification by the General Assembly, appropriations made in the branch budget bills enacted for each branch of government shall be based upon the official revenue estimates presented to the General Assembly by the OSBD in conjunction with the CFG. The enacted estimates shall become the official revenue estimates of the Commonwealth upon the branch budget bills becoming law, and shall remain the official revenue estimates of the Commonwealth until revised by the CFG, as provided in KRS 48.115(2).

The CFG met on December 17, 2021 to revise the enacted General Fund and Road Fund revenue estimates for FY 2022 and to adopt the General Fund and Road Fund revenue estimates for FY 2023 and FY 2024. Three scenarios from IHS Markit (Control, Optimistic, and Pessimistic) were used as inputs in the OSBD’s MAK model, an analytical model that takes US trends in employment and income as predetermined variables in order to estimate Kentucky-specific forecasts for employment and personal income. The CFG adjusted the FY22 General Fund forecast to \$13,791.9 million and the FY22 Road Fund forecast to \$1,680.1 million.

The actual Phase 1 Tobacco Master Settlement Agreement (MSA) payments for Fiscal Year 2021 were \$126 million. The CFG official revenue estimate as revised for the MSA payments is \$114.9 million in Fiscal Year 2022, and \$108.4 million and \$102.2 million as adopted for Fiscal Year 2023 and Fiscal Year 2024, respectively.

The Office of the State Budget Director makes available on its website monthly updates to the General Fund receipts and the Road Fund receipts.

Investment Policy

The Commonwealth’s investments are governed by KRS 42.500 et seq. and KAR Title 200 Chapter 14. The State Investment Commission (“SIC”), effective June 29, 2021, is comprised of the State Controller, the Treasurer, Secretary of the Finance and Administration Cabinet and two gubernatorial appointees from the Kentucky Banker’s Association and Bluegrass Community Bankers Association, is charged with the oversight of the Commonwealth’s investment activities. The SIC is required to meet at least quarterly, and delegates day-to-day investment management to the Office of Financial Management.

On August 31, 2022, the Commonwealth’s operating portfolio was approximately \$10.785 billion in cash and securities. The composition of investments was as follows: U.S. Treasury securities (28.5%); securities issued by agencies and instrumentalities of the United States Government (16.7%); mortgage-backed securities and collateralized mortgage obligations (0.3%); repurchase agreements collateralized by the aforementioned (3.7%); and corporate and asset-backed securities, including money market securities (50.8%). The portfolio had a current yield of 2.55% and an effective duration of 0.44 years.

The Commonwealth’s investments are currently categorized into three investment pools; the Short Term, Limited Term, and the Intermediate Term Pools. The purpose of these pools is to provide economies of scale that enhance yield, ease administration and increase accountability and control. The Short Term Pool consists primarily of the General Fund and related accounts. The Limited Term Pool is a money market like pool which focuses on principal protection for certain agency funds. The Intermediate Term Pool represents a combination of Agency Fund investments, state held component unit funds, fiduciary funds held for the benefit of others, and also bond proceeds for capital construction projects, held until spent for their intended purpose. Bond proceeds were previously invested separately until July 2010 when they were added into the Intermediate Term Pool to provide additional economies of scale.

KAR Title 200 Chapter 14 provides, among other things that: corporate securities, inclusive of Commercial Paper, Banker’s Acceptances and Certificates of Deposit are limited to \$25 million per issuer and a stated final maturity of five years or less. Money market securities rated A1, P1 or higher are limited to 20 percent of the investment pools. Asset-Backed Securities (“ABS”) are limited to 20 percent of the investment pools. Mortgage-Backed Securities (“MBS”) and Collateralized Mortgage Obligations (“CMO”) are also limited to a maximum of 25 percent of the investment pools. ABS, MBS and CMO must have a weighted average life of four years or less at time of purchase. Changes have been proposed for these regulations which generally would tighten the securities eligible for purchase while allowing a larger position in certain of those security types.

Economic Conditions and Outlook

National Economy

Real gross domestic product (real GDP) declined by 0.1 percent in the third quarter of FY23 compared to the third quarter in FY22. Real GDP declined by 0.5 percent in the third quarter of FY23 compared to the second quarter of FY23. This represents a small deepening of the losses in the second quarter. Real GDP declined by 0.03 percent in the second quarter of FY23 compared to the second quarter of FY22. Real GDP declined by 0.1 percent in the second quarter of FY23 compared to the first quarter of FY23. Third quarter growth is an S&P Global estimate. Official real GDP for the third quarter will not be available until April 27, 2023. If the S&P Global estimate becomes reality, then that will be two consecutive quarters of real GDP declines, which is the official Bureau of Economic Analysis (BEA) and the National Bureau of Economic Research (NBER) definition of a recession. Real GDP declined by 0.4 percent in the third quarter of FY22 and by 0.1 percent in the fourth quarter of FY22. These two adjacent-quarter declines in real GDP still have not been declared as a recession by NBER, as of March 27, 2023. If the S&P Global forecast becomes reality, that will be four declines during the last five consecutive quarters. It is not clear if NBER is waiting for the end of this string of declines before pulling the trigger and calling it an official recession. The last seven adjacent-quarter growth rates for real GDP are: 0.7, 1.7, -0.4, -0.1, 0.6, -0.1, and -0.5 percent, respectively.

Real consumption grew by 1.1 percent in the third quarter of FY23 compared to the third quarter of FY22. Real consumption declined by 0.1 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the first time that real consumption has declined since the fourth quarter of FY20. The loss to real GDP in the third quarter of FY23 compared to second quarter was -\$99.1 billion. Real consumption declined by \$15.4 billion in the third quarter of FY23 compared to the second quarter. This represents roughly one-sixth of the total decline in real GDP for the third quarter. Real consumption made up 71.3 percent of real GDP in the third quarter of FY23.

Real investment fell 10.4 percent in the third quarter of FY23 over the third quarter of FY22. Real investment has dropped 2.5 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the fourth consecutive decline of real investment on a quarter-to-quarter basis. The last five adjacent-quarter growth rates for real investment are: 1.3, -3.7, -2.2, -2.4, and -2.5 percent, respectively. Real investment in the third quarter of FY23 has dropped a net \$403.8 billion compared to third quarter of FY22. Real investment was by far the largest contributor to the third quarter decline of real GDP. Real investment made up 17.5 percent of real GDP in the third quarter of FY23.

Real government expenditures rose by 1.3 percent in the third quarter of FY23 over the third quarter of FY22. Real government expenditures rose by 0.8 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the third consecutive quarter that real government expenditures have increased. The last four consecutive adjacent-quarter real government expenditures growth rates are: -0.4, 0.6, 0.3, and 0.8 percent, respectively. The National Bureau of Economic Analysis, the official arbiter of turning points in the US economy, has stated that the US economy reached a trough in April of 2020 and is still currently in an expansion period. During the 11 quarters since that trough, real government expenditures have declined seven times and increased four times. This is further evidence that real government expenditures have become an acyclical series. Real government expenditures made up 17.3 percent of real GDP in the third quarter of FY23.

Total outlays rose by 3.4 percent in the third quarter of FY23 over the third quarter of FY22. It is hard to get a good read on how high outlays are historically-speaking. It is a monotonically increasing series, so it rises over time. Part of that upward drift is because it is a nominal series. That is, it is not adjusted for inflation. Just prior to the recession, total US outlays were hovering just above \$4.8 trillion. Then suddenly US outlays jumped to \$8.9 trillion in the fourth quarter of FY20 following the massive increases in Federal Transfer Payments to Resident Persons, Grants-in-Aid to State and Local Governments, and Subsidies. In one quarter, total US outlays increased by 82.5 percent. In the following two quarters, outlays declined some. However, total US outlays still have not gone back down to pre-recession levels. Currently, outlays are still 25.0 percent above pre-recession levels. It would have taken 5.75 years for outlays to reach that level at the pre-recession rate of growth. So clearly, outlays are still well above their trend from the period prior to the recession. Outlays are not just up from a year ago, but also increased relative to the previous quarter. Outlays rose 1.4 percent in the third quarter of FY23 compared to the second quarter of FY23.

Five of the eight major outlays increased in the third quarter of FY23. Total outlays rose \$201.9 billion in the third quarter of FY23. The largest contributing outlay was Interest on the Debt, which grew \$180.7 billion, or 30.0 percent, in the third quarter of FY23 compared to the third quarter of FY22. The second largest contributing outlay was Social Security, which grew \$144.1 billion, or 12.0 percent, in the third quarter of FY23 compared to the third quarter of FY22. There were several declining outlays in the third quarter as well. The largest declining outlay was Medicaid, which declined \$36.8 billion, or 6.2 percent, from the third quarter of FY22 to the third quarter of FY23. Social Security made up

22.0 percent of total US outlays in the third quarter of FY23. Medicaid made up 9.1 percent of total US outlays, while Interest on the Debt made up 12.9 percent of total US outlays in the third quarter of FY23.

Real exports grew by 6.0 percent in the third quarter of FY23 over the third quarter of FY22. However, most of that growth occurred three and four quarters ago. Real exports fell 0.8 percent in the third quarter of FY23 compared to the second quarter of FY23. The last seven quarters of adjacent-quarter real export growth are: -0.3, 5.4, -1.2, 3.3, 3.4, -0.1, and -0.8 percent, respectively. Real export growth has been turbulent over the last three years with a slight U-shaped growth pattern during that time. In fact, real exports in the third quarter of FY23 are \$10.4 billion lower than pre-recession levels. Real exports made up 13.0 percent of real GDP in the third quarter of FY23.

Real imports declined by 1.0 percent in the third quarter of FY23 over the third quarter of FY22. Real imports are down compared to a year ago but improved slightly compared to the second quarter. Real imports rose 0.3 percent in the third quarter compared to the second quarter of FY23. This is a continuation of the upward trend in real imports since the end of the 2019 recession. The last seven adjacent-quarter growth rates for real imports are: 1.6, 4.4, 4.3, 0.6, -1.8, -0.1, and 0.3 percent, respectively. Real imports are up a net \$480.0 billion compared to pre-recession levels. Real imports, which is a deduction from the real GDP identity, made up 19.5 percent of real GDP in the third quarter of FY23.

Total non-farm employment rose 1.9 percent in the third quarter of FY23 compared to the third quarter of FY22. On an adjacent-quarter basis, non-farm employment declined by 0.1 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the first adjacent-quarter decline following 10 consecutive quarters of growth for non-farm employment. The last seven adjacent-quarter growth rates are: 1.2, 1.2, 1.2, 0.8, 0.8, 0.4, and -0.1 percent, respectively.

All 11 supersectors grew in the third quarter of FY23 compared to the third quarter of FY22. Mining employment rose by the most in percentage terms, growing 5.6 percent in the third quarter of FY23 over the third quarter of FY22. US Mining employment is the smallest of the 11 supersectors, making up just 0.4 percent of total US non-farm employment. Educational services employment grew by the most in absolute terms, gaining 900,000 jobs in the third quarter of FY23 compared to the third quarter of FY22. This is the eleventh consecutive adjacent-quarter increase for educational services employment. The last seven adjacent-quarter growth rates are: 0.5, 0.6, 0.8, 0.9, 1.2, 0.9, and 0.8 percent, respectively. Educational services employment made up 16.3 percent of total US non-farm employment in the third quarter of FY23.

US personal income rose by 5.6 percent in the third quarter of FY23 compared to the third quarter of FY22. This was the seventh consecutive adjacent-quarter increase for US personal income. The last seven adjacent-quarter growth rates for US personal income are: 0.4, 0.7, 0.7, 1.4, 1.3, 1.7, and 1.0 percent, respectively. All five contributing components of personal income rose in the third quarter of FY23 compared to the third quarter of FY22.

The biggest mover in the third quarter of FY23 was dividends, interest and rents income, which rose by 9.7 percent in the third quarter of FY23 over the third quarter of FY22. This was the tenth consecutive quarter of growth for dividends, interest, and rents income on an adjacent-quarter basis. The last seven adjacent-quarter growth rates are: 0.9, 1.3, 0.4, 2.1, 1.7, 2.7, and 2.9 percent, respectively. Dividends, interest, and rents income made up 19.6 percent of total personal income in the third quarter of FY23.

Kentucky Economy

Kentucky non-farm employment rose by 2.2 percent in the third quarter of FY23 over the third quarter of FY22. This is the eleventh consecutive adjacent-quarter increase for Kentucky non-farm employment. The last seven adjacent-quarter growth rates are: 0.8, 1.2, 0.8, 0.4, 0.9, 0.3, and 0.6 percent, respectively. Ten of the 11 supersectors increased in the third quarter of FY23 compared to the third quarter of FY22.

The biggest mover on a percentage basis is leisure and hospitality services employment, which rose 5.4 percent, or 10,400 jobs, in the third quarter of FY23 over the third quarter of FY22. This is just the third consecutive quarter of adjacent-quarter growth for leisure and hospitality services employment. The last seven quarters of adjacent-quarter growth are: 4.3, 2.4, 2.1, -0.4, 2.2, 0.4, and 3.2 percent, respectively. Leisure and hospitality services employment made up 10.3 percent of total Kentucky non-farm employment in the third quarter of FY23.

Kentucky educational services employment grew the most in absolute terms, gaining 11,100 jobs, or 3.9 percent, in the third quarter of FY23 compared to the third quarter of FY22. This is the sixth consecutive adjacent-quarter increase for Kentucky educational services employment. The last seven adjacent-quarter growth rates are: -0.05, 0.2, 0.3, 0.6, 1.4, 0.5, and 1.4 percent, respectively. Kentucky educational services employment, the third largest supersector in Kentucky, made up 14.9 percent of total Kentucky non-farm employment in the third quarter of FY23.

The only supersector to lose jobs in the third quarter of FY23 compared to the third quarter of FY22 was the trade, transportation, and utilities services employment sector. Trade, transportation, and utilities services employment also fell compared to the second quarter of FY23, dropping 1.4 percent, or 6,000 jobs. The last seven adjacent-quarter growth rates are: 0.8, 2.0, 0.7, -0.2, 0.5, 0.9, and -1.4 percent, respectively. Trade, transportation, and utilities services employment, the largest of the 11 supersectors in Kentucky, made up 21.3 percent of total Kentucky non-farm employment in the third quarter of FY23.

Kentucky personal income rose by 4.5 percent in the third quarter of FY23 over the third quarter of FY22. This is the seventh consecutive quarter of adjacent-quarter growth for Kentucky personal income. The last seven adjacent-quarter growth rates are: 1.2, 0.6, 0.9, 0.8, 0.4, 2.5, and 0.8 percent, respectively. Four of the five contributing components of personal income rose in the third quarter of FY23 compared to the third quarter of FY22.

Kentucky wages and salaries income rose by the most in absolute and percentage terms in the third quarter of FY23 compared to the third quarter of FY22. Kentucky wages and salaries income rose 6.7 percent, or 7,400 net jobs, in the third quarter of FY23 over the third quarter of FY22. Kentucky wages and salaries income has risen for the last 11 consecutive adjacent quarters. The last seven adjacent-quarter growth rates are: 2.6, 2.8, 2.4, 1.1, 1.4, 2.5, and 1.5 percent, respectively. Kentucky wages and salaries income made up 49.2 percent of total Kentucky personal income in the third quarter of FY23.

Kentucky transfer receipts income declined by 0.2 percent in the third quarter of FY23. Kentucky transfer receipts income has contracted in nine of the last 11 quarters. The last seven adjacent-quarter growth rates are: -0.4, -2.4, -1.7, -1.0, -2.0, 3.7, and -0.7 percent, respectively. Kentucky transfer receipts income made up 25.6 percent of total Kentucky personal income in the third quarter of FY23.

Long-Term Financial Planning

Debt financing of the Commonwealth is classified as either appropriation supported debt or non-appropriation supported debt. Appropriation-supported debt carries the name of the Commonwealth and is either a general obligation of the state or a lease revenue obligation of an issuing agency created by the Kentucky General Assembly to finance various projects subject to state appropriation for all or a portion of the debt service on the bonds. Non-appropriation or moral obligation debt carries the name of the Commonwealth for the benefit and convenience of other entities within the state. This type of indebtedness is a special obligation of the issuer, secured and payable solely from the sources pledged for the payment thereof and does not constitute a debt, liability, obligation, or pledge of the faith and credit of the Commonwealth.

Major Initiatives

Due to the advent of COVID-19 cases in Kentucky in March 2020, the General Assembly decided to pass a one-year budget for fiscal year 2021 in the 2020 legislative session instead of its usual biennial budget. The Governor initiated the fiscal year 2022 budget process with a budget recommendation in the first week of January to the 2021 legislative session, revising the fiscal year 2021 budget and proposing a fiscal year 2022 budget. The General Assembly enacted a revised fiscal year 2021 budget and a fiscal year 2022 budget through the passage of the typical four biennial appropriation bills plus a series of four other special appropriation bills. As a result of a \$1 billion General Fund surplus at the end of fiscal year 2021, there were substantial supplemental appropriations made that affected state spending in fiscal year 2022.

The Commonwealth, during calendar year 2022, experienced the second highest year for new investment behind only 2021's record year and third highest for job creation. Nearly 250 new-location and expansion announcements were made, which committed to investing almost \$10.5 billion and creating over 16,000 full-time jobs.

For an unprecedented second year in a row, Kentucky's General Fund budget surplus exceeded \$1 billion ending fiscal year 2022 with a \$1.01 billion deposit to the Budget Reserve Trust Fund and bringing the total to \$2.7 billion which is the largest Rainy-Day balance in the history of the Commonwealth. Kentucky had record-breaking revenue growth with the highest General Fund receipts growth rate in 31 years at 14.6 percent. This follows the prior fiscal year that had revenue growth of 10.9 percent. General Fund receipts totaled \$14.7 billion, exceeding the budgeted estimate by \$945.4 million. The largest three tax types, individual income, sales, and business tax receipts, all grew by double-digits. Individual withholding grew by 11 percent, sales taxes grew by 11 percent, and business taxes (corporation income tax plus the limited liability entity tax) grew by 34 percent.

Road Fund revenues came in close to estimates at \$1,675.4 million with motor vehicle usage setting a new record in fiscal year 2022 at \$629.1 million which was \$19.2 million more than the prior year. Motor fuels revenues grew by \$26.3

million or 3.5%. The Road Fund Surplus was \$70.3 million, which by statute is transferred to the Highways-State Construction Account.

The General Assembly passed a number of tax actions that reduced General Fund estimated revenues by \$161.5 million in fiscal year 2022. The largest portion was to conform with federal tax actions allowing the deductibility of business expenses that were reimbursed from forgiven federal Paycheck Protection Program loan. Also, a sales tax exemption for cryptocurrency mining operations was passed, with the opportunity for income tax incentives as well. A \$25 million annual capped tax credit for contributions to education opportunity accounts was also enacted, which was recently found unconstitutional by the Kentucky Supreme Court. Other bills provided a \$100 million annual capped tax credit for certified historic rehabilitation projects and a refundable film tax credit that will have a revenue impact starting in fiscal year 2023.

Overall General Fund spending for fiscal year 2022 increased by 14.5 percent. Half of the spending increase was for nonrecurring purposes, including substantial extra payments to Kentucky's pension systems, disaster aid in response to historic tornado damage in Western Kentucky, and cash-funded capital projects. There were no General Fund spending cuts in the fiscal year 2022 budget. This is the first time since the 2006-2008 biennium there has been a fiscal year budget with no budget cuts. Over \$2.3 billion in General Fund budget and spending cuts have taken place since fiscal year 2008.

General Fund spending priorities were focused on education, public pensions, workforce development, economic development, public safety, expansion of health care, protection of families and children, and storm assistance and/ recovery.

Full funding for all day kindergarten was one of the largest spending increases in the education area, with an additional \$140 million to local school districts. The budget also included \$75 million for secondary career and technical education projects, a significant expansion that continued with additional funding for fiscal year 2023. The public postsecondary education institutions received a two percent increase in performance funding, and student financial aid programs received its largest budget allocation ever, eliminating any waiting list for need-based aid. In the human services area, a \$20 million increase was included for additional prevention services for the protection of children and families, and an increase in the subsidy for child care services. The expanded federal share for Medicaid services resulting from the public health emergency assisted in financing a 25 percent increase in all fund spending. The public pension systems were not just fully funded for their actuarially determined contributions; the revenue surplus from fiscal year 2021 provided the resources to add nearly \$700 million to their unfunded liability.

Upon passage of the American Rescue Plan Act in March, 2021, Kentucky received \$2.2 billion from the State Fiscal Recovery Fund. The fiscal year 2022 budget allocated \$1.3 billion with the remaining amount appropriated later during the 2022 legislative session. The largest uses include \$748 million to the unemployment insurance trust fund; \$250 million for drinking water and wastewater infrastructure investment; \$117 million for broadband expansion; and \$75 million for the tourism industry's recovery from COVID-19. Buttressed by the federal passage of several COVID-19 relief and recovery legislative measures, federal spending in fiscal year 2022 exceeded \$20 billion for the second year in a row.

Financial Highlights – Primary Government

Government-Wide Highlights

The liabilities and deferred inflows of the Commonwealth's governmental activities exceeded its assets and deferred outflows at fiscal year ending June 30, 2022, by \$1.5 billion, an increase in net position of \$7.3 billion related to current year activity. Total net position increased by \$8.2 billion to \$2.4 billion. The primary reasons for this increase were due to deferrals relating to pension and other post-employment benefits, bonds and notes payable. The Governmental Activities total Deferred Outflows were \$6.6 billion which were comprised of \$9.7 million for Deferred Loss on Refunding, \$5.6 billion for Pension Related Outflows, and \$1,050.9 million for Other Post-employment Benefit Outflows. Total Deferred Inflows were \$6.6 billion which were comprised of \$47.1 million for Deferred Gain on Refunding, \$11.2 million of Lessor Contracts Inflows, \$5.2 billion for Pension Related Inflows, and \$1,324.1 million for Other Post-employment Benefit Inflows.

Assets of the Commonwealth's business-type activities exceeded liabilities by \$893.9 million, an increase in net position of \$864.8 million related to current year activity. Business-Type Activities total Deferred Outflows were \$61.1 million which were comprised of \$42.9 million for Pension Related Outflows and \$18.2 million for Other Post-employment Benefit Outflows. Total Deferred Inflows were \$27.7 million which were comprised of \$2.0 million of Lessor Contracts Inflows, \$11.3 million for Pension Related Inflows and \$14.4 million for Other Post-employment Benefit Inflows.

Assets of the Commonwealth's discretely presented component units exceeded liabilities at fiscal year ending June 30, 2022, by \$14.3 billion, an increase of \$1.0 billion related to current year activity.

Fund Highlights

As of the close of fiscal year 2022, the Commonwealth's governmental funds reported combined ending fund balances of \$8.1 billion, a net change in fund balance of \$2.7 billion, a change in inventory of \$(2,740) thousand, for a combined net change of \$2.7 billion in comparison with the prior year. Approximately 43.1 percent or \$3.5 billion of the ending fund balance is restricted. There is unrestricted (committed, assigned, or unassigned) fund balance of \$4.5 billion available for spending either at the government's discretion or upon legislative approval.

Enterprise funds reported net position of \$894 million, of which \$228 million was restricted or invested in capital assets and the balance of \$(249) million was unrestricted.

Long-Term Debt

The Commonwealth's total long-term debt obligations (bonds and notes payable) decreased by \$502.7 million to \$5.9 billion during the current fiscal year.

Government-Wide Financial Analysis

Net Position

Net position may serve as a useful indicator of a government's financial position. The Commonwealth's combined net position (governmental and business-type activities) totaled \$2.4 billion at the end of fiscal year 2022, as compared to \$(5.8) billion at the end of the previous year.

The largest portion of the Commonwealth's net position, \$25.8 billion, is net investment in capital assets (e.g. land, infrastructures, buildings and improvements and machinery and equipment), minus any related debt, which is still outstanding and used to acquire those assets. The Commonwealth uses these capital assets to provide services to its citizens; therefore, these assets are not available for future spending.

The second largest portion of the Commonwealth's net position, totaling \$3.4 billion, is restricted and represents resources that are subject to either external restrictions or legislative restrictions on how they may be used. The remaining balance is unrestricted net position. The unrestricted net position, if they have a positive value, could be used at the Commonwealth's discretion. However, the unrestricted balance is \$(26.8) billion; therefore, funds are not available for discretionary purposes. A contributing factor to the negative balance is that liabilities are recognized on the government-wide statement of net position when the obligation is incurred. Accordingly, the Commonwealth recognizes long-term liabilities (such as general bonded debt, compensated absences, unfunded employer pension cost, and contingent liabilities) on the statement of net position.

Changes in Net Position

The revenues and expenses information was derived from the government-wide Statement of Activities and reflects how the Commonwealth's net position changed during fiscal year 2022. The Commonwealth received program revenues of \$23.2 billion and general revenues (including transfers) of \$17.9 billion for total revenues of \$41.1 billion during fiscal year 2022. Expenses for the Commonwealth during fiscal year 2022 were \$32.9 billion, the total net position of the Commonwealth increased in the amount of \$8.2 billion, net of contributions, transfers and special items.

Governmental Activities

The governmental activities resulted in an increase in the Commonwealth's net position by \$7.3 billion. An increase in Governmental activities of \$4.0 billion is a result of decreased deferred inflows of resources. An increase in Governmental activities of \$522.4 million was primarily due to an increase in Sales and Use Tax of \$367.1 million and Motor Vehicle Usage Tax Receipts of \$105.7 million. Approximately 42.7 percent of the governmental activities' total revenue came from taxes, while 49.7 percent resulted from grants and contributions (including federal aid). Overall, program revenues were not sufficient to cover program expenses for governmental activities. Therefore, the net program expenses of these governmental activities were supported by general revenues, mainly taxes.

Business-Type Activities

The business-type activities resulted in an increase the Commonwealth's net position by \$864.8 million. Program revenues generated by the operations of the State Parks and the Kentucky Horse Park were not sufficient to cover program expenses. Nonoperating revenues were needed to support expenses of these programs.

Overall Analysis

Financial highlights for the State as a whole during fiscal year ended June 30, 2022, include the following:

- The liabilities of the State's governmental activities exceed assets (net position) at the close of the fiscal year. Liabilities exceeded assets by \$1.5 billion and the State's business-type activities now have assets that exceed liabilities (net position) by \$893.9 million.
- The State's total net position increased during the year by \$8.2 billion. Net position of governmental activities increased by \$7.3 billion, and net position of business-type activities increased by \$864.8 million.
- The net position of the governmental activities continues to be negative because pension and other post employment benefit liabilities.

Financial Analysis of the Commonwealth's Individual Funds

At June 30, 2022, the Commonwealth's governmental funds reported combined ending fund balances of \$8.1 billion, a net increase of \$2.7 billion in comparison with the prior year. \$70.8 million is non-spendable and is comprised of inventories, notes receivables, cash with fiscal agents, and restricted cash that must remain intact. The \$3.5 billion is restricted for certain purposes and is not available to fund current operations. The \$4.5 billion is considered unrestricted (committed, assigned, or unassigned). When the unrestricted balance is positive it is available for spending either at the government's discretion or upon legislative approval.

General Fund

The General Fund is the primary operating fund of the Commonwealth. The fund balance at June 30, 2022, was \$4.4 billion. The balance reported reflects an increase of \$1.9 billion from the previously reported amount. The major factor for the increase in fund balance was increased tax revenue and the reduction of KTRS Pension and Other Post Employment Liabilities.

The fund balance is segregated into non-spendable and spendable amounts with the spendable amounts further segregated as restricted, committed, assigned, and unassigned. Inventory of \$7.0 million represents the non-spendable amount.

Major Special Revenue Funds

The major special revenue funds experienced normal cyclical changes in revenues and expenditures. The revenues increased by \$4.4 billion from the previous year, a change of 26.7 percent. Expenditures increased by \$4.0 billion from the previous year, a change of 25.1 percent. The Transportation Fund experienced a slight increase in revenues and an increase in expenditures, resulting in a increase in fund balance of \$37.9 million.

Proprietary Funds

The Commonwealth's proprietary funds reported net position of \$746 million, which included \$894 million in the enterprise funds and \$(148) million in the internal service funds. This is a total increase in net position of \$561.9 million from the previous year. This change in net position involved mainly from one fund, the Unemployment Compensation which had an increase of \$951.4 million for the 2022 fiscal year. This change is due to the COVID-19 pandemic and an increase in unemployment insurance benefits.

General Fund Budgetary Highlights

During the year, the official revenue forecast for the General Fund increased. General Fund revenues, for the year, were more than the final budgetary estimates by approximately \$1.0 billion. Actual expenditures for the year were approximately \$2,272 million less than the final budgeted amount.

Capital Asset and Debt Administration

Capital Assets - The Commonwealth's investment in capital assets for its governmental and business-type activities as of June 30, 2022, amounts to \$28.9 billion, with accumulated depreciation of \$1.9 billion, leaving a net book value of \$27.2 billion. This investment in capital assets includes land, improvements, buildings, equipment, and construction in

progress, infrastructure and intangibles. Infrastructure assets are normally immovable and of value only to the Commonwealth, such as roads, bridges, streets and sidewalks, drainage systems, lighting systems, and similar items.

The total increase in the Commonwealth's investment in capital assets for the current fiscal year was about 1.7 percent in terms of net book value. However, actual expenditures to purchase or construct capital assets were \$1.4 billion for the year. Most of this amount was used to construct or reconstruct roads and bridges. Depreciation charges for the year totaled \$166.4 million.

Infrastructure Assets – The Commonwealth has elected to utilize the “Modified Approach” as it relates to guidelines set forth in GASB Statement Number 34. Under this alternative method the Commonwealth expenses certain maintenance and preservation costs and does not report depreciation expense. Assets accounted for under the modified approach include nearly 64,004 lane miles of roads and approximately 9,039 bridges that the Commonwealth has responsibility for maintaining.

- There have been no significant changes in the condition level of infrastructure assets.
- The asset condition level established by the Commonwealth has approximately been met and exceeded for the past ten years.

Debt Administration - The Office of Financial Management as established in KRS 42.4201, is responsible for the oversight of the Commonwealth's debt. The Office develops a long-term debt plan including criteria for the issuance of debt and an evaluation of the total state debt to be incurred. Debt is issued through the Kentucky Asset/Liability Commission, the Kentucky School Facilities Construction Commission, the State Property and Buildings Commission, and the Turnpike Authority of Kentucky.

The Commonwealth of Kentucky's bonded debt decreased by \$489.9 million to \$5.2 billion, a 8.6 percent decrease during the current fiscal year. The major factors in this decrease is a result of the refunding of old issues by the FY2022 new issues. The remaining liability on the retired bonds plus the FY2022 principle payments on the remaining bonds outstanding were greater than the FY2022 issues for new projects. No general obligation bonds were authorized or outstanding at June 30, 2022.

During the fiscal year there were no changes in credit ratings by Moody's Investors Service, Standard & Poor's Rating Services, Fitch Ratings, Inc., or Kroll Bond Rating Agency. The current ratings on Kentucky's General Obligation debt (though none is outstanding) are Aa3 by Moody's; AA- by Fitch; A by Standard and Poor's; and AA- by Kroll. The current ratings by debt service on Kentucky's General Fund appropriation supported debt are as follows: A1 by Moody's; A+ by Fitch; A- by Standard and Poor's; and A+ by Kroll.

Additional Information About the Kentucky Economy

Growth in the General Fund has remained quite strong. General Fund revenues grew 5.9 percent in the third quarter, marking the eleventh consecutive and 23rd time in the last 24 quarters in which collections have increased. The individual income tax predictably declined due to the reduction of the tax rate from 5.0 percent to 4.5 percent. However, growth in the sales and use tax and income on investments more than offset the decline in the individual income tax.

Projected General Fund Growth for the forecasting horizon

The unofficial interim estimate of \$15,213.0 million suggests that General Fund revenues will exceed the latest enacted estimate by \$20.1 million and will exceed the budget estimates by \$1.4 billion. The FY23 enacted estimate following the 2023 Regular Session is \$15,192.9 million. The unofficial interim estimate is lower than the latest enacted estimate in the sales tax and major business taxes, and greater than the latest enacted estimate in the individual income tax, property tax, coal severance tax, and the "other" group of accounts. Looking ahead beyond FY23, estimates for the General Fund in the first half of FY24 total \$7,753.7 million, or growth of 4.3 percent. By way of comparison, the CFG estimate from December 2022 projects FY24 growth of 1.7 percent compared to FY23.

Projected Road Fund Growth for the forecasting horizon

After a weak first quarter, Road Fund revenue growth has accelerated and stands at 4.1 percent year-to-date with most of these revenue gains concentrated in motor vehicle usage tax collections and income on investments. The FY23 unofficial interim estimate for the Road Fund is \$1,749.3 million. The FY23 latest enacted estimate is \$1,721.0 million. Receipts are forecasted to increase over the next three quarters, primarily due to an increase in the motor fuels tax rate as well

as continued strong motor vehicle sales in the motor vehicle usage account. The unofficial interim forecast for FY23 is \$28.3 million more than the enacted estimate.

Projected Economic Conditions

Real GDP is forecasted to decline 0.1 percent in the fourth quarter of FY23, rounding out the fiscal year of 0.4 percent rate growth. Real GDP is expected to slip 0.2 percent in the first half of FY24, compared to the same periods one year prior. Real GDP declined by small amounts in both the second and third quarters of FY23. Real GDP is expected to fall by another 0.1 percent in the fourth quarter of FY23. Over the entire forecast horizon real GDP is expected to decrease by 0.2 percent.

Real consumption in the US grew by 1.1 percent in the third quarter of FY23 compared to the third quarter of FY22. Current economic projections indicate that real consumption will begin to fade in the outlook periods. Growth in US real consumption is projected to increase 0.8 percent in the fourth quarter of FY23, followed by 0.6 percent growth in the first half of FY24. Since real consumption is roughly 70 percent of real GDP, slower growth in real consumption has a corresponding dampening effect on real GDP.

Projected economic conditions for Kentucky indicate a modest expansion over the forecasting horizon. Employment and personal income are expected to show modest growth in the near term, with some softening in the first half of FY24. Kentucky personal income is poised to continue its positive trend of growth, increasing 4.1 percent during the final quarter of FY23, and 3.9 percent for the first half of FY24. Wages and salaries, the largest component of Kentucky personal income, is anticipated to increase by a solid 6.4 percent in the fourth quarter of FY23 and maintain a moderate pace of 5.0 percent through December 2023. If the forecasted gains materialize, wages and salaries will have increased for fourteen consecutive quarters on an adjacent-quarter basis.

Revenues, Third Quarter FY23

General Fund revenues continue to grow at a surprising rate given the strength of prior year collections and the lower individual income tax rate. Third quarter receipts grew 5.9 percent following a fiscal year in which collections rose 14.6 percent, a 31-year high. Receipts in the third quarter were \$3,412.0 million, \$191.1 million more than what was received in the third quarter of FY22. The increases in collections were almost entirely from the sales and use tax account, and “other” receipts. Combined, these accounts grew by \$220.0 million. Due to the lower income tax rate, the individual income tax was the biggest decliner bringing in \$45.9 million less than in the previous year. General Fund growth rates for the three quarters this year have 3.8, 7.6, and 5.9 percent, respectively.

Total Road Fund receipts rose 5.7 percent during the third quarter of FY23. While not as strong as the 7.3 percent increase in the second quarter, it was improvement on the 0.3 percent decline in the first quarter. Total Road Fund collections have increased 4.1 percent through the first three quarters of the year. Total receipts received in the third quarter were \$428.7 million compared to last year’s third quarter total of \$405.6 million. Motor vehicle usage and income on investments combined for an increase of \$27.7 million. Four of the seven accounts had declines in collections; however, each was relatively small and combined, they were \$5.8 million less than the third quarter of FY22.

State and National Economy, Third Quarter FY23

Real GDP declined by 0.1 percent in the third quarter of FY23 compared to the third quarter of FY22. However, on an adjacent-quarter basis, the basis used to determine turning points in the US economy and to determine recessions, real GDP has declined for two consecutive quarters in a row, falling 0.1 percent in the second quarter of FY23 and declining 0.5 percent in the third quarter of FY23. Declines in real consumption, real investment, and real exports contributed to the decline in real GDP in the third quarter. Real investment fell the most, losing 10.4 percent compared to the third quarter of FY22 and losing 2.5 percent compared to the second quarter of FY23.

Total US non-farm employment rose 1.9 percent in the third quarter of FY23. All 11 supersectors gained jobs in the third quarter. Mining employment rose by the most in percentage terms, growing 5.6 percent in the third quarter, while educational services employment increased by the most in absolute terms, gaining 900,000 jobs in the third quarter. US personal income rose by 5.6 percent in the third quarter of FY23 compared to the third quarter of FY22. This was the seventh consecutive adjacent-quarter increase in US personal income. All five contributing components of personal income rose in the third quarter. Dividends, interest, and rents income rose the most, gaining 9.7 percent over the third quarter of FY22.

Kentucky non-farm employment rose by 2.2 percent in the third quarter of FY23 over the third quarter of FY22. This is the eleventh consecutive adjacent-quarter improvement for Kentucky non-farm employment. Ten of the 11 supersectors improved in the third quarter of FY23. The biggest mover on a percentage basis is leisure and hospitality service employment, which rose 5.4 percent, or 10,400 jobs. The biggest mover in absolute terms was educational services employment, which gained 11,100 jobs, or 3.9 percent in the third quarter of FY23 compared to the third quarter of FY22. Kentucky personal income rose 4.5 percent in the third quarter of FY23 over the third quarter of FY22. Kentucky personal income has risen for seven consecutive quarters on an adjacent-quarter basis. Kentucky wages and salaries income rose by 6.7 percent in the third quarter of FY23 over the third quarter of FY22. The only declining income component was transfer receipt income, which fell 0.2 percent in the third quarter of FY23 over the third quarter of FY22.

Revenue and Economic Outlook – Third Quarter, 2023 Fiscal Year

General Fund. The Interim Outlook represents unofficial estimates prepared pursuant to KRS 48.400(2). S&P Global has placed a 55 percent probability on their "control scenario" as being the most likely economic outcome, relative to the pessimistic (25 percent) and optimistic (20 percent) scenarios. All estimates in this outlook extend from the fourth quarter of FY23 through the second quarter of FY24 (the forecasting horizon).

The latest enacted estimates are from the December 2022 meeting of the state Consensus Forecasting Group, as revised by actions from the 2023 Regular Session of the General Assembly. The unofficial interim estimate is \$1.4 billion more than the budget estimate enacted by the 2022 Regular Session for the biennial budget.

The interim estimate predicts that General Fund revenues will exceed the FY23 latest enacted estimate by \$20.1 million. When combining the first three quarters of actual receipts with the estimate for the fourth quarter, the interim forecast predicts FY23 General Fund revenue of \$15,222.0 million, or growth of 3.5 percent. The current enacted estimate for FY23 is \$15,192.9 million. Estimates for the General Fund in the first half of FY24 total \$7,753.7 million, or growth of 4.3 percent. By way of comparison, the December 2022 CFG estimate for the entirety of FY24 projects growth of 1.7 percent.

Each fiscal year, the fourth quarter of collections typically yields the highest total quarterly amount of General Fund revenues. In FY22, for instance, the fourth quarter represented 30.3 percent of total annual receipts. The fourth quarter makes up the highest percentage of annual receipts primarily because of the individual income tax and the major business taxes. Payments attached to timely-filed tax returns from the prior tax year are due in April for individuals and businesses filing on a calendar year return. Moreover, estimated payments for the current tax year are due in April and June, so two of the four estimated quarterly payments occur in the final quarter of the fiscal year.

Third quarter receipts grew 5.9 percent following a fiscal year in which collections rose 14.6 percent, a 31-year high. The increase in collections was almost entirely from the sales and use, and "other" receipts. Combined, these accounts grew by \$220.0 million. On the negative side, the individual income tax brought in \$45.9 million less than in the previous year due to the acceleration of refunds and the rate reduction from 5.0 percent to 4.5 percent which took effect in January 2023. General Fund growth rates for the three quarters this year were 3.8, 7.6, and 5.9 percent, respectively, with FY23 growth standing at 5.8 percent through the first three quarters. Counting the three quarters of growth in FY23, the General Fund has now risen in eleven consecutive quarters dating back to the beginning of FY21.

Receipts for the fourth quarter of FY23 are expected to decline 1.7 percent because the fourth quarter of FY22 was an extraordinary quarter, especially for the income and profits-based taxes. Individual income tax receipts rose an astounding 30.5 percent, while the major business taxes grew 24.9 percent. Both the individual income tax and major business taxes are expected to fall in the fourth quarter of FY23, given the high base of comparison.

Individual income receipts are projected to fall 8.9 percent in the final quarter of FY23 primarily due to the 10 percent reduction in the individual income tax rate effective January 1, 2023. On an economic basis, withholding is poised to increase as Kentucky wages and salary income is expected to rise 6.4 percent in the fourth quarter. The healthy growth in Kentucky wages and salary income is expected to carry into the first half of FY24, leading individual income tax receipts to fall just 0.9 percent despite the 10 percent reduction to the tax rate. The forecast for the fourth quarter would lead to individual income tax annual collections of \$6,029.2 million, \$198.1 million over the enacted estimate.

Sales and use tax receipts are expected to rise 11.8 percent to close out FY23. When combined with the 10.7 percent growth from the first three quarters of FY23, annual growth in the sales tax is expected to be 11.0 percent. Growth at that level would constitute a third consecutive year in which the sales tax has grown over 10 percent. Legislation enacted in 2021 added 34 new categories of services to the sales and use tax, effective January 1, 2023. Recently, the 2022 session of the General Assembly reversed the taxability of a few services, such as marketing services. The fiscal impact of

the base broadening is \$43.9 million for activity occurring between January and June of 2023. Despite the 11.0 percent estimated growth in FY23, the sales tax is expected to fall short of the enacted estimate by \$69.8 million. Double-digit growth is expected to continue in the sales tax through the first half of FY24 with an expected increase of 10.0 percent.

Business taxes (corporation income tax plus the limited liability entity tax) grew 34.4 percent in FY22 following a 38.1 percent surge in FY21. Collections of \$1,186.6 million in FY22 shattered the record set in FY21 for combined business taxes that previously dated back to the final implementation of corporate tax changes in FY06. The corporation income tax and the LLET receipts have risen 3.0 percent through the first three quarters of FY23, but the growth is expected to give way in the fourth fiscal quarter with a projected decline of 17.6 percent. The anticipated drop in major business taxes is almost solely a function of the high base of comparison from the fourth quarter of FY22. If receipts come in at the forecasted level, the major business taxes will fall short of the enacted estimate by \$161.3 million in FY23. The outlook for the first half of FY24 calls a slight decline of 1.1 percent.

Total property tax receipts have exceeded expectations with growth of 7.2 percent through the first three quarters of FY23. In a typical year, roughly 90 percent of the property tax collections for the fiscal year are already in the bank going into the final quarter. In FY22, for instance, only 10.3 percent of the annual total was remitted in the fourth quarter. This interim forecast calls for collections of \$73.8 million in the remaining months of FY23 to end the year at \$769.9 million, which is \$10.5 million greater than the enacted estimate. Growth of 3.7 percent is expected in the first half of FY24.

Lottery revenues deposited into the General Fund for FY22 were \$295.0 million, 2.0 percent higher than the \$289.1 million deposited in FY21. In FY21, an additional \$58 million in lottery dividends was received but for the first time was diverted to a separate account as required by the budget bill. In FY22, an extra \$52.3 million in lottery dividends was also diverted to the separate account. Together, over \$110.3 million of the lottery dividend has been deposited into a trust and agency account rather than deposited into the General Fund. The General Fund projection for FY23 is \$337.0 million, based on the budget bill which caps the amount of lottery fund flow to the General Fund. Given the sales and income reports from the Kentucky Lottery through March, the current expectation is that there will be another deposit into the trust and agency account that will be used for future appropriations by the General Assembly.

Cigarette tax receipts continue to be collected at the rate of \$1.10 per pack, effective July 1, 2018. Cigarette taxes were the only major account to decline in FY22, falling 7.3 percent. Other tobacco products (an account in "other" that also includes vaping products) grew by 7.8 percent and partially offset the decline in cigarette taxes. For FY23, cigarette tax collections have continued to plummet, falling 7.2 percent through the first three quarters. The forecasting horizon anticipates further declines of 4.7 percent in the final quarter of FY23 followed by a continuation of declining receipts with a 6.0 percent drop in the first half of FY24. Despite the large declines in the cigarette tax, receipts are expected to equal \$303.2 million, a sum \$0.6 million below the enacted estimate of \$303.8 million.

Coal severance tax receipts dipped by 4.7 percent in FY21 following an annual decline of 36.7 percent in FY20. Since FY21, however, coal severance revenues have seen a resurgence with growth of 26.0 percent in FY22. Increasing receipts have continued into FY23, with year-to-date growth of 50.2 percent. The forecast calls for strong growth over the forecasting horizon with receipts rising 45.8 percent in the fourth quarter of FY23 and 42.6 percent in the first half of FY24. If receipts track with expectations in the fourth quarter, FY23 collections will exceed the enacted forecast by \$16.3 million. Coal severance taxes in Kentucky are benefiting from the rise in energy prices worldwide, including the global prices of coal, natural gas, and oil.

The "other" category contains 59 smaller accounts which make up the remainder of the General Fund. Insurance premiums tax, alcohol taxes, telecommunication taxes, inheritance taxes, and abandoned property receipts are the five largest ongoing accounts in the "other" category forecast. The "other" accounts totaled \$991.5 million in FY22. Other revenues declined by 8.7 percent through the first three quarters of FY23 due to the high base from FY22. A \$225 million one-time legal settlement was posted in September 2021 as a miscellaneous receipt in the "other" category. Most accounts in the "other" category have experienced solid growth in the first three quarters of FY23, but the collective strength in other tax receipts was masked by the magnitude of the FY22 settlement. Each account was recalibrated based on year-to-date performance. The single largest growing account contributing to FY23 receipts is income on investments. In FY22, income on investments was only \$0.6 million for the entire year. The amount has grown exponentially to a level of \$88.1 through the first nine months of FY23. The dramatic increase on the income on investments stems from prior year surpluses that were deposited into the State's "Rainy Day Fund". That fund is invested in a short-term pool. Given recent movements in interest rates, especially short rates, the Commonwealth's income from investments is much higher income than in prior years. Due in large part to the income from investments, the "other" accounts are expected to total \$937.6 million in FY23, exceeding the enacted estimate by \$27.0 million

Road Fund. After a weak first quarter where receipts fell 0.3 percent, Road Fund revenue growth has accelerated and stands at 4.1 percent year-to-date, more than twice the rate of growth experienced in FY22. Receipts are forecasted to increase at an even faster rate over the next three quarters, primarily due to an increase in the motor fuels tax rate as well as continued strong motor vehicle sales. After the first quarter decline, revenues grew at 7.3 percent and 5.7 percent in the next two quarters. The majority of the revenue gains in the first nine months of FY23 are concentrated in motor vehicle usage tax collections and income on investments. Together, they account for an additional \$40.7 million in receipts. Fourth quarter Road Fund revenues should grow at a slightly faster pace (5.2 percent) before increasing to 8.7 percent in the first half of FY24. The FY23 unofficial interim forecast is \$28.3 million more than the enacted budget forecast that followed the 2022 Regular Session of the General Assembly.

Motor fuels tax collections have been tepid throughout the current year but are forecasted to improve over the final three months and into FY24. Revenue growth has been limited this year due to an emergency regulation filed by Governor Beshear to freeze the gasoline and special fuels tax rates due to inflation and surging gas prices. The gasoline and special fuels taxes have increased two cents per gallon, effective March 1, due to the expiration of the emergency regulation. Additionally, in FY24, the tax rates are forecasted to increase an additional two cents per gallon, to 30 cents per gallon of gasoline. Year-to-date collections are 1.0 percent higher than FY22 but are expected to grow 5.0 percent in the final quarter of the year and increase 11.8 percent over the first half of FY24.

Motor vehicle usage tax collections have been stronger than expected this year with revenues increasing 5.9 percent year-to-date. The forecast calls for an identical rate of growth in the final quarter of the year and then increasing slightly to a rate of 6.3 percent over the first two quarters of FY24.

To estimate the growth of all other components of the Road Fund, officials of the Kentucky Transportation Cabinet and staff of the Governor's Office for Economic Analysis together assessed recent growth patterns as well as administrative and statutory factors.

Motor vehicle license taxes are forecasted to decline 3.7 percent in the final quarter of FY23 but increase 2.7 percent in the first two quarters of FY24. Motor vehicle operators' licenses are projected to decline 2.4 percent for the remainder of the fiscal year and grow 3.0 percent over the first six months of FY24. Weight distance tax revenue is forecast to increase 1.0 percent in the final quarter of the fiscal year but decrease 0.6 percent in the first half of FY24. Investment income receipts were \$4.5 million over the first nine months of the fiscal year and receipts are expected to be positive with revenues of \$2.8 million in the fourth quarter and \$3.0 million through the first half of FY24. All other revenues have declined 3.6 percent during the first three quarters of the current fiscal. However, receipts in this revenue category are expected to increase over the next three months before growing 5.7 percent in the first half of FY24.

National Economic Outlook – Third Quarter, 2023 Fiscal Year

The forecast of the national economy used in this quarterly report is the S&P Global control scenario for March 2023. After a tepid first quarter of real GDP of 1.8 percent growth in FY23, the second and third quarters of FY23 were either flat or declining. Continued high inflation rates indicate that downside risks to the economy remain elevated over the forecast horizon. Uncertainty remains high regarding both the pace of economic growth and the speed of disinflation over the near term. In addition, a slower than anticipated rise in unemployment suggests more inflation pressure from tight labor markets are expected.

Real GDP is forecasted to decline 0.1 percent in the fourth quarter of FY23, rounding out the fiscal year of 0.4 percent rate growth. Real GDP is expected to slip 0.2 percent in the first half of FY24, compared to the same periods one year prior. Real GDP declined by small amounts in both the second and third quarters of FY23. Real GDP is expected to fall by another 0.1 percent in the fourth quarter of FY23. Over the entire forecast horizon real GDP is expected to decrease by 0.2 percent.

Real consumption grew by 1.1 percent in the third quarter of FY23 compared to the third quarter of FY22. Current economic data indicates that real consumption will begin to fade in the outlook periods. Growth in real consumption is projected to increase 0.8 percent in the fourth quarter of FY23, followed by 0.6 percent in the first half of FY24. Since real consumption is roughly 70 percent of real GDP, slower growth in real consumption has a corresponding dampening effect on real GDP.

Real investment is expected to decline sharply over the three-quarter forecast horizon, falling 8.9 percent in the final three months of FY23, followed by a further decline of 5.0 percent in the first six months of FY24. Weaker expectations for real consumption have a dampening effect on real investment. Since current sales help form the expectations for future sales, businesses pare down expansions to productive capacity when current consumption wanes

due to falling demand. The lower internal rate of return on business planned investment, paired with the recent jump in borrowing costs and the tightening of bank lending standards, have combined to soften expected growth of real investment spending.

Real exports are poised to grow the most in percentage terms, increasing 2.6 percent in the fourth quarter of FY23, compared to the same period one year prior. Real exports are projected to rise 6.3 percent in the full year of FY23. Real exports are projected to flatten in the first half of FY24. Despite showing positive growth in the first half of FY23, real exports in the third quarter of FY23 are still just \$10.4 billion higher than pre-recession levels. Real exports have been above pre-recession levels since the first quarter of FY23. Real imports, a deduction from real GDP, are expected to drop 2.1 percent in the final quarter of FY23 but still end the fiscal year with 1.7 percent growth. Real imports are expected to edge up 0.1 percent in the first half of FY24 as real consumption weakens in the broader economy.

The housing starts forecast is essentially unchanged from the previous quarterly economic report published in January. US housing starts are expected to plummet 27.6 percent during the final quarter of FY23 and decline 17.5 percent in the first half of FY24. Mortgage rates surged in 2022. Further increases in inflation caused longterm yields to rise, which caused mortgage rates to rise yet again. As the Fed stiffens its monetary policy, mortgage rates are expected to stay elevated or slightly rise over the outlook periods. Weakness in the banking sector, coupled with increasingly high underwriting standards, have also served to dampen demand for housing starts.

The US unemployment rate remains historically low. US total non-farm employment is projected to edge up 0.5 percent, an increase of 800,000 jobs by June of 2023. The outlook forecast calls for a 1.2 percent drop in total non-farm employment in the first and second quarters of FY24, compared to the same periods one year prior. The anticipated slack in the jobs market accounts for the loss of 1.9 million US non-farm employment positions in the first half of FY24.

The forecast for personal income shows a 4.9 percent increase in the fourth quarter of FY23 and 4.1 percent increase in the first half of FY24. Wages and salaries continue to underpin personal income growth with a 4.6 percent projected increase in the fourth quarter of FY23, followed by 2.9 percent in the first half of FY24. The wages and salaries component of US personal income represents 51 percent of the total. In percentage terms, dividends, interest, and rents is anticipated to post the highest growth in the fourth quarter of FY23, gaining 9.3 percent and 8.8 percent in the first and second quarters of FY24. The dividends, interest, and rents comprises approximately 20 percent of the total.

Kentucky Economy Outlook – Third Quarter, 2023 Fiscal Year

Projected economic conditions for Kentucky point to a modest expansion over the three-quarter forecasting horizon. Both the employment forecast and the projections for personal income point higher in the near term, with a slight softening of growth rates for the first half of FY24.

Kentucky personal income is poised to continue its positive trend of growth, increasing 4.1 percent during the final quarter of FY23, and 3.9 percent for the first half of FY24. Wages and salaries, the largest component of Kentucky personal income, is anticipated to increase by a solid 6.4 percent in the fourth quarter of FY23 and maintain a moderate pace of 5.0 percent through December 2023, which ends the second quarter of FY24. Achieving the forecasted gains would mark the fourteenth consecutive increase in adjacent-quarter wages and salaries.

The strong growth of Kentucky wages and salaries continues to underpin the withholding component of the individual income tax and sales and use tax receipts. General Fund revenues grew \$191.1 million during the third quarter of FY23. Despite the 10 percent reduction to the rate of income tax withholding that began on January 1, withholding only fell 1.0 percent. Sales and use tax receipts grew by 11.2 percent during the quarter, as the combination of higher wages and salaries and the lower individual income tax rate spurred taxable consumption.

In the attempt to slow the economy and rein in inflation, the Federal Reserve has aggressively raised interest rates. In March 2023 the Federal Reserve raised the fed funds rate by 25 basis points from 4.75 percent to 5 percent, matching the February increase, while pushing borrowing costs to new highs since 2007. As inflation continues to weigh heavily on the economy, certain employment sectors are expected to become strained during the forecasting horizon.

Kentucky's total non-farm employment is projected to edge up 37,000 jobs by June of 2023 from FY22 fourth quarter levels and then fall 3,100 jobs in the first and second quarters of FY24. Employment is expected to increase for nine of Kentucky's 11 major nonfarm North American Industry Classification System (NAICS) job supersectors in the fourth quarter of FY23. The employment landscape indicates a slight reversal in the first and second quarters of FY24, as total non-farm employment is expected to increase for only five of Kentucky's 11 major nonfarm NAICS job sectors.

The goods-producing sectors are expected to decrease by 0.1 percent in the fourth quarter of FY23 and by 1.7 percent in the first half of FY24, with the most pronounced job loss forecasted in manufacturing employment. Employment in Kentucky's manufacturing sector is expected to drop by approximately 500 jobs, or 0.2 percent in the final quarter of FY23, compared to the same period one year prior. Entering the two quarters of FY24, manufacturing employment is anticipated to decline 1.7 percent, a loss of 4,400 jobs, compared to the first and second quarters of FY23. Employment is expected to remain relatively unchanged in the final quarter of FY23 for both the construction and mining job sectors in Kentucky, increasing 0.3 percent and 0.5 percent, respectively. A decline of 1.5 percent, or a loss of 1,200 construction jobs is forecasted in the first and second quarters of FY24, compared to one year ago. Likewise, mining employment is expected to decline 2.1 percent, accounting for a loss of 200 jobs.

In contrast to the goods-producing sectors, the service-providing employment sectors are expected to increase by 2.4 percent in the fourth quarter of FY23 and by 0.9 percent in the first half of FY24. In percentage and nominal terms, the leisure and hospitality employment sector is anticipated to incur the quickest growth in the fourth quarter of FY23, gaining 7.0 percent or 13,500 jobs. Further recovery is anticipated in the leisure and hospitality employment sector spanning the first two quarters of FY24, growing an additional 4.3 percent.

The outlook estimates represent a noteworthy increase for government employment in Kentucky. Government employment is forecasted to grow by 5,900 jobs, or 2.0 percent in the final quarter of FY23. Entering the first half of FY24, the government sector is poised to gain an additional 7,100 jobs, or 2.4 percent, compared to the first and second quarters of FY23. Government employment includes federal, state, and local government employees employed within the physical boundary of Kentucky.

Revenue Receipts – Third Quarter, 2023 Fiscal Year

General Fund. General Fund revenues for FY23 continue to grow at a surprising rate given the strength of FY22 collections as well as legislation which lowered individual income tax rates beginning January 1, 2023. Third quarter receipts grew 5.9 percent following a year in which collections rose 14.6 percent, a 31-year high. Receipts in the quarter were \$3,412.0 million, \$191.1 million more than what was received in the third quarter of FY22. The increases in collections were almost entirely from the sales and use, and "other" receipts. Combined, these accounts grew by \$220.0 million. On the negative side, the individual income tax brought in \$45.9 million less than in the previous year. Growth rates for the three quarters this year have been 3.8, 7.6, and 5.9 percent, respectively.

As expected, the individual income tax brought in less revenue than in the same period last year. Revenues fell 3.3 percent in the third quarter with receipts of \$1,341.5 million, largely due to the earlier refunds and to legislation which lowered the tax rate from 5 percent to 4.5 percent. All four components of the tax experienced declines in the quarter as net returns and withholding collections fell a combined \$40.5 million. Fiduciary collections were \$4.3 million less than what was received in FY22 while declaration payments were \$1.1 million less.

Sales and use tax receipts continued to be strong, growing 11.2 percent in the third quarter and standing at 10.7 percent year-to-date. Revenues in this account were aided by the addition of 34 new categories of services added to the list of taxable services. Collections were \$1,343.2 million which exceeded prior year totals by \$135.3 million. Quarterly growth rates for the tax have been 12.8, 8.2, and 11.2 percent, respectively for this year.

Combined corporation income and LLET tax receipts have fallen in the past two quarters after strong growth in the first quarter. Through nine months in FY23 revenues have increased 3.0 percent. Receipts in the third quarter were essentially flat with collections of \$101.5 million which were \$55,000 less than in the prior year. Growth rates for the three quarters have been 16.0, -9.2, and -0.1 percent, respectively.

Property tax collections rose 5.3 percent, or \$9.0 million, in the just completed quarter while year-to-date receipts have increased 7.2 percent. Real, motor vehicle, and omitted and delinquent property receipts accounted for most of the growth in the quarter, increasing a combined \$23.5 million. This offset a decline of \$12.3 million in public service collections. Growth rates for the three quarters this year have been 7.8, 7.9, and 5.3 percent, respectively.

Lottery receipts increased by 8.4 percent in the third quarter. Thus far in FY23, lottery dividend payments total \$247.3 million, which is up 7.4 percent compared to FY22.

Cigarette tax receipts fell 8.9 percent to \$68.0 million in the third quarter of FY23. Quarterly growth rates for this account have been -3.4, -9.5, and -8.9 percent, respectively.

Coal severance tax receipts continue to be strong. Revenues grew 26.0 percent in FY22 and are up 50.2 percent through the first nine months of FY23. Revenues totaled \$27.2 million for the quarter, an increase of 43.7 percent. Growth rates for the three quarters this year have ranged between 41.0 percent to 72.2 percent.

The “other” category, which is composed of many smaller tax accounts, rose 46.4 percent, or \$84.7 million for the quarter. Third quarter receipts were \$267.3 million. Most of the growth in the “other” category came from income on investments, which was \$51.7 million more than received last year. Additionally, miscellaneous revenues were \$19.0 million more than in the prior year.

Individual income tax and sales and use taxes made up 78 percent of General Fund tax receipts. The “other” category made up eight percent of receipts in the third quarter. The next largest source of revenue is the property tax, which made up five percent of total receipts. Major business taxes and lottery dividends each made up three percent of the General Fund receipts. Cigarette taxes were two percent and the coal severance tax made up one percent of total receipts.

Road Fund. Total Road Fund receipts rose 5.7 percent during the third quarter of FY23, slightly below the 7.3 percent increase in the second quarter. The rate of growth in this account has rebounded nicely following a lackluster 0.3 percent decline in the first quarter. Total receipts received in the third quarter were \$428.7 million compared to last year’s third quarter total of \$405.6 million. Four of the seven accounts had declines in collections; however, each was relatively small and combined, they were \$5.8 million less than the third quarter of FY22. On the positive side, motor vehicle usage and income on investments combined for an increase of \$27.7 million. Year-to-date Road Fund collections have grown 4.1 percent.

The FY23 enacted Road Fund revenue estimate calls for a 2.7 percent increase in revenue for the year. Based on year-to-date tax collections, revenues can decline 1.1 percent in the final quarter of the fiscal year and still meet the revenue estimate.

For the quarter, motor fuels tax receipts declined 0.6 percent, or \$1.1 million, to \$179.7 million. Collections have declined less than one percent in the first and third quarters with growth of 4.3 percent in the second quarter. Growth in collections has been limited through the first three quarters as the tax rate was unchanged from FY22 due to the promulgation of an emergency regulation freezing the rate. Year-to-date collections in this account have increased 1.0 percent.

Motor vehicle usage tax receipts have been surprisingly strong, with the rate of growth increasing in each of the first three quarters. Revenues were \$169.1 million for the quarter, an increase of \$15.3 million over FY22 levels. Collections increased 10.0 percent for the quarter after growing 2.2 percent and 5.7 percent, respectively in the first two quarters.

Motor vehicle license tax receipts have increased in each quarter of FY23, growing \$1.1 million, or 3.4 percent, in the third quarter. The early-year declines were due to inflated FY22 receipts which was due to timing issues in the collections of the revenue. Year-to-date revenues in this account have grown 5.5 percent.

Motor vehicle operator’s tax receipts were \$7.0 million in the third quarter, a \$1.7 million decrease compared to collections a year ago. Receipts have increased 3.8 percent for the year.

Weight distance tax receipts have weakened in each of the first three quarters of FY23. Collections grew in the first two quarters relative to prior year totals but declined in the third quarter. Revenues for the quarter were \$500,000 less than last year. Growth rates for the three quarters were 2.8, 0.7, and -2.3 percent, respectively – with annual growth through that period now standing at 0.4 percent.

Much like the General Fund, another source of Road Fund revenue that made a large contribution to third quarter growth was income on investments. In the third quarter of FY22, income on investments for the Road Fund was negative \$7.6 million. The third quarter of FY23 saw revenues of positive \$4.8 million, a swing of \$12.4 million.

The remainder of the accounts in the Road Fund are grouped in the “other” category and consist primarily of fines, fees and miscellaneous receipts. These funds combined to total \$12.3 million, \$2.5 million less than FY22 levels.

The motor fuels tax and the motor vehicle usage tax are by far the largest components of the Road Fund. Together, they combined for \$348.8 million of the \$428.7 million collected. The next largest source of revenue was motor vehicle licenses at \$34.2 million, followed by weight distance taxes with \$21.5 million. The “other” category accounted for \$12.3 million, while motor vehicle operators accounted for \$7.0 million and income on investments was \$4.8 million.

National Economy – Third Quarter, 2023 Fiscal Year

Real gross domestic product (real GDP) declined by 0.1 percent in the third quarter of FY23 compared to the third quarter in FY22. Real GDP declined by 0.5 percent in the third quarter of FY23 compared to the second quarter of FY23. This represents a small deepening of the losses in the second quarter. Real GDP declined by 0.03 percent in the second quarter of FY23 compared to the second quarter of FY22. Real GDP declined by 0.1 percent in the second quarter of FY23 compared to the first quarter of FY23. Third quarter growth is an S&P Global estimate. Official real GDP for the third quarter will not be available until April 27, 2023. If the S&P Global estimate becomes reality, then that will be two consecutive quarters of real GDP declines, which is the official Bureau of Economic Analysis (BEA) and the National Bureau of Economic Research (NBER) definition of a recession. Real GDP declined by 0.4 percent in the third quarter of FY22 and by 0.1 percent in the fourth quarter of FY22. These two adjacent-quarter declines in real GDP still have not been declared as a recession by NBER, as of March 27, 2023. If the S&P Global forecast becomes reality, that will be four declines during the last five consecutive quarters. It is not clear if NBER is waiting for the end of this string of declines before pulling the trigger and calling it an official recession. The last seven adjacent-quarter growth rates for real GDP are: 0.7, 1.7, -0.4, -0.1, 0.6, -0.1, and -0.5 percent, respectively.

Real consumption grew by 1.1 percent in the third quarter of FY23 compared to the third quarter of FY22. Real consumption declined by 0.1 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the first time that real consumption has declined since the fourth quarter of FY20. The loss to real GDP in the third quarter of FY23 compared to second quarter was -\$99.1 billion. Real consumption declined by \$15.4 billion in the third quarter of FY23 compared to the second quarter. This represents roughly one-sixth of the total decline in real GDP for the third quarter. Real consumption made up 71.3 percent of real GDP in the third quarter of FY23.

Real investment fell 10.4 percent in the third quarter of FY23 over the third quarter of FY22. Real investment has dropped 2.5 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the fourth consecutive decline of real investment on a quarter-to-quarter basis. The last five adjacent-quarter growth rates for real investment are: 1.3, -3.7, -2.2, -2.4, and -2.5 percent, respectively. Real investment in the third quarter of FY23 has dropped a net \$403.8 billion compared to third quarter of FY22. Real investment was by far the largest contributor to the third quarter decline of real GDP. Real investment made up 17.5 percent of real GDP in the third quarter of FY23.

Real government expenditures rose by 1.3 percent in the third quarter of FY23 over the third quarter of FY22. Real government expenditures rose by 0.8 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the third consecutive quarter that real government expenditures have increased. The last four consecutive adjacent-quarter real government expenditures growth rates are: -0.4, 0.6, 0.3, and 0.8 percent, respectively. The National Bureau of Economic Analysis, the official arbiter of turning points in the US economy, has stated that the US economy reached a trough in April of 2020 and is still currently in an expansion period. During the 11 quarters since that trough, real government expenditures have declined seven times and increased four times. This is further evidence that real government expenditures have become an acyclical series. Real government expenditures made up 17.3 percent of real GDP in the third quarter of FY23.

Total outlays rose by 3.4 percent in the third quarter of FY23 over the third quarter of FY22. It is hard to get a good read on how high outlays are historically-speaking. It is a monotonically increasing series, so it rises over time. Part of that upward drift is because it is a nominal series. That is, it is not adjusted for inflation. Just prior to the recession, total US outlays were hovering just above \$4.8 trillion. Then suddenly US outlays jumped to \$8.9 trillion in the fourth quarter of FY20 following the massive increases in Federal Transfer Payments to Resident Persons, Grants-in-Aid to State and Local Governments, and Subsidies. In one quarter, total US outlays increased by 82.5 percent. In the following two quarters, outlays declined some. However, total US outlays still have not gone back down to pre-recession levels. Currently, outlays are still 25.0 percent above pre-recession levels. It would have taken 5.75 years for outlays to reach that level at the pre-recession rate of growth. So clearly, outlays are still well above their trend from the period prior to the recession. Outlays are not just up from a year ago, but also increased relative to the previous quarter. Outlays rose 1.4 percent in the third quarter of FY23 compared to the second quarter of FY23.

Five of the eight major outlays increased in the third quarter of FY23. Total outlays rose \$201.9 billion in the third quarter of FY23. The largest contributing outlay was Interest on the Debt, which grew \$180.7 billion, or 30.0 percent, in the third quarter of FY23 compared to the third quarter of FY22. The second largest contributing outlay was Social Security, which grew \$144.1 billion, or 12.0 percent, in the third quarter of FY23 compared to the third quarter of FY22. There were several declining outlays in the third quarter as well. The largest declining outlay was Medicaid, which declined \$36.8 billion, or 6.2 percent, from the third quarter of FY22 to the third quarter of FY23. Social Security made up 22.0 percent of total US outlays in the third quarter of FY23. Medicaid made up 9.1 percent of total US outlays, while Interest on the Debt made up 12.9 percent of total US outlays in the third quarter of FY23.

Real exports grew by 6.0 percent in the third quarter of FY23 over the third quarter of FY22. However, most of that growth occurred three and four quarters ago. Real exports fell 0.8 percent in the third quarter of FY23 compared to the second quarter of FY23. The last seven quarters of adjacent-quarter real export growth are: -0.3, 5.4, -1.2, 3.3, 3.4, -0.1, and -0.8 percent, respectively. Real export growth has been turbulent over the last three years with a slight U-shaped growth pattern during that time. In fact, real exports in the third quarter of FY23 are \$10.4 billion lower than pre-recession levels. Real exports made up 13.0 percent of real GDP in the third quarter of FY23.

Real imports declined by 1.0 percent in the third quarter of FY23 over the third quarter of FY22. Real imports are down compared to a year ago but improved slightly compared to the second quarter. Real imports rose 0.3 percent in the third quarter compared to the second quarter of FY23. This is a continuation of the upward trend in real imports since the end of the 2019 recession. The last seven adjacent-quarter growth rates for real imports are: 1.6, 4.4, 4.3, 0.6, -1.8, -0.1, and 0.3 percent, respectively. Real imports are up a net \$480.0 billion compared to pre-recession levels. Real imports, which is a deduction from the real GDP identity, made up 19.5 percent of real GDP in the third quarter of FY23.

Total non-farm employment rose 1.9 percent in the third quarter of FY23 compared to the third quarter of FY22. On an adjacent-quarter basis, non-farm employment declined by 0.1 percent in the third quarter of FY23 compared to the second quarter of FY23. This is the first adjacent-quarter decline following 10 consecutive quarters of growth for non-farm employment. The last seven adjacent-quarter growth rates are: 1.2, 1.2, 1.2, 0.8, 0.8, 0.4, and -0.1 percent, respectively.

All 11 supersectors grew in the third quarter of FY23 compared to the third quarter of FY22. Mining employment rose by the most in percentage terms, growing 5.6 percent in the third quarter of FY23 over the third quarter of FY22. US Mining employment is the smallest of the 11 supersectors, making up just 0.4 percent of total US non-farm employment. Educational services employment grew by the most in absolute terms, gaining 900,000 jobs in the third quarter of FY23 compared to the third quarter of FY22. This is the eleventh consecutive adjacent-quarter increase for educational services employment. The last seven adjacent-quarter growth rates are: 0.5, 0.6, 0.8, 0.9, 1.2, 0.9, and 0.8 percent, respectively. Educational services employment made up 16.3 percent of total US non-farm employment in the third quarter of FY23.

US personal income rose by 5.6 percent in the third quarter of FY23 compared to the third quarter of FY22. This was the seventh consecutive adjacent-quarter increase for US personal income. The last seven adjacent-quarter growth rates for US personal income are: 0.4, 0.7, 0.7, 1.4, 1.3, 1.7, and 1.0 percent, respectively. All five contributing components of personal income rose in the third quarter of FY23 compared to the third quarter of FY22.

The biggest mover in the third quarter of FY23 was dividends, interest and rents income, which rose by 9.7 percent in the third quarter of FY23 over the third quarter of FY22. This was the tenth consecutive quarter of growth for dividends, interest, and rents income on an adjacent-quarter basis. The last seven adjacent-quarter growth rates are: 0.9, 1.3, 0.4, 2.1, 1.7, 2.7, and 2.9 percent, respectively. Dividends, interest, and rents income made up 19.6 percent of total personal income in the third quarter of FY23.

Kentucky Economy – Third Quarter, 2023 Fiscal Year

Kentucky non-farm employment rose by 2.2 percent in the third quarter of FY23 over the third quarter of FY22. This is the eleventh consecutive adjacent-quarter increase for Kentucky non-farm employment. The last seven adjacent-quarter growth rates are: 0.8, 1.2, 0.8, 0.4, 0.9, 0.3, and 0.6 percent, respectively. Ten of the 11 supersectors increased in the third quarter of FY23 compared to the third quarter of FY22.

The biggest mover on a percentage basis is leisure and hospitality services employment, which rose 5.4 percent, or 10,400 jobs, in the third quarter of FY23 over the third quarter of FY22. This is just the third consecutive quarter of adjacent-quarter growth for leisure and hospitality services employment. The last seven quarters of adjacent-quarter growth are: 4.3, 2.4, 2.1, -0.4, 2.2, 0.4, and 3.2 percent, respectively. Leisure and hospitality services employment made up 10.3 percent of total Kentucky non-farm employment in the third quarter of FY23.

Kentucky educational services employment grew the most in absolute terms, gaining 11,100 jobs, or 3.9 percent, in the third quarter of FY23 compared to the third quarter of FY22. This is the sixth consecutive adjacent-quarter increase for Kentucky educational services employment. The last seven adjacent-quarter growth rates are: -0.05, 0.2, 0.3, 0.6, 1.4, 0.5, and 1.4 percent, respectively. Kentucky educational services employment, the third largest supersector in Kentucky, made up 14.9 percent of total Kentucky non-farm employment in the third quarter of FY23.

The only supersector to lose jobs in the third quarter of FY23 compared to the third quarter of FY22 was the trade, transportation, and utilities services employment sector. Trade, transportation, and utilities services employment also fell compared to the second quarter of FY23, dropping 1.4 percent, or 6,000 jobs. The last seven adjacent-quarter growth rates are: 0.8, 2.0, 0.7, -0.2, 0.5, 0.9, and -1.4 percent, respectively. Trade, transportation, and utilities services employment, the largest of the 11 supersectors in Kentucky, made up 21.3 percent of total Kentucky non-farm employment in the third quarter of FY23.

Kentucky personal income rose by 4.5 percent in the third quarter of FY23 over the third quarter of FY22. This is the seventh consecutive quarter of adjacent-quarter growth for Kentucky personal income. The last seven adjacent-quarter growth rates are: 1.2, 0.6, 0.9, 0.8, 0.4, 2.5, and 0.8 percent, respectively. Four of the five contributing components of personal income rose in the third quarter of FY23 compared to the third quarter of FY22.

Kentucky wages and salaries income rose by the most in absolute and percentage terms in the third quarter of FY23 compared to the third quarter of FY22. Kentucky wages and salaries income rose 6.7 percent, or 7,400 net jobs, in the third quarter of FY23 over the third quarter of FY22. Kentucky wages and salaries income has risen for the last 11 consecutive adjacent quarters. The last seven adjacent-quarter growth rates are: 2.6, 2.8, 2.4, 1.1, 1.4, 2.5, and 1.5 percent, respectively. Kentucky wages and salaries income made up 49.2 percent of total Kentucky personal income in the third quarter of FY23.

Kentucky transfer receipts income declined by 0.2 percent in the third quarter of FY23. Kentucky transfer receipts income has contracted in nine of the last 11 quarters. The last seven adjacent-quarter growth rates are: -0.4, -2.4, -1.7, -1.0, -2.0, 3.7, and -0.7 percent, respectively. Kentucky transfer receipts income made up 25.6 percent of total Kentucky personal income in the third quarter of FY23.

State Retirement Systems

Following is information about the Commonwealth's retirement system, including pension plans and other post-employment benefits. Capitalized terms used under this heading and not otherwise defined shall have the respective meanings given by the ACFRs, as herein defined.

Retirement Plans. Effective April 1, 2021, eligible state and local government employees may participate in one of two provided multi-employer benefit plans: (i) the Kentucky Public Pensions Authority ("KPPA"), or (ii) the Teachers' Retirement System of Kentucky ("TRS"). The Kentucky Retirement Systems, through its board, oversees three of the five plans supported by the KPPA: (i) Kentucky Employees Retirement System ("KERS") Non-Hazardous, (ii) KERS Hazardous and (iii) the State Police Retirement System ("SPRS"). The County Employees Retirement System has its own governance board, separate from the Kentucky Retirement Systems, and oversees the County Employees Retirement System ("CERS") Non-Hazardous, and CERS Hazardous, which are the fourth and fifth of five systems that the KPPA supports. The KPPA is an administrative entity that performs daily system activities, which include administrative support, investment management, benefits counseling, accounting and payroll functions and legal services for all five plans. The KPPA is governed by a third board, which is composed of members of the boards of each of the Kentucky Retirement Systems and CERS. Each retirement plan is state supported, except for the CERS plans, which have been excluded from the Kentucky Retirement Systems information provided herein. The Kentucky Retirement Systems and TRS (collectively, the "Retirement Plans") provide both retirement and Other Post-Employment Benefits ("OPEB") to state employees and teachers based upon their age, hire date, years of service and retirement date. Most retirement benefits are subject to a statutory inviolable contract under which the benefits shall not, with limited exceptions, be reduced or impaired by alteration, amendment or repeal. KERS Non-Hazardous eligible employees hired January 1, 2014 and thereafter, are no longer party to the inviolable contract and the General Assembly can amend, suspend or reduce benefits with future legislation. The Kentucky Public Employees' Deferred Compensation Authority (the "KDC") additionally provides administration of tax-deferred supplemental retirement plans for all state, public school and university employees, and employees of local political subdivisions that have elected to participate. The available deferred compensation plans include a 457(b) Plan and a 401(k) Plan. The Retirement Plans and KDC are component units of the Commonwealth for financial reporting purposes and are included in The Kentucky Annual Comprehensive Financial Report.

Pension Funding. Since 2017, the Commonwealth's enacted budgets have included the full projected Actuarially Determined Employer Contribution ("ADEC") and the 2022-2024 budget includes \$1.2 billion of funds to make supplemental pension contributions above the projected ADEC to various public pension plans. Certain "Quasi" government agencies which participate in the KERS non-hazardous system were permitted to retain the FY 2018 contribution rate of 49.47 percent for fiscal years 2019 through 2021. Based upon the assumptions employed in the Retirement Plans' June 30, 2021 actuarial valuation reports used in preparing the associated Retirement Plans' 2021 ACFRs, the Kentucky Retirement Systems had a state supported pension Unfunded Actuarial Accrued Liability (the "UAAL") of \$14,828 million. TRS had a

pension UAAL of \$16,957 million calculated with the assumptions adopted in September 2021. Unlike Fiscal Year 2017, TRS was not required to report the pension liability in accordance with GASB 67. The state supported portion of the Retirement Plans for the Fiscal Year ended June 30, 2021 had funding percentages of 20.58 percent for the Kentucky Retirement Systems and 57.16 percent for TRS. These funding percentages compare to 17.82 and 58.45 percent respectively for the Fiscal Year ended June 30, 2020. In FY 2000 funding ratios were greater than 100 percent and decreased over a number of years due to a variety of factors including, changes to the discount rate, lower than projected investment returns and other variances from actuarial assumptions. The Kentucky Retirement Systems' state supported ADEC for pension benefits for the Fiscal Year ended June 30, 2021 was \$1,177.6 million; \$1,256.1 million was contributed. The TRS state supported pension ADEC for the Fiscal Year ended June 30, 2021 was \$1,146.9 million; \$1,146.9 million was contributed.

Other Post-Employment Benefits. The Commonwealth's ACFR for the fiscal year ended 6/30/2017 represents Governmental Accounting Standards Board (GASB) Statement 45 ("Accounting and Financial Reporting by Employers for Post-employment Benefits other than Pensions"). The Commonwealth adopted GASB Statement 75 ("Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions") for ACFR reporting for the fiscal year ending 6/30/2018 and after.

The Commonwealth is obligated to provide healthcare benefits to certain retired state employees and teachers. The Retirement Plans administer two multi-employer defined benefit healthcare plans (collectively, the "Health Plans") for which the Commonwealth pays a portion of the cost of the benefits of the retired employees. As of January 1, 2006, the Commonwealth commenced self-funding of healthcare benefits for state employees. The Kentucky Retirement Systems also adopted, on January 1, 2006, a self-funding health care plan for Medicare Eligible Retirees. TRS became self-insured for post-retirement healthcare costs for Medicare Eligible Retirees on July 1, 1991. Beginning January 1, 1997, TRS offered non-Medicare Eligible Retirees insurance through the state health insurance program, which has since become self-insured. Beginning January 1, 2007, TRS offered its Medicare Eligible Retirees an insured Medicare Advantage Plan and, beginning July 1, 2010, offered this group an insured Employer Group Waiver Drug Plan. The TRS Board requires retirees not eligible for Medicare to pay the equivalent for the Medicare Part B program towards their cost of health coverage.

The Retirement Plans commission actuarial studies, which provide results for consideration, under certain actuarial funding methods and sets of assumptions. A five-year experience study covering the period from July 1, 2013 to June 30, 2018 for the Kentucky Retirement Systems, was dated April of 2019. Similarly, a five-year experience study covering the period from July 1, 2015 to June 30, 2020 for the TRS Board was dated September 28, 2021. In addition to the experience studies, annual actuarial reports are performed on both retirement systems. Pursuant to their respective actuarial studies, the OPEB UAAL as of June 30, 2021 was estimated at \$1,181.2 million for the Kentucky Retirement Systems and \$1,405.2 million for TRS. These estimates represent the present value of the amount of healthcare benefits under the respective Health Plans, payable over future periods and allocated by the actuarial cost method, as of June 30, 2021. The actuarial estimates for the Kentucky Retirement Systems' OPEB liabilities decreased from the \$1,426.7 million reported in the Kentucky Retirement Systems' 2020 ACFR. The actuarial estimates for TRS increased from the \$1,086.7 million reported in their 2020 ACFR.

The Kentucky Retirement Systems' state supported OPEB ADEC for Fiscal Year ended June 30, 2021 was \$171.2 million; \$197.3 million was contributed. The FY 2021 TRS ACFR changed from reporting ADEC to Statutorily Required Employer Contributions for the Health Insurance Trust. The TRS state supported OPEB Employer Contribution for the Fiscal Year ended June 30, 2021 was \$187.1 million; \$187.0 million was contributed. The state supported portion of the OPEB for the Fiscal Year ended June 30, 2021 had funding percentages of 63.89 percent for the Kentucky Retirement Systems and 60.68 percent for TRS.

Recent Changes to State Retirement Systems.

House Bill 8 of the 2021 Regular Session of the Kentucky General Assembly was delivered to the Governor for signature or veto on March 21, 2021, and was signed by the Governor on March 23, 2021. House Bill 8 amends KRS 61.565 to change the Kentucky Employees Retirement System's (KERS) nonhazardous actuarially accrued liability contribution (unfunded liability payment) that is payable by employers on or after July 1, 2021, from a value that is paid as a percent of pay on each employee to a fixed allocation funding method; and provide that the employers shall pay the normal cost for all employees plus their actuarially-calculated portion of the organization specific unfunded liability.

House Bill 258 of the 2021 Regular Session of the General Assembly was delivered to the Governor on March 16, 2021, vetoed by the Governor on March 23, 2021, and the veto was overridden by the legislature on March 29, 2021. House Bill 258 provides a new tier of benefits for teachers hired on or after January 1, 2022. The new plan includes a defined benefit foundational component and a defined contribution supplemental component. It does not change any benefits for existing TRS members active or retired.

Senate Bill 249 of the 2020 Regular Session of the Kentucky General Assembly was signed by the Governor on April 8, 2020. The bill had several provisions that affected KERS, SPRS and CERS. The amortization of the UAAL was again reset for this system to a closed 30-year amortization beginning with the June 30, 2019 valuation, and using a level percent of payroll instead of the current level dollar amortization. Additionally, any future increases or decreases in the UAAL will be amortized over a 20-year closed period utilizing a layered amortization method. Among other administrative changes, the bill also extended to June 30, 2021 the voluntary cessation of participation date for the 118 quasi-governmental agencies identified in House Bill 1 of the 2019 Regular Session. The University determination of voluntary cessation of participation date was previously set to January 1, 2021. Finally, the bill delayed an increase of the phase-in of higher contribution rates for CERS employers.

House Bill 352 of the 2020 Regular Session vetoed in part and vetoes overridden on April 15, 2020 set the KERS employer contribution rate at 84.43 percent for FY2021 and set the 118 quasi-governmental employer contribution rate below the current ADEC rate at 49.47 percent.

House Bill 484 of the 2020 Regular Session was signed by the Governor on April 7, 2020. This bill in-effect made no administrative changes, but separated the CERS and Kentucky Retirement Systems into two governing boards. Oversight of CERS was transferred from the Kentucky Retirement Systems board of trustees to the County Employees Retirement System board of trustees.

House Bill 1 of the 2019 Special Session of the Kentucky General Assembly was signed by the Governor on July 24, 2019. Its purpose was to address pension related changes for 118 quasi-governmental agencies including regional mental health programs, local and district health departments, domestic violence shelters, rape crisis centers, child advocacy centers, state-supported universities and community colleges. The bill froze the employer contribution rate at 49.47 percent for Fiscal Year 2020 and provided four avenues for voluntary cessation of participation in the Kentucky Retirement System or the option to remain in the System for those agencies. An actuarial analysis by GRS Retirement Consulting, dated July 18, 2019, projected an actuarial cost relief to those agencies of \$827 million. The FY 2020 employer contribution rate freeze at 49.47 percent instead of the actuarial determined rate of 83.43 percent, was projected to have an actuarial cost of \$121 million for FY 2020 to the Retirement System.

Senate Bill 151 from the 2018 Regular Session of the General Assembly was signed into law by the Governor on April 10, 2018. The bill modified the funding structure of the Retirement Plans from a percent-of-payroll method to a level-dollar method, provided reform to the TRS plan, further modified benefits under the Kentucky Retirement System plans, and replaced prior legislation for opt-out provisions for quasi-governmental agencies wishing to exit the Kentucky Retirement System plans. On December 13, 2018, the Kentucky Supreme Court ruled Senate Bill 151 unconstitutional based on procedural reasons, not on merits of the bill.

Some of the 2018 pension reforms were based on a PFM Group Consulting, LLC three-part report dated August 2017, May 2017 and December 2016, respectively. The report developed a range of analyses that illustrated the current and projected financial condition of the retirement systems, and provided options and recommendations for improvement and reform.

Senate Bill 2 from the 2013 Regular Session of the General Assembly was signed into law by the Governor on April 4, 2013. The bill created a new section in KRS Chapter 7A establishing a 13 member Public Pension Oversight Board to oversee the Kentucky Retirement Systems and report to the General Assembly on benefits, administration, investments, funding, laws, administration regulations and legislation pertaining to Kentucky Retirement Systems. The bill also stated that new employees hired after January 1, 2014 will be placed in a Hybrid Cash Balance Plan. This plan has a guaranteed rate of return of 4.0 percent for both hazardous and non-hazardous employees, plus 75 percent of the investment return in the plan in excess of 4.0 percent to the employee. Hazardous employees' employer contribution is set at 7.5 percent of salary and non-hazardous employees have an employer contribution of 4.0 percent. The bill further provides for a 1.5 percent COLA only if it is prefunded and appropriated by the General Assembly or if the pension plan is 100 percent funded. New employees as of January 1, 2014 are no longer party to the inviolable contract, and the General Assembly has the right to amend, suspend or reduce benefits with future legislation. The bill additionally made provisions for a Health Savings Account as an insurance option for retirees, required the General Assembly to start fully funding the ADEC beginning in Fiscal Year 2015, and reset the amortization to 30-years beginning in 2015.

Litigation Potentially Impacting KERS.

In April 2013, Seven Counties Services, Inc. ("Seven Counties"), filed for Chapter 11 bankruptcy protection in the United States Bankruptcy Court for the Western District of Kentucky (the "Bankruptcy Court"). Seven Counties identified KERS as a creditor with a primary objective of discharging its continuing obligation to remit retirement contributions for approximately 1,300 employees and terminate its membership in KERS.

KERS opposed Seven Counties' attempt to discharge its obligations and terminate its membership. KERS asserted that Seven Counties is a Governmental Unit properly participating in KERS by Executive Order issued in 1978 and thus ineligible for Chapter 11 relief. Consequently, Seven Counties would remain statutorily obligated to continue participation and remit contributions.

On May 30, 2014, the Bankruptcy Court held that Seven Counties was not a Governmental Unit and could move forward with its Chapter 11 bankruptcy case. Moreover, the Court held that Seven Counties' statutory obligation to continue to participate and remit contributions to KERS was a "contract" eligible for rejection. Seven Counties rejected its participation in KERS.

In June 2014, KERS appealed the Bankruptcy Court's ruling. On October 6, 2014, Seven Counties filed a formal reorganization plan with the Bankruptcy Court. On January 6, 2015, the Bankruptcy Court confirmed Seven Counties' plan of reorganization (the "Confirmation Order"). On January 19, 2015, KERS appealed the Confirmation Order. On March 31, 2016, the United States District Court issued a Memorandum of Opinion and Order that (i) denied KERS' motion to certify a question of law to the Kentucky Supreme Court, (ii) reversed the Bankruptcy Court's determination regarding classifying KERS as a multi-employer plan and determined KERS was a multiple employer plan, (iii) affirmed the Bankruptcy Court's decision in all other aspects; and (iv) denied Seven Counties' cross-appeal.

On April 21, 2016, the Kentucky Retirement Systems' Board of Trustees voted to appeal the decision to the United States Court of Appeals for the Sixth Circuit ("Sixth Circuit"). On August 24, 2018, the Sixth Circuit issued an Opinion ruling that Seven Counties was not a state instrumentality within the meaning of the Bankruptcy Code and was therefore eligible to file under Chapter 11. However, the Sixth Circuit also certified a question of law to the Kentucky Supreme Court regarding whether the relationship between Seven Counties and Kentucky Retirement Systems was contractual or statutory. Oral arguments were held at the Kentucky Supreme Court on March 6, 2019, and on August 29, 2019 the Supreme Court ruled that Seven Counties participation in and its contributions to KERS are based on a statutory obligation. The Kentucky Supreme Court Opinion was forwarded to the Sixth Circuit for further action resolving the outstanding issues.

On July 20, 2020, the Sixth Circuit issued an Opinion stating that they affirmed their previous determination that Seven Counties was eligible to file a Chapter 11 bankruptcy case. The Sixth Circuit also reversed the conclusion that Seven Counties can reject its obligation to participate as an executory contract and that Seven Counties need not maintain its statutory contribution obligation during the pendency of the bankruptcy. The case was remanded back to the Bankruptcy Court.

The parties were able to stipulate to the principal amount of Seven Counties unpaid employer contributions for the post-petition time-frame of April 6, 2014 through February 5, 2015. A limited hearing occurred in February 2022 regarding whether interest is applicable to the stipulated amount. The Bankruptcy Court entered an order that set the amount of the contributions, but did not order Seven Counties to pay that amount. The order was silent regarding the application of interest. Both Seven Counties and KERS appealed the Bankruptcy Court's order to the United States District Court where it will be joined with the pending appeal of the confirmation of Seven Counties' reorganization plan.

Other entities within the Commonwealth, including some entities with pending litigation, are attempting to terminate their participation in KERS. For example, Kentucky Retirement Systems filed an action against Kentucky River Community Care ("KRCC") to compel it to comply with its statutory duties and require retirement plan participation. Similarly, Bluegrass Oakwood, Inc., a subsidiary of Bluegrass MHMR, attempted to terminate its participation in KERS through an action before the Kentucky Court of Appeals that was dismissed on February 24, 2015, resulting in Bluegrass Oakwood remaining as a participant in KERS. No assurance can be provided with respect to the impact of such actions, if any, on the future contribution rates.

In June 2014, the City of Fort Wright, a participating employer in CERS, filed a lawsuit against the Kentucky Retirement Systems' Board of Trustees alleging that the Board invested CERS funds in investments that were prohibited by statute and common law. In addition, the City alleged that the Board of Trustees paid substantial asset management fees, which the suit alleges were improper. Kentucky Retirement Systems filed a motion to dismiss this action based on a number of legal issues, including the argument that the action was barred by the doctrine of sovereign immunity. Franklin Circuit Court denied the motion to dismiss. An interlocutory appeal of the sovereign immunity issue was filed at the Kentucky Court of Appeals. On September 23, 2016, the Court of Appeals upheld the Franklin Circuit Court's ruling that sovereign immunity did not prohibit this action from proceeding. After a motion to the Kentucky Supreme Court for discretionary review of the Court of Appeals' ruling was denied, the case returned to the Franklin Circuit Court on the merits of the claims made. Both parties filed Motions for Declaratory Judgment on the legal issue of whether or not Kentucky Retirement Systems is authorized under Kentucky law to invest CERS plan assets according to the standards established in KRS 61.650 or if some other standard applies. On September 20, 2018, Franklin Circuit Court issued an Opinion and Order denying the City of Fort Wright's Motion for Declaratory Judgment and granting Kentucky Retirement Systems Cross-Motion for

Declaratory Judgment. The City of Fort Wright appealed this decision to the Kentucky Court of Appeals, which issued an Opinion on January 10, 2020, affirming the decision of the Franklin Circuit Court in favor of the Kentucky Retirement Systems. The City of Fort Wright then filed a Motion for Discretionary Review at the Kentucky Supreme Court. On September 16, 2020, the Supreme Court of Kentucky granted this Motion. On September 28, 2020, the Kentucky Retirement Systems filed a Cross Motion for Discretionary Review, which was granted December 9, 2020. Oral arguments were conducted before the Kentucky Supreme Court on August 19, 2021. On October 28, 2021, the Kentucky Supreme Court affirmed the lower court rulings.

On November 17, 2016, Western Kentucky University (“WKU”) filed a motion in Franklin Circuit Court seeking a judgment against the Kentucky Retirement Systems after the Kentucky Retirement Systems asserted WKU should continue to make retirement contributions for employees who were purportedly fired as WKU employees and then rehired as contract laborers. On March 3, 2017, Kentucky Retirement Systems filed a Motion to Dismiss this action based on WKU’s failure to name necessary parties. Franklin Circuit Court denied this motion. WKU has filed a motion for Summary Judgment in this action which was denied on October 18, 2018. Additional discovery was then allowed. WKU has not filed a renewed motion for summary judgement. Kentucky Retirement Systems has filed a response. On March 11, 2020, Franklin Circuit Court issued an Order granting Summary Judgment in favor of WKU. Kentucky Retirement Systems filed an appeal of this Opinion and Order with the Court of Appeals on June 17, 2020. On August 20, 2021, the Kentucky Court of Appeals issued an Opinion and Order affirming the Franklin Circuit Court. The Kentucky Supreme Court denied Kentucky Retirement Systems’ Motion for Discretionary Review.

On June 12, 2017, the River City Fraternal Order of Police and several other individuals filed a Complaint and Motion for a Restraining Order challenging the Kentucky Retirement Systems’ implementation of the Medicare Secondary Payer Act as it relates to KRS 61.702, asserting that Kentucky Retirement Systems violated both the federal law and the inviolable contract rights of its members. The court granted a Temporary Restraining Order (the “TRO”); however, a hearing was held at the end of July 2017 to determine whether to dissolve the TRO or grant an injunction during the pendency of this action. On September 25, 2017, Franklin Circuit Court issued an Order in the River City FOP litigation denying the Plaintiffs’ Motion for Temporary Injunction and dissolved the Court’s previous Restraining Order effective November 1, 2017. Plaintiffs thereafter filed a Motion to amend their Complaint to explicitly allege a violation of the Federal Medicare Secondary Payer Act. This motion was granted. Kentucky Retirement Systems filed a notice that it was removing the case to Federal District Court, where both counsels for River City and Kentucky Retirement Systems filed motions for summary judgment. On March 21, 2019, United States District Judge William Bertelsmann issued a Memorandum Opinion and Order denying the Kentucky Retirement Systems motion for summary judgement and granting River City Fraternal Order of Police’s motion for summary judgement in part. Kentucky Retirement Systems filed a motion for reconsideration, which was denied by an Order dated July 17, 2019. On June 3, 2020, Judge Bertelsmann issued a Judgment and Memorandum Opinion and Order that Plaintiff Arnold be awarded damages totaling \$9,594.48, Plaintiff Simkins be awarded \$83,168.98, Plaintiff Larkin be awarded damages of \$6,181.92, and Plaintiff Wood be awarded damages totaling \$4,033.61. Kentucky Retirement Systems filed a Notice of Appeal on July 8, 2020. On June 8, 2021, the Sixth Circuit held that the Kentucky Retirement Systems breached the inviolable contract rights of its members by terminating the health insurance coverage that the members were eligible to receive by law. As a result of this breach of its members’ inviolable contract rights, the Sixth Circuit held that the Plaintiffs in this lawsuit were entitled to remain on the health insurance plans to which the Plaintiffs had been reinstated by order of the United States District Court and were entitled to damages for the premiums paid by the Plaintiffs during the period in which the Plaintiffs were denied health insurance coverage through the Kentucky Retirement Systems. However, the Sixth Circuit held that the Plaintiffs were not entitled to damages based on lost wages as a result of the Kentucky Retirement Systems’ violation of the inviolable contract. Kentucky Retirement Systems chose not to file a Petition for Certiorari with the United States Supreme Court. Kentucky Retirement Systems and the named Plaintiffs negotiated a settlement based on the Sixth Circuit Opinion regarding the calculation of damages.

In January and February 2022, two complaints were filed on behalf of specific named plaintiffs and others similarly situated based on the same facts that gave rise to the River City Fraternal Order of Police complaint. KPPA was aware that the River City Fraternal Order of Police case impacted more individuals than the named plaintiffs and have been working on legislative and regulatory solutions. Legislation passed by the 2022 Kentucky General Assembly allows individuals negatively impacted by the Medicare Secondary Payer Act to receive their health insurance through the Kentucky Employees Health Plan, and KPPA has promulgated a regulation to reimburse those individuals who had to pay for health insurance consistent with the Sixth Circuit Opinion. The two lawsuits from January and February are currently in the discovery phase concerning class certification.

In December 2017, certain members and beneficiaries of the Kentucky Retirement Systems filed litigation (Mayberry et al v. KKR et al) against certain Hedge Fund Sellers, Investment, Actuarial and Fiduciary Advisors, Annual Report Certifiers, and certain (past and present) Kentucky Retirement Systems’ Trustees and Officers in Franklin Circuit Court. The litigation alleges (in summary) that actuarial assumptions, fees, statements and disclosures harmed the financial

status of the Retirement Systems. While Kentucky Retirement Systems is designated a “Defendant,” that designation is a technical formality in so much as Kentucky Retirement Systems is a “nominal defendant.” On April 20, 2018, the Kentucky Retirement Systems and the plaintiffs filed a joint notice with the Court advising that Kentucky Retirement Systems does not intend to challenge its status as a “nominal defendant.” Since then, the Franklin Circuit Court has ruled on various Defendants’ Motions to Dismiss, denying nearly all of them. On January 10, 2019, KKR, Henry Kravis and George Roberts (collectively, “KKR Parties”) amended their Answer to assert cross claims against Kentucky Retirement Systems. Certain officer and Trustee Defendants appealed the denial of their Motion to Dismiss on immunity grounds to the Court of Appeals, and that appeal was transferred to the Kentucky Supreme Court. The hedge fund defendants filed a Petition for Writ of Prohibition in the Court of Appeals, arguing the Plaintiffs lacked standing to bring the action. That Petition was granted on April 23, 2019. Plaintiffs promptly appealed the Court of Appeals’ decision to the Supreme Court of Kentucky. On July 9, 2020, the Supreme Court of Kentucky issued an Opinion stating that the plaintiffs, as beneficiaries of a defined-benefit plan who have received all of their vested benefits so far and are legally entitled to receive their benefits for the rest of their lives, do not have a concrete stake in this case and therefore lack standing to bring this claim. The case was remanded to the circuit court with directions to dismiss the complaint. Thereafter, plaintiffs filed a motion seeking to amend their complaint to add parties (Tier 3 members of the Retirement Systems) and claims that would purportedly correct the standing defect identified by the Supreme Court of Kentucky. Furthermore, the Attorney General of the Commonwealth of Kentucky sought leave to intervene in this action through a motion filed July 20, 2020, and an Intervening Complaint on July 22, 2020. The Defendants filed motions seeking to have the case dismissed. On December 28, 2020, Franklin Circuit Court issued an Order dismissing the Complaint filed by the Plaintiffs, denied Plaintiffs’ Motion to file a Second Amended Complaint, and granted the Office of the Attorney General’s Motion to Intervene. A variety of additional motions and pleadings were filed, including an original action by the Tier 3 Group. This original action is still in the initial stages and is pending with Franklin Circuit Court. (*Tia Taylor, et al. v KKR & Co. L.P., et al.*). On January 12, 2021, Franklin Circuit Court issued a scheduling Order granting the Attorney General until February 1, 2021 to file an Amended Intervening Complaint, granting the Tier 3 Group until February 11, 2021 to file a Motion to Intervene in this action. Additional extension orders were granted for the Attorney General intervention. The Attorney General filed an Amended Complaint on May 24, 2021. On June 14, 2021, the Tier 3 Group’s Motion to Intervene in the Attorney General action was denied. In the spring of 2022, Franklin Circuit Judge Phillip Shepherd recused himself and this matter was assigned to Judge Thomas Wingate. This matter is still in litigation.

A number of related cases have also developed based on issues raised in the above referenced Mayberry action. There has been an action filed by a number of the Trustees and Officers named in Mayberry seeking reimbursement by Kentucky Retirement Systems of legal fees. Kentucky Retirement Systems has also filed an action against Hallmark Specialty Insurance seeking a declaratory judgement that Hallmark has a duty to defend and indemnify Kentucky Retirement Systems in the Mayberry action. Two of the hedge fund Defendants in the Mayberry action have also filed an action in the United States District Court for the Eastern District of Kentucky naming individual members of the current Kentucky Retirement Systems Board of Trustees as Defendants. This action is seeking a judgment declaring that the Trustees violated Plaintiffs’ right to due process as well as an award of costs and attorneys’ fees. Three actions have also been filed in Delaware regarding the Mayberry action. One filed by Prisma Capital Partners and one filed by Blackstone Alternative Asset Management, L.P. (“BAAM”) allege breaches of warranties, representations and more relating to the Subscription Agreements signed by the Kentucky Retirement Systems. The third was filed by Prisma Capital Partners against the Daniel Boone Fund, LLC. Additionally, an action has been filed by PAAMCO Prisma, LLC against Kentucky Retirement Systems in California also alleging breaches of warranties, representations and more relating to the Subscription Agreements signed by the Kentucky Retirement Systems. Finally, on August 2, 2021, BAAM filed an action against the KPPA, the Board of Trustees of the Kentucky Retirement Systems, the Board of Trustees of CERS, the Kentucky Retirement Systems Insurance Fund, and the Kentucky Retirement Systems Pension Fund (collectively “Defendants”) for breach of contract. The Defendants filed a Motion to Dismiss on September 8, 2021. The last of these additional actions, the suit filed by BAAM, was dismissed by Franklin Circuit Court. BAAM has appealed the dismissal. The rest of these cases remain active in various stages of litigation.

In response to a ruling in Franklin Circuit Court on August 25, 2022, on September 6, 2022, KPPA released an investigative report produced by Calcaterra Pollak LLP regarding certain 2008-2016 investment activities of the Kentucky Retirement Systems.

Mountain Comprehensive Care Center and Adanta filed separate suits challenging the actuarially accrued liability assigned these two entities via the process outlined in KRS 61.565, known as House Bill 8 from the 2021 Regular Session of the Kentucky General Assembly. The suits challenge not only the liability assigned to them, but they challenge the constitutionality of the statutory scheme. These suits are currently in the early stages of litigation.

Litigation

The State is party to numerous legal proceedings, many of which normally occur in government operations. In addition, the State is involved in certain other legal proceedings that, if decided against the State, might require the State to make significant future expenditures or substantially impair future revenue sources. Because of the prospective nature of these proceedings, it is not presently possible to predict the outcome of such litigation, estimate the potential impact on the ability of the State to pay debt service costs on its obligations, or determine what impact, if any, such proceedings may have on a fund's investments.

APPENDIX E

ADDITIONAL INFORMATION ABOUT THE OREGON ECONOMY AND OREGON OBLIGATIONS

The following information is a summary of certain factors affecting the credit and financial condition of the State of Oregon (“Oregon” or the “State”). The sources of payment for Oregon municipal obligations and the marketability thereof may be affected by financial or other difficulties experienced by the State and certain of its municipalities and public authorities. This summary does not purport to be a complete description and is derived solely from information contained in publicly available documents, including the May 17, 2023 Oregon Economic and Revenue Forecast prepared by the State of Oregon Department of Administrative Services Office of Economic Analysis (“OEA”), and other reports prepared by state government and budget officials and statement of issuers of Oregon municipal obligations, as available on the date of this Statement of Additional Information. Any characterizations of fact, assessments of conditions, estimates of future results and other projections are statements of opinion made by the State in, and as of the date of, such reports and are subject to risks and uncertainties that may cause actual results to differ materially. The Fund is not responsible for information contained in such reports and has not independently verified the accuracy, completeness or timeliness of information contained in such reports. Such information is included herein without the express authority of any Oregon issuer and is provided without regard to any events that have occurred since the date of the most recent publicly available report.

STATE FINANCIAL INFORMATION

THE STATE OF OREGON GOVERNMENTAL ORGANIZATION

The Oregon Constitution divides the powers of State government among the Legislative, Executive and Judicial branches.

The Legislative Branch

Oregon has a bicameral Legislative Assembly consisting of the Senate with thirty members elected to serve four-year terms and the House of Representatives with sixty members elected to two-year terms.

The Legislative Assembly convenes its regular sessions in January of each odd-numbered year and abbreviated regular sessions in February of each even-numbered year. Regular sessions of the Legislative Assembly are limited to 160 days in odd-numbered years, and 35 days in even-numbered years. Sessions may be extended for five days at a time, by a two-thirds majority vote of both chambers of the Legislature. The Governor or a majority of each house may call special sessions of the Legislative Assembly to deal with emergencies.

Legislation that has been considered and passed out of both houses of the Legislative Assembly in identical form is sent to the Governor for action. The Governor has five weekdays to consider the enrolled bill if the Legislative Assembly is in session, and 30 weekdays to consider it if the Legislative Assembly has adjourned. If the Governor takes no action during those time periods, the bill becomes law automatically at the end of the period. If the Governor chooses to sign the bill or allows it to become law without signature, it will become effective on January 1 of the year after the passage of the bill or on the effective date specified in the bill. Bills, other than those regulating taxation or exemption, may contain a provision declaring an emergency and providing that the bill becomes effective upon passage or some other expedited date. The Governor may also decide to veto the entire bill, or the Governor may veto line items in appropriation bills and bills with emergency clauses. The Governor’s veto may be overridden by a two-thirds vote of both legislative houses, in which case the bill or line item becomes effective as described.

The primary functions of the Legislative Assembly are to adopt a balanced budget for all State funds, as required by the Oregon Constitution and to enact general laws. Historically, the Legislative Assembly budgeted on a biennial basis because it convened biennially. However, the Oregon Constitution was amended in 2010 to provide for annual sessions. Therefore, the Legislative Assembly may adopt annual budgets for State agencies, rather than for the entire biennium, or may adopt biennial agency budgets that are adjusted in an interim legislative session. State law requires a financial report of State operations to be prepared at the end of each fiscal year. The State’s fiscal year ends June 30.

The Oregon Constitution authorizes the Emergency Board (“E-Board”), a joint legislative committee, to meet between legislative sessions to address financial matters of the State arising in the interim period. The seventeen-member E-Board consists of the President of the Senate, Speaker of the House of Representatives, Co-Chairpersons of the Joint Ways and Means Committee, six other Senate members and seven other House members. The E-Board, which may schedule its own meetings, usually meets once every other month during the interim between regular sessions. If an emergency exists, the

E-Board may allocate additional moneys to any State agency out of funds appropriated to the E-Board by the Legislative Assembly during its regular session. The E-Board may also provide moneys for an activity required by law for which the Legislative Assembly did not appropriate money, increase expenditure authority from dedicated or continuously appropriated funds, and approve funding for a new activity coming into existence at a time that would preclude submission of a budget to the Legislative Assembly.

The Executive Branch

The chief executive power of the State is vested in the Governor. The Governor is elected to a four-year term and is limited to serving two terms in any twelve-year period. Kate Brown was elected Governor at the November 2018 general election to serve a four-year term ending December 31, 2022. The Governor proposes, plans, and recommends a budget for almost all of State government to the Legislative Assembly. The Governor also may call special sessions of the Legislative Assembly and appoint judges to vacant judicial positions. The Governor directly appoints the directors of most State agencies and many other State officials.

The Secretary of State is a statewide constitutionally elected officer designated as the auditor of public accounts in the State and as the State's chief elections officer. Shemia Fagan was elected Secretary of State at the November 2020 general election to serve a four-year term beginning on January 1, 2021 and ending December 31, 2024. As auditor, the Secretary of State audits or reviews the accounts and financial affairs of State boards, commissions, departments and institutions. The Secretary of State also edits, codifies and publishes administrative rules, which supplement laws passed by the Legislative Assembly and prescribe the manner in which State agencies conduct business.

The Oregon State Treasurer (the "Treasurer") is also a statewide constitutionally elected officer. Tobias Read was re-elected Treasurer at the November 2020 general election to serve a four-year term beginning on January 1, 2021 and ending December 31, 2024. The Treasurer is responsible for all moneys paid into the State Treasury and administers the State's banking, cash flow, borrowing, investment operations and several savings programs for Oregonians. The Treasurer also chairs or serves on numerous State boards and commissions responsible for investing State funds and for setting borrowing policies for the State.

The Governor, the Secretary of State and the Treasurer comprise the State Land Board, established by the Oregon Constitution to manage the Common School Fund and certain lands dedicated at statehood for educational purposes. The valuation of the Common School Fund was approximately \$2.16 billion as of June 30, 2021. Its value fluctuates based on market conditions and the amount of withdrawals. The fund is managed as a perpetual trust fund with approximately two to five percent of its value distributed annually to the Oregon Department of Education for distribution to the State's K-12 public school districts.

In addition to the Offices of the Secretary of State and the Treasurer, the Executive Branch includes other offices administered by statewide elected officials. The State Attorney General manages the Department of Justice and the State's legal affairs. The Labor Commissioner manages the Bureau of Labor and Industries that oversees and enforces the State's labor and wage laws.

The Judicial Branch

The Oregon Constitution establishes the Judicial Branch, which consists of the Supreme Court, Court of Appeals, Tax Court, and 36 Circuit Courts in 27 judicial districts. The Chief Justice of the Oregon Supreme Court administers the State court system and is the head of the Oregon Judicial Department. The Court of Appeals hears most of the civil and criminal appeals from the Circuit Courts and reviews most State administrative agency actions. The Circuit Courts are Oregon's trial courts of general jurisdiction. The Tax Court is a special one-judge court that has exclusive, statewide jurisdiction to hear only cases involving Oregon's tax laws. All Oregon judges are elected by popular vote. The Governor, however, may appoint judges to fill vacancies that occur.

Services Provided by State Government

The Governor appoints the heads of and coordinates numerous State agencies that provide services through program areas that include: (1) Consumer and Business Services for protecting consumers and workers, promoting a positive business climate and regulation of various professions; (2) Economic and Community Development that aids businesses and people, including job creation, placement and retention services, business recruitment, community development and affordable housing; (3) Education from prekindergarten to post-secondary and life-long learning through community colleges and workforce development programs; (4) Human Services that relate to physical, mental and public health, self-sufficiency, child protective services and care for seniors and people with disabilities; (5) Natural Resources overseeing pollution control,

land use, water quality and conservation, agriculture and food products, forests, watersheds and fisheries; (6) Public Safety that protects Oregon’s people, property and natural resources through trained militia, law enforcement, prosecution and incarceration of juvenile and adult offenders; (7) Transportation; and (8) Administration that manages and provides policy direction and central services to other State agencies, such as data and networking infrastructure and procurement activities.

Employee Relations

As reported in the State’s Annual Comprehensive Financial Report (“Annual Financial Report” or “ACFR”) for FY 2021, there were 42,294 employees providing services through State government. Certain employees of the State of Oregon and political subdivisions have the right to form, join, and participate in the activities of labor organizations for representation and collective bargaining on matters concerning employment relations. An officially recognized or certified labor organization is the exclusive representative of its covered employees for collective bargaining. The scope of representation may include, but is not limited to, matters concerning wages, hours, paid leave and grievance procedures. The public employer must bargain in good faith with respect to employment relations. If a contract remains unsettled after a 150-day period of good faith contract negotiations, either or both of the parties may notify the Employment Relations Board (ERB) of the need for a mediator. The parties may mutually agree to request a mediator before the end of the 150-day period by notifying the Board. If the parties do not reach settlement through mediation, then either party may declare impasse. The parties then must each submit a final offer to the ERB. The parties have a 30-day cooling off period, which starts when the parties have submitted their Final Offers to the ERB and the ERB makes public the Final Offers. After the 30-day cooling off period, the employer may implement its final offer. With 10 days’ notice, the union may legally strike. The 10-day strike notice may be provided to the public employer during the 30-day cooling off period or after the cooling off period. For strike-prohibited bargaining units, either the employer or the exclusive representative may initiate binding arbitration to establish a successor collective bargaining agreement if mediation fails to produce a settlement. Most State labor contracts in the executive branch of government expire at the end of each biennium (June 30, every two years) and are re-negotiated for the following biennium.

ECONOMIC AND DEMOGRAPHIC INFORMATION

Historical Perspective

The Oregon economy has transitioned and diversified from a predominant concentration in timber harvesting and wood products manufacturing to services and high-tech manufacturing. As high-tech manufacturing grew in Oregon, the State also developed stronger ties to major export markets in the Pacific Rim. Population growth has historically exceeded the national rate, fueled by the in-migration of young professional and retiree populations attracted by high-quality jobs, relatively low cost of living and doing business on the West Coast.

Sectors of increasing importance in the Oregon economy include professional and business services, construction, health services, and leisure and hospitality. Exports also continue to be a driver for the Oregon economy. China and Canada are top destinations for Oregon exports, with the Chinese economy affecting the Oregon economy more than most other countries. However, these external influences are significantly smaller than the influence of the overall health of the U.S. economy.

STATE FINANCIAL OPERATIONS

Budgetary Process

The Oregon constitution requires the State’s budget to balance at the end of each biennium. Article IX, Section 2 of the Oregon Constitution states that the Legislative Assembly shall provide for raising revenue sufficiently to defray the expenses of the State for each fiscal year. Article IX, Section 6 of the Oregon Constitution states that “whenever the expenses, of any fiscal year, shall exceed the income, the Legislative Assembly shall provide for levying a tax, for the ensuing fiscal year, sufficient, with other sources of income, to pay the deficiency, as well as the estimated expense of the ensuing fiscal year.” Because of these two provisions, Oregon may not budget a deficit and is required to alleviate any revenue shortfalls within each biennium.

Historically, during the regular legislative session at the end of every biennium, the Legislative Assembly adopts a budget covering most of the State’s operations for the next biennium. A biennium begins July 1 and ends June 30 of odd-numbered years. The budget is adopted through the enactment of separate budget bills for most State agencies and the Legislative and Judicial Branches (the “Budget Bills”). There are four different categories of funds included in the State’s budget: (i) General Fund, (ii) Lottery Funds, (iii) Other Funds (dedicated funds), and (iv) Federal Funds.

The budgeting process begins with the Governor's submission of a recommended budget for State agencies in the December of each even-numbered year preceding the start of a new regular legislative session. Concurrently, the Department of Administrative Services ("DAS" or the "Department") prepares and files Budget Bills during December of each even-numbered year so that when the Legislative Assembly convenes in January of each odd-numbered year for its regular session, the Joint Ways and Means Committee can begin consideration of each bill. By statute, the budget may not permit certain governmental purpose expenditures to exceed eight percent of the State's personal income. This limitation may be exceeded only if the Governor declares an emergency and if three-fifths of each house of the Legislative Assembly votes to exceed the limit.

The Legislative Assembly may provide spending authority to a State agency through a continuous appropriation of a fund dedicated for a certain purpose. In that case, spending is limited only by the amount of revenues received in or held by the fund. The Legislative Assembly may also limit the amount of money spent by placing an expenditure limitation on a continuously appropriated and dedicated fund. In addition, the Legislative Assembly enacts one-time appropriations of moneys to specific agencies or programs from moneys expected to be received or held by the State's General Fund, lottery and other revenues and federal funds. After the Budget Bills are passed, the Governor may veto an entire bill, single items in appropriation bills or the emergency clause in a bill. A two-thirds vote of the Legislative Assembly may override the Governor's veto.

If budget adjustments are required after a legislative session has ended, the Legislative Assembly may meet again in a specially called session, or the E- Board may adjust agency budgets.

Component Units

The Legislative Assembly has authorized the creation of certain public or non-profit corporations that are closely tied to specific statewide functions or agencies (the "Component Units"). These Component Units generally perform statewide functions that are authorized by the Legislative Assembly but are not required to comply with many of the budgeting, purchasing and other requirements imposed on State agencies. Included among these Component Units are the State Accident Insurance Fund ("SAIF") Corporation and the Oregon Health and Science University ("OHSU"). In 1995, the Legislative Assembly transferred the duties and powers of OHSU to an independent public corporation with statewide purposes and missions and without territorial boundaries. The State entered into a Debt Service Payment Agreement with OHSU pursuant to which OHSU assumed the repayment obligation for all bonds issued by the State for the original university. OHSU submits its funding request for each biennium to DAS, which includes such request as part of the Governor's biennial recommended budget.

In addition, as of July 1, 2015, the State's seven public universities became independent public bodies, each governed by an independent board comprised according to statute and considered a public body with statewide purposes and without territorial boundaries. Each public university may submit a funding request for each biennium that requests State aid and appropriations for State-funded debt service. This funding request is made through the Higher Education Coordinating Commission to the Governor and made a part of the Governor's biennial recommended budget. Any moneys appropriated to pay debt service for State bonds must be held by the Treasurer pursuant to an agreement entered into by the Treasurer and a public university.

Revenue Forecasting

Oregon law requires DAS, with the assistance of the State Department of Revenue, to prepare an estimate for each calendar quarter of the total amount of revenue, including General Fund and lottery revenues, available for State purposes for the current fiscal year, as well as the amount of revenue received quarterly, through the biennium the ("Oregon Economic and Revenue Forecast" or "Forecast"). The DAS Office of Economic Analysis (the "OEA") produces the Oregon Economic and Revenue Forecast based upon information available at the time of preparation and upon a wide variety of assumptions. DAS must report its estimates to the Legislative Assembly, when it is in session, and to certain interim committees of the Legislative Assembly, when it is not in session. The reports are dated March, June, September and December and are generally released the month prior to the report date. These reports are commonly known as the quarterly "revenue forecast," and focus on the amount of expected General Fund and lottery revenues. In odd-numbered years, when the Legislative Assembly is in session, the June forecast is released approximately May 15 and is commonly referred to as the "Close of Session" or "COS" forecast. In September of odd-numbered years, the revenue forecast closes out the biennium that ended on June 30th. At this time, the Close of Session forecast is calculated by folding any tax law changes made during the legislative session into the May outlook. This sets the bar for Oregon's balanced budget requirement and its unique kicker law.

Oregon law also requires DAS to set forth the methodology and assumptions used to develop each quarterly revenue forecast. The State uses an econometric model to forecast the Oregon economy and personal and corporate income taxes. The econometric model has two major parts: (1) a State economic model that estimates employment, wages and personal income; and (2) a revenue forecasting system based on the economic model, for use in estimating personal and corporate income taxes. The system receives new data each quarter, with revisions to the model as necessary. The model does not include the fees and other miscellaneous revenues that comprise the balance of General Fund revenues.

The development of a revenue forecast involves three steps. First, a forecast of economic conditions in Oregon is made, then projected income and population is translated into projected tax receipts other than from corporate and excise taxes and finally corporate income and excise tax collections are projected. In developing its projections, the State uses the national baseline forecasts of IHS Economics.

Accounting Practices

Oregon law designates DAS as the agency responsible for the overall administration and coordination of the State's internal accounting and other fiscal controls and procedures. DAS has developed the Oregon Accounting Manual that sets forth internal policies and uniform procedures for agencies to follow in their fiscal management, accounting and reporting.

DAS must prepare a financial report for the State of Oregon within 180 days after the close of each fiscal year. The reporting entity of the State of Oregon includes all agencies, boards, and commissions that are legally part of the State (primary government), and the State's Component Units. Component Units are legally separate entities for which the primary government is financially accountable or entities that warrant inclusion as part of the financial reporting entity because of the nature and significance of their relationship with the primary government. Oregon's financial statements are prepared in conformity with generally accepted accounting principles applicable to state governments.

All governmental funds use the modified accrual basis of accounting. Revenues are recognized when they become measurable and available. Under the modified accrual basis of accounting, taxpayer assessed taxes are recognized when the underlying exchange has occurred and the resources are available. Expenditures are recognized under the modified accrual basis of accounting when the related liability is incurred. An exception to this general rule of expenditure recognition is that principal and interest on general long-term debt is recognized when due.

Audits

The Oregon Secretary of State, as State Auditor, may audit or review the accounts and financial affairs of each State agency as deemed appropriate under ORS 297.210. The Governor, Legislative Fiscal Officer and DAS receive a report on each audit. The Secretary of State's Audits Division reviews the selected financial accounts of the State's larger agencies in connection with the audit of the State's annual comprehensive financial report. The Audits Division also provides annual financial audits in accordance with ORS 286A.195 for the State's bond funded programs.

The Audits Division conducts financial audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

The Joint Legislative Committee on Audits is staffed by the Legislative Fiscal Office and operates continually during the session and interim to review audit plans and completed audits conducted by the Secretary of State. The Committee also: reviews legislation and legislative requests for audits or reviews to be conducted; provides direction on audits/reviews that should be conducted by the Secretary of State or legislative staff; reviews agency actions to comply with audit recommendations; suggests changes or remediation; and fulfills other requirements of Oregon laws relating to audits.

DAS is responsible for adopting rules setting standards and policies for internal audit functions within State government under authority provided in ORS 184.

Disbursements and Allotments

Oregon law requires that State agency spending be monitored and that moneys be disbursed throughout the biennium through an allotment process that is administered by DAS. Under this process, DAS allots to each agency the amount of appropriated moneys that may be spent during each of the eight quarters in a biennium. The amount of an allotment is based on estimates submitted by agencies of their statutory duties and projected expenditures to fulfill the purposes for which moneys were appropriated to them. DAS may amend allotments previously made by it at the request of an agency or after notice by DAS to an agency. In addition, if DAS declares at any time during the biennium that there is a projected budget deficit due to insufficient revenues, then DAS, with the Governor's approval, may reduce previously made allotments to a level necessary to prevent the deficit. Allotments made for the purpose of debt service payments, however, may not be reduced.

Fiscal Checks and Balances

Oregon law provides for a system of checks and balances with respect to the deposit, accounting and expenditure of State moneys. DAS supervises State agency accounting and prescribes rules and regulations for preparation of agency budgets. The Secretary of State, the constitutionally designated auditor of public accounts, may disapprove claims for payment from any moneys in the State Treasury. State agencies are required to turn the moneys collected by them over to the Treasurer for deposit into various funds that comprise the State Treasury. The Treasurer is responsible for control of State banking relationships, cash management and the investment of State funds. Some State moneys are deposited with outside trustees who administer the cash and investments.

On a day-to-day basis, DAS, along with the Treasurer and the Secretary of State, maintains the system of checks and balances. For example, DAS reconciles its accounts monthly with the related account balances maintained by the Treasurer, which facilitates the adjustment of any imbalances or other errors. DAS also follows up on major deficiencies listed in the audit reports prepared by the Audits Division of the Secretary of State. Agencies must respond to DAS stating in detail how they will correct the deficiencies.

The Secretary of State Audits Division maintains a hotline where allegations of local and state government fraud, waste, and abuse are received and evaluated. Most state and local government procurements must follow the Public Contracting Code as outlined in statute. This structure is in place to ensure industry standards are followed, instill public confidence, promote efficient use of resources, clearly identify rules, and allow impartial and open competition. The State Attorney General maintains the model rules that, along with rules adopted by certain State agencies, specify procedures for public contracting under the code.

Loss Management

DAS Enterprise Goods and Services, Risk Management section is responsible for managing the State's risk of loss due to various types of loss or liability. The primary kinds of loss that the section works to prevent or pay include physical loss or damage to State property, tort liability claims brought against the State, its officers, employees, or agents, inmate injury, workers' compensation, employee dishonesty, and faithful performance bonds for key positions as required by law and additional positions as determined by agency policy. The State Insurance Fund (the "Fund"), established by ORS 278.425, is used to provide both self-insurance and commercial insurance for State of Oregon agencies. The Fund generally pays up to a set amount for various types of losses through its self-insurance program, with excess amounts covered by purchased commercial insurance policies. Both self-insurance losses and commercial insurance premiums are paid from the Fund. For each separate category of potential loss, DAS determines the appropriate level of the Fund or commercial insurance. Agencies pay assessments to the Fund for each category of loss.

DAS has a dedicated Risk Management unit that insures and protects the people, property, and activities of state government. The Risk Management program provides comprehensive insurance coverage for the State of Oregon and provides tools and information around risk and insurance to State agencies.

Seismic Activity

The State is located in an area of seismic activity along the Pacific coast. The scientific consensus is that the State and the Pacific Northwest region are subject to periodic great earthquakes along the Cascadia Subduction Zone, a large fault that runs offshore from Northern California to British Columbia. Geologists are predicting the Pacific Northwest is due for a major earthquake magnitude (8.7 to 9.1). Such an earthquake would cause widespread damage to structures and infrastructure in western Oregon, and total damage in coastal areas inundated by a possible accompanying tsunami. It is likely the infrastructure damage would be sufficient to disrupt transportation, communication, water and sewer systems, power and gas delivery and fuel supplies for weeks to months for much of western Oregon. This kind of regional disaster is unprecedented and could result in a significant permanent loss of population and business.

Wildfire and Forest Fire Activity.

The State has experienced significant wildfire events during the past several years. The increase of warmer and drier weather conditions in the State indicates that wildfire events are likely to continue in the future. Wildfire events threaten the health, economy and environment of the State by causing unhealthy levels of air quality that can cause respiratory problems for some people; threatening, damaging or destroying infrastructure, homes, property and agriculture; destroying forestland resources; and damaging or destroying habitat for wildlife.

Emergency Powers

In response to the Governor's declaration of a catastrophic disaster, such as an earthquake or other natural disaster or public health crisis that results in extraordinary levels of death or injury, property damage or disruption of daily life, the Governor may exercise the powers conferred by Article X-A of the Oregon Constitution. Those powers include the ability to use General Fund and lottery revenues appropriated for other purposes. In addition, the Legislative Assembly may convene using reduced quorum and procedural requirements, to enact legislation in response to the disaster, including legislation related to taxation, the use of Highway Fund revenues for non-highway purposes, keeping “kicker” money and borrowing. These powers are operative for only 30 days unless extended by the Legislative Assembly.

In addition, under ORS 401.165, the Governor may declare a state of emergency upon the occurrence of an event or circumstance that causes or threatens widespread injury to person or property or loss of life or financial loss. Upon such a declaration the Governor has broad powers over the Executive Branch of State government. The Governor may suspend statutes or rules if strict compliance would hinder a response to the emergency and may deploy state personnel and resources to prevent or alleviate damage due to the emergency. The Governor may also declare a state of public health emergency under ORS 433.441. Upon such a declaration, the Governor may regulate the use, sale and distribution of food, fuel, medical supplies and medicine.

Cyber and Data Security

The State operates a large and complex technology infrastructure to conduct its operations. The quickly changing cybersecurity threat landscape presents increasing risk to the integrity and confidentiality of information that the State receives and holds.

The State has adopted the National Institute of Standards and Technology Cybersecurity Framework as a defining roadmap for reducing or mitigating risks or damage resulting from cybersecurity incidents. Enterprise Information Services (“EIS”), which is responsible for all State Information Technology (“IT”) and computer systems, has established Statewide Information Security Standards for information systems security. The Statewide Information Security Standards and recommended best practices have been developed using a combination of international and national standards, including the NIST Cybersecurity Framework. These standards promote the development, implementation, and operation of secure information systems by establishing minimum levels of due diligence for information security. All State Executive Branch and Treasury employees are required to take annual information security training. Executive Branch and Treasury information security training completion rates for the calendar year 2020 was 82% and 100% respectively.

EIS directs Information Security strategies and policies statewide. In August 2018, the State adopted a Statewide Information Security Plan to apply relevant safeguards to State agencies and State information, IT Systems, networks, and applications. Compliance with this information security plan and statewide policies and standards is mandatory.

Enterprise security governance was modified as a result of Oregon Governor Brown’s Executive Order 16-13 and ORS 276A.206, which unify information technology security functions under the authority of the State CIO. Major cybersecurity initiatives that address findings of federal and state audits and cybersecurity risk assessments are coordinated through the Enterprise Leadership Team, which provides strategic direction for the executive agencies of the State. Agencies with elected leadership (Secretary of State, Treasury and Attorney General), the Legislature and Judiciary are coordinated within the implementation of cybersecurity initiatives to maximize the protection of critical State systems and data from a common threat.

Despite the implementation of these cybersecurity plans and procedures, no assurances can be given by the State that such measures will ensure against all potential cybersecurity threats and attacks and accompanying disruptions and costs.

Climate Change

The increase in the earth’s average atmospheric temperature, generally referred to as “climate change,” is expected to, among other things, increase the frequency and severity of extreme weather events. Additionally, increasing temperatures are affecting the form of precipitation, and therefore, Oregon’s mountain snowpack. This is altering the timing, duration, volume, and quality of water runoff throughout the State, making it potentially challenging to meet water needs during the summer and fall months.

Generally, the State has been susceptible to wildfires and hydrologic variability, however, climate change may be a factor in the increasing incidence of wildfires and drought declarations. However, as greenhouse gas emissions continue to accumulate, climate change is expected to intensify and increase the frequency of extreme weather events, such as coastal

storm surges, drought, wildfires, floods and heat waves, and rising sea levels along the coast. Over the past several years, the State has already experienced the impacts of climate change, including record-breaking wildfires and repeated years of low snow-packs and/or drought declarations. The future fiscal impact of climate change on the State and investors is difficult to predict, but it could be significant.

STATE OF OREGON INVESTMENT POLICIES

The Office of the State Treasurer (the “OST”) invests moneys held on behalf of State agencies and participating public bodies and local governments through two pooled investment vehicles or through separate accounts with guidelines specific to the participant’s investment needs. Some of the participant moneys invested by the OST are bond proceeds or moneys used to pay bond debt service. The State’s investment policies are governed by Oregon Revised Statutes and the Oregon Investment Council (the “OIC”). The OIC, created by a 1965 legislative act, establishes investment policies for all State funds. The OST is responsible for implementing those policies. The Governor appoints four of the OIC’s five voting members, who are subject to confirmation by the Oregon Senate. The Treasurer serves by statute. OST pooled investment vehicles for State moneys are the statutory Oregon Short-Term Fund (the “OSTF”) and the internally established Oregon Intermediate-Term Pool (the “OITP”).

Oregon Short-Term Fund. The OSTF is a short-term cash investment vehicle created by statute to invest State agency and Oregon local government moneys. The OSTF is not registered with the U.S. Securities and Exchange Commission as an investment company. The OST manages the OSTF within policies and guidelines approved by the OIC, with advice from and in consultation with, the OSTF Board and OST staff. Primary investment objectives established for the fund are, in order of priority: preservation of principal, liquidity and yield. As of January 1, 2022, the OSTF, reported net assets of approximately \$34.2 billion.

The current OSTF guidelines require at least 50% of the portfolio to mature or re-price within 93 days; no more than 25% of the portfolio may have a maturity longer than one year; and no investments may have a maturity longer than three years as measured from the settlement date of the initial transaction. Maturity dates are calculated using proxies permitted by OIC-approved policy for securities that have been called, securities with a put option, variable-rate securities and Asset-Backed securities. The target weighted average credit quality of the portfolio must be a minimum of AA by national statistical rating organizations or greater than 26.50 as computed using the ratings as determined by OSTF policies for each class of security and the applicable NSRO rating.

Oregon Intermediate-Term Pool. The OITP is an alternative investment vehicle to the OSTF. The OITP is a voluntary investment vehicle for State agencies, public universities and other eligible entities. The moneys in the OITP are pooled and managed by OST to invest dollars not needed to cover investors’ short-term needs and for those investors who are able to withstand price volatility with the objective of achieving returns often associated with longer-term investments. The OITP Financial Statements for the year ended June 30, 2021, reported net assets of approximately \$301.3 million, of which \$2.3 million is classified as Cash and Cash Equivalents.

The OITP’s management objective is to maximize total return, which includes investment value and coupon income within the desired risk parameters and fixed income investments prescribed in the portfolio guidelines. The OITP’s benchmark index is the Bloomberg Barclay’s Intermediate U.S. Government / Credit Bond Index. The OITP is not structured to provide 100% net asset value on each participant’s initial investment at all times. For consistency with the portfolio’s total return objective, the value of each participant’s investment is determined on a proportional basis to the net market value of the entire portfolio. The OITP is not registered with the U.S. Securities and Exchange Commission as an investment company.

Eligible investments are detailed in the OITP guidelines, but in general, the OITP may invest, subject to diversification requirements, in several types of investment grade rated debt market instruments denominated in U.S. dollars. These may include:

Eligible investments are detailed in the OITP guidelines, but in general, the OITP may invest, subject to diversification requirements, in several types of investment grade rated debt market instruments denominated in U.S. dollars. These may include:

- Obligations of U.S. and non-U.S. corporate issuers;
- Obligations of the U.S. government and its agencies and instrumentalities;
- Obligations issued or guaranteed by non-U.S. governments and instrumentalities;

- Taxable debt securities issued by U.S. states or local governments and their agencies, authorities and other U.S. state government-sponsored enterprises;
- Repurchase agreements and reverse repurchase agreements.

The OITP invests in securities that, at the time of purchase, are investment grade rated by nationally recognized rating agencies, such as Moody's, Standard & Poor's or Fitch. The overall portfolio must maintain an average modified duration of +/- 20% of its benchmark index. Limitations on individual investment terms to maturity vary by security type, but in general, securities have a maximum term of or weighted average life of 10.25 years and may not have a modified duration, a measure of interest rate risk, greater than three years.

Concentration of credit risk is the risk of loss attributed to the magnitude of a fund's investment in a single issuer. The OITP guidelines provide that the maximum that may be invested in any one issuer, as a percentage of the OITP's total investments is five percent, excluding the OSTF, U.S. Treasuries or U.S. Federal Agencies or instrumentalities. The OITP may invest up to 100% in those securities.

REVENUES

Revenues available to the State are discussed below based on the following categories: General Fund, Lottery Funds, Reserve Funds, Other Funds and Federal Funds. Certain of these revenues are available only to finance permitted purposes as authorized by State or federal law. Article IV, Section 25 of the Oregon Constitution requires a three-fifths majority of all members elected to each House to pass bills for raising revenue and that the Governor and presiding officer of each respective house sign the bill or resolution.

General Fund Revenues

The following describes the largest sources of the State's General Fund revenues.

Taxes

Personal Income Taxes. Oregon taxes the personal income of individuals, estates, and trusts. Taxable income is calculated using the version of the Internal Revenue Code of 1986, as amended, that is applicable to the tax year of the taxpayer. Oregon uses the federal definition of taxable income currently in effect for a tax year with some specific modifications for Oregon. Oregon employers withhold income tax from their employees' wages. Self-employed persons and others not subject to withholding must pay quarterly estimated tax payments. Generally, taxpayers file Oregon tax returns for refunds or pay tax due by April 15 of each year (a taxpayer can file for a 6-month extension to file the return, however tax must be paid by April 15).

Corporate Excise and Income Taxes. Corporations are subject to either a corporate excise tax or the corporate income tax under Oregon law. The corporate excise tax is imposed for the privilege of doing business in Oregon. A corporation is doing business in Oregon when it engages in any profit-seeking activity in Oregon.

The corporate income tax is imposed on any corporation that has income from an Oregon source. Corporations that operate in more than one state must determine the share of their income attributable to Oregon activities using Oregon sales relative to sales in all states for both income taxes and excise taxes. The corporate income tax rate mirrors that of the excise tax rate on taxable income derived from sources within Oregon.

Insurance Taxes. Insurers operating in Oregon are subject to the corporate excise tax. Some insurers that are domiciled in other states or countries are also subject to a retaliatory tax. The Oregon Department of Revenue collects the excise tax. The Insurance Division of the Department of Consumer and Business Services collects the retaliatory tax.

Estate Taxes. Oregon's estate tax is imposed as a percentage of the Oregon taxable estate. Because Oregon calculates its tax differently than the federal estate tax, the Oregon estate tax amount may be different from the federal tax amount. The Oregon estate tax is tied to the definition of a "taxable estate" in the Internal Revenue Code, but that definition is modified by Oregon law.

Cigarette and Other Tobacco Taxes. The State imposes an excise tax on the distribution of all tobacco products in Oregon, including nicotine delivery systems, such as e-cigarettes and other nicotine inhalants. The cigarette and other tobacco products taxes are distributed among various State funded health-related programs, including to the Oregon Health Plan, to the Oregon Health Authority for medical and healthcare assistance programs, including mental health services, tribal health providers, including the Urban Indian Health program, and other programs related to tobacco use reduction and nicotine-related health issues; another portion goes to the State General Fund, and the balance is distributed equally among cities, counties and the Department of Transportation.

Other Taxes. A portion of the moneys collected from several forest harvest taxes and the Amusement Device Tax are allocated to the General Fund.

Fines and Fees

The fines and fees section of General Fund revenues includes State Court Fees, Secretary of State Corporation Fees, Criminal Fines and Assessments, and Securities Fees. These are fees imposed by agencies or the State courts for the filing of certain court-related or corporate documents and certain fines for violations of the law.

Liquor Sales Apportionment

The State imposes taxes on beer, wine and distilled liquor manufactured or distributed in Oregon. The Oregon Liquor Control Commission (“OLCC”) exclusively imports and distributes beverages with 21 percent or more alcohol. The OLCC sets the retail prices for the alcohol it distributes. The net revenue from these operations goes into an OLCC account, which distributes approximately 56 percent of the revenues to the General Fund.

Other Sources

Other major sources of General Fund revenue include charges for central services performed by DAS, interest earnings, and miscellaneous revenues.

Return of General Fund Revenue to Personal Income Taxpayers (2% Surplus Kicker)

Under the Oregon Constitution, if biennium revenues received exceed estimated amounts to be received from personal income taxes by more than two percent, the amount received above the estimate is credited to individual taxpayers. This amount of excess revenue is popularly known as the “kicker.” For individuals, this refundable credit is based on the previous calendar year’s tax liability (for example, 2020 liability for the 2019-2021 kicker). Kicker amounts attributable to corporate income and excise taxes (actual biennium revenue from corporations that exceeds the revenue forecast by more than two percent) are retained for use in K through 12 public education and are not refunded or credited. The State may retain the individual kicker moneys only if two-thirds of each house of the Legislative Assembly votes to keep the kicker.

Lottery Funds

Revenues from the operation of the Oregon State Lottery comprise a significant source of money in the State’s budget. After the payment of prizes and operation of the State Lottery, revenues are constitutionally dedicated to education, economic development, and natural resources program areas. According to the Oregon Constitution, approximately 84 percent of the total annual revenues from the sale of lottery tickets or shares must be returned to the public in the form of prizes and net revenues benefiting the public purpose. After paying player prizes and operating expenses, the Lottery transfers the remaining revenues to the Administrative Services Economic Development Fund. The Oregon Constitution and the Legislative Assembly direct how moneys from this fund are distributed. Presently, the Education Stability Fund and the Parks and Natural Resources Fund receive about 33 percent of total transfers, and 1.5 percent of net lottery proceed transfers are constitutionally dedicated to veterans’ services. Net proceeds from Lottery’s on-line sports book are transferred to the Administrative Services Economic Development Fund, making them subject to the constitutional distributions, after which the remainder is transferred to the PERS Employer Incentive Fund. After debt service payments are prioritized, State school funding, and economic development efforts are the primary uses for the remainder.

Reserve Funds

The State has two budgetary reserve funds, the Education Stability Fund and the Oregon Rainy Day Fund that may be drawn on in the event of General Fund revenue shortfalls or economic downturns within a biennium subject to certain restrictions described below.

Education Stability Fund (“ESF”). Under the Oregon Constitution, Article XV, Section 4, 18 percent of the net proceeds from the State Lottery must be deposited in the ESF. The ESF retains earnings or spends them on public education. The Legislative Assembly also may appropriate other moneys or revenues to the ESF. The amount in the ESF may not exceed five percent of the amount that was accrued as revenues in the State’s General Fund during the prior biennium. If three-fifths of the Legislative Assembly approves, the Legislative Assembly can appropriate all or a portion of the money in the ESF for public education expenditures subject to the Governor declaring an emergency or the Legislative Assembly finding that at least one of the following conditions exists: (i) General Fund moneys in the next biennium will be at least three percent below current biennium appropriations; (ii) nonfarm employment has declined for two consecutive quarters in the last twelve months or (iii) General Fund revenues have dropped at least two percent below the current Close of Session forecast.

During the 2020 2nd Special Session, on August 10, 2020, the Legislative Assembly passed House Bill 4303, transferring \$400 million from the Education Stability Fund to the State School Fund in the 2019-21 biennium, due to the June 2020 Revenue and Economic Forecast projecting General Fund revenues to be more than two percent below the revenue projections in the Close of Session forecast. The balance in the ESF at the end of the 2021-23 biennium is projected to have been approximately 2.8% of net General Fund revenues.

Rainy Day Fund (“RDF”). The 2007 Legislative Assembly authorized the establishment of the Oregon Rainy Day Fund, codified in ORS 293.144 to 293.148. ORS 293.146 provides for deposits to the RDF in an amount equal to a maximum of one percent of the State’s General Fund appropriations for a biennium. The deposit is payable from the State’s General Fund ending balance at the end of a particular biennium. The actual amount of the deposit up to the one percent requirement will depend on the size of the State’s General Fund ending balance. Additional transfers to the RDF cannot be made if the balance in the RDF exceeds 7.5% of the amount of General Fund revenues collected in the prior biennium. The balance in the RDF at the end of the 2021-23 biennium is projected to be approximately 5.2% of net General Fund revenues.

If three-fifths of the Legislative Assembly approves, the Legislative Assembly may appropriate two-thirds of the beginning balance of the biennium in the RDF if it finds that at least one of the following conditions exists: (i) General Fund moneys in the next biennium will be at least three percent below current biennium appropriations; (ii) nonfarm employment has declined for two consecutive quarters in the last twelve months; or (iii) General Fund revenues have dropped at least two percent below the current Close of Session forecast.

Other Funds Revenues

A description of the largest sources of the State’s Other Funds revenue follows below.

Selective Sales and Use Taxes

Gross Receipts Business Taxes

Corporate Activity Tax. In 2019, the Legislative Assembly enacted a new business privilege tax on commercial activity beginning in calendar year 2020 (the “Corporate Activity Tax”). The tax applies to commercial activity in Oregon exceeding \$1 million by businesses, including corporations and other entities as well as sole proprietors, during the calendar year. Commercial activity is generally defined as the total amount realized by the business from transactions and activity in the regular course of the business, subject to certain enumerated exclusions and subtractions, with certain specified income streams made subject to the tax for financials and insurers. Estimated tax payments for the Corporate Activity Tax are due quarterly. The rate of the tax is \$250 plus the product of the business’s taxable commercial activity in excess of \$1 million for the calendar year multiplied by 0.57%. All net revenue from the Corporate Activity Tax is transferred to the Fund for Student Success, separate from the General Fund, and must be used for education and school purposes. It is expected over time that the Corporate Activity Tax will be a significant source of State revenue and the largest source of the State’s Other Funds.

Public Utilities. Regulated utilities operating within the State must pay taxes based on their gross operating revenues. These taxes are collected to cover the cost of utility regulation performed by the Oregon Public Utility Commission.

Cigarette and Other Tobacco Taxes. As described above, a portion of the cigarette tax goes to the General Fund and a portion goes towards the Oregon Health Plan. The Oregon Health Plan is the primary recipient of the cigarette tax distributed as Other Funds, with small amounts distributed to tobacco cessation programs and among cities, counties, and elderly and disabled transportation programs.

Recreational Marijuana Taxes. Oregon voters legalized recreational use of marijuana and designated the OLCC as the State agency to regulate the commercial growing, processing, and selling of recreational marijuana. The marijuana tax is imposed at the retail level and collected by the Department of Revenue. The Legislative Assembly set the State tax rate at 17% of the retail price. Separately, a tax of up to three percent of the retail price may be imposed by counties or cities. The State tax began to be imposed on sales on or after January 4, 2016. All marijuana tax revenues in excess of \$11,250,000 are currently distributed to the Drug Treatment and Recovery Services Fund, the remainder are distributed 10% to cities that allow marijuana businesses, 10% to counties that allow marijuana businesses, 40% for purposes for which moneys in the State School Fund may be used; 20% for mental health treatment or for alcohol and drug abuse prevention, early intervention and treatment; 15% for purposes for which moneys in the State Police Account may be used; and five percent for purposes related to alcohol and drug abuse prevention, early intervention and treatment services.

Motor Fuels Tax and Weight-Mile Tax. Oregon imposes a tax per gallon on the sale of gasoline and other fuels used to propel motor vehicles on the State's highways. The Oregon Department of Transportation ("ODOT") also assesses a weight-mile tax and road use fees on commercial vehicles that operate on public roads within Oregon. The weight-mile tax is based on the declared combination of vehicle weight and vehicle classification group. Revenues derived from the fuels tax, weight-mile tax and road use assessment fees are paid into the State Highway Fund.

Employer-Employee Taxes

Employment Taxes. Employers and employees in Oregon must pay unemployment taxes. The rate of unemployment tax depends upon the balance in the Unemployment Compensation Trust Fund as of August 31 of each year, the taxable payroll, and the amount of unemployment benefits paid.

Workers' Compensation Insurance. Oregon employers and employees also pay a workers' compensation assessment. The Director of the Department of Consumer and Business Services determines the amount of workers' compensation assessments.

Paid Leave Oregon. Starting January 1, 2023, employees and large employers with 25 or more employees must make contributions to Paid Leave Oregon. Paid Leave Oregon is a program that provides paid time off to employees when they need to care for themselves or others upon the occurrence of certain family, health, and safety qualifying events. Contributions are made on employee wages up to a wage base (currently \$132,900). Employees must currently contribute 0.6% of wages up to the wage base and employers who must pay into the program must currently make a 0.4% contribution on such wages. All contributions go into the Paid Family and Medical Leave Insurance Fund.

Severance Taxes

The Small Tract Forestland Severance taxes are paid to funds outside of the General Fund for various education and county programs, either in Eastern or Western Oregon.

Licenses and Fees

Owners and operators of motor vehicles pay fees to ODOT for the licensing, registration, and titling of their vehicles. These moneys are dedicated to the State Highway Fund and other funds or accounts dedicated for transportation purposes. Other revenues are generated from the sale of hunting and fishing licenses and tags, occupational license fees, and other licensing fees.

New Vehicle Taxes

Oregon imposes a vehicle dealer privilege tax (the "Privilege Tax") for the privilege of selling new vehicles in Oregon. The State also applies a vehicle use tax (the "Use Tax" and together with the Privilege Tax, the "Vehicle Taxes") to new vehicles purchased from dealers outside the State of Oregon by Oregon residents or businesses that will use or store the vehicle in Oregon. The Use Tax moneys are deposited into the State Highway Fund and dedicated for transportation purposes, while the Privilege Tax moneys are deposited in the Zero-Emission Incentive Fund and the Connect Oregon Fund.

Transient Lodging Taxes

Oregon imposes a tax on transient lodging that funds Travel Oregon, the statewide tourism promotion agency.

Other Revenues

Charges for Services. Major portions of these Other Funds revenues are premium payments collected by the Public Employees Benefit Board and the Oregon Educators Benefit Board; fees charged to State agencies for centralized services provided by the Department of Administrative Services; and administrative charges to various tax, fee, assessment, collections and other programs.

Fines, Rents and Royalties, Bond Sales. The State collects income from State-owned properties that are leased or rented. It also collects fines and royalties. Proceeds from the sale of bonds issued by the State are deposited into various program funds and accounts for disbursement to construction or other capital projects, or loan and grant programs operated by various State agencies.

Sales, Donations and Loan Repayments. The State from time to time sells State-owned properties, receives donations from various parties and receives repayments on loans made to governmental and private entities under various programs.

Federal Funds

Federal Funds are moneys received from the federal government. The Legislative Assembly may authorize receipt of Federal Funds for specific purposes. These funds must be appropriated by the Legislative Assembly and used in accordance with any restrictions placed on the funds by the federal government.

RECENT DEVELOPMENTS

2021-23 Biennium Budget

2021 Legislative Sessions. During the 2021 Regular Legislative Session, the Legislative Assembly adopted a balanced budget for the 2021-23 Biennium (the “Legislatively Adopted Budget” or “LAB”) as required by the State Constitution. The LAB was based on the projected revenues from the State Economic and Revenue Forecast that was released on May 19, 2021 and revenue changes enacted during the 2021 Regular Legislative Session. The Legislatively Adopted Budget, as adjusted by subsequent actions of the Legislative Assembly, is referred to as the “Legislatively Approved Budget.” At the call of the Governor, the Legislative Assembly convened for a one-day special session on December 13, 2021, to address concerns around housing, drought, and cannabis enforcement. State financial administration matters were addressed in Senate Bill 5561, which directed \$100 million towards rental assistance, \$20 million for cannabis enforcement, and \$98 million in Emergency Board appropriation to agencies for drought related issues.

2022 Regular Legislative Session. The Legislative Assembly convened for its 2022 Regular Legislative Session on February 1, 2022 and adjourned on March 4, 2022. The Legislative Assembly took actions to adjust the 2021-23 Legislatively Approved Budget based on available resources as projected in the State Economic and Revenue Forecast released on February 9, 2022. The net effect of those actions on the 2021-23 Legislatively Approved Budget was a \$2.2 billion increase in General Fund budgeted expenditures and an \$83.1 million increase in Lottery Fund budgeted expenditures. As a result of these actions the projected ending fund balance for General Fund was \$760.6 million.

Following the above-described adjustments, the 2021-23 Legislatively Approved Budget provides for budgeted expenditures of \$27.861 billion from the General Fund and \$1.447 billion in Lottery Funds. The combined General Fund and Lottery Funds in the 2021-23 Legislatively Approved Budget increased 22.6% from the 2019-21 Legislatively Approved Budget.

2023-25 Biennial Budget Process

Governor’s Proposed Budget. The proposed 2023-25 biennial budget was released by Governor Tina Kotek on January 31, 2023 (the “Governor’s Budget”) for consideration by the Legislative Assembly during the legislative session which convened on January 17, 2023 (the “2023 Legislative Session”). The Governor’s Budget assumes, for the General Fund and Lottery Funds combined, \$32.5 billion in available resources and proposes \$32.1 billion in expenditures, leaving ending fund balances of approximately \$381.9 million.

The Governor’s Budget anticipates certain revenue increases to maintain core government functions as well as certain program and policy changes, all of which are subject to review and modification by the Legislative Assembly. The Governor has proposed revenue increases, including: an increased surcharge on liquor bottles, and a telephone surcharge used to fund Oregon’s behavioral health crisis line and mobile crisis services. The Governor’s Budget also retains the reserve fund balances at the end levels achieved at the end of the 2021-23 Biennium, but proposes repurposing \$765 million in projected new deposits into critical investments, such as housing, homelessness, mental health and addiction services, education and affordable childcare. The repurposing of the reserve funds would require approval by three-fifths of the members serving in each house of the Legislative Assembly.

The Governor’s Budget focuses on making strategic investments to increase housing and reduce homelessness, improve access to mental health and addiction services, and ensure Oregon’s children are better served by our investments in early literacy, childcare, and K-12 schools. Some of these investments include, \$1 billion to address the Homeless State of Emergency and the Housing Production Strategy identified in the Governor’s Executive Orders No. 23-02 and No. 23-04, \$500 million for the Healthier Oregon Program expanded pursuant to Oregon Laws 2021, Chapter 554 to cover all ages, \$150 million for targeted investments to support early literacy, and summer learning programs, \$100 million in lottery revenue bonds for early learning facilities, and \$100 million in lottery revenue bonds to expand acute psychiatric facilities.

The Governor’s Budget is subject to review and modification by the Legislative Assembly during the 2023 Legislative Session. The Oregon Constitution requires the Legislative Assembly to balance the State’s General Fund budget. If the Legislative Assembly does not enact some of the proposed program and policy changes on which the Governor’s Budget is based, other measures would be necessary to balance the budget which may include reducing proposed spending levels, increasing revenues or some combination thereof.

Pandemic and Public Health Considerations

The outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus (“COVID-19”), was declared a global pandemic by the World Health Organization in March 2020. Since the onset of the pandemic, the Governor, the Legislative Assembly and other federal and state agencies, have issued numerous restrictions and warnings, and have taken and continue to take, various actions, including the passage of laws and regulations, on a wide array of topics, to slow the spread of COVID-19 and to address ongoing public health and economic consequences of the pandemic. The State cannot predict the scope or duration of preventative or mitigating actions taken by federal and state agencies in response to COVID-19, which continue to evolve in response to the conditions of the virus.

Recent Actions of the Legislative Assembly: COVID-19; Economic Preparedness; Critical Investments

The State, acting through its Legislative Assembly, has taken actions over the last two years in connection with allocating funds to respond to challenges of the COVID-19 pandemic and to otherwise prepare for periods of economic uncertainty. This discussion below summarizes some of those actions.

2021 Regular Legislative Session. During the 2021 Regular Legislative Session, the Legislative Assembly approved federal funds expenditures of approximately \$2.3 billion in the 2021-23 Biennium to use Coronavirus State Fiscal Recovery and Capital Projects Funds provided through the American Rescue Plan Act (“ARPA”). The State is using the Coronavirus State Fiscal Recovery Funds that were allocated by the Legislative Assembly primarily for the following purposes: approximately \$1.404 billion to help cover revenue replacement to support public safety and State hospital expenditures; \$316 million to fund 58 individual projects to improve the water and sewer systems of local jurisdictions across the State; \$240 million to address the economic impacts of COVID-19 through priority investments in specific geographical regions; \$169 million for improving the States’ behavioral health system and improving the services and infection control within the long-term care system; \$50 million for economic and revenue supports to cultural and community organizations in the State; and \$14 million for assistance to emergency food bank organizations, which have seen dramatic increases in demand as a result of the pandemic. The Legislative Assembly authorized \$120 million of the Capital Projects Funds allocated to the Oregon Business Development Department for grants to increase broadband internet availability across the State.

Coronavirus State Fiscal Recovery and Capital Projects Funds may be used to cover eligible costs incurred through December 31, 2024, with final disbursement of those eligible costs by December 31, 2026. Of the total Coronavirus State Fiscal Recovery and Capital Projects Funds allocated to the State, approximately \$488 million was not approved for expenditure during the 2021 Regular Legislative Session and therefore remained available to the Legislative Assembly to cover eligible costs in the 2021-23 or 2023-25 Biennium.

In addition, \$248.35 million of Coronavirus Local Fiscal Recovery Funds were allocated for distribution by the State to cities during the 2021-23 Biennium, which is the total amount of ARPA funds allocated to the State for pass-through to jurisdictions with populations less than 50,000. The U.S. Department of Treasury has and will distribute ARPA funding directly to Oregon’s counties and metropolitan cities.

2022 Regular Legislative Session. During the 2022 Regular Legislative Session, the Legislative Assembly was able to make funding investments in several critical areas of concern because of strong revenue trends. The Legislative Assembly authorized approximately \$400 million in General Fund moneys to pay for homeless services, building affordable housing and helping low-income Oregonians purchase homes. Other legislation authorized \$77 million in General Fund moneys and \$123 million in ARPA funds for bolstering programs connecting people to job training, apprenticeships and education programs to assist Oregonians to find new jobs. To assist certain qualified residents that have been adversely affected by the pandemic, the Legislative Assembly approved \$147 million in ARPA funds for economic impact payments to more than a quarter million Oregonians in the form of \$600 one-time payments. Further, \$150 million in General Fund moneys were approved for education funding to create summer learning programs, and \$72 million in General Fund moneys and \$6 million in ARPA funds were allocated to a list of more than 60 projects located in rural communities to support economic development, manufacturing, education and health care priorities. Finally, the Legislative Assembly increased the allocation of the ARPA Capital Projects Funds to the Oregon Business Development Department for grants to increase broadband internet availability across the State by \$37 million.

The ARPA funding provided to the State as described above was fully allocated to state agencies by the Legislature during the 2021-23 biennium. As of December 31, 2022, approximately 50% of the funding has been expended, and approximately 20% of the funding is expected to be carried forward for use during the 2023-25 biennium. The majority of the ARPA funding was allocated to revenue replacement and one-time or short-term investments, so the State does not expect to use State funding to backfill funding for new investments once the ARPA funding is spent.

2020 Wildfires

In 2020, wildfires in Oregon burned over 1.2 million acres statewide, with some of the largest and most devastating fires caused by a severe wind storm in hot and dry conditions on Labor Day occurring in eight counties (Clackamas, Lincoln, Marion, Linn, Lane, Douglas, Jackson and Klamath) (the “2020 Wildfires”). In the aggregate, these fires destroyed over 5,000 homes, commercial structures and caused major damages to public roads, highways and other infrastructure.

Governor Kate Brown invoked the Emergency Conflagration Act on September 8, 2020, as more than 35 wildfires burned across the State. On September 10, 2020 the President approved the Governor’s request for a federal Emergency Declaration, and on September 15, 2020, the President approved the Governor’s request for a Major Disaster Declaration. These declarations activated FEMA and make federal assistance available to the State in response to the 2020 Wildfires.

On October 12, 2020, the Governor appointed Matthew Garrett as Director of Wildfire Recovery in the Governor’s Office, as the principal advisor to the governor on recovery issues related to the 2020 Wildfires. This office is to develop a strategic recovery plan designed to consider the needs of all affected Oregon communities by providing leadership and direction to state agencies. To date, most of the costs associated with fire suppression, response and emergency protective services have already been incurred by state and local governments. Long-term sheltering and mass care operations, debris management and infrastructure repair cost are anticipated over the next several months to years.

Based on a preliminary damage assessment conducted by FEMA, the Oregon Office of Emergency Management and other state agencies and local governments, the State estimates a total cost \$1.15 billion due to wildfire/wind damage, response costs and debris removal. These estimates are based on data collected in October 2020 and could increase as debris removal paves the way to additional damage assessments. Further, these estimates do not include damaged or destroyed privately owned infrastructure or property, nor do they account for economic losses.

The State anticipates receiving funding from various sources, including FEMA’s Public Assistance program, which is a cost-sharing program that reimburses for at least 75% of eligible costs on a reimbursement basis. Additionally, as discussed above, the Legislative Assembly has taken certain budget actions for the 2019-21 biennium in response to the wildfires and the Governor’s proposed budget for the 2021-23 Biennium includes \$400 million for wildfire recovery and response.

The increase of warmer and drier weather conditions in the State indicates that wildfire events are likely to continue in the future. Wildfire events threaten the health, economy and environment of the State by causing unhealthy levels of air quality that can cause respiratory problems for some people; threatening, damaging or destroying infrastructure, homes, property and agriculture; destroying forestland resources; and damaging or destroying habitat for wildlife.

ECONOMIC INFORMATION

The following information is derived from the May 2023 Oregon Economic and Revenue Forecast prepared by the OEA.

Summary

Inflationary economic booms have not traditionally ended well, meaning not without a recession. As such it is easy to be pessimistic about the outlook for the economy. Economic developments like last year’s goods recession, and the banking turmoil earlier this year add more fear to the outlook. However, a near-term recession is far from a slam dunk. The reasons include some nascent signs that inflation is cooling and the Federal Reserve is looking to pause its interest rate increases which limits the potential for overtightening. Furthermore, the economy is showing some signs of renewed strength as housing and manufacturing stabilize, and income growth is again outpacing inflation. All of these indicate a sudden stop in the economy in the short-term is unlikely. Part of forecasting is not just identifying the dynamics, but also the timing.

The Oregon Office of Economic Analysis’ (“OEA”) baseline forecast calls for the economic soft landing and continued expansion. Even so, Oregon’s economy will slow noticeably in the upcoming 2023-25 biennium, however for good reasons. The recovery from the pandemic has been faster, and more inclusive than any in recent memory. With the

economy operating at or near full employment, underlying gains in the labor market will be closely tied to demographics and population growth. To maintain even stronger economic growth in the years ahead Oregon will need to see faster population gains, and/or rely on business investment and capital to increase productivity. This cycle has been different in the sense Oregon ranks in the middle of the pack economically with income and productivity outpacing the typical state while jobs and population lag, the opposite pattern of decades past.

Available resources are expected to be up sharply relative to what was assumed in the March 2023 forecast, both in the near term and over the extended horizon. The upward revision in the outlook is based both on a stronger than expected tax filing season, as well as methodological changes made in light of fundamental shifts seen in recent years.

The tax filing season once again outstripped expectations, albeit modest ones. Revenue gains have cooled some, but it is clear that Oregon's tax sources have become more effective than they were pre-pandemic.

One major factor has been the current inflationary environment. The vast majority of Oregon's taxes are not adjusted to inflation and rise along with prices. With demand outstripping supply, businesses and consumers are paying premiums for their needs. This has translated into a wide range of taxable business and labor income, which has moved many filers into higher tax brackets. The new Corporate Activity Tax, Vehicle Privilege Tax, alcohol, and tobacco taxes have risen with inflation as well.

Inflationary dynamics have not been captured well by Oregon's revenue models, given that this sort of environment has not existed since years before computerized models have. Oregon's revenue models have also been refined to better account for fixed tax brackets and federal tax reform.

Qualitatively, there is not much difference between the updated revenue outlook, and what was predicted in March. After unsustainably high revenue collections over the past two years, tax revenues are expected to come back to earth over the next biennium, before returning to healthy growth thereafter.

Quantitatively, small differences in trajectory matter a lot, and compound over time. Taken together, the outlook for personal and corporate income taxes has risen by \$1.5 to \$2 billion over the forecast horizon due to the updated model methodology. The 2021-23 personal kicker is now estimated to be \$5.5 billion, and the corporate kicker is now estimated to be \$1.8 billion.

Economic Outlook

Macroeconomic Setting

The economic recovery from the pandemic has been faster, and more inclusive than any in recent memory. Employment is at an all-time high and wage growth is strong. Household finances are in a better position than pre-pandemic across the entire distribution. All of these outcomes are unequivocally good news. The challenge is these dynamics, when combined with pandemic production and supply chain issues has proved inflationary. Inflation has slowed off its peak rates a year ago but remains in the 4 or 5 percent range. The Federal Reserve has a 2 percent inflation target.

As such, it is easy to be pessimistic about how the current macroeconomic situation resolves itself. The good outcome involves an immaculate slowdown in inflation, one that is not really seen in the historical data. The bad outcome involves the Federal Reserve raising interest rates to head off inflation, but in doing so creates a recession given monetary policy is a blunt instrument prone to policy lags. Importantly, the initial path the economy takes to either the good, or bad outcome starts the same way. Right now it is hard to tell for certain which path the U.S. economy will ultimately take.

For starters, the Federal Reserve has now raised the Fed Funds Rate by 5 percentage points (500 basis points) since early 2022 and yet the unemployment rate stands at or near an all-time low. There are two main avenues of thought when it comes to the macroeconomic outlook.

First, the full impact of the past interest rate increases have yet to fully hit the economy. The goods recession last year is a precursor to an economy wide recession this year. Historically inflationary economic booms do not end well. Monetary policy is a blunt instrument prone to lagged impacts on the real economy. Threading the needle is simply too tough a task to achieve. That means this cycle, with high inflation, rising interest rates, and slowing economic growth results in the most telegraphed recession in recent memory.

The exact timing of a recession is always difficult. A number of economists and forecasters have been predicting an imminent recession for at least the past 9 months. They have clearly been wrong. Even so, these recession risks are real. Pulling off the soft landing when inflation was running at double-digit rates on an annualized basis is something not seen

historically. Even as a recession may ultimately be needed to bring inflation fully back to the Federal Reserve targets, the current momentum in the economy continues to push the recession date further into the future. In forecasting, it's not just identifying the right dynamics, but also the right timing.

The second way many are reading the economy today is that there are a few encouraging signs in the data that this initial path is at least sufficient to keep open the possibility of the soft landing. It may not ultimately be achieved, the Fed may have already done too much, or still have more work to do. But for now it is also the fact that timing matters. It appears there is renewed near-term momentum in the economy, and so an uncertain recession starting in 6, 9, or 12 months from now is extremely difficult to put in the baseline. As a result the OEA's forecast calls for continued economic growth and the soft landing. The OEA's Boom/Bust alternative scenario remains just that, an alternative scenario to the baseline.

So what are these encouraging signs? Let's start with inflation, which remains the key macroeconomic issue to watch. Overall, inflation remains stubbornly high. Or rather the continued strength in consumer demand still outpaces supply leading to faster price increases. Even so, for the first real time this cycle there are glimmers of inflation slowing.

Yes, there are still likely lagged effects of higher interest rates that will help cool spending and the overall economy in the quarters ahead. However, underneath the hood of the inflation data, the strength and breadth of price increases across all categories is starting to narrow. The increases are getting smaller, and the number of categories with, say, double-digit increases is shrinking. The median CPI, or the inflation for the midpoint of price increases across all categories as reported by the Federal Reserve Bank of Cleveland has slowed noticeably in recent months. When this is combined with lower food and energy costs, and the sizable slowdown in shelter costs that will weigh on headline inflation for the next six months or more, the path toward slower inflation is clear.

Slower inflation in the months ahead will keep the Federal Reserve from raising interest rates further, especially now that they believe they have policy at or near the "sufficiently restrictive" range they have been aiming for. Pausing on interest rate increases will both allow time to see how large the lagged policy impacts may be, and also for the banking sector to recapitalize or adjust and sort through its recent turmoil. Plus pausing on continued interest rate increases ensures that demand, be it consumer spending and business investment, does not crash immediately due to ever higher rates.

Besides inflation, there is a bit of renewed momentum in segments of the economy that point toward near-term strength and likely delay the onset date of any potential recession. While those may be famous last words for economists forecasting the economy, they do appear to be the case today.

Specifically, real personal income excluding transfer payments – a key measure the National Bureau of Economic Analysis uses to date recessions and looks at income after excluding public assistance programs and adjusting for inflation – is growing. That is, household finances are doing better. The personal income savings rate has inched up over the past six months, meaning consumers are relying less on their pandemic excess savings and more on current income.

Additionally, as discussed in more detail in the March 2023 forecast, the economy has so far survived the goods recession. Now that goods recession appears to be bottoming out. Purchasing managers indexes for manufacturers, a look at whether new orders are rising or falling, are starting to turn around. So far that means less bad news than before, but with inventories declining and the U.S. dollar depreciating, it is likely factory demand in the U.S. will pick up in the near future. Furthermore, housing has stabilized. There are two offsetting factors here. First, multifamily construction remains very strong, but likely to fall in the near future given there are a record number of units under construction and household formation has slowed. Second, single family construction has fallen due to high interest rates and bad affordability, but has stabilized and is likely to pick up moving forward. New home construction takes on extra importance in the housing market when resale inventories are low, and new home construction is a boost to economic growth.

The combination of the goods recession bottoming out, and the consumer on more solid footing, it is hard to see where an imminent recession comes from. A banking crisis and credit crunch could do it, but so far the economy is adjusting and working through the banking issues. As such this makes a potential recession more of a 2024 story, and far enough into the future that it is difficult to incorporate into the baseline forecast.

Given that the near-term path of the economy looks broadly similar whether it ultimately ends up in a recession or not, reading the economic tea leaves today is difficult. However the resilience and strength in the economy this cycle has been underappreciated. The recovery has been faster and more inclusive than any in recent memory. And while the recession risks are real, it remains possible that this cycle which has been different at every turn could also play out in such a way that the immaculate inflation slowdown and economic soft landing is achieved. Time will tell.

Federal Fiscal Policy

The U.S. Government is fast approaching the debt ceiling, which is an arbitrary number set independent of actual budget and spending legislation. Even so, should the U.S. default on its debt, the economic fallout could be consequential depending on how long-lasting the situation is. As Fed Chair Powell said at his May 2023 press conference, he does not want to envision a world where the U.S. government does not pay its bills.

The baseline forecast assumes the debt ceiling is raised in time to avoid default, and a budget is passed to avoid a federal shutdown this fall.

When it comes to the possibility that political brinkmanship in Washington DC would cause the federal government to not pay the bills it has already authorized itself to make, the potential economic fallout is considerable. Moody's Analytics estimates that even a short debt limit breach could lead to a decline in real GDP, nearly two million jobs lost and a rise in the unemployment rate of a percent or two. The potential long-lasting costs could be in the form of higher borrowing costs in financial markets. U.S. Treasuries are typically the risk-free asset in global markets that many other interest rates are anchored to, so defaulting could alter those dynamics permanently resulting in higher interest costs in the years ahead.

The White House Council of Economic Advisors also notes that that in a recession caused by defaulting, any fiscal stimulus would not be coming given it is typically the federal government who provides the funding, and private sector borrowing would be impaired for households and businesses due to financial market turmoil and skyrocketing interest rates. That means any recession could be worse than anticipated given these dynamics which typically boost the economy during times of need.

While it remains unknown how exactly the U.S. Treasury would move forward in the event of a debt ceiling breach, the federal government has bills to pay to creditors, contractors, and citizens. The nearby scatterplot shows Oregon counties and their direct exposure to the federal government. This is by no means an exhaustive look at the impacts of federal spending, or the ramifications of financial market turmoil, but rather a simple look at what share of local income comes from federal programs, and where of local jobs are federal jobs.

Overall, Oregon's direct exposure to the federal government is below average. Local federal jobs are a slightly smaller share of the workforce than they are nationwide (1.5% vs 2.0%). Part of this difference is due to the lack of large military bases, and military contracting more broadly which are private sector firms but closely tied to military spending nationally. Counties within Oregon that have a larger federal workforce footprint include many Southern and Eastern portions of the state where federal land management accounts for a larger share of local jobs.

Where Oregon has a larger direct reliance on the federal government is in terms of so-called transfer payments, these include federal aid programs like Medicaid, Medicare, Social Security and so on. Transfer payments, excluding state unemployment insurance, account for a few more percentage points of total income locally as they do nationally. Nearly every single Oregon county relies on such payments more than the U.S. average. As such, any delay in the U.S. government paying its bills to citizens could result in more household financial hardship and a drop in consumer spending than in the typical state.

Finally, absent the debt ceiling political brinkmanship there are a few main forces impacting the federal budget and investment in the years ahead. On one hand the federal deficit is shrinking compared to outsized pandemic deficits. A relative shrinking of the deficit on its own could be moderately contractionary, and help to slow inflation. On the other hand, recent federal legislation like the Bipartisan Infrastructure Bill, the Inflation Reduction Act, and the CHIPS act all work to boost federal investment in industries and programs that should increase the productive capacity of the economy in the years and decades ahead. One risk here raised by the OEA's advisors is the increased investment during a time of tight labor markets and high construction costs could itself prove inflationary and crowd out other investments that would have been made.

Oregon Economic Outlook

The economic recovery from the pandemic has been faster, more complete, and more inclusive than any in recent memory. Employment across Oregon has never been higher when analyzing based on educational attainment, gender, geographic location, or race and ethnicity. Household incomes and finances are likewise a stronger position today than pre-pandemic. However, as the economy is now at or near full employment, growth is set to slow. The upcoming 2023-25 biennium will see economic growth that is near its potential, which is determined by the amount of labor and capital in the state. Economic growth is all about how many workers there are, and how productive each worker is.

State Comparisons

Looking at the economic cycle to date, it can be informative to see how Oregon compares. This cycle has been different. Typically Oregon is more volatile than the nation and the typical state. The timing of Oregon's local business cycles is perfectly aligned with the nation, Oregon neither leads nor lags going into or coming out of a recession. However, local recessions tend to be deeper, and expansions faster. So far that has not been the case this cycle. Oregon's economic performance since the start of the pandemic is in the middle of the pack across all states.

Even so, local employment trends are a bit below average. The change in employment since the start of the pandemic ranks 30th fastest out of all states, and trails the nation by one percentage point. The most recent round of annual benchmark revisions from the U.S. Bureau of Labor Statistics widened this gap as Oregon saw a slight downward revision to the published data in the past year. Examining trends across sectors, Oregon's relatively slower employment growth compared to the nation is primarily due to slower recoveries in health care and leisure and hospitality, while stronger gains in construction help offset some of the weakness.

More encouraging are local income trends that are a bit above average. Total personal income in Oregon has increased 19.8 percent from the end of 2019 through the end of 2022. This large increase translates to the strong increases in consumer spending and income taxes paid in recent years. Of course the high inflation during the pandemic means the cost of living has also increased during the same time period. After adjusting for inflation, total Oregon personal income is 3.5 percent higher than at the end of 2019 while the U.S. is up 2.6 percent. Oregon's income growth ranks 21st fastest across all states. This relative strength is primarily in the non-wage forms of income.

While Oregon is right in the middle of the pack when it comes to employment and income, that same cannot be said for local GDP where the state has experienced the 11th strongest growth across the country. Local GDP data is prone to revisions and assumptions about productivity and value-added. As such it may be best to wait for a few more quarters of data, and the upcoming comprehensive revisions this fall to know exactly where the state stands, even as it is encouraging to see the strong growth.

What is most interesting overall is that this cycle to date has been different for Oregon than the experiences in recent decades. It's not just that the state is in the middle of the pack, compared to being more boom/bust typically. But it is also the composition of that growth being different. Today employment and population gains are lagging the nation and expectations. Instead, it is income and production leading the recovery. In much of the 1990s through early 2010s it was Oregon's relative income growth that was most concerning as it lagged, while jobs were plentiful and grew at a fast pace. This relative pattern of growth started to shift late last decade, and appears to have continued through the pandemic and recovery. To a certain extent it does not matter the exact composition of economic growth, but it is determined by both the amount of capital and labor in the region.

Capital and Productivity

Increased productivity raises the overall speed limit of the economy. Producing more per hour work increases business revenue and worker wages. However, it typically takes investment in the various forms of capital on the part of both businesses and workers to raise productivity. Capital can take different forms includes financial, physical, natural, human, and social. No firm or region excels at or has access to each type of capital. However, they can rely more upon the other types of capital that it does have for future growth.

Overall Oregon has good productivity. Part of this is the state's historical strength in high-tech manufacturing which is a highly productive industry. But improvements in productivity in recent decades are broader than that.

In the real GDP estimates currently published, it is not Oregon's manufacturing output per worker driving the above-average gains, but rather strength across a variety of industries.

The U.S. Bureau of Labor Statistics also publishes state level estimates of labor productivity. Last cycle, from the height of the housing boom in 2007 through the pre-COVID peak in 2019, Oregon's labor productivity ranked 4th fastest among all states. During the early part of the pandemic, productivity picked up nationwide as businesses made due with what workers they had in the face of strong consumer demand. From 2019 to 2021 Oregon's labor productivity ranked 6th fastest among all states. The 2022 state estimates are due out next week (May 25th) from BLS and the OEA will be watching closely to see how Oregon stacks up. Expectations are for steady or even declining productivity in the 2022 numbers given how businesses ramped up employment back to pre-pandemic numbers by and large. A portion of the initial pandemic productivity gains were more illusionary or the artifact of lower employment counts, so reverting back to higher employment gains will weigh on the productivity numbers, which is something the U.S. has already seen in the real-time

quarterly data. Additionally, it takes time for new workers to gain the experience and become more productive. Moving forward output per worker and productivity more broadly is expected to be a bit better than in recent decades.

Among the reasons why productivity may be stronger in the years ahead than in the recent past isn't just the slowdown in labor growth due to demographics, but also the increase in new business formation during the pandemic. New firms typically bring new ideas and products, and improve efficiencies compared to existing firms, which raises economywide productivity.

Initially, the increase in start-ups during the pandemic was viewed with a bit of caution. New IRS rules requiring more sole proprietor types to register, and the possibility of more individuals trying to access pandemic aid programs and needing a registered business to do so and the like could result in the start-up spike even if the fundamental nature of the economy remained the same. However, even if those reasons are part of the story, and they likely are a part, new business formation continues to run at a strong rate three years into this cycle. At least some portion of this increase represents a fundamental increase in entrepreneurship.

Statistics show that running a business is hard. Many firms do not make it beyond their first year or two. And only a couple will eventually grow to be huge, successful firms. As such when it comes to future economic growth for the entire economy, it is not necessarily about the probability of success for any given firm, but the cumulative probability that one or two of these new businesses will succeed. More ping pong balls in the hopper increases the overall chance of success.

Looking forward the outlook for new business formation faces some crosscurrents. Personal savings and home equity are the most common funding source for new businesses. While those are higher today, the impacts of high inflation, rising interest rates, and recession risks likely weigh on start-up activity in the near term. Additionally, venture capital and bank lending is tighter today than earlier in the pandemic, which keeps a lid on new business formation as well.

However, on the upside are demographics. Research from the Census Bureau shows that entrepreneurship rates peak in ones late 30s through early 40s. In the decade ahead the large Millennial generation will age into their peak entrepreneurship years, likely providing a long-lasting demographic tailwind to start-up activity in the years ahead. Now, simply having more businesses does not necessarily lead to increased business investment and productivity gains, but it is an encouraging signal about the possibilities in the years ahead.

Labor Market At Or Near Full Employment

A key concept in economics is that of full employment, or the natural rate of unemployment, so-called NAIRU or u^* (pronounced u star). Basically it is the highest employment level an economy can have without generating higher inflation, and when nearly everyone who wants a job, has a job. Even with today's high inflation, one can be hard pressed to say the economy is currently beyond full employment from a demographic perspective. Even so, whether Oregon and the U.S. are beyond full employment or not, they are certainly near it. That means the current labor market is at or near its potential. That means future growth will be tied to demographic changes and migration trends.

One key number to monitor is the labor force participation rate. This measure is based on the entire population 16 years and older and what share has a job or is actively looking for work. The most recent reading for Oregon stood at 62.7 percent in March. Such a statistical may seem low, but it is important to remember that since the calculation is based on the entire population 16 years and older, it means as the large Baby Boomer cohort continues to retire, demographics are pulling down the statistic even if younger workers work at the same rates they have historically. As such, March's 62.7 percent labor force participation rate in Oregon is almost exactly what one would expect in a full employment economy given today's demographics.

Now, the 2000s and 2010s were best characterized economically as underperforming, at best. The millennium started with a recession, followed by an incomplete recovery during the mid-2000s that was then followed by a severe Global Financial Crisis and subsequent recovery that took the better part of a decade to complete. As such many economists tend to think of 1999 or 2000 as the last time the U.S. economy was truly at full employment and any analysis in recent decades was benchmarked relative to labor market patterns at that time. However, given we are now more than two decades removed from then and the labor market is at or near, or possibly a bit beyond full employment today, it may be time for economists to update their priors and thoughts about what full employment looks like.

Specifically, when comparing today's strong labor market with that of the late 1990s, three things stand out. First, among 30-somethings through 50-somethings, employment rates and labor force participation rates are nearly identical. Prime working-age individuals today look an awful lot like prime working-age individuals a generation ago, at least from a

labor market perspective. Second, 60-something, and even 70-somethings have higher employment rates today compared to 20-25 years ago. Third, teenagers and 20-somethings have lower employment rates today compared to 20-25 years ago.

For a macro, high level perspective this relative shift to lower rates among young adults to higher rates among older adults do not make a discernable difference. Oregon's current labor force is at or near its potential regardless. However, when thinking about potential labor force gains in the years ahead, the differences can matter considerably.

On one hand it can likely be expected to higher employment and labor force participation rates among older Oregonians is here to stay. Part of this increase is due to the shift in work away from manual labor and into office-based work, which physically allows employees to work later in life if they so choose. Part of this increase is also due to inadequate retirement savings and the need to work longer financially.

On the other hand, it is harder to know to what extent participation will pick back up among younger Oregonians. Much of the relative decline since 2000 has been due to increased schooling. Young Oregonians attended higher education at higher rates, which should increase human capital, productivity, and wages in the long-run even if it has been at the expense of labor supply in the short-term. However these lower participation rates have endured during and so far after the pandemic, even as the labor market has been strong and higher education enrollments have fallen. Nationally participation rates are edging slightly higher for teenagers and 20-somethings in recent months, but still have a long way to go to regain those late 1990s rates.

Overall with labor supply at or near its potential it is important to think through exercises such as this to assess where the economy could be heading in the years ahead. For instance, if Oregon were to retain the higher participation rates among older workers, and also regain the higher rates among younger workers, it would mean an increase of more than 100,000 workers that does not rely on any increases in population growth or the like. These potential workers already live in Oregon.

Given there are still more unfilled job openings today than unemployed workers searching for a job, a boost to labor supply would likewise boost economic growth.

The key source of labor supply in the future will be a rebound in migration and population growth. Oregon's population has been stagnant during the pandemic – up slightly based on estimates from Portland State's Population Research Center, and down slightly based on estimates from the Census Bureau. But net migration to Oregon has historically been pro-cyclical. It always slows in recession, and rebounds in expansion. So far this cycle migration did slow early in the pandemic, but so far in recovery has not rebounded. The baseline forecast has a modest rebound in population growth – sub-1 percent annual gains in the decade ahead – based on this historical pattern, and the fact that surrendered driver licenses at Oregon DMVs indicates in-migration continues to occur at the same rate as in the past.

For Oregon businesses looking to hire, future labor growth could come from more young workers, and also gains from the state's Latent Labor Force which is about the possibility of reducing historical disparities when it comes to differences based on sex, education attainment, and race and ethnicity. Increasing participation among existing Oregon residents could boost labor supply in the state by far more than any relative change in population growth. Importantly, such gains would take on extra importance in a world where migration does not rebound as expected. If one looks across the country, many states in the Midwest or the Great Plains have higher demographically-adjusted participation rates. These tend to be places where economic growth has been slower in recent decades and have not experienced the stronger migration trends like the South and West have.

Labor Market Forecast

The baseline forecast calls for the economic soft landing and continued expansion. What this means for the forecast is given Oregon's labor force is at or near its potential, job growth will slow to match those underlying gains. Job growth has already slowed off the pandemic reopening highs, and will continue to do so. Employment growth for the next couple of quarters is expected to be slightly stronger than gains in the potential labor force. In 2024 and beyond the employment forecast matches the demographic outlook for 0.7 percent annual gains on average.

The risks to such an outlook are balanced. To the downside growth could slow more than anticipated. If Oregon is at or beyond full employment, job gains are more likely to match demographic trends immediately and not in the quarters ahead. Already Oregon job growth was downwardly revised by the recent annual benchmark revision. Similarly, should the modest rebound in population growth assumed in the baseline forecast not materialize, job growth should be lower as well.

However, to the upside, should participation remain strong among older Oregonians and pick up among younger Oregonians, then employment can significantly outpace underlying demographics for the next biennium, if not longer. Plus, given the baseline forecast is for only a modest migration rebound, should population growth surprise to the upside, expectations would be for job growth and the labor force to strengthen as well.

Additionally when it comes to employment and the hiring outlook, there are signs that the tight labor market is moderating just a bit. If firms are now fully staffed, or at least not as desperate to hire as earlier this cycle, job growth will slow from an economic perspective, and not just a demographic one.

Specifically, over the past year the number of job openings have declined 20 percent in Oregon. While such a decline still leaves job openings higher than they were pre-pandemic, and still outnumbering unemployed Oregonians, it does bring the labor market into somewhat better balance than earlier in the pandemic, as discussed in more detail in the December 2022 forecast. Fed Chair Powell noted in his May 2023 press conference that this pattern was not supposed to be possible, a sizable decline in job openings has historically coincided with a noticeable rise in unemployment.

Even so, one place this somewhat better balance in the labor market is visible is in the number of Oregonians receiving unemployment insurance benefits. 2022 was a record low year for UI benefits paid due to both the strong labor market and fast employment growth, but also in part due to so many Oregonians exhausted their benefits during the pandemic and were ineligible.

So far in 2023 claims for UI benefits have risen. Traditionally a rise in initial claims for unemployment insurance is a leading indicator of recession. And the lack of a normal seasonal decline in continuing claims through the spring means it is taking a bit longer for unemployed workers to find another job.

However, besides simply being a precursor to recession, another way to interpret the current data is that the overly tight labor market is now just cyclically tight. So far claims are up both locally and nationally, however they have yet to spiral upward and appear more of a one-time level adjustment higher. UI claims data will continue to be closely monitored in the weeks and months ahead but for now provide an opportunity for a Rorschach test of how to read the labor market.

Overall these dynamics point toward the labor market being a little less tight than it was in the recent past. With a bit less pressure, it is likely firms will not feel the need to compete for workers to the same degree, and wage growth will slow as a result. Right now there are mixed signals as to whether wage growth is actually slowing or not. On one hand measures like the U.S. Employment Cost Index or Oregon's average hourly earnings show no slowing, which are both measures on a per worker basis. However, aggregate wage growth, a combination of jobs, hours, and hourly wage, are slowing down, this includes Oregon tax withholdings, and total wages and salaries.

This slowdown in total labor income is expected to continue, even as the OEA's forecast for Oregon's average wage is somewhat stronger than pre-pandemic rates (4.4 percent this year and next, slowing to 4.1 percent annually in the out years of the forecast compared to 3-4 percent annually last decade). Given that at a base level wage growth translates into household spending power, this slowdown in labor income should slow consumer spending and inflation in the years ahead.

Labor Market Industry Outlook

Looking forward the nature of the employment outlook is a mixture of fundamental, underlying growth for certain sectors, and also a continued return toward pre-pandemic patterns. While total employment, and many sectors are at historic highs today, not every single industry has fully recovered from the pandemic. As some sectors play catchup their gains in the years ahead will outpace the overall economy.

Specifically, health care and leisure and hospitality are expected to lead statewide job growth over the next two years. Both sectors were leaders last decade, but have seen slower gains (health care) or an incomplete recovery (leisure and hospitality) so far during the pandemic and early recovery. Health care will see fundamental increases due to population growth and an aging population that will require more medical care. Leisure and hospitality will eventually hit all-time highs for employment, but remain lower on a population-adjusted basis due to some structural changes in the industry be they more kiosk ordering at restaurants or hotel rooms being not being cleaned every and the like.

Similarly other services, which includes dry cleaners, gyms, and hair salons among other things, will see above average growth rates, albeit less so.

Conversely, some sectors that lead the recovery throughout the pandemic and its aftermath are expected to slow in the years ahead. This includes construction, manufacturing, and transportation and warehousing. The outlook is not for outright declines, but for more steady employment.

E-commerce is still a growth industry, but the rapid expansion of warehousing and delivery that occurred during the pandemic when much of society sheltered in place initially is unlikely to be repeated. Already some announced expansion plans have been cancelled or put on the shelf. Manufacturing has had a strong rebound, in part due to the strong demand for goods. As consumer spending on goods flattens, factory demand will too leading to steady employment.

Construction faces more of a mixed bag. There is expected to be ongoing weakness in terms of high-rise office and lodging, especially in larger cities. However ongoing strength in industrial and retail in suburban, and secondary metro markets is expected, provided population growth returns. Residential construction faces two divergent trends. First multifamily continues to be strong, but is expected to slow considerably given the number of units under construction and slowdown in household formation. Second, single family construction is down due affordability challenges with high interest rates, but is leveling off and expected to rebound in the year ahead. Finally, increases in federal infrastructure projects should boost construction through the end of the decade.

Lastly, two industries facing structural decline are retail and education. Retail employment has recovered from the pandemic, in part due to the strong consumer spending. However the outlook calls for steady employment and not growth, meaning it continues to fall on a population-adjusted basis at the same rate as in recent decades. Education faces ongoing declines in school enrollment, leading to less industry demand and fewer workers in the years ahead. Given the number of births in Oregon continues to decline outright, it will take a sizable increase in the birth rate or very large rebound in migration among families with school-age children to reverse these trends any time soon.

Zero Migration Alternative Scenario: Exploratory Findings

Oregon's historical comparative advantage has been the ability to attract and retain working-age households. The influx of mostly younger and highly educated new residents provides an ample supply of workers for local businesses to hire and expand from at a faster rate than in most other states. While the OEA's baseline forecast still calls for a modest rebound in migration, banking on historical patterns, there is the possibility that migration will not return. The 2022 Census estimates showed almost the entire West Coast losing domestic migrants to elsewhere in the country. And as the OEA detailed in its March 2023 forecast, under the hood of the 2021 migration trends was a clear acceleration in out-migration from high cost of living regions and among working-from-home types. Increased working from home is a structural change in the economy. Oregon, and the West Coast, remains a high cost of living region with terrible housing affordability.

As such the OEA is open to the possibility that its population and demographic forecast are too strong. The OEA is beginning to model and think through the implications for Oregon if migration does not rebound as expected. Specifically the OEA has developed a demographic alternative scenario that has net zero migration each year. That is, the number of people moving into Oregon perfectly offset the number of people leaving Oregon.

What this actually means is Oregon's total population would decline gradually. Deaths outnumber births in the state, and without a net influx of new residents, the population would shrink. Not drastically, but at a 0.1 or 0.2 percent pace per year. That means the real, big, practical implications of the zero migration scenario is the relative difference between the baseline outlook, and this new scenario.

One key aspect to comparing the baseline forecast and the zero net migration scenario is thinking through the demographics of who moves, and how that could alter the number and composition of Oregonians in the years ahead. In particular migration rates are highest among 20- and 30-somethings. The state has historically seen net in-migration across all age groups, but the largest numbers among these young adults cohorts.

But in a net zero migration scenario it is not just the working-age population that would look different a decade from now. Every age group would experience a different outcome than under the baseline forecast, albeit some being simply a matter of degree, while others a matter of kind.

Among the differences between the baseline and the zero migration scenario that are more a matter of degree are both K-12 Education and Long-Term Care. For K-12, enrollment declines are expected in the baseline forecast given a declining number of children in the state. With zero migration, fewer young families will move to the state than expected, resulting in a deeper decline in the number of kids.

Conversely, large increases are expected among older Oregonians. These increases will be slightly less strong if there is net zero migration to the state, but still a large increase as most of these individuals already live in the state and older age groups have lower migration rates.

The differences that are more a matter of kind show an outright reversal when comparing the baseline forecast of modest increases compared to an expected decline in the zero migration scenario. This situation applies to Childcare, where fewer young people moving to the state translates into fewer future births, Higher Education, again the result of fewer young families and people moving, but also to the potential Labor Force.

Estimating the number of working-age Oregonians in the zero migration scenario is relatively straightforward. With the large Baby Boomer generation continuing to retire, and a smaller Gen Z generation now entering into the workforce, without net in-migration the number of potential workers will decline. In the zero migration scenario, Oregon's potential labor force would be expected to decline outright by 54,000 by the year 2030. Comparing this to the baseline projection of an increase of 114,000 shows a difference, or a gap of 168,000 in the years ahead.

However, as discussed in a previous section, it is not necessarily so simple. Should labor force participation rates among younger workers, or historical disparities by gender, educational attainment, or race and ethnicity change, the potential labor force could be noticeably higher even absent migration. As such, the range of possible outcomes is large. Even in a world with zero net migration, Oregon's labor force could increase slightly in the years ahead, albeit smaller gains than in the baseline forecast. The net zero migration scenario would represent a downgrade to the overall economic outlook, even under optimistic assumptions about participation rates among existing residents.

The final piece to this initial exploratory analysis relates to housing. As with the labor force, there are a wide range of possible outcomes depending upon what happens to household formation rates. However, at a base comparison, net zero migration to Oregon would lower the amount of housing needed to be built to meet future population growth.

This relative reduction in housing demand likely means Oregon needs to build in the 50,000 to 150,000 unit range in the decade ahead compared to 190,000 in the baseline forecast. These projections are based entirely on population growth and future demand, and do not take into account Oregon's historical underproduction nor the housing needed for the homeless. Oregon needs to build an additional 140,000 units for those reasons based on recent estimates.

The reason for this range is based on plausible household formation rates by age (referred to as headship rates). If current headship rates by age continue in the years ahead, Oregon would need to build about 5,000 housing units per year. However, if headship rates were to continue to rise and regain their rates in 2000, Oregon would need to build about 15,000 units per year.

If Oregon's housing production were to increase and begin to address the historical shortage, it would improve affordability. Bad housing affordability has been suppressing household formation in recent decades as more individuals lived with roommates for financial reasons. As affordability improves, or household finances strengthen, it is likely that headship rates would increase some. This certainly occurred during the pandemic when many individuals dropped roommates, likely in part due to fear of a contagious, deadly virus, and in part due to the stronger household finances.

Moving forward the OEA will continue to refine this scenario. There are at least three specific pieces still in the works. One is a detailed industry employment forecast. Two is a personal income forecast. Labor-related income is relatively straightforward, however modeling the impacts on non-wage income given the shifting composition of the population takes a bit more time. Three is producing alternative revenue forecasts based on the economic forecasts. This will allow policymakers to better understand not only the economic, but also budgetary impacts of the zero migration alternative scenario.

Finally it should be noted that the OEA will not switch the baseline forecast to incorporate something similar to the zero migration scenario overnight. To the extent it does prove right, it will be a gradual process. Given demographic data is released once per year, it will take time to assess whether one or two disappointing years of migration data truly are the new normal.

As such, the OEA will be closely monitoring and waiting for the next big demographic data releases. The first will be the 2022 American Community Survey data released this fall. This will provide context and the socioeconomic characteristics of migrants. Today the OEA only has total population counts for 2022 and no underlying details. The second will be the 2023 population estimates released, typically, in November by Portland State and December by Census. This will provide a high level look to what extent population growth rebounded as expected this year, or not.

One final note, Census is set to finally begin to release the details of the 2020 Census in the weeks and months ahead. The big decennial census forms the backbone of the OEA's population and demographic forecast. In particular something like the age structure of the population matters when thinking through not just births and deaths, but also the potential labor force and household formation. Right now demographers are still working off of estimates and models based on the 2010 Census. Updating this with the 2020 Census data is important, and could alter both the OEA's baseline and zero migration scenario depending on what the data actually show.

Regional: Zoom Town's Cascading Migration

Early in the pandemic when working-from-home (WFH) increased substantially the concept of Zoom Towns, coined by Bloomberg's Conor Sen, emerged. These were generally smaller, scenic areas that were desirable places to live, and where workers could telecommute from. Zoom Towns garnered a lot of attention, and local home sales boomed more than in most other markets. A question at that time was whether WFH migration would continue to double down on existing growth patterns, or if new patterns would emerge.

Untangling cause and effect is challenging, but during the pandemic many medium sized metros and rural counties did experience faster population growth than they did pre-pandemic. If one focuses specifically on Zoom Towns in western states, an interest pattern emerges. Zoom Towns experienced population growth an increased demand. Net domestic migration rates to places like Bend, Bozeman, Missoula, and Spokane were all positive. However, it is actually the Zoom Towns' neighboring counties that grew the fastest.

It should be noted that these surrounding areas are small. These counties have thousands, maybe tens of thousands of residents. As such, from a net migration perspective these fast rates mean hundreds of new residents. This pattern is not an overwhelming large wave of migrants, but rather modest numbers resulting in large percentage increases. Even so, given generally declining, and aging population in many of these places, these new inflows provides an economic and demographic boost.

The question becomes, who are these new residents? Census will release the 2022 American Community Survey data this fall, providing a glimpse at the socio-economic characteristics but detailed data is not available at small geographic areas on an annual basis. Even so, there are two real possibilities, one more interesting and one more policy oriented.

On one hand, some of the new residents could be big city households who can work remotely to a greater degree and move into rural communities. That would be a big, new pattern compared to the recent past.

On the other hand, which is more likely to be happening is cascading migration. The increased demand to live in and move to Zoom Towns literally, or at least effectively pushes some residents into nearby communities. A big part of this is due to housing affordability and availability programs.

To be sure, some households do prefer to live in smaller towns. As the bigger hub in the region grows, some households want to move away, yet remain close enough to maintain community, economic, and social ties they have built up over the years.

However, to the extent this cascading migration is about housing affordability it does result in economic displacement. Households try to find the right balance in terms of location, opportunity and affordability. Some neighbors, particularly those lower- and middle-income friends, family, and neighbors are financially force to move at time. As such this highlights the importance of *regional* housing markets and continued need to increase Oregon's housing supply. The new Oregon Housing Needs Analysis (OHNA) is aimed to highlight and address these issues. The OEA is part of the process in estimating the need and production targets.

Alternative Scenario

The baseline outlook is the OEA's forecast for the most likely path for the Oregon economy. As with any forecast, however, many other scenarios are possible. Inflation is likely to remain above the Federal Reserve's target for the foreseeable future. As such, the Fed likely will need to raise interest rates further to cool the economy. The combination of high inflation, rising interest rates, and slowing economic growth is problematic. The risk of a recession in the future remains very real. The alternative scenario below is not the lower bound of all outcomes, but rather one plausible scenario modeled on realistic assumptions.

Boom/Bust Scenario: Moderate Recession

Should the economy fall into recession in the near-term, it would likely be a mild recession due to inflation expectations remain well anchored, businesses looking to hoard labor, and strong household finances keeping spending relatively strong. However, the longer the cycle lasts, the more things can change. And with the current underlying strength in the economy and somewhat slower inflation, it likely pushes any potential recessionary dynamics further out. As such, it is possible that today's household savings could be spent down in the months ahead, leaving weaker consumers when a recession does come, leading to larger layoffs than expected. As such, the boom/bust alternative scenario this forecast is for a moderate sized recession beginning in early 2024.

The nature of the moderate recession is based on the impacts of higher interest rates, which will impact goods-producing industries to a greater degree than service-providing industries. And the severity of the cycle is close to the average recession Oregon has experienced since World War II, excluding the severe cycles in the early 1980s, the Great Recession, and the COVID recession. Looking specifically at the recessions beginning in 1957, 1960, 1969, 1973, 1990, and 2001, Oregon's average employment change has been a decline lasting three quarters and totaling 2.7 percent, followed by a four quarter recovery period to regain the lost jobs.

The 2024 moderate recession scenario is for a three quarter decline in employment totaling 3.0 percent, followed by a six quarter recovery period, more inline with the so-called jobless recoveries following the 1990 and 2001 cycles, compared to the faster recoveries in the 1950s, 1960s, and 1970s.

The 3 percent decline in employment is a loss of 60,000 jobs. No industry is spared, but goods-producing ones see relatively larger losses at 4.5 percent, while services see slightly fewer losses at 2.8 percent, and the somewhat more stable public sectors experiences job losses of 2.3 percent. The unemployment rate increases to nearly 7 percent by early 2025. Nominal income does not fall outright but growth slows considerably. Income in Oregon is 2.5 percent below the baseline.

Oregon's Agricultural Economy

Last year, the Oregon Legislature passed HB 4002 (2022) which establishes maximum hour and overtime compensation requirements for agricultural workers. The law goes into effect starting this year, in 2023. Moving forward, the OEA will analyze and monitor the economic and labor market data to assess any impacts from the law. The OEA will work to incorporate these changes, if any, in the broader context of the state's agricultural economy. It will take some time before data is available to assess any impacts. Even so, the OEA has been highlighting the importance of agriculture to the state's economy in recent quarters. The OEA has dug into farm employment, income, and sales at the state and county level, in addition to international exports. Additionally the OEA has considered how ag fits in with the broader food economy in the state and nation, and also the outlook for consumer spending on food and price forecasts related to revenues and costs.

This discussion highlight some of the basic, real-time data the OEA is tracking: the quarterly census of employment and wages (QCEW). This data is based on records businesses submit for unemployment insurance. While agriculture has more jobs not covered by unemployment insurance than the typical industry, in Oregon the QCEW has better coverage of industry trends than it does nationally. The benefit here is this data is available every three months, albeit with a couple months reporting lag. The 2022q4 data recently was released and provides a good setting for how the ag industry in Oregon entered the year, just as HB 4002 went into effect.

Within the ag sector, crop production by far has the most employees, albeit on a highly seasonal basis surrounding harvest. Over the course of the year, crop production employment in the state varies from winter lows around 20,000 jobs to harvest highs of 35,000 or 40,000 jobs. From a big picture perspective two items stand out.

First, agricultural employment in Oregon is relatively steady when taking the long-term view. The underlying trend in jobs increase and decrease a few thousand depending upon the year, with not real sustained moves over time. Second, crop production employment in Oregon has been on slight downward trend the past two years, heading into 2023 when the new law goes into effect. This is worth highlighting when it comes to gauging the impacts of the new bill, and any sort of before and after comparisons.

As the agricultural worker overtime law comes into effect this year, the OEA will work with other state agencies to gather and analyze the available data. Future quarterly forecasts will include updates to the underlying ag economy, when available, and any such analysis of the impacts of the new law.

Longer-Term Forecast Risks

The economic and revenue forecast is never certain. The OEA will continue to monitor and recognize the potential impacts of risk factors on the Oregon economy. Although far from comprehensive, the OEA has identified several major risks now facing the Oregon economy in the list below:

- **U.S. Economy.** While Oregon is usually more volatile than the nation overall, the state has never missed a U.S. recession or a U.S. expansion. In fact, Oregon's business cycle is perfectly aligned with the nation's when measuring peak and trough dates for total nonfarm employment.
- **Housing Affordability.** New housing supply has not kept pace with demand in either the ownership or rental markets. Oregon has underbuilt housing by 140,000 units in recent decades. To the extent home prices and rents rise significantly faster than incomes, it is a clear risk to the outlook. Worse housing affordability hurts Oregonians as they need to devote a larger share of their household budget to the basic necessities. Furthermore, while not the baseline outlook, worse affordability may dampen future growth as fewer people can afford to live here, lowering net in-migration, and the size of the labor force in the years ahead.
- **Global Spillovers.** The international list of risks seems to change by the day. Right now there is an ongoing war in Europe, and the risk of war in Southeast Asia has been uncomfortably high in recent years. Longer-term concerns regarding commodity price spikes in Emerging Markets, or the strength of the Chinese economy – the top destination for Oregon exports – are top of mind.
- **Federal Fiscal Policy.** Changes in national spending impact regional economies. In terms of federal revenues, spending, and employment Oregon is generally in the middle of the pack across states. Oregon does see larger impacts related to land management and forest policies, including direct federal employment. Oregon ranks below average in terms of military-dependent industries and lacks a substantial military presence within the state.
- **Climate and Natural Disasters.** While the severity, duration, and timing of catastrophic events like earthquakes, wildfires, and droughts are difficult to predict, they impact regional economies. Fires damage forests with long-term impacts, and short-term disrupt tourism. Droughts impact the agricultural sector and rural economies to a greater degree. Whenever Cascadia, the big earthquake, hits, the economy and infrastructure will be crippled. Some economic modeling suggests that Cascadia's impact on Oregon will be similar to Hurricane Katrina's on New Orleans. Longer-term issues like the potential impact of climate change on migration patterns are hard to predict and generally thought to be outside the OEA's forecast horizon. Even so, it is a reasonable expectation that migration flows remain strong as the rest of the country becomes less habitable over time.
- **Initiatives, Referendums, and Referrals.** Generally, the ballot box and legislative changes bring a number of unknowns that could have sweeping impacts on the Oregon economic and revenue picture.

Extended Outlook

Oregon typically outperforms most states over the entire economic cycle. This time is no different, however the expectations are that the relative growth advantage may be a bit smaller than it has been historically. The primary reason being slower population, and labor force growth than in decades past. The OEA is a bit more bullish on Oregon's economic and population growth than IHS Markit is, but the OEA overall agrees with the relative patterns nationwide. From 2023 to 2028, IHS expects Oregon's real GDP growth to rank 17th fastest among all states, while employment growth ranks 23rd fastest, and population gains are the 16th fastest.

Over the extended forecast horizon the OEA has identified four main avenues of growth that are important to continue to monitor: the state's dynamic labor supply, the state's industrial structure, productivity, and the current number of start-ups, or new businesses formed.

Labor Supply. Oregon has typically benefited from an influx of households from other states, including an ample supply of skilled workers. Households at least used to continue to move to Oregon even when local jobs are scarce, as long as the economy is equally bad elsewhere, particularly in California. Relative housing prices also contribute to migration flows in and out of the state. For Oregon's recent history – data available from 1976 – the labor force in the state has both grown faster than the nation overall and the labor force participation rate has typically been higher.

The good news today is that Oregon's labor force has never been larger, and the labor force participation rate is now higher than it was before the pandemic began. Even in this sometimes noisy, and unrevised data, the strength of Oregon's labor market is clear.

Moving forward, overall labor force participation rates will decline, simply due to the aging of the population. As more Baby Boomers enter into their retirement years, the share of all adults working or looking for work will fall as a result. As such, comparing Oregon's participation rates against a demographically-adjusted measure is important. Here, too, the current strength of the Oregon's labor market is evident, and encouraging.

The challenge moving forward is twofold. First, is overall population growth and whether that rebounds as expected in the years ahead. Second, whenever the next recession (or two) does come, maintaining a high participation rate and not seeing larger numbers of discouraged workers drop out of the labor force like they did following both the dotcom and housing busts. It was only once the economy became strong again in the late 2010s and early 2020s have some of those losses begun to be regained.

Industrial Structure. Oregon's industrial structure is very similar to the U.S. overall. However, Oregon's manufacturing industry is relatively larger, and weighted more toward semiconductors and wood products, compared to the nation which is more concentrated in transportation equipment (aerospace, and automobiles).

However, industries like timber and high-tech, which have been Oregon's strength in both the recent past and historically, are now expected to grow the slowest moving forward. Productivity and output from the state's technology producers is expected to continue growing quickly, however employment is not likely to follow suit. Similarly, the timber industry remains under pressure from both market based conditions and federal regulations. Barring major changes to either, the slow growth to downward trajectory of the industry in Oregon is likely to continue.

With that being said, certainly not all hope is lost. Those top industries in which Oregon has a local concentration at least twice the national average comprise approximately 4 percent of all statewide employment. Slower growth moving forward is not a weight, but rather more of a lack of a boost.

Many industries in which Oregon has a larger concentration than typical state are expected to perform quite well over the coming decade. These industries include management of companies, food and beverage manufacturing, published software along with some health care related firms.

The state's real challenges and opportunities will come in industries in which Oregon does not have a relatively large concentration. These industries, like consulting, computer system design, financial investment, and scientific R&D, are expected to grow quickly in the decade ahead. To the extent that Oregon is behind the curve, then the state may not fully realize these gains if they rely more on clusters and concentrations of similar firms that may already exist elsewhere around the country.

Capital and Productivity. Ultimately, the economy's industrial structure combined with capital will result in increasing productivity. Higher productivity allows firms to produce and sell more products, and pay higher wages to its workers. Capital can come in many different forms including financial, natural, physical, human, and social. All can help raise firm productivity, benefiting the economy more broadly.

Productivity has been sluggish this century. Early in the pandemic, productivity perked up as firms had to make due with reduced workforces at the same time consumer demand remained strong. However, as employment has rebounded, these productivity increases not only have not held, but have eroded. The current outlook for productivity is more or less back to the pre-pandemic trend, if slightly above it. Increasing the stock and use of Oregon's capital would boost the economy overall.

New Business Formation. New businesses are generally considered the primary source of innovation. New ideas, products, and services help propel future economic growth. Unfortunately in the decades leading up to the pandemic, startup activity was declining. New businesses as a share of all businesses were at or near record lows in 2019. Employment at start-ups follow a similar pattern.

To the extent the low levels of entrepreneurship continue, and R&D more broadly is not being undertaken, slower productivity gains and overall economic growth is to be expected. However, to the extent that larger firms that have won out in today's marketplace are investing in R&D and making those investments themselves, then the worries about the number of start-ups today is overstated. It can be hard to say which is the correct view. That said, actual, realized productivity in the economy has been sluggish in recent decades.

Encouragingly, new business applications during the pandemic actually accelerated, stopping the long-run decline. Applications from what Census calls high-propensity business with planned wages, which are the most likely to eventually turn into real firms that employ workers, have been higher in 2021 and so far in 2022 than back in 2019. New business applications of all other types, including self-employment, are up even further.

These gains provide some hope for future economic growth should some of these new firms bring new ideas, products, and efficiencies to market. Even if the per firm probability of success remains the same, having more ping pong balls in the lottery increases the overall probability that a few will survive and succeed tremendously.

Oregon Income Relative to U.S. One long-standing concern for some policymakers and analysts had been Oregon's relatively low income and wage compared to the rest of the nation. Encouragingly, the strong economic growth last decade did translate into meaningful increases in Oregon's per capita income and average wage. Today Oregon's per capita income relative to the U.S. is at its highest point since the dotcom bust two decades ago, and the state's average wage is at its highest relative point since the timber industry restructured and the mills started closing in the early 1980s.

Oregon's median household income in recent years has reach historic highs, even after adjusting for inflation. More importantly, it now stands 2.6 percent higher than the U.S. overall as of 2021. In recent years, this marks the first time in more than 50 years that Oregonian incomes for the typical household or family are higher than the nation. The fact that the strong regional growth translated into more money in the pockets of Oregonians, and regained the ground lost decades ago is one of the most important economic trends in recent generations.

Revenue Outlook

Revenue Summary

Available resources are expected to be up sharply relative to what was assumed in the March 2023 forecast, both in the near term and over the extended horizon. The upward revision in the outlook is based both on a stronger than expected tax filing season, as well as methodological changes made in light of fundamental shifts seen in recent years.

The tax filing season once again outstripped expectations, albeit modest ones. Revenue gains have cooled some, but it is clear that Oregon's tax sources have become more effective than they were pre-pandemic.

Before the filing season, it was expected that most of Oregon's primary sources of revenue would quickly revert back to pre-pandemic trends. This has not occurred, as Oregon's major taxes have grown in relation to the amount of underlying economic activity.

One major factor has been the current inflationary environment and related wage pressures. The vast majority of Oregon's taxes are not adjusted to inflation and rise along with prices. With demand outstripping supply, businesses and consumers are paying premiums for their needs. This has translated into a wide range of taxable business and labor income, which has moved many filers into higher tax brackets. The new Corporate Activity Tax, Vehicle Privilege Tax, alcohol, and tobacco taxes have risen with inflation as well.

Inflationary dynamics have not been captured well by Oregon's revenue models, given that this sort of environment has not existed since years before computerized models have. In addition to accounting for inflation, Oregon's revenue models have been refined to better account for fixed tax brackets and federal tax reform.

Qualitatively, there is not much difference between the updated revenue outlook, and what was predicted in March. After unsustainably high revenue collections over the past two years, tax revenues are expected to come back to earth over the next biennium, before returning to healthy growth thereafter if the economic expansion persists.

Quantitatively, small differences in trajectory matter a lot, and compound over time. Taken together, the outlook for personal and corporate income taxes has risen by \$1.5 to \$2 billion over the forecast horizon due to the updated model methodology.

2021-23 General Fund Revenues

Gross General Fund revenues for the 2021-23 biennium are expected to reach \$30,666 million. This represents an increase of \$1,871 million from the December 2022 forecast, and an increase of \$7,341 million relative to the Close of Session forecast. Although personal income tax collections over the filing season came in smaller than last year, they did not return to earth as expected. Corporate taxes have yet to decline meaningfully as well.

Personal Income Tax

Growth in withholdings has remained slow in recent weeks, growing at an annual rate of around 4%, far slower than what is typically seen when Oregon's economy is expanding. Although there are other factors involved (e.g. retirement income, bonuses, and stock options), withholdings are mostly driven by wages and salaries. As such, slower growth could be welcome news, given that the labor market needs to cool down. However, other broad measures of wage growth have yet to show this degree of weakness to date.

Although overall income tax collections were not as weak as expected during the filing season, assumptions about underlying income streams closely matched the March forecast. Unexpected revenues were largely the result of an upward shift in average tax rates. In particular, reported income from capital gains fell back to a more sustainable level. Capital gains realizations were roughly cut in half relative to last year, right in line with the March outlook. When this sort of correction has happened historically, average tax rates have fallen sharply as well. This was not the case this year, in part due to continued growth in labor income that kept many filers subject to the top rate.

In the past, the mix between income sources has done a good job of explaining the average personal income tax rate. The share of income sources that are typically realized by high-income filers (e.g. capital gains, business income) relative to the share of income from other sources (e.g. wages, retirement) has proven to be an accurate predictor of average tax rates. Now, in light of rapid wage growth and gains in business income, many fewer filers are falling below the top-rate threshold despite large losses in investment income. The fixed rate threshold has now been explicitly modeled, contributing to a stronger long-run outlook for tax collections.

According to the September forecast, the outlook for the personal income tax kicker base is now significantly (25.1%) higher than the Close of Session forecast. If the current outlook holds, a kicker of \$5.5 billion would be paid out when taxes are filed in 2024.

As a reminder, the threshold for the kicker calculation is if revenues over the entire biennium are more than 2 percent above the Close of Session forecast made prior to the start of the biennium. If they are, the entire amount of revenues above the Close of Session – including the first 2 percent – are returned to taxpayers the following year.

Corporate Excise Tax

Oregon's traditional corporate income and excise tax collections have continued to outstrip expectations, as well as underlying corporate profits. The current inflationary environment is one factor supporting recent corporate tax collections. With underlying demand so strong, businesses have largely been able to pass cost increases along to their customers. Profits and earnings have skyrocketed. Even so, growth in corporate tax payments has been far faster than has growth in underlying business income.

The surge in tax collections relative to underlying profits began around the same time as the federal tax reforms included in the Tax Cuts and Jobs Act. Among many other things, the reforms encouraged corporations to realize more of their income domestically, potentially increasing the tax base for states. With more than four years of post-reform data now available, the federal reforms are now incorporated in the corporate tax model. This has led to a stronger outlook for collections throughout the forecast horizon.

A \$1.8 billion corporate kicker is currently estimated for the next biennium. According to statute, this would be retained in the General Fund for additional funding for K-12 education during the 2023-25 budget period.

Other Sources of Revenue

Non-personal and non-corporate revenues in the General Fund usually account for approximately 6 or 7 percent of the total. The largest such source are estate taxes, followed by liquor revenues, and judicial revenues.

However interest earnings are now of substantial size given high fund balances (revenues exceeding expectations and spending) and rising interest rates. Interest earnings this fiscal year are expected to total \$277.7 million, which is more than the previous 13 years combined of interest earnings. Looking forward, the outlook is uncertain. Today, fund balances are \$6.5 billion higher than back in 2019, and the interest rate on short-term U.S. treasuries is around 5 percent. Even as the big increase in fund balance is expected to fade as the record kicker is returned to taxpayers during the next tax filing season, total interest earnings in FY 2024 will be \$348.9 million. After that time, interest earnings will be larger than last decade given both higher fund balances, and higher interest rates. One risk here, given the now substantial size of interest earnings in the General Fund, is any timing related to when fund balances are spent down, and any changes to monetary policy or financial markets.

Relative to the previous forecast, the current outlook for these non-Corporate and non-Personal Income tax revenues in 2021-23 is raised by \$125.3 million (6.9%). This net figure masks many changes under the surface for different sources of revenue. On the positive side, there are sizable upward revisions Interest Earnings (+\$117.7 million), and Estate Taxes (+8.9 million). These gains are partially offset by small declines to judicial revenues (-\$2.4 million), and tobacco (-\$0.9 million).

Looking forward, these other sources of revenue in the General Fund are raised considerably in the 2023-25 biennium. The combined change is an increase of \$273.1 million (16.0%) relative to the previous forecast. The primary reason for the change in the outlook for Interest Earnings (+254.3 million) that fully incorporates the high fund balances and interest rates. Other notable changes in 2023-25 include Secretary of State Fees (+\$13.7 million), Estate (+\$11.7 million), judicial revenues (-\$6.5 million), liquor earnings (-\$4.1 million), and tobacco revenues (-\$2.5 million).

Extended General Fund Outlook

Revenue growth in Oregon and other states will face considerable downward pressure over the 10-year extended forecast horizon. As the baby boom population cohort works less and spends less, traditional state tax instruments such as personal income taxes and general sales taxes will become less effective, and revenue growth will fail to match the pace seen in the past.

Tax Law Assumptions

The revenue forecast is based on existing law, including measures and actions signed into law during the 2021 Oregon Legislative Session. OEA makes routine adjustments to the forecast to account for legislative and other actions not factored into the personal and corporate income tax models. These adjustments can include expected kicker refunds, when applicable, as well as any tax law changes not yet present in the historical data.

Although based on current law, many of the tax policies that impact the revenue forecast are not set in stone. In particular, sunset dates for many large tax credits have been scheduled. As credits are allowed to disappear, considerable support is lent to the revenue outlook in the outer years of the forecast. To the extent that tax credits are extended and not allowed to expire when their sunset dates arrive, the outlook for revenue growth will be reduced. The current forecast relies on estimates taken from the Oregon Department of Revenue's 2021-23 Tax Expenditure Report together with more timely updates produced by the Legislative Revenue Office ("LRO").

General Fund Alternative Scenarios

The latest revenue forecast for the current biennium represents the most probable outcome given available information. The OEA feels that it is important that anyone using this forecast for decision-making purposes recognize the potential for actual revenues to depart significantly from this projection.

The near-term outlook is particularly uncertain right now. The probability of the soft landing, no recession is rising but the odds of a recession in the upcoming 2023-25 biennium remain uncomfortably high.

Looking at the upcoming 2023-25 biennium, in the pessimistic scenario, General Fund revenues in Oregon would be \$2.4 billion lower than in the baseline. Revenues in 2025-27 would be recovery but still \$1.2 billion below the current baseline outlook.

Changes would also be seen outside of the General Fund among Oregon's consumption-based revenues as well. Such taxes are generally less volatile than income taxes and help to stabilize Oregon's overall revenue base. Specifically, the state's Corporate Activity Tax next biennium would be \$372 million lower in the boom/bust scenario. Lottery resources would be \$42 million lower, and marijuana revenues would be \$6 million lower in the pessimistic scenario.

Corporate Activity Tax

The 2019 Legislature enacted the corporate activity tax (CAT), a new tax on gross receipts that went into effect January 2020. While taxpayers were required to file on a calendar year basis for tax year 2020, a law change allowed taxpayers to switch to a fiscal year basis beginning with tax year 2021. Thus a complete picture of the 2021 tax year will not be available until near the end of the 2023 calendar year. The current estimate for 2021 tax liability has been revised upward significantly due to an absence of refunds as the tail end of the return season transpires. The same is even more true for tax year 2022, for which the tax filing season is just getting underway. The net result is an increase in revenues for the current biennium of \$90.3 million and a jump of \$175.7 million for the 2023-25 biennium. In addition, Senate Bill 5545 passed early on in the 2023 legislative session reduced 2021-23 allocations to the three subaccounts of the Fund for Student Success

by \$55 million. Combined with the current revenue increase and a modest increase to the State School Fund distribution, the 2023-25 beginning balance in the FSS is increased \$128.6 million, thus contributing to a change in available resources for next biennium of \$304.3 million.

These revenues are dedicated to spending on education. The legislation also included personal income tax rate reductions, reducing General Fund revenues. The net impact of HB 3427 was designed to generate approximately \$1 billion per year in new state resources, or \$2 billion per biennium.

In terms the macroeconomic effects of a major new tax, the OEA starts with the LRO's impact statement and any Oregon Tax Incidence Model ("OTIM") results LRO found. At the top line, OTIM results find minimal macroeconomic impacts across Oregon due to the new tax. Personal income, employment, population, investment and the like are less than one-tenth of a percent different under the new tax relative to the baseline. The model results also show that price levels (inflation) will increase above the baseline as some of the CAT is pushed forward onto consumers. Of course these top line, statewide numbers mask the varying experiences that individual firms and different industries will experience. There are likely to be some businesses or sectors that experience large impacts from the CAT, or where pyramiding increases prices to a larger degree, while other businesses or sectors see relatively few impacts.

Lottery Earnings

Overall lottery sales have tracked the previous forecast well. When combined with a modest upward revision to the economic outlook, the lottery forecast is raised slightly. The upcoming 2023-25 biennium outlook is increased \$17.8 million (1.0%) while the outer biennia are increased about \$12 million (0.6%) each.

The current 2021-23 biennium is now in the books as sales in one quarter are transferred for revenue purposes the following quarter. 2021-23 finishes as a record-setting biennium for lottery sales and earnings, far outpacing anything seen in history and 9.9 percent higher than the OEA's forecast made before the budget period began. The fundamental reason why is due to strong household finances and consumer spending, especially when factoring in pent-up demand following the public health restrictions and shutdowns early in the pandemic.

Overall, this strength is expected to hold in the years ahead. Sales did slow following the pandemic reopening high, but remain well above pre-pandemic levels, and are rising again more recently. One additional factor impacting sales next year is the record \$5.5 billion personal income tax kicker that will be return to taxpayers. While video lottery sales are only approximately 0.45 percent of Oregon personal income, such a large increase in disposable income is likely to result in higher consumer spending statewide, including on discretionary items like video lottery. The result is expectations are sales next spring to regain the pandemic reopening highs, followed by slightly lower sales the following year when there will be no kicker paid out.

The modest increase in the Lottery forecast is not due to video sales alone, but also due to upward revisions to both Sports Betting and Traditional Lottery products as well.

Sports Betting is raised \$11.1 million in the upcoming 2023-25 biennium and \$5 or \$6 million in the out biennium. This brings the current outlook to a level just a bit higher than the original estimates made when sports betting was first authorized. The path from then until now has been anything but smooth given the pandemic, and sports either canceling or moving their games and the like.

However the increase in underlying sales, plus a hold, or win percentage a bit higher than expected means actual sports betting transfers are matching and exceeding those expectations. Overall there is 5 year ramp-up period assumed for fundamental growth in the player base. The start of the NFL season in the fall typically coincides with a big increase in players. As the next football season approaches in the fall, the OEA will be looking to see the growth in registered user that is expected.

Risks to the Outlook

Risks to the outlook abound and vary depending upon the timeframe. In the very near-term, risks lie primarily to the upside. Consumer spending remains robust and sales may continue to outstrip expectations. Conversely, should inflation begin to take a toll on households, discretionary purchases may be cut back, similar to what appears to have happened during the recent holiday season.

Over the medium term, in particular the upcoming 2023-25 biennium, risks are balanced. Sales may outpace expectations, or the economy may fall into a recession. Looking back historically, Lottery held up well in both the 1990 and 2001 recessions. However Oregon also did not have line games back then, which makes comparing historical periods more

challenging to today. To the extent that player behavior for line games differs than overall consumer spending, discretionary spending, or even gaming in a broad sense, sales could under- or overperform as a result.

Over the long term a few sets of risks stand out. The OEA expects increased competition for household entertainment dollars, increased competition within the gaming industry, and potentially shifts in generational preferences and tastes when it comes to gaming. As discussed in depth in the March 2023 forecast, the structural impact of aging has been fully absorbed and has minimal impact moving forward as the Millennials are now entering their peak lottery years. As such, the OEA outlook for video lottery sales is continued growth, however at a rate that is slightly slower than overall personal income growth. Lottery sales will continue to increase as Oregon's population and economy grows, however video lottery sales will likely be a slightly smaller slice of the overall pie. This outlook has been revised up some, so the relative decline is smaller than in previous forecasts due to the updated player demographic work.

However, longer run upside risks remain as well. While it is true that spending on video lottery grew slightly slower than income and spending last decade, that has reversed in the past couple of years. Some of the strong sales since reopening are due to pent-up demand, strong household finances, and the fact that other entertainment options were either not available initially (concerts, spectator sports) or possibly less desirable due to the virus (long distance travel, movie theaters). Even so, the ongoing strength in video sales likely points toward some more permanent and not just pandemic or temporary changes in player behavior.

Budgetary Reserves

The state currently administers two general reserve accounts, the Oregon Rainy Day Fund (ORDF) and the Education Stability Fund (ESF). This section updates balances and recalculates the outlook for these funds based on the December revenue forecast.

As of this forecast the two reserve funds currently total a combined \$1.9 billion. At the end of the current 2021-23 biennium, they will total \$2.1 billion, which is equal to 6.8% of current revenues. Including the currently projected \$7.0 billion ending balance in the General Fund, the total effective reserves at the end of the current 2021-23 biennium are projected to be \$9.1 billion, or 29.7% of current revenues.

The forecast for the ORDF includes two deposits for this biennium relating to the General Fund ending balance from the previous biennium (2019-21). A deposit of \$220.7 million was made in early 2022 after the accountants closed the books on last biennium. Additionally a \$129.0 million deposit relating to the increased corporate taxes from Measure 67 is expected at the end of the biennium in June 2023. This exact transfer amount is subject to some revision as corporate filings are processed, however the transfer itself will occur. At the end of 2021-23 the ORDF will total \$1.4 billion.

Looking ahead to the 2023-25 biennium, the ORDF is expected to receive two transfers as well. This includes a projected \$279.7 million related to the General Fund ending balance from 2021-23, and \$91.6 million related to the increase in corporate taxes. The ORDF is projected to hit its cap of 7.5% of revenues in the middle of FY2026. At that time, should the forecast prove accurate, the ending balance transfer related to 2023-25 would not be made, and those revenues would be retained in the General Fund. The ORDF would once again hit its cap in FY2032 based on the current outlook.

The ESF will receive an expected \$294.0 million in deposits in the current 2021-23 biennium based on the current lottery forecast. At the end of current 2021-23 biennium the ESF will stand at \$708.4 million. The ESF is not projected to hit its cap of 5% of revenues until the end of FY2026, when the deposits will then accrue to the Capital Matching Account.

Together, the ORDF and ESF are projected to have a combined balance of \$2.1 billion at the close of the 2021-23 biennium, or 6.8 percent of current revenues. At the close of 2023-25 the combined balance will be \$2.9 billion, or 11.4 percent of revenues. Such levels of reserve balances are larger than Oregon has been able to accumulate in past cycles, and should help stabilize the budget when the next recession hits.

With a potential recession in the upcoming 2023-25 biennium, the state is expected to meet the trigger for withdrawals should the recession come and should policymakers choose to. In particular the reserve fund trigger of two consecutive quarters of employment declines would be expected to be met based on the OEA's alternative scenario of a moderate recession. The other triggers may or may not be met. If revenues come in below forecast next biennium, that could trigger a potential withdrawal. And for the ESF only, not the ORDF, a Governor's declaration of emergency could also trigger a potential withdrawal.

Additionally, in the Governor's Recommended Budget for 2023-25, the proposal was to suspend or divert the upcoming distributions to both the ORDF and ESF. Should the Legislature choose to follow this proposal, the impact on the reserve funds would be the following. The diversion of the transfers into the ORDF next biennium, along with the interest earnings would total \$479 million. This would mean the ORDF does not hit its cap until FY2031. The practical difference for the ORDF would be diverting the transfer in 2023-25 as in the Governor's Recommended Budget, or diverting the transfer in 2025-27 as the fund will reach its statutory cap.

For the ESF, diverting the transfers would amount to \$294 million not going into the fund. The end result is \$773 million would be suspended or diverted based on the current forecast and the expected combined reserve fund balances at the end of 2023-25 would be \$2.1 billion instead of \$2.9 billion, or 8.2 percent of revenues instead of the 11.4 percent currently expected.

Finally, these are the technical considerations for using the reserve funds in the upcoming 2023-25 biennium. Ultimately policymakers will decide whether to use the funds or not. Regardless of the trigger(s) met, the Legislature would need a three-fifths vote in each chamber to approve an ESF reserve fund withdrawal and a simple majority vote in each chamber to approve an ORDF withdrawal.

Recreational Marijuana Tax Collections

The underlying recreational marijuana forecast remains unchanged. Revenues in the current 2021-23 biennium are raised \$1.7 million and raised by \$1.1 million in the upcoming 2023-25 biennium. The outer biennia are unchanged compared to the previous forecast. The primary reason is sales are coming in as expected, and the previous outlook made substantial changes given market dynamics. What follows is largely the summary provided last quarter and updated where appropriate.

The combination of an oversupply of production and saturated retailer market continues to drive prices lower. Given Oregon taxes marijuana based on the price, the trend is for lower tax collections even as the underlying volume of sales remains steadier. None of this is new.

However, these ongoing issues have really come to a head in recent quarters where actual tax collections are considerably below expectations based on actual sales as firms struggle with profitability in the market, leading to rising tax delinquencies. It's a complicated picture of businesses struggling with market conditions, and being unable to pay all their bills. The cascading impact is for those lower on the priority list, be they growers on consignment or the taxing authority to see the biggest impacts. Oregon's Department of Revenue is working with firms who are behind on their taxes, and through increased enforcement activity expect some revenues to be regained. However, given the tough current market conditions, the OEA's forecast is taking more of a wait and see approach. Declines in delinquencies represent an upside risk to the forecast in the quarters ahead.

Market Conditions

As former Oregon state economist Tom Potiowsky said during the dark days of the Great Recession, the good news is when you're flat on your back, everywhere you look is up. For recreational marijuana, even though it feels that way, it's hard to know if the industry is truly flat on its back yet, or if more weakness is to come first. But eventually a bottom will be reached as demand strengthens with a growing population and economy, and supply stabilizes.

The crux of the issue today are the record low prices. The underlying reason for the low prices is an oversaturated market where production (harvest and inventory) outpaces consumer demand, and there are more retailers per capita than in most other states, leading to increased competition.

These dynamics are great news for consumers who can enjoy widely available products at low prices. However, one key item to note is that today's lower prices do not appear to have resulted in an increase in quantities sold. Now, OLCC estimates that the total amount of THC sold increased in 2022 compared to 2021 but at the product level the number of pounds of usable marijuana, or number of edibles and the like is more steady. Consumers appear to have stable consumption patterns and have pocketed the savings or had to spend it on other items in their budget due to high inflation.

Typically in a mature market, sales would more closely track incomes and inflation or the cost of production. However in the current marijuana market this is not happening due to the ongoing price declines, a result of increased competition. These dynamics are bad news for firms trying to operate a profitable business.

Now, an initial supply response occurred last year. Total harvest in 2022 declined 13 percent compared to 2021, with an even larger 19 percent decline during peak harvest season. That said, the market still is not in balance. Some of the

OEA's advisors indicated another similar decline this year, bringing harvest closer to 2019 or 2020 amounts would likely bring the market into better balance.

The other source of balance could come from increased consumer demand. That said the low-hanging fruit for demand growth is behind us. Marijuana usage rates are steady in recent years, after increase considerably in the past decade. Many former black market consumers have converted to the legal market, and those that remain may be harder to switch. And underlying population growth has slowed during the pandemic, with only a modest rebound expected in the outlook.

Overall, expectations are the market will stabilize in the not too distant future. Sales and tax collections will remain relatively steady this year and next. Overall revenue and resources will be unchanged from the current 2021-23 to 2023-25 biennium. As supply and demand are expected to get into better balance, some pricing power and profitability will return to the market. Overall sales and taxes will increase with a growing population and economy in the decade ahead. Usage rates and consumption as share of income are expected to hold steady in the longer-run. Both upside and downside risks abound to this outlook.

Psilocybin Tax Collections

Ballot Measure 109 which voters passed in 2020 and legalized psilocybin, tasked the OEA with the revenue forecasting responsibilities. After speaking with other state agencies and private businesses entering the psilocybin industry there are a few important items to note up front.

First, the overall cost of a session to a customer is expected to be in the hundreds, and even thousands of dollar range. Second, the state's 15 percent retail sales tax which was part of BM109 only applies to the product itself and not the overall cost of the session. Third, by all accounts the cost of the product is relatively small compared to the overall cost of a session, where the vast majority of the revenue will go to cover the operational costs of the service center and facilitator.

This newly legal industry is just getting started. The Oregon Health Authority has recently issued some of the first licenses in the state. Once the industry is up and running, OHA will gather data, including the number of sessions, product prices and the like. Unfortunately for now there is no data and the OEA's initial forecasts are based entirely on assumptions. Those assumptions are as follows.

OHA estimates they will license 28 service centers in the first year. Assuming 20 customers per day, the equivalent of one large class, all year long results in 204,000 individual customers or session over the course of the first year. Some service center centers will accommodate many more customers while others may focus on smaller, more in-depth sessions.

As uncertain as those projections are, the average product price assumption is even more so. Service centers may charge customers whatever price they want to for the actual product. There are two main ways to think through these possibilities, and for now the OEA is taking a middle ground approach.

On one hand, service centers may charge customers the traditional retail price that includes a markup over wholesale cost which largely relates to production, testing, and distribution costs. Whether the sales tax piece would be an additional charge on top of the session costs overall, or already factored that price is unknown. Tax revenues are estimated to be \$1-2 million per year under these scenarios.

On the other hand, service center may charge customers a minimal product cost of \$1 or \$10, even if that is below their wholesale or acquisition costs. The benefit to doing so would be to increase revenues and profits for service centers and facilitators as less of the overall session price would be sent to pay taxes. This is more likely to be the case if the sales tax is folded into the total session price initially and not an add-on fee when the customer pays. Tax revenues are estimated to be tens of thousands or hundreds of thousands of dollars a year under these scenarios.

For now, given the uncertainty of a newly legal industry the OEA is taking a middle ground approach and assuming a \$10 average product price per session. The state is likely to receive a bit more than \$600,000 in the upcoming 2023-25 biennium based on the assumptions discussed above. Business practices will vary and time will tell what ultimately becomes the industry standard. The OEA will continue to update these estimates as it learns more. Expectations are by this fall there will be useful data to help guide these estimates and they will not be made entirely upon assumptions.

Population and Demographic Outlook

Population and Demographic Summary

Oregon's resident population count on April 1, 2020 was 4,237,256. This is from the newly released decennial census data administered by the U.S. Census Bureau. During the past decade, Oregon gained 406,182 residents or 10.6 percent. The gain was substantial enough that yielded one additional congressional seat for the state. Oregon now has a total of six members in the House of Representatives. The OEA been predicting this rare gain for a long time. This is rare because it took 40 years for Oregon to gain this seat and only five states gained one additional seat each and Texas gained two seats following the 2020 Census.

In Historical context, Oregon's population growth between 2010 and 2020 censuses was the second lowest since the first census count in Oregon in 1860 after gaining statehood. The lowest growth rate was recorded between the 1980 and 1990 censuses, a decade characterized by a major recession. Oregon's population increased by 441 percent in the last century spanning 1920-2020. The gain of 406,182 persons in the last decade alone was nearly the same as the total population count of Oregon in the year 1900 when state's population was 413,536. Oregon's population growth of 10.6 percent in the last decade was 11th highest in the nation, excluding Washington D.C. Still, Oregon's growth rate for the decade lagged all of its neighboring states, except California. During the prior decade between 2000 and 2010, Oregon's population growth rate ranked 18th highest in the nation when Oregon was hit hard by the double recessions during the decade. As a result of such economic downturn during the Great Recession and sluggish recovery that followed, Oregon's population increased at a slow pace between 2000 and 2010 decade. However, Oregon's population was showing moderately strong growth since then because of state's strong economic recovery. The current COVID-19 pandemic has caused dire economic and employment situations and has caused slow population growth. The population growth was expected to rebound after the year 2023. However, current economic turmoil is likely to slow the pace of expected growth based on the historical trend. Oregon's population is expected to reach 4.505 million in the year 2030 with an annual rate of growth of 0.64 percent between 2022 and 2030. The projected population of 2030 is 140,900 less than the OEA's March 2020 forecast released just before the COVID hit. The lower projection is due to the lingering COVID-19 effect resulting in higher deaths, lower births, and fewer net-migration, and 2020 Census count coming lower than expected.

Oregon's economic condition heavily influences the state's population growth. Its economy determines the ability to retain existing work force as well as attract job seekers from national and international labor market. As Oregon's total fertility rate remains well below the replacement level and number of deaths continue to rise due to aging population, long-term growth comes from net in-migration. The COVID-19 pandemic has left noticeable impact on demographic processes. Due to the declining births and rising deaths, past forecasts projected natural increase (births minus deaths) to turn negative after the year 2025. However, Oregon's natural increase has already turned negative because of the COVID effect. Even during this pandemic, Oregon has gained people through net-migration as the workers are able to work from home in many sectors. Working-age adults come to Oregon as long as Oregon has favorable economic conditions and offers better quality of life. During the 1980s, which included a major recession and a net loss of population during the early years, net migration contributed to 22 percent of the population change. On the other extreme of the economic cycle, net migration accounted for 76 percent of the population change during the booming economy of early 1990s. This share of migration to population change declined to 32 percent in 2010 as a result of the economic recession, lowest since early 1980s when Oregon had negative net migration for several years. As a sign of slow to modest economic gain and declining natural increase (births minus deaths), the ratio of net migration-to-population change has registered at 89 percent in 2020. As a result of sudden rise in the number of deaths and drop in the number of births coinciding with the COVID-19 pandemic, the natural increase turned negative starting in the year 2020 and extending through 2030 and beyond. So, in the future, all of Oregon's population growth and more will come from the net migration due to the combination of continued positive net migration, well below replacement level fertility, and the rise in the number of deaths associated with the increase in the elderly population. Thus, migration will be solely responsible for Oregon's future population growth. Without the gain due to migration, Oregon's population will start to decline.

Age structure and its change affect employment, state revenue, and expenditure as the demand for services varies by age groups. Demographics are the major budget drivers, which are modified by policy choices on service coverage and delivery. Births, deaths, and migration history of a century past do impact the current age-sex structure. Growth in many age groups will show the effects of the baby-boom and their echo generations during the forecast period of 2022-2030. It will also reflect demographics impacted by the depression era smaller birth cohort combined with changing migration of working age population and elderly retirees through history. After a period of relatively slow growth during the 1990s and early 2000s, the elderly population (65+) has picked up a faster pace of growth since 2005. This population group will maintain the high growth as the tail end of the baby-boom generation continue to enter this age group combined with the attrition of small depression era birth cohort due to death. This age cohort, however, has hit the plateau of high growth rates exceeding 4 percent annually between 2011 and 2019. The group will experience continued high but diminishing rate of growth. The

average annual growth of the elderly population will be 1.9 percent during the 2022-2030 forecast period. Different age groups among the elderly population show quite varied and fascinating growth trends. The youngest elderly (aged 65-74), which was growing at an extremely fast pace in the recent past averaging 5.0 percent annually between 2010 and 2020 due to the direct impact of the baby-boom generation entering and smaller pre-baby boom cohort exiting this 65-74 age group. This fast-paced growth rate will taper off to negative growth by the end of the forecast period of 2022-2030 as a sign of the end of the baby-boom generation transitioning to elderly age group. This high growth transitioning into a net loss of this youngest elderly population resulting in 0.1 percent annual average growth rate in the next eight years. The next older generation of population aged 75-84 has seen several years of slow growth and a period of shrinking years in the recent past. The elderly aged 75-84 started to show growth as the effect of depression era birth-cohort dissipated from this age group. An unprecedented fast pace of growth of population in this age group has started as the baby-boom generation is maturing from the youngest elderly into this 75-84 age group. Annual growth rate during the forecast period of 2022-2030 is expected to be unusually high 4.6 percent. After a period of slow growth, the oldest elderly (aged 85+) will resume growth at a strong rate steadily gaining growth momentum due to the combination of cohort change, continued positive net migration, and improving longevity. The average annual rate of growth for this oldest elderly over the forecast horizon will be 2.9 percent. An unprecedented growth in oldest elderly will commence near the end of the forecast horizon as the fast growing 75-84 age group population transition into this oldest elderly age cohort. As a sign of massive demographic structural change of Oregon's population, starting in 2023 the number of elderly population will exceed the number of children under the age of 18. To illustrate the contrast, in 2000 elderly population numbered a little over half of the number of children in Oregon, now the elderly outnumber the children.

The oldest working age population aged 45-64 also has seen the dramatic demographic impact as the baby-boom generation matures out of the oldest working-age cohort which is replaced by smaller baby-bust cohort or Gen X. As the effect of this demographic transition combined with slowing net migration, the once fast-paced growth of population aged 45-64 has gradually tapered off to below zero percent rate of growth by 2012 and has remained and will remain at slow or below zero growth phase for a few more years. The size of this older working-age population will see about 0.5 percent annualized rate of change. The younger working-age population of 25-44 age group has recovered from several years of declining and slow growing trend. The decline in the past was mainly due to the exiting baby-boom cohort. This age group has seen positive but slow growth starting in the year 2004 and has gained steam since 2013. This group will increase by 0.7 percent annual average rate during the forecast horizon mainly because of the exiting smaller birth (baby-bust) cohort being replaced by larger baby-boom-echo cohort. The young adult population (aged 18-24) will see only a small change over the forecast period due to the combination of negative and slow growth years. Although the slow or stagnant growth of college-age population (age 18-24), in general, tend to ease the pressure on public spending on higher education, but college enrollment typically goes up during the time of very competitive job market, high unemployment, and scarcity of well-paying jobs when even the older people flock back to colleges to better position themselves in a tough job market. The growth in K-12 population (aged 5-17) has been very slow or negative in the past and is expected to decline through the forecast years. This will translate into slow growth or decline in the school enrollments. On average for the forecast period, this school-age population will decline by -0.9 percent annually. The growth rate for children under the age of five has remained near or below zero percent in the recent past and will continue to decline in the near future due to the sharp decline in the number of births. The OEA expects slight rebound in the number of births in the forecast period due to a small increase in fertility rate and increase in the women in the child-bearing ages. Although the number of children under the age of five declined in the recent years, the demand for childcare services and pre-Kindergarten program will be additionally determined by the labor force participation and poverty rates of the parents.

Overall, elderly population over age 65 will increase rapidly whereas the number of children will decline over the forecast horizon. The number of working-age adults in general will show slow growth during the forecast horizon. Hence, based solely on demographics of Oregon, demand for public services geared towards children and young adults will likely decline or increase only at a slower pace, whereas demand for elderly care and services will increase rapidly.

Procedure and Assumptions

Population forecasts by age and sex are developed using the cohort-component projection procedure. The population by single year of age and sex is projected based on the specific assumptions of vital events and migrations. Oregon's estimated population of July 1, 2020 based on the most recent decennial census is the base for the forecast. However, due to the delay in releasing the population by single year of age and sex, the OEA is still basing the age-sex distribution on 2010 Census data. To explain the cohort-component projection procedure very briefly, the forecasting model "survives" the initial population distribution by age and sex to the next age-sex category in the following year, and then applies age-sex-specific birth and migration rates to the mid-period population. Further iterations subject the in-and-out migrants to the same mortality and fertility rates.

The U.S. Census Bureau just released apportionment and resident population count of April 1, 2020 for the states. This is the crucial information as the base for all future postcensal population estimates and projections. Also, this 2020 census population is used to determine the error of closure, which is the difference between the actual census enumeration and the estimate based on the previous census of 2010. Again, the error of closure is used to correct and adjust all previous annual postcensal estimates for the time between 2010 and 2020. Since the Bureau has released only the total population, OEA has estimated only the total intercensal population for Oregon based on 2010 and 2020 census counts and postcensal estimates of Population Research Center, Portland State University. Therefore, Oregon's *intercensal* population estimates for the years 2011 through 2020 in this forecast are different from prior *postcensal* numbers. Once the Bureau releases age-sex detail of the census population, OEA will produce readjusted intercensal estimates by age and sex for each of the years from 2011 through 2020. The numbers of births and deaths through 2021 are from Oregon's Center for Health Statistics. All other numbers and age-sex detail are generated by OEA.

Annual numbers of births are determined from the age-specific fertility rates projected based on Oregon's past trends and past and projected national trends. Oregon's total fertility rate is assumed to be 1.4 per woman in 2020 and this rate is projected to 1.5 children per woman by 2030 which is well below the replacement level fertility of 2.1 children per woman. Oregon's fertility level is tracking below the national level.

Life Table survival rates are developed for the year 2010 and a new life table for 2020 will be developed when all necessary data becomes available. Male and female life expectancies for the 2010-2030 period are projected based on the past three decades of trends and national projected life expectancies. Gradual improvements in life expectancies are expected over the forecast period. At the same time, the difference between the male and female life expectancies will continue to shrink. The male life expectancy at births of 77.4 and the female life expectancy of 81.8 in 2010. Due to the effect of the COVID-19 pandemic, number of deaths suddenly increased and the actual life expectancies declined.

Estimates and forecasts of the number of net migrations are based on the residuals from the difference between population change and natural increase (births minus deaths) in a forecast period. The migration forecasting model uses Oregon's employment, unemployment rates, income/wage data from Oregon and neighboring states, and past trends. Distribution of migrants by age and sex is based on detailed data from the American Community Survey. In the recent past, slowdown in Oregon's economy resulted in smaller net migration and slow population growth. Estimated population growth and net migration rates in 2010 and 2011 were the lowest in over two decades. Migration is intrinsically related to economy and employment situation of the state. Still, high unemployment and job loss in the recent past have impacted net migration and population growth, but not to the extent in the early 1980s. Main reason for this is the fact that other states of potential destination for Oregon out-migrants were not faring any better either, limiting the potential destination choices. The role of net migration in Oregon's population growth will get more prominence as the natural increase has begun to turn negative. The increasing excess of deaths over births will continue due to the rapid increase in the number of deaths associated with the aging population and decline in the number of births largely due to the decline in fertility rate associated with life-style choices. Such a trend was expected, but the COVID-19 has hastened the process. The annual net migration is expected to be low in the short run due to the effects of COVID-19 and economic slowdown. However, the migration is expected to recover after 2024. Between 2022 and 2030 net migration is expected to be in the range of 20,960 to 40,340, averaging 33,100 persons annually with net migration rate ranging between 4.9 to 9.0 per thousand population.

INITIATIVE PETITIONS, LEGISLATIVE REFERRALS AND REFERENDUM PETITIONS

Initiative Petitions

General. The State Constitution, Article IV, Section 1, reserves to the people of the State (1) the initiative power to amend the State Constitution or to enact State legislation by placing measures on the statewide general election ballot for consideration by the voters and (2) the referendum power to approve or reject at an election any act passed by the Legislative Assembly that does not become effective earlier than 90 days after the end of the legislative session. The Legislative Assembly may also refer an act to the voters for approval or rejection.

State law permits any person to file a proposed initiative with the Secretary of State's office without payment of fees or other burdensome requirements. Because many proposed initiative measures are submitted that do not qualify for the ballot, the State does not formally or systematically monitor the impact of those measures or estimate their financial effect prior to the time the measures qualify for the ballot. Consequently, the State does not ordinarily disclose information about proposed initiative measures that have not qualified for the ballot.

Requirements for Proposed Initiative Measures to Be Placed on the Ballot. To place a proposed initiative on a general election ballot, the proponents must submit to the Secretary of State initiative petitions signed by the number of qualified voters equal to a specified percentage of the total number of votes cast for all candidates for governor at the

gubernatorial election at which a governor was elected for a term of four years next preceding the filing of the petition with the Secretary of State. Any elector may sign an initiative petition for any measure on which the elector is entitled to vote.

The initiative petition must be submitted to the Secretary of State not less than four months prior to the general election at which the proposed measure is to be voted upon. As a practical matter, proponents of an initiative have approximately two years in which to gather the necessary number of signatures. State law permits persons circulating initiative petitions to pay money to persons obtaining signatures for the petition.

Although a large number of initiative measures are submitted to the Secretary of State's office, a much smaller number of petitions contain sufficient signatures to be placed on the ballot. Once an initiative measure has gathered a sufficient number of signatures and qualified for placement on the ballot, the State is required to prepare a formal estimate of the measure's financial impact. Typically, this estimate is limited to an evaluation of the direct dollar impact. Historically, a larger number of initiative measures have qualified for the ballot than have been approved by the electors.

Legislative Referrals and Referendum Petitions

The Legislative Assembly may refer constitutional amendments or statutory changes to the Oregon voters for their approval. In addition, within 90 days after the end of a legislative session, any person may file a petition seeking to have any act passed by the Legislative Assembly that does not become effective earlier than 90 days after the end of the legislative session referred to the voters for their approval or rejection at the next general election, or at a special election provided for by the Legislative Assembly. To place a proposed referendum on the ballot, the proponents must submit to the Secretary of State within 90 days after the end of the legislative session referendum petitions signed by the number of qualified voters equal to four percent of the total number of votes cast for all candidates for governor at the gubernatorial election at which a governor was elected for a term of four years next preceding the filing of the petition with the Secretary of State. Any elector may sign a referendum petition for any measure on which the elector is entitled to vote. An act approved by the voters through the referendum process becomes effective 30 days after the date of the election at which it was approved. A referendum on part of an act does not prevent the remainder of the act from becoming effective as provided in the act.

PENSION AND POST EMPLOYMENT BENEFITS

The State is one of many participants in the statewide Oregon Public Employees' Retirement System ("PERS" or "System"). The State participates in three retirement pension benefit programs provided through PERS and three retirement healthcare benefit programs (two provided through PERS and one provided by the State's Public Employees' Benefit Board ("PEBB")). Most public employers in Oregon, including State government employers, participate in PERS. Benefits provided through PERS are paid from the Oregon Public Employees' Retirement Fund ("OPERF"). The Public Employees' Retirement Board (the "PERS Board") administers PERS and is responsible for setting policies and for providing administrative direction to PERS.

System Pension Programs

The three PERS pension programs are composed of two defined benefit programs and one program that has features similar to a defined contribution plan. In a defined benefit plan, the investment risk for the plan assets is borne by the employer. In a defined contribution plan, the investment risk for the plan assets is borne by the employee. A combination of participating employer contributions (determined by the PERS Board based upon the results of actuarial valuations), investment earnings and employee contributions (determined by statute, currently 6 percent of salaries and 7 percent for judges) fund these pension programs.

Employees hired before January 1, 1996 are known as "Tier 1" participants. The retirement benefits applicable to Tier 1 participants are based primarily on a defined benefit model. Employees hired on or after January 1, 1996 and before August 29, 2003 are known as "Tier 2" participants. The Tier 2 program also provides a defined benefit but with lower expected costs to employers than under the Tier 1 benefit. Employees hired on or after August 29, 2003 are participants in a successor retirement program to the Tier 1 and Tier 2 retirement programs (the "T1/T2 Pension Programs") known as the Oregon Public Service Retirement Plan ("OPSRP").

PERS also offers a program that has features similar to a defined contribution benefit known as the Individual Account Program ("IAP"). Effective January 1, 2004, active Tier 1, Tier 2 (T1/T2) and OPSRP employees became members of the IAP. Tier 1 and Tier 2 employees retain their existing T1/T2 Pension Program account, but the IAP account receives any future member contributions. In 2019 the Legislative Assembly passed SB 1049, which made several changes to PERS benefits going forward. Effective July 1, 2020, a portion of most members' 6%-of-salary contribution to their IAP is being redirected to an Employee Pension Stability Account (EPSA). Each member's EPSA will help fund their defined benefits

provided under T1/T2 and OPSRP. For T1/T2 members, the redirected amount is 2.5 percent of salary; for OPSRP members, the amount is 0.75 percent of salary.

System Pension Plan Asset and Liabilities Valuations

Oregon statutes require an actuarial valuation of the System by a competent actuary at least once every two years. The current PERS actuary is Milliman, Inc. (“Milliman”). Under current practice, actuarial valuations are performed annually, but only valuations as of the end of each odd-numbered year are used to determine annual required employer contribution rates. Valuations are released approximately one year after the valuation date.

The System Valuations include actuarial valuations for the T1/T2 Pension Programs and OPSRP. In connection with the T1/T2 Pension Programs, the State is pooled with certain local governments and community college districts (the “State and Local Government Rate Pool” or “SLGRP”). Because OPSRP’s assets and liabilities are pooled on a program-wide basis, the State is pooled with all Oregon local governments in connection with OPSRP.

The PERS actuary releases the State’s individual valuation reports near the end of each calendar year. These annual valuation reports provide the State’s portion of the unfunded actuarial liabilities of the SLGRP and OPSRP based on the State’s proportionate share of SLGRP and System covered payroll, respectively, as of the valuation date. An employer’s unfunded actuarial liability (“UAL”) is the excess of the actuarially determined present value of the employer’s benefit obligations to employees over the existing actuarially determined assets available to pay those benefits.

Each year at the December PERS Board meeting, the actuary presents results of long-term, financial modeling using a Monte Carlo simulation with then-current asset allocations. The possible outcomes of such financial modeling are factored into the PERS Board decisions on the adoption of certain actuarial methods and assumptions.

The Oregon State Treasurer is the investment officer for the State of Oregon. Investment standards are established in ORS 293.726 and require funds to be managed as a prudent investor would do. The Oregon Investment Council (“OIC”) establishes policies for the investment and reinvestment of moneys in PERS investment funds. Policies are established based on the primary investment asset class of each investment manager. The OIC has approved the following asset classes for the OPERF: Oregon Short-Term Fund (for cash balance), Fixed Income, Real Estate, Public and Private Equities, and Alternative Investments. In addition, OPERF invests in the Opportunity Portfolio, which may be populated with investment approaches across a wide range of investment opportunities with no limitation as to asset classes or strategies. The target investment portfolio mix at market value was revised at the OIC meeting of June 2, 2021, to 30 percent public equity, 20 percent private equity, 20 percent fixed income, 2.5 percent risk parity, 12.5 percent real estate, 7.5 percent real assets and 7.5 percent diversifying strategies. These percentages provide guidance on asset allocation and may vary with changes in valuation or at the discretion of the OIC in consideration of the OPERF investment policy.

The funded status of the pension programs will change depending on the market performance of the securities that OPERF is invested in, future changes in compensation and benefits of covered employees, demographic characteristics of members and methodologies and assumptions used by the actuary in estimating the assets and liabilities of PERS. Additionally, the market value of the investments held in OPERF is determined using various sources.

Funding Levels. Milliman released its valuation report for the System as of December 31, 2021 (the “2021 System Valuation”) and the State component valuation report as of December 31, 2021 (the “2021 State Valuation”) in September 2022.

The funded status of the System and of the State as reported by Milliman will change over time depending on a variety of factors, including the market performance of the securities in which the Oregon Public Employees’ Retirement Fund is invested, future changes in compensation and benefits of covered employees, demographic characteristics of members, methodologies and assumptions used by the actuary in estimating the assets and liabilities of PERS, and other actions taken by the PERS Board and the Legislative Assembly.

As reflected in its Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022, and in accordance with applicable standards issued by the Governmental Accounting Standards Board (“GASB”), the State, excluding component units, reported a net pension liability of \$2.9 billion and recognized pension expenses of \$522.2 million. The net pension liability was measured as of June 30, 2021 based on an actuarial valuations as of December 31, 2019.

PERS Developments. The PERS Board approved certain revisions to assumptions and rate-setting methodologies in 2021 that were used for the actuarial valuation as of December 31, 2021 (rate setting for the 2023-2025 Biennium), including a reduction to the assumed rate of investment return by 0.30 percent to 6.90%. The PERS Board also approved changes to the assumed rate of payroll growth and the rate collar methodology in 2021

State Pension Plan Asset and Liabilities

For the T1/T2 Pension Programs, the State's portion of PERS' assets and liabilities are based upon the State's proportionate share of the SLGRP's covered payroll (as of December 31, 2020, approximately 51.64 percent) and reflects proceeds from the State pension bonds issued in October 2003 in the aggregate principal amount of \$2.1 billion (the "State Pension Bonds"). For OPSRP, the State's proportionate share is based upon the State's share of total OPSRP covered payroll (as of December 31, 2020, approximately 30.59 percent). The State's proportionate liability may increase if other participants fail to pay their full employer contributions.

State Employer Contribution Rates

At the end of each odd-numbered year, actuarial valuations determine the employer contribution rates that are officially set by the PERS Board. Pursuant to Oregon Revised Statutes 238.225, all employers participating in PERS are required to make their contribution to PERS based on the employer contribution rates set by the PERS Board. The contribution rate stabilization method ("Rate Collar") was revised by PERS in July 2021 to apply to the UAL component of the PERS Board-approved employer contribution rates. The actuarially determined contribution ("ADC") for a PERS employer is the rate adopted for that employer by the PERS Board. This rate is calculated in accordance with the adopted actuarial-based funding policy. In years where the rate collar (which is part of the funding policy) is affecting the final rate adopted for some rate pools or employers, the collared rate is the ADC. Employers who pay the collared rate are paying 100% of the ADC..

Changes in Financial Reporting for Pension Plans

The Governmental Accounting Standards Board ("GASB") adopted new pension accounting standards effective for the June 30, 2014 fiscal year, which differed from historical methodologies used by the State for funding purposes and those used to represent funded status. Among the changes to the GASB standards are the inclusion of pension liabilities on a government's balance sheet; mark to market valuation of assets; lower actuarial discount rates; and the recognition of differences between expected and actual demographic and investment experience incrementally over a closed period when reporting annual employer pension expense. The new accounting standards affect financial reporting but do not require changes to funding policies. GASB required disclosures appear annually in the Annual Comprehensive Financial Report.

Total and Net Pension (Asset)/Liability

Beginning with the fiscal year ended June 30, 2014, the PERS began reporting financial information in conformity with new accounting and financial reporting requirements applicable to pension plans. Beginning with the fiscal year ended June 30, 2015, the State began reporting financial information in conformity with the new accounting and financial reporting requirements applicable to employers who participate in pension plans, which significantly changed the way pension liabilities are reported in their Annual Comprehensive Financial Reports by states and local governments. As a result of these changes, the State reports its Net Pension (Asset)/Liability based upon the State's proportionate share of the PERS system-wide Net Pension (Asset)/Liability.

Other Post-Employment Benefits ("OPEB")

In addition to pension benefits provided through PERS, the State provides healthcare benefits (medical, vision and dental) through two PERS health insurance programs and through PEBB. At the time of retirement, State employees can choose whether to obtain post-employment benefits through PERS or through PEBB. Approximately 42,321 retirees receive healthcare benefits through PERS health insurance programs and approximately 1,060 retirees receive healthcare benefits through PEBB.

As reflected in its Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022, and in accordance with applicable standards issued by GASB, the State, excluding component units, reported a net OPEB asset of \$112.8 million for the RHIA plan and a net OPEB asset of \$12.2 million for the RHIPA plan. The net OPEB asset and liability were measured as of June 30, 2021, based on an actuarial valuation as of December 31, 2019. For the PEBB plan, the State, excluding component units, reported a total OPEB liability of \$92.8 million, which was measured as of June 30, 2022, based on an actuarial valuation as of July 1, 2021.

PERS-Sponsored Retirement Health Insurance Account Plan (“RHIA”)

Retirees who receive pension benefits through the T1/T2 Pension Programs and are enrolled in certain PERS-administered health insurance programs may receive a subsidy towards the payment of health insurance premiums. ORS 238.420 established the Retirement Health Insurance Account program under which qualified retirees may receive a subsidy for Medicare supplemental health insurance of up to \$60 per month towards the cost of their health insurance premiums. The State’s employer contribution rate for the RHIA program for the 2019-21 biennium was 0.06 percent of payroll.

PERS-Sponsored Retiree Health Insurance Premium Account Plan (“RHIPA”)

Another subsidy is available to pre-Medicare-age State retirees through the Retiree Health Insurance Premium Account plan. On or before January 1 of each year, the PERS Board calculates the average difference between the health insurance premiums paid by retired State employees under contracts entered into by the PERS Board and health insurance premiums paid by State employees who are not retired. RHIPA authorizes payment of this average difference to qualified retired State employees. The State’s employer contribution rate for the RHIPA program for the 2019-21 biennium was 0.39 percent of payroll.

Net OPEB (Asset)/Liability

Beginning with the fiscal year ended June 30, 2017, PERS began reporting financial information in conformity with new accounting and financial reporting requirements applicable to other postemployment benefit (OPEB) plans. Beginning with the fiscal year ended June 30, 2018, the State began reporting financial information in conformity with new accounting and financial reporting requirements applicable to employers who participate in OPEB plans, which significantly changed the way OPEB liabilities are reported by states and local governments in their annual financial reports. The new accounting standards affect financial reporting, but do not require changes to funding policies.

PEBB Retiree Health Insurance Benefit Plan

In addition to the explicit pension and healthcare benefits provided to retired State employees through PERS, the State provides an implicit rate subsidy for healthcare benefits (medical, vision and dental) through PEBB to approximately 1,046 retirees (as of June 30, 2021) who do not receive healthcare benefits through PERS and are not yet eligible for Medicare. This PEBB’s rate subsidy is considered a State obligation for accounting purposes to comply with OPEB standards (GASB 75). The PEBB OPEB obligation exists because the State is providing an implicit rate subsidy to retirees to purchase healthcare through the PEBB at the same premium amount as active employees.

The Oregon Health Authority prepared an actuarial valuation for PEBB as of July 1, 2019 for purposes of complying with the OPEB standards. The valuation was prepared using the Entry Age Normal actuarial cost method. Significant assumptions used in the actuarial valuation include projected payroll growth of 3.5 percent and inflation of 2.5 percent. Under GASB 75, pay-as-you-go plans must use a discount rate that reflects a yield or index rate for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The discount rate assumed for the June 30, 2021 reporting date of 2.16 percent reflects the Bond Buyer 20-Year General Obligation Bond Index. The valuation uses a healthcare cost inflation adjustment of 3.4 percent, pursuant to ORS 243.135(8). There is no contractual obligation for this pooled healthcare program, but it is being calculated in the valuation and reported in the State’s financial statements to comply with GASB standards applicable to OPEB.

DEBT AUTHORITY AND BOND ISSUANCE

Administration

Oregon law authorizes the State Treasurer to coordinate the issuance of all State of Oregon bonds. The Treasurer reviews and approves the terms and conditions of bond sales and issues all bonds for State agencies. By centralizing this authority, the agencies for which bonds are issued are encouraged to plan their offerings well in advance and to work together to obtain the most favorable market reception. In addition, the uniform approach permits greater control of the State’s overall debt position, allowing the Treasurer to address the interests and concerns of the financial community and rating agencies as well as those of the State agencies.

The State Treasurer advises the Governor on the total biennial bonding level for State agency programs in the development of the Governor’s recommended budget. The Legislative Assembly authorizes bonds to be issued for each agency’s program in the “biennial bond bill”. The Governor’s recommended budget includes requests by agencies for bonds to fund their capital project needs, as well as agencies’ grant and loan programs. The Legislative Assembly reviews each program request and approves what it determines to be an appropriate level of issuance in the biennial bond bill.

The State generally issues four types of “long-term” financing obligations: general obligation bonds, appropriation obligations, direct revenue bonds and conduit revenue bonds. The State also may issue full faith and credit short-term borrowings, known as “Tax Anticipation Notes.” The Treasurer approves financing agreements, including lease purchase agreements, installment sales agreements and loan agreements to finance real or personal property and approves certificates of participation with respect to the financing agreements. The principal amount of such financing agreements is treated as bonds subject to the biennial bond bill.

Prior to the issuance of bonds, agencies typically submit reports to the State Treasurer that project future cash flows, the agency’s ability to meet future debt service, and the agency’s historical performance on payments and delinquencies. Agencies must also provide cash flow projections and other requested information to the State Treasurer on a periodic basis. Agency bond programs may be audited annually with the audit results published as soon after the audit as possible.

Capital Needs and Budget Process

Oregon law requires the Governor’s recommended budget to include capital construction needs for a minimum of six years. Prior to the biennial preparation of the Governor’s recommended budget, agencies submit their projected capital needs for the upcoming biennium and for the two subsequent biennia. These requests are evaluated and placed in the Governor’s recommended budget under one of two categories: capital improvements (less than \$1,000,000) or major construction and acquisition projects (\$1,000,000 or more). The capital improvement projects are included in agency operating budget appropriation bills. The major construction and acquisition projects are approved by the Legislative Assembly in the capital construction bill.

Authorization

The Oregon Constitution generally prohibits state government from incurring any indebtedness that exceeds \$50,000. Consequently, all general obligation bonds are authorized by an amendment to the Oregon Constitution that has been approved by Oregon voters and that permits bonds to be issued as an exception to the constitutional debt limit.

As part of its mandate under ORS 286A.255 to inform state officials about the amount of debt the State can prudently incur, the State Debt Policy Advisory Commission (“SDPAC”) issues an annual report for consideration by the Legislative Assembly in connection with the development of the biennial “bond bill” required under ORS 286A.035. The report must include the total amount of outstanding bonds for the most recently concluded fiscal year, a forecast for at least the next six years of the State’s borrowing capacity targets by repayment source consistent with the most recently published Forecast and a calculation of the State’s net remaining borrowing capacity by repayment source.

General Obligation Bonds

The amount of general obligation bonds that may be issued is usually expressed in the Constitution as a percentage of the statewide property value. The general obligation bond programs are also subject to legislative direction. The Legislative Assembly may place limits on general obligation bond programs that are more restrictive than those approved by the voters.

The State’s general obligation debt is secured by a pledge of the full faith and credit and statutory taxing power of the State of Oregon. In addition to any revenues from the program for which the bonds are issued, general obligation bonds may be paid from any undedicated and unrestricted moneys of the State. A property tax, where authorized by the Oregon Constitution, may also be levied to pay some general obligation bonds, although the State has not levied such a tax to pay any bonds in many years.

There are 17 constitutionally authorized general obligation bond programs. Although each of these programs may draw on the State’s General Fund or other taxing authority, many of the programs are fully self-supporting from program or other revenue streams.

The following active general obligation bond programs are primarily supported by the State’s General Fund: Higher Education Facilities and Community College Bonds, Pollution Control Bonds, Oregon Opportunity Bonds, Seismic Rehabilitation Bonds for Public Education and Emergency Services Buildings, and a portion of the Pension Obligation Bonds and State Property Bonds. Additionally, the Oregon Constitution authorizes the State to incur indebtedness to provide grants to school districts through the Department of Education to assist in financing capital costs of school districts.

The following general obligation bond programs are either partially or fully self-supporting: Veterans’ Welfare Bonds, Higher Education Facilities Bonds, Pollution Control Bonds, Water Resources Bonds, Elderly and Disabled Housing Bonds, Alternate Energy Bonds and a portion of the Pension Obligation Bonds and State Property Bonds.

In addition to the general obligation bond programs described above, the Oregon Constitution authorizes the State Treasurer to pledge the full faith and credit of the State to guarantee the general obligation bonds of Oregon's common or union high school districts, education service districts or community college districts. As of June 30, 2021, the State guarantees outstanding school district bonds of approximately \$9.3 billion under this program and has not issued any bonds under this authorization.

Tax Anticipation Notes

ORS 286A.045 authorizes a short-term, full faith and credit, borrowing program for the State through the issuance of Tax Anticipation Notes (TANs). The State may borrow and issue notes in anticipation of the collection of State taxes and revenues to be received during a biennium. The notes typically mature within 13 months. They are not considered debt within the meaning of any Constitutional prohibition because they mature and are repaid within a biennium. If the State General Fund or other available revenues are insufficient to pay the TANs, the State Treasurer may use internal borrowing to make any required payment.

Appropriation Credits

The State also issues appropriation credits that are special limited obligations of the State payable solely from funds appropriated or otherwise made available by the Legislative Assembly. The obligation of the State to provide appropriated moneys and to pay those borrowings is subject to future appropriation by the Legislative Assembly for the fiscal period in which payments are due.

Certificates of Participation. Under Oregon law (ORS 283.085 to 283.092), the State is authorized to enter into financing agreements to finance real and personal property projects for State agencies using certificates of participation. Each certificate represents an interest in and right to receive a portion of loan payments made by the State to a trustee for the certificate holders. The State's obligation to make the loan payments is subject to appropriation by the Legislative Assembly of the payment amounts each biennium. In some cases, the State's repayment obligation is also secured by a pledge of certain projects financed by the certificates as collateral. Following voter approval of an amendment to the Oregon Constitution in 2010 that authorizes the State to issue general obligation bonds to finance real and personal property projects under Article XI-Q of the Oregon Constitution, the State has used Certificate of Participation authority on a more limited basis.

Direct Revenue Bonds

State revenue bond programs operate under statutory authority from the Legislative Assembly. Each program is fully self-supporting and has no general obligation backing from the State. The Legislative Assembly, however, could provide a funding stream if program revenues were insufficient to support debt service payments. The Legislative Assembly normally limits revenue bonds to a specific dollar amount.

The following are active revenue bond programs authorized by the Legislative Assembly: State Highway User Tax Bonds, Lottery Revenue Bonds, Oregon Bond Bank Revenue Bonds, and Single-Family and Multifamily Housing Revenue Bonds.

Conduit Revenue Bonds

The State has three authorized and active conduit or "pass-through" revenue bond programs consisting of the Oregon Facilities Authority program, Industrial and Economic Development Revenue Bonds, and Housing Development Revenue Bonds. The Legislative Assembly has authorized these conduit revenue bond programs, and pursuant to that authority the State is the issuer of the bonds. The bonds are repaid only from revenues generated by the projects financed or from other sources available to a borrower. The State has no financial obligation for these bonds and bondholders have no recourse against the properties, funds or assets of the State.

LITIGATION

Members of the public and advocacy groups from time to time assert that they intend to file a legal action against the State challenging certain programs, laws or actions that the State or its officers or agencies have taken. Because the State cannot be certain as to whether such actions will actually be filed, the legal assertions that may be made in a potential action or the remedy sought in terms of the amount of damages or performance requested of the State, the State includes as threatened litigation only situations in which the State is engaged in active settlement negotiations with a person or advocacy group in order to pre-empt filing of a lawsuit.

Claims Against the State of Oregon Exceeding \$200 Million

Potential Superfund Site Liability

In 2000, the U.S. Environmental Protection Agency (“EPA”) listed an approximately 10-mile stretch of the lower Willamette River area (“Site”) as a Superfund site under the federal Superfund law (“CERCLA”). EPA has identified over 100 parties as potentially responsible under CERCLA for costs related to investigation and cleanup of hazardous substances at the Site, including the State of Oregon, acting by and through the Department of Transportation (“ODOT”) and Department of State Lands (“DSL”). EPA alleges the release of hazardous substances in storm water draining into Portland Harbor from property owned, leased, or operated by ODOT and DSL and from third-party activities on submerged and submersible leased lands owned by the State in trust for the public and managed by DSL within the Site. Under CERCLA, responsible parties can be held jointly and severally liable for all costs, subject to certain defenses.

In 2017, EPA issued its final cleanup plan for the Site called the “Record of Decision” (“ROD”). The ROD requires active remediation (through dredging, capping, enhanced natural recovery, and monitored natural recovery) of nearly 400 acres of contaminated sediments and over 20,000 lineal feet of riverbank. EPA’s initial estimate for full performance of the remedy was \$1.05 billion and 13 years; other parties estimate that it is a \$3 billion remedy that will take 20 years to complete. Liable parties under CERCLA are responsible for funding this remedial action, as well as preliminary actions such as additional investigations, remedial design, and agency oversight. EPA has asked potentially responsible parties (“PRPs”) to step forward to perform components of the ROD or risk an enforcement action. Numerous parties, including DSL and ODOT, have entered into Administrative Settlements and Orders on Consent with EPA to perform pre-remedial design and related work.

A group of Portland Harbor PRPs are engaged in a confidential, non-binding private mediation process to achieve an allocation of responsibility for the costs of implementing the ROD within the Site among the responsible parties. If successful, the process will culminate in the parties developing a comprehensive settlement proposal to EPA based on the allocation. If accepted by EPA, the settlement will be memorialized in a judicial Consent Decree filed in the Oregon federal district court. The State is participating in this non-judicial allocation by and through DSL and ODOT. It is not possible to predict the relative share of cleanup costs that will be assigned to each agency through this confidential mediation or, should it fail, through litigation. It is also too early to predict when the mediation will conclude or whether it will result in a durable comprehensive settlement with EPA.

Separately, the Portland Harbor natural resource trustees, a group composed of five tribes, two federal agencies and the State, acting through its trustee, the Oregon Department of Fish and Wildlife, are asserting a CERCLA claim for natural resource damages (“NRD”) against all Portland Harbor PRPs, including ODOT and DSL. The trustees have initiated a cooperative injury assessment process funded by thirty parties, the goal of which is to reach settlements of the NRD claim based on readily available information. The State is seeking a settlement of its NRD liabilities through this process.

The State has pursued claims for insurance coverage of its Portland Harbor defense costs and expects to make additional insurance claims in the future for its eventual liabilities for cleanup costs and NRD. These claims are based on commercial general liability insurance policies that the State held between 1968 and 1972 and on insurance policies that listed DSL and ODOT as additional insureds. The State has executed a settlement agreement with several of its insurers regarding their obligation to pay for most of the State’s defense costs through 2024, but the insurers have reserved their rights to deny indemnity coverage.

Pro Se Cases

There are also several pro se cases pending against the State in which plaintiffs representing themselves are suing the State for many millions of dollars. The possibility of the State having to pay anything in any of these cases is negligible.

APPENDIX F

ADDITIONAL INFORMATION ABOUT THE RHODE ISLAND ECONOMY AND RHODE ISLAND OBLIGATIONS

The following information is a summary of certain factors affecting the credit and financial condition of the State of Rhode Island and Providence Plantations (“Rhode Island” or the “State”). The sources of payment for Rhode Island municipal obligations and the marketability thereof may be affected by financial or other difficulties experienced by the State and certain of its municipalities and public authorities. This summary does not purport to be a complete description and is derived solely from information contained in official statements relating to debt offerings by the State. Any characterizations of fact, assessments of conditions, estimates of future results and other projections are statements of opinion made by the State in, and as of the date of, such reports and are subject to risks and uncertainties that may cause actual results to differ materially. The Fund is not responsible for information contained in such reports and has not independently verified the accuracy, completeness or timeliness of information contained in such reports. Such information is included herein without the express authority of any Rhode Island issuer and is provided without regard to any events that have occurred since the date of the most recent statement.

Overview

Population Characteristics. Rhode Island experienced a population increase of 3.6 percent between 2007 and 2021. The Census Bureau estimates that Rhode Island’s resident population decreased to 1,095,610 in 2021 after increasing to 1,097,379 in the 2020 Census. The population of New England is estimated to have increased by 5.7 percent between 2007 and 2021, and the United States population is estimated to have increased by 10.2 percent for the same period.

Personal Income and Poverty. Rhode Island per capita real personal income remained slightly under the national level in 2021 with Rhode Island real per capita personal income recorded as \$53,613 vs. \$54,913 for the U.S. In 2020, Rhode Island’s poverty rate was 2.9 percentage points less than that of the U.S. Over the 2006 to 2020 period, Rhode Island’s average poverty rate was 11.2 percent versus the U.S. average poverty rate of 13.3 percent.

Employment. According to the U.S. Department of Labor’s Bureau of Labor Statistics, total Rhode Island nonfarm employment grew each year from 2011 through 2019, averaging annual growth of 1.0 percent during that time. In 2020, however, due in no small part to the onset of the COVID-19 pandemic, Rhode Island saw a sharp drop in nonfarm employment of 8.4 percent. However, many of the jobs lost were regained in 2021, which brought positive growth of 3.9 percent in Rhode Island total nonfarm employment.

Economic Base and Performance. Rhode Island has a diversified economic base that includes traditional manufacturing, high technology, and service industries. A substantial portion of products produced by these and other sectors is exported. Like most other historically industrial states, Rhode Island has seen a shift in employment from labor-intensive manufacturing industries to technology and service-based industries, particularly education and health services and leisure, hospitality and other services in the 2011 through 2021 period.

Human Resources. Skilled human capital is the foundation of economic strength in Rhode Island. It provides the basis for a technologically dynamic and industrially diverse regional economy. The Rhode Island economy benefits from a vigorous post-secondary education sector, which conferred over 19,000 degrees during the 2019-20 academic year. The Rhode Island population is well-educated with 34.8 percent of its residents over the age of 25 having at least a bachelor’s degree in 2019 according to the U.S. Census Bureau (American Community Survey 1-Year Estimates). In addition, per pupil spending on public elementary and secondary education in Rhode Island has been significantly higher than the national average since the 2001-2002 school year. For 2018-19 Rhode Island spent 34.0 percent more per pupil than the national average.

Population Characteristics

Between 2007 and 2021 Rhode Island’s population increased by 3.6 percent, compared to a 5.7 percent increase for the New England region and a 10.2 percent increase for the United States. Though New England population growth has lagged that of the United States overall, Rhode Island has generally experienced average annual growth rates even lower than New England benchmarks. Rhode Island’s population increased by 38,295 between 2007 and 2021, representing a compound annual growth rate of 0.3 percent. The compound annual growth rate in New England and nationally over the same time period is 0.4 percent and 0.7 percent, respectively.

Personal Income, Consumer Prices, and Poverty

Personal Income. Rhode Island's per capita nominal personal income exceeded that of the United States every year from 2007 until 2015. In 2015, Rhode Island per capita nominal personal income was \$48,682 relative to \$48,725 for the United States. Rhode Island per capita nominal personal income has averaged \$760 below the national average between 2015 and 2021. Strong growth in 2020 over 2019 per capita income in Rhode Island slightly outpaced national growth that year. This was likely due to increased transfer payments and enhanced federal unemployment benefits due to the COVID-19 pandemic.

The average annual percentage change in per capita real personal income growth for the 2007 to 2021 period in Rhode Island was 1.4 percent, which is less than the 1.6 percent average growth for New England and the 1.7 percent average growth for the United States during this period. In 2019, the Rhode Island per capita real personal income growth rate was 0.7 percentage points higher than New England and 0.6 percentage points higher than the U.S. Rhode Island per capita real personal income growth accelerated to a stimulus-fueled rate of 5.9 percent in 2020, which also exceeded regional and national growth. In 2021, Rhode Island per capita real personal income grew at a rate of 1.7 percent, slightly underperforming the regional and national rates of 2.6 percent and 3.3 percent, respectively, though this is growth off of a higher base due to robust 2020 growth.

Average Annual Pay. Average annual pay has grown steadily in Rhode Island over the past fifteen years. Average annual pay is computed by dividing total annual payrolls of employees covered by unemployment insurance programs by the average monthly number of these employees. Although average annual pay has increased consistently for the last fifteen years, the ratio of pay levels in Rhode Island to the United States averaged 95.5 percent from 2009 through 2017, before dropping to 93.3 percent on average between 2018 and 2021.

Average annual pay saw strong national increases in 2020 as many lower wage workers in leisure, hospitality and other service-related jobs were laid off as a result of the COVID-19 pandemic. With fewer low wage workers, the resulting average annual pay increased. As the economy reopened, more of these workers returned to the payrolls and growth in average annual pay in Rhode Island and the United States slowed some, though rising wage expectations resulted in continued growth at higher than pre-pandemic rates. In 2021, Rhode Island's average annual pay was \$62,257, 2.9 percent higher than its 2020 level and 92.1 percent of U.S. average annual pay.

Consumer Prices. From 2007 to 2021, the consumer price index value in the Northeast exceeded that for the United States. From 2007 to 2010, the consumer price inflation rate in the Northeast region exceeded that of the United States by an average of 0.1 percentage points. From 2011 to 2019, the percent change in consumer prices in the Northeast region was less than for the United States. National consumer price inflation exceeded that of the Northeast region by an average of 0.2 percentage points in the years 2011 through 2019. In 2020, inflation in the northeast exceeded the national figure, with the rate 0.07 percentage points above the that of United States. In 2021, the Northeast region experienced a slightly lower inflation rate than the U.S. as a whole by 0.8 percent.

Poverty. Rhode Island's poverty rate has been below the poverty rate for the United States from 2006 to 2020. The poverty rate is measured as the percentage of a region's population that lives below the federal poverty level ("FPL"), as determined by the U.S. Census Bureau's Current Population Survey. Between 2006 and 2020, the percentage of the Rhode Island population below the FPL has varied from a low of 8.5 percent in 2020 to a high of 14.0 percent in 2010. During the same period, the national poverty rate varied from a low of 10.5 percent in 2019 to a high of 15.1 percent in 2010. Over the 15-year period from 2006 to 2020, the poverty rate in Rhode Island fell 2.0 percentage points, compared to a 0.9 percentage point decline nationally. These official poverty statistics are not adjusted for regional differences in the cost of living.

Rhode Island and the nation experienced increasing poverty rates following the onset of the Great Recession in 2007. Beginning in 2011, poverty rates in both Rhode Island and the U.S. stabilize until 2013 when Rhode Island experiences a sharp drop in its poverty rate. Rhode Island's poverty rate rose in both 2014 and 2015 before resuming its downward trend in 2016 through 2018, and then increased again in 2019, rising 0.3 percentage points to 9.2 percent. In 2020, Rhode Island's poverty rate fell by 0.7 percentage points to reach a record low of 8.5%. Notably, the U.S. poverty rate declined or held steady each year from 2011 through 2019 before ticking up slightly in 2020. The decline in the poverty rate since the peak of the Great Recession in 2010 has been slightly stronger in Rhode Island than nationwide, albeit more volatile, with Rhode Island's poverty rate falling 5.5 percentage points by 2020 while that of the U.S. declined 3.7 percentage points.

Employment

Between 2007 and 2021, total nonfarm employment in Rhode Island decreased by 3.1 percent. The decline reflects the sharp decrease that resulted from the COVID-19 pandemic in 2020, and then the beginning of the recovery with a bounce back in 2021. Rhode Island total nonfarm employment increased 1.8 percent between 2007 and 2019, reaching record level employment in 2019 before contracting sharply in 2020. Between 2007 and 2021, the sectors that experienced the largest overall decreases were Manufacturing; Construction, Natural Resources and Mining; and Government, which decreased by 23.1 percent, 9.8 percent, and 7.1 percent, respectively. Nonfarm employment declined from 2007 to 2010 during the Great Recession before rebounding in 2011. Job growth slowly accelerated into 2014, when it reached its fastest pace during the period between 2007 to 2020, at 1.6 percent. Rhode Island job growth outpaced this record in 2021 as the economy reopened, vaccinations became available, and public health measures eased. Most notably this recovery is driven in large part by strong growth in the Leisure, Hospitality & Other Services sector, which had been the hardest hit. Nonfarm employment growth continued through 2019, although at a gradually decreasing pace. After seven consecutive years of job growth averaging 1.1 percent, nonfarm employment in Rhode Island surpassed pre-Great Recession levels in 2017. Total nonfarm employment of 479,900 in 2021 was 16,200 below the 2006 peak, and 24,200 below the record high reached in 2019.

Nonfarm Employment by Industry. Total nonfarm employment increased by 3.4 percent during this period, and the composition of total employment changed markedly. The largest declines during this period were in the Manufacturing and Government sectors, at -2.7 percent and -1.7 percent, respectively. The sectors that made the largest gains during this same period were Construction, Natural Resources & Mining (27.7 percent) and Information, Financial Activities & Business Services (14.1 percent). Meanwhile, employment for all other sectors was largely flat, growing at 0.2 percent collectively. The Rhode Island economy transformed further from a manufacturing-based economy to a service-based economy during the 2011 to 2021 period.

The information, financial activities and business services sector, with 22.6 percent of the nonfarm workforce, is the largest employment sector in the Rhode Island economy, followed closely by educational and health services, with 21.3 percent; trade, transportation and utilities, with 15.6 percent; leisure, hospitality and other services, with 15.0 percent; government, with 13.1 percent; manufacturing, with 8.1 percent; and construction, natural resources and mining, with 4.2 percent. The COVID-19 pandemic strongly impacted the leisure, hospitality and other services sector in 2020. Though it experienced strong recovery in 2021, it was not yet fully recovered, likely temporarily depressing its share of overall employment.

Manufacturing Employment. Like many industrial states, Rhode Island has seen a steady diminution of its manufacturing jobs base over the last decade. There was, however, a notable expansion of employment by Rhode Island manufacturing establishments in the 2013 through 2015 period, after which contraction in manufacturing jobs resumed. Total employment in the manufacturing sector declined between 2007 and 2021, falling by 23.1 percent. Consistent with the overall contraction in the national economy, the rate of decline in Rhode Island manufacturing employment accelerated to 12.7 percent in 2009. Manufacturing employment continued to decline in the years after 2009, although at a slower pace. Total manufacturing employment saw modest positive growth from 2013 to 2015, with 2015 employment 3.8 percent above 2012 levels. Growth in manufacturing employment peaked in 2014 at 2.3 percent. Non-durable goods manufacturing added jobs from 2013 to 2016 and did not return to declines until 2018. Growth in durable goods manufacturing, however, has been more volatile, with jobs increasing in 2013 and 2014, and holding steady in 2015, before dipping in 2016. In 2017 and 2018 employment in durable goods production increased, nearing levels last seen in 2010, before succumbing to declines again in 2019 and 2020. In 2020, total manufacturing employment decreased by 6.3 percent driven by a sharp decrease in durable goods employment of 8.2 percent and a more modest decrease of 2.8 percent in non-durable goods employment. Total manufacturing employment experienced some bounce back in 2021 with 4.3 percent overall growth over 2020, the strongest growth rate observed during this time period.

Despite a long-term decline in non-durable goods and durable goods manufacturing employment, the manufacturing sector continues to be a significant component in the State's gross domestic product, as evidenced by its production in terms of dollars. Employment levels at manufacturing establishments fell consistently between 2007 and 2012, grew from 2013 to 2015, experienced a slight downturn in 2016, and maintained its overall level in 2017 and 2018, before returning to declines in 2019 and 2020, followed by a slight increase in 2021.

Unemployment. In 2021, the State's unemployment rate was 5.6 percent, which was slightly higher than the national average by 0.3 percentage points and above the New England rate by 0.2 percentage points. With the exception of 2019, Rhode Island's unemployment rate has been consistently above the regional average since the onset of the Great Recession, although the gap has narrowed significantly in recent years. Widespread unemployment rate increases are seen in 2020 as a result of the COVID-19 pandemic, before decreasing sharply in 2021 as the economy began to recover.

Unemployment Compensation Trust Fund. The unemployment insurance system is a federal-state cooperative program established by the Social Security Act and the Federal Unemployment Tax Act to provide benefits for eligible individuals when they are unemployed through no fault of their own. Benefits are paid from the Rhode Island Unemployment Compensation Trust Fund and financed through employer contributions.

Economic Base and Performance

From 2011 to 2021, growth in Rhode Island Gross Domestic Product (“GDP”) was less than growth in United States GDP except in 2020. When GDP fell across the board in 2020 due to the initial impacts of the COVID-19 pandemic, Rhode Island GDP fell at a rate of -1.2 percent, which was lower than the -2.2 percent downturn in United States GDP and the -2.0 percent GDP growth seen in the New England region. New England and Rhode Island lagged slightly behind the United States as a whole as GDP began to bounce back across the board in 2021. New England and Rhode Island experienced positive GDP growth of 9.0 percent and 8.9 percent, respectively, while United States GDP increased by 10.1 percent.

Due to the large economic impact of the COVID-19 pandemic, GDP growth declined in 2020 across all geographies. New England and the United State experienced GDP declines of 2.0 percent and 2.2 percent, respectively, while Rhode Island fared slightly better with a decline of 1.2 percent. As economic stimulus efforts, vaccines, and the easing of some public health measures brought broad GDP gains across all geographies in 2021, the United States fared slightly better than Rhode Island and the New England region.

Economic Base and Performance -- Sector Detail. The economy of Rhode Island is well diversified. Rhode Island experienced growth in most sectors in 2021 compared to 2011. The information sector is the only major industry to experience GDP decline over this time frame. The agriculture, forestry, fishing and hunting industry also saw a slight decline over this time period, however this industry makes up a very small portion of Rhode Island’s GDP. Comparing GDP performance by industry in 2021 to 2011, the largest increases occurred in finance and insurance services, administrative and waste management services, and management of companies and enterprises sectors.

Finance, Insurance and Real Estate (“FIRE”). This is the largest sector of Rhode Island’s economy in terms of total contribution to GDP. FIRE contributed 24.0 percent of total State GDP in 2021, accounting for \$15.81 billion of the \$65.76 billion total GDP. For the period 2011 to 2021 this sector expanded by 32.2 percent.

Construction and Manufacturing. In 2021, the construction and manufacturing sector was the sixth largest sector of Rhode Island’s economy at \$7.6 billion, or 11.5 percent of total GDP. This sector increased by 29.0 percent from the 2011 level.

Government. At 13.7 percent of total state GDP in 2021, the government sector has grown at an average annual growth rate of 2.1 percent since 2011. Yet, due to the gains in other sectors, particularly FIRE, government contributes 0.9 percentage points less as a percentage of GDP in 2021 than it did in 2011. In 2011, the government sector contributed \$7.31 billion to the total GDP and accounted for 14.6 percent of GDP. In 2021, the government sector contributed \$9.03 billion to the total GDP.

Services. Services consist of professional and technical services, management services, administrative and waste services, educational services, health care and social assistance, as well as other non-government services. Services have remained an important sector for the Rhode Island economy, accounting for 26.4 percent of state GDP in 2021. From 2011 to 2021, services have grown 39.0 percent, indicating the continuing shift from Rhode Island’s traditional role as a manufacturing-based economy to that of a service-based economy.

International Trade and the Rhode Island Economy

Rhode Island products are exported throughout the United States and the world. The total value of all international shipments from Rhode Island in 2017 was \$2.39 billion, an increase of 5.0 percent when compared to 2016 levels. This represented 4.1 percent of the 2017 Rhode Island GDP of \$57.9 billion. For 2018, Rhode Island’s exports were valued at \$2.41 billion or 4.1 percent of GDP in that year. The year-over-year increase in Rhode Island exports was 0.6 percent in 2018. In 2019, Rhode Island’s exports increased to \$2.68 billion, which represents an 11.2 percent increase compared to 2018. In 2020, Rhode Island total exports decreased to \$2.36 billion, which is equivalent to an 11.9 percent year-over-year decline. Total exports represented 3.9 percent of 2020 Rhode Island GDP. The COVID-19 pandemic likely played a significant role in the decrease in Rhode Island total exports in 2020. However, Rhode Island exports saw a swift recovery in 2021, rising by 25.1 percent year-over-year to \$2.95 billion, and representing 4.5 percent of 2021 Rhode Island GDP.

In 2021, the most important exports were waste and scrap, 27.5 percent; chemicals, which generally includes pharmaceuticals, 21.3 percent; miscellaneous manufactured commodities, 15.3 percent; primary metal manufacturing, 7.5 percent; computers and electronic products, 5.3 percent; electrical equipment, appliances and component, 4.1 percent; machinery, except electrical, 3.5 percent; and all other exports, 15.5 percent.

Housing

Authorized housing permits in Rhode Island decreased from 2007 until 2012, when there was an increase of 5.0 percent. In the same year, the number of housing permits authorized increased by 33.7 percent in New England and 32.9 percent in the United States, representing the highest growth rates seen in the period of 2006 through 2020 for both regions. The number of total housing permits authorized in 2013 increased for Rhode Island, New England, and the United States by 13.5 percent, 20.3 percent, and 19.4 percent, respectively. In 2014, authorized housing permits increased by 4.7 percent in Rhode Island, 0.8 percent in New England, and 6.2 percent in the United States. In 2015, authorized housing permits fell by 2.8 percent in Rhode Island, while increasing in both New England and the U.S. In 2016, the change in the number of housing permits in Rhode Island differed from regional and national trends once again with an increase in number of permits authorized of 15.9 percent, while permits authorized fell by 10.8 percent in New England and grew modestly at 2.0 percent in the United States. In 2017, all regions had positive growth rates in the number of authorized housing permits. In 2018, the number of housing permits in Rhode Island increased by 2.5 percent, lower than the 3.6 percent increase in the United States, while the number of permits authorized fell by 8.6 percent in New England. Housing permit authorization weakened again in 2019, declining 4.5 percent in Rhode Island, while rising 1.3 percent in New England and 4.3 percent in the United States. New England and Rhode Island saw strong years for housing permits in 2020, with the number of housing permits authorized rising 13.1 percent in New England and 14.1 percent in Rhode Island, compared to 6.1 percent nationally. This strength continued into 2021, with Rhode Island and New England housing permits increasing by 15.4 percent and 10.3 percent, respectively. Meanwhile, the United States saw strong growth of 18.1 percent in 2021.

From 2007 to 2021, the Rhode Island home price index stayed above the U.S. home price index. Though the Rhode Island home price index declined in nominal percent terms through 2013, it has climbed steadily since 2014. In 2021, the ratio of the Rhode Island home price index to the U.S. home price index stood at 134.1 percent, compared to 153.8 percent in 2007.

Military Contracts

In 2007, defense contract awards to Rhode Island firms eclipsed \$500 million for the first time, reaching \$594 million, and remained above \$600 million each year thereafter until 2015 when awards dipped slightly below the \$600 million mark. The decline in the value of the Department of Defense (“DOD”) contracts awarded in 2015, was followed by a slight rebound to \$639 million in 2016, and another decline to \$524 million in 2017. Since 2018, the total military contracts awarded to Rhode Island companies has held steadily above \$600 million, reaching \$678 million in 2020. In 2021, DOD contracts awarded to Rhode Island firms totaled \$708 million, the highest since 2014.

Rhode Island’s DOD contract awards as a percentage of total U.S. contract awards rose incrementally from 2007 through 2011, and reached a peak of 0.29 percent in 2014 but has fallen to 0.18 percent in 2021. Since 2007, Rhode Island’s share of New England DOD contract awards has increased from 2.55 percent to a peak of 3.15 percent of such awards in 2014. In 2015 and 2016, the percentage of Rhode Island awards as a share of New England fell to 2.38 percent and 2.34 percent, respectively. Rhode Island’s share of total awards in the region fell further to 1.93 percent in 2017, 1.92 percent in 2018, 1.61 in 2019 and 1.54 percent in 2020, before increasing to 1.70 percent in 2021.

Human Resources

Public Elementary and Secondary Education. The availability of a skilled and well-educated population is an important resource for Rhode Island. Rhode Island’s financial commitment to education compares favorably with the United States. Although spending on education is not necessarily an indication of results, it is important to note that Rhode Island spends more per pupil on elementary and secondary education than the national average. In fact, per pupil spending in Rhode Island has been significantly higher than the national average for more than two decades; however, Rhode Island’s dominance in educational spending has waned somewhat in recent years. The ratio of Rhode Island spending to the national average has varied from a high of 145.2 percent in 2011-12 to a low of 134.0 percent in the 2018-2019 school year. During the 2013-2014 academic year Rhode Island spent 41.3 percent more on public elementary and secondary education than the United States average. For the 2015-2016 academic year Rhode Island spent 37.4 percent more on public elementary and secondary education than the national average. During the 2016-2017 academic year Rhode Island spent 36.9 percent more on public elementary and secondary education than the United States average. In the 2017-2018 academic year, Rhode Island

spent 34.7 percent more on public elementary and secondary education than the United States average. In the 2018-2019 academic year, the most recent year for which data are available, Rhode Island spent \$18,981 per pupil, \$4,817 more than the per pupil national average of \$14,164, and 4.0 percent more than the State spent in the 2017-2018 academic year.

For the academic year 2018-2019, Rhode Island per pupil expenditures were the eighth highest in the nation and fourth highest in New England, trailing Vermont, Connecticut, and Massachusetts.

Public and Private Post-Secondary Education. Growth in educational attainment for Rhode Islanders is important for productivity gains along with ensuring the trend toward a more educated labor force. During the time period between the 2005-2006 and 2019-2020 academic years, Rhode Island experienced growth in the number of college degrees conferred in each year except 2009-2010, 2018-2019, and 2019-2020. The 2009-2010 academic year corresponds to a year when the U.S. economy was in recession, which likely impacted out-of-state enrollment at Rhode Island's colleges and universities. By contrast, the 2018-2019 academic year corresponds to a year when the U.S. economy was approaching full employment and wages were rising, which may have affected some students' decisions to pursue higher education. The sharpest decline in degrees conferred during this time period is in the 2019-2020 academic year, which extended through the first months of the COVID-19 pandemic in the spring of 2020. Over this 15-year period, the average rate of growth in degrees conferred by Rhode Island institutions of higher education was 1.5 percent. This compares to an average rate of growth in degrees conferred by U.S. colleges and universities of 2.5 percent for the same period.

Rhode Island's growth rate in degrees conferred exceeded that of the United States for five of the 15 academic years for which data are available.

According to the U.S. Department of Education's National Center for Education Statistics, in fall 2020 the total enrollment of part-time and full-time students in Rhode Island institutions of higher education was 77,087, a decrease of 3.9 percent from fall 2019. This decline may be due to the effects of the COVID-19 pandemic on students' decisions to defer initial enrollment or withdraw from school. This enrollment reduction tracks closely with the 3.3 percent decline in enrollment observed nationally in the United States for fall 2020. After 2010, fall enrollment in Rhode Island has fallen eight out of the 10 years. This is in line with the trend seen at the national level, which has recorded declines in fall enrollment since 2012. Prior to fall 2011, total fall enrollment at Rhode Island colleges and universities had increased each year.

Despite the lack of growth in degrees conferred in recent years, Rhode Island's degree-holding population has increased since 2015. From 2015 to 2019, Rhode Island's population age 25 or older holding at least a bachelor's degree increased 2.1 percentage points to 34.8 percent of the total population. Comparing 2019 to 2018, Rhode Island saw a 0.4 percentage point increase in the share of residents age 25 or older that hold a bachelor's degree or higher, while New England saw an increase in the share of bachelor's degree or higher degree holders of 0.6 percentage points. The United States also saw a modest rise in the share of residents with at least bachelor's degrees from 2018 to 2019. These data could not be updated at this time due to the fact that they come from the U.S. Census Bureau's American Community Survey 1-Year Estimates. The Census Bureau did not conduct the American Community Survey in 2020 due to the COVID-19 pandemic.

Economy

November 2022 Revenue Estimating Conference

The November 2022 Revenue Estimating Conference ("REC") adopted the economic forecast for both calendar and fiscal years 2023 to 2028 and issued revised estimates for FY 2023 and first estimates for FY 2024 revenues. Based on collection trends through October, preliminary FY 2022 closing results, and the revised economic forecast, the REC increased the FY 2023 estimates by \$358.9 million from the enacted estimate of \$4,901.5 million to \$5,260.4 million.

The REC estimated FY 2024 revenues at \$5,104.8 million, which is \$155.6 million less than the revised estimate for FY 2023 but does not include the hospital license fee. That fee accounts for \$179.1 million in FY 2023 that cannot be included in FY 2024 because it is enacted annually, and revenue estimates may only be based upon current law.

IHS Markit economists' testimony on the United States economy focused on the likelihood of a mild recession beginning in the fourth quarter of 2022 as federal fiscal supports and pent-up demand wane, financial conditions deteriorate, increasing prices erode real income and wealth, and foreign growth sags. At that time, real gross domestic product is expected to decline for three quarters. In 2023, the unemployment rate is projected to rise from the current 3.5 percent to 6.0 percent by the end of 2023 before declining to 4.3 percent by mid-2029. He noted that that the forecast anticipates partial reversals of recent increases in energy, food and durable goods prices as supplies increase followed by inflation moderating with the unemployment increase.

IHS Markit economists explained the additional forecast assumptions including: the transition of the COVID-19 pandemic to an endemic; a gradual waning of the effects on commodities prices from the Russian war in Ukraine; sanctions remain in place and oil prices peak in the second quarter of 2022. The forecast also assumes no further impact from federal fiscal stimulus and that the Federal Reserve continues aggressive rate hikes in the short term reaching as high as 4.75 percent before reversing course by early 2024.

IHS Markit economists discussed the Rhode Island economy and predicted it would enter a recession by the end of the year along with the rest of the country. IHS Markit economists also noted that while the local housing market has been strong, a sharp rise in mortgage rates and deteriorating economic conditions will negatively affect home prices, sales and housing starts over the near-term. Rhode Island's employment recovery has recently slowed and will not be fully recovered from the COVID-19 pandemic when the recession begins. IHS Markit economists highlighted the uneven job recovery among sectors whereby construction, manufacturing and professional and business services have added over four thousand jobs combined relative to February 2020, but education and health, Rhode Island's largest sector is still four thousand job short, as is leisure and hospitality. The state's unemployment rate hit a record low of 2.7 percent in July but is trending higher now and the forecast has it reaching 5.1 percent in early 2024. Employment losses are assumed to begin in early 2023.

The Department of Labor and Training reported that the estimated 507,800 Rhode Island based jobs in February 2020 was a record high and included 551,000 employed residents, and 64 percent of the working age population participating in the labor force. During the pandemic the state lost 21.3 percent of its jobs, over 108,000. The Department testified that this was the highest percentage loss in New England and fourth highest nationally. Rhode Island's unemployment rate hit 18.4 percent in April 2020.

By the end of 2020, the state had regained 64,200 jobs, 59.4 percent of the total lost. Employment increased in 2021 at an average monthly gain of 2,000 jobs; it continued to grow in 2022, but slower. The Department reported that through September 2022, Rhode Island has recovered 91.5 percent of the jobs lost during the pandemic, or 98,900 jobs. This recovery rate is the 33rd highest in the nation and fourth highest in New England ahead of Connecticut which has recovered 89.2 percent of lost jobs and Vermont at 79.5 percent. All New England states are still below their February 2020 employment levels; Rhode Island is about 9,200 jobs or 1.8 percent below February 2020.

The Department shared data showing the pandemic's disproportionate impact on lower wage industries, those with average annual wages less than \$50,000. They accounted for 31.7 percent of the total jobs in the state but nearly sixty percent of the jobs lost during the pandemic. High wage industries, average annual wages above \$70,000, accounted for 31.9 percent of total jobs but only 10.2 percent of the jobs lost. The mid-wage industries, between \$50,000 and \$70,000, accounted for one-third of the jobs lost. High and mid-wage industries have both recovered about 96 percent of the 45,400 jobs lost and low-wage industries have recovered about 88 percent of the 62,700 jobs lost.

The Department provided data on jobs lost and recovered by sector echoing the economists' testimony on the disparity of the recovery. The professional and technical services sector and construction sector are exceeding February 2020 levels but employment remains below pre-pandemic levels in ten economic sectors. Employment in four of the five low-wage sectors is significantly below pre-pandemic levels and health care and social assistance is reporting the largest loss since February 2020 down 2,400 jobs.

Based on current data and anticipated benchmark revisions the Department of Labor and Training estimates the number of jobs in 2022 will average approximately 492,000, ending with approximately 505,000 jobs. Additional data provided show that labor force participation, currently 64.8 percent of the working age population has now exceeded pre-pandemic levels.

Revenues

Taxes. Revenues from taxes in FY 2023 are estimated to decrease 0.8 percent from preliminary FY 2022 collections and increase 1.0 percent in FY 2024 over the revised FY 2023 estimate. Total estimated tax revenues for FY 2023 of \$4,326.4 million are \$284.4 million above the enacted estimate. FY 2024 total estimated taxes are \$4,371.1 million, \$44.7 million above the revised FY 2023 estimate.

Personal Income Tax. The personal income tax estimates of \$1,910.3 million for FY 2023 and \$1,979.6 million for FY 2024 represent annual growth rates of -4.4 percent and 3.6 percent, respectively. The FY 2023 revised estimate is \$135.3 million more than enacted primarily from an anticipated increase in final payments. The FY 2024 estimate is \$69.3 million more than the FY 2023 revised estimate, with more than half of the project increase in withholding revenues, the largest component of this tax.

The personal income tax estimates include \$472.4 million across both fiscal years in corporate income taxes transferred to personal income tax via individuals filing as corporate pass-through entities. Rhode Island established this filing mechanism effective 2019 to address the federal cap on state and local tax deductions, and its use has increased annually. The REC principals reached consensus on underlying activity as well as the anticipated rate of refunds on overpayments and potential duplicate payments.

Business Taxes. The conferees estimate total business taxes of \$602.6 million in FY 2023 and \$601.5 million in FY 2024. Year over year growth rates are -2.4 percent and -0.2 percent, respectively as FY 2022 collections were \$617.1 million. The FY 2023 estimate is \$65.4 million more than enacted, while the FY 2024 estimate is \$1.1 million less than the revised estimate.

Sales and Use Taxes. Sales tax, the bulk of the consumption taxes, is estimated at \$1,575.0 million for FY 2023 and \$1,580.0 million for FY 2024. The FY 2023 revenues are \$66.4 million above the enacted estimate, which represents growth of 4.2 percent from the preliminary FY 2022 receipts. The FY 2024 estimate is \$5.0 million, or 0.3 percent, above the revised FY 2023 estimate.

Excise Taxes Other Than Sales and Use Taxes. The conferees estimate \$158.2 million for revised FY 2023 and \$141.5 million for FY 2024 from excise taxes other than sales and use taxes. These taxes include certain motor vehicle license fees associated with the implementation of REAL ID, tobacco taxes, and alcohol taxes. The FY 2023 revised estimate is \$15.8 million, or 9.1 percent, below the prior year. The total FY 2024 estimate decreases by \$16.7 million, or 10.6 percent, from the revised estimate for FY 2023.

The negative growth rates in FY 2023 and FY 2024 reflect the long-term decline in cigarette consumption, and also factor in some of the impact of a planned change to federal tobacco product standards that would prohibit menthol cigarettes and flavored cigars. In April 2022, the Food and Drug Administration announced the proposed new rule and a public comment schedule to run from May 4 through July 5, 2022; that process has since been extended and the timing of a resolution is unclear. The conferees assumed such a change would not impact sales of tobacco products until FY 2024.

Other Taxes. The inheritance and gift, racing and athletics, and realty transfer taxes are estimated to produce \$80.3 million in FY 2023 and \$68.5 million in FY 2024. The FY 2023 revised estimate is \$13.4 million more than enacted primarily reflecting a single large inheritance tax payment received in October. The FY 2024 estimate for total other taxes is \$11.8 million less than the FY 2023 revised estimate.

Departmental Receipts. The conferees adopted estimates of \$464.0 million for FY 2023 and \$280.0 million for FY 2024 for these sources that include licenses and fees, fines and penalties, sales and services, and miscellaneous departmental receipts that are deposited as general revenues. The FY 2023 revised estimate is \$30.0 million more than enacted reflecting adjustments based on FY 2022 performance as well as unusually high interest earnings given the combination of strong fund balances and recent rate hikes.

The FY 2024 estimate is \$184.0 million less than the revised FY 2023 estimate, mainly due to the end of the hospital license fee, which produces \$179.1 million in FY 2023. This fee is renewed on a year-to-year basis and has been extended each year since its inception. The estimators, however, must estimate revenues consistent with current law under which no fee is enacted for FY 2024.

Lottery Transfer. The lottery transfer is estimated to produce general revenue of \$418.7 million in FY 2023, with \$309.6 million generated from the video lottery terminals installed at Twin River — Lincoln and Tiverton; \$72.5 million derived from combined games, which include PowerBall, Mega Millions, scratch tickets, and Keno; \$13.6 million in net revenues received from the table games at both the Twin River Lincoln and Tiverton locations; and, \$23.0 million from sports betting at both casino locations and via the mobile application. The FY 2023 revised estimate is \$30.9 million above the FY 2023 enacted estimate transfer, primarily from video lottery activity. The revised estimate is \$30.1 million above the FY 2022 transfer.

The estimated transfer is \$410.7 million for FY 2024, with \$307.4 million derived from video lottery terminals, \$72.0 million from combined games, \$13.7 million from the table games, and \$17.6 million from sports betting. The FY 2024 lottery transfer is projected to decrease by \$8.0 million from the FY 2023 revised estimated, primarily reflecting the approval of sports betting in Massachusetts which is expected to affect all casino based revenues along with sports betting activity. Based on Lottery testimony, Massachusetts sports betting is expected to begin in early 2023.

Other Sources. Other source revenue consists of transfers to the general fund from unclaimed property and other miscellaneous sources, often non-recurring. These are estimated to produce \$51.3 million in FY 2023 and \$43.0 million in FY 2024. Both years include a \$13.5 million installment of the \$27.0 million payment from the new long term lottery contract authorized in 2021.

State Government Organization

General Information

The State of Rhode Island is governed by its Constitution, the present form of which was adopted by the electorate in 1986 reflecting a comprehensive restatement to replace archaic language and to delete repealed provisions of the 1843 Constitution, as well as various other amendments. Under the State Constitution, the powers of the government are divided into three branches: legislative, executive and judicial.

Legislative Branch

The legislative power of the government of the State of Rhode Island (the “State”) is vested in the General Assembly, which consists of a 38-member Senate and a 75-member House of Representatives. The Rhode Island Constitution provides that the Senate and the House of Representatives shall be constituted based on population and the senatorial and representative districts shall be as nearly equal in population and as compact in territory as possible. All members of the General Assembly are elected biennially from senatorial and representative districts and are not subject to term limits. The General Assembly meets annually beginning on the first Tuesday in January. The concurrence of the two houses of the General Assembly is necessary for the enactment of laws.

Executive Branch

The chief executive power of the State is vested in the Governor and, by succession, the Lieutenant Governor. Each is elected to four (4) year terms. The Governor is primarily responsible for the faithful execution of laws enacted by the General Assembly and for the administration of State government through the Executive Department. Under the State Constitution, the Governor is granted the power to veto any act adopted by the General Assembly, provided, however, that any such veto can be overridden by a 3/5 vote of the members present and voting of each of the houses of the General Assembly. The Governor does not have any power of line-item veto.

The State Constitution also provides for the election of three additional general State Officers: the Attorney General, the Secretary of State and the General Treasurer. The Attorney General represents the State with regard to the investigation, prosecution, and trial of all felony matters, misdemeanor cases, and appellate matters within its jurisdiction. The Secretary of State administers activities related to elections, legislative records, archives and the distribution and exchange of official State documents. The General Treasurer is responsible for overseeing the investment of State funds, managing the State Retirement System, the Crime Victim Compensation Program and the Unclaimed Property Program, and the payment of employees and vendors that provide goods and/or services to the State. All general State Officers are limited to serving two four-year terms in office.

Judicial Branch

The judicial power of the State is vested in the Supreme Court of Rhode Island (the “Supreme Court”) and such lower courts as are established by the General Assembly. The Supreme Court, appointed by the Governor and confirmed by the Senate and the House of Representatives, has final revisory and appellate jurisdiction upon all questions of law and equity. The General Assembly has also established a Superior Court, a Family Court, a District Court, a Workers’ Compensation Court, a State Traffic Tribunal, and certain municipal courts in various cities and towns in the State.

Independent Authorities, Agencies and Public Corporations

The General Assembly from time to time has authorized the creation of certain independent authorities, agencies, commissions, public or quasi-public corporations, and fire districts and other special districts to carry out specific governmental functions, herein generally referred to as “public corporations.” In certain cases, bonds and other debt obligations issued by these entities are supported by State general fund appropriations, State guarantees or a moral obligation of the State to seek appropriations for debt service. In other cases, such entities, although empowered to issue bonds, may not pledge the financial support of the State and, therefore, these bonds are not general, legal or moral obligations.

I-195 Redevelopment District Commission. The I-195 Redevelopment Act of 2011, Chapter 64 of Title 42 of the RIGL, created the I-195 Redevelopment District Commission (the “I-195 Commission”) as a subsidiary of the Rhode Island Commerce Corporation (“Commerce RI”) and authorized the I-195 Commission to purchase I-195 surplus land from the Rhode Island Department of Transportation (“RIDOT”). The seven member I-195 Commission is authorized to plan, implement, administer and oversee the redevelopment of the I-195 surplus properties.

Narragansett Bay Commission. The Narragansett Bay Commission (“NBC”) was created in 1980 pursuant to Chapter 25 of Title 46 of the RIGL. NBC is authorized to acquire, operate and upgrade the metropolitan Providence wastewater collection and treatment facilities including through the issuance of revenue bonds and notes. Obligations of NBC are payable solely from the revenues or assets of NBC.

Rhode Island Commerce Corporation. Commerce RI is a public corporation and political subdivision of the State and is the official economic development organization for the State. Commerce RI is governed by Chapter 64, Title 42 of the RIGL. The board is composed of thirteen (13) members, with the Governor serving as Chair. Commerce RI oversees the development and implementation of many State-level economic development initiatives. Certain activities are carried out through subsidiary corporations, including the Quonset Development Corporation which operates the Quonset Point/Davisville Industrial Park and the Rhode Island Airport Corporation which operates the State’s airports.

Rhode Island Convention Center Authority. The Rhode Island Convention Center Authority (“RICCA”) was created in 1987, under Chapter 99, Title 42 of the RIGL for the purpose of acquiring, constructing, managing and operating a convention center and related facilities.

Rhode Island Health and Educational Building Corporation. The Rhode Island Health and Educational Building Corporation (“RIHEBC”) was created under Chapter 38.1, Title 45 of the RIGL to assist public and private colleges, universities, schools and educational institutions in the State with the financing of educational facilities, and to assist public and private hospitals and healthcare facilities in the State with the financing of health care facilities. The FY 2016 Appropriations Act created the School Building Authority under the Department of Elementary and Secondary Education, and designated RIHEBC as responsible for the financial management of the authority’s funds and the administration of loans and grants to school districts for school construction projects.

Rhode Island Division of Higher Education Assistance. The Rhode Island Division of Higher Education Assistance (“RIDHEA”) was created pursuant to Chapter 57, Title 16 of the RIGL for the purpose of guaranteeing eligible loans to students and parents of students attending eligible institutions and of administering other programs of post-secondary student financial assistance as assigned by law (e.g. Rhode Island State Scholarship/Grant Program and College Bound.fund®, Rhode Island’s IRS Section 529 college savings program). RIDHEA was created in 2015 to replace the Rhode Island Higher Education Assistance Authority and assume its powers and obligations, with some functions transferred to the General Treasurer’s Office. Guarantees made by RIDHEA are payable solely from the revenues and assets of RIDHEA.

Rhode Island Housing and Mortgage Finance Corporation. The Rhode Island Housing and Mortgage Finance Corporation (“RI Housing”) is a public corporation and instrumentality of the State created in 1973 under Chapter 55, Title 42 of the RIGL to assist in the construction and financing of low and moderate income housing and health care facilities in the State.

Rhode Island Industrial Facilities Corporation. The Rhode Island Industrial Facilities Corporation (“RIIFC”) was established under Chapter 37.1, Title 45 of the RIGL to finance the following types of projects: (a) manufacturing, warehousing, or other industrial or commercial purposes, pollution abatement or control; (b) railroad rolling stock and vehicles for the transportation of freight; (c) marine craft and machinery, equipment and gear used in the fishing industry; (d) machinery and equipment of any marine craft for research or other uses which are an integral part of a land-based industrial concern; (e) existing building, machinery and equipment for projects which qualify for a loan guarantee through RII-RBA; and (f) “recreational project” under the loan guarantee program of RII-RBA.

Rhode Island Industrial-Recreational Building Authority. The Rhode Island Industrial-Recreational Building Authority (“RII-RBA”) was created in 1958, pursuant to legislation under Chapter 34, Title 42 of the RIGL and subsequent voter referendum to merge the Recreational Building Authority and the Industrial Building Authority. The RII-RBA is a body authorized to insure eligible mortgages for facilities used for manufacturing, processing, recreation, research, warehousing, retail, and wholesale or office operations.

Rhode Island Infrastructure Bank. Pursuant to Chapter 12.2 of Title 46 of the RIGL, the Rhode Island Infrastructure Bank (“RIIB”) was created to assist local government units and other eligible borrowers in financing water pollution control facility capital improvements, drinking water capital improvements, municipal road and bridge projects, energy efficiency and renewable energy projects, brownfield remediation projects, and other projects for which the RIIB is authorized to provide financial assistance.

Rhode Island Public Rail Corporation. The Rhode Island Public Rail Corporation (the “Public Rail Corporation”) was established in 1982 pursuant to Chapter 64.2 of Title 42 of the RIGL for the purpose of enhancing and preserving the viability of commuter transit and railroad freight operations in the State.

Rhode Island Public Transit Authority. The Rhode Island Public Transit Authority (“RIPTA”) was created under Chapter 18, Title 39 of the RIGL in 1964 in response to the continuing financial difficulties being experienced by private bus transportation companies in the State resulting in the disruption of service. RIPTA has expanded its operations statewide and at fiscal year ended June 30, 2021 operated a fleet of approximately 229 buses and 103 vans carrying approximately 9.6 million passengers annually.

Rhode Island Resource Recovery Corporation. The Rhode Island Resource Recovery Corporation (“RIRRC”), was established in 1974 under Chapter 19, Title 23 of the RIGL. RIRRC is responsible for managing Rhode Island’s solid waste and recyclables. RIRRC’s mission is to seek the best mix of public and private processing, recycling and disposal systems, programs and facilities for both commercial and municipal waste to meet Rhode Island’s needs.

Rhode Island Student Loan Authority. The Rhode Island Student Loan Authority (“RISLA”) was created in 1981 under Chapter 62, Title 16 of the RIGL, for the purpose of increasing the supply of loans made to students and their families to finance the cost of obtaining a post-secondary education. Obligations of RISLA are payable solely from the revenues or assets of RISLA.

Rhode Island Turnpike and Bridge Authority. Created in 1954 pursuant to Chapter 12, Title 24 of the RIGL, the Rhode Island Turnpike and Bridge Authority (“RITBA”) was established to construct, acquire, maintain and operate certain bridges and transportation facilities in the State. RITBA issues bonds to finance the renovation, repair, and improvement of certain bridges and other facilities for which it is responsible pursuant to State law.

Tobacco Settlement Financing Corporation. The Tobacco Settlement Financing Corporation (“TSFC”) was created in 2002 to finance the acquisition from the State of the State’s rights in the moneys due under (i) the Master Settlement Agreement, dated November 23, 1998, among the attorneys general of 46 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa and the Territory of the Northern Marianas and Philip Morris Incorporated, R.J. Reynolds Tobacco Company, Brown & Williamson Tobacco Corporation and Lorillard Tobacco Company (the “MSA”) and (ii) the Consent Decree and Final Judgment of the Rhode Island Superior Court for Providence County dated December 17, 1998, as amended or modified, in the class action styled State of Rhode Island v. American Tobacco, Inc., et al., including the rights of the State to receive the moneys due to it thereunder (the “Tobacco Receipts”). TSFC Bonds are secured solely by and are payable solely from the Tobacco Receipts sold to TSFC and other monies of TSFC.

Local Government

There are thirty-nine (39) cities and towns in Rhode Island that exercise the functions of local general government. Although there are five (5) counties in Rhode Island, there is no county governmental structure in the State. Local executive power is generally placed in a mayor, or administrator/manager form of government, and legislative power is vested in either a city or town council. The State Constitution provides municipalities with the right of self-government in all local matters through the adoption of a “home rule” charter, but the power of municipalities to levy, assess and collect taxes, or borrow money, is specifically authorized by the General Assembly. Except for matters that are reserved exclusively to the General Assembly, such as taxation and elections, the State Constitution restricts the power of the General Assembly on actions relating to the property, affairs and government of any municipality that has adopted a “home rule” charter, to general laws that are applicable to all municipalities and do not affect the form of government. For example, Section 44-35-10 of the RIGL requires every city and town to adopt a balanced budget for each fiscal year. Except when exercising its reserved powers, the General Assembly can adopt special legislation that affects the property, affairs or government of a particular home rule charter municipality, only if such legislative action is approved by a majority of the voters of the affected municipality. Local governments rely principally upon real property and tangible personal property taxes, automobile excise taxes, and State aid for provision of revenue.

Governmental Funds -Major Funds

General Fund. This is the State’s primary operating fund. It accounts for all financial resources of the general government except those required to be accounted for in another fund.

Intermodal Surface Transportation Fund. This fund accounts for the collection of the gasoline tax, federal grants, bond proceeds, toll revenues, Rhode Island Capital Plan Fund transfers, and certain motor vehicle registration and licensing

surcharges that are used in the maintenance, upgrading, and construction of the State highway system. It also accounts for the proceeds from the Grant Anticipation Revenue Vehicle (“GARVEE”) bonds, the RI Motor Fuel Tax Revenue Bonds, the I-195 Commission bonds and related expenditures.

Governmental Funds – Non-Major Funds

RI Temporary Disability Insurance Fund. This fund accounts for the employee taxes on wages that are levied to pay benefits to covered employees who are out of work for an extended period due to a non-job-related illness or to care for an ill family member.

RI Capital Plan Fund. This fund accounts for the portion of the payment into the budget reserve account that causes the balance in the budget reserve account to be in excess of the legal requirement and proceeds as designated by statute. The fund is to be used solely for funding capital projects.

Proprietary Funds - Major Funds

Rhode Island Lottery. The Rhode Island Lottery, a division of the Department of Revenue (“DOR”), operates games of chance for the purpose of generating resources for the State’s General Fund.

Employment Security Fund. This fund accounts for the State’s unemployment compensation program. Revenues consist of taxes assessed on employers to pay benefits to qualified unemployed persons. Funds are also provided by the federal government, interest income, and loans from the Federal Unemployment Trust Fund.

Fiduciary Funds

Transactions related to assets held by the State in a trustee or agency capacity are accounted for in Fiduciary Funds. The State’s Pension and OPEB Funds are included in this category.

Budget Procedures

The State budget of revenues and appropriations is adopted annually by the General Assembly and is prepared for submission to the General Assembly, under the supervision of the Governor, by the State Budget Officer within the Office of Management and Budget in the Department of Administration. Preparation and submission of the budget is governed by both the State Constitution and the RIGL, which provide various limitations on the powers of the General Assembly and certain guidelines designed to maintain fiscal responsibility.

According to Article IX Section 15 of the Rhode Island Constitution and RIGL Section 35-3-7, the Governor must present spending recommendations to the General Assembly for the next fiscal year on or before the third Thursday in January, unless extended by statute. The budget contains a complete plan of estimated revenues and proposed expenditures, with a personnel supplement detailing the number and titles of positions of each agency and estimates of personnel costs for the current and next fiscal years.

The budget as proposed by the Governor is considered by the General Assembly. Under State law, the General Assembly may increase, decrease, alter or strike out any items in the budget, provided that such action may not cause an excess of appropriations for expenditures over expected revenue receipts. No appropriation in excess of budget recommendations may be made by the General Assembly unless it shall provide the necessary additional revenue to cover such appropriations. The Governor may veto legislative appropriations bills. However, the Governor does not have line-item veto authority. The General Assembly may override any veto by a 3/5 vote of the members present and voting of each of the houses of the General Assembly. Supplemental appropriation measures for the current fiscal year shall be submitted by the Governor to the General Assembly on or before the third Thursday in January. Supplemental appropriations by the General Assembly must be supported by additional revenues and are subject to the Constitutional limitation on State expenditures discussed below.

The RIGL provide that, if the General Assembly fails to pass the annual appropriation bill, the same amounts as were appropriated in the prior fiscal year shall be automatically available for expenditure, subject to monthly or quarterly allotments as determined by the State Budget Officer. Expenditures for general obligation bond indebtedness of the State shall be made as required regardless of the passage of the annual budget or the amount provided for in the prior fiscal year.

The budget as submitted by the Governor is required to contain a statement of receipts and expenditures for the current fiscal year, the budget year (next fiscal year), and two prior fiscal years. Receipt estimates for the current year and budget year are those adopted by the State Revenue Estimating Conference (“REC”), as adjusted by any change to rates recommended by the Governor and/or enacted by the General Assembly.

In addition to the preparation of the budget, the State Budget Officer is also authorized and directed by the RIGL: (a) to exercise budgetary control over all State departments; (b) to operate an appropriation allotment system; (c) to develop long-term activity and financial programs, particularly capital improvement programs; (d) to approve or disapprove all requests for new personnel; and (e) to prepare annually a five-year financial projection of anticipated general revenue receipts and expenditures, including detail of principal revenue sources and expenditures by major program areas which shall be included in the budget submitted to the General Assembly.

The State has a Budget Reserve and Cash Stabilization Account (the “Cash Stabilization Account”) which, under the Rhode Island Constitution, may be called upon only in an emergency involving the health, safety, or welfare of the State or in the event of an unanticipated deficit caused by a shortfall in general revenue receipts. Such reserve account is capped at 5% of General Fund revenues and is included in the General Fund of the State. The reserve account is funded by limiting annual appropriations to 97% of estimated revenues. When the Cash Stabilization Account has reached its maximum, the excess contribution flows to the Rhode Island Capital Plan Fund for capital projects. If funds are withdrawn, the Cash Stabilization Account is replenished through the funding formula provided for in the Constitution, and the RIGL require that the repayment be made to the Rhode Island Capital Plan Fund in the next fiscal year.

The balance of the Cash Stabilization Account at the end of FY 2022 was \$279.1 million according to preliminary unaudited closing statements of the State Controller issued on September 8, 2022. The projected Cash Stabilization Account balance at the end of FY 2023 is estimated to be \$272.3 million according to the FY 2023 Enacted Budget.

Financial Controls

Internal financial controls utilized by the State consist principally of statutory restrictions on the expenditure of funds in amounts greater than appropriated, the supervisory powers and functions exercised by the Department of Administration and the accounting and audit controls maintained by the State Controller and the Office of Internal Audit. Statutory restrictions include the requirement that all bills or resolutions introduced in the General Assembly which, if passed, would quantifiably affect State or local revenues or expenditures (unless the bill includes the appropriation of a specific dollar amount) must be accompanied by a “fiscal note”, which sets forth such effect. Bills impacting State finances are forwarded to the State Budget Officer, who determines the agency, or agencies, affected by the bill and is responsible, in cooperation with such agencies, for the preparation of the fiscal note. The DOR’s Division of Municipal Finance is responsible for the preparation of fiscal notes for bills affecting cities and towns.

The Department of Administration/State Budget Office is required by law to produce quarterly reports to be made public that incorporate actual expenditures, encumbrances, and revenues compared with the projected revenues and appropriations. The reports also contain a projection of the fiscal year-end balance.

The State Controller is required by law to administer a comprehensive accounting system that will classify the transactions of State departments in accordance with the budget plan, to prescribe a uniform financial, accounting and cost accounting system for State departments and to approve all orders for disbursement of funds from the State Treasury. In addition to his or her other duties, the Controller is required to prepare monthly statements of receipts and quarterly statements of disbursements in comparison with estimates of revenue and allotments of appropriations.

The General Treasurer is responsible for the deposit of cash receipts, the payment of sums, as may be required from time to time and upon due authorization from the State Controller, and, as Chair of the State Investment Commission, the investment of all monies in the State fund structure, as directed by the State Investment Commission. Major emphasis is placed by the General Treasurer on cash management in order to ensure that there is adequate cash on hand to meet the obligations of the State as they arise.

The General Treasurer is responsible for the investment of certain funds and accounts of the State on a day-to-day basis. The State Treasury balance is determined daily. In addition, the General Treasurer is the custodian of certain other funds and accounts and, in conjunction with the State Investment Commission, invests the amounts on deposit in such funds and accounts, including but not limited to the State Employees’ and Teachers’ Retirement Trust Fund and the Municipal Employees’ Retirement Trust Fund. The General Treasurer submits a report to the General Assembly at the close of each fiscal year on the performance of the State’s investments.

The Finance Committee of the House of Representatives is required by law to provide for a complete post-audit of the financial transactions and accounts of the State on an annual basis, which must be performed by the Auditor General, who is appointed by the Joint Committee on Legislative Services of the General Assembly. This post-audit is performed traditionally on the basis of financial statements prepared by the State Controller in accordance with the requirements of the GASB with specific attention to the violation of laws within the scope of the audit, illegal or improper expenditures or accounting procedures and recommendations for accounting and fiscal controls. The Auditor General also performs an audit of the State's compliance with federal program requirements pursuant to the federal Single Audit Act. The Auditor General also has the power, when directed by the Joint Committee, to make post-audits and performance audits of all State and local public bodies or any private entity receiving State funds.

Information Technology Security and Cybersecurity

The State, like many other large public and private entities, relies upon a large and complex technology environment to conduct its operations, and faces multiple cybersecurity threats including, but not limited to, hacking, phishing, viruses, malware and other attacks on its computing and other digital networks and systems (collectively, the "Systems Technology"). As a recipient and provider of personal, private, or sensitive information, the State may be the target of cybersecurity incidents that could result in adverse consequences to its Systems Technology, requiring a response action to mitigate the consequences. Cybersecurity incidents could result from unintentional events, or from deliberate attacks by unauthorized entities or individuals attempting to disrupt or gain access to the State's Systems Technology for the purposes of misappropriating assets or information or causing operational disruption and damage.

To mitigate the risk of impact to State operations and damage from cybersecurity incidents or cyber-attacks, the State follows the National Institute of Standards & Technology cyber security framework and invests in a cybersecurity defense in-depth program to implement the appropriate level of security controls for State data and Systems Technology. This defense program, developed by the State's Chief Information Officer and Chief Information Security Officer, addresses the people, processes, and technologies associated with the protection of State systems. While State cybersecurity, technical, administrative, and operational safeguards are regularly assessed for effectiveness, no assurances can be given by the State that such measures will completely mitigate the risk of cybersecurity threats and attacks. Cybersecurity incidents could potentially damage the State's Systems Technology and cause a disruption to the State's finances or operations. Furthermore, cybersecurity breaches of sensitive data could expose the State to litigation and other legal and financial risks. The costs to remedy any such damage or protect against similar future attacks, as well as any attendant litigation costs, are currently unknown and could be substantial.

Climate Change in Rhode Island

Numerous scientific studies on global climate change show that, among other effects on the global ecosystem, sea levels will rise, extreme temperatures will become more common and extreme weather events will become more frequent as a result of increasing global temperatures. Rhode Island is beginning to experience such extreme events and conditions are expected to increasingly disrupt and damage critical infrastructure and property as well as regional economies and industries that depend on natural resources and favorable climate conditions. Disruptions caused by extreme weather events include more frequent and longer-lasting power outages, fuel shortages and service disruptions. Coastal public infrastructure is threatened by the continued increase in the frequency and extent of high tide flooding due to sea level rise. Similarly, inland infrastructure, including roads, bridges, pipelines and wastewater facilities, is threatened by increases in the severity and frequency of heavy precipitation events.

For Rhode Island in particular, near-coastal areas (which contain land at or near sea level) are at risk of substantial flood damage over time, affecting private development and public infrastructure. As a result, residents, businesses and governmental operations within these areas could be adversely affected and possibly displaced, with an attendant negative impact on economic activity and State revenues. In addition, governmental entities, including the State, would need to adapt to the effects of climate change at substantial costs that are unknown at this time.

The total impact on the State's operations, economy, or financial condition from future environmental risks or natural disasters is currently unknown. Nevertheless, recognizing its status as a coastal state vulnerable to the effects of climate change, Rhode Island has taken several actions in recent years to mitigate these types of risks. Rhode Island was a founding member of the Regional Greenhouse Gas Initiative, the first mandatory market-based program in the United States to reduce greenhouse gas emissions. In 2014, the General Assembly enacted the Resilient Rhode Island Act, which sets specific greenhouse gas reduction targets, incorporates the consideration of the effects of climate change into the powers and duties of all State agencies and established the Executive Climate Change Coordinating Council. These greenhouse gas emission goals were made more ambitious and legally enforceable with the passage of the Act on Climate in April 2021, RIGL Section 42-6.2-1 et. seq. (the "Act on Climate"). The Act on Climate requires the State to develop a plan to reduce all

emissions from transportation, buildings and heating, and to reduce electricity used economy-wide in the State to 10 percent below 1990 levels by 2020, 45 percent below 1990 levels by 2030, 80 percent below 1990 levels by 2040 and net-zero by 2050. The plan will be updated every five years and will address areas such as environmental injustices, public health inequities and a fair employment transition as fossil-fuel jobs are replaced by green energy jobs. To foster public transparency, public metrics and an online public dashboard to track both emissions reductions and sources of energy consumed by the State must also be developed. The metrics and the dashboard are to be updated at least annually. Furthermore, the FY 2023 Enacted Budget included financing for an additional 3.0 full-time equivalent (“FTE”) positions for the State’s Office of Energy Resources (“OER”) to implement the Act on Climate.

In December 2016, a 30-Megawatt wind turbine farm located off the shore of Block Island in the State became the nation’s first operational offshore wind project. In May 2019, State regulators approved the 400-Megawatt Revolution Wind offshore project, projected to meet approximately one-quarter of the State’s electricity needs once operational, expected by 2024.

In December 2020, the OER released a report that outlined paths for Rhode Island to become the first state in the nation to meet 100% of its electricity demand with renewable energy sources by 2030. The study considers available renewable energy technologies, including their feasibility, scalability, costs, generation patterns, market value, and local economic and employment impacts, as well as barriers that may hamper or slow their implementation. It identifies ways to leverage competition and market information to ensure reasonable ratepayer costs and manage energy price volatility, while taking advantage of economic development opportunities within the State. Utilizing this information, OER developed specific policy, programmatic, planning and equity-based actions that will support achieving the 100% renewable electricity goal. Legislation enacted in 2022 mandates a 100 percent renewable energy standard by 2033, to achieve the goal of 100 percent of Rhode Island’s electricity demand being offset by renewable energy by 2033.

Regarding the thermal and heating sector, Rhode Island launched a Heating Sector Transformation Initiative in 2019 to advance development of a cleaner, more affordable and reliable heating future. This process engaged public and private sector partners in the identification of economic, energy, and environmental opportunities and challenges posed by the State's heating sector, resulting in a comprehensive suite of pathways toward thermal decarbonization.

In December 2020, Rhode Island also became one of the first signatory jurisdictions in the bipartisan Transportation and Climate Initiative Program (“TCI-P”). TCI-P would guarantee Rhode Island at least a 26 percent reduction in carbon emissions from transportation from 2022 to 2032 and is anticipated to generate approximately \$20 million annually. Signatory jurisdictions will reinvest these funds in equitable and cleaner transportation options, serving as a catalyst for infrastructure, transit and green energy development through the next decade and beyond. TCI-P also is expected to benefit public health by reducing avoidable deaths and respiratory and other illnesses caused by exposure to air pollution.

In addition, on September 15, 2017, the Governor signed an executive order appointing a Chief Resilience Officer to lead climate resilience efforts across the State, both within government and in collaboration with business, academic and non-profit partners, with a mission to develop a statewide climate resilience action strategy. The strategy, which proposes implementable actions to better prepare the State for the effects of changing weather and environmental conditions caused by climate change, was submitted to the Governor in July 2018. A three-year impact report on Rhode Island’s resilience strategy, entitled, Resilient Rhody, was released in November 2021.

In July 2018, the State filed a lawsuit in the Superior Court of the State against major corporate members of the fossil fuel industry. In the lawsuit, the State alleges various causes of action directly or indirectly related to climate change resulting from the defendants' conduct, including the production, promotion, marketing and use of fossil fuel products. The lawsuit is ongoing, and the outcome is currently unknown.

Coronavirus Pandemic (COVID-19)

The following information regarding the ongoing COVID-19 pandemic describes the recent past and expected future impacts of the COVID-19 pandemic on the State’s finances and operations as well as its impacts on projections and budget information. While the full effect of the COVID-19 pandemic and the related impacts on the State’s long-term financial position and operations are difficult to predict, the Rhode Island economy and the State’s financial results and operations have been adversely affected by the COVID-19 pandemic, and could materially worsen if the pandemic’s consequences are prolonged.

Background. On March 11, 2020, the World Health Organization declared the outbreak of a new respiratory disease (“COVID-19”) caused by a strain of novel coronavirus to be a global pandemic. The Governor declared a state of emergency on March 9, 2020, allowing the State to access additional resources to supplement its response to COVID-19. In concert with

the emergency declaration, the Governor announced a series of preparedness and response measures to support employers, employees and nursing homes throughout the State. The President of the United States declared a national state of emergency on March 13, 2020. The Governor subsequently issued and/or extended additional executive orders implementing measures to respond to the COVID-19 pandemic to reduce community spread of the virus. These measures have included school closures, limitations on large gatherings, closing or restricting access to certain businesses and activities deemed nonessential, and restricting nonessential travel. In addition, the State implemented several measures to mitigate the risk of COVID-19 to nursing home residents. Nursing homes limited when visitors could enter; not admitting visitors younger than 18 years of age; only allowing residents to leave for medical appointments; and actively screening all visitors for illness and recent travel history.

As vaccinations increased and cases declined in the Spring of 2021, Rhode Island began to end the restrictive measures designed to mitigate the spread of COVID-19. By May 21, 2021, all restrictions had ended. According to data published by John Hopkins University & Medicine Coronavirus Resource Center, Rhode Island is among the highest ranking states for percent of total population fully vaccinated and COVID-19 tests per capita.

Certain State Response Measures

The FY 2023 Enacted Budget includes federal funding for the COVID-19 response to continue addressing the public health crisis and its impacts on Rhode Islanders. Additional funding will be evaluated and adjusted as needed to support the ongoing and evolving nature of the pandemic and response to variants of concern. The State's near-term response to the pandemic reflects an anticipated endemic state of COVID-19, aligning with Centers for Disease Control and Prevention (CDC) guidance for preventable, treatable diseases. In FY 2023, the State is undertaking a shift in operations from a centralized, state-run response to the traditional health care system, which is most apparent in terms of testing and vaccinations. Contingency is provided should a variant of high consequence emerge or if additional capacity is needed in response to a surge in cases.

The State is leveraging its \$1.13 billion allocation of Coronavirus State and Local Fiscal Recovery Funds ("SFRF") through the American Rescue Plan Act of 2021 ("ARPA") allocation to support short-term recovery and make long term investments in State programs. The General Assembly appropriated \$119 million in SFRF in January 2022 to address the most pressing needs from the pandemic. These included support for small businesses and impacted industries, retention incentives for workers in sectors directly impacted by the pandemic, additional affordable housing units, and better access to medical services for children and families.

The FY 2023 Enacted Budget appropriated the remainder of the State's SFRF allocation to support expanding affordable and workforce housing, bolster growing sectors of the economy, invest in workforce development and strengthen the health care system in the event of surges in COVID-19 cases or the emergence of new variants. The State allocated approximately \$186.9 million in SFRF to support any additional capacity necessary to respond to the pandemic. In addition to identifying projects that address pressing needs, Rhode Island prioritized projects that minimize ongoing financial obligations, generate outyear savings and efficiencies, result in lasting benefits, and leverage existing administrative infrastructure, with simple and effective program design.

The State's Recovery Plan Performance Report, which was submitted to U.S. Treasury, shows the full appropriation, as well as expenditure and key performance indicator information through June 30, 2022.

The FY 2023 Enacted Budget also includes \$84.0 million in Emergency Rental Assistance (ERA) funding to provide rental and utility relief to eligible Rhode Islanders. The FY 2023 Enacted Budget also includes a \$25 million allocation of the Homeowner Assistance Fund (HAF) to assist eligible homeowners with avoiding pandemic related foreclosures and utility shutoffs. These are both partial allocations of the larger federal awards, as the program periods began prior to FY 2023.

The Rhode Island Department of Administration has a subaward agreement with RI Housing for the administration of the ERA programs. ERA 1, authorized under the Consolidated Appropriations Act of 2021, awarded Rhode Island \$200.0 million. ERA 2, authorized under ARPA, awarded Rhode Island up to \$152.0 million. To date Rhode Island has received \$106.4 million in ERA 2 funding from the federal government but has completed the requirements for and is awaiting receipt of its final disbursement of \$45.6 million, to realize its maximum award of \$152.0 million.

As of early September 2022, RI Housing had expended \$191.3M in ERA 1 funds and \$87.6M in ERA 2 funds. Rhode Island expects to fully utilize ERA 1 funding, with \$0.9M reserved for closeout administrative expenses, by the statutory September 30, 2022 deadline. RI Housing expects to expend an additional \$10.0 million of ERA 2 funding on the program it is currently administering. As the ERA 2 fund has a final deadline of September 30, 2025, Rhode Island's Office

of Housing and Community Development (OHCD) is in the process of developing a comprehensive strategy for directing the remaining \$50+ million in ERA 2 funding to other housing needs to support a long-term, sustainable response to housing insecurity.

Also, as of early September 2022, the HAF program has approved \$17.1 million for homeowner relief with an additional \$1.7 million expended on administrative expenses. RI Housing expects to continue processing applications during the fall of 2022 and is in the process of determining how to ensure the remaining funds reach homeowners in need. The statutory deadline for the HAF program is September 30, 2026.

Investment Policies

The State's investments are managed by the Office of the General Treasurer under the direction of the State Investment Commission (the "SIC"). The SIC has established short term investment policies for the State's cash which seek to maximize rates of return on purchased investments subject to credit quality, issuer diversification, and investment type, while controlling the investment risk. The key elements of State's short-term investment policies are summarized below.

Safety. All short-term investments are purchased with the intent of preserving capital. Preservation of capital is enhanced by utilizing high quality investment instruments. Investments are made to minimize the volatility of principal value, liquidity risk and credit risk, and not based on rate of return alone.

Liquidity. In order to provide sufficient liquidity to cover all disbursements of the State, investments are structured in a manner that will ensure the funding of the State's expenditures and match the cash flow requirements of the account groups for which the SIC invests.

Rate of Return. The rate of return on the short-term investment portfolio will be compared to the 30-day U.S. Treasury security benchmark for purposes of quantifying relative performance over time.

Collateralization. Since 2010, the Office of the General Treasurer has required that all deposits held by financial institutions on behalf of the State must be fully collateralized at no less than 102% of principal. The collateral requirement only applies to amounts in excess of federal deposit insurance limits and does not apply to investments held in the Ocean State Investment Pool ("OSIP"). OSIP is an investment pool that enables eligible governmental entities to participate with the State in providing for the investment of public funds consistent with safety and protection of such funds.

Vendor Selection Criteria. The Office of the General Treasurer maintains a listing of all authorized financial institutions and broker/dealers desiring to become qualified bidders for investment transactions and carefully selects from among the list of vendors those financial institutions in which the State invests funds. The list of qualified bidders is subject to continuing surveillance and institutions that subsequently fail to meet the minimum criteria may be removed.

State Revenues and Expenditures

State Revenues - General

The State draws nearly all of its revenues from a series of non-property related taxes and excises, principally the personal income tax and the sales and use tax, from federal assistance payments and grants-in aid, and from earnings and receipts from certain State-operated programs and facilities. The State additionally derives revenue from a variety of special purpose fees and charges that must be used for specific purposes as required by State law.

State General Fund Revenues

Personal Income Tax

The State's current personal income tax system begins with federal Adjusted Gross Income ("AGI"), modified as provided for in current law, and then subtracts an enhanced standard deduction and a personal and dependent exemption amount to arrive at taxable income. Both the enhanced standard deduction and the personal and dependent exemption amounts are subject to phase-out for high income taxpayers. Taxable income is then subject to tax at marginal rates of 3.75%, 4.75%, and 5.99% to yield the Rhode Island tax liability before credits. Under the personal income tax system, eleven tax credits could be taken against the computed Rhode Island tax liability. The tax credits allowed are: a fully refundable earned income tax credit (15% of the federal earned income tax credit effective for the tax year 2017 and thereafter), a property tax relief credit, a lead paint abatement credit, a child and dependent care credit, credit for taxes paid to other states, a motion picture production company credit, a credit for contributions to qualified K-12 scholarship organizations, a historic structures tax credit, a Stay Invested in Rhode Island Wavemaker Fellowship tax credit, a Rebuild Rhode Island tax credit and a Rhode Island Qualified Jobs Incentive tax credit.

The personal income tax exemption includes an exemption for taxable Social Security benefits and an exemption of up to \$20,000 of pension and annuity income for individual filers with federal adjusted gross income of \$84,700 or less and for joint filers with federal adjusted gross income of \$105,850 or less; provided, that the taxpayer has reached full Social Security retirement age in the tax year in which the exemption is claimed. These income thresholds are indexed to inflation. The State exempts military pensions from taxation. The FY 2023 budget made several changes to how pension income is taxed: the budget increased the pension and annuity income exemption from \$15,000 to \$20,000 and created a new exemption for military pensions.

Current law allows the State's Tax Administrator to modify income tax rates in accordance with federal tax law changes when the General Assembly is not in session to maintain the revenues upon which appropriations are made.

The State's personal income tax collections have been impacted by multiple federal law changes over the past several years. The most notable changes are a result of the Tax Cuts and Jobs Act of 2017 ("TCJA"). Because Rhode Island income tax liability is keyed to federal AGI, changes that impact the calculation of AGI flow to the State. TCJA included both one-time impacts, largely for the repatriation of foreign income, and ongoing impacts related to changes in federal AGI. These ongoing impacts are expected to increase personal income tax collections by an average of \$15 million over the FY 2021 through FY 2024 period. Elements of TCJA sunset at the end of December 2025, which will lower these revenue gains starting in FY 2025. One of these TCJA provisions, the limitation of pass-through business losses above \$250,000, was later suspended by the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") and the ARPA through calendar year 2026. The passage of the Inflation Reduction Act ("IRA") in August 2022 suspended this limitation for two more years through December 2028, forestalling the loss of these revenue gains.

In the CARES Act (15 U.S. Code Chapter 116), Congress initially made clear that forgiven Federal Paycheck Protection Program ("PPP") loans would not be considered taxable income. However, when the Consolidated Appropriations Act ("CAA") of 2021 was enacted in late December 2020, Congress further declared that expenses made using PPP loans could be deducted from federal tax liability. The impact of this December 2020 federal law change was included in the FY 2022 Enacted Budget. Rhode Island is coupled with these federal law changes, causing an estimated loss of \$44.1 million in personal income tax revenue through the end of FY 2023. The FY 2022 Enacted Budget included language to tax forgiven PPP loans for loan amounts above \$250,000, to partially mitigate the revenue loss. This is estimated to yield up to \$14.9 million in revenue through FY 2022.

Other CARES Act provisions (such as the suspension of TCJA's suspension of active loss limitations) and additional federal tax changes in the ARPA are expected to negatively impact personal income tax revenue, in the amount of \$18.8 million in FY 2020, \$23.5 million in FY 2021 and \$10.6 million in FY 2022 (with de minimis impact after FY 2022).

Personal income tax held up well during the pandemic, mainly due to enhanced federal unemployment benefits which existed between March 2020 and September 2021 (unemployment benefits are taxable in Rhode Island). Employment began rebounding in the latter part of 2020 and increased throughout 2021 as the economy reopened. A quick recovery in the stock market also helped maintain income tax collections. Personal income tax revenue grew at 14.9% in FY 2021 and 23.7% in FY 2022.

Sales and Use Tax

The State assesses a tax on all retail sales, subject to certain exemptions, on hotel and other public accommodation rentals, and on the storage, use or other consumption of tangible personal property in the State. The State sales and use tax rate is 7.0%. Major exemptions from the sales and use tax include: (i) food for human consumption off the premises of the retailer, excluding food sold by restaurants, drive-ins or other eating places; (ii) clothing and most footwear that is sold for less than \$250 per item; (iii) prescription medicines and medical devices; (iv) fuel used in the heating of homes and residential premises; (v) domestic water usage; (vi) gasoline and other motor fuels otherwise specifically taxed; (vii) sales of tangible property and public utility services when the property or service becomes a component part of a manufactured product for resale, or when the property or service is consumed directly in the process of manufacturing or processing products for resale and such consumption occurs within one year from the date such property is first used in such production; (viii) tools, dies and molds, and machinery and equipment, including replacement parts thereof, used directly and exclusively in an industrial plant in the actual manufacture, conversion or processing of tangible personal property to be sold; (ix) sales of air and water pollution control equipment for installation pursuant to an order by the Director of the Department of Environmental Management; and (x) sales of boats or vessels; (xi) buses, trucks and trailers used for interstate commerce; (xii) sale of local art; (xiii) sale of electricity and natural gas and heating fuels to businesses; and (xiv) sale of wine and spirits.

In the 2006 Session, the General Assembly passed legislation to conform to the Streamlined Sales Tax Project. The Streamlined Sales Tax Project is an effort created by state governments, with input from local governments and the private sector, to simplify and modernize sales and use tax collection and administration. Effective January 1, 2007, Rhode Island became a full member of the Streamlined Sales and Use Tax Agreement (“SSUTA”).

In the 2017 session, the General Assembly passed legislation to require remote sellers to remote sales tax or report the amount of use tax owed by their customers. This initiative was estimated to increase sales tax collections by at least \$35 million in FY 2018 (although this estimate includes revenue generated by remote sellers who voluntarily chose to remit sales tax prior to the law change). The U.S. Supreme Court's decision in *South Dakota v. Wayfair* affirmed states' ability to collect sales tax from remote sellers. Sales tax from remote sellers has become an increasing large share of the State's tax collections, far exceeding initial estimates. Sales tax attributable to remote sellers was \$192.9 million in CY 2018, \$245.6 million in CY 2019, and \$315.4 million in CY 2020, and \$380.2 million in CY 2021.

The FY 2020 Enacted Budget rescinded a statutory provision enacted by the 2011 General Assembly that would have reduced the sales and use tax on remote purchases (from 7.0% to 6.5%) upon passage of any federal law mandating the collection of sales and use tax on remote purchases by State residents.

The State's sales tax base has gradually expanded over the past ten years. These expansions include over-the-counter medication, medical marijuana, clothing over \$250 per item, pet services, investigative and security services, taxis, vacation homes, online room sellers, automobile document fees, digital products and electronic software, software as a service, and digital downloads. All told, these items are estimated to add over \$75 million to the State's sales tax base as of FY 2023. The State's sales tax base will expand further in FY 2023 with the legalization of adult-use cannabis, which was adopted by the General Assembly and signed into law during the 2022 legislative session. With sales set to begin in December 2022, the FY 2023 Enacted Budget includes \$2.9 million in sales tax revenue from adult-use cannabis for this initial partial year of sales.

Sales and use tax experienced the most direct impact from COVID-19, with significant losses in taxable sales, particularly within the service sector; however, the strength of retail trade and the ability of the State to collect tax on remote sales allowed fiscal year sales tax collections to remain strong during the pandemic. FY 2020 sales and use tax grew at 3.7% and FY 2021 sales and use tax grew at 14.9%. Based on the preliminary, unaudited closing statements, FY 2022 sales and use tax is estimated to have grown at 12.7%.

Business Corporations Tax

The business corporations tax (currently 7.0% of gross revenues) is imposed on corporations deriving income from sources within the State or engaging in activities in the State for profit or gain. For tax years 2017 and thereafter, Rhode Island's minimum corporate tax is \$400.

In 1996, the General Assembly enacted the Jobs Development Act (“JDA”). As subsequently amended, it provided for rate reductions of 0.25% (up to a maximum reduction of 6.0%) for each 50 new jobs created by eligible firms (each ten new jobs created by a small business) for three years past the elected base year. A qualifying job is a 30-hour per week, on average, position that pays at least 150.0% of the prevailing hourly minimum wage as determined by State law. After three years, the rate reduction is set at that of the third year for as long as the third-year employment level is maintained.

The 2014 General Assembly passed legislation that implemented combined reporting with single sales factor apportionment and market-based sourcing of income for all C-corporations. As part of this reform, the General Assembly reduced the business corporations tax rate for C-corporations from 9.0% to 7.0%. In addition, the 2014 General Assembly eliminated the franchise tax for those franchise tax filers paying more than the \$500 minimum franchise tax. These changes were effective for tax years beginning after December 31, 2014.

The 2017 General Assembly adopted legislation to change the corporate tax payment schedule to align the State's practices with federal reporting timelines and recognized best practices. The schedule requires four payments and allocates half of estimated payments to each six-month period.

The 2019 General Assembly adopted a new, voluntary tax on pass-through entities effective in tax year 2019. Pass-through entities income is typically taxed through the personal income tax returns of that entity's members. However, this law change allows a pass-through entity to elect to be taxed at the entity level, with the members of the entity taking a credit on their personal income tax return for those taxes paid by the entity. This has had the impact of shifting tax collections from the State's personal income tax to the business corporations tax. For accounting purposes, the State still realizes this pass-through entity revenue under personal income tax. Pass-through entities made \$47.9 million in payments in FY 2020,

although more than half of that revenue was assumed to be duplicative with personal income tax payments (given that the law change happened halfway through the tax year). In November 2020, the federal Internal Revenue Service signaled approval of this method of pass-through entity taxation. Usage of this tax in FY 2021 was more than double the level of FY 2020 at \$109.1 million in pass-through entity payments. For FY 2022 pass-through entity payments totaled \$179.9 million.

As described above for personal income tax, the federal TCJA legislation has an impact on business corporations tax collections. These ongoing impacts are expected to increase collections by an average of \$28 million over the FY 2022 through FY 2027 period.

The revenue loss associated with the federal PPP program also has a business corporations tax component. The ability to deduct expenses paid for using PPP loans is expected to lead to a revenue loss of up to \$84.6 million through FY 2023. The FY 2022 Enacted Budget initiative to tax forgiven PPP loan amounts over \$250,000 is expected to yield \$32.9 million through FY 2022.

Other CARES Act provisions have negatively impacted business corporations tax revenue, in the amount of \$3.7 million in FY 2021 an estimated \$1.7 million in FY 2022.

Nursing Facility Provider Assessment

The State levies a tax on the gross revenues of nursing homes at a rate of 5.5%. In addition, the State levies a 1.5% tax on gross revenues from freestanding Medicaid facilities not associated with hospitals.

Taxes on Public Service Corporations

A tax ranging from 1.25% to 8.0% of gross earnings is assessed annually against certain foreign and domestic public service corporations described in Title 44, Chapter 13 of the RIGL. In the case of corporations whose principal business is manufacturing, selling or distributing currents of electricity, the rate of tax imposed is 4.0% of gross earnings. For those corporations manufacturing, selling or distributing illuminating or heating gas, the rate of tax imposed is 3.0%. Corporations providing telecommunications services are assessed at a rate of 5.0%. However, 100.0% of the amounts paid by a corporation to another corporation for connecting fees, switching charges and carrier access charges are excluded from the gross earnings of the paying company. In contrast, the tangible personal property within the State of telegraph, cable, and telephone corporations used exclusively for corporate business is exempt from local taxation but is subject to a State-level personal property taxation program, the revenue from which is disbursed to local communities.

Tax on Insurance Companies

Each insurance company transacting business in Rhode Island must file a final return each year on or before March 1 and pay a tax of 2.0 percent of the gross premiums on insurance contracts written during the previous calendar year to Rhode Island individuals or businesses. With respect to an out-of-state insurance company, however, the tax cannot be less than that which would be levied by the applicable state or foreign (i.e., non-Rhode Island) jurisdiction on a similar Rhode Island insurance company or its agent doing business to the same extent in such jurisdiction.

The following premiums are exempt from the tax: (i) premiums from marine insurance issued in Rhode Island; (ii) the premiums paid to the insurer that maintains the State's workers' compensation insurance fund, and (iii) the premiums paid to nonprofit medical service corporations, nonprofit hospital service corporations, nonprofit dental service corporations and health maintenance organizations. Insurance and surety companies are exempt from the business corporations tax and annual franchise tax.

The 2016 General Assembly session added a provision to the insurance premiums tax statute which allowed for the reduction in the 2.0% gross premiums tax rate provided the insurance industry created at least 350 new jobs above a 2015 baseline figure. Depending on the level of job creation, the tax could be reduced to no lower than 1.0%. As of this writing, no tax rate changes have taken effect.

The FY 2020 Enacted Budget included a new tax credit against the tax on premiums collected by insurance companies. Insurance companies may be eligible to receive the tax credit in exchange for making contributions to a fund established to invest capital in small businesses within the State. The credits are capped at 64.5% of the total investment, which itself is capped at \$65 million dollars. While this means that \$42 million in total credits are possible, currently the State has approved \$20 million in investment. The tax credits that result from this \$20 million investment are expected to reduce revenue by \$4.3 million annually during the FY 2024 through FY 2026 period.

Financial Institutions Excise Tax

For the privilege of doing business as a banking institution during any part of the year, each State bank, trust company, or loan and investment company organized in Rhode Island must annually pay an excise tax. This excise tax is measured as the higher of either: (i) 9.0% of its net income of the preceding year or (ii) \$2.50 per \$10,000 or a fraction thereof of its authorized capital stock as of the last day of the preceding calendar year. A national bank within the State must only pay the excise tax measured by option (i) above. The minimum tax payable is \$100. Mutual savings banks and building and loan associations are subject to the tax.

Banking Institutions Interest Bearing Deposits Tax

A tax on interest bearing deposits was eliminated for state and national banks beginning January 1, 1998 and thereafter. A tax on deposits held by credit unions continues to apply with a rate of 0.0695 cents for each \$100 for institutions with over \$150 million in deposits and a rate of 0.0625 cents for each \$100 for credit unions with less than \$150 million in deposits.

Estate and Transfer Tax

For decedents whose deaths occurred on or after January 1, 2015, the estate tax is an amount equal to the maximum credit allowed under federal estate tax law as it was in effect as of January 1, 2001, provided that a credit is allowed against any tax so determined in the amount of \$64,400 (for deaths occurring prior to January 1, 2017) and \$65,370 (for deaths occurring on or after January 1, 2017) (equivalent to the taxes owed on an estate with a taxable value of \$1.5 million). For all decedents whose death occurred on or after January 1, 2002, any increase in the unified credit provided by 26 U.S.C., subsection 2010 in effect on or after January 1, 2001 shall not apply for Rhode Island estate tax purposes.

The threshold estate tax exemption amounts applicable to decedents whose deaths occurred on or after January 1, 2010 and prior to January 1, 2015, as well as the estate tax credit applicable to estates of decedents whose deaths occurred on or after January 1, 2015 is indexed to the Consumer Price Index for all Urban Consumers ("CPI-U") as of September 30 of the prior calendar year. The time period for filing a return is nine months from the date of death.

Motor Vehicle License and Registration Fees

While most motor vehicle license and registration fees are deposited into the Rhode Island Highway Maintenance Account (as described in the "Other Taxes" section below), duplicate license and license update fees are retained as general revenue.

The 2018 General Assembly adopted several changes to motor vehicle license and registration fees, including an increase in the fee to update and/or obtain a duplicate driver's license from \$5.00 to \$25.00.

Cigarette Tax

The State's cigarette tax is comprised of a cigarette stamp excise tax, a cigarette floor stock tax, and a tax on the wholesale price of cigars, pipe tobacco, etc. The cigarette stamp excise tax generates over 95% of the total cigarette taxes collected by the State.

The cigarette stamp excise tax rate has increased consistently over the last two decades, most recently on August 16, 2017, when the cigarette stamp excise tax rate was increased from \$3.75 per pack of 20 cigarettes to \$4.25 per pack.

The rate of tax on the wholesale price of cigars, pipe tobacco, and other tobacco products has also risen over the past ten years, although not as frequently as the cigarette stamp excise tax. On July 1, 2006, the tax on cigars was limited to a maximum of 50 cents per cigar and the tax on snuff was changed to \$1.00 per ounce with a minimum tax of \$1.20. On April 10, 2009, the other tobacco products tax was increased from 40.0% to 80.0% of the wholesale price. This increase in the wholesale price tax did not affect the maximum tax on cigars or the minimum tax on snuff.

Other Taxes

In addition to the above-described taxes, the State imposes various fees, taxes and excises for the sale of liquor and other alcoholic beverages, controlled substances, the registration of motor vehicles, the operation of pari-mutuel betting, motor carrier fuel use and the conveyance of real estate.

The State assesses a real estate conveyance tax both on acquisition of property as well as of a controlling interest in a real estate company where a real estate company is a business that is primarily engaged in the holding, selling or leasing of real estate. The tax is equal to \$2.30 for each \$500, or fraction thereof, of the amount consideration paid. There is an additional tax imposed beginning on January 1, 2022 equal to an additional \$2.30 per \$500 for the amount of consideration paid greater than \$800,000 applicable to residential property only which is dedicated to a restricted receipt account known as the Housing Production Fund for the purpose of financing affordable housing initiatives.

The State assesses an alcohol excise tax of \$3.30 per barrel for beer and malt beverages. For high proof spirits, those spirits that contain 15% or more alcohol, the excise tax is \$5.40 per gallon. For still wine, the excise tax is \$1.40 per gallon. The excise tax on low proof distilled spirits and sparkling wine is \$0.75 per gallon.

The State's share of the 8.0% rental vehicle surcharge is deposited in the Rhode Island Highway Maintenance Account ("RIHMA"). Motor vehicle operator license and vehicle registration fees are also deposited in the RIHMA beginning in FY 2016, with 25.0% of these fees being transferred in FY 2016, 50.0% in FY 2017, 60% in FY 2018 and 100% in FY 2019 and thereafter (although duplicate license and license update fees remain as general revenue).

Departmental Receipts

Licenses and Fees. The largest category of departmental receipts is licenses and fees. This category's prominence in departmental receipts is due largely to the assessment of the hospital licensing fee beginning in FY 1995. Other significant license and fee revenues are derived from the registration of securities, motor vehicle title fees and various professional licenses. Motor vehicle title fees, emission control inspection fees, and good driving record dismissal fees were transferred from General Fund license and fees revenue to the RIHMA beginning in FY 2015.

The hospital licensing fee was first enacted in 1994 and is reinstated each legislative session. During the 2021 session, the General Assembly reinstated the hospital licensing fee for State FY 2022 at the rate of 5.725% of hospital FY 2020 net patient revenues. During the 2022 session, the General Assembly downwardly revised the State FY 2022 rate to 5.565% applied to the same base, which yielded \$172.0 million in total collections paid in July 2022. The 2022 session of the General Assembly also reinstated the hospital licensing fee for State FY 2023 at a rate of 5.42% of hospital FY 2021 net patient revenues estimated to yield \$179.1 million. The General Assembly retained the 37.0% discount on the rate for all Washington County hospitals, yielding an effective hospital licensing fee rate for Washington County hospitals of 3.41% for FY 2023. In March 2022, via coordination with the Centers for Medicare and Medicaid Services ("CMS"), the State committed to the evaluation and modification of the hospital license fee structure by July 31, 2023, to ensure it is a permissible tax under section 1903(w)(3) of the Social Security Act and the federal regulations at 42 C.F.R. §433.68. Failure to modify the existing hospital license fee structure to assure uniformity among hospitals may result in monetary penalties from CMS.

In the 2015 Session, the General Assembly eliminated the 2.0% surcharge on net patient revenues from imaging services and outpatient health-care facilities. Previously, a monthly surcharge of 2.0% was imposed upon the net patient revenue received by every outpatient health-care facility and every imaging services provider.

Sales and Services. A second category of departmental receipts is sales and services, which includes rental payments at State piers and revenues derived from the sale of vanity license plates.

Fines and Penalties. A third category of departmental receipts is fines and penalties, such as interest and penalties on overdue taxes.

Miscellaneous Departmental Revenues. Miscellaneous departmental revenues include revenues from investment earnings on General Fund balances, indirect cost recoveries, as well as child support payments.

In 2016, the Office of the General Treasurer changed the policy on the treatment of tax refund and other checks issued by the State that remain uncashed after a specified period. In the past, these checks were written off in June of each fiscal year and the amount of the checks written off were reverted to general revenues. Effective for FY 2016 and thereafter, the Office of the General Treasurer will turn uncashed tax refund and other State-issued checks over to the State's unclaimed property program rather than writing the checks off and reverting uncashed amounts to general revenues. The net impact of this change in policy was to reduce miscellaneous departmental receipts revenues by the amount of the checks transferred to the unclaimed property program less the 10% indirect cost recovery charge that is assessed against the unclaimed property program.

Rhode Island Lottery

The State Lottery Fund was created in 1974 for the receipt and disbursement of revenues of the Rhode Island Lottery from sales of lottery tickets and license fees. The monies in the fund are allotted for: (i) establishing a prize fund from which payments of the prize are disbursed to holders of winning lottery tickets, the total of which prize payments equals, as nearly as is practicable, 45.0% of the total revenue accruing from the sale of lottery tickets; (ii) payment of expenses incurred by the Lottery in the operation of the State lotteries; and, (iii) payment to the State's General Fund of all revenues remaining in the State Lottery Fund, provided that the amount to be transferred into the General Fund must equal not less than 30% of the total revenue received and accrued from the sale of lottery tickets plus any other income earned from the lottery.

The State retains a percentage of approximately 60.7% of the payout for certain lottery and keno games and redistributed net terminal income ("NTI") from video lottery games, in accordance with State law. At present, there are two licensed video lottery facilities operating in the State of Rhode Island: (1) Twin River Casino ("Twin River", formerly known as Lincoln Park) located in the Town of Lincoln, Rhode Island, and (2) Tiverton Casino (the "Tiverton Casino", formerly located in the City of Newport, Rhode Island and known as "Newport Grand") located in the Town of Tiverton, Rhode Island. The parent company of both Twin River and Newport Grand is Bally's Corporation (formerly known as Twin River Worldwide Holdings, Inc.). Both facilities operate on a 24 hour per day, seven days per week basis. In the 2005 Session, the General Assembly passed legislation that allowed the Director of the Division of the Rhode Island Lottery to enter long-term contracts with the owners of Twin River and Newport Grand. The master contract for Twin River froze the retailer's share of video lottery NTI at 28.85% for existing video lottery terminals ("VLTs") and 26.0% for additional VLTs (which rates are subject to certain adjustments based on the Consumer Price Index ("CPI") in the 11th through 15th years of the contract term). The master contract for Newport Grand froze the retailer's share of NTI from existing and additional VLTs at 26.0%. Under State law, table games are only permitted at Twin River, with the State retaining a percentage of the net table game revenue as defined in State law. As of July 1, 2014, the percentage of net table game revenue retained by the State is 16.0%.

The gaming industry in Rhode Island is subject to competition from facilities in neighboring states, in particular Massachusetts, which negatively affects revenues generated in the State. The Massachusetts Gaming Commission (the "Gaming Commission") has awarded licenses for two of the three casinos and the one slot parlor authorized under Massachusetts law. Licenses were awarded to MGM Resorts International on June 13, 2014 for a casino in Springfield, Massachusetts ("MGM Springfield") approximately 81 miles from Twin River, and to Wynn Resorts on September 16, 2014 for a casino in Everett, Massachusetts known as Encore Boston Harbor ("Encore Boston Harbor"), which is just outside of Boston, approximately 55 miles from Twin River. MGM Springfield opened on August 24, 2018, and Encore Boston Harbor opened on June 23, 2019.

A license was also awarded on February 27, 2014 to Penn National Gaming for a slot parlor in Plainville, Massachusetts, approximately twenty (20) miles from Twin River. The Plainville slot facility opened on June 24, 2015. In FY 2019, the slot facility generated approximately \$168.7 million in gross gaming revenue, resulting in \$67.5 million in budgetary fund taxes collected by Massachusetts. In FY 2020, the Plainville slot facility generated approximately \$104.7 million in gross gaming revenue, resulting in \$41.9 million in budgetary fund taxes collected by Massachusetts. Twin River's revenues were \$574.4 million in FY 2019, down by approximately 1.1% from FY 2018; Twin River revenues then declined to \$341.8 million in FY 2020, a decrease of 40.5% from FY 2019.

With regard to the third casino authorized under Massachusetts law, in March, 2016, the Mashpee Wampanoag tribe announced that it would commence construction of a tribal resort casino in the third region in Taunton, based upon the assumed power of the U. S. Secretary of the Interior to take land into trust for the tribe. On April 28, 2016, the Gaming Commission voted to deny an application for a license. The federal designation of the Mashpee Wampanoag land was subject to multiple legal challenges from 2016 until 2021. In February 2021, the outstanding appeals against the federal designation were dismissed, and the U.S. Department of the Interior subsequently indicated it would support placing the land in trust. Residents of Taunton subsequently challenged this determination, with litigation pending in U.S. District Court as of August 2022. As of August 2022, the Gaming Commission has not awarded a gaming license for a third casino in Massachusetts.

In March of 2015, Twin River Management Group, Inc. ("TRMG"), a Delaware corporation that is the corporate parent of UTGR, Inc., the owner of Twin River, and Newport Entertainment and Leisure, LLC, ("NEL"), a Rhode Island limited liability company, entered into an agreement under the terms of which the Newport Grand Agreement would be assigned to TRMG. Shortly thereafter, TRMG announced that it had obtained an option to purchase approximately 45 acres of land in the northern part of the Town of Tiverton, approximately 400 feet from the Massachusetts border, and that after its acquisition of Newport Grand, it intended to seek permission to transfer Newport Grand to the Tiverton location. TRMG's goal is to better compete with the imminent threat of casinos in Massachusetts by offering both video lottery and table games at the Tiverton property. The transfer of Newport Grand to Tiverton required State-wide voter approval and approval by voters in the Town of Tiverton, as well as regulatory approval by the DBR and the DOR Division of Lotteries.

On or about April 24, 2015, Premier Entertainment II, LLC, a Delaware limited liability corporation of which TRMG is the sole member (“Premier”), filed a Facility Permit Ownership Transfer Application (“Application”) with the DBR seeking to transfer the facility permit for Newport Grand to Premier. The DBR approved the transfer, subject to certain conditions. On or about July 1, 2015, Premier filed an application for a lottery sales agent license with the Rhode Island Lottery for Newport Grand. The transfer of Newport Grand to Premier occurred on July 14, 2015. TRMG announced on July 24, 2015 that it had completed the acquisition of Newport Grand.

The 2015 General Assembly enacted several changes modifying operating requirements for Newport Grand due to its proposed acquisition and relocation by Premier. The legislation suspends the requirement that Newport Grand maintain 180.0 full-time equivalent (FTE) positions and reduces the required positions to 100.0 FTEs. The total required FTEs at the facility would revert to 180.0 positions if Newport Grand is licensed to host video lottery games and table games at a facility relocated outside of the City of Newport. The General Assembly also reinstated the enhanced share of video lottery net terminal income for the owners of Newport Grand albeit at a rate of one and nine-tenths (1.9) percentage points effective July 1, 2015 through the closing of Newport Grand in August 2018. Unlike the previous increase in Newport Grand’s share of net terminal income, the funds garnered from the 1.9 percentage point enhanced share must be applied exclusively to marketing expenditures for the facility.

In March 2016, the General Assembly passed, and the Governor subsequently signed into law, legislation authorizing referenda questions to appear on the November 2016 ballot with regards to transferring Newport Grand operations to the Tiverton site. The Newport Grand facility closed at the end of August 2018 and the new Tiverton Casino opened September 1, 2018. The voters approved this referendum question at both the local and State-wide level. Because the Tiverton Casino operates 24 hours per day seven days per week, 1.45% of net terminal income will be paid to the Town of Tiverton. Under prior law, the Newport Grand facility was not open 24 hours per day seven days a week and therefore the City of Newport’s share of net terminal income was 1.01%. Under the new law, the State’s share of net table game revenue will be reduced from 16% to 15.5%. The Town of Lincoln and the Town of Tiverton each receive 1.0% of the net table game revenue, with the balance going to the casino operator. The law also guarantees the Town of Tiverton and the Town of Lincoln a minimum of three million dollars (\$3.0 million) each year from the combination of net table game revenues and NTI. To the extent that either town does not receive that amount in any State fiscal year, then the State is required to make up the shortfall out of the State’s share of NTI and net table game revenue. The guarantee continues in effect for each year so long as both table games and video lottery games are offered for an entire fiscal year at the gaming facilities. Although it was anticipated that the Town of Lincoln would not receive any payments from the State under this provision because sufficient revenues are anticipated at Twin River to achieve this minimum payment, for fiscal year ended June 30, 2021, the State paid Tiverton for a shortfall of \$1,613,473 with \$85,727 from net table games revenue and \$1,527,746 from video lottery games.

The FY 2019 Budget included legislation legalizing sports betting at the State’s two casinos beginning October 1, 2018. This legislation was enacted following the U.S. Supreme Court ruling in *Christie v. National Collegiate Athletic Association*, which struck down the Professional and Amateur Sports Protection Act of 1992 as unconstitutional. This federal law had prohibited most states (including Rhode Island) from legalizing sports betting. In May of 2019, Daniel S. Harrop sued the Rhode Island Lottery challenging the constitutionality of sports wagering in Rhode Island, contending that voters did not approve this type of gambling when voters approved casino gambling by referendum in 2012 (Lincoln) and 2016 (Tiverton). In June of 2020, the Rhode Island Superior Court issued a decision where it found that the legislation enabling sports betting did not impermissibly expand the location of gambling, that voters had fair notice of authorizing “casino style gaming” and that the acts authorizing sports wagering are constitutional. The case has been appealed to the Rhode Island Supreme Court, where it remains pending.

On March 25, 2019, the General Assembly approved, and the Governor signed into law, legislation authorizing the Division of Lottery to implement mobile sports wagering. Mobile sports betting began in the State on September 4, 2019. In April 2020, the Rhode Island Lottery launched an internet gaming product referred to as “iLottery,” which allows users physically located in Rhode Island to play lottery games through an internet application.

In March 2021, the State of Connecticut announced it had reached an agreement for two Native American tribes to operate online sports betting and casino gaming, subject to legislative approval. Legislative approval was given and on May 27, 2021 Governor Lamont signed HB 6451. The bill establishes three online sports betting purveyors (the two tribes and the state), and allows the Connecticut Lottery to operate fifteen retail sportsbooks. The bill also includes provisions for “iGaming” and an online lottery. On-site sports betting began in Connecticut on September 30, 2021, and online betting began on October 19, 2021. An analysis prepared in fall 2021 by Christiansen Capital Advisors, LLC (the “Christiansen Study”) estimated that Connecticut sports betting would reduce Rhode Island gross gaming revenue by 1.3 percent starting by FY 2022. This revenue loss was factored into revenue estimates at the November 2021 REC.

As a result of the COVID-19 pandemic, Twin River and Tiverton casinos experienced multiple closures and other pandemic-related operating restrictions. Primarily attributable to these pandemic-related impacts, in FY 2020 the total amount transferred to the State's General Fund from lottery sources was \$283.9 million, a decrease of \$113.5 million or 28.6% as compared to FY2019. The reopening of the casino facilities during 2021 allowed the FY 2021 lottery transfer to rebound slightly to \$298.4 million. The rebound accelerated with a relatively normal year of operations in FY 2022, yielding revenue of \$388.6 million.

The FY 2023 Enacted Budget includes \$389.6 million in estimated revenue from the lottery transfer with \$66.5 million from traditional lottery and Keno products, \$302.2 million from gaming activity (i.e., the operation of video lottery terminals and table games) at Twin River and Tiverton Casino, and \$20.9 million from sports betting, \$9.9 million attributable to on-site sports betting and \$11.0 million to mobile sports betting.

During the 2021 Rhode Island Legislative Session, legislation was introduced extending the Rhode Island Lottery's contract with IGT as the exclusive provider of lottery services from 2023 to 2043 and extending contracts with Twin River (now Bally's) and its affiliates. Under this contract, IGT continues to provide traditional lottery products (i.e., instant tickets, numbers games, Keno, multi-state games, etc.), as well as certain casino-related services, including providing and maintaining a central communications system for VLTs. In addition, the legislation authorizes the creation of a joint venture between IGT and Bally's to be the exclusive provider of VLTs to Twin River and Tiverton Casino. Chapters 41 and 42 were signed by the Governor on June 11, 2021. Rhode Island Lottery and IGT finalized the contract in February 2022.

Historic Structures and Motion Picture Production Tax Credits

The State's tax credit for historic preservation projects (the "Historic Structures Tax Credit") has allowed a taxpayer to receive a tax credit equal to up to 30% of the qualified rehabilitation expenditures made in the substantial "rehabilitation of a certified historic structure." To qualify, the application for certification must have been made prior to January 1, 2008. These credits were transferable, could be carried forward for ten years, and could be used to offset the personal income tax or certain business tax liabilities of a taxpayer. In the 2008 Session, the General Assembly enacted legislation that authorized Commerce RI to issue up to \$356.2 million in revenue bonds to provide a fund from which the General Fund would be reimbursed for the State's historic tax credit liabilities paid out to taxpayers. Since June 2009, \$301.9 million of bonds have been issued by Commerce RI, which are secured by payment obligations of the State subject to annual appropriation by the General Assembly. Following a final issuance of \$76.9 million in bonds in May 2019, the \$54.3 million balance of authorized but unissued bonds will not be required and therefore has been extinguished.

Under the legislation, such historic preservation projects will generally receive a State tax credit of up to 25.0% of the qualified rehabilitation expenditures incurred by a developer. The maximum credit any one historic rehabilitation project can receive is \$5.0 million. The developer must pay a non-refundable fee equal to 3.0% of the estimated qualified rehabilitation expenditures the developer expects to incur for the eligible project. The proceeds from these fees are deposited into the Historic Preservation Tax Credit Trust Fund and are used to reimburse the General Fund for the redemption of Historic Structures Tax Credit certificates. Historic Structures Tax Credit certificates can be redeemed against personal income tax, business corporations tax, financial institutions tax, public utilities gross earnings tax, and insurance companies gross premiums tax liabilities.

In addition, the 2013 General Assembly enacted legislation that allowed for the re-use of Historic Structures Tax Credits associated with historic rehabilitation projects that were abandoned by developers after being accepted into the reconstituted Historic Structures Tax Credit program in 2008. This legislation reallocated \$34.5 million of Historic Structures Tax Credits identified at the time that had been previously authorized to new historic rehabilitation projects and continues to reallocate credits that become available either due to abandoned projects or projects being completed at a lower cost than originally estimated. The FY 2022 Enacted Budget transferred \$20.0 million to the Historic Preservation Tax Credits 2013 program trust fund to reach more eligible projects and extended the sunset by one year to June 30, 2022. The FY 2023 Enacted Budget extended the sunset by one year and allocated an additional \$28.0 million to the trust fund.

The State's program providing tax credits for motion picture production (the "Motion Picture Production Tax Credit") currently allows a motion picture production company to receive a tax credit equal to 30% of its certified production costs for activities occurring within the State with an individual project cap of \$7.0 million. To avail itself of the Motion Picture Production Tax Credit under current law: (i) the motion picture production company must be formed under State law; (ii) the primary locations for the motion picture must be within the State; and (iii) the minimum production budget for the motion picture must be \$100,000. The State's Film Office must approve the motion picture and give initial and final certification. In connection with securing final certification, the motion picture production company must submit an independent accountant's certificate listing the costs associated with the tax credit. The motion picture production company "earns" the tax credit in the taxable year when production in the State is completed, and unused credit can be carried over for

three years. The credit is assignable, and any proceeds received by the motion picture production company for the assignment are exempt from State tax. These tax credits may be used to offset personal income tax, business corporations tax, public utilities gross earnings tax, insurance companies' gross premiums tax, and financial institutions tax liabilities. The 2019 General Assembly adopted legislation to increase the Motion Picture Production Tax Credit annual cap from \$15.0 million to \$20.0 million and extend the sunset date from July 1, 2024 to July 1, 2027. The FY 2022 Enacted Budget authorized up to \$30.0 million to be allocated for calendar year 2022 only for the motion picture and musical and theatrical production tax credits programs. The FY 2023 Enacted Budget authorized up to \$40.0 million in motion picture and/or musical and theatrical production tax credits to be allocated for each of calendar years 2023 and 2024.

Intermodal Surface Transportation Fund Revenues

During the 2014 Legislative Session, the financing mechanism for transportation infrastructure and bridge repairs changed dramatically when the General Assembly enacted Article 21 - Relating to Transportation of the FY 2015 Appropriations Act ("Article 21"). Article 21 created a long-term plan for financing Rhode Island's roads and bridges and removed the authority to toll the Sakonnet River Bridge. Article 21 expanded the RIHMA within the Intermodal Surface Transportation Fund, such that this account will become Rhode Island's primary source for transportation financing, by making several technical changes to existing law and by implementing various funding streams to finance the transportation plan. Various motor vehicle fees, surcharges and tax revenue, which were previously accounted for in the General Fund, are now being deposited in the RIHMA for this purpose.

Article 21 removed authority of RITBA to toll the Sakonnet River Bridge as of June 30, 2014 (the toll was formally removed on June 20, 2014 by order of the Governor). RITBA continues to control the four bridges in the East Bay (Newport Pell, Jamestown, Verrazzano, Mount Hope, and Sakonnet) and a portion of Route 138. To make up for the loss of toll revenue on the Sakonnet River Bridge, Article 21 transferred 3.5 cents (\$0.035) per gallon of the State gas tax to RITBA beginning July 1, 2014 to be used for maintenance expenses, capital expenditures and debt service on any of the Authority's projects.

Article 21 made additional changes that resulted in new revenue to the RIHMA, including: (i) authorization to increase the gas tax every other fiscal year equivalent to the annual increase in the CPI, rounded to the nearest 1.0 cent increment; (ii) transfer of fees collected for the issuance of certificates of title; (iii) transfer of surcharges collected on vehicle rentals; (iv) imposition of a new \$25 fee on dismissals based on good driving records; (v) increase of the fee on motor vehicle inspections from \$39 to \$55, \$32 of which will go to the RIHMA; and (vi) transfer of most motor vehicle related fees over a three year period, with 25.0% transferred in FY 2016, 50.0% in FY 2017, 60.0% in FY 2018 and 100.0% in FY 2019. As part of the FY 2020 Budget, the General Assembly revised this allocation to retain 5.0% of RIHMA receipts in the General Fund on an ongoing basis.

Motor Fuel Tax

The Intermodal Surface Transportation Fund is supported by the State's 34 cents per gallon motor fuel tax. A motor fuel tax is due on the sale of all fuels used or suitable for use in operating internal combustion engines for operating or propelling motor vehicles on the public roadways of the State other than fuel used: (i) for commercial fishing and other marine purposes other than operating pleasure craft; (ii) in engines, tractors, or motor vehicles not registered for use or used on public highways by lumbermen, water well drillers, and farmers; (iii) for the operation of airplanes; (iv) by manufacturers who use diesel engine fuel for the manufacture of power and who use fuels other than gasoline and diesel engine fuel as industrial raw material; and, (v) for municipalities and sewer commissions using fuel in the operation of vehicles not registered for use on public highways. Taxes paid in prior periods are subject to refund if it is later determined that such tax was not due and payable on the motor fuel purchased.

In the 2014 Session, the General Assembly enacted legislation to index the motor fuel tax rate on a biennial basis to the CPI-U, as published by the United States Bureau of Labor Statistics as of September 30 of the prior calendar year, with the first indexation effective July 1, 2015. This change does not impact general revenue since effective July 1, 2009 the State's General Fund no longer receives any of the revenues generated by the State's motor fuel tax. The indexation of the motor fuel tax rate resulted in an increase in the State's motor fuel tax from \$0.32 per gallon to \$0.33 per gallon on July 1, 2015. There was no increase on July 1, 2017 because of low inflation. As of July 1, 2019, the motor fuel tax rate indexed with inflation to become \$0.34 per gallon.

In addition, the State charges a fee of one cent per gallon of motor fuel delivered to an underground storage tank ("UST"). Motor fuel tax receipts fund operating and debt service expenditures of RIDOT, as well as specific portions of transportation-related expenditures of RIPTA and the Department of Human Services ("DHS"). As of FY 2022, the 34 cents per gallon motor fuel tax and the one cent UST fee are allocated as follows: 18.25 cents to RIDOT; two cents to an indenture

trustee to support debt service on motor fuel tax bonds; 9.75 cents to RIPTA, of which 9.25 cents are from motor fuel tax and 0.5 cents are from the UST fee; 3.5 cents to RITBA for maintenance expense, capital expenditures and debt service; one cent to DHS for its Elderly and Disabled Transportation Program, and the remaining 0.5 cents from the UST fee to the DEM's UST Replacement Fund. In 2020, the Division of Taxation determined that inflation was insufficient for the tax to be adjusted for FY 2022. The next inflation adjustment review is for the period beginning July 1, 2023.

Dedication of Registration and License Fees

The State dedicates certain registration and license fees to transportation purposes, namely as a piece of the State match used towards the U.S. Department of Transportation's federal highway program. This phased increase in registration and license fees began in FY 2014 and completed in FY 2019. Two-year registration and driver's license fees were each increased by \$30 (\$10 per year for three-years), while one-year registration fees were increased by \$15 (\$5 per year for three-years). All existing vehicle registration and license fees, as discussed above under "Other Sources – Intermodal Surface Transportation Fund Revenues," are transferred to the RIHMA. The 2017 General Assembly amended the disposition of RIHMA proceeds to provide RIPTA with \$5.0 million in each FY 2018 and FY 2019 to support the subsidized fare program for senior and disabled transit users. The 2019 General Assembly made this a permanent allocation. The \$5.0 million allotment is in addition to the 5% share of RIHMA available proceeds that is due to RIPTA under current law. The 2019 General Assembly also passed legislation as part of the FY 2020 Budget to retain 5% of RIHMA receipts in the General Fund in order to support the operations of the Registry of Motor Vehicles ("DMV"), responsible for collecting those receipts.

RhodeWorks Revenues

In February 2016, the General Assembly enacted the "Rhode Island Bridge Replacement, Reconstruction, and Maintenance Fund Act of 2016," codified as RIGL Section 42-13.1-1 et. seq. (the "RhodeWorks Act"), to address the persistent "funding gap between the revenue needed to maintain all bridges in structurally sound and good condition and the annual amounts generated by current dedicated revenue sources." The RhodeWorks Act generally authorizes RIDOT to implement a program for tolling only large commercial trucks at various bridge locations on interstate highways. All toll revenues collected from truck tolling must be deposited to the Rhode Island bridge replacement, reconstruction, and maintenance fund and used to pay the costs of operating and maintaining toll facilities and the replacement, reconstruction, maintenance and operation of State bridges. Pursuant to the RhodeWorks Act, tolls may be collected only from large commercial trucks, meaning vehicles classified by the Federal Highway Administration ("FHWA") as Class 8 (single trailer, three or four axles) up to and including Class 13 (seven or more axle multi-trailer trucks). The RhodeWorks Act expressly prohibits the collection of tolls on any passenger cars, motorcycles or any other vehicles classified by FHWA as Class 1 through Class 7. In April 2017, RIDOT and RITBA entered into a processing support agreement pursuant to which RITBA agreed to assist with the implementation of the RhodeWorks tolling program and to manage toll operations and collections on behalf of RIDOT. Procurement, design and construction of toll gantries and related systems commenced, and toll collections began at the first two locations in June 2018. The system expanded incrementally as construction progressed at additional locations, with twelve toll gantries completed and operational as of September 2021. Billable revenue from RhodeWorks tolls was approximately \$39.8 million in FY 2022 (unaudited).

On July 10, 2018, a lawsuit challenging the RhodeWorks Act was filed in federal district court against the State by the trucking industry in *American Trucking Associations, Inc. et al. v. Alвити et al.* On September 21, 2022, the court issued a decision holding that the program of tolling only large commercial trucks was unconstitutional and ordering the State to cease toll collections.

The 2016 General Assembly also authorized RIDOT to borrow up to \$300 million in GARVEE bonds through Commerce RI to finance highway improvements, the repayment of which will be derived from and secured by future distributions of federal highway trust funds due to the State. GARVEE bonds are not payable from or secured by toll revenues implicated in the RhodeWorks litigation discussed above. GARVEE bonds in the principal amount of \$245,925,000 were issued in the fall of 2016. The 2019 Assembly authorized borrowing of up to \$200 million in GARVEE bonds to finance highway improvements, predominantly the I-95 Viaduct Project. GARVEE bonds with par value of \$165,555,000 were issued in spring 2020.

Non-General Revenue Sources

Restricted Receipts

These expenditures reflect various dedicated fees and charges, interest on certain funds and accounts maintained by the State and private contributions and grants to certain State programs. Such receipts are restricted under law to offset State expenditures for the programs under which such receipts are derived.

Federal Receipts

Federal receipts are revenues from the federal government, representing grants-in-aid and reimbursements to the State for expenditures for various health, welfare and educational programs and distribution of various restricted or categorical grants-in-aid.

Federal grants-in-aid reimbursements are normally conditioned to some degree, depending on the program being funded, on matching resources by the State ranging from a 50% matching expenditure to in-kind contributions. The largest categories of federal grants and reimbursements are made for medical assistance payments for the indigent (Title XIX, or Medicaid), and a block grant for Temporary Assistance to Needy Families (“TANF”). The federal participatory rate for Title XIX, known as the Federal Medical Assistance Percentage (“FMAP”), is recalculated annually. The major determinant in the FMAP rate calculation is the relative per capita income of the State.

The State receives significant amounts of federal financial assistance under grant agreements or joint state/federally financed programs which specify the purpose of the grant and conditions under which the funds may be used. Generally, these grants are subject to audit. The Single Audit for the State of Rhode Island is submitted to the Federal Single Audit Clearinghouse annually by the State. The Single Audit reports instances of federal non-compliance, questions costs, and other matters to federal grantor agencies regarding the State’s administration of federal programs. These matters could result in federal disallowances and/or sanctions upon review by the respective federal agencies.

State Expenditures

Medicaid

Medicaid is a health insurance program jointly funded by the federal government and the states to provide services to low-income children, pregnant women, parents of dependent children, the elderly, and people with disabilities. The federal government’s share of expenditures for most Medicaid services is the FMAP. The remainder is referred to as the nonfederal or state share. With passage of the Patient Protection and Affordable Care Act of 2010, commonly referred to as the Affordable Care Act (“ACA”) states have the option of expanding coverage to include certain low-income adults with the federal government paying all program costs for the first three years and eventually paying 90% of the total cost. Rhode Island provides Medicaid assistance consisting of medical assistance, residential care, community- based services and case management activities to individuals who meet the eligibility criteria established for the various assistance programs operated by the Executive Office of Health and Human Services (“EOHHS”) and the four departments under its umbrella: DHS; the Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (“BHDDH”); the Department of Children, Youth and Families (“DCYF”) and the Department of Health.

The FY 2023 Enacted Budget includes \$3.458 billion in funding for the Medicaid program, including \$1.216 billion in general revenue funding. Overall, Medicaid represents 24.1% of the total FY 2023 Enacted Budget and 25.4% of the general revenue budget.

The FMAP is a calculation with significant impact on state health and human services spending. The formula that determines an individual state’s Medicaid rate is based on that state’s three-year average per capita income relative to national per capita income and represents the portion of medical services delivered under the Medicaid program that the federal government will contribute. States with a higher per capita income level are reimbursed a smaller share of their costs. By federal law, the Medicaid rate cannot be lower than 50% or higher than 83%. The federal contribution to any state’s administrative costs for Medicaid services is set at 50%. For Rhode Island, the projected rate for State FY 2023 is based on one-quarter of federal fiscal year 2022 and three-quarters of federal fiscal year 2023, resulting in a combined rate of 54.19%. The FMAP rate for all states was increased by 6.2 percentage points by Congress as part of the Families First Coronavirus Response Act (“FFCRA”). This increase is expected to remain in place for the duration of the Federal Public Health Emergency (PHE) associated with the COVID-19 pandemic.

The Rhode Island Consumer Choice Global Compact Waiver, or Medicaid Global Waiver, was approved by the Centers for Medicare and Medicaid Services (“CMS”) on January 16, 2009. The Global Waiver establishes a new federal-state agreement that provides Rhode Island with the flexibility to provide services in the least restrictive, most cost-effective way to meet the needs of its citizens. The waiver was effective until December 31, 2018; however, on December 20, 2018, CMS granted EOHHS an extension to December 31, 2023. Programs under the waiver include RIte Care, Rhody Health Partners, Rhody Health Options, Connect Care Choice, home and community-based services to elderly residents, residential and community support programs to adults with behavioral health and developmental disabilities, and breast and cervical cancer treatments. This waiver also allows the State to leverage Medicaid for services that were previously only State funded in DHS, BHDDH and DCYF.

On March 23, 2010, President Obama signed the ACA, which provides for national health-care reform. The ACA requires most U.S. citizens and legal residents to have health insurance by January 1, 2014, or pay a tax penalty, and expands Medicaid coverage to individuals and families up to 138% of the federal poverty level (“FPL”). It also provides for premium credits and cost-sharing subsidies for individuals and families between 139% and 400% of FPL. The ACA requires most employers to offer medical coverage, includes small business tax credits for employers with no more than 25 employees, and provides for a temporary reinsurance program for employers providing health insurance coverage to individuals over 55 years of age, but who are not eligible for Medicare. The ACA allows young adults to remain on their parents’ or guardian’s health plan until age 26. Issued regulations state that young adults are eligible for this coverage regardless of any of the following factors: financial dependency, residency with parent, student status, employment or marital status. The law does not require that a plan or insurer offer dependent coverage, but that if coverage is offered, it must be extended to young adults up to age 26. Prior to this change, Rhode Island required insurance plans that cover dependent children to cover unmarried dependent children until age 19, or until age 25 if a student, and if the dependent child is mentally or physically impaired, the plan must continue their coverage after the specified age.

Between 2014 and 2016, the federal government paid 100% of the cost of Medicaid for newly-eligible individuals. The rate of federal funding for these individuals (i) decreased to 95% for calendar year 2017, (ii) decreased to 94% for calendar year 2018, (iii) decreased to 93% for calendar year 2019 and (vi) decreased to 90% for calendar year 2020 and all subsequent years, requiring a 10% State match.

States are required to maintain the same income eligibility levels through September 30, 2027 for children currently in Medicaid (the State’s Medicaid managed care program for families with children, pregnant women, and children under age 19 is referred to herein as “Rite Care”). For Rhode Island, this requirement applies to Rite Care eligibility for parents with income up to 133% of FPL, pregnant women with income up to 253% of FPL and children with income up to 261% of FPL. States cannot take actions to lower enrollment or make eligibility stricter. States can reduce provider fees but must prove that the reduction will not make it harder for Medicaid patients to get needed care; also, states may eliminate optional benefits.

In September 2011, former Governor Lincoln Chafee issued an executive order to establish the Rhode Island Health Benefit Exchange, renamed HealthSource RI (“HealthSource RI”), the State’s marketplace for purchasing health insurance. The 2015 General Assembly enacted legislation that: (i) establishes HealthSource RI as a division within the Department of Administration (“DOA”); (ii) authorizes HealthSource RI to operate a state-based exchange to meet minimum federal requirements; and (iii) authorizes the Department of Administration to charge an assessment on insurers offering products on the exchange, which cannot be more than the revenues that would be raised through the federally facilitated marketplace. The assessment is estimated to generate \$17.5 million in FY 2023. The FY 2023 Budget includes \$2.5 million from general revenues to be used in conjunction with the revenues from the assessment for the operations of HealthSource RI.

HealthSource RI began accepting applications on October 1, 2013. Health plans offered through the marketplace are categorized into tiers based on the level of benefits and cost sharing requirements. Individuals in households with income below 400% of FPL, who are not Medicaid eligible, will receive federal subsidies to reduce the cost of commercial health plans purchased through the exchange. The 2013 General Assembly created a premium assistance program to aid in the transition to coverage through the exchange with the State paying 50% of the cost of commercial coverage, after subtracting what the parents are currently paying for Rite Care coverage and any federal tax credits or subsidies that are available.

Principal Governmental Services

Principal State governmental services are functionally divided into six major areas: General Government, Human Services, Education, Public Safety, Natural Resources, and Transportation. They are administered and delivered by fourteen departments, the Board of Education, and several public corporations. All expenditures by such State agencies, including those funded by federal and restricted use sources, are budgeted by the Governor and appropriated annually by the General Assembly. The following paragraphs describe the major functions of State government.

General Government

General Government provides general administrative services to all other State agencies and carries out State licensure and regulatory functions. General Government includes those agencies that provide general administrative services to all other State agencies and those that carry out State licensure and regulatory functions. This function includes most elected officials, administrative agencies, including, but not limited to, the Department of Administration, the DOR, the Department of Labor and Training, the Executive Office of Commerce, and the Board of Elections, and regulatory agencies including, but not limited to, the DBR and the Public Utilities Commission. The three major departments in the General Government function are the Department of Administration, the DOR, and the Department of Labor and Training.

Department of Administration

The Department of Administration (“DOA”) is generally responsible for all central staff and auxiliary services for the State, including planning, budgeting, personnel management, purchasing, information processing, accounting, auditing, building maintenance, property management, and labor relations. The Department of Administration directs accounting and fiscal control procedures and is responsible for preparing the State’s annual fiscal plan and capital development program. The Department of Administration also administers the State-wide planning program for the comprehensive development of the social, economic and physical resources of the State. The Department of Administration also includes the Office of Internal Audit, which examines the books of account of all State departments and agencies and determines whether audits should be performed in accordance with a risk-based evaluation.

The Department of Administration also includes the Office of Energy Resources, which is responsible for coordinating all energy-related matters, including energy security, energy efficiency, renewable energy and natural gas, and HealthSource RI.

Department of Revenue (DOR)

The DOR includes the Division of Taxation, the DMV, the Division of Lottery, the Division of Municipal Finance and the Office of Revenue Analysis. The DOR is also responsible for administering certain programs relating to State aid. Programs within the DOR are responsible for the assessment and collection of all taxes; administration and enforcement of all laws pertaining to the operation and registration of motor vehicles; administration of a lottery system; monitoring and reporting on the financial condition of Rhode Island’s cities and towns; and assisting cities and towns in financial distress.

Department of Labor and Training

The Department of Labor and Training is responsible for administering benefit payment programs, workforce development programs, workforce regulation and safety programs, and the Labor Relations Board. The Department of Labor and Training is responsible for administering the payment of benefits to qualified unemployed workers from taxes collected from Rhode Island employers under the Employee Security Act. The Department of Labor and Training is also responsible for administering payments to workers under the Temporary Disability Insurance Act and the Worker’s Compensation Act. The Temporary Disability Insurance Act provides for the payment of benefits to workers who are unemployed due to illness or non-work related injuries from taxes paid by all employees. The Worker’s Compensation Act provides for the payment of benefits to workers who are unemployed due to work related injuries from insurance premiums paid by employers. The Department of Labor and Training also operates Employment Resource Centers located throughout the State, which provide job referral, job placement and counseling and employment training and support services for adults and youths.

The Department of Labor and Training also enforces wage, child labor, parental and family medical leave laws; examines, licenses and registers professions such as electricians, pipefitters, and refrigeration technicians; and inspects all State buildings, public buildings, and city and town educational facilities for compliance with building codes. The Department also has primary responsibility for the collection of data on employment and unemployment in Rhode Island. Additionally, the Department of Labor and Training has managed the continued significant increase in unemployment insurance benefits due to the COVID-19 pandemic and the related impact of fraudulent unemployment insurance benefits.

Human Services

Human Services includes those agencies that provide services to individuals, including medical assistance for eligible low-income populations (Medicaid, as described above) by EOHHS, care of the disabled by the BHDDH; child protective and social services provided by the DCYF; health programs at the Department of Health and DHS; and financial assistance and social services provided by DHS.

These departments are collectively under the managerial umbrella of the EOHHS. The EOHHS also functions as the “single state agency” for Medicaid administration in Rhode Island, maintaining full administrative oversight of the State’s Medical Assistance (Medicaid) Program, which includes the Children’s Health Insurance Program (“CHIP”).

Department of Human Services (DHS)

DHS administers and coordinates local, state and federal programs for cash assistance and social services. The responsibilities of the department include supervision of the following programs: child support enforcement, supplemental security income, general public assistance, supplemental nutrition assistance, TANF cash assistance, childcare assistance, home energy assistance, elderly transportation, and other services to the elderly. The Department also administers vocational

rehabilitative services and services for the blind and visually impaired. The Department also manages the administrative and budgeting functions of the Office of Veterans Affairs and the Office of Healthy Aging.

RI Bridges/Unified Health Infrastructure Project (UHIP).

The RI Bridges system (“RI Bridges”), formerly known as UHIP, is the Rhode Island integrated eligibility system serving approximately a third of the State’s population for various health and human services programs, such as Medicaid, the Supplemental Nutrition Assistance Program (“SNAP”) and Healthsource RI. Upon phase 2 of its implementation in September 2016, the system experienced many functional problems in enrollment and eligibility processing, most of which have since been addressed.

Across the RI Bridges system, the number of defects has decreased well ahead of stabilization targets, blocked case numbers have reached manageable levels and case processing outcomes have improved significantly since 2019. In FY 2020, the State capitalized on the improved system stability to deliver key enhancements required to maintain system compliance, improve customer experience, establish efficiencies for workers, and reduce the ongoing cost of maintaining and operating the system. In addition, a new Mobile Application, “HealthyRhode”, was added to the RI Bridges platform along with the delivery of digital notices. Significant work was also done to further automate the LTSS program including the addition of robotics processing automation which further reduced processing backlogs. In FY 2021, the State remained focused on system enhancements in order to increase participation in the RiteShare program, reduce SNAP payment errors, improve SSI processing and address ongoing Medicaid eligibility requirements. There are a number of items planned for FY 2022 work that would resolve prior audit findings, including the implementation of the interface with the Beneficiary Earnings Exchange Record System (“BEERS”). The State negotiated with the system developer, Deloitte, to recoup some of the system costs expended to date, to receive additional services at no charge, to fix and improve the system, and to cover any fines that may be levied against the State by the federal government. The State had not paid Deloitte since December 2016 and during that period the State negotiated \$86 million in no-cost services and credits.

During 2020, the State negotiated a contract extension with Deloitte through June 2021, which secured millions in additional service discounts for the period of the extension, as well as a \$50 million compensatory cash payment to the State, of which \$19.9 million was paid to federal partners. In June 2021, after a competitive procurement process, the State selected Deloitte for a 3-year maintenance, operations and enhancement support contract for the RI Bridges system.

In July 2021, EOHHS submitted to the federal government the federal fiscal year 2022 RI Bridges Implementation Advanced Planning Document (“IAPD”). Pursuant to the IAPD, EOHHS requested continued federal funding for the RI Bridges project, increasing the total cost of the project to \$792.6 million, of which \$73.9 million is allocated to federal fiscal year 2022. Project costs include development, maintenance and operations costs of RI Bridges since FY 2011, and operational costs for agencies served by the system. These include state personnel, a call center, and project management, business and technical support contracts. The State share is now projected at \$202.6 million.

Department of Children, Youth, and Families (DCYF)

The DCYF is responsible for providing comprehensive, integrated services to children in the State in need of assistance. The Department is responsible for providing services to children who are without families or whose families need help in meeting the children’s basic needs. Major functions of the Department include investigating child abuse, delivering services directly to children and their families in their own homes or foster homes, developing and providing alternative community-based living situations and administering juvenile corrections facilities and programs.

Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH)

BHDDH provides services that include hospitalization, housing, vocational programs, inpatient and outpatient treatment, counseling, rehabilitation, transportation, and hospital level care and treatment. BHDDH provides these services either directly through the Eleanor Slater Hospital system, which operates at two sites, the Cranston Unit and the Zabarano Unit, and the Rhode Island Community Living and Supports System (“RICLAS”), a state psychiatric hospital established in the FY 2023 budget, or through contracts with private, non-profit hospitals, and agencies. BHDDH organizes, sets standards for, monitors and funds programs primarily according to the nature of a client’s disability. BHDDH’s behavioral health services help people who have psychiatric disorders and severe mental illness, such as manic depression or schizophrenia. BHDDH’s developmental disabilities services assist people with disabilities like cerebral palsy, epilepsy, autism, behavioral problems and other physical and mental conditions. BHDDH hospitals provide long-term care for people who need medical treatment and nursing care for problems associated with chronic illness. BHDDH also provides substance abuse prevention and treatment services, in addition to gambling addiction services.

The State-operated Eleanor Slater Hospital suspended billings to Medicaid for eligible patients due to certain concerns relating to the allowability of certain services billed to Medicaid and compliance with federal rate development requirements beginning in August 2019. After a subsequent review of its current claiming practices and rate development procedures, the EOHHS (State Medicaid Agency) submitted a State Plan Amendment to the Centers for Medicare and Medicaid Services (CMS) to allow Eleanor Slater Hospital (ESH) to recommence billing to Medicaid for certain Medicaid eligible patients. The Centers for Medicare and Medicaid Services (CMS) approved a State Plan Amendment that codified ESH's authority to claim federal match as a State Hospital. ESH resumed billing Medicaid for eligible services for the period of April 2020 through December 2021. At the patient census count in December 2021 and continuing through the most recent patient census administered in May 2022, ESH was designated to be an Institute for Mental Disease (IMD) and therefore has been unable to bill Medicaid. The Department of Behavioral Healthcare, Developmental Disabilities, and Hospital (BHDDH) which administers ESH is implementing a plan to reconfigure the operations of ESH which would allow for the resumption of billing as ESH would no longer be designated an IMD. As part of this plan, the General Assembly enacted enabling legislation included in the FY 2023 budget to establish a new standalone state psychiatric hospital to be administered by BHDDH.

Department of Health

The Department of Health is responsible for the health of the citizens of Rhode Island and as such makes investigations into the causes of disease, the prevalence of epidemics and endemics among the people, the sources of mortality, the effect of location, employment and other conditions, ascertain the causes and the best means for the prevention and control of diseases or conditions detrimental to the public health. The Department of Health also operates the State laboratory and the Medical Examiner's Office.

Education

Education includes elementary and secondary education and higher education, as well as arts funding, historical preservation and heritage support and atomic energy commission research activities.

The 17-member Rhode Island Board of Education (the "Board of Education") is responsible for preschool through postsecondary education in the State. Within the Board of Education are two councils, the Council on Elementary and Secondary Education and the Council on Postsecondary Education. Each of the councils focuses on regulatory and governance issues that pertain to their respective area.

Council on Elementary and Secondary Education

The Council for Elementary and Secondary Education is responsible for the formulation and implementation of State-wide goals and objectives for elementary, secondary and special populations education and for the allocation and coordination of various educational functions among the educational agencies of the State and local school districts. The Council also establishes education aid reimbursement payments to local school districts, operates the Rhode Island School for the Deaf, the Metropolitan Career and Technical School (the "Met School") and William M. Davies, Jr. Career and Technical High School ("Davies"), and supervises the State's vocational-technical schools. The Council also operates the Central Falls School District. The Council appoints a Commissioner of Elementary and Secondary Education to serve as its chief executive officer.

Continuance of State Takeover of Providence Public School District

The State, acting through the Board of Education and the Rhode Island Department of Education ("RIDE"), oversees the performance of schools and school districts that receive education aid funding. This oversight role includes adopting statewide standards for student performance, and annually assessing the performance of individual schools and school districts against such statewide standards. Pursuant to RIGL Section 16-7.1-5 (the "Crowley Act"), the State is required to intervene when a school or school district continually falls short of performance standards. State intervention initially consists of support and technical assistance.

In connection with its oversight role, RIDE identified the Providence Public School District (the "PPSD") as consistently among the lowest performing districts in the State, based on objective criteria such as academic proficiency, absenteeism and graduation rates. Pursuant to the Crowley Act, the State, in collaboration with the PPSD, attempted to improve the PPSD through operational, policy and financial support, all of which were unsuccessful.

In May 2019, following the release of standardized test scores showing low levels of English and math proficiency among PPSD students, RIDE engaged the Institute for Education Policy at Johns Hopkins University (the "Institute") to conduct a review of the PPSD to identify the challenges impeding reform efforts. The Institute's review included a study of academic outcomes, observation of classroom instruction and interviews with students, teachers, administrators and

community members. After completing its review, the Institute released a report in June 2019 (the “Hopkins Report”), which identified systemic deficiencies in the performance of the PPSD, including with respect to governance structure, management, health and safety, facilities, curriculum and academic instruction. The Hopkins Report concluded that such deficiencies were the cause of widespread unsatisfactory academic outcomes for PPSD students and demoralized teachers, staff, administrators and parents.

Pursuant to a decision and order of the Commissioner of Education dated October 15, 2019, the State assumed governance and management responsibility for the PPSD effective November 1, 2019. The State appointed a “turnaround superintendent” to manage PPSD operations and develop and implement a long-term improvement plan for at least the next five years, effective February 2, 2020.

More than one year into the State intervention, the Commissioner of Education and the new superintendent have implemented changes including unifying Math and English Language Arts curriculum options, increasing professional development for teachers and improving support for multilingual learners (the majority of the PPSD students).

In connection with this work, the State continues to be responsible for budget deficits and other costs relative to the district, subject to the State appropriations and budget process. The extent of such costs is difficult to gauge, even absent the effects of the COVID-19 pandemic.

Council on Postsecondary Education

The Council on Postsecondary Education is responsible for the formulation and implementation of broad goals and objectives for public higher education in Rhode Island, including a comprehensive capital development program. In addition, the Council holds title to the public colleges of the State, Rhode Island College, and the Community College of Rhode Island (collectively, the “State Colleges”). Although there is institutional autonomy, the Council is responsible for general supervision of public higher education, including adoption and submittal of the State higher education budget, property acquisition and management and approval of organizational and curriculum structures. The Commissioner of Postsecondary Education is appointed by the Council to serve as chief executive officer of the Council. RIHEBC issues revenue bonds from time to time on the Council’s behalf to finance various capital improvements for the State Colleges and URI, which revenue bonds are supported by certain revenues derived by the State Colleges and URI and/or certain appropriations made by the State to the State Colleges and URI.

Effective February 1, 2020, a new Board of Trustees for URI was established. This new Board assumed all powers and authority previously maintained by the Board of Education and Council on Postsecondary Education with respect to URI. The new Board of Trustees consists of seventeen (17) members appointed by the Governor with the advice and consent of the Senate. The Council on Postsecondary Education continues to oversee Rhode Island College and the Community College of Rhode Island.

Public Safety

Public Safety includes those agencies responsible for the safety and security of the citizens of Rhode Island. Agencies included in this area of State government are the Department of Public Safety, the Department of Corrections, the Judicial Department, and the Attorney General’s office.

Department of Public Safety

The Department of Public Safety is comprised of the following agencies: State Police, E-911 Emergency Telephone System, Municipal Police Training Academy, Sheriffs, Capitol Police, and the Public Safety Grant Administration Office. The Director of the Department of Public Safety also serves as the Superintendent of the Rhode Island State Police.

Department of Corrections

The Department of Corrections is responsible for the confinement of sentenced and pre-trial adult offenders, the provision of various programs to encourage and assist offenders in modifying their behavior, and the provision of custody and program services for offenders sentenced or otherwise placed in community supervision.

The Department of Corrections is made up of two main programmatic areas, Institutional Corrections and Community Corrections. Institutional Corrections includes seven separate facilities and associated support services. Within Community Corrections are Probation and Parole, the Home Confinement Unit, a Risk Assessment Unit and the Furlough Program. Also included within the Department of Corrections budget, but with independent decision-making authority, is the State Parole Board.

The Department of Corrections also operates the Central Distribution Center, which purchases and warehouses food and other supplies for redistribution to State agencies and operates the Correctional Industries Program which employs inmates to manufacture various products or provide services to State and local agencies and non-profit organizations.

Natural Resources

Natural Resources includes those agencies responsible for protecting the natural and physical resources of the State and regulating the use of those resources. Agencies included in this area of State government are the DEM and the Coastal Resources Management Council.

Department of Environmental Management (DEM)

The Department of Environmental Management (“DEM”) has primary responsibility for environmental programs and bureaus of the State. DEM is charged with the preservation and management of Rhode Island’s forests, parks, beaches, farms, fisheries and wildlife and with monitoring, controlling and abating air, land and water pollution. In addition, DEM plans, licenses and enforces laws regulating refuse and hazardous waste disposal, pesticides, individual sewage disposal systems, and non-coastal freshwater wetlands. DEM also works with the Coastal Resources Management Council to protect the State’s coastline and with the Water Resources Board and Department of Health to protect watersheds and ensure sufficient drinking water supplies. DEM is responsible for operating all State parks, beaches, and recreation facilities including bathing areas, public campsites, historical sites and more than 40,000 acres of public land. DEM also operates commercial fishing ports in Galilee and Newport that house most of the State’s commercial fishing fleet. DEM administers grant and loan programs for municipal and non-profit organizations, and anti-pollution, open space, and recreational development and farmland acquisition programs.

Transportation

Transportation comprises the road construction, road maintenance, mass transit, and planning activities of RIDOT. The Department administers the Intermodal Surface Transportation Fund and within the Fund, the RIHMA, to fund transportation expenditures from dedicated user-related revenue sources. This highway fund concept has the advantage of relating the funding of transportation projects to those who utilize the services provided by those projects, by means of financing mechanisms paid directly by those end-users. This concept is also intended to provide a stable revenue stream to enable transportation projects to be financed on a pay-as-you-go basis.

Department of Transportation (RIDOT)

RIDOT is responsible for the integration of all modes of transportation into a single transportation system. RIDOT is organized to carry out its responsibilities for the construction and maintenance of all State roads, bridges, transportation facilities (other than those operated and maintained by RITBA), and the administration of State and federal highway construction assistance programs.

Financial Assistance and Oversight of Local Governments

Local Tax Relief

Starting in FY 2000, the local property tax levy on motor vehicles and trailers was to be phased out over seven years (subject to annual review and appropriation by the General Assembly) by providing increasing mandated exemptions against the assessed value of all motor vehicles. Local communities were to be reimbursed by the State for the value of the exempted amounts. The program was modified in subsequent legislative sessions. The General Assembly reduced the minimum mandatory exemption required to \$500 (from \$6,000) and appropriated \$10.0 million annually for this program for FY 2011 through FY 2017.

In the 2017 Session, the General Assembly enacted changes to the Motor Vehicle Excise Tax Reimbursement Program that will end the ability of municipalities and Lincoln fire districts to tax motor vehicles over time, ultimately allowing no tax in FY 2024. The City of East Providence and Saylesville Fire District commenced the phase out one year later due to local use of a different fiscal year. Municipalities will be reimbursed by the State for the lost tax revenues. The minimum exemption and discount to the retail value will grow over a period of six years until the tax is no longer levied. The FY 2021 Enacted Budget includes \$37.5 million for this program, which is \$52.7 million less than provided in FY 2020. This reduction in aid was offset with new federal funding from the CARES Act to assist communities with costs incurred as a result of the pandemic. The FY 2022 Enacted Budget included \$129.7 million for this program in FY 2022, which continued the planned phase-out of this tax.

The FY 2023 Enacted Budget accelerated the Motor Vehicle Excise Tax Reimbursement Program by one year, ending collection of the tax in FY 2023 for all municipalities and fire districts, except for the City of East Providence due to the timing of the local fiscal year for that community. The FY 2023 included \$231.0 million for the program, which includes some additional funding to hold communities harmless from the negative effects of the accelerated phaseout of the tax.

Other local aid programs include the motor vehicle excise tax reimbursement (as discussed above), payment-in-lieu of taxes (“PILOT”) program and distressed communities aid program.

State Aid to Local Communities

Education Aid

The largest category of State aid to cities and towns is assistance programs for school operations and school construction. In addition, the State makes contributions to the Employee Retirement System of Rhode Island on behalf of local districts and charter schools, which partially relieves them of the cost of funding retirement benefits for teachers.

In June 2010, the General Assembly enacted a funding formula to guide education aid payments beginning July 1, 2011 (FY 2012). The formula distributes education aid spending among school districts, State-operated schools, and charter schools. For school districts that receive more money under the new formula, the increase was phased in over seven years (through FY 2018). For school districts that receive less money under the new formula, the decrease was phased in over ten years (through FY 2021). The funding formula aid program disburses funding to communities based on many factors, including wealth of the community, the average daily number of students in the community’s schools, and the number of children in the community’s schools who are eligible for free or reduced-price meals.

In 2015, the General Assembly created the School Building Authority under the Department of Elementary and Secondary Education, and RIHEBC is charged with administering the School Building Authority Capital Fund. The School Building Authority is a funding mechanism designed to provide upfront funding for school projects. In 2018, voters approved \$250.0 million in general obligation bonds to fund the School Building Authority Capital Fund. A bond referenda item seeking voter authorization for the issuance of an additional \$250.0 million in general obligation bonds was included on the State’s November 8th, 2022 general election ballot and was approved by the State’s voters.

In FY 2023, not including aid to State-operated schools, the General Assembly authorized \$1,069.4 million in education aid to local school districts and charter schools through the funding formula (\$1,096.2 million with the inclusion of formula aid to the State-operated Davies, the Met School, and the Rhode Island School for the Deaf). Included in this amount are stabilization funds to restore the State aid reduced due to the ten-year transition of the funding formula for the Davies, the Met School, and the Central Falls School District (currently, the State pays 100% of the local contribution for Central Falls).

In addition to redistributing current aid levels, the formula establishes nine categories of funding outside of the core formula amount. These categories are subject to appropriations and may be reduced if demand exceeds the available funding, however they are integral parts of the funding formula. Under these categories, the State will pay for the costs of setting up and running career and technical education programs, the costs of pre-kindergarten programs, transportation for out-of-district non-public students and students in regionalized school districts, the amount of the cost of any special education student that is above five times the core education aid amount (meaning the cost for a non-special education student who is eligible for the free and reduced lunch program) and support for English learners for new and innovative programs. Prior permanent bonuses for regionalized school districts were replaced with temporary bonuses that phase out over two years. The State appropriated aid totaling \$38.6 million for these categories in the FY 2023 Enacted Budget.

There are also a handful of aid categories still being funded that pre-date the funding formula. In FY 2023, the General Assembly enacted general aid support of \$3.3 million for internet access, administering the school breakfast program, textbooks for non-public schools, aid to the State’s recovery high school, and for a payment based on the number of group home beds in each community.

In addition to funding of school operations costs, State school construction aid is provided at levels ranging from 30% to 95% of the construction cost of new facilities and renovations. Under current law, the minimum reimbursement percentage is 35% for FY 2013 and thereafter. The level for each individual community is based upon the relationship between student enrollment and community wealth and takes into consideration the relative weight of school debt in the respective city or town to its total debt. The definition of reimbursable expenditures includes capital expenditures and debt service, including payments made through a capital lease or lease revenue bonds or from a municipality’s capital reserve account. The State appropriated \$88.5 million for this category in the FY 2023 Enacted Budget, which is \$8.5 million more than provided in FY 2022.

The final major category of State aid is State funding of a portion of teachers' retirement costs. Both the employer and the employee contribute to the costs of the defined benefit plan that covers teachers throughout the State. Effective July 1, 2012, there is a defined contribution plan, which features both employer and employee contributions. For teachers, by Rhode Island law, the employer share is split between the State and the local school district or charter school, with the State paying 40% of the employer share and the local district or charter school paying 60%. These payments are made directly to the Employees Retirement System of Rhode Island. The only public-school teachers who do not participate in this system are those at State-operated schools that are staffed by State employees and those at schools that are exempt from participating: namely Mayor Academy charter schools and the Metropolitan Career and Technical School. The FY 2023 Enacted Budget includes \$130.9 million in State share contribution based on projected expenditures.

Other local aid programs include the motor vehicle excise tax reimbursement (as discussed above), payment-in-lieu of taxes ("PILOT") program and distressed communities aid program.

Payment in Lieu of Taxes

The PILOT program authorizes the General Assembly to annually appropriate and distribute to communities amounts not to exceed 27% of the property taxes that would have been collected on tax exempt properties. Eligible properties included in this program are private, non-profit institutions of higher education, non-profit hospitals, State owned and operated hospitals, veterans' residential facilities, and correctional facilities occupied by more than one hundred residents. Article 2 of the FY2015 Appropriations Act made changes to the distribution of appropriations under the program to allow for the issuance of the payment on July 31st or following receipt of a municipality's assessment data for the following year's fiscal payment, whichever is later. This change went into effect as of July 1, 2015. The FY 2023 Enacted Budget includes \$48.4 million for this program, which is \$2.3 million more than provided in FY 2022. Funding by community has been adjusted to reflect changes in tax rates and values, as well as any changes to the exempted tax rolls.

Distressed Communities Relief Fund

The State makes payments to communities identified as distressed based upon criteria established by RIGL Section 45-13-12. Based on these criteria, the following municipalities are expected to receive distressed communities' funds in FY 2023: Central Falls, Cranston, North Providence, Pawtucket, Providence, West Warwick and Woonsocket. Most funds are distributed based on the ratio of an eligible municipality's tax levy to the total tax levy of all eligible municipalities. When a community falls out of the program, it receives a one-time transition payment of 50% of the prior year requirement, exclusive of any reduction for first year qualification. When a new community qualifies for the program, that community receives 50% of current law requirements for the first year. The remaining 50% is distributed to the other distressed communities proportionately. Appropriations of \$12.4 million for the Distressed Communities Relief Fund were included in the FY 2023 Enacted Budget, which is the same amount provided in FY 2022.

Library Aid

State library aid provides financial support for local public library services and for the construction and capital improvement of any free public library. A portion of library aid is disbursed directly to local libraries, including private libraries, with the remainder disbursed to the individual cities and towns. Appropriations of \$11.0 million are included in the FY 2023 Enacted Budget. The FY 2023 Enacted Budget also includes an appropriation of approximately \$1.9 million to provide reimbursement to cities and towns for debt service in the construction of libraries.

Other Aid

Rhode Island also distributes to communities the proceeds of a state-wide tax imposed on the tangible personal property of telephone, telegraph, cable, express and telecommunications companies. Funds collected from this tax are distributed to cities and towns within the State, based on the ratio of the city or town population relative to the population of the entire State; the FY 2023 Enacted Budget includes an estimated \$12.6 million to be distributed.

The State also distributes a 1.0% meals and beverage tax per the proportion of that tax collected in each community. For the FY 2023 Enacted Budget, the meals and beverage tax is estimated at \$33.1 million. Similarly, the State distributes a 1.0% local hotel tax, as well as a 25.0% local share of the State 5.0% hotel tax which, when combined, provide municipalities a 2.25% gross receipts tax on the rental of lodging accommodations at hotels, inns and certain bed and breakfast establishments within a municipality. In the FY 2023 Enacted Budget, an amount of \$5.6 million from these hotel taxes is estimated to be distributed.

The State also provides funds through the Airport Impact Aid program to cities and towns that host airports and expects to distribute a total of \$1.0 million in FY 2023.

General Fund Operating Results and Free Surplus

State law provides that all unexpended or unencumbered balances of general revenue appropriations, whether regular or special, shall lapse to General Fund surplus at the end of each fiscal year, provided, however, that such balances may be reappropriated by the Governor in the ensuing fiscal year for the same purpose for which the monies were originally appropriated by the General Assembly. By law, unexpended balances of the Judicial and the Legislative branches are reappropriated at their request. Free surplus is the amount available at the end of any fiscal year for future appropriation by the General Assembly.

The Governor is required to submit a balanced budget. The General Assembly is also required to enact a balanced budget.

The Budget Office is required to prepare quarterly reports which project the year-end balance assuming current trends continue under current laws, and the typical cyclical expenditure patterns prevail over the course of the year. These consolidated reports are released within forty-five days of the end of each of the first three quarters of the fiscal year.

The State Budget Officer is also a principal in the REC, which is held each November and May to estimate revenues and caseloads for the current fiscal year and the budget year. The REC was created in 1990 to provide the Governor and the General Assembly with estimates of general revenues. The principals of the REC are the State Budget Officer, the House Fiscal Advisor, and the Senate Fiscal Advisor, with the chair rotating among the three. The principals hear testimony from the State's outside economic consultant, IHS Markit, on economic forecasts for the United States and the State. The REC is required by statute to meet at least twice a year (specifically, November and May) but can be called at any other time by any member. The principals must reach consensus on revenues. In 1991, the Medical Assistance and Public Assistance Caseload Estimating Conference, similar to the REC, was established to adopt welfare and medical assistance caseload estimates.

Also, the Budget Office is required to publish five-year forecasts of expenditures and revenues for submission to the General Assembly as part of the annual budget process, and these forecasts over the years, based upon the information then available, have generally projected that out year expenditures will exceed revenues, at times by a substantial amount. The most recent five-year forecast was generated by the House Fiscal Office as part of the FY 2022 budget process. The House Fiscal Office's most recent projections for FY 2023 through FY 2026, which are based on the FY 2022 Enacted Budget, forecasted deficits of \$177.4 million in FY 2023, \$226.0 million in FY 2024, \$201.9 million in FY 2025, and \$203.9 million in FY 2026. These values also do not assume use of any of the \$1.1 billion in American Rescue Plan Act stabilization funds for revenue replacement over the next few years, which is an allowable use of these funds in accordance with guidelines. In the event of a budgetary imbalance, the available free surplus will be reduced and/or additional resources (i.e., taxes, fines, fees, etc.) will be required and/or expenditure controls will be put into effect.

FY 2022 Preliminary Closing

The State Controller issued the FY 2022 Preliminary Closing Statements on September 8, 2022. These statements reflected a general fund surplus of \$216.6 million, which was \$206.4 million greater than assumed in the final FY 2022 enacted budget. General revenue receipts were \$136.9 million higher than estimated, with the personal income tax up \$59.5 million, the business corporations tax up by \$33.4 million, and the sales tax up by \$36.5 million, the inheritance and gift tax up by \$3.6 million. Lottery revenue was down by \$1.0 million and other miscellaneous revenues and the realty transfer tax were down by \$7.8 million and \$681,948, respectively. General revenue expenditures were \$256.3 million less than budgeted, primarily attributable to \$106.0 million which was transferred from budgeted general revenue accounts to restricted accounts and \$35.0 million less in estimated reimbursable FEMA expenses compared to budget. The remaining surplus occurred from underspending across various state agencies. The largest surplus occurred in DOA at \$83.5 million, followed by \$35 million in EOHHS. These surpluses were offset by deficits in BHDDH (\$4.2 million), the Commission of Deaf and Hard of Hearing (\$0.12 million), and the Department of Environmental Management (\$0.1 million). The Cash Stabilization Account was funded at \$279.1 million.

FY 2023 Enacted Revenues

Total General Revenue

The FY 2023 Enacted Budget estimates general revenues of \$4.901 billion, an increase of 3.3 percent from the enacted FY 2022 amount.

Personal Income Tax

The personal income tax is the largest source of general revenues with \$1.775 billion in the FY 2023 Enacted Budget, reflecting anticipated decrease of \$164.0 million or 8.5 percent from enacted FY 2022 revenue. This decrease is due to particularly strong revenue collections in FY 2022 that are expected to return to more typical levels in FY 2023.

The federal PPP changes will impact the State across FY 2022 and FY 2023. The State is expected to lose \$44.1 million in revenue and recover \$14.9 million in revenue by the end of FY 2023 through decoupling the State from the federal PPP changes.

The FY 2023 Enacted Budget includes some tax cuts and a one-time rebate that impact personal income tax revenues. This includes a one-time child tax rebate of \$250 for each child claimed as a dependent (up to three children) for individual filers making up to \$100,000 (\$200,000 for couples filing jointly). The FY 2023 Enacted Budget includes a one-time revenue loss of \$43.8 million for this rebate. Initiatives in the FY 2023 Enacted Budget with ongoing impacts include a revenue loss of \$3.7 million to increase the rate and expand eligibility for the State's property tax relief credit, which provides personal income tax credits to offset the impacts of local property taxes for elderly homeowners and those with disabilities. Finally, the FY 2023 Enacted Budget includes a \$4.6 million revenue reduction to increase the existing exemption of pension income from \$15,000 to \$20,000 and to exempt all military pension income beginning in Tax Year 2023.

General Business Taxes

Business corporations tax revenues are estimated to reach \$214.9 million in the FY 2023 Enacted Budget, reflecting anticipated decline of \$40.2 million or 15.8 percent from enacted FY 2022 revenue.

Business corporations tax revenues through FY 2023 are affected by the federal law changes regarding the deductibility of expenses paid for with forgiven PPP loan proceeds and the State's law change to "decouple" from these changes. Through the end of FY 2023, the State is expected to lose \$84.6 million in revenue, and recover \$32.9 million of that loss through decoupling.

Insurance company gross premiums tax revenues are projected to reach \$158.0 million in the FY 2023 Enacted Budget, an increase of \$2.4 million or 1.5% from the enacted FY 2022 revenue.

The projected health care provider assessment is projected to reach \$38.1 million in the FY 2023 Enacted Budget, an increase of \$1.3 million from the enacted FY 2022 revenue.

The FY 2023 Enacted Budget anticipates revenues totaling \$126.2 million for the public utilities gross earnings tax, the financial institutions tax and the bank deposits tax, a decrease of \$3.1 million from the enacted FY 2022 revenue.

Sales and Use Taxes

Sales and use taxes revenues are expected to yield \$1.509 billion in the FY 2023 Enacted Budget, reflecting anticipated growth of \$33.6 million or 2.3 percent from enacted FY 2022 revenue. The FY 2023 Enacted Budget includes a revenue loss of \$0.3 million due to the exemption of breast pumps, certain funeral items, and the trade-in value of motorcycles from the sales and use tax. The FY 2023 Enacted Budget includes a revenue gain of \$2.9 million in sales tax to be collected on the sale of adult-use cannabis, which is expected to begin on December 1, 2022, in accordance with law enacted by the 2022 General Assembly. This revenue gain expands in the out-years with full years of sales.

Excise Taxes (Other than Sales and Use Taxes)

The FY 2023 Enacted Budget includes excise taxes (other than sales and use taxes) of \$154.4 million, a decrease of \$15.4 million or 9.1 percent from the enacted FY 2022 revenue. The bulk of this revenue is from the cigarette excise tax, and the long-term decline in cigarette consumption drives this negative growth. The principals of the May 2022 Revenue Estimating Conference reached consensus on assuming additional decline in cigarette tax revenues due to an assumption that a pending federal regulations banning flavored tobacco products was likely to take effect around the middle of the State's FY 2023.

Other Taxes

Revenues for the estate and transfer tax, racing and athletics tax and realty transfer tax, totaling \$66.9 million, \$7.9 million or 13.4 percent greater than enacted FY 2022 revenue.

Departmental Receipts

The FY 2023 Enacted Budget includes \$434.0 million in departmental receipts revenues, \$5.3 million more than enacted FY 2022 revenue. The FY 2023 Enacted Budget includes a reenactment of the hospital licensing fee at 5.425 percent of net patient-services revenue, using hospital fiscal year 2021 as the basis of that patient revenue figure. The FY 2023 rate of 5.42 percent represents a decrease from the 5.656 percent rate used for FY 2022. However, the use of hospital fiscal year 2021 as the basis for the fee positively impacts revenue, given that 2020 includes the pandemic recession, and hospitals saw a strong rebound in revenue growth in 2021. The FY 2023 fee will generate revenues of \$179.1 million, representing an increase of \$7.2 million from FY 2022.

The FY 2023 Enacted Budget includes \$5.5 million in net departmental receipt decreases. A waiver of the fee for the State's license plate reissuance reduces revenue by \$2.9 million, and a reduction in the interest rate on non-trust fund overdue taxes from 15% to 12% reduces revenue by another \$2.5 million. The FY 2023 Enacted Budget also includes revenue decreases from court cost waivers (related to law change waiving court costs for convictions resulting in incarceration for more than 30 days), and waivers of fines for some marijuana possession convictions (related to expungement of some convictions mandated in the law change that legalized adult-use cannabis in Rhode Island), which collectively reduce revenue by \$0.7 million. These reductions are offset by increases to various fees related to environmental management and other areas totaling \$0.6 million.

Other Sources

The FY 2023 Enacted Budget includes the other sources component of general revenues total of \$425.4 million, an increase of \$2.8 million or 0.7 percent above enacted FY 2022 revenue. Other sources of general revenue are comprised of the lottery transfer, other miscellaneous revenues and the unclaimed property transfer.

Rhode Island Lottery revenues are anticipated in the amount of \$387.8 million, reflecting a slight reduction of 0.5 percent from enacted FY 2022 revenues. This is predominantly driven by assumed structural decline in video lottery terminal (VLT) activity over time, and in smaller part by an assumption that the hold percentage for onsite sports betting decreases over time.

American Rescue Plan Act

ARPA was signed into law by President Biden on March 11, 2021. ARPA was the sixth COVID-19 relief bill enacted by Congress and provides approximately \$1.9 trillion in assistance. ARPA includes significant fiscal relief funding for state and local governments, as well as additional funding for numerous federal grant programs.

Rhode Island received approximately \$1.13 billion in discretionary stimulus funds. ARPA provided resources to state, local, and Tribal governments to respond to the pandemic and to replace revenue lost due to the public health emergency. Specifically, the funds can be used to (1) respond to the public health emergency or its negative economic impacts; (2) assist workers performing essential work; (3) support government services to the extent of a reduction in revenue due to the public health emergency; and (4) make necessary investments in water, sewer or broadband infrastructure. The funds must be obligated by December 31, 2024 and spent by December 31, 2026.

When considering how to invest the allocation, Governor McKee's primary focus was making a meaningful impact on residents, businesses and communities to both fuel a short-term recovery and create a foundation upon which a more resilient and equitable Rhode Island will be built. As a one-time fund source, Governor McKee also prioritized projects that minimize ongoing financial obligations and, when possible, leverage existing administrative resources and generate savings.

The Governor's strategy involved appropriating \$119 million in FY 2022 on projects designed to address the state's most pressing needs that resulted from or were exacerbated by the pandemic. These include supports to small businesses and impacted industries, retention incentives for workers in sectors directly impacted by the pandemic, additional affordable housing units and better access to medical services for children and families.

In his State FY 2023 budget submission, Governor McKee recommended spending priorities for the remainder of the \$1.13 billion allocation, including projects that will result in lasting benefits, such as investments in housing and the blue and green economies. The General Assembly incorporated the vast majority of the proposed uses in the State FY 2023 budget that was signed into law on June 27, 2022.

FY 2023 Enacted Expenditures

The General Assembly enacted a budget with total expenditures of \$13,602.5 million, which is \$273.8 million less than enacted by the 2022 General Assembly for FY 2022 and \$160.1 million less than the Governor recommended for FY 2022. The FY 2023 Enacted Budget contains \$5,042.2 million from general revenues, which is \$450.6 million less than enacted for FY 2022 and \$43.3 million more than the Governor recommended for FY 2022.

Both the final FY 2022 Budget and FY 2023 Enacted Budget included significant appropriations of federal funds made available to the State under various COVID-19 related legislation, including the \$1.1 billion provided in SFRF through the ARPA in March 2021. The General Assembly did not enact any new revenue or budget initiatives recommended by the Governor, nor any major budget reductions to agency budgets that were not offset by a corresponding increase in federal or other source revenue.

Opioid Settlement Funds. In January 2022, the State announced its participation in an opioid litigation settlement with several entities that contributed to the opioid epidemic through the production, marketing, and distribution of opioids. The State's share of the settlement is estimated at \$114 million over 18 years. The majority of the funding is expected in the first 10 years of the settlement agreement and all funding is to be used for opioids abatement purposes (e.g., treatment, prevention, recovery). Twenty percent (20%) of the funding will go directly to cities and towns in the State for local opioid abatement purposes. Further litigation efforts against additional opioid drug manufacturers are ongoing.

The FY 2023 Enacted Budget includes \$20.0 million from opioid settlement restricted receipts for prevention and treatment services. Funds can be used for treatment, transportation, and housing support as well as addressing the needs of individuals involved with the criminal justice system. Prevention activities include increasing availability of naloxone and training in harm reduction strategies. Other strategies include educating law enforcement and first responders about practices and precautions when dealing with fentanyl and other drugs.

Human Service Program Rates and Benefit Analysis. The FY 2023 Enacted Budget includes \$1.5 million in general revenues for a new initiative that requires the Office of the Health Insurance Commissioner (OHIC) to conduct a comprehensive review of social and human service programs contracted or licensed by the state. This includes analysis of rates, utilization, and eligibility and accountability standards.

Post-Partum Coverage. The FY 2023 Enacted Budget includes \$5.2 million to extend full Medicaid coverage to two groups of women who are 12 months post-partum and who currently receive limited benefits.

Reimbursement Rates. The FY 2023 Enacted Budget includes \$99.6 million to increase reimbursement rates paid to various agencies, providers and for direct support professionals. Of this total, \$20.2 million is to increase reimbursement rates paid to agencies providing homebased therapeutic services, applied behavioral analyses, personal assistance services and supports, and respite services; \$8.1 million to increase the rates paid for adult dental services; \$34.2 million to increase the reimbursement rate for direct support professionals in the community-based system for adults with developmental disabilities; \$5.5 million to raise rates paid to pediatric providers to be equal to the rates paid by Medicare for primary care services; \$4.0 million to raise rates paid to Early Intervention providers; \$7.5 million to raise the reimbursement rates paid to certified nursing assistants and homemakers; \$12.5 million to raise the minimum reimbursement rates paid to home health agencies for aids through the Personal Choice Program; and \$7.6 million to increase rates for center based child care providers.

Local Agriculture and Seafood Program. The FY 2023 Enacted Budget allocates an additional \$700,000 for the local agriculture and seafood program to allow small businesses in the food sector to receive grants. The funding reflects a commitment of \$200,000 of annual ongoing support and an additional \$500,000 in one-time funding for FY 2023.

World Ocean Race. The FY 2023 Enacted Budget includes \$850,000 for the World Ocean Race in conjunction with Sail Newport, which will take place at Fort Adams State Park in Newport in July 2023.

Air Service Development Fund. The FY 2023 Enacted Budget includes \$2.3 million in general revenue financing to recapitalize the Air Service Development Fund used to reimburse marketing expenses for airlines connecting to T.F. Green International Airport.

Cash Flow

The State's cash position has remained positive for the past ten years and has allowed the State to avoid having to issue tax anticipation notes since FY 2012. As described further below under "State Direct Debt/Tax Anticipation Notes/Liquidity Facilities," the State did establish two lines of credit for \$150.0 million each at the start of the COVID-19 public health emergency. The minimum draw of \$5.0 million from each line was in place for most of 2020, but both lines were repaid and terminated in March 2021.

Current projections for the State’s cash position remain positive and the State does not currently anticipate having to issue tax anticipation notes during FY 2023.

State Indebtedness

Authorization and Debt Limits

Under the State Constitution, the General Assembly has no power to incur state debts in excess of \$50,000 without the consent of the people, except in the case of war, insurrection or invasion, or to pledge the faith of the State to the payment of obligations of others without such consent. By judicial interpretation, this limitation has been judged to include all debt of the State for which its full faith and credit are pledged, including general obligation bonds and notes and bonds and obligations guaranteed by the State. However, non-binding agreements of the State to appropriate monies in support of obligations of a public corporation, such as the Capital Reserve Funds (defined below) of Commerce RI and RI Housing, or to appropriate monies to pay rental obligations under state long-term leases, such as the State’s lease agreements with RICCA, are not subject to this limitation.

Public Finance Management Board and Debt Affordability Study

Public Finance Management Board

The Public Finance Management Board (the “PFMB”) was created during the 1986 Session of the General Assembly to provide advice and assistance to issuers of tax-exempt debt in the State. The PFMB is charged with the responsibility of collecting, maintaining and providing information and advice on state, municipal and regional authorities, agency boards, commissions, public or quasi-public corporations, and fire districts and other special districts having authority to issue revenue or general obligation bonds or notes or various types of conduit debt or enter financing leases. The Chair of PFMB is the General Treasurer of the State, and personnel within the Treasurer’s Office provide staffing. As part of the FY 2017 Appropriations Act, the General Treasurer requested, and the General Assembly approved certain changes to the statutes governing PFMB to require additional reporting on debt from public issuers in the State and to authorize funding to support the creation of a new Office of Debt Management within the General Treasurer’s Office.

Since January 1, 2017, the PFMB has been required to annually report the total amount of public state, regional, municipal, public and quasi-public corporation, and fire district and other special district debt authorized, sold and unsold. The PFMB is also required to undertake a Debt Affordability Study (“DAS”), which must include recommended limits for debt capacity at least every two years for each public issuer.

To support these new PFMB functions, the PFMB has amended its rules and regulations and instituted a policy to expand the assessment of its statutory fee of 1/40th of 1% of the principal amount of each debt issuance to the lead underwriter or purchaser of any taxable or tax-exempt debt issue in the State in the amount of \$1 million or more. This fee will now also be assessed on refunding issuances. The PFMB has implemented a policy to exclude fees on leases. Taken together, these legislative changes empower the PFMB to improve public debt management and oversight in Rhode Island.

The PFMB is also authorized to allocate private activity tax exempt, taxable and/or federal tax credit bond issuance capacity under Section 146 of the Internal Revenue Code of 1986 among all issuers in the State of Rhode Island.

All issuers of debt are required to submit a notice of proposed sale and a notice of final sale to the PFMB. However, failure to do so does not affect the validity of the issuance of any obligation.

Debt Affordability Study-Debt Ratios

In fall 2021, the PFMB issued its third DAS (the “2021 DAS”). As with the debt affordability study completed in 2019 (the “2019 DAS”), the 2021 DAS continues to provide not only information on debt and pension liabilities, but also other post-employment liabilities of the State, municipalities and quasi-public agencies in the State. The 2019 DAS is believed to be the first of its kind in the nation to set recommended debt limits that incorporate debt, pension and other post-employment benefits (“OPEB”) liabilities, and the first to include the indebtedness of nearly all public debt issuers in a state, including special districts and quasi-public corporations. The study sets non-binding guidelines to protect Rhode Islanders from incurring debt that is out of proportion with the ability of the impacted population to repay. The PFMB is scheduled to update the debt affordability study in 2023.

The PFMB considered several factors in developing the study’s debt affordability targets: for each issuer, the PFMB considered relevant peer comparisons, ratings agency guidance, and legal requirements set forth in statutes and bond indentures. These affordability limits are purely advisory and represent what the PFMB views as prudent levels of indebtedness given the available information.

At the state level, the debt of Rhode Island and its quasi-public agencies is generally affordable and within acceptable levels. The debt and pension liabilities of the State are somewhat higher than national medians but have trended downward in recent decades and are currently manageable. The state-level OPEB liability is lower than that of most other states. Future decisions could alter the State's debt affordability considerably, for better or for worse, and the debt affordability must remain a key consideration for State policymakers going forward.

At the municipal level, degrees of indebtedness vary greatly. Even when pension, OPEB and overlapping liabilities from local districts are included, some municipalities enjoy very low liability burdens. The liabilities in some other municipalities are very high.

The PFMB has adopted and from time-to-time revised Credit Guidelines (the "Credit Guidelines") for use in evaluating certain elements of the State's debt burden. The current guidelines as contained in the DAS are as follows: State Tax-Supported Debt to personal income not to exceed 4.0%, and annual debt service to general revenue not to exceed 7.0%. The PFMB will consider revising the Credit Guidelines concurrently with each biennial DAS. In connection with the development of the FY 2023 budget for capital projects, the State estimated net State Tax-Supported Debt to be 2.68% of personal income in FY 2022, and annual debt service to be 4.67% of general revenues in FY 2022. It is anticipated that fluctuations of this ratio over the long-term will be affected by both variations in personal income levels, general revenues and debt issuance. PFMB monitors the total amount of State Tax-Supported Debt (defined below), Contingent Obligations (defined below) and Agency Revenue Debt (defined below) in relation to the State's personal income and general revenues. The Credit Guidelines may be exceeded temporarily under certain extraordinary conditions. The Credit Guidelines provide that if a guideline is exceeded due to economic or financial circumstances, PFMB should request that the Governor and the General Assembly recommend a plan to return debt levels to the Credit Guidelines within five years.

The PFMB also recognizes that it may be appropriate to temporarily exceed affordability targets for quasi-public corporations and municipal entities if increased capital spending is needed to manage emergency situations or revenues are temporarily impaired by economic downturns. However, issuers of public debt should endeavor to return to their target ratios in normal economic circumstances.

Debt Affordability Study - Combined Debt and Pension Ratios

Prior to the 2019 DAS, no state had added a metric accounting for unfunded pension and OPEB liabilities in their debt affordability analysis. However, since rating agencies have incorporated pension ratios in the updated rating methodology for states, other states will likely eventually incorporate a metric accounting for pension and OPEB liabilities.

An annual required contribution ("ARC") is the actuarially-determined amount (expressed as a dollar amount or percentage of payroll) that a public employer is required to contribute annually to a pension or OPEB plan. The funding of the ARC is a gauge of the effort states are making to fund such pension or OPEB plans. A state that has paid the ARC in full has met its obligation to cover the benefits accrued that year and to pay down a portion of any liabilities that were not pre-funded in previous years. Assuming projections of actuarial experience hold true, a payment less than the full ARC means the unfunded liability will grow and require greater contributions in future years. The unfunded actuarially accrued liability ("UAAL") is the appropriate pension and OPEB liability measure since it is the basis for determining a portion of the ARC. In the 2021 DAS, the PFMB recommends the following ratios for its combined debt, pension and OPEB obligations for the State:

- The PFMB recommends that Net Tax Supported Debt Service + Pension ARC + OPEB ARC to General Revenues not exceed 18%.
- The PFMB recommends that Debt + Pension Liability UAAL + OPEB UAAL to Personal Income not exceed 12%.

The PFMB also recommends the State continue to fund 100% of its ARC for pension and OPEB plans.

State Direct Debt

State direct debt includes tax anticipation notes ("TANs") and general obligation bonds. The full faith and credit of the State are pledged to the payment of principal and interest on this debt. If future state revenues are insufficient to make the required principal and interest payments to bondholders and noteholders, the State is legally required by its contract with bondholders and noteholders to raise taxes to meet these obligations.

Tax Anticipation Notes/Liquidity Facilities

The State is authorized to borrow in any fiscal year without consent of the people an amount in anticipation of State tax receipts not in excess of 20% of the tax receipts for the prior fiscal year and may borrow an additional amount in anticipation of all other non-tax receipts not in excess of 10% of such receipts in the prior fiscal year, provided the aggregate of all such borrowings must not exceed 30% of the actual tax receipts during the prior fiscal year. Any such borrowing must be repaid during the fiscal year in which such borrowing took place. No money can be borrowed in anticipation of such receipts in any fiscal year until all money so borrowed in all previous fiscal years shall have been repaid. The maximum amount of borrowing is further constrained by statute such that the aggregate borrowing cannot be more than the amount stipulated by the General Assembly by general law. The full faith and credit and taxing power of the State are pledged to the payment of TANs and interest thereon. The State last issued TANs in FY 2012 and does not anticipate having to issue tax anticipation notes during FY 2023.

As a result of the downturn in the economy due to the COVID-19 pandemic in the Spring of 2020, the State's cash resources were projected to decline substantially. The Governor requested authority to borrow up to \$300.0 million for short-term cash needs from the Disaster Emergency Funding Board, which is comprised of the Speaker of the House of Representatives, the Senate President and the Chairs of the House and Senate Finance Committees. This board has the statutory authority to authorize borrowing during a declared emergency. The board granted this authority on March 26, 2020. The General Treasurer set up two lines of credit with lending institutions, from which \$25.0 million was drawn down from the first line on March 31, 2020 and \$10.0 million from the second line on April 13, 2020. Upon receipt of the \$1.25 billion of Coronavirus Relief Fund money in late March 2020, the State repaid \$20.0 million of the first line and \$5.0 million of the second line. Both lines of credit required a minimum draw of \$5.0 million to remain active. On March 17, 2021, the State redeemed the \$5.0 million outstanding under each line of credit and terminated the agreements with the two lending institutions.

General Obligation Bonds and Bond Anticipation Notes ("BANs")

The State Constitution provides that the General Assembly has no power to incur state debts in excess of \$50,000 without the consent of the people, except in the case of war, insurrection or invasion, or to pledge the faith of the State to the payment of obligations of others without such consent. By judicial interpretation, the limitation stated above includes all debt of the State for which its full faith and credit are pledged, including general obligation bonds and notes, bonds and notes guaranteed by the State, and debts or loans insured by RII-RBA. Although non-binding agreements of the State to appropriate monies are not subject to this limitation, such agreements must be authorized by law. As of October 1, 2022, \$441.0 million in general obligation bonds have been authorized but remain unissued.

State General Obligation Debt Service Requirements

State Tax-Supported Debt

State tax-supported debt (the "State Tax-Supported Debt") is debt for which the ultimate source of payment is, or may include, appropriations from the State's General Fund. The State Tax-Supported Debt does not have the full faith and credit of the State pledged to it, but it may have the full faith and credit of another public issuer.

State Tax-Supported Debt is not considered "legal" debt under the State Constitution because the State's payments on the debt obligations, even if they are the subject of a contractual commitment, are subject to annual legislative appropriation. As a result, voter approval of such debt is not required.

State Tax-Supported Debt includes: (i) lease-purchase financing obligations (structured as certificates of participation ("COPs")), (ii) certain bonds issued by Commerce RI and RITBA, the primary payment sources for which are State appropriations, (iii) lease revenue bonds issued by RICCA, and (iv) certain bonds issued by RIHEBC for the City of Central Falls school project, the primary payment sources for which are State appropriations.

Financing Obligations Authorized under Rhode Island Public Corporation Debt Management Act

Historically, State Tax-Supported Debt has been authorized by special legislation. Pursuant to the Rhode Island Public Corporation Debt Management Act, Chapter 35-18 of the RIGL, subject to certain limited exceptions, no elected or appointed State official may enter into any financing lease or into any guarantee with any person, and no bonds may be issued or other obligation incurred by any public corporation (other than RISLA, RI Housing and RIIFC, RIIB, NBC, with certain exceptions, RIHEBC) to finance, in whole or in part, the construction, acquisition, or improvement of any essential public facility, without the prior approval of the General Assembly. The General Assembly approves such obligations

through the passage of a Joint Resolution by the Senate and the House of Representatives. An “essential public facility” includes roads, bridges, airports, prisons, reservoirs, waste and wastewater treatment facilities, educational facilities, and any other facilities used by any State agency, department, board, or commission to provide services to the public (but excluding personal property).

State Tax-Supported Debt issued by Public Corporations

The following public corporations have been authorized to issue State Tax-Supported Debt:

I-195 Commission. The I-195 Commission is authorized by State law to purchase I-195 surplus land from RIDOT and to plan, implement, administer and oversee the redevelopment of the I-195 surplus properties. Also included in this legislation was authorization for Commerce RI to issue bonds or other obligations not to exceed \$42,000,000 to finance the acquisition by the I-195 Commission of the surplus land from RIDOT. In 2013, Commerce RI issued bonds for that purpose in the aggregate principal amount of \$38,400,000, of which \$31,990,000 was outstanding as of June 30, 2022. These funds were paid to RIDOT and were used to complete the relocation project, including road reconstruction and other infrastructure improvements to the surplus land. The Commerce RI Bonds are payable from State-appropriated funds and pledged receipts derived from the sale, lease, transfer, or disposition of the surplus property acquired by the I-195 Commission. The revenue from this financing, in combination with residual funds from the motor fuel and/or GARVEE bond proceeds, is expected to be sufficient to fund completion of the I-195 relocation project by RIDOT. To the extent these resources are not sufficient to complete the project; other state and federal transportation funds would be made available which would impact the progress of other contemplated projects.

Commerce RI. Commerce RI is the official economic development organization for the State and its activities are largely supported by State appropriations. Commerce RI is authorized to assist in the financing of projects through the issuance of economic development revenue bonds, which do not constitute a debt or liability of the State, but some of which are subject to annual appropriations of funds, including the I-195 Commission’s payments on bonds issued by Commerce RI for the I-195 relocation project described above.

In November 2003, the State entered into a payment agreement with Commerce RI relating to the issuance of \$53,030,000 of Motor Fuel Tax Revenue Bonds, to provide funds for the State match for certain major transportation projects funded by GARVEE bonds. The Motor Fuel Tax Revenue Bonds are secured by two cents of the motor fuel tax dedicated to RIDOT, subject to annual appropriation. In March 2006, a second series of Motor Fuel Tax Revenue Bonds totaling \$42,815,000 was sold, and on April 2, 2009 a third series was sold totaling \$12,410,000. In November 2017, Commerce RI issued \$35,020,000 in Motor Fuel Tax Revenue Refunding Bonds for the advance refunding of the 2003, 2006 and 2009 Motor Fuel Tax Revenue Bonds, resulting in present value savings of \$5.7 million to RIDOT. As of June 30, 2022, \$19,465,000 of such revenue refunding bonds were outstanding.

GARVEE bonds issued through Commerce RI, which are secured by federal funds made available to RIDOT, are not considered part of the State’s net tax supported debt, but rather, are considered special obligation debt, payable solely from federal grants.

In June 2009, June 2015 and May 2019, Commerce RI issued revenue bonds in the amount of \$150,000,000, \$75,000,000 and \$76,925,000, respectively, to provide funds to reimburse the State for Historic Structures Tax Credits presented from time to time by taxpayers. These revenue bonds are supported by a payment agreement with the State subject to annual appropriation. As of June 30, 2022, there were \$71,655,000 of such revenue bonds outstanding.

In December 1999, Commerce RI entered into a limited recourse guaranty, not to exceed \$3,000,000, in connection with the refinancing by the Employees’ Retirement System of Rhode Island (“ERSRI”) of a four-story office building in Providence formerly known as the American Express Building. Commerce RI’s delivery of the limited recourse guaranty and its cap of \$3,000,000 was potentially to be utilized to supplement a gap between previously issued debt secured by mortgages on the property and certain appraisals of the property’s value at that time. After a series of payment defaults to the ERSRI, and various creditor actions, in December 2004 Gateway Eight Limited Partnership filed for bankruptcy protection. Thereafter, legal proceedings resulted in the sale of the American Express Building and various creditor rights actions resulted in a net balance deficiency to the ERSRI of an amount less than \$2,000,000. After the sale of the property and the calculation of the deficiency, the ERSRI invoked the terms of Commerce RI’s limited recourse guaranty, which, in addition to limiting payment to \$3,000,000, limits the obligations of Commerce RI to funds received by the General Assembly for this purpose and further limits Commerce RI’s obligations to request the Governor to submit an appropriation request to the General Assembly for any payment obligation of Commerce RI pursuant to the limited recourse guaranty. Commerce RI has annually submitted the appropriations requests to the Governor in accordance with the terms of the limited recourse guaranty annually as requested by the ERSRI. The Governor has not elected to request the General Assembly to fund the limited

recourse guaranty to ERSRI. Unlike certain other bonds or indebtedness of Commerce RI, pursuant to the enabling act of Commerce RI, there is no Capital Reserve Fund to be replenished with respect to the limited recourse guaranty to ERSRI. Hence, there is no legal requirement that the Governor submit the appropriations request to the General Assembly to fund Commerce RI's limited recourse guaranty to ERSRI. A total of \$1,749,148 would be required if this obligation were funded.

Commerce RI assists the State in supporting local economic development projects through a tax increment financing program. Pursuant to the *Pawtucket Downtown Redevelopment Act*, RIGL Chapter 33.4, Title 45, Commerce RI promulgates rules and regulations governing a program to finance qualifying economic development projects in the City of Pawtucket. On July 25, 2022, Commerce RI approved a mixed-use project including a soccer stadium in Pawtucket to be financed in part through the issuance of bonds by the Pawtucket Redevelopment Agency, a community redevelopment agency established under RIGL Section 45-31-9. The bonds are authorized to be issued in an aggregate amount sufficient to generate \$27 million in net bond proceeds and would be repaid by State and city incremental tax revenues collected within certain economic development districts. Such bonds do not constitute indebtedness of the State or Commerce RI. The State's obligation to make payments of incremental tax revenues under an economic activity taxes agreement shall be solely from legally available funds.

Rhode Island Convention Center Authority. Obligations issued by RICCA do not constitute a debt or liability or obligation of the State but are secured solely from the pledged revenues or assets of RICCA. Pursuant to Lease and Agreements between RICCA, as lessor and the State, as lessee, RICCA leases to the State the convention center facilities, Garrahy (Clifford Street) Parking Garage and the Amica Mutual Pavilion (formerly known as the Dunkin' Donuts Center) located in Providence. The State is obligated to make lease payments in an amount sufficient to pay the operating expenditures of RICCA and the corresponding debt service on RICCA's obligations including, but not limited to, RICCA's bonds. The lease payments are subject to annual appropriation by the General Assembly. On March 22, 2018, RICCA issued \$45,000,000 in Garrahy Parking Garage Lease Revenue Bonds, 2018 Series A (Federally Taxable), to finance the construction of a public parking garage and commercial or retail space. The Garrahy (Clifford Street) Parking Garage is complete and open. On April 1, 2021, RICCA issued a direct purchase of \$32,170,000 in Refunding Revenue Bonds, 2021A to refund its Series 2015 A Bonds. The aggregate outstanding principal amount of RICCA's bonds is \$180,975,000 as of June 30, 2022.

Rhode Island Turnpike and Bridge Authority. RITBA issues revenue bonds secured by toll and other revenues for the purpose of financing the renovation, repair, and improvement of the Claiborne Pell Bridge, the Mount Hope Bridge, the Sakonnet River Bridge, the Jamestown Verrazzano Bridge and the portion of Route 138 connecting highway from Route 1A to the Claiborne Pell (Newport) Bridge and other facilities for which it is responsible.

RITBA also has issued revenue bonds secured by motor fuel tax revenues which are subject to annual appropriation by the State in the annual budget. The General Assembly voted to allocate \$0.035 per gallon of the State's motor fuel tax (thirty-four- and one-half cents (\$0.345) per gallon as of July 1, 2020) to RITBA beginning July 1, 2014 for maintenance expenses, operations, capital expenditures and debt service. These funds are subject to appropriation by the State in the annual budget. It is currently estimated that revenue from the motor fuel tax to be paid to RITBA will be approximately \$16.1 million in FY 2023, and \$15.6 million was received by RITBA for the period July 1, 2021, through June 30, 2022.

Revenues from toll receipts, the motor fuel tax and other revenues of RITBA are estimated to be sufficient to cover debt service on all the RITBA outstanding debt. As of June 30, 2022, RITBA had \$188,300,000 in revenue bonds outstanding, \$44,995,000 secured by toll revenues and \$143,305,000 secured by State appropriations of motor fuel taxes. The remaining amount of authorized but unissued bonds of RITBA under all authorizations of the General Assembly is \$20,975,000 based on par amounts issued.

Rhode Island Health and Educational Building Corporation. Pursuant to legislation enacted in 2021, RIHEBC is authorized to issue up to \$144,000,000 under its school financing revenue bond program to finance the construction, renovation, improvement, alteration, repair, furnishing, and equipping of schools and school facilities in the City of Central Falls. Debt service payments will be supported by revenues received by RIHEBC under a financing agreement which includes annual appropriations for debt service made by the State, state school construction aid payments, and state school operations aid payments, if any, pursuant to chapter 7 of title 16 of the Rhode Island General Laws and payments from the City of Central Falls under the financing agreement.

Contingent Obligations

The following is a description of the State's contingent obligations (the "Contingent Obligations").

State-Guaranteed Debt

Guaranteed debt includes bonds and notes issued by, or on behalf of public corporations charged with enterprise undertakings, for the payment of which debt the full faith and credit of the State are pledged in the event that the revenues of such entities may at any time be insufficient. As of June 30, 2022, only RII-RBA was authorized to pledge the State's full faith and credit in this manner and the State had no general obligation bonds outstanding to fund such a guaranty.

Rhode Island Industrial-Recreational Building Authority (RII-RBA). The State has agreed to appropriate or borrow and pay to RII-RBA amounts required to service eligible mortgage loans for industrial and/or recreational projects insured under the Industrial Recreational Building Mortgage Insurance Fund that are in default and for which funds in the Industrial-Recreational Building Mortgage Insurance Fund are insufficient. Voter approval enabled RII-RBA to pledge the State's full faith and credit up to \$80,000,000 for the following purposes: to insure eligible mortgages for new construction, acquisition, and rehabilitation or expansion of facilities used for manufacturing, processing, recreation, research, warehousing, retail, and wholesale or office operations. RII-RBA can also provide mortgage insurance for new or used machinery, equipment, furniture, fixtures or pollution control equipment required in these facilities. Mortgages insured by RII-RBA are limited to certain specified percentages of total project cost. RII-RBA is authorized to collect premiums for its insurance and to exercise rights of foreclosure and sale as to any project in default. In the 2010 Session, the General Assembly modified the authorization of the State's full faith and credit obligation to \$60,000,000.

Based on RII-RBA estimated outstanding balances for FY 2022, there is a balance of \$11,229,794 in outstanding mortgage agreements mainly in connection with revenue bonds issued by the RIIFC. In accordance with State law, all premiums received by RII-RBA and all amounts realized upon foreclosure or other proceeds of defaulted mortgages are payable into the Industrial-Recreational Building Mortgage Insurance Fund. All expenses of RII-RBA and all losses on insured mortgages are chargeable to this Fund. As of June 30, 2022, the Fund had a preliminary cash and cash equivalents balance of \$509,279 reflecting a \$613,395 decrease from the \$1,122,674 balance reported for FY 2021. As of June 30, 2022, it is estimated that RII-RBA has sufficient funds to meet its debt service obligations through at least FY 2023. The State has agreed to appropriate or borrow and pay to RII-RBA any amounts required to service insured loans that are in default should the Fund be insufficient. No such appropriation was included in the FY 2023 Enacted Budget.

State Moral Obligation Debt

State moral obligations are Contingent Obligations of the State supporting bonds issued by State public corporations secured, in part, by a reserve fund to which is attached a discretionary replenishment provision (herein referred to as "Capital Reserve Fund"). The replenishment provision carries a moral obligation of the State. The discretionary replenishment provision typically reads substantially as follows:

In order further to assure the continued operation and solvency of the corporation for the carrying out of its corporate purposes, the executive director shall annually, on or before December first, make and deliver to the governor a certificate stating the sum, if any, required to restore each capital reserve fund to the minimum capital reserve fund requirement for the fund. During each January Session of the General Assembly, the governor shall submit to the General Assembly printed copies of a budget including the total of the sums, if any, as part of the governor's budget required to restore each capital reserve fund to the minimum capital reserve fund requirement for the fund. All sums appropriated by the General Assembly for this purpose, and paid to the corporation, if any, shall be deposited by the corporation in the applicable capital reserve fund.

A Capital Reserve Fund is generally equal in size to the maximum amount of debt service required in any year. The State's discretionary replenishment provision means that if the Capital Reserve Fund falls below its required level, the General Assembly may, but is not legally required to, appropriate funds sufficient to restore the Capital Reserve Fund to its required level. The most likely reason that such a Capital Reserve Fund would fall short of the required level is if revenues were insufficient to meet a Capital Debt Service payment and the reserve fund had to be used to make the payment.

The authority to issue moral obligation bonds with such a Capital Reserve Fund mechanism is contained in the enabling legislation of Commerce RI, RI Housing and RISLA. Such authority is not granted to the other State corporations without specific legislative approval. As of the date of this Information Statement, only RI Housing and Commerce RI have issued bonds secured by a Capital Reserve Fund.

The following public corporations issue State moral obligation debt which are considered Contingent Obligations of the State:

RI Housing. RI Housing is authorized to assist in the construction and financing of low- and moderate-income housing and health care facilities in the State. In addition to its general powers, RI Housing is authorized to issue revenue bonds, to originate and make mortgage loans to low- and moderate-income persons and families, to purchase mortgage loans from and make loans to private mortgage lenders in the State in order to increase the amount of mortgage money generally available, to make mortgage loans to contractors and developers of low- and moderate-income single-family and multi-family housing developments and to acquire and operate, both solely and in conjunction with others, housing projects. The total outstanding indebtedness, including unamortized bond premium/discount, of RI Housing as of June 30, 2022, was \$1,761,840,609 consisting of \$1,619,380,456 of long-term bonds and notes and \$142,460,153 of short-term or convertible-option bonds and notes.

Commerce RI. Certain of the bonds of Commerce RI may be secured, in addition to a pledge of borrower revenues, by a Capital Reserve Fund established by Commerce RI for the applicable bond issue. As of June 30, 2022, Commerce RI's bonds secured by a Capital Reserve Fund were outstanding in the principal amount of \$1,069,811,963 (excluding bonds issued for the benefit of 38 Studios LLC ("38 Studios"), which are no longer outstanding, as further discussed below).

Commerce RI has also issued bonds secured by a Capital Reserve Fund and a performance-based agreement, whereby job rent credits are applied against a borrower's lease payments if certain targeted new job goals are met for the financed project. If the job goals are met, Commerce RI will make annual requests to the General Assembly for appropriation which will be used to pay the debt service on the bond issue. As of June 30, 2022, the outstanding principal balance of bonds issued by Commerce RI with performance-based agreements is \$3.94 million. Job rent credits are expected to result in a State appropriation obligation of \$1.0 million in FY 2023; however, available debt service reserve funds are expected to cover this requirement in full.

An additional \$5,000,000 in Capital Reserve Fund-backed State moral obligation loans were issued by Commerce RI under the Job Creation Guaranty Program ("JCGP") for two companies, Corporate Marketplace and eNow. The loan to eNow is no longer outstanding. In the 2013 Session, the General Assembly repealed the JCGP enabling statute. Subsequently, Bridge Bank sent notices of nonpayment to Commerce RI in accordance with Commerce RI's guaranty (the "Guaranty") of a term loan advanced by Bridge Bank to a borrower under the JCGP. In accordance with its obligation under the Guaranty, Commerce RI made payment of the amounts sought by Bridge Bank (the "Advances") and subsequently made demand upon the borrower to pay Commerce RI for such Advances. Bridge Bank has since merged with and into Western Alliance Bank. Amounts paid from JCGP reserves held by Commerce RI have totaled \$1,075,336, depleting the Capital Reserve Fund. The Corporate Marketplace loan remains outstanding as of June 30, 2022 in the principal amount of \$2,250,000.

Secured Indemnity

Rhode Island Public Rail Corporation. The FY 2010 enacted budget included a provision allowing the Public Rail Corporation to fully indemnify AMTRAK for the operation of the South County Commuter Rail on the AMTRAK-owned rail corridor. This indemnification is provided, through the funding support of RIDOT, by a letter of credit in favor of AMTRAK in the amount of \$7.5 million, which represents the Public Rail Corporation's self-insured retention amount. The letter of credit provides a source of payment for any indemnity which may become due and payable to AMTRAK within the self-insured retention amount under AMTRAK's railroad operating agreements with RIDOT and the Public Rail Corporation.

Agency Revenue Debt. Agency revenue debt ("Agency Revenue Debt") is secured by revenues generated from the use of bond proceeds or the assets of the public corporation issuing the bonds. Certain State public corporations are authorized by their enabling legislation to issue bonds, notes and other forms of indebtedness to finance projects in support of their corporate purposes. The debt which is secured solely by the revenues generated by the public corporations or their conduit borrowers (for example, municipalities, public and private educational and healthcare institutions and private companies) is not a general obligation of the State nor does the State provide security for the debt in any other manner, i.e., by appropriations, guarantees, or moral obligation pledges of a Capital Reserve Fund. Agency Revenue Debt is not treated as State Tax-Supported Debt or a Contingent Obligation of the State notwithstanding the fact that the State may have legal obligations to make payments to be applied to a public corporation's debt service obligations. Agency Revenue Debt includes debt issued by NBC, RIHEBC, RIIB, RISLA, and TSFC and certain debt issued by RITBA.

Agency Revenue Debt includes bonds issued on behalf of the State Colleges and URI which are secured by enterprise revenues (such as housing and dining revenues) or secured by Educational and General Revenues (such as tuition and fees) derived from the State Colleges and URI. State Colleges and URI Auxiliary Revenue Debt and State Colleges and URI Educational and General Revenue Debt are not general obligations of the State or the State Colleges or URI and do not require voter approval. Although Educational and General Revenue debt may legally be paid from State appropriations, such debt is considered self-supporting.

Employment Security Fund Activity

The Rhode Island Employment Security (“ES”) Fund is comprised primarily of monies collected from a tax imposed on Rhode Island employers. These funds are used to pay Unemployment Insurance benefits to eligible claimants. All funds are deposited in the State’s account in the federal Unemployment Trust Fund which is administered by the United States Treasury.

An employer’s contribution rate is determined by (a) the level of reserves in the Rhode Island Employment Security Fund and (b) the individual employer’s history of unemployment. The level of reserves determines the tax rate schedule in effect for all covered employers in the State for a specific calendar year, while a particular employer’s experience with unemployment determines the tax rate within that schedule at which that employer is assessed.

Between calendar years 2009-2015, the State borrowed a total of \$926.1 million from the Federal Unemployment Account (“FUA”) for cash flow purposes. The Rhode Island Department of Labor and Training completely repaid amounts borrowed from FUA, and ES Fund reserves steadily increased reaching a high of \$551.1 in November 2019. No additional withdrawals have been needed since May 2015. The State’s outstanding withdrawals peaked at \$291.8 million during April 2012.

In March 2020, the coronavirus pandemic had come to Rhode Island. The state experienced recession level job losses as many industries in the state were ordered to close in order to stop the spread of the virus. By December 2020, the balance in the Rhode Island Employment Security Fund had fallen to \$181.3 million.

Calendar year 2021 ended with ES Fund Balance of approximately \$214.1 million. The Department of Labor and Training estimates that ES Fund receipts totaled between \$270 and \$275 million in calendar year 2022 and benefit disbursements will total between \$150 and \$155 million. Based on these assumptions, the December 2022 trust fund balance will be approximately \$440 million. This includes the \$100 million Unemployment Insurance Trust Fund Contribution that was included in the FY 2023 Enacted Budget.

These estimates assume the unemployment rate will remain below 4 percent through the remainder of 2022, and the economy will remain stable.

State Funding of Retirement Systems

Employees’ Retirement System of Rhode Island (ERSRI)

The State, through the Employees’ Retirement System of Rhode Island (“ERSRI”), administers and contributes to three defined benefit pension plans: the Employees’ Retirement System (“ERS”), the Judicial Retirement Benefits Trust (“JRBT”) and the State Police Retirement Benefits Trust (“SPRBT,” and collectively with the ERS and the JRBT, the “Plans”). The ERS, the largest of the Plans, covers eligible State employees as well as teachers and certain other employees of local school districts. The JRBT and the SPRBT are significantly smaller retirement plans than the ERS. As more particularly described below under the heading “Employees’ Retirement System (ERS),” the State, through ERSRI, also administers and contributes to a mandatory defined contribution plan for certain members of the ERS. ERSRI is administered by the State of Rhode Island Retirement Board (the “Retirement Board”), which was authorized, created and established in the Office of the General Treasurer as an independent retirement board to hold and administer, in trust, the funds of ERSRI.

The State, through ERSRI, also administers but does not contribute to: (i) the Municipal Employees’ Retirement System (“MERS”), a combination defined benefit/defined contribution plan for municipal employees, and (ii) the Teacher’s Survivor Benefits Plan (“TSB”), which provides survivors’ benefits for teachers who do not participate in Social Security. ERSRI also administers the Rhode Island Judicial Retirement Fund Trust (“RIJRFT”), which provides retirement benefits for judges appointed on or prior to December 31, 1989 and their beneficiaries and the Rhode Island State Police Retirement Fund Trust (“RISPRFT”), which provides retirement benefits for members of the state police hired on or before July 1, 1987 or their beneficiaries. In addition, a separate defined contribution retirement plan is provided through the Teachers’ Insurance and Annuity Association for members of the faculty of the State Colleges and URI and certain administrative employees in education and higher education. The State contributes 9.5% of the participating employee’s salary per year to this plan.

Currently, in the aggregate, the Plans have significant unfunded liability due to a number of factors. As a result, the State does not believe that the existing assets of the Plans, the expected earnings on those assets, and contributions from members of the Plans will be sufficient to fund expected retirement benefits, and the State will need to make significant contributions to the Plans in the future to ensure that the Plans will have a sufficient amount of assets to fund expected retirement benefits. The magnitude of the unfunded pension liability, together with significant costs related to OPEB, pose a significant financial challenge to the State.

Contributions

Contribution requirements for the Plans are established by statute. Pursuant to Section 36-10-2 and Section 16-16-22 of the RIGL, the State is required to make contributions to the Plans by annually appropriating an amount equal to a percentage of the total compensation paid to the active membership. An actuarial consultant employed by ERSRI for the Plans and the Rhode Island OPEB Board (the "OPEB Board") for the OPEB Plans (as defined below) (the "Actuary") performs an actuarial valuation of the Plans and the OPEB Plans (the "Actuarial Valuation") for the purpose of computing this percentage. The percentage is based on payroll projections and is certified by the Retirement Board (with respect to the Plans) on or before December 15th of each year. When applied to actual payroll amounts, this percentage determines the actual amount of the ARC for the Plans. State statutes provide that the State contributes 100% of the ARC to the ERS for State employees, the JRBT and the SPRBT, and 40% of the ARC to the ERS for teachers. Pursuant to the Retirement Board's current policy, the ARC becomes effective two years after the valuation date. Employee members contribute a fixed percentage of their annual salary and, except for the RIJRT, the State (and, in respect to ERS, the LEAs) contributes the additional amounts, based on the ARC, which are necessary, when combined with the projected investment earnings on Plan assets, to pay benefits. Contribution requirements are subject to amendment by the General Assembly.

The State must remit to the General Treasurer the employer's share of the contribution on a payroll frequency basis. In respect to the ERS Plan for teachers, the State must remit to the General Treasurer the employer's share of the contributions on the date contributions are withheld but no later than three (3) business days following the pay period ending in which contributions were withheld.

Benefits

The Plans fund retirement benefits from their assets, investment earnings on their assets, employer and non-employer contributions by the State and contributions from employee members. The level of retirement benefits varies among the different Plans and is calculated based on a member's years of service, compensation and age of retirement. Each Plan's retirement benefits are determined by statute and are not subject to negotiation between the State and other public employers and the employee members of the Plans.

State Pension Plans and Membership

Employees' Retirement System (ERS)

The ERS, the largest of the Plans, is a multiple-employer, cost-sharing, public employee retirement plan covering eligible State employees as well as teachers and certain other employees of local school districts. Membership in ERS is mandatory for all covered State employees and teachers, with five years of employment required before retirement benefits become vested. The State makes 100% of the ARC to ERS for State employees. The State makes 40% of the ARC to ERS for teachers. The applicable city, town or local education agency ("LEA"), makes the remaining 60% of the ARC; provided, however, that the LEAs are responsible for 100% of the ARC in respect to the TSB. The State's and the LEA's contributions are invested together, and one investment rate of return is calculated. Pursuant to RIGL Section 36-10-1 and Section 16-16-22, separate contribution rates are determined for State employees and for teachers.

Effective July 1, 2012, ERSRI also administers a mandatory defined contribution plan for ERS members with less than 20 years of service as of June 30, 2012. The plan was established under Section 3610.3-2 of the RIGL. Effective July 1, 2015, active members with 20 or more years of service as of June 30, 2012 remained participants of, but no longer contribute to, the defined contribution plan. Eligible teachers participating in social security and State employees contribute 5.00%, and eligible teachers not participating in social security contribute 7.00%, of their salary per year to the defined contribution plan. For eligible teachers participating in social security and State employees, the State contributes 1.00%-1.50% of the member's salary, and for eligible teachers not participating in social security, the State contributes 3.00% to 3.50% of the member's salary per year, based on years of service. The Actuary does not provide an Actuarial Valuation relative to the State's contribution to the defined contribution plan.

Judicial Retirement Benefits Trust (JRBT)

The JRBT, a single-employer plan, provides retirement allowances to judges appointed after December 31, 1989. The Retirement Board's management of the JRBT is limited to the collection of employee and employer contributions; benefit eligibility is managed by an administrative section of the judiciary.

Rhode Island Judicial Retirement Fund Trust (RIJRFT)

The pensions for 57 active and retired judges appointed on or prior to December 31, 1989 and their beneficiaries are funded by the State on a pay-as-you-go basis, with a cost to the State of \$4.3 million in FY 2021. Effective July 1, 2012, the RIJRFT was established to receive contributions from the active judges in the pay-as-you-go system. There are five active judges participating in the RIJRFT. The State has not made employer contributions to the RIJRFT to date and the pensions are currently funded on a pay-as-you-go basis. However, the State has always fully funded the pay-as-you-go system through annual appropriations and the FY 2023 Enacted Budget continues to provide for this appropriation.

State Police Retirement Benefits Trust (SPRBT)

The SPRBT, a single-employer plan, provides retirement allowances, disability and death benefit coverage to State police officers hired after July 1, 1987. The Retirement Board's oversight of the SPRBT includes collection of employee and employer contributions and computation of benefits.

State of Rhode Island State Police Retirement Fund Trust (SPRFT)

The State funds pension benefits for 243 retired non-contributing State police officers and their beneficiaries hired on or prior to July 1, 1987, with cost to the State of \$16.4 million in FY 2021. Effective July 1, 2016, a trust fund was established to support the pensions of these State police officers, which were previously funded on a pay-as-you-go basis. Funding for SPRFT comprises: (i) an initial supplemental contribution from the State in FY 2016 of \$15 million from a settlement through the U.S. Department of Justice's Equitable Sharing Program, and (ii) an actuarially appropriate contribution amount based on seventeen (17) annual payments of approximately \$16.4 million by the State, which commenced in FY 2017. Annual payments will be made with the State's general revenues until the trust fund is fully funded, approximately 18 years from the trust's establishment.

Other Background Information

The State also administers but does not contribute to MERS. As with the Plans, ERSRI acts as the investment and administrative agent for MERS. The assets for MERS are held in trust and commingled with the assets of the Plans for investment purposes. As part of RIRSA (hereinafter defined), changes were made to MERS similar to the changes made to the Plans. Like ERS, effective July 1, 2012, MERS converted from a defined benefit plan to the current combination defined benefit/defined contribution plan; provided, however, that public safety employees covered by MERS remain in a defined benefit plan.

The State also administers OPEB plans covering State employees, legislators, judges, State police officers and certain public-school teachers.

Plan Membership

From June 30, 2012 to June 30, 2021, the total number of active members for all the State-administered plans decreased by 189 or -0.8% (to a total of 24,473, as noted above), and the total number of retired members increased by 1,046 or 4.8% (to a total of 22,890, as noted above).

For State employees, there are currently nearly as many retirees and beneficiaries as there are active members participating in ERS. The decrease in active membership has been the result of reductions in the size of the overall workforce and demographic trends. Although there are currently more active members than retirees and beneficiaries in ERS with respect to teachers, based on current trends, it is likely that retirees and beneficiaries will outnumber active members in the near future if the active population continues to decline. These developments significantly increase the burden upon contributions needed from current employees, who are receiving lower salary increases than projected and unpaid furlough days, and from the State and the LEAs, where the total pension-related contributions for State employees and teachers was approximately 27% of salary in fiscal year 2022.

Investment Policy

As of June 30, 2021, the market value of the assets in the Plans was \$10,505,412,301. ERSRI acts as a common investment and administrative agent for the Plans. Assets for the Plans are held in trust and are commingled with other programs and plans for investment purposes. The funds contributed by the State, LEAs and employees are invested in a diversified mix of equity, fixed income and real asset investments.

The State Investment Commission (the “Commission”) oversees all investments made by the State, including those made for the ERSRI. RIGL Section 35-10-11 requires that all investments be made in securities as would be acquired by prudent persons of discretion and intelligence who are seeking a reasonable income and the preservation of capital.

The Commission establishes the long-term asset allocation policy for the Plans, selects investments and monitors investment performance of the Plans’ assets. An asset/liability study is conducted periodically as requested by the Commission to identify an optimally diversified investment allocation that seeks to maximize return within an acceptable level of risk.

Policy targets and actual allocations will vary due to market movements and efforts to minimize trading costs, diversify assets, and implement investment decisions prudently. The implementation of the new asset allocation is currently underway, and the new targets are expected to be met gradually over the next 3-5 years.

Actuaries and the Actuarial Valuation

Each fiscal year, the Actuary prepares the Actuarial Valuation for each Plan. The primary purpose of an Actuarial Valuation is to provide an amount that the State should contribute to the Plans, which is

referred to as the ARC. The ARC consists of two components. First, for each fiscal year, the Actuary calculates an amount that will be necessary to pay the actuarial estimate of retirement benefits earned in that fiscal year (which is referred to as a “Normal Cost”). Second, in each Actuarial Valuation, the Actuary calculates the funding status of each of the Plans (as known as a “Funded Ratio”), develops a schedule for restoring the funding status of the Plans to 100%, and then includes that fiscal year’s portion of that schedule into the ARC.

To calculate the funding progress of a Plan, the Actuary calculates a Funded Ratio of each Plan. To calculate the Funded Ratio, the Actuary develops a schedule of expected retirement benefit payments of each Plan and then discounts those expected benefit payments to a present valuation, which is referred to as an “Actuarial Accrued Liability” or “AAL.” The rate at which the Actuary discounts those expected payments is equal to the expected rate of return on the assets of the Plan. In addition, the Actuary calculates the “Actuarial Value of Assets,” which is the market value of the assets subject to some adjustments. The most significant such adjustment is referred to as “smoothing,” which is a method employed by the Actuary to phase-in unexpected gains and losses over a five-year period. The Actuary computes the UAAL by subtracting the Actuarially Accrued Liability from the Actuarial Value of Assets. For the Plans in the Fiscal Year ended June 30, 2021, the aggregate Actuarially Accrued Liability was \$12,189,890,931, the aggregate Actuarial Value of Assets was \$7,155,207,669, and the Unfunded Actuarially Accrued Liability was \$5,034,683,262. The Funded Ratio is the Actuarial Value of Assets divided by the Actuarially Accrued Liability, which, as of June 30, 2021, was an aggregate of 58.7% for the Plans.

Actuarial Assumptions and Methods

Actuarial Accrued Liability. To prepare the Actuarial Valuation, the Actuary uses several assumptions and methodologies. In order to develop a schedule of expected retirement benefits in calculating the Actuarial Accrued Liability, the Actuary makes a variety of demographic and other data (such as employee age, salary and service credits) and actuarial assumptions (such as salary increases, interest rates, turnover, mortality and disability). Every three or four years, and most recently in 2019, the Actuary performs an experience review to validate the actuarial assumptions used by the Plans as compared to the actual experience of the Plans. When the Actuary prepares an experience review, it can reveal that assumptions that the Actuary has previously used are not consistent with the current demographic or economic experience of the Plans. If this occurs, then the Retirement Board may approve changes in those assumptions, which can lead to large increases in the Actuarial Accrued Liability (and thus the Unfunded Actuarial Accrued Liability) because it can lead to a new schedule of expected retirement benefits that reflects an increase in expected retirement benefits.

In connection with the actuarial valuations as of June 30, 2020, the Retirement Board approved several changes in the assumptions that are used in calculating the UAAL and Funded Ratio of the Plans. The changes to the actuarial assumptions, based on an experience study as of June 30, 2019, are summarized as follows:

- i. Separate Correctional Officers from State Employees for all assumptions.
- ii. Update the underlying mortality tables from the RP-2014 set of tables to the public sector-based PUB (10) tables. As adjustments are made based on the actual experience of ERSRI, this had no material impact to the liabilities or contributions.
- iii. Slightly increase probabilities of turnover.

- iv. Slightly decrease probabilities of retirement.
- v. Slight modifications to the probabilities of disability, including adding material incidence of disability for members in the age ranges that historically have been eligible to retire but under prospective provisions are not.
- vi. Lower wage assumptions for Judges from 3.00% to 2.75%. One of the most significant adopted changes based on the experience study as of June 30, 2016, is a reduction of the investment rate of return from 7.50% to 7.00%. In connection with the reduction of the investment rate, the Retirement Board elected to phase in the actuarial effect of that reduction into the State's contributions over a five-year period. In addition, as required by statute the Retirement Board used a 20-year amortization period to amortize the amount of the increase in the UAAL attributable to this reduction.

The actuarial valuations as of June 30, 2020 were prepared on the basis of these modified assumptions. However, the impact on contribution rates would be uniformly reflected in the contribution rates over the five-year period beginning with the Fiscal Year 2020 contribution rates. The change in the normal cost will be fully reflected in the Fiscal Year 2020 contribution rates. The impact from the increase in UAAL will be spread over the five years in such a way to create approximately the same increase in contribution rate each of the five years. Each layer will be amortized on a schedule of 20 years for the first layer and each successive layer one less year.

In addition, in calculating the Actuarial Accrued Liability, the Actuary uses methodologies such as a method that determines the value of retirement benefits employees earn of their periods of employment. In addition, the Actuarial Accrued Liability is calculated on a "closed system" basis that does not include any retirement benefits that have not been earned either by active members or future members. In calculating the Actuarial Accrued Liability, the Actuary uses the assumed investment rate of return of the Plan assets as the discount rate to calculate the present value of future retirement benefit payments. Accordingly, the higher that rate, the lower that present value of future retirement benefit payments will be. For the actuarial valuations as of June 30, 2018, the Retirement Board adopted 7.0% as the investment rate of return for the Plans other than RIJRFT. For RIJRFT, the municipal bond index rate based on the Fidelity Index's "20-Year Municipal GO AA Index" (2.45% at June 30, 2020) is used as the discount rate for purposes of GASB 67 (defined below) and GASB 68 (defined below) reporting.

Due to the volatility of the United States' and international financial markets, the actual rate of return earned by the Plans on their assets may be higher or lower than the assumed rate. For example, as noted in the ERSRI Actuarial Valuation Report as of June 30, 2020, the average annual investment rate of return based on the market value of assets over the last ten years (July 1, 2010-June 30, 2020) was 7.7%. Changes in the Plans' assets because of market performance will lead to an increase or decrease in the UAAL and the Funded Ratio. Because of the State's adoption of the five-year asset smoothing method, however, only a portion of these increases or decreases will be recognized in the current year, with the remaining gain or loss spread over the remaining four years.

Actuarial Value of Assets. In calculating the Actuarial Value of Assets, the State uses an asset smoothing method which is based on the market value of the assets with a five-year phase-in of actual investment return in excess of (or less than) expected investment income.

Historical Plan Funding Status

Pursuant to RIGL Section 36-10-2 and Section 16-16-22, the State sets its ARC based upon the Actuarial Valuation. The method for determining the ARC is set forth in Section 36-10-2 of the RIGL. Although the State has made its ARC payments to the Plans for each of the past nineteen years, the Plans remain severely underfunded (as evidenced by the Plans' UAAL). Several factors have contributed to the Plans' UAAL. Over the course of many years, key decisions were made by the General Assembly and Retirement Board that resulted in lower contributions to ERSRI. There were also certain improvements made to the Plans' benefits without providing sufficient funding to pay for such improvements. Certain demographic actuarial assumptions, such as retiree longevity, and other actuarial assumptions, including an assumed investment rate of return, have also played significant roles in contributing to the Plans' UAAL. The principal factors contributing to the growth of the UAAL are: (i) investment experience, (ii) interest owed on the UAAL, (iii) liability experience, (iv) changes to actuarial assumptions, and (v) legislative changes prior to 1991.

In June 2012, GASB implemented changes to the accounting and financial reporting standards for state and local government pension plans. The accounting versus funding measures have been separated. The accounting standards will require the net pension liability be calculated differently than the calculation to determine the unfunded actuarial accrued liability under the funding method. The accounting method will be subjected to more volatility since the assets are valued at

fair market value, where typically the market value of assets is smoothed over a period of years under the funding method. The calculation of the net pension liability is explained in more detail in the “GASB Pension Accounting and Financial Reporting Standards” section.

Pension Reform and Related Litigation

Legislative Pension Reform

In order to increase the stability and security of the Plans, the State’s General Assembly enacted legislation in 2005, 2009, 2010 and 2011 to modify the Plans’ pension benefit structure and reduce benefits, the most recent of which was the Rhode Island Retirement Security Act of 2011 (“RIRSA”). RIRSA and the State’s other legislative pension reforms have contributed to a reduction in the ARC and UAAL. These reductions, however, are already fully reflected in the June 30, 2013 valuation and therefore are not expected to materially reduce either the ARC or the UAAL going forward.

Legal Challenges to Pension Reform

The 2009, 2010 and 2011 legislative pension reforms resulted in numerous lawsuits against the State brought by current and retired employees, as well as their unions. Of these lawsuits, two remain pending as described below.

In September 2014, a case challenging RIRSA was commenced by the Rhode Island State Troopers Association and Rhode Island State Troopers Association ex rel. Kevin M. Grace and Ernest E. Adams in Superior Court against the State and ERSRI as co-defendants. In 2019, the co-defendants filed motions to dismiss, which were granted in part. The co-defendants have filed motions for summary judgment, which remain pending. In the meantime, plaintiffs have sought discovery and co-defendants have moved for a protective order on the basis that the Court should rule on the pending motions for summary judgment, which would obviate the need for discovery. A hearing on the discovery issue was scheduled for September 9th.

In 2020, a case was brought by numerous plaintiffs who had brought a prior pension lawsuit case, which resulted in the passage of RIRSA and settlement. The case was brought in the United States District Court for the District of Rhode Island. The State and ERSRI filed a motion to dismiss on the grounds that the 2020 lawsuit sought to relitigate issues that had already been decided in the prior lawsuit. The District Court agreed and granted the Motion to Dismiss. The Plaintiffs have appealed this decision and in August 2022, a three-judge panel of the First Circuit affirmed the judgment of the district court in all respects.

GASB Pension Accounting and Financial Reporting Standards

On June 25, 2012, GASB voted to approve two new standards that modify the accounting and financial reporting of the State’s pension obligations: GASB Statement No. 67, Financial Reporting for Pension Plans (“GASB 67”), which was effective for the State’s fiscal year 2014 financial statements, and GASB Statement No. 68, Accounting and Financial Reporting for Pensions (“GASB 68” and collectively with GASB 67, the “GASB Statements”), which was effective for the State’s fiscal year 2015 financial statements. GASB 67 established new standards for defined benefit pension plan accounting and reporting. GASB 68 required changes to governments’ reporting of and inclusion of pension assets and liabilities in their annual financial statements. The GASB Statements are intended to improve comparability between public pension plans by standardizing the way certain financial data relating to these plans are disclosed.

The State’s financial reporting on its pension system reflects the changes addressed in the GASB Statements, which include, among other changes, (i) the separation of accounting and financial reporting requirements from funding approaches, (ii) a requirement to report “net pension liability” (defined as total pension liability minus a pension plan’s net assets) on the State’s balance sheet, (iii) the immediate recognition of differences between expected and actual changes in economic and demographic factors, and (iv) the deferred recognition over a five-year, closed period of differences between actual and projected earnings on plan investments.

As opposed to the calculation of the UAAL, which the Plans calculate using the actuarial assumptions and methods adopted by the Retirement Board, the Actuary calculates the net pension liability of the Plans in accordance with GASB requirements, which set forth required assumptions and methods. In the case of the Plans, most of the assumptions that GASB requires the Plans to use are the same or similar to the assumptions and methods that the Retirement Board has adopted for use in the calculation of the UAAL; but there are some differences. The most significant distinction is that GASB requires the calculation of the net pension liability at June 30 on the basis of the market value of investments at that date. For funding purposes, the Actuarial Valuation uses the actuarial value of assets, which reflects a five-year smoothed asset valuation.

GASB 67

The net pension liability of the Plans under GASB 67 as of June 30, 2021, is calculated based on the actuarial valuations of the Plans as of June 30, 2020 and rolled forward to June 30, 2021 using generally accepted actuarial principles.

GASB 68

GASB 68 requires each participating employer to recognize and record as a liability on its financial statements their proportionate share of the collective net pension liability determined under GASB 67. For the Fiscal Year ending June 30, 2021, each participating employer recognized its share of the total net pension liability of approximately \$5,533,297 (expressed in thousands). The State's share of the collective net pension liability as of June 30, 2021, has been determined to be \$3,636,128 (expressed in thousands). This amount was recorded as a liability in the 2021 Annual Report.

The GASB 68 disclosures as of June 30, 2020, are based on the Plans net pension liability as of June 30, 2019. Accordingly, the GASB 68 disclosures (other than RIJRFT) are based on the actuarial valuations of the Plans as of June 30, 2019 and adjusted to reflect what the Actuary assumed would occur with respect to the experience of the Plans as of June 30, 2020.

Under GASB 68 requirements, the State has also developed a valuation for its pay-as-you-go pension plans for certain State police officers and judges. The net pension liability at the June 30, 2021 measurement date was \$144.9 million for State police officers and \$22.1 million for judges, as disclosed in the 2021 Annual Report.

Other Post-Employment Benefits

In addition to providing pension benefits, the State, through the Rhode Island State Employees' and Electing Teachers OPEB System (the "OPEB System"), is required by law to provide OPEB for retired State employees. RIGL Chapter 36-12.1 (the "OPEB Statute") governs the provisions of the OPEB System. The OPEB System is administered by the OPEB Board, an independent board established under the OPEB Statute for the purpose of holding in trust and administering the funds of the OPEB System. The OPEB System administers benefits plans for: (i) State employees (including certain employees of the Narragansett Bay Commission, Rhode Island Airport Corporation and Commerce RI); (ii) certified public school teachers electing to participate in the OPEB System; (iii) judges; (iv) State police officers; (v) retired and former members of the General Assembly; and (vi) certain employees of the State Colleges and URI (primarily faculty) (collectively, the "OPEB Plans"). The contribution requirements of retirees, the State and other participating employers are set by statute. Active employees (other than employees of the State Colleges and URI) do not make contributions to the OPEB Plans. The retirees' contribution to the cost of the OPEB Plans varies based on their years of service.

The State Investment Commission oversees all investments made by the State, including those made for the OPEB System. The OPEB Statute requires that all investments shall be made in securities as would be acquired by prudent persons of discretion and intelligence who are seeking a reasonable income and the preservation of capital. The assets of each of the OPEB Plans are pooled for investment purposes only. Consistent with a target asset allocation model adopted by the State Investment Commission, the OPEB System maintains a diversified portfolio by sector, credit rating and issuer using the prudent person standard.

Pursuant to the OPEB Statute, a trust was established in fiscal year 2011 to accumulate assets and pay benefits and other costs associated with the OPEB Plans. The State's annual OPEB cost is calculated based on the ARC with respect to the OPEB Plans, as determined by the Actuary in accordance with GASB Statement No. 45, "*Other Post-Employment Benefits*" ("GASB 45"). The State is required by the OPEB Statute to fully fund the ARC through annual appropriations. Prior to fiscal year 2011, the State funded the OPEB Plans on a pay-as-you-go basis, with annual contributions designed to fund only current year claims, premiums and administrative costs. All employer contributions to the trust for fiscal year 2011 and thereafter have been made and will be made on an actuarially determined basis in accordance with the OPEB Statute.

Pursuant to GASB 45 and State law, the State has obtained an Actuarial Valuation of the OPEB Plans for the fiscal year ending June 30, 2021. GASB 45 requires that OPEB obligations be recalculated at least in two-year intervals, but the OPEB board voted in 2018 to obtain valuations for the fiscal year ending June 30, 2019, and annually thereafter. The purpose of the Actuarial Valuation is to measure the State's funding progress, to determine the ARC, and to determine the actuarial information in accordance with GASB 45. According to the June 30, 2021, Actuarial Valuation, there were 13,029 active members covered by the OPEB trust and 8,816 retirees receiving healthcare benefits under the OPEB System.

The ARC for the OPEB Plans is based on OPEB Plan provisions in effect as of the valuation date, the actuarial assumptions adopted by the OPEB Board, and the methodology set forth in the OPEB Statute. The OPEB Board's current policy is that an Actuarial Valuation becomes effective two years after the valuation date. Therefore, the ARC in FY 2022 is based on the Actuarial Valuation as of June 30, 2019, and the ARC for FY 2023 will be based on the Actuarial Valuation as of June 30, 2020. The ARC for each year is subject to adjustment from the Actuarial Valuations based on actual payroll amounts.

In computing the ARC, the Actuary determined the AAL of the OPEB Plans to be \$764.2 million and the UAAL to be \$305.2 million as of June 30, 2021. This reflects a change from \$729.8 million for the AAL and \$344.2 million for the UAAL as of the June 30, 2021 valuation. The decrease in the UAAL is primarily the result of greater than expected investment returns, favorable claims experience, and assumption changes. The existing assumed rate of return of 5.0% for the OPEB trust fund remains unchanged.

The Actuary calculated the ARC based on an amortization of the UAAL over 30 years for judges and General Assembly members, 0 years for teachers and 15 years for State employees, State police officers and certain employees of the State Colleges and URI. The OPEB Plans for the judges, teachers, and General Assembly members are currently over 100% funded. The State and other participating employers contributed approximately \$52.0 million to the OPEB Plans in FY 2022. In the FY 2023 Enacted Budget, the State and other participating employers are expected to contribute approximately \$46.2 million to the OPEB Plans.

Actuarial Valuations of the OPEB Plans involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trends. Amounts determined regarding the funded status of the OPEB Plans and the ARC are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. These future revisions in actuarial assumptions could have a material effect on the UAAL or ARC in the future. In the event of material changes in the UAAL with respect to retiree healthcare, there is no assurance that the State will be able to fund its ARC in the future. If the State is not able to fund such contributions, the State may be required to raise additional revenue, to reduce State services, to modify benefits, to implement a combination of the foregoing or take other necessary measures.

In June of 2015, GASB approved new Statement No. 74, Financial Reporting for Postemployment Benefits Plans Other Than Pension Plans ("GASB 74"), and Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions ("GASB 75"), which established new accounting and financial reporting requirements for governments whose employees are provided with OPEB. The OPEB System implemented GASB 74 in FY 2017 and the State implemented GASB 75 for FY 2018. GASB 75 required the State to restate the net position of the OPEB Plans as of July 1, 2018 to recognize its share of the net OPEB liability. The net OPEB liability, an accounting concept, is the difference between the total OPEB liability and the fiduciary net position of the plans. This is analogous to the UAAL, an actuarial concept, which is the AAL less the actuarial value of plan assets.

On April 14, 2022, the Actuary issued its report for the OPEB Plans under GASB 75 based on a measurement date of June 30, 2021. The report showed a net OPEB liability of \$219,529,230, as compared to a UAAL of \$305,157,097 in the Actuarial Valuation Report as of June 30, 2021. In preparing the GASB 75 report, the Actuary used the same assumptions as were used in preparing the Actuarial Valuation. However, GASB 75 requires the use of the plan's fiduciary net position or fair market value of assets, whereas the actuarial funding valuing uses an asset valuation method that smooths investment gains and losses over a period of four years. GASB 75 reporting was included in the State's audited financial statements beginning with the 2018 Annual Report.

Employee Relations

It is the public policy of the State to encourage the practice and procedure of collective bargaining, and to protect employees in the exercise of full freedom of association, self-organization, and designation of representatives of their own choosing for the purposes of collective bargaining, or other mutual aid and protection, free from the interference, restraint, or coercion of their employers. See RIGL Section 28-7-2. State employees, with limited exceptions, have the right to organize, to designate representatives for the purpose of collective bargaining and to negotiate with the Governor or his/her designee on matters pertaining to wages, hours and other conditions of employment, except those benefits provided under the State Employees' Retirement System. See RIGL Section 36-11-1. State employees generally have all rights to bargain as do private employees under the State Labor Relations Act, except that State employees cannot lawfully strike. See RIGL Section 36-11-6.

The State's workforce consists of approximately 14,817 paid employees as of June 30, 2022. This corresponds to 14,271.5 FTE positions. This number is less than the 15,317.9 authorized FTE positions in the FY 2022 Enacted Budget by approximately 1,046.4 positions. Of this amount, the State employs 4,530 non-union employees (31% of the total workforce) and 10,287 union employees (69% of the total workforce). There are fifteen unions, the largest being American Federation of State, County and Municipal Employees ("AFSCME"), Council 94. Council 94 represents approximately 3,356 employees (32.6% of total union workforce). Other significant unions include the Rhode Island Brotherhood of Correctional Officers ("RIBCO") (1,119 employees -10.9% of the total union workforce); the Rhode Island Alliance of Social Service Employees, Local 580 (843 employees -8.2% of the total union workforce); and the Laborers International Union North America ("LIUNA") (782 employees -7.6% of the total union workforce).

The current collective bargaining agreements (each, a "CBA") between the State and the various employee unions were negotiated for a four-year period in two agreements, July 1, 2020, through June 30, 2021 and July 1, 2021 through June 30, 2024. The agreements provided for salary increases of 2.5% effective July 1, 2021, 2.5% effective July 1, 2022, 2.5% effective July 1, 2023, and 2.5% effective July 1, 2024. These salary increases were also extended to non-union employees. Additionally, the contracts provide for a retention bonus of \$3,000 paid out in two equal payments of \$1,500.00 in FY 2021 and FY 2022 for employees currently employed at the time of distribution. The retention bonus was not extended to the Executive Branch of State employees. Modifications to health insurance benefits including increased employee co-share in accordance with the increases each year (2.5%). These changes in the health-care plans apply to union and non-union employees. The State is still in negotiations with the RIBCO bargaining unit, and the existing CBA will remain in effect until a new agreement is negotiated.

A new contract was negotiated for the Rhode Island State Troopers Association (RITA) for the period of November 1, 2020, through October 31, 2023. The contract provided for salary increases of 2.5% effective November 1, 2020, 2.5% effective November 1, 2021, and 2.5% effective November 1, 2022. The contract also provides for a \$3,000 bonus for agreeing to implement a body worn camera and making single late patrols permanent.

While the state employee collective bargaining agreements have expired, they continue in full force and effect pursuant to evergreen provisions contained therein. Negotiations with the various unions continue to be scheduled. Negotiations for successor agreements with AFSCME Council 94 (Local 580), the Coalition of Unions (in which NAGE, UNAP, Council on Budget Personnel, Capitol Police, RIBCO, RIASSE and LIUNA are participating members) are continuing at this time.

Since 2000, in lieu of a portion of the pay LIUNA members received over the years, the State agreed to make payments to a LIUNA pension fund ("LPF"). The amount of the payments the State makes is a dollar amount per hour, up to a maximum of thirty-five (35) hours per week. The dollar amount per hour varies by local LIUNA bargaining units. The net cost to the State of the LPF contributions is \$0. In order to effectuate these employer contributions to the LPF, the State over the years annualized the dollar amount per hour and pay scales for participating LIUNA members were reduced by the annualized amount. In June 2021, the State and LIUNA entered into a new agreement to change the payroll methodology prospectively to correct the effects of the reduced pay scales on longevity and overtime calculations. A sum of \$4.3 million was included in the FY 2022 Enacted Budget to account for recalculation and compensation to affected LIUNA members for longevity and overtime payments back to January 1, 2012.

LITIGATION

The State is party to numerous legal proceedings, many of which normally occur in government operations. In addition, the State is involved in certain other legal proceedings that, if decided against the State, might require the State to make significant future expenditures or substantially impair future revenue sources.

Pension Litigation

For a discussion of litigation in respect to the State's pension reform, see the section titled: "Pension Reform and Related Litigation" under "State Funding of Retirement Systems" above.

Challenge to Tolls

The RhodeWorks tolling program to fund bridge maintenance and repair was challenged by the trucking industry in *American Trucking Associations, Inc. et al. v. Alviti et al.*, initially filed on July 10, 2018 in the federal district court in Rhode Island. Plaintiffs, a national trade association for the interstate trucking industry and several trucking companies, named as defendant the director of RIDOT, acting for the State in his official capacity. RITBA was later permitted by the court to intervene as a defendant due to its role as the agency responsible for collecting the challenged tolls on the State's behalf.

On September 21, 2022, following a bench trial, the district court issued a decision holding that RhodeWorks truck tolling violates the dormant Commerce Clause of the United States Constitution because it unfairly apportions the State's tolling burden to large commercial trucks and has a discriminatory purpose and effect with regard to interstate commerce. See *American Trucking Associations, Inc. et al. v. Alviti et al.*, 1:18-cv-00378-WES-PAS (D.R.I. Sep. 21, 2022). Accordingly, the court permanently enjoined the State from collecting RhodeWorks tolls, which RIDOT estimated would have annually generated approximately \$40-50 million in revenue dedicated to bridge maintenance and repair. RIDOT suspended toll collections at all twelve active locations on September 21, 2022, following the ruling. Plaintiffs did not seek damages or restitution for tolls previously paid, but are seeking attorney's fees, which are likely to exceed several million dollars, and which will be considered by the court at a date subsequent to its decision. It is possible that the decision in this case could encourage future litigation against the State, which potential litigation may include claims seeking the payment of damages or restitution for prior tolls charged. Pursuant to court rules an appeal must be filed within 30 days of the decision. On October 11, 2022, the Governor announced that the State intends to appeal the district court ruling.

Other Litigation

The Narragansett Indian Tribe filed a complaint challenging the constitutionality of a statute authorizing table games at Twin River Casino. The tribe also disputes whether the State "operates" either Twin River or Newport Grand within the meaning of the statute. The Supreme Court has since determined that the statute is constitutional and remanded the case to the Superior Court to determine whether the State "operates" the facilities. There has been no action on this case since the Supreme Court's decision in 2015. If the tribe were to prevail, there could be a significant impact to the State's gaming revenue.

The Narragansett Indian Tribe filed a complaint in the U.S. District Court for the District of Columbia against the State (including RIDOT and an individual State employee), seeking \$30 million in damages related to the I-95 Viaduct construction project in Providence, Rhode Island, which plaintiff claims adversely effects culturally significant land. A similar lawsuit was dismissed without prejudice and a new lawsuit was recently re-filed.

The Quidnessett Memorial Cemetery (the "Cemetery") filed a lawsuit against RIDOT alleging inverse condemnation, continuous trespass, and violations of substantive and procedural due process stemming from an easement that the Cemetery granted to RIDOT in 1984 for the construction of a "seepage pit" on Cemetery property for overflow of highway runoff. The Cemetery alleges at least \$2.5 million in damages for the value of the easement, which does not include damages related to loss of use. The Cemetery also demands the State resolve the flooding on Cemetery property, which may require major highway reconstruction with a cost in the millions of dollars. On August 31, 2021, the court issued a decision in favor of the State on plaintiff's claims of inverse condemnation and violation of due process. The decision ruled in favor of plaintiff on its claim of continuous trespass but limited that trespass solely to the intermittent presence of water outside the boundaries of the State's easement. Appeals of this decision by plaintiff and the State were dismissed because damages had not been determined. The Court will have the parties back to argue remedies and any damages will be argued by the parties at a future date to be determined. RIDOT has commenced construction of a stormwater management project in the vicinity of plaintiff's property that is expected to alleviate certain water retention issues. The proposed project cost is approximately \$8 million and it is scheduled for completion in November 2022.

The Chariho Regional School Committee ("Chariho") filed a verified complaint in Washington County Superior Court for declaratory judgment and injunctive relief against the State by and through RIDE, DOA, the Council on Elementary and Secondary Education (the "Council"), and the Commissioner of Education to declare the rights and obligations under the State's alleged breach of a Career and Technical Center Transfer Agreement ("CTC Agreement") that transferred a state-owned property to Chariho to be used as a career and technical center. In the operative complaint, Chariho alleges that that RIDE and the Council (not DOA) breached the CTC Agreement by authorizing career and technical programs at Westly High School and Narragansett High School. The Superior Court dismissed Chariho's claims in March 2017. Chariho appealed and the Rhode Island Supreme Court reversed the dismissal and remanded the case for further consideration in 2019. The case is currently in the discovery phase. While Chariho seeks to vacate the transfer of the title to the property and return the property to the State, there is a question as to whether title would vest back to DOA or the Council, should Chariho succeed on its claims. In the event title vests back to DOA, the State would incur significant expense to repair and maintain the property.

A former State employee sued State of Rhode Island Legislative Council and her supervisor alleging violations of the Fair Employment Practices Act by creating a hostile work environment and engaging in gender discrimination. Discovery is substantially complete. Damages are unknown at this time. If interest is awarded, interest would be 12% of the judgment per annum from August 2004.

The plaintiff, a former program worker with juveniles, brought suit against DCYF and certain DCYF employees alleging discrimination based on gender and retaliation under the Whistleblowers' Protection Act. Discovery is ongoing. Damages are estimated to be a minimum of \$821,000. If interest is awarded, the amount would be 12% of the judgment per annum from April 2007. The amount of the potential award may be offset by a workers' compensation setoff. After a motion for judgment on the pleadings was filed with respect to the claims against the individual State defendants, a stipulation was entered by the parties agreeing to the dismissal.

A personal injury case was filed alleging that a youth in temporary custody of DCYF visited a trampoline park where the youth sustained injuries, including permanent paralysis. The complaint includes three counts brought against the DCYF, a DCYF social worker, the group home where the youth was staying, two of the employees of the group home and John Does alleging negligence, negligent supervision and loss of parental companionship. The Office of the Attorney General represents the State, DCYF and the DCYF employee. Discovery has commenced. The extent of the alleged injuries and alleged permanent paralysis and lifetime care are unknown at this time but are anticipated to be extensive; damages could be in the multimillion-dollar range.

A wrongful death action arising from an automobile accident was filed against the State. A wrong way driver, operating under the influence of alcohol, struck a vehicle and killed a young married couple, leaving behind a young child. Plaintiffs have alleged that the State was negligent due to insufficient signage on the roadway where the accident occurred. The State believes that the public duty doctrine applies. Potential damages could be valued in the millions of dollars.

Children's Rights of New York ("Children's Rights") sued DCYF alleging constitutional and statutory violations in its foster care programs. Children's Rights sought substantial changes to these programs, prolonged supervision by a private, outside monitor and attorney's fees. A judgment was entered in favor of the State in the United States District Court for the District of Rhode Island on April 30, 2014. Children's Rights appealed to the United States Court of Appeals for the First Circuit, which reversed the judgment and remanded the case to the District Court for additional discovery and further litigation. A settlement agreement was approved by the District Court after a fairness hearing in May 2018 and negotiated attorneys' fees were paid. The State will need to provide resources to DCYF to carry out the terms of the settlement agreement and meet its benchmarks. If DCYF does not meet the benchmarks, the State may be liable for costs and attorneys' fees from future litigation for contempt and/or enforcement of the settlement. DCYF management believes they can comply with the requirements of the settlement with current staffing levels, but if it is determined that requirements of the settlement are not being met, DCYF will seek additional positions and associated funding.

On May 2, 2011, Cashman Equipment filed suit against Cardi Corporation and RIDOT in Superior Court in connection with construction work performed in the course of building the Sakonnet River Bridge. Cashman has set forth several allegations against Cardi including breach of contract, unjust enrichment, and negligence due to the fact that Cardi allegedly supplied a defective design for the cofferdams and defective materials. Cashman has contended that Cardi's actions required Cashman to perform additional work on the bridge for which it was entitled to compensation. Cardi has filed counterclaims against Cashman and third-party claims against RIDOT. In relation to the State, Cashman has specified approximately \$1.5 million as pass through claims. Cardi has filed a first amended third party complaint against the State for those amounts plus any damages related to Type F concrete. The potential liability could exceed \$4.0 million. The parties have participated in three court-ordered mediations for this case. The court bifurcated this matter for trial.

On January 29, 2020, Beaufoy Development, LLC filed suit against RIDOT on a petition for the assessment of damages. RIDOT acquired certain property and easements in Pawtucket by condemnation. On February 20, 2020, RIDOT filed its answer. The amount of potential damages is currently unknown.

On July 26, 2022, Beaufoy Development, LLC filed a second suit against RIDOT on a petition for the assessment of damages. RIDOT acquired certain property and easements in Pawtucket by condemnation. RIDOT's answer will be filed on or before August 16, 2022. The amount of potential damages is currently unknown.

On September 27, 2010, Apex Development filed a petition for assessment of damages, and in subsequent amendments dated August 7, 2013, and October 30, 2019 alleged trespass. Apex disputes RIDOT's valuation relating to the condemnation of a small area of Apex's property next to the highway, the temporary construction easements, and the permanent easements. The basis for Apex's trespass allegations are related to the general contractor's alleged construction activities outside the easements and on Apex's property. RIDOT filed third party claims for indemnity. Discovery in the matter is ongoing. The amount of potential damages is currently unknown.

On August 11, 2021, Kent County Water Authority (KCWA) has filed suit against D'Ambra, RIDOT, and Commonwealth Engineers for alleged property damages. This matter relates to the public works construction project known as RIC 2019-CB-077 Replacement of Sandy Bottom Bridge. RIDOT has answered, filed a counterclaim, crossclaims, and

third-party claims. D'Ambra and Commonwealth Engineers have answered crossclaimed and filed third party claims as well. The matter is currently in discovery. KCWA alleges that it has expended \$970,209.04 in design and construction costs for the alleged damages.

Plaintiff Atsalis Brothers Painting Co. is a subcontractor to Cardi Corp. on several public works projects and alleges non-payment against Cardi in the amount of \$529,826.78. On July 7, 2021, Cardi Corp. filed a third-party complaint against RIDOT. The State filed an answer on September 1, 2021, and the case is in the discovery phase.

Plaintiff Cardi Corp has filed a complaint against the Rhode Island Department of Administration, RIDOT, and the FHWA in Federal Court regarding the cancellation of the solicitation of the Washington Bridge Project. The court ruled in favor of the State and against the plaintiff on their respective motions for summary judgment filed and judgment to enter in State's favor.

In the case of *K.L., through her parent L.L. and on behalf of a Class v. R.I. Board of Education, et al.*, a student, through her parents and on behalf of a class of similarly situated individuals, filed suit in federal court arguing that LEAs in the State must provide free appropriate public education to students with a disability who have not earned a regular high school diploma until the age of 22. Such services have historically been provided until the age of 21. On appeal of a district court decision in favor of the State, the First Circuit Court of Appeals reversed the district court, held in favor of the plaintiffs and remanded the case to the district court to determine remedies. The parties are currently working to determine the size of plaintiffs' class size (which is believed to be less than 30 individuals) in preparation for a potential settlement conference. Based on similar settlements in other states, the State estimates potential liability of approximately \$6.4 million.

Plaintiff Daniel Harrop has filed a lawsuit seeking to enjoin legal sports wagering in the State. Plaintiff contends that the legalization of sports wagering required the approval of voters through a statewide referendum. The lawsuit was dismissed in Superior Court, but plaintiff appealed to the Rhode Island Supreme Court. State revenues collected from Twin River and Tiverton Casino would be affected if a court were to enjoin or otherwise restrict sports wagering.

Plaintiffs Mutual Properties 14 Thurber LLC and Paolino Properties jointly brought suit as unsuccessful bidders against the DOA, the State Board of Elections and their respective directors seeking declaratory and injunctive relief and attorneys' fees arising from allegations that the State violated State procurement laws when it cancelled a request for proposals and chose to negotiate a single source contract for leased space. The Superior Court denied plaintiffs' request for a temporary restraining order seeking to halt execution of the lease by the State and the prospective lessor. The State's motion to dismiss was denied, and limited discovery has been largely completed. Dispositive motions are tentatively scheduled to be filed towards the end of 2021. The amount of potential damages is unknown at this time. The judge granted the State's motion for summary judgment.

Plaintiff, estate of a decedent, has brought a wrongful death action against the State (including the Department of Public Safety and E-911) and the Town of Lincoln arising out of address confusion in the response of first responders to an emergency. This matter was only recently filed and is currently in discovery; damages have not been quantified and no demand has been served. The wrongful death minimum in Rhode Island is \$250,000. The State has legal arguments to this action including the application of the statutory cap of \$100,000 and the public duty doctrine.

A wrongful death action was filed against the State arising out of a vehicle striking a pedestrian on Allens Avenue in Providence. Plaintiff later died as a result of his injuries. Medical damages alone are approximately \$4.5 million.

A lawsuit was filed against the State in 2020 relating to a serious bodily injury arising out a police shooting by the Rhode Island State Police and Providence Police on a Route 95N merging ramp. Collectively, the police discharged their weapons at a vehicle that refused to follow verbal commands and was using the vehicle as a weapon against police and civilians. Plaintiff was a vehicle passenger and was struck by a bullet when police discharged their weapons. Plaintiff's initial demand for damages was \$2 million. The case is currently in discovery.

Disability Rights Rhode Island and the ACLU National Prison Project brought suit against the Rhode Island Department of Corrections ("RIDOC") on behalf of six current and former inmates at RIDOC, as well as seeking class certification. The complaint alleges that RIDOC violated the constitutional rights of inmates with severe and persistent mental illness, as well as the ADA and the Rehabilitation Act when inmates are placed in administrative or disciplinary confinement. Among the relief sought is a change in RIDOC policies and practices, increased staffing, possible facility alteration and/or creation and appointment of an expert to assess RIDOC's confinement and make recommendations that the State must comply with. Plaintiffs will also seek significant attorneys' fees. This case is progressing on a dual track: litigation and mediation. The State will contest any claim for class certification and defend the lawsuit on its merits.

Consent decrees were entered in the U.S. District Court for the District of Rhode Island on complaints brought by the United States of America (through the Department of Justice) regarding the rights of individuals with intellectual and physical disabilities. There are requirements in the consent decree relating to employment and day services, wages and reporting from an independent court monitor. Recently the Court has issued an order with specified benchmarks and outcomes that the State must meet relating to the employment of those who support individuals with I/DD. If those benchmarks are not achieved, the State could face fines for every day it is not in compliance. The State will need to dedicate additional resources to implement the terms of the consent decrees and additional court orders.

A lawsuit has been filed against the State by a former employee of the Department of Health who was terminated as of August 24, 2020, for giving confidential documents related to complaints about nursing homes filed with the Department of Health to a member of the media. Plaintiff is claiming First Amendment retaliation, tortious interference with a contract and Whistleblowers' Protection Act violations. Plaintiff also filed a suit in 2016 alleging workplace retaliation in violation of the Whistleblowers' Protection Act for raising concern internally about an alleged backlog of complaints against department-regulated facilities, such as nursing homes. Plaintiff has demanded over \$1 million in damages. These cases are currently in discovery and are being rigorously defended by the State.

In 2020, plaintiff filed a complaint in Superior Court against RIDOC alleging violations of the Fair Employment Practices Act and Rhode Island Civil Rights Act in relation to his 2011 and 2012 applications for employment as a correctional officer. He alleges that RIDOC's entrance examination is racially discriminatory, basing that claim on a separate U.S. Department of Justice lawsuit against RIDOC under Title VII. The matter is currently in discovery. Plaintiff is seeking lost wages, as well as other relief, plus interest, which in total could exceed \$500,000.

In 2012, plaintiff filed a complaint in Superior Court against the Rhode Island Veterans' Home and her supervisor alleging violations of the Fair Employment Practices Act and the Whistleblowers' Protection Act. Plaintiff alleges that she suffered retaliation after complaining about a discriminatory and hostile work environment. Defendants filed a motion for summary judgment, which was granted as to the individual supervisor but denied as to the Veterans' Home. Plaintiff is seeking compensatory and punitive damages, as well as other relief. If a judgment is entered against the Veterans' Home, interest would be 12% of the judgment per annum from September of 2012, and total exposure to the State could exceed \$500,000.

Plaintiff, a former associate director of the State Office of Veteran's Affairs filed a complaint against the State in the U.S. District Court for the District of Rhode Island alleging employment discrimination and retaliation. Plaintiff claims lost wages from 2017 to the present and counsel fees that could potentially exceed \$750,000. The case is in discovery and the State intends to file a dispositive motion.

In 2021, plaintiff, a retired employee of the Sherriff's Office, filed suit against the State, Sherriff DeCesare and an HR employee alleging age discrimination. Plaintiff is seeking compensatory and punitive damages in an unnamed amount. The complaint has not yet been served.

Plaintiff filed a wrongful death action against RIDOT for the death of her daughter that occurred in the early morning hours on June 13, 2017. Decedent was allegedly in her car with two other individuals that was being operated at a high rate on North Rt. 146 in the Town of Lincoln when it left the lane of travel, flipped over and ultimately hit the guard rail. None of the passengers were wearing seat belts and all three were thrown from the vehicle. The allegation is that the guard rail was defective. The case is presently in fact discovery.

Plaintiff was struck by a car when he was in the crosswalk on North Main Street, Providence, RI. Plaintiff has sued the City of Providence and the State alleging negligent design and maintenance of the crosswalk. This case is in discovery. Damages could exceed \$1 million.

A medical malpractice claim was filed by seven inmates of the RIDOC alleging an RIDOC nurse used a contaminated needle when testing the inmates' blood sugar levels and distributing insulin to them, possibly exposing them to various blood-borne diseases, most specifically HIV. Plaintiffs' initial demand is \$1.4 million. The case is currently in discovery.

The ACLU filed suit in 2015 challenging the constitutionality of a Rhode Island law that restricts level 3 sex offenders from living within 1,000 feet of a school, R.I. Gen. Laws §. 11-37.1-10. This class action suit is nearing the end of fact discovery, with a plan to file cross-dispositive motions on one of plaintiffs' claims by September 12, 2022. It is anticipated that attorney's fees will exceed \$500,000.

On June 4, 2021, EOHHS received communications from the Rhode Island Health Care Association (RIHCA) alleging that the State did not follow State and Federal law in the development of the FY 2021 nursing home per diem rate increase. EOHHS does not agree with RIHCA's claim of statutory or regulatory violations. To date no claim has been filed against the State in this matter. Potential damages if RIHCA were to file suit against the State are undetermined at this time.

The City of Pawtucket has filed a lawsuit against the State in Rhode Island Superior Court, alleging that the State withheld from the city over \$500,000 in PILOT funding relating to properties owned by Memorial Hospital. The State has filed a motion for summary judgment, which was granted and judgment was entered in favor of the State. The matter is pending before the Rhode Island Supreme Court.

The court dismissed the plaintiff's appeals, but granted its certioari petition. The parties are currently engaged in the 12A briefing process related to the certioari petition. Approximately \$500,000 in PILOT funding for FY 2021, additional PILOT funding for FY 2022, and attorneys' fees are being sought by the city, but any remedy would be complicated by various factors including the subsequent reduction of PILOT funds by the General Assembly and payment of Coronavirus Relief Funds by the State to cities in FY 2021.

On April 14, 2021, an estate and five members of decedent's family filed suit against a number of State contractors involved in a design-and-build construction project on Rt. 146 North, seeking relief for the wrongful death of decedent. On February 14, 2022, the plaintiffs amended their Complaint to name the State and two individual employees of RIDOT as defendants. The suit alleges that inadequate warnings and barriers were utilized at a construction zone on a new overpass, causing the decedent's car to crash and fatally injuring the decedent. The parties have answered and cross claimed. Additional parties may still be joined. The matter is presently in discovery. Total damages assessed against the parties could exceed \$1 million.

On September 1, 2021, plaintiffs, a husband and wife who had adopted four children from DCYF and guardian ad litem acting for a minor child, filed suit against DCYF, its acting director, two DCYF social case workers, and against two contractors to DCYF, alleging wrongful adoption. This matter is currently in discovery. Damages could exceed \$500,000.

In 2016, plaintiff filed a complaint in Superior Court against the City of Cranston claiming property damage of over \$4.5 million from flooding caused to its apartment complex by the back-up of the storm water system. The complaint alleges inadequate maintenance or design of the storm water system by the city. Cranston filed a third-party complaint against the State for indemnification claiming that the State owned the road where the apartment complex was located and had the duty to maintain and clean the catch basins. Plaintiff's motion for judgment on the pleadings was denied in June 2018. This case is currently in discovery. The State expects to argue that the statutory cap applies.

APPENDIX G

ADDITIONAL INFORMATION ABOUT THE UTAH ECONOMY AND UTAH DOUBLE-EXEMPT OBLIGATIONS

The following information is a summary of certain factors affecting the credit and financial condition of the State of Utah (“Utah” or the “State”). The sources of payment for Utah municipal obligations and the marketability thereof may be affected by financial or other difficulties experienced by the State and certain of its municipalities and public authorities. This summary does not purport to be a complete description and is derived solely from information contained in publicly available documents, including the 2023 Economic Report to the Governor prepared by the Utah Economic Counsel, reports prepared by state government and budget officials and statement of issuers of Utah municipal obligations, as available on the date of this Statement of Additional Information. Any characterizations of fact, assessments of conditions, estimates of future results and other projections are statements of opinion made by the State in, and as of the date of, such reports and are subject to risks and uncertainties that may cause actual results to differ materially. The Fund is not responsible for information contained in such reports and has not independently verified the accuracy, completeness or timeliness of information contained in such reports. Such information is included herein without the express authority of any Utah issuer and is provided without regard to any events that have occurred since the date of the most recent publicly available report.

Geographic Information

On January 4, 1896, the State became the 45th state of the United States of America (the “U.S.”). Ranking 13th largest among the states in total area, the State contains approximately 84,900 square miles. It ranges in elevation from a low of 2,200 feet above sea level in the south, to a high of 13,500 feet above sea level in the northern mountains. The State is in an arid region (precipitation ranks as the second lowest in the nation, behind Nevada). Home to deserts, plateaus, the Great Basin and the Rocky Mountains, the state is known for its scenic beauty and the diversity of its outdoor recreation areas. Land ownership in the State was distributed as about 64% federal, 10% State, and 26% other (American Indian reservation, municipal, state sovereign lands, and private).

Financial Information Regarding the State of Utah

Utah Economy and Outlook

Economic Overview—Utah and U.S.

Overview

Utah enters 2023 facing significant economic uncertainty as decision-makers continue to grapple with ever-changing pockets of economic strength and weakness. The post-pandemic economy has altered many traditional economic relationships. These economic transformations make accurate predictions challenging because it’s unclear if or when old patterns will return, or if new arrangements will chart a different economic course.

Current economic challenges amid an overheated economy include stubbornly high inflation, rapidly rising interest rates, low consumer sentiment, and unmistakable construction and real estate slowdowns. At the same time, many often-underappreciated economic buffers exist. Extremely low unemployment coupled with improving supply chains and very strong overall household, firm, and state and local government financial reserves combine to provide a hedge against economic challenges that could spiral into a recession. Economic performance in 2023 will depend on economic decisions made in this complex new environment.

Policy Responses to High Inflation

Beginning in Spring 2021 amid a continuing pandemic and supply-chain-challenge backdrop, overall consumer prices steadily increased at rates not seen in four decades. Stubbornly high inflation and the related policy responses remained the predominant economic story in 2022, even as most direct pandemic-related disruptions ended.

In 2022, year-over U.S. inflation as measured by the consumer price index (CPI) began the year at 7.5% and peaked in June at 9.0%. Mountain Region inflation peaked several months earlier, at an even-higher 10.4% year-over increase. However, much lower monthly CPI readings since July 2022 moderated year-over inflation to 7.1% in November (the latest data available) and provide hope for future relief from high inflation levels. In fact, annualizing the monthly CPI readings since July provides year-over inflation rates in the mid-2’s, consistent with norms in recent decades, if these recent trends were to continue through 2023. However, it’s unclear if this price moderation will continue at the current pace.

Interest Rate Increases Slow Housing and Construction Markets, While Housing Affordability Concerns Remain

In response to high (and non-transitory) inflation, in early 2022 the Federal Reserve began shifting away from highly expansionary monetary policy, rapidly increasing interest rates from historically-low levels. Interest rate increases impact the economy by reducing purchases of financed goods and services and affecting the psyche of consumers. With higher rates, households that finance major purchases such as homes or cars buy less. Similarly, businesses that finance equipment or buildings purchase less because higher interest costs make more capital purchases uneconomical. The cumulative effect is to moderate economic activity.

The Federal Reserve began increasing the very short-term (overnight loan) federal funds rate in March 2022, from slightly above zero early in 2022 to about 4.3% by year-end. Given the continuing overheated economy, future rate increases seem likely in 2023, although the pace of increases may moderate.

Beginning in January 2022, 30-year conventional mortgage interest rates increased from a little over 3% to nearly 6% by June, a remarkable near-doubling of rates over six months. While market participants anticipated rate increases given the abnormally low mortgage rates during the pandemic, the rapid pace of increase surprised many. Spiking above 7% in late October 2022, 30-year conventional mortgage rates have since dropped to about 6.4% as of year-end.

Interest rate increases led to slowdowns in overheated housing and construction markets. Although Utah year-over price changes remain positive, year-over home price growth rates rapidly decelerated in 2022. Home prices could decline somewhat in 2023 as high interest rates continue to drive many would-be buyers out of the market. However, Utah's overall housing under-supply issues have not evaporated and will likely offset price declines that may otherwise occur.

Major housing affordability challenges remain, particularly among the 30% of Utah households on the outside looking in on homeownership. Those missing out on homeownership's benefits generally include Utahns who are younger, have lower incomes, and are more racially and ethnically diverse than current homeowners. During the pandemic, Utah homeowner wealth collectively increased by about \$50 billion, improving the financial fortunes of homeowners. Moreover, with very low interest rates, many refinanced into lower monthly payments, freeing up monthly funds for other consumption increases. Conversely, most renters generally saw nothing but downside from the pandemic in the form of increased rents that grew faster than wages, heavily constraining other consumption. If not fully addressed, Utah's continuing home affordability challenges will exacerbate Utah employers' existing challenges to retain and attract labor. Housing affordability remains a leading risk to Utah's long-term economic performance.

Tighter Labor Markets Likely Permanent

Another major theme emerging from the post-pandemic economy is tight labor markets. In 2022, Utah's economy hit an all-time low unemployment rate at 1.9%, and hovered in the low 2s the entire year. While this sounds good on the surface, labor constraints limited Utah's economic growth as open jobs went unfilled and some firms struggled to meet high consumer demand.

Baby Boomer retirements created a sizable share of this strain, both in Utah and the U.S. overall. Given its large cohort size, the ripple effects of this long-term structural change throughout the economy may reverberate for decades. While various viable paths to dealing with this labor challenge exist, employers need to reconcile themselves to the new normal of constrained labor availability and plan accordingly. Higher real wages over time for scarce labor is a likely outcome. As one of the youngest states with an age structure that differs from that of the U.S. overall, Utah may experience different impacts than other states, but is subject to the same pressures.

Nominal wages increased sizably in 2022, particularly for job switchers. However, after adjusting for high inflation's impacts, real wages declined, contributing to low consumer sentiment.

Strong Overall Household Balance Sheets Support Continued Spending

Although softening somewhat toward the end of 2022, U.S. households overall emerged in a far stronger financial position than from the Great Recession of 2007-2009. This strength has supported strong consumer spending in the midst of economic disruption. During the pandemic, personal saving rates spiked to unprecedented levels. Households saved as much as a third of disposable income (juiced by fiscal stimulus) during the early pandemic - in part due to forced saving amidst constrained economic activity. This created a massive stock of liquid household savings that continued increasing through the third quarter of 2022 and that created a massive amount of unused spending capacity capable of supporting continued consumption for some time. Moreover, household monthly debt service levels dropped to multi-decade lows and even with recent upticks remain below pre-pandemic levels, further facilitating continued consumption.

However, this household financial strength is not universal. Many low-income households in particular are heavily pinched financially by inflation, leading to recent loan payment delinquency upticks – although still well below pre-pandemic levels.

Demographics

2022 Overview

Migration continued to drive Utah’s population growth in 2022. The Utah Population Committee (UPC) estimates net migration contributed more than 60% of the growth between July 1, 2021 and July 1, 2022, an increase from 59% between 2020 and 2021. The state continues to age and become more diverse. This is the second consecutive year with a 1.8% overall increase.

State Population Estimates

Utah’s population grew by 61,242 and reached 3,404,760 by July 1, 2022, according to estimates prepared by the UPC.

After a significant decrease in natural increase (births minus deaths) in 2021 due to increased deaths from COVID-19, levels remained similar in 2022 due to a slight increase in births and a less dramatic increase in deaths. However, like in 2021, net migration (in-migration minus out-migration) contributed the majority of population growth at 62% or over 38,000 new residents.

Increase in Births

The most recent available data indicates Utah’s total fertility rate of 1.92 births per woman is the fourth highest in the nation, behind South Dakota (1.98), Nebraska (1.94), and North Dakota (1.93). Even so, the fertility rate is in long-term decline. The decline in Utah’s total fertility rate since 2010 mirrors a decadal decline in fertility in every state and Washington, D.C.

However, for the first time since 2008, births increased slightly from 45,639 in 2021 to 46,207 in 2022.

Age Structure Changes

The national median age has been increasing since 2000, estimated to be 38.8 years in 2021. Utah remained the youngest state in the nation in 2021, with a median age of 31.8, despite an increase of 0.3 years between 2020 and 2021. Of the 29 counties, only Emery County experienced a decrease in median age between 2020 and 2021.

Utah’s total dependency ratio (the number of people under age 18 and 65 years and older divided by the number of people ages 18-64) was 66.8 in 2021. The school-age (5- to 17-year-old) population creates the largest impact on the total dependency ratio in Utah, at 35.5 in 2021 (ranked highest among states).

The retirement-age (65 years and older dependency ratio) was lowest in the nation at 19.4 in 2021. Those under age 5 make up the remainder at 11.9 in 2021 (ranked highest among states).

Households and Housing Units

Utah’s estimated average household size was 2.99 in 2021 — the highest in the nation. This continues the gradual decrease seen throughout the last decade, dropping from 3.10 in 2010. Nationally, the average is 2.54 persons per household.

Between 2020 and 2021, Utah had the fastest growth in housing units in the nation, with an increase of 2.7%. This growth equates to 31,699 additional housing units. Eight Utah counties, Washington, Tooele, Utah, Kane, Iron, Wasatch, Cache, and Box Elder, were included in the 100-fastest growing counties (with over 5,000 housing units).

Race and Hispanic Origin

The fastest growing populations between 2020 and 2021 were the populations identifying as Two or More Races (5.1% increase), Native Hawaiian or Other Pacific Islander (3.4%), Black or African American (3.1%) and Hispanic or Latino (3.1%) in the July 1, 2021 Census Bureau estimates. The increases in these populations accounted for nearly half of the statewide growth between 2020 and 2021 (22,975 residents). The non-Hispanic White population increased by 1.3% or 33,316 residents.

The Hispanic or Latino population was the second largest in the state at 493,636 residents (14.8%), following the non-Hispanic White population (77.2%). The third largest racial or ethnic population were those identifying as non-Hispanic Asian alone, at 84,651 residents (2.5%).

Racial and ethnic diversity was higher in San Juan County, Salt Lake County, and Weber County than the state. In San Juan County, this is predominantly the Native American population, while in Salt Lake and Weber counties, the dominant group is the Hispanic or Latino population.

County Population Estimates

Between 2021 and 2022, Iron County grew the fastest (4.3%) and Utah County added the most new residents (23,980). Estimates indicate only Daggett County experienced a population decline.

Of the nine counties with over 50,000 residents, three grew at a slower pace than the state (Davis, Weber, and Salt Lake County). All nine counties added 1,500 or more new residents, with Utah (23,980), Salt Lake (9,998), Davis (5,608), and Washington (4,276) adding the most.

All seven counties with populations between 20,000 and 50,000 residents grew between 2021 and 2022, with growth ranging from 175 new residents in Sevier County to 1,362 in Wasatch County. Three counties grew faster than the statewide growth rate (Wasatch, Sanpete, and Duchesne).

Of the thirteen smallest population counties, six grew faster than the state, with three increasing by over 3.0% (Kane, Rich, and Juab). Six counties added over 100 new residents, with Juab (384) and Morgan (355) adding the most. The population estimate for Daggett County declined by 6 residents, for a total population of 956 in 2022.

Subcounty Populations

Saratoga Springs, Eagle Mountain, and St. George added the most new residents between 2020 and 2021, according to the July 1, 2021 Census Bureau Population Estimates. These estimates also indicated West Haven, Saratoga Springs, and Eagle Mountain as the fastest growing communities with 15,000 or more residents. Hideout, with a 2021 estimate of 1,152 residents, grew fastest at 18.9%.

Salt Lake City, West Valley City, and West Jordan are the three largest cities in the state. However, the estimates indicated declines between 2020 and 2021 for all three communities.

2023 Outlook

The population is forecasted to continue to grow in 2023, but at a moderated rate from 2020 through 2022. A population of 3.46 million is projected for July 1, 2023. Considering recent vital statistics and the economic shifts in the latter half of 2022, forecasted components of change vary slightly from the 2022 Long-Term Planning Projections. Short-term forecasting indicates natural increase driving an increase of 22,000 residents, while migration remains a more dominant component of change that brings 35,000 new residents to the state.

Economic Diversity/Hachman Index

Overview

The Hachman Index measures economic diversity. Using indicators such as gross domestic product (GDP) or employment, the index measures the mix of industries present in a particular region relative to a (well-diversified) reference region. The Hachman Index normalizes scores from 0 to 100. A higher score indicates more similarity with the reference region, while a lower score indicates less similarity. The Hachman Index is often applied at the national level using GDP, allowing for comparison between individual states. Since the well-diversified U.S. economy serves as the reference region, states with higher scores not only have economies similar to the national economy but are also economically diverse states. With reliable data, the index may be applied to measure industrial distribution across counties as well. This chapter examines the results of a Hachman Index analysis at the state and county levels using 2021 data.

Utah in Top 5 for Economic Diversity

Utah increased from the sixth to the fifth most economically diverse state in the U.S. between 2020 and 2021. Missouri (97.0) and Georgia (96.6) remain the most economically diverse states in the nation. Arizona (96.4) and Illinois (95.9) swapped places in the rankings while Utah (95.6) rounds out the top 5, edging out North Carolina (95.5) and

Pennsylvania (95.4), which ranked 7th and 5th last year, respectively. All seven of these states have index scores above 95. As the Hachman Index is a relative measure, it is not definitive that any one of these states is significantly more diverse than another.

Utah ranks second in the West for economic diversity. California, Washington, Colorado, Arizona, and Oregon all have larger economies than Utah, but only Arizona has a higher Hachman Index score. States with similar-sized economies include Alabama, Kentucky, Oklahoma, and Iowa. Of these, only Alabama has an index score above 90, indicating a very diverse economy. Alabama scores 91.1, Kentucky 88.6, Iowa 70.7, and Oklahoma 58.4. Despite Utah's mid-sized economy (29th largest), its industrial composition is more diverse than that of the largest state economies.

Urban Counties More Diverse, Rural Counties More Specialized

Salt Lake, Weber, Davis, Utah, and Washington counties remain the most economically diverse counties within Utah as of 2021. Because adequate GDP data are not available at the county level, we analyze employment data. A Hachman Index analysis of Utah Department of Workforce Services and Bureau of Labor Statistics data using two-digit NAICS codes shows the economic disparity of Utah's counties. As with the state-level analysis, the index uses the entire U.S. economy as the (well-diversified) reference region to analyze economic diversity among counties in Utah. Urban counties tend to have more diverse economies with a larger variety of employment opportunities and a wider range of industry sectors available to the population. Washington County is the largest county outside of the Wasatch Front and the fifth most diverse county in Utah. By absolute change, the top 5 counties for population growth are also the most economically diverse. Other fast-growing counties (by rate of population growth) include Wasatch County, Morgan County, and Tooele County. As more people move to these counties and the employment opportunities increase in them, the industrial composition will continue to diversify.

Most of the counties bordering Salt Lake County have relatively diverse economies. Davis, Utah, and Tooele all have index scores above 75, ranking in the top 10 for most diverse Utah counties. A notable exception is Summit County, which has high employment in arts, entertainment and recreation and accommodations and food services, the result of a tourism-based economy centered on Park City. Another exception is Morgan County, which has the state's highest concentration of construction employment. In counties with small populations, just a few large employers can have an outsized effect on the counties' overall employment mix.

Duchesne, Emery, and Beaver remain the least economically diverse counties. In Emery and Duchesne, the low index scores are a result of a heavy concentration in mining (and utilities, in the case of Emery). These counties have a competitive advantage in the extractive industries due to their natural resources, which are geographically dependent and not found everywhere in Utah. Beaver's highest industrial concentration in 2021 is in agriculture. Like Morgan and Summit counties, all three have relatively small populations, so just a few large employers can have a significant effect on their industrial composition.

With a few exceptions, Utah's metropolitan counties have the most diverse economies in the state, followed by the adjacent ring counties. The rural counties with smaller populations and fewer industries have the least diverse economies. This highlights a clear urban-rural divide in the economic opportunities available to Utahns. Urban counties offer a more diverse array of economic opportunities across a larger set of industries, while rural counties have fewer industries and economic opportunities to choose from. While economic diversification is not a measure of economic prosperity, it is an indicator of greater economic choice and opportunity.

Calculating the Hachman index

The Hachman Index is the reciprocal sum, or mean location quotient, of the study area across all industries where the mean is generated by weighting the respective sectors' location quotients by the sector shares in the region.

Here, the state-level analysis utilizes GDP while the county-level analysis uses employment as the economic indicator. A Hachman Index score ranges from 0 to 100. A higher score indicates that the subject area's industrial distribution more closely resembles that of the reference geography and is therefore diverse. A lower score indicates a region is less diverse than the reference area and more concentrated in fewer industries. Diversity in economic opportunities, as represented by a diverse set of industries, is generally considered a positive contributor to a region's economic stability.

The Hachman Index is not without its shortcomings. For one, the subject area is contained within the reference region, i.e. Utah is included in the U.S., and so, to some degree, the subject area is being compared to itself. Another limitation of the Hachman Index is that it does not account for the competitive advantages of a region. A region may have an

advantage specializing in a specific industry, making a concentration in that industry economically justifiable over a more diversified economy.

Although diversification is usually considered a positive attribute for an economy, an increase in diversity may not be good for the labor market. As discussed in the 1995 *Economic Report to the Governor*, Utah had specialized in metal mining industries. In the mid-1980s Kennecott experienced major layoffs, which decreased its share of the overall Utah economy and therefore raised the measure of diversity in Utah. However, the effect on the labor market was negative, with lower employment levels. The transition to increased industrial diversity may not immediately result in improvements for residents of a region or imply economic growth.

The Hachman Index is also affected by the measures used. The value of the Hachman Index will be affected if broader measures are used. For example, an index calculated from employment by industry will behave differently over time from one calculated from GDP, due to changes in labor productivity that lead to increased production using fewer employees.

Employment, Wages, and Labor Force

2022 Overview

Utah experienced robust job growth (estimated at 3.7%) and extraordinarily low unemployment (estimated annual average of 2.1%) in 2022. This aligns with the state's general historic trend of above national average economic performance. While Utah's economy continues to be among the best performing in the nation, the state has experienced noteworthy shifts in its labor market.

Utah's labor force has two growth components: 1) internal expansion from youths aging into the workforce less older workers aging out, and 2) external expansion from in-migration. Historically, Utah ranks among the states with the highest fertility rates. Given so, internal expansion has generally been the primary driver of the state's labor force growth. However, in-migration appears to have overtaken internal growth as the major source of Utah labor force expansion in the last few years.

This represents a marked change from Utah's long-held labor-supply routine and is a lead feature for labeling 2022 as a continued pandemic-influenced year. Utah finished 2022 with above-average job growth alongside a historically low unemployment rate. Such a combination may seem incompatible since an exceptionally low unemployment rate implies no excess labor for additional job growth, let alone above-average job growth. However, high labor in-migration may explain the phenomenon.

It is generally expected that available labor flows from relatively weak to relatively strong economies as workers seek better employment opportunities. In addition, the pandemic accelerated a shift toward teleworking that allows workers to incorporate non-economic factors into their living decision. Utah appears to be a net recipient of both traditional labor migration and teleworking migration. This labor dynamic combination emerged in 2020 and remained through 2022.

Despite fueling Utah's high growth in the post-pandemic environment, the labor supply growth-component shift from internal to external expansion may be temporary. In the short term, labor migration responds to economic conditions whereas internal labor force expansion is largely established 20 years prior through the birth dynamic, and therefore experiences less variability than in-migration.

Labor markets remain tight in both Utah and the nation. The nation hasn't experienced such low unemployment since the 1960s, just before the Baby Boom generation aged in as new workers.

While labor shortages form a new element within the nation's economic landscape, national demographics have morphed to where labor tightness could become the economic norm, not the exception. International in-migration has become the only major avenue for additional labor force growth, unless higher wages draw a larger share of younger workers and adults not currently in the labor force into the labor force.

Tight labor markets demand wage increases. Utah's average payroll wage increase for 2022 should register at 6.9% if not higher. Significant wage gains often trigger inflation.

Yet wage pressures alone did not create 2022's high inflation. The Russia/Ukraine conflict, federal fiscal stimulus, and the lingering COVID-influenced world supply chain restrictions have added additional pressure on prices.

2023 Outlook

Utah's 2023 economy is expected to moderate from 2022's vigorous pace. While Utah's economy generally outperforms the national average, it tends to follow national business cycle trends. Addressing inflation will be 2023's dominant national economic story.

The nation's fight against inflation began in 2022 when the Federal Reserve increased interest rates. This immediately jolted the housing market. Housing dynamics play a lead role in labor-migration decisions that have benefitted Utah's labor supply. Therefore, further economic fallout is expected in 2023.

The Federal Reserve relies on conventional monetary policy tools (e.g., influencing interest rates) to carry out its dual mandate of price stability and full employment. It cannot open restricted supply chains or stop energy-impacting wars. Therefore, forecasters project the Federal Reserve will continue to move aggressively in 2023 to influence interest rates to reduce inflation.

Federal Reserve Chair Jerome Powell stated that an increase in unemployment—which is unsustainably low by historical standards—will likely be required to mitigate persistent inflation pressures originating in tight labor markets. With such an announcement, the Federal Reserve is effectively baking an economic deceleration into the 2023 economy.

As the economy responds to the Federal Reserve's actions to increase interest rates, it is anticipated that unfilled job advertisements will diminish first. But unfilled jobs are unoccupied space, not real jobs. How large that space is will influence how long it takes before real job reductions start. The Federal Reserve will likely keep pushing with additional interest rate increases until the economy eats through the unfilled job-advertisement space and begins to reduce actual jobs. Only then will the Federal Reserve's actions increase unemployment, reduce consumption, and lead to economic slowing. The pace and amount of reaction are the wildcards.

Recessions are often defined, in part, by a substantially high degree of job layoffs. Even if the Federal Reserve were to achieve its goal of economic moderation in 2023, which many forecast will result in a national recession, the labor-market response may not translate into the typical job-layoff mentality. The excess job cushion is large, and employers may be reticent to let valuable labor depart during a perceived short-term recession where it can then be difficult to lure that labor back.

Utah is not immune from such aggressive Federal Reserve actions. Therefore, a 2023 Utah economic deceleration is highly probable. However, an actual job-loss recession may have a strong chance of not materializing.

Utah would enter such a national recession from a platform of high-powered economic growth. Utah, unlike the nation, has a larger supply of young workers. Yet Utah also has a labor shortage. Utah's economy is absorbing every one of its abundant workers and is still asking for more workers. Utah is a much faster-moving economic machine to slow down than the nation's economy.

Utah's 2023 economic forecast plays from its economic momentum and these labor variables. Even anticipating the Federal Reserve's actions, Utah job growth is expected to continue in 2023 although at a reduced pace. Some unemployment increases might develop. These increases would likely be driven by insufficient absorption of new labor-force entrants rather than job losses.

Due to higher mortgage rates that influence housing decisions, strong labor in-migration may also diminish. Labor attached to the nation's rental market may remain mobile, but the homeowner market faces a more challenging migration decision.

In 2023, forecasts project Utah's job growth slowing to 2.0%, with unemployment rising upward to 2.6% or marginally higher.

Personal Income

2022 Overview

Utah's total nominal personal income in 2022 was an estimated \$195.7 billion, a 4.7% increase from \$187 billion in 2021. Utah's estimated 2022 per capita personal income was \$57,578, up 2.8% from \$56,019 in 2021. U.S. total personal income grew by an estimated 2.1% in 2022 and per capita personal income grew by 1.8%. Utah's 2022 estimated total personal income growth and per capita personal income growth were above the national average.

Utah's total personal income in 2022 is estimated to have grown 4.7%, slowing from 9.1% growth in 2021. The state's estimated 2022 per capita personal income growth of 2.8% was also lower than the 2021 growth of 7.3%. Utah's 2022 per capita personal income growth was higher than the national growth of 1.8%.

The historic level of federal financial support in the last few years, coupled with supply chain disruptions and unexpected changes in aggregate demand, resulted in much higher than expected inflation in 2022. This inflation, coupled with the national labor shortage, has caused higher wage pressure and personal income growth throughout the United States.

Total Personal Income

Total personal income (TPI) is the sum of all individual personal income in a given region. There are three components of TPI: 1) net earnings by place of work, adjusted for place of residence; 2) property income, or income from dividends, interest, and rent; and 3) income from transfer receipts, which are benefits received from the government, including Social Security, Medicare and Medicaid, and veteran's benefits. In 2021, Utah's TPI was \$187 billion, and of that, net earnings comprised the largest share (64.4%). This was followed by property income from dividends, interest, and rent (19.3%), and income from transfer receipts (16.3%).

While Utah's component share of net earnings and property income from dividends, interest, and rent was similar to the national average, its income from transfer receipts was the lowest of any state. The three states or territories with the lowest share of transfer receipt income were Utah (16.3%), the District of Columbia (16.5%), and Colorado (16.8%). The states with the highest share were West Virginia (33.9%), Mississippi (31.1%), and New Mexico (30.8%).

In 2021, Utah's TPI rose 9.1% from \$171.4 billion to \$187 billion. The fastest growing component was transfer receipt income, which grew 18.1% from \$25.8 billion to \$30.5 billion. Net earnings by place of residence rose 8.3% from \$111.1 billion to \$120.3 billion, and property income from dividends, interest, and rent rose 4.8% from \$34.5 billion to \$36.2 billion.

The majority of earnings by place of work, which includes government social insurance, came from wages and salaries (73.1%), followed by supplements to wages and salaries (15.7%), and proprietors' income (11.2%). Utah's earnings by place of work came primarily from nonfarm earnings (99.8%), versus farm earnings (0.2%). This is roughly equivalent to the nonfarm/farm split for the United States (99.6% and 0.4%, respectively).

Of Utah's nonfarm earnings, 83.1% came from the private sector and 16.9% came from the public sector. Within the Utah private sector, the professional, scientific, and technical services sector (10.4%) was the largest source of earnings; followed by manufacturing (10.2%) and health care and social assistance (8.6%). At the national level, health care and social assistance accounted for the largest percentage of private-sector earnings (11.2%); followed by professional, scientific, and technical services (11.1%), and manufacturing (8.8%).

In 2021, all but one of Utah's private-industry classifications experienced positive growth in earnings. The accommodation and food services sector had the highest year-over-year earnings growth of 28.5%; followed by arts, entertainment, and recreation (25.2%), and information (19.4%). The forestry, fishing, and related activities sector had the lowest year-over-year earnings growth (-9.9%); followed by mining, quarrying, and oil and gas extraction (1.1%), and utilities (1.6%).

Earnings in Utah's public sector, which includes federal civilians, military, and state and local employees, expanded by 5.4% in 2021.

Per Capita Personal Income

Per capita personal income is a region's total personal income divided by its total population. Personal income and per capita personal income data are reported quarterly by the U.S. Bureau of Economic Analysis. Utah's estimated 2022 per capita personal income was \$57,578, up 2.8% from the 2021 level of \$56,019. Utah's estimated 2022 per capita income was 88.2% of the national per capita income of \$65,303.

In 2021, Utah's total personal income growth rate was the fourth highest in the nation, while its per capita personal income growth rate tied for the 20th highest. Utah's young population has largely driven this dynamic of higher personal income growth but lower per capita income growth. While total personal income is expanding, per capita personal income is weighed down by many young individuals who are counted in the population but have not yet entered the workforce. As Utah's population continues to age, as is projected, the gap between personal income growth and per capita growth should continue to narrow.

Per Capita Personal Income by County

Utah experienced per capita personal income growth of 7.3% in 2021, which was lower than its 7.5% growth in 2020. All 29 counties experienced per capita personal income gains in 2021. Garfield County experienced the strongest year-over-year growth (16.7%), while Grand (10.6%), Juab (10.5%), Cache (9.3%), and Tooele (9.0%) rounded out the top five counties for growth.

In 2021, Summit County's per capita personal income was the highest in Utah at \$183,972, over three times the state average of \$56,019. Summit, along with Wasatch (\$71,360) and Grand (\$69,832), were the only counties with an average per capita personal income that exceeded the national average of \$64,143. Morgan (\$63,256) and Salt Lake (\$62,547) were the only other counties to outpace the statewide per capita income average.

2022/2023- Outlook

In 2023, both Utah and the United States are expected to see higher personal income growth. The tight labor market will continue to keep wage inflation high, which will drive overall growth in personal income. However, monetary policy will continue to tighten in 2023, which should constrain some of this growth. U.S. personal income is expected to increase from 2.1% in 2022 to 4.5% in 2023.

Utah personal income is similarly expected to accelerate in the next year, from 4.7% in 2022 to 6.0% in 2023. Utah continues to benefit from a strong economy, and labor constraints and inflationary pressure will further increase the state's personal income growth.

Personal income growth is likely to continue to grow in most Utah industries. Those that experienced wage pressures in 2022, such as those related to leisure and hospitality, are likely to see similar impacts in 2023 as the limited pool of available labor will drive wage inflation. Industries that are sensitive to interest rate increases, such as real estate and finance and insurance, are likely to experience weaker income growth in 2023.

Gross Domestic Product

2022 Overview

An economy's gross domestic product (GDP) represents the value added to intermediate inputs through the production of goods and services during a certain period. Conceptually, GDP is gross output less the cost of intermediate inputs, and as such it measures the economic activity within a specified area such as a country or state. Real GDP controls for inflation by using "chained" dollars (a weighted average of data in successive pairs of years), which is a more meaningful measure of GDP over time. The Bureau of Economic Analysis (BEA) releases quarterly GDP data with extensive subsequent revisions.

Nominal GDP

Utah's nominal GDP (measured in current dollars) was estimated to be \$225.3 billion in 2021, up from \$202.1 billion in 2020. This represents a growth rate of 11.5%, ranked 13th highest in the nation. The Utah GDP growth rate is an acceleration in growth over the previous year, partially the result of pent-up demand during the COVID-19 pandemic. Pent-up demand has been concentrated in durable goods, especially motor vehicles and electronics, both nationally and in Utah. Utah's nominal GDP grew 10.5% for the year ending 2022 Q3. National GDP grew about 10.7% in 2021, an acceleration from the -1.5% change in 2020. The large growth in 2021 is attributable to the economic recovery after the pandemic-induced recession of 2020. National nominal GDP grew an estimated 9.2% for the year ending 2022 Q3.

Real GDP

Utah's real GDP (measured in 2012 chained dollars) was \$186.9 billion in 2021, up from \$174.9 billion in 2020. This represents a growth rate of 6.8%. Utah's real GDP grew 2.7% for the year ending 2022 Q3. Nationally, real GDP grew 5.9% in 2021 after declining 2.8% in 2020. For the year ending 2022 Q3, national real GDP grew 1.9%.

Overall, GDP in 2021 in all states was on a path to recovery from the pandemic recession. GDP has experienced both supply- and demand-specific challenges, including pandemic-related supply chain disruptions, tight labor markets, and strong demand stemming from federal relief and recovery measures.

Industry Growth

Financial activities continues to be the largest sector of GDP in Utah at 19.6 % in 2021, followed by trade, transportation, and utilities at 16.2 % of total GDP.

In 2021, trade, manufacturing, information, financial activities, professional and business services, and leisure and hospitality added the most real value to the GDP of Utah. These industries added about 10.9 billion chained 2012 U.S. dollars to the GDP of Utah in 2021.

2022/2023 Outlook

Inflation and supply chain disruptions could drag down both Utah and U.S. GDP in the short term. The pandemic caused plant shutdowns, transportation backlogs, and inventory shortages – which, in turn, contributed to a surge in consumer prices. As these supply constraints continue, final sales to domestic producers could remain sticky and may pull down GDP growth in the outlook period.

The pace of real GDP growth is anticipated to slow to around 1.9% in Utah and to about 1.0% nationally in 2023 as supply disruptions may take some time to fully ease.

Utah Taxable Sales

2022 Overview

Utah taxable sales, which are comprised of sales and purchases subject to sales tax, were significantly impacted in 2022 by unique economic conditions including high inflation, low unemployment, supply chain challenges, geopolitical conflicts, and trends related to the continuing recovery from the COVID-19 pandemic. Amidst these conditions, total taxable sales increased by an estimated 11.4% to \$100.4 billion in 2022. Although significantly lower than the record growth of 20.6% in 2021, growth in 2022 was still well above average historical growth. Of the four major sectors, growth in taxable sales was led by business investment purchases which increased by an estimated 16.5%. Growth in taxable services also remained elevated, increasing by an estimated 15.1% in 2022. Retail sales and the “all other” sales sector also experienced strong growth, expanding by an estimated 8.7% and 5.9%, respectively. Despite economic headwinds that included inflation and the Russia-Ukraine war, a strong labor market and robust business demand led to above-average growth. It is important to recognize that, although nominal growth in 2022 was higher than normal, growth in real terms was much more muted due to high inflation.

Retail Sales

In 2022, retail sales, which accounted for 54% of all taxable sales, increased by an estimated 8.7% to approximately \$54.0 billion. This growth, combined with exceptionally high growth in the prior two years, puts retail sales in 2022 approximately 47% higher than in 2019. Many of the factors driving this period of high growth began to subside in 2022 as consumer spending patterns normalized as pandemic disruptions eased. Although consumer spending has remained relatively healthy due to a strong labor market, demand has cooled as the Federal Reserve has aggressively raised interest rates to fight inflation. Additionally, high gas prices have reduced the amount of discretionary income available to consumers to spend on other items, which has also been a drag on retail sales.

Business Investment Purchases

Business investment purchases, which play an important role in the Utah economy, remained strong in 2022, increasing by an estimated 16.5% to \$16.6 billion. All industries in this sector experienced strong growth in 2022, but growth was particularly high in the oil and gas, construction, manufacturing, and wholesale trade industries. High oil and gas prices were the primary drivers behind investment increases in Utah’s oil and gas industry. Businesses also benefited from a hot construction market in the state, although construction began to cool somewhat in 2022 as interest rates increased.

Taxable Services

In 2022, growth in taxable services remained elevated, increasing by an estimated 15.1% to \$26.1 billion. Many of the largest industries in this sector, including accommodations, recreation, entertainment, and food services, were among the hardest-hit industries in 2020 during the pandemic. Growth in these industries was extremely high in 2021 as the recovery from the pandemic took hold. Growth in 2022, although significantly lower than the highs of the prior year, has remained higher than historical norms due to pent up demand. As with retail sales, this sector has also benefited from strong consumer fundamentals largely due to a very robust labor market.

All Other

The category “all other” comprises less than 4% of total taxable sales and consists of transaction types such as private motor vehicle sales and prior-period refunds/payments that do not fit in the first three sectors. Following historically high 35.2% growth in 2021, “all other” sales increased by an estimated 5.9% in 2022. Private motor vehicles sales, which were extremely elevated from the second quarter of 2020 through 2021, returned to a more historically normal growth rate in 2022, which was the primary reason for slowing growth in this sector.

2023 Outlook

Following a three-year period with the highest growth that Utah has ever seen, growth in taxable sales is expected to significantly moderate in the coming year. Total taxable sales are forecasted to increase by 3.5% to \$103.9 billion in 2023. Business investment purchases are forecasted to decline 1.8% as businesses pull back investment due to cooling demand. Modest gains are forecasted in each of the other three sectors in 2023. Retail sales is forecasted to increase by 4.3%, while taxable services and “all other” sales are forecasted to increase by 5.7% and 0.2%, respectively. Slowing economic growth nationally, partially due to rising interest rates as well as a potential recession, are expected to weigh on consumer and business demand. Additionally, reductions in wealth due to declining asset prices from 2022 peaks are also expected to weigh on consumer spending. Despite these headwinds, the momentum in the Utah economy, particularly in the labor market, is forecasted to drive another year of overall nominal growth. Persistently high inflation, although expected to ease somewhat in the coming year, will continue to affect taxable sales and may result in a decline in real growth for taxable sales in 2023.

Although nominal growth is forecasted in 2023, unique economic and political conditions have increased the uncertainty of these forecasts. These conditions include, but are not limited to, shocks to the financial market or a particular sector, persistent inflation, consumer sentiment, global supply-chain disruptions, shipping or transportation problems, continuing labor shortages, the Russia-Ukraine war, COVID-19 variants, fiscal or monetary policy decisions, the national political climate, commodity prices, the international economic situation, and other geopolitical instability. Significant changes in these or other economic or political conditions have the potential to significantly alter taxable sales forecasts for 2023.

Summary

In 2022 Utah experienced another year of elevated growth in total taxable sales, although at a much lower rate than the prior year. Despite significant economic headwinds that materialized during 2022, a strong labor market and healthy consumer and business spending were sufficient to drive another year of above-average nominal growth in each of the major sectors. Momentum in the Utah economy is expected to drive another year of nominal growth in 2023, although at a slower pace as economic headwinds such as higher interest rates take a toll. Absent any changes in external conditions, nominal growth in 2023 is forecasted to moderate but remain positive, while real growth may decline if inflation remains high.

Tax Collections

2022 Overview

Tax collections continued to exhibit strong growth in fiscal year (FY) 2022, increasing 14.0% year-over-year. FY 2021 revenues were artificially high, however, due to the extension of the income tax filing deadline from April 15, 2020 to July 15, 2020, which shifted an estimated \$795 million from FY 2020 into FY 2021. The comparison to artificially high FY 2021 revenues caused FY 2022 revenue growth to appear lower than would otherwise have been the case. After adjusting for the impact on timing due to the delay in the filing deadline, FY 2022 tax collections are estimated to have increased 23.1% over FY 2021. Revenue growth in FY 2022 was higher than historically normal growth due to a strong underlying economy, pent-up demand, and stimulatory federal policy.

FY 2022 unrestricted revenue collections totaled \$12,296.8 million, exceeding the February 2022 forecast (adjusted for legislation) of \$10,893.7 million by \$1,403.2 million. General Fund unrestricted revenue increased 17.3%. Education Fund revenues rose 13.2% (27.9% after adjusting for the aforementioned income tax timing shift). Revenue in the Transportation Fund grew 4.3%. Substantial growth of 54.2% occurred in FY 2022 mineral lease royalties and bonuses due to strength in Utah’s natural resource industries.

General Fund

Unrestricted General Fund tax collections increased 17.3% to \$3,719.4 million in FY 2022 following a double digit increase in FY 2021. Unrestricted sales and use tax, which jumped 18.0%, was the largest driver of this increase. Rising prices, a strong labor market, a rebounding service sector, and robust business spending contributed to substantial growth in

sales tax revenue. Revenue from non-earmarked insurance premium taxes grew 14.2% in FY 2022. Liquor profits increased 8.9% due to an increase in liquor prices and a rebound in food services and drinking places following the pandemic. FY 2022 beer, cigarette, and tobacco revenues fell 3.5%. Oil and gas severance tax increased nearly 253% due to high oil and gas prices and booming activity in Utah's extractive industries. Investment income, which is subject to large swings, shot up 123.3% as interest rates climbed higher.

Education Fund/Income Tax Fund

Education Fund revenues totaled \$7,805.0 million in FY 2022, an increase of 13.2% over FY 2021 (27.9% after adjusting for the aforementioned income tax timing shift). Income tax revenues in FY 2022 were very strong. Corporate income tax revenues increased 26.2% (37.3% after adjusting for the same filing delay), boosted by strong corporate profits and business income. Individual income tax revenues grew by 10.8%. However, if we adjust for the filing delay, individual income taxes actually grew 26%. The high shift-adjusted growth rate was largely driven by a 50.4% increase in shift-adjusted gross final payments. A tight labor market, in addition to a booming housing and stock market, contributed to extraordinary growth in income tax revenue. Mineral production withholding jumped 149% due to a considerable increase in oil and gas activity.

Transportation Fund

Transportation Fund unrestricted revenues showed some signs of moderating, growing 4.3% to \$694.6 million in FY 2022. Collections from motor fuel taxes rose 5.2% in FY 2022, while special fuel tax collections edged up 1.1% following a double digit increase the previous year. Other Transportation Fund revenue, which includes motor vehicle registrations, rose 6.0% in FY 2022.

2023 Outlook

Utah tax collections are expected to moderate significantly in the coming year, growing 1.6% in FY 2023. Although the labor market is still strong, the Utah economy is showing signs of slowing as the Federal Reserve continues to raise interest rates to control inflation. General Fund revenues are expected to increase 6.8% in FY 2023, largely due to an estimated increase of 5.5% in unrestricted state sales and use tax revenue. Transportation Fund revenues are forecasted to grow 5.1% in FY 2023. Income Tax Fund revenues are expected to slow in FY 2023, following two years of extraordinary growth. Total revenues in the Education Fund are forecasted to decline 1.7%, with individual income tax revenue increasing 0.1% and corporate franchise and income tax revenue declining 14.4%.

Potential Risks to the Economy

The Utah economy has proven to be quite resilient due to a strong labor market, the impact of stimulatory federal policy on consumer and business balance sheets, increases in asset values, and momentum in the economy from projects already in the pipeline. However, there is a great deal of risk in the forecast due to a variety of national and international factors which have the ability to impact tax revenues, including persistent inflation, consumer sentiment, global supply-chain disruptions, shipping or transportation problems, continuing labor shortages, the Russia-Ukraine war, COVID-19 variants, fiscal or monetary and fiscal policy decisions, the national political climate, commodity prices, the international economic situation, and other geopolitical instability. Significant changes in any of these or other economic or political conditions has the potential to impact economic activity in Utah which may also alter the outlook for tax collections for FY 2023.

Summary

Utah tax collections increased significantly in FY 2022 due to a strong economy and healthy labor market. Overall tax collections rose 14% (23.1% after adjusting for the delay in the income tax filing deadline).

Despite its recent robust economic performance, the Utah economy faces a great deal of risk and uncertainty, which clouds the outlook. However, the underlying strength of the Utah economy is estimated to offset various economic headwinds in the coming year, such as higher interest rates, correcting stock and housing markets, and weaker consumer and business sentiment. In total, tax collections are forecasted to rise a modest 1.6% in FY 2023.

Exports

Overview

Overall U.S. merchandise trade rebounded strongly in 2021 as recovery continued from the COVID-19 pandemic disruptions, with total U.S. exports of merchandise goods rising by just over 23%. While the total value of U.S. merchandise

exports, at \$1.75 trillion, remains slightly below expectations had the pre-pandemic growth trend continued, the pace of growth in 2021 went a long way to restoring the long-run trend at the national level.

Utah's merchandise exports also increased in 2021, although at a rate lower than the national average (2.4%), reaching a total value of \$18.1 billion. The below-average expansion resulted in Utah falling slightly, from being the 23rd largest exporting state in the nation by overall merchandise export value in 2020, to 25th in the nation in 2021.

Major Export Categories

In line with previous years, the majority of Utah's merchandise exports occurred in the primary metals category, which accounted for just under 48% of Utah's exports by value in 2021 (around \$8.6 billion, down from 2020). The other major industrial categories of Utah's exports in 2021 were computers and electronics (\$2 billion in value, 11% of the total), chemicals (\$1.8 billion in value and just under 10% of total exports), and food products (\$1.3 billion in value, and just over 7% of the total value of Utah's merchandise exports).

Primary metal exports fell by nearly 6% over 2021. By contrast, the other top export categories experienced more robust export growth. Export value grew in the computers and electronics category by over 13%, and in chemicals by over 16%. Food product exports in 2021 grew by nearly 22% over 2020.

Smaller Export Categories

Significant export growth also occurred for a number of Utah's smaller export categories, such as machinery (up nearly 30% to \$650 million). Continuing last year's trend, Utah's exports of textiles also grew quickly in 2021, by 72% in the raw textiles category, 24% in the milled category, and 52% in the apparel category. Utah's total exports of textiles and apparel now stand at \$123 million, nearly double the amounts two years ago. Export declines occurred in a number of sectors, although they were neither as widespread nor as sharp as 2020 declines. In proportional and value terms, the most significant contraction occurred in exports in the minerals category, which fell by nearly 40%, after several years of consistent growth. The drop pushed minerals to under 2% of Utah's total export value.

International Profile

Relatively little changed in the regional profile of Utah's exports over the year. Utah's exports to the United Kingdom continue to dominate, at around 47% of value in 2021 (\$8.5 billion). The North American trade partners, Canada and Mexico, took the next two spots, accounting for 8.4% and 6.3% of exports, respectively (\$1.5 billion and \$1.1 billion in dollar terms). Rounding out the top five export destinations were the East Asian powerhouses of China and Japan at 5.3% and 3.9% percent of the total, respectively (\$963 million and \$713 million). Including Hong Kong with China increases the total to 6.2% of Utah's total merchandise exports, putting China roughly on par with Mexico in terms of importance as a destination for Utah's exports.

While the United Kingdom's position as the major market for Utah's exports remained unchanged from 2020, that market, which is comprised almost exclusively of primary metals, is far from the fastest growing destination for Utah's exports. In fact, exports to the United Kingdom fell slightly in 2021 (by just over 4% relative to 2020). By contrast, exports to China continued their rising pattern (China was the 6th largest export market for Utah in 2019). While the biggest category of Utah's exports to China is food products (which accounts for about 27% of the total), the export profile is considerably more diversified than for the United Kingdom, with significant exports in chemicals and computers and electronics also entering the Chinese market from Utah. Other growth markets for Utah's exports in 2021 were Mexico (up 21%), France (up 31%), Malaysia (up 63%), and India (up 81%). Exports to Japan recovered modestly from the falls seen last year.

Utah Export Area of Origin

The majority of Utah's merchandise export value continues to originate in the Salt Lake City metropolitan area, which accounted for just over 74% of the state's exports in 2021 (\$13.5 billion in value, largely unchanged from 2020). This region dominates the state's exports in the primary metals, computers and electronics and chemicals sectors. Salt Lake City is now the 28th largest metropolitan export region in the US. Exports of the next largest metropolitan area, Provo-Orem, also remained at similar levels to previous years at just over \$2 billion (approximately 11% of total Utah merchandise exports, with chemicals and computers and electronics being the largest categories), as did those of the Ogden-Clearfield metropolitan area, at around \$1.5 billion (roughly 8 percent of the Utah total). The Ogden-Clearfield area supplies the majority of Utah's exports in the transportation equipment category. As in 2020, the only metropolitan region to experience strong growth of exports in 2021 was the Logan area, which exported approximately \$1 billion in merchandise goods in 2021, or nearly 6% of Utah's total export value. This represents a growth rate of nearly 50% over 2020, and over 75% since 2019. The majority of

the exports from this region are in the processed food category, with much of it destined for trading partners in Europe and East Asia.

Outlook

With the effects of the COVID-19 pandemic on international trade gradually receding, forecasts project Utah's exports to continue to recover to pre-pandemic trends as supply chain issues diminish and the global economy continues the process of reopening. Important markets for Utah's exports, such as Japan, have only recently reopened to travel, and forecasts project that market, important to Utah's food, chemical and electronics industries in particular, to continue to recover slowly. Preliminary export figures for Utah in 2022 show a decline of 12.8% relative to 2021.

In terms of risks, the expansion of Utah's exports to China over the last two years is encouraging. However, political tensions remain high. Moreover, China's efforts to maintain zero COVID-19, and the consequences of the sudden relaxation of that policy, raise serious questions over the future potential of that market. Economic growth slowed dramatically in China over the course of the pandemic, and a necessary condition for export sales is a population with the necessary wealth to buy Utah's products.

Continuing conflict in Ukraine also has the potential to negatively impact Utah's exports in multiple ways. First, it has the potential to disrupt important European markets directly. Indirectly, higher energy prices will ultimately reflect in higher shipping costs, which would dampen demand for Utah's exports worldwide. Finally, an expansion of hostilities has the potential to introduce considerable uncertainty into global markets.

Price Inflation and Cost of Living

2022 Overview

Inflation was the most salient economic issue in 2022.

Economists find it remarkable when family dinner table discussions, comedian jokes, and popular culture references focus on inflation. With that heightened focus, understanding the mechanics of what higher inflation really means to people becomes increasingly important. Avoiding errant thinking about how price changes impact our economy is – again – a highly relevant issue.

For a family looking at the increasing cost of weekly groceries, inflation feels highly personal. So it can seem cold to think about inflation as a technical measure of how the prices of all goods and services change over time. Prices can change due to supply constraints faced by businesses or shifts in consumer demand. The total amount of money available in an economy and our collective expectations about the future also affect inflation. In short, whether a full-time economist or someone who prefers to think about economics as little as possible – inflation now concerns everyone in society.

As an economy grows, the amount of money should also grow to maintain stable prices. Stable prices are desirable because they allow people to plan and predictably use their resources for exchange. Low and stable inflation (near 2.0% a year) appears to allow an economy to function efficiently and effectively.

But significant or sudden disruptions to normal economic activity – such as a pandemic – can also upset things we typically take for granted, like the value and function of money. Our collective societal response, from federal economic stimulus, to supply chain problems, to purchasing pattern changes, cause price changes.

The Federal Reserve governs monetary policy in the United States. It targets a 2.0% annual inflation rate as most consistent with its mandate for price stability and maximum employment, conditions associated with economic growth and prosperity. It warns that an inflation rate “that is too high may reduce the public's ability to make accurate long-term economic decisions.” Conversely, “deflation” —a harmful economic phenomenon where prices, and perhaps wages, fall — has also been of concern this last decade.

The growth and persistence of inflation surprised many this year – and grave world events exacerbated price changes in key food and energy markets even as pandemic-related shocks largely dissipated. Inflation accelerated into the summer before easing near the end of the year. The issue framed both policy and political arguments. Google Trends reported a quadrupling of public interest in the search term ‘inflation.’

Over the last 20 years, inflation remained stable – growing at roughly 2%, aside from a few temporary shocks that pushed inflation up or down, reverting toward the mean as policy interventions played out within about a year. Most forecasters thought inflation would follow this pattern last year. The forecasters were wrong. Inflation persisted and further

accelerated when Russia invaded Ukraine in early 2022 – dramatically affecting trade in world food, energy, and financial markets.

The Federal Reserve successively ratcheted federal funds rates higher from near 0% at the beginning of 2022 to an effective rate of 4.3% by year’s end. Stock values fell while interest rates moved up, with the average 30-year fixed rate conventional mortgage hitting 7% in November, and dropping somewhat since.

The Consumer Price Index (CPI) growth appeared to peak in June at 9%, according to the Bureau of Labor Statistics, and fell into the 7% range at year’s end. While various inflation measures exist, all remained elevated. For example, the Federal Reserve utilizes the Personal Consumption Expenditures (PCE) index as their preferred inflation measure– and growth stayed near 6% for the entire year. Core CPI (excluding food/energy) moved around 6% throughout the year.

Some prices change regardless of a general price increase. Supply chain havoc showed this to be the case last year, and restrictions on grain exports and oil embargos point to the same lesson in 2022. Supply chain disruptions have largely eased, but with consumer confidence and business expectations weakening, some fear central banks will cause more economic pain than necessary given their apparent commitment to bring down inflation.

Businesses have raised prices. Labor markets remained tight, prompting workers to demand robust wage increases to counteract inflation in their daily purchases. These interdependencies shape future expectations about inflation. Even small changes in inflation cause big differences over time. In the 1960s, a general “basket of goods” that cost \$10 to purchase would have cost \$50 to acquire in 1995 and \$100 to acquire today.

The only major category with price declines this year was Communication Services, down 2% for the year. Education (3%) and Medical Care (5%) prices grew slower than most other major categories. Motor fuel prices grew alarmingly before countervailing moderation in the Fall of 2022 - the category still outpaced all others, up 18% for the year. Transportation, Car Insurance, Maintenance, Parts, Utilities, and Food outpaced general price increases with double-digit growth. Housing, Shelter, and Vehicles expanded near an average of 7%. Regionally, inflation grew faster in smaller urban areas throughout the country. In 2022, some of the biggest cities like New York City, San Francisco, and Chicago measured inflation below 6%, while other large cities – Tampa, Atlanta, and Phoenix - realized inflation over 10%.

Regional Price Parity data from the Bureau of Economic Analysis show 2021 (the most recent data available) Utah prices were about 5% cheaper than the country overall, with housing costs only 0.6% behind the national average.

Throughout 2022, the Mountain Region experienced inflation well above the U.S. average. Regional inflation spiked at 10.4% over the 12 months ending March 2022 and consistently ranged roughly 1 to 2 percentage points higher than overall U.S. inflation.

2023 Outlook

Inflation ticked down to end 2022 but remained elevated. Market and economic forecasters expect inflation to continue abating. However, uncertainty surrounding our collective grasp of the phenomenon we label “inflation” has clearly increased. Policymakers have committed to rein inflation back to acceptable norms in both the short run and the long run. Whether this causes a mild or severe economic dislocation in 2023 and beyond remains an open question.

Even if inflation cools as quickly as it grew, it would still take until 2024 before a return to the pre-pandemic norm. If inflation remains high despite the best efforts of monetary authorities or continued shocks exacerbate uncertainty, then the odds of more severe economic pain increase in the near term. Governments and businesses will face tough budget, policy, and resource allocation choices even as inflation eases.

Forecasts project inflation for 2023 to moderate, but it may remain higher than many expect. Inflation will remain in the news and move markets. Economists, politicians, business leaders, and everyone that uses money will continue to closely monitor price levels. Measured inflation may move closer to 5% in the Spring of 2023 and may trend to 3% by the end of the year. If inflation does fall quickly, markets will likely turn much more optimistic at the chance of avoiding a painful recession. Even if prices moderate according to forecast, some will find it uncomfortably high as the economy moderates or slows.

Consumer Sentiment

2022 Overview

Changes in consumer sentiment often signal future changes in economic behavior, particularly consumer discretionary spending. When sentiment increases we can often expect near-future increases in consumer discretionary spending. Consumer sentiment can therefore provide an early notice of pending changes in economic growth and certain streams of tax revenue.

U.S. consumer sentiment fell in 2022. From a high of 67.2 in January, the index reached a multi-decade low of 50.0 in June, before partially recovering to around 60.0 by the end of the year. The average value of the index is 85.4, going back to 1978; the average is 86.3 excluding the pandemic years 2020–2022. Likely reasons for the decline during 2022 include various forms of economic disruption including Russia's invasion of Ukraine, the sharp increase in gasoline prices, interest rate and price increases, a stock market decline, and ongoing concerns about inflation more broadly.

Utah's economic stakeholders now have access to a localized reading of consumer sentiment, with the Kem C. Gardner Policy Institute measuring Utah consumer sentiment beginning in October 2020. Generally, sentiment among Utahns is higher than, but parallels, sentiment among Americans as a whole. Utah's consumer sentiment peaked in February at 78.8, before falling to a low of 62.9 in July. Like the U.S. as a whole, sentiment recovered in the second half of 2022 and ended the year at 68.7. Utah's consumer sentiment has averaged 79.4 since inception (October 2020); sentiment among Americans as a whole has averaged 69.6 over the same period.

Like Michigan's index for the U.S., the Utah Consumer Sentiment Index reflects consumer opinions on five topics: current family financial situation relative to one year ago, expected future change in family financial situation, business conditions expected during the following year, business conditions expected over the next five years, and current buying conditions for large household goods.

2023 Outlook

Toward the end of 2022, the U.S. and Utah indices of consumer sentiment recovered some of their declines from earlier in the year. The pattern of decline and recovery coincides with falling gasoline prices and early indications that overall rate inflation is beginning to ease. If these and other recent patterns (e.g. the greatly reduced rates of COVID-19 hospitalization and death) continue into 2023, we may expect both U.S. and Utah sentiment to continue recovering. The recent decline in sentiment may have been even steeper but for an otherwise strong economy, with low unemployment rates and rapid wage growth (not adjusted for inflation). A reversal of these recent conditions, perhaps stemming from the rapid increase in interest rates as part of the fight against inflation, presents a significant downside risk to sentiment in 2023.

About the Utah Consumer Sentiment Survey

The Utah Consumer Sentiment Survey uses key questions from the University of Michigan's Surveys of Consumers. These questions measure residents' views of the present economic situation and their expectations for the economy in the future. Data gathered from the key questions are used to create the consumer sentiment index for Utah. Demographic questions are included on the questionnaire to allow for additional analysis of the data and assess the sample's representativeness. The 405-interview sample yields a +/- 5.0% tolerated error on total data. All survey interviews are conducted by telephone by a professional data collection company. The sample is drawn to be proportional to the population of Utah's 29 counties. Demographic data may be used for weighting to ensure the sample more closely aligns with Census data for Utah adult residents.

Social Capital

2022 Overview

Social capital touches a wide variety of public policy and economic concerns. Low levels of social capital often lead to poor economic and social outcomes, both for individuals and populations. Policymakers often seek to address these poor outcomes through costly endeavors that span educational efforts, election reforms, public assistance programs, and law enforcement interventions. As social capital declines, the challenges become more acute—and social scientists across the political spectrum affirm that social capital in the United States is in long-term decline. But in places where social capital is comparatively robust, it can translate into heightened economic prospects and lower demands on the public sector.

Social capital refers to the bonds between people and among networks that can be used to benefit individuals and the group as a whole. In July 2022, the Utah Foundation completed an eight-part series on Utah Social Capital. The first seven installments looked at roughly 30 metrics in the categories of civic engagement, social trust, community life, family life, social cohesion, future focus, and social mobility. The final report provided a composite index for Utah's social capital. The following information comes from these reports.

Overall Performance: No. 1 in the Nation

Utah's Social Capital Index score in 2021 stood at 94. This is higher than 2013 and 2017 when the index stood at 84 and 79, respectively.

Utah Foundation researchers suspected that Utah would perform well on social capital. However, it was surprising how strongly Utah performed from the composite perspective, especially compared to the national score.

Utah had the highest level of social capital in 2021 among the 50 states. Wyoming and Colorado are also among the top 10. By contrast, Nevada, New Mexico, and Arizona have some of the lowest levels of social capital in the nation, suggesting that strong social capital is not consistent among the Mountain States.

Community Life: Ranked No. 1

Robert Putnam's 2000 book, *Bowling Alone*, uses the example of the decline in bowling leagues as being emblematic of the disintegration of community participation.

This disintegration tears at a community's social fabric and can diminish individuals' mental and physical health. Recent developments, such as the increasing time spent on personal technology devices and the lockdowns in response to COVID-19, may be encouraging these trends.

That said, Utah far outpaces the nation at large on the composite measure of community life. Though Utah saw a small decline from 2013 to 2017, there was a notable increase in subsequent years. Utah's No. 1 ranking can be attributed primarily to high levels of charitable donations, volunteerism, religious service attendance, and participation in community projects.

Family Life: Ranked No. 1

Strong family life is inextricably linked with a network of interrelated and self-perpetuating benefits. For instance, families with two parents are far less likely to live in poverty, and the children of those families are more likely to do well in terms of educational attainment. The data are so connected that it is difficult to examine economic or educational outcomes without considering family structure.

Beyond structure though, there is increasing concern about how families spend time together and how children spend their time. The pandemic significantly impacted family life, both positively and negatively. On the one hand, families spent more time having dinner together and parents read more often to children. But there was a remarkable upsurge in recreational electronic device usage among children that was accelerated by the pandemic.

Overall, Utah performs best in the nation when it comes to the factors related to family life—driven primarily by its high levels of marriage and children in married families.

Social Trust: Ranked No. 3

Social trust can be described as the extent to which people believe that others in their community will do the right thing most of the time. When such trust is high, people will more easily work together, collaborate in a crisis, and reach productive political outcomes. Unfortunately, trust in national institutions like the federal government, the media, and cultural institutions seems to be in rapid decline nationally. At the state level, however, trust may be higher.

On a composite basis, Utah's performance on social trust ranks third in the nation. This is due to relatively low levels of fraud, corruption, and crime.

Focus on the Future: Ranked No. 5

Observers have suggested there is a widening opportunity gap among American children, with declining interactions between social classes and growing disparity in educational and recreational offerings. These consequences project into adulthood.

Participation in youth sports now requires significant investments, and youth participation in sports has generally declined in recent years. This means many children are missing out on the chance to build soft skills like teamwork. It also means reduced opportunities to build social capital.

Utah's public investments in recreation per \$1,000 of personal income have been in decline. Even with nominal funding increases, Utah's expenditures per \$1,000 of personal income on primary and secondary education have also been in decline. Utah and neighboring Arizona rank last in the nation when it comes to the number of youth organizations per 1,000 children ages 5 to 17. But this is not typical of the region: Wyoming and Montana have some of the highest rates. Meanwhile, Utah's birth rate has been in decline.

Taken together, the trends suggest Utah's investment (as a percentage of the economy) in Utah youth has lessened over time. Yet Utah remains one of the top five states in this category overall, along with neighbors Nevada and Wyoming.

Social Mobility: Ranked No. 5

Social mobility has received significant attention in recent years, with some economists suggesting that where children grow up has major implications for their economic outlook. Significant differences may be detectable both at the state and local levels.

Utah is in the top third of states when it comes to four-year degree attainment. Among the Mountain States, only Colorado outperforms Utah in the percentage of the population with a bachelor's degree or higher. As to homeownership, Utah outperforms all of the other seven Mountain States—and ranks sixth nationally. When it comes to youth engagement in education, training, or the workforce, Utah performs among the top 10 states nationally (with Colorado) and has experienced positive trends over time.

When it comes to intergenerational economic mobility, Utah ranks in the top third of states. Among the Mountain States, only Montana outperforms Utah.

Utah and Montana have high rankings across all four metrics, implying that they may be the most socially mobile states in the region. By contrast, Nevada performed worst on all four metrics.

In terms of this category's composite measure, the Beehive State ranks fifth in the nation, just ahead of Montana. Colorado is also in the national top 10. Nevada, Arizona, and New Mexico are in the bottom 10, with Nevada ranking last in the nation.

Civic Engagement: In the Nation's Top Third

Robust citizen engagement in the democratic process and in civic improvement has long been seen as a barometer of the vitality of the American republic. At the state and local levels, civic engagement has significant implications for the effectiveness and efficiency of government, the quality of the services that government delivers, and the responsiveness of public officials to the priorities of the public. A decline in civic engagement, by contrast, can reduce the accountability of the public sector and lead to a negative public spirit.

Utah has made modest gains in its level of civic engagement, moving from ranking just above the national average in 2013 to the top third of states in 2021. This increase was driven by higher levels of voter participation and strong public meeting attendance.

Social Cohesion: Middle of the Pack

“Social cohesion” refers to the foundational commonalities that allow a population to function effectively as a group and open the way for individuals to participate in that whole.

While Utah's social cohesion is higher than the national average, it is near the median of states. It is also in the middle of the Mountain States. That said, Utah has low economic stratification and a remarkably strong middle class. As of 2019, Utah's middle class ranked No. 1 in the nation.

Utah’s overall performance on social cohesion, however, is tempered by the other metrics in this measure. While Utah’s percentage of children with limited English proficiency is in the bottom half of all states, this contrasts with the adult population: Utah has the 22nd highest share of adults with limited English proficiency.

Furthermore, the share of Utah residents born in the state ranks 19th highest in 2019. Utah is unique among the Mountain States with its robust population of state natives. Most states in the region are well below average on this count, and some rank among the very lowest.

2023 Outlook

Despite Utah’s relatively high level of social capital, there are areas of possible concern that could be addressed moving forward.

Utah has low levels of organizations per capita across several metrics, whether they are professional, non-professional, advocacy, or youth organizations. While Utah has a strong family structure, the state experienced an alarming decline in parents spending quality time with children. That changed substantially in 2020 due to the pandemic, but unless families make concentrated improvements in these areas, electronic entertainment devices will continue to consume a growing share of childhood.

Finally, in terms of future generations, Utah has seen a decline in three of its four metrics: its birth rate; relative investments in recreation; and relative investments in public schools. And, as noted above, the ratio of children to the number of youth organizations is far below the national average. While nearly topping the nation in the future-generations subindex, Utah’s decline in these metrics deserves a closer look from policymakers and civic leaders.

Economic Development

2022 Overview

The past year’s strategic efforts by the Utah Governor's Office of Economic Opportunity (GO Utah) focused on cultivating prosperity, future-proofing Utah’s economy, and working with the private sector to move beyond the COVID-19 emergency response and look to strengthen the future.

Utah’s low tax rates, vibrant workforce, and sensible regulations are part of the foundation for the state’s excellent business environment. The careful execution of these strategies brought accolades such as “Best U.S. Economy” *U.S. News & World Report* — July 2022 and “Best Economic Outlook” *Rich States Poor States* — April 2022.

Utah’s business-friendly environment, entrepreneurial attitude, and sense of community — combined with a willingness to collaborate — continue to set the state apart and position us as economic leaders in the country and worldwide. The strength of Utah’s economy comes from close partnerships between the public and private sectors. Three state-led partnerships anchor the effort, the Utah Inland Port Authority, the Military Installation Defense Authority, and the Point of the Mountain State Land Authority. These projects create generational impacts for Utahns with opportunities to incubate and expand private sector businesses.

Gov. Cox leads the Unified Economic Opportunity Commission (UEOC), a joint effort with the Legislature and many other stakeholders around Utah, which develops, directs, and coordinates Utah’s statewide and regional economic development strategies. The commission informs policy decisions and builds consensus. In its inaugural year, the UEOC developed more than 30 policy initiatives and funding recommendations. Of particular note is H.B. 333 Economic Development and Workforce Amendments, which reorganized many programs within the Governor’s Office of Economic Opportunity, established the Women in the Economy Subcommittee of the UEOC, modified grant programs administered through the office, and created the Rural Opportunity Fund and a Rural Opportunity Advisory Committee, centralizing previous programs.

Utah emerged from the coronavirus pandemic far better than most states. A *Wall Street Journal* article from 2022, titled States of Covid Performance, ranked Utah first for its economic, education, and mortality ranking and touted its resilience. The state’s business-friendly responses allowed Utah to push beyond the emergency response phase of the pandemic and focus on strengthening and supporting the diversification of core businesses and industries in the state.

Expansion and Relocation Projects

With inflation and talks of a looming economic contraction, Utah's expansion and relocation pipeline has been partially immune. In the first half of FY23, we saw an average of 11 new projects start per month, returning to roughly the state's pre-pandemic monthly average from the high water mark of FY22 activity.

Several expansion and relocation trends that started during the COVID-19 pandemic continued in 2022. In the two years before March 2020, the information technology industry dominated Utah's expansion and relocation project pipeline, accounting for 33% of additions. However, from March 2020 onward, the share of information technology projects dropped, and manufacturing-related projects rose to 46% of expansion projects in 2022.

Some industries that experienced decreased activity early in the pandemic returned to pre-pandemic levels. For example, in 2022, the market saw an increase in advanced manufacturing, aerospace and defense, and financial services projects. However, information technology projects remain low due in part to industry-facing headwinds and ongoing work-from-anywhere policies.

The manufacturing expansions are attributed to recent reshoring efforts, attempts to mitigate supply chain constraints, and other market factors. Manufacturing and distribution projects generally have more complex site requirements, require higher capital investment, change the dynamics of power and different infrastructure needs, and require more technical support from economic developers. Rapidly changing real estate costs and land availability have shifted the focus of where projects can land in Utah. Currently, 14 of the 29 project wins in 2022 occurred off the Wasatch Front, deepening the impact of economic development across the state and in our rural communities. Go Utah supported these reshoring efforts through the Manufacturing Modernization Grant. The grant assisted 22 companies with supply chain-related projects to strengthen Utah's ecosystem and lessen dependence on foreign sources.

Major Projects

In 2022, Go Utah and EDCUtah worked together to support 29 company relocations or expansions in Utah. These projects are estimated to provide 10,300 jobs to the state's economy and include capital investments totaling more than \$1.3 billion.

Business Climate

Utah's young, educated workforce continues to grow, state and local governments remain fiscally responsible and stable, and the cost of doing business remains lower than the national average. In April 2022, Utah recorded the nation's lowest unemployment rate at 1.9%.

Utah continues to receive recognition as a leading global business destination. *Forbes* ranked Utah No.1 for GDP Growth, and *WalletHub* ranked the state No.1 for Best State Economy. *Heartland Forward* ranked Utah No. 3 in Entrepreneurial Capacity, Site Selection Group ranked Utah No. 2 in its Best States for Manufacturing rankings, and *Site Selection Magazine* ranked Utah as the Best State in the Intermountain West for Workforce Development.

Targeted Industries

Utah's targeted industries employed over 380,000 Utahns in 2022, an increase from 365,000 in 2021 and 353,000 in 2020, demonstrating 5.4% growth. Also, our industry organizations play a key role in helping our office with critical information on how we can assist our targeted industries. It's worth noting that the Aerospace and Defense Industry recently announced the creation of the Utah Aerospace and Defense Association. We assisted in the creation and look forward to supporting this critical association for our state.

2023 Outlook

Utah's diverse industries and strong economic growth are indicators of the state's robust economy. The state continues to be envied for its strong fiscal policies and unmatched quality of life.

Agriculture

2022 Overview

General

Total agriculture receipts, or the market value of agricultural commodities, totaled \$1.99 billion in 2021, up 11.2% from 2020's \$1.79 billion. The farm sector provided 20,552 jobs in 2021 earning a total of \$214.5 million.

In 2021, Utah had an estimated 10.7 million acres in farmland, including 8.6 million acres of pastureland, 19.7% of Utah's total 54.3 million acres of land. This ranks Utah as 26th in the country in total land in farms. Utah is home to 17,900 agriculture operations (ranked 37th nationally), up 100 since 2020 and down 200 operations from 2018. Utah's average farm size is 598 acres (ranked 12th nationally), down slightly compared with 601 acres in 2020.

Top Counties

Utah's top five counties for 2020 agricultural sales were Beaver (\$230 million), Millard (\$201 million), Utah (\$197 million), Cache (\$174 million), Sanpete (\$165 million).

Utah's top five counties in total number of farms are Utah (2,589), Cache (1,397), Weber (1,260), Box Elder (1,187), and Uintah (1,114). Daggett County had the fewest at 52.

Production

In terms of revenue generated, Utah's top five agricultural products are beef cattle and calves, dairy products, hogs, hay, and greenhouse and nursery crops. Livestock is the foundation of Utah agriculture. Over three-quarters of Utah's agricultural income is generated by livestock and livestock products, with beef cattle and dairy leading this sector. Abundant rangelands support the state's livestock production and more than 8,000 cattle-ranching operations.

Hay is Utah's largest crop, grown to feed beef and dairy cattle. Leading fruits are apples, cherries, peaches, apricots, and pears. Leading vegetables are onions, potatoes, and dry beans. Mushrooms and safflower are also grown in Utah.

Nationally, Utah ranks second in mink pelt production, second in tart cherry production, fourth in wool production, fifth in safflower production, 15th in hog and pig production, 21st in dairy cow production, and 28th in beef cows.

Sales and Prices

In 2021, there were 790,000 cattle and calves, down from 820,000 in 2020, a 3.7% decrease. There were 940,000 hogs on Utah farms in 2021, a slight decrease from the 1 million hogs in 2020. In 2021, hog sales increased 35.8% to \$208 million, up from \$153 million in 2020. Sheep and lambs totaled 270,000 in 2021, down slightly from 285,000 in 2020. There were 94,000 milk cows in 2021, compared with 95,000 milk cows in 2020, a 1.1% decrease. The compensation price for milk increased slightly over the same period from \$18.20/cwt to \$18.50/cwt, a 1.65% increase.

Animal and animal product sales increased 8.8% from \$1.25 billion in 2020 to \$1.36 billion in 2021. Total crop sales increased from \$539.3 million in 2020 to \$627.5 million in 2021, a 16.4% increase.

Total agriculture sales figures do not reflect the value of commodities produced and used on Utah farms and ranches, such as hay, grain, and corn fed to livestock. Nor do they include multiplier effects of this revenue circulating in local economies. By incorporating these values, the overall contribution of agriculture production would increase substantially.

Significant Issues

In 2022, Utah poultry producers were impacted by the most significant outbreak of highly pathogenic avian influenza to date. 19 commercial flocks and 9 backyard flocks have been affected, totaling in a loss of 2.2 million birds, including 701,600 turkeys, causing substantial losses for producers.

Utah farmers and ranchers continued to face extreme drought conditions, resulting in devastating losses for many producers. As the industry prepares for the future, agricultural water access and water optimization projects to improve efficiency will be pressing needs in the years ahead.

Animal agriculture is the foundation of Utah agriculture. Ranching operations require a combination of private and public lands to be sustainable and economically viable. Ranchers face significant uncertainty with 63% of Utah lands under federal control in addition to market volatility and supply chain disruptions.

Predation, led by coyotes, continues to be a problem for sheep, cattle, and poultry producers. Predator control funding comes from state and federal sources, as well as from ranchers who pay a per-head assessment. The focus of the program is to protect livestock, primarily adult sheep, lambs, and calves, from predators, including coyotes, cougars, bears, and ravens. In 2021, 17,100 sheep were lost solely to coyotes, up 9% from 15,700 losses in 2020. Total sheep losses due to predation in 2021 were 42,000, up 12% from 37,500 in 2020.

Agriculture Sustainability

Each Utah farm or ranch is unique. Often, we think of ranchers on horseback surrounded by their animals or a farmer in a large field with a tractor; these types of farms still account for the majority of agricultural products in Utah. However, urban farms are also a valuable component to a safe, secure, and abundant local food supply.

Utah's population growth, land prices, and increasing operating costs, and fluctuating market prices for agricultural products continue to pressure the conversion of fruit, vegetable, and other farmland into residential and commercial development. In the nation's second most arid state, urban encroachment and growth continues to pressure conversion of agricultural water to municipal and industrial uses.

Farmers continue to face economic uncertainty. The farmer share of food spending remains low at 14.5 cents per dollar in 2021, up slightly from 14.3 cents per dollar in 2019. With rising costs for fuel, fertilizer, and other agricultural inputs, maintaining the financial viability of agricultural operations is a challenge.

2023 Outlook

Agricultural production and processing play a significant role in Utah's diverse economy. In recent years, the impacts of COVID-19 and subsequent supply chain disruptions have exposed new vulnerabilities, brought past vulnerabilities to the surface, and have highlighted the importance of a safe and secure local food supply chain. The meat supply chain in particular has proven to be at risk from market disruptions.

There is substantial interest in increasing agricultural processing in Utah. Connecting local agricultural production with local processing could hold substantial opportunities for economic growth and food security. Expanding infrastructure for meat, fruit processing and packaging, co-packing, and bottling presents unique opportunities to capture manufacturing dollars for agricultural products in Utah.

Developing countries, expanding global markets, and changing consumer food purchasing behaviors keep Utah's production agriculture industry evolving and in demand. Additionally, farms and ranches provide critical open space and are highly valued contributors to Utahns' quality of life. Population growth in a state with limited water and private land continues to put pressure on these natural resources to transition from food production to urban development. Other opportunities for Utah agriculture include growth in agritourism and innovative processing and distribution systems such as food hubs. Helping citizens develop a deeper connection with and understanding of the importance of agriculture will be key in continuing a successful future for the industry.

Defense

2022 Overview

Employment

In 2021, federal defense employment totalled 35,559 in Utah: 16,959 military personnel and 18,600 civilian employees. This represents a 0.3% decrease from 2019. Over the past five years, Utah experienced a net gain of 1,303 federal civilian jobs (7.5% increase) and 989 military personnel (6.2% increase). Hill Air Force Base, Dugway Proving Ground, Tooele Army Depot, Utah National Guard, the Reserves, and Veteran Affairs (benefits office, hospital, clinics, and centers) installations employ most of Utah's federal defense employees. Federal defense employment excludes defense-related private sector employment, such as jobs at defense contractors.

Federal defense employment in Utah shrank from 42,474 in 1990 to a low of 29,276 in 1999. In 2021, defense employment reached 35,559, its highest level since 1993. However, defense's share of total employment was 2.1% in 2021, significantly lower than its share of 5.5% in 1990. Even with recent employment gains since 2014, defense's share of total employment has fallen.

In 2021, three counties contained 81.4% of federal defense employment in Utah: 18,936 jobs in Davis County (53.3%), 8,601 jobs in Salt Lake County (24.2%), and 1,411 jobs in Tooele County (4.0%). Hill Air Force Base, the largest military installation in Utah, drives Davis County's large share of total defense employment. Hill AFB was the state's sixth-largest employer in 2021. The largest installations in Salt Lake and Tooele counties are the reserve branches of the armed forces and Dugway Proving Ground, respectively.

Compensation

Utah's compensation per federal defense job has historically exceeded Utah's average compensation rate, with the gap widening by over 50% in 2009. Even with some tapering in recent years, federal defense jobs in Utah offered an average of \$91,229 in compensation, 29.0% more than the \$70,725 at non-defense jobs in 2021.

Veterans & Military Retirees

The National Center for Veterans Analysis and Statistics estimates 130,668 veterans lived in Utah in 2020. The largest numbers of veterans live in Salt Lake, Davis, Utah, and Weber counties.

About 1-in-7 Utah veterans are military retirees. Retirees predominantly live in Davis, Salt Lake, and Weber counties, with relatively strong presences in Utah and Washington counties.

Contracts and Grants

At \$3.2 billion in FY 2021, the total value of Department of Defense (DOD) and Veteran Affairs (VA) contracts and grants increased by 48% from FY 2020. Annual amounts vary considerably, driven primarily by changes in DOD contracting levels. Even with year-to-year fluctuations, DOD contracts consistently make up a majority share of total awards, ranging between 87% to 97% depending on the year. Total grant awards typically fall between 1% and 11% of total awards. In 2021, DOD contracts and grants accounted for 96% of total Utah awards.

2023 Outlook

As has been the case for the past several years, forecasters project employment at the majority of Utah's military installations to remain relatively stable for 2023. The exception once again involves continued Hill Air Force Base growth, both on base and in the surrounding defense contractor community, associated with the Ground Based Strategic Deterrent program—recently designated the Sentinel program by the Department of Defense.

On base, the Sentinel government program office will continue to hire modest numbers of both DoD civilian and military members to build out program office staffing. Off base, the Northrup Grumman Corporation completed construction of all four business complex buildings and the company will continue hiring into 2023 as well.

While the magnitude of Sentinel program subcontractor growth in Utah remains difficult to determine, strong indications suggest that, with both the prime contractor and Air Force program offices located in Utah, a number of these companies will locate all or part of their Sentinel related operations here as well.

Compensation associated with this growth in Sentinel related jobs will continue to reflect the historically higher-than-Utah-average compensation enjoyed by federal defense jobs for many years. Many of these new jobs will be highly technical, requiring advanced degrees and often significant experience levels. These prerequisites, accompanied by Utah housing costs which have risen significantly over the past few years, will require attractive compensation packages to convince qualified defense sector employees to make Utah their home.

Public Education

2022 Overview

Enrollment

In Fall 2022, 675,660 students enrolled in Utah's public education system, an increase of 413 students (.06%) from Fall 2021. There were 46,664 kindergarten students, a decrease of 1,855 students, or 4.3% from the previous Fall 2021 (48,758). Kindergarten enrollment had previously increased in the Fall 2021 by 1,855 students from the Fall of 2020.

Although Utah's student population is primarily White (71.4%), it is becoming more diverse. In Fall 2022, Utah's student body was 19.5% Hispanic or Latino, 1.7% Asian, 1.6% Pacific Islander, 0.9% American Indian and Alaska Native, 1.3% African American or Black, and the remaining students (3.4%) identified with multiple ethnicities.

In 2022, 115 charter schools operated in Utah. The Utah State Charter School Board, school districts, and public universities authorize charter schools. Charter schools educate 78,732 students, about 11.6% of all Utah public school students.

Transportation

In Fall 2021, the state's 3,288 school buses transported 164,279 students more than 25 million miles to and from school. Twenty-five percent of students travel on school buses to and from school.

Construction

In 2021, the Utah State Board of Education issued 77 construction project numbers to 17 school districts and 12 charter schools located throughout the state. These construction projects include new or replacement schools composed of three high schools, three junior high/middle schools, 10 elementary schools and five charter schools.

Finances

In fiscal year 2019, the most recent year for which state-level National Center for Education Statistics data are available, Utah's net current expenditure per pupil totaled \$7,950 (the nation's lowest). Net current expenditures do not include capital spending. Including capital spending raises total expenditure per pupil for fiscal year 2019 to \$9,723 (22% more than current expenditures).

However, some consider current expenditure as a percent of total personal income as a better measure of Utah's effort to fund public education. Using this measure, Utah ranks 34th nationally, at 3.4% of personal income. Utah's per pupil net current expenditures for fiscal year 2022 was \$9,963.

The Basic Program, the Minimum School Program's largest funding program, allocates funds using a weighted pupil unit (WPU) methodology. Along with other funding increases, for fiscal year 2022, the Legislature appropriated funds for a \$229 increase (6.0%) in the value of the WPU, increasing it from \$3,809 to \$4,038 for fiscal year 2023.

Achievement

In 2022, Utah ranked 29th in the nation with an ACT Average Composite Score of 20.6. In 2022, 91% of eligible Utah high school students took the test. In 2021, the four-year cohort high school graduation rate was 88.1%, compared to 88.2% in 2020. However, because the 2021 cohort was larger, 1,233 more students graduated in 2021.

In 2021, Utah's pupil-teacher ratio was 21.1, a 2.3% decrease compared with the previous year's ratio.

A total of 48,974 Utah students earned 367,233 hours of college credit in 2022 through Utah's concurrent enrollment program. This total represents a 6.1% increase in students over 2020-2021. Students pass ninety-five percent of the credits attempted.

A total of 28,970 Utah public school students took 41,479 Advanced Placement (AP) exams in 2022, with 28,326 earning a score of 3 or better (a 69% pass rate), which qualifies students to earn college credit. Nationally, the pass rate at public schools is 59%. Utah has 11 schools involved in the International Baccalaureate (IB) program; three Primary Year Programs; One Middle Year Programs; Seven Diploma Year Programs; Three Career Related Programs. There are 3,433 students total among those schools, accounting for 189 diplomas.

325 Utah schools—or 31% of Utah schools—offer dual immersion programs in French, German, Mandarin Chinese, Russian, Portuguese, Arabic, and Spanish.

Impacts of COVID-19

National Assessment of Education Progress (NAEP) 2021 results show widespread learning loss nationwide. On average, U.S. public school students in grades three through eight lost the equivalent of a half year of learning in math and a quarter of a year in reading.

Relative to other states, Utah students fared better. While Utah saw statistically significant declines in fourth grade math and reading, Utah showed no significant change in eighth grade math and reading. Utah was the only state in the nation where the eighth-grade math declines were not statistically significant. No states saw statistically significant improvements in math or reading at either grade-level.

Statewide RISE (grades 3-8) and ASPIRE (grades 9-12) test results show that on average, proficiency rates fell from 2019 to 2021. While they rose slightly from 2021 to 2022, they are still below 2019 (pre-pandemic) levels.

Learning loss also varies across demographic groups. Low-income students' proficiency rates fell between two and three times more than the state average across all three subject areas. Students identifying as White, Asian, or multiple races had proficiency rates that fell by less than the state average while American Indian, Hispanic/Latino, and Pacific Islander students' proficiency rates fell by more than the state average across all three subject areas.

School districts and charter schools across the state are utilizing pandemic-related funding assistance to address learning loss in a variety of ways.

2023-2024 Outlook

Enrollment

For the 2023-2024 school year, state forecasters project total enrollment in Utah's public education system to increase by 90 students (0.01%) to 675,750.

Kindergarten enrollment declined by more than four percent from 2021 to 2022 and has declined most of the past five school years. This change corresponds to a declining number of total births five years prior. Based on birth trends and a declining fertility rate, forecasts anticipate declining kindergarten class size will continue.

Utah's charter school enrollment has increased by approximately 0.5% per year, on average, over the last three years. Forecasts estimate that enrollment in charter schools in Utah will grow by 0.4% in the fall of 2023.

Higher Education

2022 Overview

Across the nation, institutions of higher education face a reckoning of identity as the number of people attending colleges and universities trends downward and the value proposition of a postsecondary degree is called into question. Overall enrollment across the Utah System of Higher Education (USHE) which includes 16 public universities and colleges, increased slightly from 2021 to 2022, but some individual institutions experienced an enrollment contraction. Institutions across the system are striving to deliver the highest-quality experience for Utah students in order to prove the value of higher education to enrollees, to local businesses, and to the Utah population as a whole.

Enrollment

The number of students enrolled in a Utah System of Higher Education (USHE) institution at the third week of Fall semester 2022 increased 1.4% over Fall third week of 2021. In 2021, enrollments were rebounding from the pandemic contraction and exhibited year-over growth of 1.6% over 2020. The total headcount for Fall 2022 across the 16 USHE institutions was 215,004, an increase of 3,050 over the prior year. Note that at the time of this publication, only Fall third week enrollment numbers were available for 2022. Given the slower enrollment trends exhibited at some institutions, 10-year outlook for USHE's degree-granting institutions has softened, with an expected 55,000 additional students enrolling in USHE schools over the next 10 years.

Third week enrollment data from Fall 2022 shows year-over increases for 11 institutions across the USHE system and slight decreases for Salt Lake Community College, Snow College, Bridgerland Technical College, Davis Technical College, and Uintah Basin Technical College. The overall change for all degree-granting institutions was 1.5% and for all technical colleges was 1.2%.

Degrees and Awards

USHE colleges and universities issued 60,530 certificates and degrees to the class of 2022, a 7.5% increase over the prior year. Slightly less than 20,000 of the awards were in the form of a certificate, primarily issued in fields of technical education. Another 16,100 were at the associate degree level and slightly more than 19,000 were issued at the bachelor's degree level. A full 4,600 masters degrees were earned. Certificates were also awarded at the post-bachelor's and post-master's level; roughly 800 were earned in the 2021-2022 academic year. And for the same academic year, roughly 1,100 doctorate degrees were earned by Utah students.

Student Success

The Utah Board of Higher Education continues to gain understanding of the effects of the COVID-19 pandemic as a way to inform policy to support students in their efforts to earn degrees and awards. Of particular concern is the effect of the COVID-19 pandemic on students' path to completion. Students struggled to stay engaged in coursework while operating in a learning environment abruptly transitioned to virtual classrooms, electronic learning management systems, and other online tools.

To ascertain some of the effects of the pandemic on student success, researchers at USHE evaluated student pass rates in the ten most commonly enrolled courses across the system. For the five years that preceded the pandemic, students failed or did not complete coursework 11.7% of the time. In 2020, that rate actually decreased to 10.6%. A possible explanation for the improvement may be changes in student decisions on course load or increased latitude provided by institutions and instructors as learning environments adjusted to the social distancing conditions of the pandemic. In 2021 and 2022 the rates of failure or incompleteness remained low, at 10.8%.

Statewide Attainment Goals

Senate Bill 193 from the 2021 session of the Utah Legislature codified changes in a portion of the funding available to USHE institutions to align with the statewide higher education attainment goals. The goals, designed to foster economic growth, are in the areas of student access, completion, and workforce alignment. Each institution is expected to set five-year goals marking their contribution to the system-wide goals in each of the three measurement areas. Aligning supplementary funding to the attainment goals allows institutions to focus on the key areas that drive student success and economic vitality for our state.

The access goal encourages student enrollment in higher education following high school graduation. Currently, about 36.1% of all Utah high school graduates do not enroll in a postsecondary technical or degree-granting program in Utah or elsewhere. The System proposes to reduce that number to 31.5% in the academic year 2027 by increasing the percentage of Utah high school graduates attending USHE technical education and degree-granting institutions.

The timely completion goal encourages USHE institutions to find innovative solutions to move students through certificate and degree programs to graduation in a timely manner. Currently, about 48% of all USHE degrees and awards are achieved within one-and-a-half time (1.5 years for a one-year certificate, 6-years for a bachelor's degree, etc.). The System proposes to increase that number to 50.4% in the academic year 2027 by increasing the timely completion rates of each USHE institution.

The high-yield award goal encourages USHE institutions to advise students to seek certificate and degree programs that lead to jobs in high-wage, high-demand fields. Currently, about 71% of all USHE awards are aligned with high-wage, high-demand occupations (4- and 5-star jobs as delineated by the Utah Department of Workforce Services). The System proposes to increase that number to 74% in the academic year 2027 by increasing the percent of high-yield awards at each USHE institution.

Affordability

Over the past 10 years, tuition and fees for full-time resident students have increased at an average pace of 3.1% per year in Utah's degree-granting institutions; the pace of increase in the consumer price index over this time was approximately 2.5% per year. Employee wage and benefit inflation are a major driver of tuition increases given, like most public sector organizations, wages and benefits are the System's greatest expense. Each year, the legislature funds a compensation package

for the state that addresses cost of living and/or merit wage increases and benefits escalations. The legislature regularly appropriates funds to cover the full costs at technical colleges and 75% of the costs at degree-granting institutions; degree-granting institutions cover the remaining 25% through tuition increases and efficiencies. Acknowledging the pressures of rapid, widespread inflation, the Governor has called for a tuition freeze for the 2023-24 academic year. His budget recommendations include funding to cover 87.5% of compensation increases, calling on schools to find efficiencies for the remaining amount.

Scholarships are an effective tool to increase the affordability of higher education. As such, the Utah Board of Higher Education awarded or allocated scholarship funds to institutions to support nearly 20,000 students in FY 2022. Almost 60% of all scholarships awarded were needs-based and intended to reduce barriers for first-generation and underserved student populations or industry-specific scholarships. A needs-based Promise Partner pilot program that included matching funds from industry partners for 19 students and the inaugural USHE Employee Scholarship (129 students) are included in this total. Almost two-thirds of Promise Partner scholarships and nearly half of USHE employee scholarships were earned by first-generation students. The Commissioner's office worked with the Legislature to streamline multiple merit-based state scholarships into the Opportunity Scholarship. Additionally, the Utah Board of Higher Education forgave approximately \$3.1 million in incentive loans for teachers after the Legislature changed the T.H. Bell Incentive Loan Program into the T.H. Bell Grant Program.

2023 Outlook

The future for higher education, once thought of as unquestionably bright, now is less certain given trends of increasing costs of higher education, student loan debt, and low completion rates. With challenges though, come improvements. USHE institutions, in partnership with the USHE Commissioner's Office and leaders across the state, have committed to re-focusing attention on ensuring students have access to affordable and varied education programs that align with students' needs as well as the needs of Utah's economy.

Energy

2022 Overview

Heading into 2022, energy experts debated the speed and timing of a return to "normal" energy demand following a tumultuous 2020–2021 as the world responded to the COVID-19 pandemic. As vaccines became widely available in the first half of 2021, optimism grew in the energy economy as demand quickly headed back to pre-pandemic levels. In many cases, energy demand increased faster than supply, causing significant run-ups in prices, as well as supply chain constraints. These problems were compounded when Russia invaded Ukraine causing more disruption to energy supplies. Overall, the higher energy prices and the greater demand spurred increases in local drilling and production of oil and natural gas. In addition, the federal administration maintains an emphasis on a transition to carbon-neutral energy sources, most acutely seen in the electric utility sector with a continued shift away from coal to more renewable sources.

Utah crude oil prices peaked near \$100 per barrel in summer 2022 before dropping back to about \$65 per barrel in the fall, and averaged \$81.50 per barrel for the year—the highest price since 2013 and more than double the average price in 2020. This rebound in price, coupled with record-high petroleum demand, resulted in a 26% increase in Utah crude oil production to 44.6 million barrels in 2022, the highest annual production on record. Natural gas prices more than tripled since 2020 to \$7.00 per thousand cubic feet (Mcf) in 2022 and resulted in an annual natural gas production increase for the first time in nearly 10 years, reaching 260 billion cubic feet (Bcf) in 2022.

Construction of new utility-scale solar facilities continued in 2021 and 2022 with the addition of about 650 megawatts (MW) of capacity, bringing Utah's total solar capacity to 1.5 gigawatts (GW). Solar dominates Utah's renewable energy portfolio, providing 65% of total renewable capacity. In the residential sector, total installed residential photovoltaic (PV) capacity in Utah has increased from just 6 MW in 2013 to about 356 MW in 2021.

Utah coal production dropped to the lowest level in nearly 40 years, just 11 million tons in 2022, despite a significant increase in coal prices. The establishment of a foreign export coal market continues to be a challenge as access to West Coast ports remains in question. Electricity generation in Utah decreased 8% in 2022, despite consumption increasing to a new record high of 33,100 GWh. Electricity prices also increased but continue to be nearly 30% lower than the national average.

Demand for oil and natural gas remained strong in 2022 and will continue to play a major role in Utah's energy landscape. However, there is a noticeable shift at the federal level to move more quickly to carbon-neutral energy sources. Fortunately, Utah is well positioned to take the lead in this energy transition with major research projects focused on

geothermal energy, hydrogen technology, carbon sequestration opportunities, and utility-scale storage, as well as the continued buildout of large-scale PV solar farms, which soon could be coupled with innovative battery storage.

2022 Summary

Petroleum

Production. Utah oil production took a major hit in 2020, dropping to 31.0 million barrels, when the COVID-19 pandemic caused major global disruptions to petroleum prices and demand. Production bottomed out at 69,600 barrels per day in May 2020, but then steadily increased and then surpassed pre-pandemic levels in 2021 and 2022, hitting a record high of 136,500 barrels per day in October 2022 (before dropping slightly in November to 122,700 barrels per day, the most recent data at time of writing). Total crude oil production for 2022 is expected to reach a record high of 44.6 million barrels, a 26% increase from 2021 (44% higher than 2020), mostly attributable to the drilling of very successful long-reach (10,000+ feet) horizontal wells in the Uinta Basin. Total crude oil pipeline imports from Colorado, Wyoming, and Canada increased a modest 2.6% to 38.8 million barrels in 2022 as refineries continued to adjust to post-COVID-19 increases in petroleum product demand. Similarly, refinery receipts—the amount of crude oil delivered to Utah’s five refineries—increased 6.5% to a new record high of 71.1 million barrels. With the growth in production in 2022, estimated exports of Utah crude oil nearly doubled to 12.3 million barrels, mostly related to more Uinta Basin crude oil heading to the Gulf Coast via trains that are loaded near Price, Utah.

Prices and Value. After a volatile year in 2020, oil prices increased steadily in 2021 and the first half of 2022 as petroleum demand returned to pre-pandemic levels. Utah oil prices started the year near \$70 per barrel but steadily increased to about \$100 per barrel by mid-summer, before falling again back to about \$65 per barrel in December. The overall average 2022 crude oil price in Utah is estimated at \$81.50 per barrel, up 34% from the 2021 price and up 133% from the 2020 price. The increase in price, coupled with a resultant surge in production, pushed the value of Utah’s produced crude oil up to \$3.6 billion in 2022, a new record high in nominal dollars and more than triple the 2020 value. Following suit, Utah’s average price for regular unleaded motor gasoline and diesel also significantly increased in 2022 to \$4.23 and \$4.97 per gallon, respectively.

Consumption. Petroleum product demand plummeted in 2020 as travel restrictions and stay-at-home directives went into effect due to the COVID-19 pandemic, but demand quickly rebounded, surpassing pre-pandemic levels in 2021 and again in 2022. Utah’s refined petroleum product production reached a record high of 82.8 million barrels in 2022, a 6.2% increase from 2021. Refined petroleum product imports from Wyoming via the Pioneer pipeline also increased by 3.9% in 2022, and Utah refineries export an estimated 30 to 35 million barrels of petroleum products per year via pipeline to other states. Utah’s total petroleum product consumption is expected to reach a new record high in 2022 at about 64 million barrels, 6% higher than 2021 and 16% higher than the COVID-19-influenced drop in demand in 2020. Nearly 48% of total petroleum demand was motor gasoline, and diesel represented 28%. Utah imports and exports significant amounts of petroleum products, but overall, Utah is a net exporter, only using about 80% of the product refined at Utah-based refineries (but is dependent on out-of-state crude oil imports to make refined products).

Natural Gas

Production. Utah’s natural gas production peaked in 2012 at 491 Bcf but then retreated to 240 Bcf by 2021 due to several years of low prices and a lack of natural gas drilling in Utah. However, production rebounded 8% in 2022 to about 260 Bcf as prices spiked and natural gas-specific drilling resumed for the first time in nearly four years. Natural gas production was also boosted by the significant associated gas produced from new crude oil wells. Dry natural gas production and natural gas sales in 2022 also increased to 250 and 215 Bcf, respectively, and natural gas liquids production increased to 3.7 million barrels.

Prices and Value. After averaging only about \$2.50 per Mcf between 2015 and 2020, the wellhead price for natural gas in Utah increased to \$4.11 in 2021 and then again to \$7.00 in 2022. Natural gas prices near \$2.50 per Mcf provided little economic justification for natural gas exploration or development. However, with the dramatic increase in prices over the past year, natural gas-specific drilling has resumed (four rigs were drilling natural gas wells in late 2022). When wellhead prices increase, so do consumer prices; the residential natural gas price increased about 20% in 2022 to \$10.75 per Mcf and the price for industrial uses increased 43% to \$7.74. Higher natural gas and natural gas liquids production, coupled with higher prices, pushed the 2022 natural gas production value to \$2.0 billion, 82% higher than 2021 and nearly quadruple the value recorded in 2020.

Consumption. Natural gas consumption in Utah has been volatile over the past several years mostly due to large swings in the electric utility and residential markets. Consumption in Utah is expected to reach a record high in 2022 of 271 Bcf, about 4% higher than 2021. Most natural gas in Utah is used for residential purposes (28%) or electricity generation (29%), followed by the commercial (17%) and industrial (14%) sectors. Traditionally Utah has been a net exporter of natural gas, but this changed starting in 2020; for the past three years Utah has been a net importer.

Coal

Production. In 2022, Utah had six active coal mines, the fewest number since mining operations began in Utah nearly 150 years ago. This number was recently reduced to five when the Lila Canyon mine was temporarily idled due to an underground combustion event, and it is currently unclear when (or if) the mine will be able to resume production. Overall, coal production dropped by 12% in 2022 to 11.0 million short tons, well below the 24.5 million tons averaged in the 2000s. The decline in Utah coal production started during the 2008 recession, but demand never rebounded like other energy commodities since coal has dropped out of favor as a fuel for electric and industrial needs. Production at the two remaining Wolverine mines, Skyline and Sufco, accounted for 61% (6.7 million tons) of Utah's total coal production. The Emery County Coal Resources Lila Canyon mine produced 2.3 million tons of coal before being idled in September. In mid-2020, COP Coal Development bought the Castle Valley mines, now called Gentry, from Rhino Resources and produced about 500,000 tons in 2021 and 600,000 tons in 2022. The Coal Hollow mine in southern Utah produced about 350,000 tons in 2022 from their surface mine, including new production on their long-sought federal coal leases. Bronco Energy's Emery mine produced about 1.1 million tons of coal in 2022, about the same as in 2021.

Prices and Value. The average mine-mouth price for Utah coal dramatically increased to about \$45 per short ton in 2022, a relatively high price in nominal dollars but still well below the inflation-adjusted high of \$118 per ton reached in 1976. The end-use price of coal at Utah electric utilities, which includes transportation costs, also increased to \$47 per ton in 2022. The value of coal produced in Utah totaled \$494 million in 2022, 3% higher than 2021, but well below the inflation-adjusted high of \$1.5 billion recorded in 1982.

Consumption. Demand for coal in Utah dropped 17% between 2015 and 2016, then remained steady (about 12.6 million tons) until 2020 when it dropped to about 11 million tons in response to the pandemic-related decline in electricity demand. Demand rebounded in 2021 back to 12.6 million short tons, but decreased again in 2022 to 11.6 million tons, 97% of which was burned at electric utilities. Coal demand in Utah's industrial sector, mostly by cement and lime producers, dropped to about 340,000 tons in 2022, a quarter of peak demand of 1.4 million tons reached in 2005. Utah used to be a significant net exporter of coal to neighboring states, but out-of-state domestic demand dropped from a high of 16 million tons in 2001 to just 1.6 million tons in 2022. Utah's foreign coal exports peaked in the mid-1990s at about 5 million tons, then dropped to near zero in the mid-2000s. Demand from the foreign market has increased over the past decade, totaling an estimated 2.7 million tons in 2022; however, West Coast port access for overseas transport remains a challenge.

Electricity and Renewable Resources

Production. Electricity generation in Utah decreased 8% in 2022 to 39,265 gigawatt hours (GWh) after rebounding in 2021 (42,566 GWh) from a nearly 20-year low in 2020 (37,087 GWh). Coal-fired electric generation once dominated Utah's electric portfolio, providing 94% of electric generation back in 2005. In 2022, coal accounted for only 57% of Utah's electric generation. Increases in natural gas generation (28% in 2022) and renewable sources (15% in 2022) have broadened Utah's generation portfolio. The largest change in Utah's electricity sector is the recent exponential increase in utility-scale PV solar capacity. Between mid-2015 and the end of 2016, 855 MW of utility-scale solar capacity came online, more than wind, hydroelectric, geothermal, and biomass combined. Between late 2019 and the end of 2022, an additional 680 MW of solar was installed for a total of 1.5 GW of utility-scale solar capacity. With these new additions, solar contributed just under 10% of Utah's total electric generation in 2022. In contrast, electric generation at Utah's coal-fired power plants has decreased over 41% since 2008.

Prices. The overall price of electricity in Utah has remained mostly steady over the past ten years, but with a slight uptick (7%) in 2022. Utah's 2022 average electric rate of 8.9 cents per kilowatt-hour (kWh) for all sectors of the economy is about 30% lower than the national average of 12.5 cents. This lower rate is mostly attributed to Utah's established fleet of coal-fired power plants, which still supply 57% of electricity generation in the state. The residential price of Utah's electricity increased 5% in 2022 to 11.0 cents per kWh, lower than the national average of 15.0 cents per kWh.

Consumption. After several years of near-steady demand (from about 2013 to 2019), electricity consumption resumed its upward trend in 2020, setting new record highs for three years in a row, reaching an estimated 33,100 GWh in 2022. These increases took place in the residential (accounting for 34% of total demand) and commercial (38% of total demand) sectors, whereas electricity demand in the industrial sector (27% of total) decreased slightly. Residential electricity

consumption per person decreased from an average of 3.22 MWh per capita between 2006 and 2013 to 3.05 MWh between 2014 and 2019. This decrease was most likely related to increased energy efficiency measures as well as the increased use of residential PV solar. However, the COVID-19 pandemic seems to have spurred increased electricity usage in the residential sector (e.g., more work-from-home opportunities, etc.), resulting in an increase in per person electricity usage of 3.21 MWh in 2020, 3.28 MWh in 2021, and 3.32 MWh in 2022. Overall, Utah remains a net exporter of electricity, using only 84% of in-state electric generation.

2023 Outlook

Although the past couple years were dominated by the impact of the COVID-19 pandemic on Utah's energy industry, 2022 returned to a "new normal" with a strong economy, surging energy demand, high energy prices, and the positives and negatives that go along with each. This situation is coupled with the intensifying interest in "the energy transition" with increasing emphasis on renewable and carbon-neutral energy sources, innovations in the hydrogen economy, and the electrification of the transportation system.

Oil prices in Utah will most likely remain volatile but relatively high in 2023, in the upper-\$60 to low-\$70 per barrel range as demand continues to grow and geopolitical situations influence global prices. Oil prices in this range will continue to support 8 to 10 drill rigs in the Uinta Basin, mostly drilling long-reach horizontal oil wells but with some continued vertical/directional development. However, in the short term, production (currently at record highs) will be curtailed by transportation constraints, supply-chain issues, labor issues, and gas off-take options. The game-changer for the Uinta Basin would be the construction of the proposed Uinta Basin railway. All approvals from the federal government have been granted and construction could begin after financing has been secured. When built, the proposed railway could open new out-of-state markets for Utah's crude oil, creating potential for significantly higher crude oil production. Exploration/development elsewhere in Utah will likely remain minor compared with drilling in the Uinta Basin, but the increase in crude oil prices has spurred new interest in the Paradox Basin (e.g., Cane Creek play) and the Utah Central Thrust Belt. Demand for petroleum products in Utah is projected to hit record highs in 2022 and is expected to continue this upward trend into 2023 and beyond—any petroleum demand reductions predicted by the electrification of Utah's transportation sector will take years to materialize as electric vehicles still only account for 0.6% of total vehicle registrations.

Several years of sub-\$3 per Mcf natural gas prices caused stagnation in Utah's natural gas production industry, resulting in the lowest production levels since the 1980s. However, in late 2021 and continuing into 2022, the price of natural gas increased to the \$5–\$8 per Mcf range. These higher prices have facilitated the return of drilling rigs that specifically target natural gas reservoirs, with three rigs drilling gas wells currently, all in the Uinta Basin. However, national benchmark prices for natural gas started dropping in January 2023 and are currently (end of February) back near \$2.50 per Mcf. Spot prices in the Rockies spiked in December 2022 and January 2023, averaging \$28 and \$16, respectively, but have also decreased back into the \$2–\$3 range. It is unclear how long these low prices might last (prices are predicted to be in the \$2 to \$3 range for the rest of 2023), but eventually, if they stay low, it will once again result in laid down drill rigs and falling production.

Coal production in Utah is expected to remain in the 11- to 13-million-ton per year range for the next few years, as in-state demand currently averages 11 to 12 million tons a year and out-of-state demand continues to be less than 2 million tons per year. This current supply-demand balance will change starting in about 2025 when the coal-fired Intermountain Power Plant converts to natural gas and eventually hydrogen, removing demand for 3 to 4 million tons of coal. Utah coal deliveries to the foreign export market have experienced a modest jump in the past few years and potential remains for access to a strong overseas market which could partially replace falling domestic demand. However, West Coast port facilities are vital for accessing the Asian coal market, but current capacity at existing ports is limited and additional capacity could be a challenge to build.

Utah's electric generation portfolio will continue to evolve as demand for carbon-neutral electricity increases and several new utility-scale solar farms are installed in 2023 and beyond (an additional 600 MW of new capacity is under construction as of late 2022, with many more facilities in the planning stages). This intensified emphasis on carbon-neutral energy sources has spurred research and development into large-scale electric storage facilities (e.g., underground compressed air, pumped hydroelectric facilities, and more traditional utility-scale battery storage), enhanced geothermal systems at the Frontier Observatory for Research in Geothermal Energy (FORGE) site in central Utah as well as traditional geothermal resources, the production of carbon-neutral hydrogen for electricity generation or vehicle fuel, and next-generation nuclear energy facilities (e.g., molten salt, etc.). Consumption of electricity has resumed its faster-paced growth as our modern society becomes more reliant on electricity for everyday conveniences. Despite recent changes, Utah's well-established coal-fired power plants (which still provide 57% of Utah's electricity generation), as well as an established fleet of natural-gas plants and nearly 1.5 GW of solar capacity, will assure affordable, reliable electric power for the near future and keep Utah's electricity prices nearly 30% below the national average.

Health Care

2022 Overview

COVID-19 continued as a leading public health issue in Utah in 2022. However, the public's focus on the disease dropped as stay-at-home, mask, and other public health directives lessened this year.

The incidence and risk of COVID-19 remains prevalent, however. As of November 8, 2022, Utah had the 10th highest rate of total reported COVID-19 cases per 100,000 people in the country (32,670). The state had the third lowest rate of total COVID-19 deaths per 100,000 people (157), with only Hawaii and Vermont having lower rates. Research by the Kem C. Gardner Policy Institute suggests that approximately 50% of Utah's lower COVID-19 per-capita death rate during the first year of the pandemic can be attributed to the demographic composition of its population.

The pandemic's impacts extend beyond just health measures though. Many economic, social, and educational measures merit examination when evaluating a state's COVID-19-related performance and outcomes.

While not comprehensive, the rankings represent available analyses that present a composite score, as opposed to a single measure. Developed using different data from different periods of time, they also come from a mix of academic, nonprofit, and other entities. As such, they are not comparable, but when combined, provide an indication of Utah's COVID-19 response and outcomes compared to other states.

Utah COVID-19 response and outcomes performed well relative to other states. Utah ranks first and second on two of the rankings and in the top 10 on three of the four. The fourth measure, from U.C. Berkeley, only considers health-related measures such as rates of infection, death, and testing, rather than a more comprehensive view of the economy and social factors.

Life Expectancy

A decline in Utah's life expectancy illustrates some of the health impacts of COVID-19. Following national trends, 2020 was the first year since 2016 where Utah experienced a decrease in life expectancy for males (declining more than one year from 78.4 years to 77.1). It was also the first time since 2015 that life expectancy for Utah females decreased (declining one year from 81.9 years to 80.9).² Life expectancy estimates a person's expected average number of years of life (or a person's age at death).

According to the Centers for Disease Control and Prevention (CDC), the pandemic largely drives the declines in national life expectancy since 2019. "COVID-19 deaths contributed to nearly three-fourths or 74% of the decline from 2019 to 2020 and 50% of the decline from 2020 to 2021." Deaths from accidental/unintentional injuries contribute about 16% of the decline, with drug overdose deaths accounting for nearly half of unintentional injury deaths.

Health Care Workforce

While COVID-19 negatively impacted Utah's health care workforce, the impact seems to be lessening. Data from the Utah Department of Workforce Services shows that growth in Utah's health care and social assistance industry slowed in 2020 compared with 2019 but remained positive (0.2%). The data also show that the industry rebounded in 2021, with a positive growth rate of 3.5%. That said, initial data from 2022 shows growth slowing again, with a growth rate of only 1.7%.

Many areas in Utah are classified as health professional shortage areas and slowing growth in health care employment could worsen these shortages. Heading into 2023, Utah will continue to face the challenge of ensuring a sufficient health care workforce as Utah's population grows, changes, and ages.

Health Insurance

The majority of Utahns receive health insurance through their employers. Utah continues to have the highest rate of employer-sponsored insurance (ESI) in the nation, with more than 59.3% of Utahns having ESI compared with the national average of 48.5% (2021).

The purchase of health savings account (HSA)-qualified high-deductible health plans (HDHPs) has also continued to increase in Utah since the mid-2000s. In 2021, HSA-qualified HDHPs accounted for 40.1% of Utah's commercial health insurance market, compared with 37.7% in 2020 and only 3.0% in 2007.

HSAs make up 50.5% of Utah's large-group market (defined as employers with 51 or more employees), 48.3% of the state's small-group market, and 21.4% of health plans purchased in the individual market. These percentages represent an increase in market share in the large- and small-group markets compared with 2020.

2022 is the first year where available data show some of the initial impacts from Utah's Medicaid expansion as well. Utah's full Medicaid expansion became effective in January 2020. This means any individual with income below 133% of the federal poverty level (FPL) is eligible for Medicaid coverage (income eligibility thresholds are higher for some children and adult populations).

Preliminary data from the American Community Survey show the percent of Utah's population with Medicaid coverage increased from 9.3% to 11.0% from 2019 to 2021. Utah's uninsured rate fell from 9.6% to 9.1%. The percent of the population covered by ESI and those with non-group coverage (which includes those covered by a policy purchased directly from an insurance company) also declined over this two-year period.

Data from the Utah Department of Health show Medicaid enrollment steadily increased since the beginning of 2020. However, some of this increase comes from the Medicaid continuous coverage requirement associated with the national COVID-19 public health emergency. For states to receive an enhanced federal financial match for their Medicaid programs, they cannot discontinue coverage for most Medicaid enrollees while the public health emergency is in place, regardless of changes in a person's eligibility.

As of December 2022, the public health emergency remains effective through at least January 2023, meaning Utah's Medicaid rolls will not see a decline due to eligibility changes until early spring 2023. Once the public health emergency ends, Utah's uninsured population could look different than two years ago. Health care coverage data in 2023 and 2024 could also look different, with an expected smaller percent enrolled in Medicaid.

Medicaid expansion's impact is already affecting some of Utah's adults, particularly among Utah's minority populations. Utah's adult uninsured rates fell for every racial and ethnic population between 2019 and 2021. Utah's Hispanic/Latino and Native Hawaiian or Other Pacific Islander populations, and populations that identify as two or more races experienced some of the largest declines.

Other Health Care Concerns

Prior to COVID-19, the Utah Department of Health identified three priority improvement areas: reducing obesity and related chronic conditions; reducing prescription drug misuse, abuse, and overdose; and improving mental health and reducing suicide.

Obesity

Utah has a relatively low share of adults who are obese compared with other states, but the percentage has been steadily increasing. For example, the share of adults who indicate they are obese or overweight increased by 5.2 percentage points from 2009 (60.3%) to 2021 (65.5%). Men are more likely to be overweight or obese than women (70.0% vs. 60.7% in 2021). Overweight, but not obese, is defined as a 25–29 BMI. Obesity is defined as a BMI of 30 or more.

Drug Misuse, Abuse, and Overdose

In 2020, Utah's age-adjusted opioid overdose death rate was 14.7 per 100,000 population, up from 13.3 in 2019 (but down from a high of 16.8 in 2014). In 2020, Utah had the 33rd highest opioid death rate in the country, which fell below the national average of 21.4. (2021 data had not been provided as of December 2022).

Suicide and Mental Health

Utah suffers from one of the country's highest suicide rates (Utah ranked ninth highest in 2020; 2021 data was not available). However, Utah's rate fell from 21.2 deaths per 100,000 total population in 2019 to 20.8 in 2020.

While Utah's suicide rate declined, other mental health indicators increased. For example, the share of Utah's new mothers who experienced postpartum depression symptoms increased from 14.9% in 2020 to 16.2% in 2021. Over the last 10 years, the reported share of new mothers with postpartum depression increased by five percentage points. Many women who experience postpartum depression also go undiagnosed.

Housing

Interestingly, housing rose as a frequently cited health care concern in 2022. Adequate housing is not only a key factor to improving the financial well-being and economic security of families, but research increasingly shows that housing stability, safety, and affordability impact health outcomes as well. Homeowners generally experience better physical health, mental health, and better access to health care.

Utah's housing affordability challenges not only create stress and instability that negatively impact health, behavioral health, and the wellbeing of Utahns, but also limit the ability to provide necessary housing-related health care services as well (e.g., supportive housing). Housing challenges also exacerbate the state's existing health care workforce shortages. Health care systems across Utah's urban and rural areas noted that they struggle to attract talent due to housing affordability concerns.

2023 Outlook

Moving into 2023, the state will likely continue to address many of the direct and indirect health issues that emerged from the pandemic. This includes, but is not limited to, encouraging people to access necessary preventive services; addressing mental and behavioral health needs among Utah's adults, youth, and children; continuing to grow Utah's health care workforce; and addressing racial, ethnic, income, and regional disparities in health.

In addition, the state has supported the development of the One Utah Health Collaborative, a community-owned 501(c)(3), that will address health care costs and help the state move toward cost-efficient, innovative health care.

Life Sciences

2022 Overview

The life sciences industry advances health care globally and represents a high-growth cross-section of Utah's economy. Life sciences companies develop, manufacture, and distribute pharmaceuticals, medical devices, and related products. The industry includes biotechnology firms, medical laboratories, diagnostics companies, and professional service providers in 1,285 business establishments around the state, as of 2020. The state's life sciences industry interfaces with medical providers, pharmacies, and other customers. In 2021, bioscience-related innovation in Utah resulted in 432 patent awards. While the state's employee workforce has an exceptionally high concentration in life sciences companies, opportunities exist to increase workforce diversity.

The life sciences industry provided 49,281 full-time and part-time jobs in 22 counties across Utah during 2020. Employees held 85.4% of these jobs, and self-employed workers filled the remaining 14.6%. Their combined earnings were \$4.6 billion in inflation-adjusted 2021 dollars.

Recent Growth

Life sciences employers help stabilize and advance Utah's economy and public health. From 2020 to 2021, life sciences employment increased by an estimated 6.4%, exceeding the 5.8% growth in other industries and the 5.4% life sciences growth in other states. From 2019 to 2020, Utah's life sciences job growth was 3.6%, as the number of jobs in other industries declined by 1.2%. Life sciences companies offer well-paying career opportunities in Utah. At an estimated \$103,400 per job in 2021 dollars, life sciences employee compensation was 46.5% above the annual average for all other industries.

Industry Composition

Utah's life sciences industry includes four segments. In 2020, "research, testing and medical laboratories" provided 38.0% of all life sciences jobs in the state, followed closely by "medical devices and equipment" with 34.1%. Rounding out the state's life sciences ecosystem are "therapeutics and pharmaceuticals" manufacturing (15.5%) and wholesalers in "biosciences-related distribution" (12.4%). Across the four segments, life sciences companies advance digital health and tech innovation.

Workforce Demographics

Science, technology, engineering, and mathematics (STEM) workers anchor research and operations in the life sciences industry. As in most places in the U.S., Utah's STEM talent does not fully match the gender, racial, and ethnic diversity of the population working in the state. For example, from 2016 to 2020, 2.4% of employed Utah women were in STEM occupations, near the U.S. average. Meanwhile, 8.8% of Utah's male workforce held STEM jobs (versus 7.3% nationwide).

From 2016 to 2020, 4.8% of Utah's minority workers were in STEM occupations, similar to the U.S. average. Utah's Asian and multiracial workers were well represented in STEM jobs (16.2% and 5.8%, respectively). The most underrepresented groups in the state were Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and some other race, with shares below 3.0%. Meanwhile, 6.1% of workers who are White and not Hispanic or Latino held STEM jobs in Utah (versus 5.2% in the U.S.).

2023 Outlook

Growth Trends

Utah's life sciences sector has momentum for expansion. From 2017 to 2021, life sciences employment in the state increased by 5.2% per year, on average. This four-year growth rate exceeded the 4.5% industry average in other states and the 2.8% average for other industries in Utah.

The productivity of life sciences companies depends on Utahns' depth in research, laboratory, management, manufacturing, entrepreneurial, and other roles. Colleges and universities enable continued workforce growth. Employers and educators provide opportunities for minority groups, women, and other communities in Utah.

Private and Public Investment

Utah's life sciences sector continues to attract sizable investments. From 2018 to 2021, life sciences companies received a cumulative \$682 per capita in venture capital, the eighth most among states. These investments rose from \$181.7 million in 2018 to \$896.9 million in 2021.⁶ In addition, awards from the National Institutes of Health totaled \$254.8 million in 2021 after steady growth from \$225.5 million in 2018.

Utah initiatives and partnerships in and around the life sciences industry improve its outlook. BioHive, BioUtah, the Utah Governor's Office of Economic Opportunity, World Trade Center Utah, and Economic Development Corporation of Utah provide statewide leadership. Local government planning is also essential, for example with Salt Lake City's strategies for economic development and greater workforce inclusion. Business initiatives and institutions of higher learning also help the life sciences ecosystem thrive.

Comparative Advantage

Among all states in 2021, Utah had the third highest workforce concentration in life sciences at 2.7%. Only seven states had employee shares above 2.0%, and the nationwide median was 0.6%. Utah had the 14th most life sciences jobs of any state, noteworthy for the 30th largest employed workforce in the U.S.

Within the life sciences sector, Utah's highest concentration of workforce talent lies in the medical devices and equipment segment, with a 2021 location quotient of 3.31, where 1.00 is the U.S. average. At 5.22, Salt Lake City had the second highest location quotient for this segment among large metropolitan statistical areas (MSAs) nationwide, and at 2.60, Ogden-Clearfield ranked fifth among all medium MSAs.¹¹ Meanwhile, in bioscience-related distribution, Provo-Orem had a location quotient of 1.89, second highest among medium MSAs. Logan's highest concentration was in research, medical, and testing laboratories, where its location quotient of 1.26 was eighth highest among all small MSAs.

Summary

During 2023, the life sciences industry is likely to outperform most sectors in Utah's economy in terms of employment, even if growth softens due to macroeconomic conditions. Along the Wasatch Front and beyond, local businesses are poised for continued success in one or more life sciences segments. Potential benefits from continued investments in life sciences workers and technologies include population health, investor returns, tax revenue and the livelihoods of people in life sciences jobs in Utah. The state has room for improvement in terms of gender, racial, and ethnic inclusion in the STEM workforce, which is essential for life sciences firms. The state remains well positioned in this strategic industry.

Minerals

2022 Overview

The Utah Geological Survey (UGS) projects an estimated gross production value of metallic and industrial mineral commodities of \$4.1 billion in 2022, essentially unchanged from 2021's estimated value of \$4.1 billion (in nominal dollars; \$4.5 billion adjusting for inflation). The U.S. Geological Survey reported that the 2021 value of Utah's nonfuel (metallic and industrial) minerals production ranked seventh nationally, accounting for 4.2% of the total U.S. nonfuel minerals production. The UGS's 2022 production values come primarily from industry production surveys, corporate quarterly reports, and discussions with mining industry professionals.

The 2022 mineral production value estimate of \$4.1 billion includes a metals value of \$2.5 billion (60%) and an industrial minerals value of \$1.7 billion (40%). Utah's metal production includes copper, gold, magnesium, iron, molybdenum, beryllium, and silver in decreasing order of estimated value. Utah also produces a long list of industrial mineral commodities including potash, salt, sand and gravel, crushed stone, portland cement, lime, limestone, lithium, phosphate, gilsonite, gypsum, frac sand, and other mineral products.

The most significant metal producer in the state remains Rio Tinto's Bingham Canyon open-pit mine. Bingham Canyon is the largest producer of copper, gold, and silver in Utah and is the state's only producer of molybdenum and tellurium. Copper production is projected to increase from 2021 to 2022 given the shift of mining at Bingham Canyon to zones of higher-grade copper, though production of gold and silver are expected to decrease moderately and molybdenum production to decrease notably. Rio Tinto announced the beginning of tellurium recovery in May 2022, becoming one of only two producers in the United States, following a \$2.9 million investment in the recovery facility. In September 2022, Rio Tinto announced a \$55 million investment to start underground mining to supplement open pit production through 2027. This is in addition to a \$108 million investment for a feasibility study of more extensive underground mining announced in July 2021. Current mine life is estimated to reach 2032.

The Lisbon Valley copper mine in San Juan County, the only other copper producer in Utah, reinitiated active mining in 2022 and embarked on an aggressive exploration program to increase the mine's known resources and reserves. Lisbon Valley Mining Company is pursuing permitting for an in-situ mining operation that would allow them to mine deeper parts of the ore body. Mining continued at the Iron Mountain iron mine in Iron County and at the Trixie gold-silver mine in Juab County, both relatively new mining operations that continued to expand production in 2021 and are likely to plateau at current levels in 2022.

Industrial mineral value from 2021 to 2022 is projected to increase modestly. Potash is produced at three facilities in Utah, and potash value increased substantially during 2022 due to the war in Ukraine. Lithium value also increased substantially in 2022, and US Magnesium continues to work towards increasing lithium production at their facility at Great Salt Lake after beginning production in 2020. U.S. Geological Survey data for the first half of 2022 indicate that construction aggregate production in Utah was similar to the first half of 2021. Construction aggregate, consisting of sand and gravel and crushed stone, is one of the more significant mineral commodities in Utah and is an indicator of the growth or decline of the construction sector.

Utah produced six critical minerals in 2022 (beryllium, lithium, magnesium metal, palladium, platinum, and tellurium), and hosts known resources of seven more (aluminum, fluorospar, indium, gallium, germanium, vanadium, and zinc) based on the U.S. Department of the Interior's (DOI) 2022 critical mineral list. Beryllium is produced from the Spor Mountain mining district by Materion Resources, and this operation accounts for over 65% of global beryllium production. US Magnesium remains the only producer of magnesium metal in the United States, producing from Great Salt Lake brines. Platinum and palladium, along with tellurium, are recovered as byproducts of metal refining at Bingham Canyon. Notable established resources of critical minerals include Blawn Mountain in Beaver County as the largest alunite (aluminum, potash) resource in the country and the West Desert zinc-copper-indium deposit in Juab County as the only known indium resource in the country.

Metal exploration activity held steady in 2022 after a substantial increase in 2021. Notable drilling programs have taken place in Beaver, Iron, Juab, Millard, Piute, Tooele, Utah, and Washington Counties, primarily for copper and gold. Early stage exploration has been active in Box Elder, Emery, Garfield, Grand, and San Juan Counties for uranium and copper. Overall exploration drilling footage in 2022 decreased modestly from 2021 and is expected to remain stable in 2023.

Recent industrial mineral exploration and development in Utah has included fluorospar, lithium, pozzolan, and others. Utah is poised to become the nation's only fluorospar producer as Ares Strategic Mining revives the Lost Sheep mine, Utah's largest historical producer of fluorospar. Due to battery demand, lithium prices continue to rise with renewed exploration

interest. Compass Minerals, a potash producer on Great Salt Lake, defined a lithium resource and expressed intent to begin lithium production from the lake by 2025. Anson Resources continues to pursue a potential lithium resource in subsurface brines of the Paradox Basin. Anson has re-entered old oil and gas wells in the basin to test lithium concentration in brines with some success and have expanded their in-place resource to over 1 million tons of lithium carbonate equivalent. Recently, interest in rock-hosted lithium in the West Desert has also emerged. Pozzolan is a material that has cementitious properties and can be used as an additive to portland cement to extend or enhance the cement. The benefits of pozzolans over conventional cement production can include reductions in manufacturing cost and greenhouse gas emissions. Interest in natural pozzolanic material has increased recently as availability of coal fly ash, a common manufactured pozzolan, has decreased. Multiple companies have been looking for natural pozzolan resources in Utah.

2023 Outlook

In 2023, Bingham Canyon is expected to increase copper mining rates, hold relatively stable with gold and silver production, and decrease molybdenum production because of pivoting to higher copper zones. Commodity prices dropped notably in the middle of 2022, and it remains unclear where prices might go in 2023 though the long-term outlook for copper remains robust. Consolidation of exploration projects may cause short-term contraction of exploration budgets; however, the need for more resources to support a high tech and increasingly carbon neutral economy is likely to drive strong exploration budgets in the moderate to long term. Given the increase in potash prices during 2022, potash exploration in Utah may be revived after a few years of limited activity. Lithium prices are likely to remain high and exploration and development activity in Utah will likely continue. Major swings in production and commodity prices for other industrial minerals are not expected in 2023. In summary, the UGS estimates that the production value of Utah's metallic and industrial mineral commodities will be similar to or slightly less in 2023 than 2022, mainly due to lower commodity prices.

Real Estate and Residential Construction

2022 Overview

In 2022, the value of permit authorized construction in Utah totaled \$12.04 billion, the second highest on record. Construction value includes the value of permit authorized residential and nonresidential construction as well as the construction value of additions, alterations, and repairs to existing structures. Permit authorized construction does not include most public construction, such as roads, highways, prisons, and schools.

Residential Construction

Of the estimated \$12.04 billion in total permitted construction value, residential activity accounts for 58.9%. The value of residential construction in 2022 totaled \$7.10 billion, 19.8% lower than the previous year.

Local governments issued an estimated 29,500 residential permits in 2022, a 26.5% decrease from the record of 40,144 in 2021. Historically low interest rates from the Federal Reserve's response to COVID-19 spurred the 2021 housing market activity. However, as inflationary pressures arose for various reasons, including the federal fiscal stimulus, the Federal Reserve began raising interest rates. The aggressive rate increases since early 2022 caused the most abrupt and sharpest nine-month increase in mortgage rates in over fifty years. The mortgage rate doubled from 3.45% in January 2022 to 6.90% by October 2022, dropping to about 6.30% as of December 2022.

In 2022, higher home prices and a doubling of the mortgage rate combined to erode housing affordability. As a result, demand decreased and new housing construction steeply declined throughout the second half of 2022.

The boom in multi-family (apartments, condominiums, and townhomes) construction continued from last year, albeit at a slower pace. Multi-family units totaled 17,250 and accounted for 58.5% of all residential units in 2022, which was a record share of total units. This represents a 22.5% decrease from the record 22,264 permitted multifamily units in 2021. While this loss is significant, 2022 is still the second highest year on record for multifamily permitted units.

In 2022, apartment unit permits totaled 9,800, accounting for one-third of all residential building permits issued. Local governments permitted 7,450 condominium and townhome units permitted as well, a year-over decline of 5.6%. This is the fourth year that multi-family permitted units exceeded single-family units.

Since the beginning of the residential boom in 2014, local governments issued permits for 69,500 apartment units statewide and 47,400 for condominiums. Apartments, townhomes, and condominiums combined account for 50.2% of all residential building permits issued since 2014.

Rising interest rates have brought single-family permitted units down by 32.0% from last year, the strongest decrease since 2008. The strong housing demand in 2021 decreased in 2022 as affordability left a majority of buyers on the sidelines. Over 12 months, the median sales price of a single-family home in the four Wasatch Front counties rose from \$522,000 to \$550,000. During the same period, the mortgage interest rate increased from 3.07% to 6.90% (although it has declined since). Driven primarily by higher interest rates, the monthly mortgage payment increased from \$2,921 to \$4,276, a 46% increase in a single year. Given similar assumptions, the 46% payment increase would apply to homes at all price levels, above or below the median price.

2023 Outlook

Forecasts project the value of 2023 total permit authorized construction in Utah at \$9.15 billion, a 24.0% decrease from 2022. The number of new residential units is forecast at 22,750 units, a 22.9% decline from 2022. Forecasts project the value of residential construction to decrease to \$5.30 billion, the value of nonresidential construction to decline by 20.2% to \$2.60 billion, and additions, alterations, and repairs to fall by 26.0% to \$1.25 billion.

Nonresidential Construction

2022 Overview

After a record-setting 2021 in nonresidential permitted construction value, the pace continued into 2022. Permitted values increased to a record \$3.26 billion, an 11.1% increase from 2021. The positive performance comes from several (years-in-the-making) projects that started in 2022, as well as Utah's strong economy. Utah has performed with strong job growth alongside a historically low unemployment rate near 2.0%. Every employment sector in Utah experienced positive job growth in 2022.

Office, Bank, Professional Construction

The office sector had an unexpectedly strong year in permitted construction value. The sector permitted \$630.1 million in construction value, a 21.3% increase over 2021. This growth was unexpected since many professional businesses have continued to operate in a hybrid working environment. However, the increase was due to breaking ground on several new projects that have been in the design and planning stages for years. This level of permitted construction value ranks second on record. Additionally, office-using employment, such as the professional and business service sectors, saw positive job growth in 2022. However, the hybrid office/work-from-home model continues to challenge historic office space demand. Office owners and tenants are still deciding how to approach future space needs.

Retail, Mercantile, Restaurant Construction

The retail sector experienced an above-average year in terms of permitted construction value. Like the office sector, several retail projects years in development broke ground in 2022. The sector permitted an estimated \$288.3 million in construction value in 2022, a 76.2% increase compared with last year. It is important to note that the 2022 retail construction value ranks second to 2008, the year that the City Creek Center was permitted.

Industrial, Warehouse, Manufacturing Construction

The industrial, warehouse, and manufacturing sector commands the largest share of commercial construction activity. After a record 2021, the sector experienced its first annual decrease since 2016 in permitted construction value. The decline of 8.0% in permitted value put the estimated value for 2022 at \$1.1 billion. Although there was a decline, this was still the second highest permitted value on record. A surge in manufacturing and trade employment kept construction demand high in 2022.

Structures Other Than Buildings

Structures other than buildings is a broad category and fluctuates each year. The sector experienced a 9.9% year-over increase in 2022. Permitted construction value in 2022 is estimated at \$375.7 million.

Remaining Nonresidential Buildings

Twelve individual building types constitute this sector; together, they accounted for \$882.8 million in 2022 permitted construction value, a 20.6% increase over 2021. The increase comes from several new projects in the amusement and recreation areas, hotels, hospitals, administrative public buildings, and education sector projects.

2023 Outlook

The 2023 forecast projects the value of permit-authorized nonresidential construction in Utah at \$2.60 billion, a decrease of 20.2% from 2022. The challenging environment created by rising interest rates is expected to continue slowing the momentum from 2022.

Inflation, along with other challenging economic factors such as a tight labor market, could slow construction and send many potential projects back to the drawing board. Because of these factors, commercial construction is expected to be slower in the next year.

Tourism and Travel

2022 Overview

Visitors spent a record \$10.56 billion in Utah's economy in 2021, creating 89,600 direct jobs and a record \$1.3 billion in direct state and local tax revenue. Visitation remained strong during the first half of 2022 but began softening in late spring due to economic and geopolitical forces. Despite the industry's post-pandemic recovery, leisure and hospitality employment failed to keep up with increased visitation, exerting pressure on Utah's service-related businesses. Additionally, surging inflation has resulted in healthy year-over-year growth in visitor spending and all tourism-related tax revenues.

From January to September 2022, transient room tax revenue increased 20.6% over the same period in 2021. Similarly, there were year-over-year increases in both short-term leasing (i.e., car rental) tax revenue and restaurant tax revenue (29.5% and 32.2%, respectively). During the first three quarters of 2022, 26 of Utah's 29 counties experienced year-over-year increases in county transient room tax revenue. Year-over-year taxable leisure and hospitality sales likewise increased 21.0% in the first half of 2022.

Preliminary employment data for the first half of 2022 indicates an estimated 1.9% year-over-year increase in Utah's private leisure and hospitality sector jobs. The 2022 estimated number of private leisure and hospitality jobs (for the first half of the year) surpassed 2019 baseline employment by 4.5% for the same time period.

During the 2021-2022 winter season, Utah ski resorts reported a record number of skier days (5.8 million) and skier spending (\$2.35 billion). This is a new skier spending record and \$800 million more than the 2019-2020 winter season, and nearly \$700 million more than the previous record set in 2018-2019.

State and national park visitation started strong in 2022 but began to decelerate in the late spring. From January to September 2022, Utah national parks experienced a 6.6% decrease in visitation and state parks experienced a 13.4% decrease compared to the same period in 2021. Reasons for the deceleration include both economic and geopolitical forces such as rising gas and food prices, talk of a U.S. recession, a strong U.S. Dollar, and the war in Ukraine.

Despite the significant impact COVID-19 had on urban and business travel, visitation to Utah's urban areas returned to the 2019 baseline in 2022. From January to September, Salt Lake County hotel occupancy rates were down only 1.7% and Salt Lake County transient room tax revenues were up 17.4% compared with 2019.

Visit Salt Lake reports that conference and convention delegate spending in Salt Lake County in the amount of \$143.6 million during the first half of 2022 was down only 2.7% from delegate spending in the amount of \$147.6 million during the first half of 2019, reflecting a near return to pre-pandemic spending. In addition, Salt Lake City's newest convention hotel, the Hyatt Regency, opened to guests in October 2022, paving the way for even larger and more Salt Lake City-based conferences, conventions, and meetings.

Finally, the new Salt Lake City International Airport celebrated its second anniversary in fall 2022, acknowledging the 12 million craft hours over 700 employees have put into airport redevelopment since it started in July 2014. Phases 2 and 3 of the airport redevelopment are currently underway.

2023 Outlook

Softening of Utah's travel market will likely continue in 2023. However, a return of business travel will help blunt the effects of the softening environment.

That said, a strong U.S. Dollar will continue to negatively impact international travel to the United States, meaning an international travel post-pandemic rebound remains unlikely until 2024.

U.S. Travel Association forecasts that in 2023, domestic air travel will increase an estimated 3.0% above the 2019 baseline, while international air travel will remain 18.0% below baseline, but up an estimated 22.0% from 2022. Additionally, while leisure travel in the United States rebounded to pre-pandemic levels in 2022, business travel is not expected to rebound until 2024.

Overall, auto travel is anticipated to continue to be the preferred transportation mode in 2023 with a 5.0% year-over increase. Air travel in 2023 is forecasted to not only increase an estimated 11.0% from 2022, but also return to pre-pandemic 2019 levels.

Tax Modernization

Overview and Outlook

In recent years, a dramatically shifting economy and tax policy changes impacted Utah's tax system. Just prior to the pandemic, the state began collecting sales and use tax revenue remitted by remote marketplace facilitators. Shortly thereafter, initial pandemic declines in economic activity led to short-term declines in some tax collections, such as sales and use taxes and fuel taxes. But as fiscal and monetary stimulus took hold and Utah's economy largely reactivated by the end of 2020, nominal tax collections increased dramatically.

This high nominal revenue growth continued through 2021 and 2022 as inflation increased to levels not experienced in four decades. Moreover, the Mountain West region experienced higher inflation than the U.S. overall.

Given high inflation, it is important to remember that a meaningful portion of this high revenue growth simply corresponds to higher inflation and population growth, while other portions represent real increases. Utah's three major state and local taxes together generate about 90% of Utah's state and local tax revenue (income, sales, and property tax). Revenue collections will continue to be driven by both economic changes and tax policy.

Income Tax

Income tax is Utah's single largest revenue source and imposed only by the state. In Utah's tax portfolio, it combines growth and volatility. These features remained evident in recent years.

Individual and corporate income tax growth rates spiked during the pandemic. A portion of this spike relates to an income tax due date timing shift from April 15, 2020 to July 15, 2020 that shifted nearly \$800 million between fiscal years, which artificially reduced FY 2020 revenues and artificially increased FY 2021 revenues. But beyond this anomaly, as Utah's economy recovered from the pandemic much earlier than most states and experienced inflation, total incomes grew significantly.

However, of the three major taxes, income taxes remain the most volatile, so future income collections may vary from recent trends as the economy moderates.

The state cut its tax rate to 4.85% and enacted various tax credits in 2022. Major income tax policy discussions moving forward likely will include income tax credits that benefit low- and middle-income households, further reductions in the income tax rate, and the Utah Constitution's provision limiting the use of income tax revenue only to public and higher education, other services to children, and programs for people with disabilities.

Property Tax

Property tax is currently Utah's third largest revenue source and imposed only by local governments such as school districts (57% of total), cities and towns (13% of total), counties (18% of total), and other local districts like water districts (12% of total). In Utah's tax portfolio, the property tax brings stability and local fiscal control. The relative stability derives from both the nature of property and the design of Utah's tax structure. However, being more stable than income and sales taxes does not mean property tax payers experience no volatility.

In 2022, property taxes shifted from businesses to households as assessed home valuations outpaced assessed commercial valuations. Market conditions drove a sizable portion of this change (home values increased dramatically while some commercial sectors like office and retail faced headwinds), but another portion of the shift likely relates to assessment practices. Moreover, property taxes increased with the final year of statewide school property tax rate adjustment and many entities going through the "Truth in Taxation" rate increase process, as they responded to inflationary pressures.

Major tax policy discussions moving forward likely will include targeted programs to mitigate regressive property tax impacts on certain taxpayers, improved property data and assessment practices for commercial property in particular, overall tax levels, and school property tax funding equalization.

Sales and Use Tax

Imposed by the state and by local governments, the sales and use tax is Utah's second largest major revenue source. In Utah's tax portfolio, the sales and use tax provides growing revenue that adjusts as taxable purchases increase, but it is regressive (meaning low-income people pay a larger share of the tax as a share of income). It provides state and local discretionary General Fund revenue as well as paying for a much larger share of transportation costs than fuel taxes. Governments also use it for other purposes such as recreational facilities.

In recent years, the state collected previously-uncollected tax revenue on remote sales. Although the use tax was always due on these purchases, remote businesses did not collect and remit the tax like brick-and-mortar businesses do. Leading up to and in the aftermath of the *South Dakota v Wayfair* U.S. Supreme Court decision, more remote sellers began to collect and remit the tax to Utah. Just prior to the pandemic, the state began collecting the last sizable chunk of due-but-uncollected revenue as remote marketplace facilitators began remitting. In short, just prior to the pandemic as more buyers shifted to remote purchases, the state began to receive more of these escaped taxes.

After a brief early pandemic lull, Utah sales and use tax collections skyrocketed, growing by 13% year-over as of June 2020, and continuing strong ever since. This occurred for a variety of reasons, including early pandemic panic buying, federal fiscal stimulus, unavailability or limited availability of many normal service-sector businesses which shifted consumption from services to goods, teleworking driving more home goods purchases, increased consumption ability as households paid down and refinanced debt, and higher nominal incomes as tight labor markets increased nominal wages.

In addition to the short-term uncertainty tied to economic uncertainty, various long-term sales and use tax issues will likely remain on policymakers' minds. These include the long-term shift of the economy away from goods in favor of services, the regressive impact of continued sales and use tax rate increases for transportation, and state funding imbalances between use-restricted income taxes and non-restricted sales and use taxes.

Housing Prices and Affordability

2022 Overview

In 2022, higher home prices and a doubling of the mortgage rate combined to erode housing affordability. Thus, homeownership has become more difficult for many of Utah's 333,000 renter households. However, for the 770,000 homeowners, rising prices in 2022 added over \$50 billion in increased equity (wealth). Current homeowners can comfortably weather the affordability threat, aware that higher prices add to their wealth. But for renters and future generations of homeowners, declining affordability thwarts housing and wealth opportunities.

A Sharp Increase in Interest Rates

In the wake of the pandemic's historically low mortgage rates, 30-year conventional mortgage rates reached their highest level in 20 years. The pandemic led to a historic level of federal fiscal stimulus (\$5.2 trillion) and disrupted global supply chains. Both led to accelerating inflation rates. From June 2021 to June 2022, the inflation rate increased from 5.3% to 9.0%.

In response to rapidly rising prices, the Federal Reserve raised the federal funds rate seven times from March to December, an increase of four percentage points. Interest rate increases are an often-used tool by the Federal Reserve to manage monetary policy. However, the Federal Reserve's tightening (including for mortgages) and aggressive rate increases since early 2022 caused the most abrupt and sharpest nine-month increase in mortgage rates in over fifty years. The 30-year mortgage rate average doubled from 3.5% in January 2022 to over 7.0% by late October and early November 2022. However, rates have since dropped to about 6.3% as of mid-December 2022.

Housing Price Increases Slow Down in 2022

Utah has a long history of volatile but generally increasing housing prices. Typically, the rate of increase accelerates over several quarters, establishing a peak followed by a period of slower increases.

In the price cycles of the 1990s and 2000s, Utah led the country in housing price increases for a few quarters. Year-over prices seldom decline. However, declines have occurred, most notably during the Great Recession when year-over prices fell for 15 consecutive quarters. The current cycle growth rate peaked in the second quarter of 2021 with a year-over percentage increase of 28.3%. Only Idaho, with a 37% increase in the second quarter of 2021, exceeded Utah's year-over percentage gain. Price increases continue decelerating, slowing to a 10.7% year-over increase in the third quarter of 2022. Monthly year-over price data from UtahRealEstate.com show that since March 2022, the rate of price increases in Utah decelerated for eight consecutive months, although still slightly growing overall statewide.

High Mortgage Payment Hinders Homeownership

The rapid increase in interest rates makes homeownership more difficult for many would-be homeowners. Potential homeowners face steep financial challenges without trade-up equity from an existing home. Comparing the mortgage payment required to purchase the median-priced home in October 2021 to October 2022 best illustrates this challenge. Over 12 months, the median sales price of a single-family home in the four Wasatch Front counties rose from \$522,000 to \$550,000. During the same period, the 30-year mortgage interest rate increased from 3.07% to 6.90%. Driven primarily by higher interest rates, the monthly mortgage payment increased from \$2,921 to \$4,276, a 46% increase in a single year. Given these assumptions, the 46% increase would apply to homes at all price levels, above or below the median price.

Using the standard rule that a mortgage payment should not exceed 28% of gross income, the income required to finance the median price home jumps from \$125,185 in 2021 to \$183,257 in 2022.

Affordability Worsens for Renters

Compounding the affordability challenge, over the past five years, the median income of renters grew by 19% (U.S. Census Bureau) while rents in the Wasatch Front counties increased at roughly double that rate. That is, Wasatch Front rental rates grew twice as fast as renters' income. In the past year alone, rental rates in Salt Lake County increased by 9.4% and 11.6% in Weber County, with somewhat more moderate, but still high, increases in Davis County (7.3%) and Utah County (7.1%).

In the past two years, many renters received some temporary financial assistance from the Emergency Rental Assistance Program (ERAP). ERAP provided \$385 million in federal assistance for Utah renter households. Authorized by the Consolidated Appropriations Act of 2021 and expanded by the American Rescue Plan Act of 2021, the assistance helps tenants unable to pay their rent or utilities due to circumstances related to the COVID-19 pandemic.

Program requirements insulate the 35,000 renter households living in Low-Income Housing Tax Credit units from rising rents. About one in eight renters in Utah live in affordable tax credit units. Rents in these units fall at least 10% below market rents, and tax credit requirements preserve unit affordability for 50 years. In the next two years, the inventory of tax credit units will increase by nearly 10% when the 3,000 units currently under construction are completed.

In addition to the tax credit program, federal Section 8 Housing Choice Vouchers provide rental assistance to about 12,000 renter households. Unfortunately, the number of renters who qualify for tax credit units and Section 8 Vouchers far exceeds the number of available units and vouchers. Consequently, in 2022 at least 50,000 Utah renter households are very low-income renters ($\leq 50\%$ Area Median Income[AMI]) and pay at least 50% of their income for housing and utilities. These households receive no rental assistance and live in market-rate rental units. Nearly 40,000 of these households are extremely low-income households ($\leq 30\%$ AMI) and pay at least 50% of their income for rent and utilities.

2023 Outlook

Housing prices in Utah nearly doubled in the past five years, growing much faster than incomes and overall inflation. A correction is due in 2023. In a best-case scenario, declines occur in the first and second quarters, but over four quarters, prices finish at about the 2022 level. But a year-over price decline is possible given the extraordinary 42% increase in prices from the fourth quarter of 2020 through the second quarter of 2022. Absent a serious recession and substantial job losses, the estimated worst-case scenario is a one-year price decline of 10% followed by stable prices in 2024.

In addition to a price correction, 2023 will likely feature a decline in existing home sales, builder discounts on new homes, continued upward pressure on rents, and additional state legislation addressing housing, including housing assistance for renters and potential homeowners. Finally, 2023 brings a respite from price increases, but with interest rates likely to remain above 6%, the housing market will see only marginal improvement in affordability.

About Housing Affordability

Two concepts of affordability: affordable housing versus housing affordability. Affordable housing refers to a specific type of housing, generally government-assisted rental housing targeted for very low to extremely low-income households. Housing affordability is a much broader term and refers to the general level of housing prices relative to the general level of household incomes. The term does not refer to any particular type of housing. The two concepts are not mutually exclusive or in conflict but are complementary with affordable housing being a subset of housing affordability.

Demographic Impacts on the Labor Market

2022 Overview

Throughout this nation's history, the economic labor supply has expanded with above-replacement internal population growth coupled with new in-migrants to produce an abundant labor supply. For the first time in our nation's history, that labor abundance is running out of steam.

As the nation's aging Baby Boom generation exits the labor force, in its wake is a smaller labor pool. Couple this internal labor shortfall with a recent reduction in international in-migration and the U.S. finds itself on the cusp of an economic future with a diminished labor supply. This decline dynamic is already in motion. The COVID-19 pandemic exposed the tip of that iceberg. This demographic pivot is the basis for the nation's current labor shortage. The pandemic's disruptive force exposed its emergence.

National Labor Shortage

The forces producing the nation's current labor shortfall began more than 70 years ago. It was then that the Baby Boom generation emerged. At this time, the U.S. population was nearly four-to-one pre-labor-age population to retirement-age population. The Baby Boom generation was a sizeable mass, and the nation was about to experience a large injection of youthful labor.

The working-age population largely establishes the size of economic activity, which is symbolized by the national labor tree's interior vertical lines. Yet with that Baby Boom generation poised to age upward, both the United States and Utah economies needed to expand to absorb and employ this upcoming labor. The Baby Boom generation was poised to make both economies significantly larger.

By 1980, the Baby Boom generation had aged into the U.S. economy and the economic expansion was underway. However, economies don't expand overnight, and initially the unemployment rate was high and unskilled labor was abundant. Utah's experience differed from the nation's experience because of our population dynamics. Utah's Baby Boom generation was supplemented by large population echo booms, which were less pronounced nationally. That contrast set the stage for the nation's current labor shortage.

By 2020, the Baby Boom had stretched the U.S. economy to its fullest extent. But in order to maintain the economy at this expanded size upon the Baby Boom's departure, there must be a sufficient trailing quantity of youthful labor.

An economy's size is correlated with the available labor-force size. With sufficient additional labor, an economy can grow. Conversely, an insufficient labor supply will pressure an economy to contract. If more labor ages out than in, the labor supply reduces. When such occurs, the initial stage is announced with a low-skill labor shortage. The backfill is insufficient. This is currently the case in the United States. The pandemic aggressively made this announcement.

Population Components

The overall United States population has largely reached no growth. Recently, the United States Census Bureau reported that the nation's population only grew by 0.1% in 2021, "the slowest rate since the founding of the nation." Corresponding with the Baby Boom generation's aging, the nation's annual deaths are about to outpace annual births. That combination results in population decline. Congruently, international in-migration has turned downward since 2016. Therefore, there is no counter from the outside to override the population decline from the inside.

Baby Boom Generation Still Influencing the Economy

The size of the Baby Boom generation pushed the United States' labor market and economic output to an historical peak. A labor shortfall was destined to arrive once that generation started to exit from the economy's *production* side. Many exiting boomers are still around and spending money, sustaining the economy's *consuming* side. But economic production

needs to support economic consumption. In growing numbers, boomers are no longer contributing to production yet are still pushing economic consumption. When demand (consumption) outpaces supply (production), a production (labor) shortage emerges. The pandemic pulled back the curtain upon this drama.

2023 Outlook

Given the factors outlined, national labor shortages are likely to continue. In the past, “labor shortages” were spoken of only in the labor hierarchy’s higher and specialized-skill segments. “Offer better wages” was the prescribed solution. That worked when there was an ever-growing supply of additional labor. But with ancillary labor now drying up, the labor-shortage narrative has descended to the labor hierarchy’s lowest-skilled arena, a segment where bodies and not dollars are the solution.

Labor is a churning reservoir. It follows the money upward. This nation has always found an adequate supply of low-skilled labor to backfill this upward kinesis. The United States’ current demographic profile implies that such a backfill will lessen with time and shortly regress. Professionals will not be in short supply; manual and service laborers will. Labor shortages have rapidly descended from the labor-tree’s higher branches to its lower, even affecting the roots. Options are before us. They will be determined by the nation’s collective approach.

STATE OF UTAH GOVERNMENTAL ORGANIZATION

The following description of State government emphasizes those functions of government related to finance, administration and planning of State government, and is not intended as a detailed description of all functions of the State’s government.

Constitutional Departments

The Constitution of the State (the “State Constitution”) divides the powers of government among the legislative department, the executive department and the judicial department.

Legislative Department. The legislative department is composed of the Senate and the House, which constitutes the State of Utah Legislature (the “Legislature”). The Legislature exercises the legislative power of the State and meets in regular session annually beginning in January. Among other things, the Legislature imposes taxes to provide revenues and makes appropriations to carry out all the activities of State government.

Executive Department. The elected constitutional officers of the executive department are the Governor, Lieutenant Governor, State Auditor, State Treasurer (the “State Treasurer”), and Attorney General. The Governor is the chief executive officer of the State (the “Governor”).

Judicial Department. The State Constitution vests the judicial power of the State “in a supreme court, in a trial court of general jurisdiction known as the district court, and in such other courts as the Legislature by statute may establish.” Under such authority, the Legislature has established the Court of Appeals, juvenile courts and justice courts.

Certain Other Administrative Bodies

Utah State Tax Commission. The Utah State Tax Commission (the “State Tax Commission”) is responsible for, among other things, administering and enforcing the tax laws of the State, formulating State tax policy, assessing certain properties, and collecting various State taxes.

Department of Administrative Services. The Department of Administrative Services coordinates the agencies that provide administrative support to State government and is presently composed of various divisions including, but not limited to, the Division of Finance and the Division of Facilities Construction and Management (“DFCM”).

Division of Finance. Among other things, the Division of Finance maintains financial accounts for State agencies, maintains a central accounting system, approves accounting systems of State agencies, approves proposed expenditures for the purchase of supplies and services requested by most State agencies, and issues financial reports of the State.

Division of Facilities Construction and Management. DFCM is responsible for the design and construction of the facilities used by all State agencies and institutions with some exceptions. DFCM is also responsible for the leasing of all facilities for State agencies with some exceptions. DFCM also manages and maintains many State facilities and allocates space among State agencies.

State Building Board. The State Building Board acts as a policy-making board for DFCM. The board is responsible for preparing and maintaining a five-year building plan for the State, establishing design and construction standards for State facilities, and establishing procurement rules relating to State facilities.

Governor's Office of Management and Budget. The Governor's Office of Management and Budget ("GOMB") prepares the Governor's budget recommendations, monitors state agency expenditures, forecasts and monitors revenues, coordinates state planning activities, and oversees the management of state agency business practices.

State Bonding Commission. The Lieutenant Governor (as designee of the Governor), the State Treasurer, and a third person appointed by the Governor constitute the Commission. The Commission, following authorization by the Legislature, is responsible for the issuance of the State's general obligation and revenue bonds.

Legal Borrowing Authority For General Obligation Bonds

Constitutional Debt Limit. Article XIV, Section 1 of the State Constitution limits the total general obligation indebtedness of the State to an amount equal to 1.5% of the fair market value of the total taxable property of the State, as shown by the last assessment for State purposes before incurring such debt (the "Constitutional Debt Limit").

Currently the State does not levy a specific ad valorem property tax rate for State revenue purposes. However, in calculating certain debt limit amounts, the State uses the fair market value of taxable property as determined by the State Tax Commission, which value is finalized and available in the Fall of each year.

Constitutional Debt Limit Estimate Using Calendar Year 2019 (Fiscal Year 2020) Estimated Taxable Valuation. Based on estimated ad valorem property tax reports from the State Tax Commission, the Calendar Year 2021 (Fiscal Year 2022) estimated fair market value of ad valorem taxable property and valuation for fees in lieu property is approximately \$560.3 billion, leaving the State approximately \$5.97 billion of additional Constitutional Debt Limit incurring capacity taking into consideration the outstanding general obligation debt and long-term contract liabilities. (Source: Municipal Advisor.)

Statutory Appropriations General Obligation Debt Limit. Title 63J, Chapter 3, of the Utah Code (the "State Appropriations and Tax Limitation Act"), among other things, limits the maximum general obligation borrowing ability of the State. Under the State Appropriations and Tax Limitation Act, the outstanding general obligation debt of the State at any time may not exceed 45% of the maximum allowable State budget appropriations limit as provided in and subject to the exemption set forth in that act (the "Statutory Appropriations General Obligation Debt Limit"). The State Appropriations and Tax Limitation Act also limits State government appropriations based upon a formula that reflects changes in population and inflation.

On occasion, the Legislature has amended the State Appropriations and Tax Limitation Act to provide an exemption for certain general obligation highway bonds and bond anticipation notes from the limitations imposed by the State Appropriations and Tax Limitation Act. Of the State's current outstanding general obligation bonds of \$2,162,715,000, \$1,892,941,320 is exempt from the State Appropriations and Tax Limitation Act.

Outstanding General Obligation Indebtedness

The State has issued general obligation bonds for general administrative buildings, higher education buildings, highways, water and wastewater facilities, flood control facilities, technology, and refunding purposes.

Revenue Bonds And Notes

State of Utah Recapitalization Revenue Bonds. The State Bonding Commission is authorized, with prior approval of the Legislature, to issue "recapitalization" revenue bonds of the State to provide funds for certain of the State's revolving loan funds. Such State revenue bonds are secured principally by the payments on certain bonds, notes and other obligations owned by the State through such funds and by debt service reserve funds, and constitute "State Moral Obligation Bonds," but are not applied against the general obligation borrowing capacity of the State.

Average annual principal and interest payments on the State's recapitalization revenue bonds are approximately \$6.99 million for each Fiscal Year extending through Fiscal Year 2023 (Source: Municipal Advisor).

Other State Related Entities' Revenue Debt. Various State related entities have outstanding bonds and notes payable solely from certain specified revenues. None of these bonds or note issues are general obligations of the State and, therefore, such bonds or notes are not applied against the general obligation borrowing capacity of the State.

Most State related entities' revenue bonds and notes are issued by the State Board of Regents (for student loans and various capital projects) and the State of Utah, State Building Ownership Authority (the "Authority").

Lease Obligations

The State leases office buildings and office and computer equipment. Although the lease terms vary, most leases are subject to annual appropriations from the Legislature to continue the lease obligations. If a legislative appropriation is reasonably assured, leases are considered non-cancelable for financial reporting purposes.

Operating Leases. Operating leases contain various renewal obligations as well as some purchase options. However, due to the nature of the leases, the related assets and liabilities are not recorded. Any escalation clauses, sublease rentals and contingent rents are considered immaterial to the future minimum lease payments and current rental expenditures. Operating lease payments are recorded as expenditures or expenses when paid or incurred.

Operating lease expenditures for Fiscal Year 2019 were \$45.844 million for primary government and \$43.21 million for discrete component units. The total future minimum lease payments for the State's non-cancelable operating leases for primary government totaled \$89.925 million (with commitments payments scheduled through Fiscal Year 2059). The total future minimum lease payments for the State's operating leases for discrete component units totaled \$312.105 million (with commitments payments scheduled through Fiscal Year 2059).

Capital Leases. Leases that in substance are purchases are reported as capital lease obligations in the government-wide financial statements and proprietary fund statements in the State's CAFR.

Primary government's total capital lease payments including principal and interest for Fiscal Year 2019 were approximately \$3.313 million. The present value of the minimum lease payments of the State's capital leases (including direct borrowings) for primary government totals approximately \$31.006 million (with annual payments scheduled through Fiscal Year 2044). The present value of the future minimum lease payments of capital leases for the State's discrete component units (which mostly are capital leases with certain colleges and universities and the Utah Transit Authority) as of Fiscal Year 2019 totaled approximately \$263.721 million (with annual payments scheduled through Fiscal Year 2039).

State Guaranty Of General Obligation School Bonds

Under the Utah School District Bond Guaranty Act, Title 53-G-4-8 of the Utah Code (the "Guaranty Act") which took effect on January 1, 1997, the full faith and credit, and unlimited taxing power of the State is pledged to guaranty full and timely payment of the principal of, and interest on general obligation bonds ("Guaranteed Bonds") issued by eligible boards of education of State school districts ("Eligible School Boards"). The Guaranty Act is intended to reduce borrowing costs for Eligible School Boards by providing credit enhancement for Guaranteed Bonds.

In the event an Eligible School Board was unable to make the scheduled debt service payments on its Guaranteed Bonds, the State would be required to make such payments in a timely manner. For this purpose, the State may use any of its available moneys, seek a short-term loan from the State School Fund or issue its short-term general obligation notes. The Eligible School Board remains liable to the State for any such payments on Guaranteed Bonds. The State may seek reimbursement for such payments (plus interest and penalties) by intercepting State financial aid intended for the Eligible School Board. The Guaranty Act also contains provisions to compel the Eligible School Board to levy a tax sufficient to reimburse the State for such payments.

The State Superintendent of Schools (the "State Superintendent") is responsible for monitoring the financial condition of each local school board in the State and reporting, at least annually, his or her conclusions to the Governor, the Legislature and the State Treasurer. The State Superintendent must report immediately to the Governor and the State Treasurer any circumstances suggesting that a local school board will be unable to pay when due its debt service obligations (a "Report") and recommend a course of remedial action. Since the inception in January 1997 of the Guaranteed Bonds program, the State has not been requested to make payments on any Guaranteed Bonds and has not received a Report from the State Superintendent.

State Moral Obligation Bonds

Bonds issued by the State Board of Regents, recapitalization revenue bonds issued by the State Bonding Commission and certain qualifying bonds of the Utah Charter School Finance Authority may be secured by a pledge pursuant to which a designated official will certify to the Governor on or before December 1 of each year the amount, if any, necessary to restore a capital reserve or debt service reserve fund to its required amount. In the case of revenue bonds issued to finance a capital project for an institution of higher education, if so pledged, the chairman of the State Board of Regents will certify

to the Governor on or before December 1 of each year any projected shortfall in the revenues necessary to make debt service payments in the forthcoming calendar year. Upon receipt of such a certification, the Governor may, but is not required to, then request from the Legislature an appropriation of the amount so certified. In the case of revenue bonds issued to finance a capital project for a qualifying charter school, if so pledged, an officer of the Utah Charter School Finance Authority will certify to the Governor on or before December 1 of each year the amount, if any, required to restore the amount on deposit in the debt service reserve fund of such qualifying charter school to the debt service reserve fund requirement. Upon receipt of such a certification, the Governor shall then request from the Legislature an appropriation of the amount so certified. In all cases, the Legislature is under no legal obligation to make any appropriation requested by the Governor. Bonds issued with such pledge are referred to herein as “State Moral Obligation Bonds.”

State Building Ownership Authority

The Authority is empowered, among other things, to issue its bonds (with the prior approval of the Legislature) to finance the acquisition and construction of facilities to be leased to State agencies and their affiliated entities from rentals paid out of budget appropriations or other available funds for the lessee agencies, which in the aggregate will be sufficient to pay the principal of and interest on the Authority’s bonds and to maintain, operate and insure the facilities. The Authority is comprised of three members: the Governor or designee, the State Treasurer and the Chair of the State Building Board. The State Building Ownership Authority Act (Title 63B, Chapter 1, Part 3, Utah Code (the “Building Ownership Act”)) directs DFCM to construct and maintain any facilities acquired or constructed for the Authority.

FINANCIAL INFORMATION REGARDING THE STATE OF UTAH

Budgetary Procedures

Budgetary Procedures Act. The Budgetary Procedures Act, Title 63J, Chapter 1, Utah Code (the “Budget Act”) establishes the process whereby the Governor’s budget is prepared and prescribes the information to be included.

The Governor is required to submit a budget to the Legislature each year, including a plan of proposed changes to appropriations and estimated revenue for the next fiscal year. The total appropriations requested for expenditures authorized by the budget must not exceed the estimated revenue from taxes, fees and all other sources for the next fiscal year.

The Budget Act applies to all moneys appropriated by the Legislature. No appropriation or any surplus of any appropriation may be diverted from the department, agency, institution or division for which it was appropriated. Appropriated moneys generally may not be transferred from one item of appropriation to any other item of appropriation without legislative approval.

Unexpended Balances. Except for certain funds detailed in the Budget Act or funds that may be exempted by the annual appropriations act, the Director of the Division of Finance must, at the end of each fiscal year, close out all balances to the proper fund or account.

Budgetary Controls. The Director of the Division of Finance is required to exercise accounting control over all State departments, institutions and agencies other than the Legislature and legislative committees. The Director of the Division of Finance must require the head of each department to submit, not later than May 15, a budget execution plan for the next fiscal year that does not exceed legislative appropriations or other estimated funding.

State Funds And Accounting

The Division of Finance maintains its accounting records in accordance with State law and in accordance with generally accepted accounting principles (“GAAP”).

Funds are accounted for and reported in the following categories: governmental funds; proprietary funds; and fiduciary funds. Governmental funds include the General Fund, special revenue funds, capital projects funds, debt service funds, and permanent funds. Proprietary funds include enterprise and internal service funds. Fiduciary funds include pension trust funds, investment trust funds, private purpose trust funds, and agency funds.

Fund reporting in the financial statements for governmental funds focuses on major funds as defined by GAAP and promulgated by the Governmental Accounting Standards Board. The State reports the following major governmental funds: the General Fund, the Education Fund, the Transportation Fund and the Transportation Investment Fund.

The State's non-major governmental funds include other special revenue funds, capital projects funds, and debt service funds. The non-major special revenue funds account for specific revenue sources that are legally restricted or committed to expenditures for specific purposes. Examples include tobacco settlement moneys, environmental activities, crime victim reparations and rural development programs.

State Tax System

The State's tax revenues are derived primarily from sales and use taxes, individual income taxes, motor fuel taxes, corporate franchise (business income) taxes, and numerous smaller sources, including excise taxes on insurance premiums, beer, cigarettes and tobacco, severance taxes, state liquor store profits, and numerous court and business regulation fees. These fees and taxes are regulated by the Legislature.

In addition to the State's tax system, counties, cities and towns have authority to levy and collect sales and use taxes and property taxes. School districts, some special service areas, and some local districts have the authority to levy and collect property taxes.

Recent Tax Reform Efforts. In the Legislature's 2021 General Session held January 2021 through March 2021, the Legislature passed the following bills: (i) House Bill 86 ("HB 86"); (ii) Senate Bill 11 ("SB 11"); and (iii) Senate Bill 154 ("SB 154"); which resulted in tax cuts of approximately \$100,000,000 for individuals. Additionally, in the 2022 General Session held January 2022, through March 2022, the Legislature passed Senate Bill 59 ("SB 59"), which made various changes to the State's income tax for individuals and corporations and expanded eligibility for the social security benefits tax credit. The State cannot predict what, if any, additional new tax reforms may be considered by the Legislature or what impact such reforms may have on revenues received from the State.

Individual Income Taxes. The State is one of 43 states that impose an individual income tax. Taxpayers' income is subject to a single rate of 4.95% of federal adjusted gross income. Beginning in 2022, the income tax rate drops to 4.85% of federal adjusted gross income. A tax credit based on federal deductions and a Utah personal exemption is available but phases out depending upon the taxpayer's income and filing status.

Corporate Income Tax. A multi-state company's tax liability is determined by apportionment of federal taxable income by its payroll, property and sales values in the State compared to elsewhere. There are various types of apportionment that corporations are either legally bound to, or may choose, depending on industry type. In the State's 2022 General Session, the Legislature reduced the corporate income tax rate from 4.95% to 4.85%, subject to exceptions and credits with a minimum tax of \$100.

Sales and Use Tax. In general, State sales taxes are imposed based on retail sales or use of tangible personal property, admissions, meals, utility services, general services on tangible personal property, hotel and motel accommodations, and certain other items. Use tax also applies to goods shipped to the State for use, storage, or other consumption, goods purchased outside of the State for use, storage, or other consumption in the State, and services subject to tax but performed outside the State for use, storage, or other consumption in the State. The State sales and use tax rate on grocery items is 3.00% (when including the 1.25% local option), residential fuels rate is \$0.319 per gallon (effective January 1, 2022) and the general sales tax rate is 4.85%.

The State requires its largest sales taxpayers (with annual liabilities of more than \$50,000) to remit monthly. This requirement has served to reduce the volatility of the State's cash flows, with over 90% of sales and use taxes now remitted monthly. All others remit the sales tax collected on a quarterly or annual basis. Monthly sales taxpayers can retain a 1.31% vendor discount on State and local sales taxes collected.

Additional Taxes and Fees. The State collects several additional significant taxes and fees, including, but not limited to: an unemployment compensation tax (which is used to finance benefits paid to unemployed workers); a workers' compensation insurance premium tax (which is used to pay workers' compensation benefits); and various highway users' taxes (which are used for highway and road related purposes). Other taxes and fees collected by the State include excise taxes on insurance premiums, severance taxes, a cigarette and tobacco tax, an environmental surcharge, a waste tire fee, and fish and game license fees. Other State revenue sources include profits from state liquor stores, license fees and other fees collected by colleges, universities and State departments.

Property Tax Matters

Property Tax Act. The State Constitution and Title 59, Chapter 2, Utah Code (the “Property Tax Act”) provide that all taxable property is assessed and taxed at a uniform and equal rate based on 100% of its “fair market value” as of January 1 of each year, unless otherwise authorized by the State Constitution and provided by law. Section 3(2)(a)(iv) of Article XIII of the State Constitution provides that the Legislature may exempt from property tax up to 45% of the “fair market value” of residential property. The Legislature has enacted legislation that reduces the “fair market value” of primary residential property by 45%. No more than one acre of land per residential unit may qualify for the residential exemption. The residential exemption is limited to one acre of land per residential unit or to one primary residence per household, except that an owner of multiple residential properties may exempt his or her primary residence and each residential property that is the primary residence of a tenant. The State Tax Commission must assess all centrally-assessed property (“centrally-assessed property”) by May 1 of each year. County assessors must assess all other taxable property (“locally-assessed property”) before May 22 of each year. The State Tax Commission apportions the value of centrally- assessed property to various taxing entities within each county and reports such values to county auditors before June 8.

On or before July 22 of each year, the county auditors must mail to all owners of real estate shown on their assessment rolls notice of, among other things, the value of the property, itemized tax information for all taxing entities and the date their respective county boards of equalization will meet to hear complaints. Taxpayers owning property assessed by a county assessor may file an application within statutorily defined time limits based on the nature of the contest with the appropriate county board of equalization for contesting the assessed valuation of their property. The county board of equalization must render a decision on each appeal in the time frame prescribed by the Property Tax Act. Decisions of the county board of equalization may be appealed to the State Tax Commission, which must decide all appeals relating to real property by March 1 of the following year. Owners of centrally-assessed property or any county with a showing of reasonable cause, may, on or before the later of June 1 or a day within 30 days of the date the notice of assessment is mailed by the State Tax Commission, apply to the State Tax Commission for a hearing to appeal the assessment of centrally-assessed property. The State Tax Commission must render a written decision within 120 days after the hearing is completed and all post-hearing briefs are submitted. The county auditor makes a record of all changes, corrections and orders, and delivers before November 1 the corrected assessment rolls to the county treasurers. By November 1, each county treasurer furnishes each taxpayer a notice containing the kind and value of the property assessed to the taxpayer, the street address of the property, where applicable, the amount of the tax levied on the property, and the date and year the property is subject to a detailed review.

Taxes are due November 30 (or if November 30 is a Saturday, Sunday or holiday, the next business day). Each county treasurer is responsible for collecting all taxes levied on real property within that county. There are no prior claims to such taxes. As taxes are collected, each county treasurer must pay to the State, if applicable, and each taxing entity within the county its proportionate share of the taxes, on or before the tenth day of each month. Delinquent taxes are subject to a penalty of 2.5% of the amount of the taxes or \$10 whichever is greater. Unless the delinquent taxes and penalty are paid before January 31 of the following year, the amount of delinquent taxes and penalty bears interest at the federal funds rate target established by the Federal Open Market Committee plus 6%, from the January 1 following the delinquency date until paid (provided that said interest may not be less than 7% or more than 10%). If delinquent taxes have not been paid by March 15 following the lapse of four years from the delinquency date, the affected county advertises and sells the property at a final tax sale held in May or June of the fifth year after assessment.

Uniform Fees. An annual statewide uniform fee is levied on certain tangible personal property in lieu of the ad valorem tax. Subject to certain exemptions, the current uniform fee on motor vehicles that weigh 12,001 pounds or more and certain watercraft is equal up to 1.5% of the market value. Motor vehicles weighing 12,000 pounds or less are subject to an “age based” fee that is due each time the vehicle is registered. Such fees range from \$5 to \$150. Various uniform fees are also levied against other types of tangible personal property required to be registered with the State, including recreational vehicles, in lieu of the ad valorem property tax. The revenues collected from the various uniform fees are distributed by the county of each taxing entity in which the property is located, in the same proportion in which revenue collected from ad valorem real property tax is distributed.

Budget Reserve Accounts

The State maintains various budget reserve accounts, including a General Fund Budget Reserve Account, an Education Fund Budget Reserve Account, a Medicaid Growth Reduction and Budget Stabilization Account, a Growth in Student Population Account, and natural disaster reserve accounts.

State law requires that 25% of any year-end General Fund revenue surplus be deposited into the General Fund Budget Reserve Account, not to exceed 9% of the General Fund appropriations for the Fiscal Year. Similarly, 25% of any year-end Education Fund revenue surplus is deposited into the Education Fund Budget Reserve Account, not to exceed 11% of the Education Fund appropriations for the Fiscal Year. Unless such reserve funds are drawn upon for their respective purposes, annual mandatory year-end surplus transfers are limited to the lesser of 25% of the applicable surplus or the amount necessary to reach the statutory limit of 9% for the General Fund and 11% for the Education Fund. Subject to the automatic transfer limits specified above, an additional 25% of a year-end revenue surplus may be allocated if funds have been drawn upon and not repaid. In addition, the State maintains budget reserves for natural disasters and other emergencies through the Disaster Recovery Fund and a Medicaid Growth Reduction and Budget Stabilization Account.

As of the end of Fiscal Year 2021, the balance in the General Fund Budget Reserve Account was \$257 million and the balance in the Education Fund Budget Reserve Account was \$630 million; the balance in the Medicaid Growth Reduction and Budget Stabilization Account was \$114 million, and the balance in the Disaster Recovery Fund was \$64 million. An additional \$146 million of deposits to the General Fund and Education Fund reserve accounts have been appropriated during Fiscal Year 2022, which will bring the total balances of these four rainy day accounts to \$1.2 billion.

In addition to budget reserves, the State ended Fiscal Year 2021 with \$109.8 million surplus in the General Fund and a \$504.7 million surplus in the Education Fund after transfers. As of the 2022 Third Special Session, the State has a Fiscal Year 2023 structural surplus of over \$17 million, along with a one-time unappropriated balance of about \$55 million.

The State has also established a Medicaid Growth Reduction and Budget Stabilization Account. If at the end of a fiscal year, there is a General Fund revenue surplus and Medicaid growth remains below specified levels, State law requires that a portion of any General Fund revenue surplus be transferred from the General Fund to the Medicaid Growth Reduction and Budget Stabilization Account. This transfer is before, and consequently reduces, the annual mandatory year-end surplus transfer to the General Fund Budget Reserve Account.

During the 2020 General Session, the State created the Public Education Economic Stabilization Account (formerly the Growth in Student Population Restricted Account), which by statute must receive 15% of the difference between the estimated amount of new ongoing Education Fund and Uniform School Fund for the next fiscal year and the amount of ongoing appropriations from the Education Fund and Uniform School Fund in the current fiscal year, up to 11% of total ongoing Uniform School Fund appropriations. Funds may be appropriated from the account to the public education system for one-time purposes, or for ongoing purposes if Education Fund revenue and Uniform School Fund revenue are insufficient to maintain existing ongoing appropriations to the public education system, enrollment growth or statutorily required inflationary increases to the public education system. In practice, this account serves as a structural surplus contingency, as ongoing deposits are increasing each year against annual one-time appropriations from the account.

Beginning in Fiscal Year 2023, ongoing appropriations to the Public Education Economic Stabilization Account total \$248 million (with an additional \$21.3 million in a one-time balance) against \$267.9 million of one-time appropriations from the account.

State Stress Testing/Budget Model

During Calendar Year 2019, the GOMB and the Office of Legislative Fiscal Analyst of the State conducted a comprehensive budget stress testing exercise to formally assess the State's ability to respond to an economic downturn. As part of this process, the State Tax Commission helped in analyzing the various sources of State revenues.

The stress testing exercise used two hypothetical economic scenarios, similar to the approach employed by the Federal Reserve banking system to assess the capital strength of banks. The stress test applied selected downturn scenarios to the State's budget by examining hypothetical recessionary impacts on (a) revenues, (b) expenditures, and (c) both formal and informal reserves.

The results show the State has a number of budget tools at its disposal, including both formal rainy-day funds at healthy levels and other informal reserves, including sizeable budget allocations for capital expenses that are not bonded against and unused bonding capacity.

Based on the stress testing models, GOMB believes the State has a number of strong reserves and contingencies allowing the State to navigate an economic downturn.

Utah Code 36-12-13 requires this analysis to be updated on a three-year cycle, with the latest version scheduled for a fall 2022 completion.

State Employee Workforce; Public Retirement System

State Employee Workforce. The State is among the largest employers in the State employing 20,848 people (full-time equivalents) in Fiscal Year 2021.

Public Retirement System. All full-time employees of the State are members of the Utah State Retirement System (“URS”) and the State participates in various contribution systems and pension plans provided by URS. URS has separate accounting systems and prepares a separate financial report covering all retirement systems and deferred compensation plans it administers.

For Fiscal Year 2021, the State reported the following asset, liability and related transactions equal to its proportionate share of the collective net pension liability of URS (measured as of December 31, 2020): \$9.222 million in net pension asset, \$413.752 million in net pension liability, \$220.624 million in deferred outflows of resources and \$469.198 million in deferred inflows of resources for primary government. For Fiscal Year 2021, the State contributed approximately \$230.183 million to URS, which was 100% of its contractually and statutorily required contributions.

Other Postemployment Benefits

The State administers the State Employee Other Postemployment Benefit Plan (“State Employee OPEB Plan”) through the State Post-Retirement Benefits Trust Fund. A separate Elected Official Other Postemployment Benefit Plan (“Elected Official OPEB Plan”) is provided for governors and legislators and is administered through the Elected Official Post-Retirement Benefits Trust Fund. Both trust funds are irrevocable and legally protected from creditors. Both plans are single-employer defined benefit healthcare plans and are closed plans available to only employees and elected officials that meet certain eligibility criteria.

For Fiscal Year 2021, the total net OPEB asset for both the State Employee OPEB Plan and the Elected Official OPEB Plan was \$27.312 million.

The Legislature is contributing amounts to each OPEB trust fund that, at a minimum, is sufficient to fully fund the Actuarially Determined Contribution (“ADC”). For Fiscal Year 2021, the State contributed \$27.029 million to the State Employee OPEB Plan and \$1.249 million to the Elected Official OPEB Plan, which were \$127,000 and \$649,000 more than the ADC, respectively. For the State Employee OPEB Plan and the Elected Official OPEB Plan the fiduciary net position as a percentage of the total OPEB liability was 110.32% and 97.25%, respectively.

Risk Management And Insurance; Cybersecurity; Recent Earthquake

Risk Management and Insurance. The State is a member of a risk pool where the State self-insures portions of certain property and liability claims and purchases commercial insurance for claims above the self-insured retention amounts. This is done through the Administrative Services Risk Management Fund (the “Risk Management Fund”). The Risk Management Fund is maintained via premiums charged to its members—State agencies, institutions of higher education, Utah school districts and charter schools (the “Covered Members”).

The State is self-insured for liability claims up to \$2 million per claim (retention) and has purchased excess liability insurance and reinsurance with a collective per claim limit of \$8 million and an annual aggregate limit of \$16 million. The State is also self-insured for individual property claims up to \$1 million per claim (retention) with a \$3.5 million annual aggregate. The excess property insurance policy limit is \$1 billion per occurrence.

Earthquake Insurance. The Utah Division of Risk Management (“DRM”) annually procures excess property insurance with earthquake coverage for its Covered Entities. This earthquake coverage has limits of \$525 million, with a \$1 million self-insured retention, or deductible through fiscal year 2020. Additionally, DRM recently procured a parametric earthquake policy with limits of \$50 million. Payments under the parametric policy are based upon the severity and location of an earthquake, irrespective of actual property damage. Beginning Fiscal Year 2021, the States’ per occurrence deductible (retention) for earthquakes is two percent of the value of each building involved in the loss, subject to a minimum of \$5 million and a maximum of \$25 million.

As of June 30, 2021, the Fund contained approximately \$87.317 million in reserves available to pay for claims incurred. *Cybersecurity.* Cybersecurity incidents could result from unintentional events, or from deliberate attacks by unauthorized entities or individuals attempting to gain access to the State’s systems technology for the purposes of misappropriating assets or information or causing operational disruption and damage. To mitigate the risk of business operations impact and/or damage by cybersecurity incidents or cyberattacks, the State invests in multiple forms of cybersecurity and operational safeguards including: (i) an \$9.5 million annual budget for security operations and security

privacy and compliance; (ii) a Utah Cyber Task Force comprised of the state’s technology services agency, department of public safety, the Federal Bureau of Investigation and Homeland Security. These entities work collaboratively to monitor and respond to incidents 24/7; (iii) a Chief Information Security Officer reporting directly to the State’s Chief Information Officer; (iv) a security team of 21 employees; (v) a self–assessment every two years in cooperation with the Department of Homeland Security using National Institute of Standards and Technology standards; (vi) compliance audits regularly performed by the Internal Revenue Service, Federal Bureau of Investigation, homeland security, and the Social Security Administration; and (vii) a Cyber Center that provides a central location for multiple agencies to share intelligence and tactics, and respond to events in a coordinated fashion. In addition, the State carries commercial liability insurance policy regarding cybersecurity. The most recent security incident was in 2012, when the State experienced a cybersecurity breach in the Utah Department of Health related to individual personal information on Medicaid data. The State does not believe this breach had a material impact on overall State finances.

Federal Funding

Opioid Settlement Payments. In late February 2022, Utah Attorney General Sean D. Reyes announced the final approval of the \$26 billion opioid agreement with the nation’s three major pharmaceutical distributors: Cardinal, McKesson, AmerisourceBergen, and Johnson & Johnson. Fifty-two states and territories have signed on to the agreement as well as thousands of local governments across the country. In Utah, 27 counties have signed onto the agreement. As a result, Utah will receive \$266 million total over 18 years. \$133 million will go to the state and \$133 million will go to local communities to support treatment, recovery, harm reduction, expand needed services, and other strategies to address the opioid epidemic. The state has engaged with multiple stakeholders to develop a blueprint for programs and interventions for which these payments will support.

COVID-19 Relief Funding. The State has received billions of COVID-related federal aid dollars including direct state aid (\$1.25 billion to the State and its counties from the Coronavirus Relief Fund which was created pursuant to federal Corona-virus Aid, Relief and Economic Security Act (“the “CARES Act”), \$2.5 billion to the State and its local governments from the State and Local Fiscal Recovery Fund (SLFRF) which was created pursuant to the federal American Rescue Plan Act of 2021 (“ARPA”), plus hundreds of millions in grants through State and local government agencies), direct payments to citizens (\$7.96 billion), aid to businesses (an estimated \$9.7 billion awarded under the Paycheck Protection Program and Economic Injury Disaster Loans), and aid to health care providers.

Of the \$1.25 billion from the CARES Act’s Coronavirus Relief Fund, \$315 million went directly to Utah’s two largest counties while \$935 million was directed by the State in the following manner: \$274 million related to the direct COVID-19 response, \$265 million related to the economic response, \$247 million to other local governments, and \$147 million related to the educational response. Of the \$2.5 billion of ARPA’s State and Local Fiscal Recovery Fund funds allocated to Utah, \$1.1 billion is allocated for local governments, while \$1.4 billion is being directed by the State as follows: \$430 million for water infrastructure, \$383 million for responding to the negative economic impacts of the pandemic, \$333 million for government services, \$155 million for public health, \$75 million for investments in local government projects, and \$10 million for the educational response. Additionally, the State was allocated \$138 million from ARPA’s Capital Projects Fund, which the State will use for eligible capital projects enabling work, education, and health monitoring.

Infrastructure Investment and Jobs Act. The \$1.2 trillion Infrastructure Investment and Jobs Act (IIJA) passed by Congress in November 2021 is expected to provide billions of dollars to the State to fund new infrastructure and infrastructure improvements. The estimate of currently known formula-based funding coming to Utah is \$3.9 billion, \$3.5 billion of which is for transportation-related infrastructure. The State expects to receive additional infrastructure funding for areas such as broadband, drinking water, wastewater & environmental remediation, energy, cybersecurity, water storage, and public land. Additional information and funding estimates are expected from the federal government.

Medicaid Funding in the State.

Despite its status as a Medicaid expansion state, Utah carries the second lowest per capita rate of combined Medicaid and Children’s Health Insurance Program (CHIP) enrollment in the country at 13.1% as of November 2021. Nevertheless, a likely combination of pandemic effects and the continuous enrollment requirement associated with the federal Families First Coronavirus Response Act (FFCRA) have continued to put upward pressure on Medicaid enrollment in Utah. From Fiscal Year 2020 to Fiscal Year 2021, Utah’s Medicaid and CHIP rolls increased by 25% to 429,300. The current consensus between Utah’s Governor’s Office of Planning and Budget, the Office of the Legislative Fiscal Analyst and the Department of Health projects that enrollment will increase by more than 13% in Fiscal Year 2022 and subsequently decrease by 12% to 428,900 in Fiscal Year 2023. However, these consensus estimates were adopted in February of 2022 and included the conservative assumption that the federal Public Health Emergency (PHE) declaration would expire in April, with the corresponding 6.2 percentage point increase in federal cost sharing under the FFCRA ending at the close of the state fiscal

year. On April 12, the U.S. Department of Health and Human Services announced the renewal of the declaration of the PHE, extending it for another 90 days beginning on April 16. With the FFCRA-enacted 6.2 percentage point federal cost sharing increase lasting through the end of the calendar quarter in which the PHE ends, Utah will continue to receive these infusions of federal Medicaid payments ending no earlier than September 30, 2022.

On the budget side, the Medicaid consensus process estimated about \$83 million in additional one-time General Fund needed for traditional Medicaid and CHIP in Fiscal Year 2022, offset by \$147 million in savings from the 6.2 percentage point increase in federal cost sharing, for a net budget savings of \$64 million. In Fiscal Year 2023, Medicaid and CHIP General Fund costs are expected to increase by \$84 million, as the state anticipates beginning the FFCRA disenrollment process and the loss of the 6.2 percentage point increase in federal cost sharing.

In December of 2019, the Centers for Medicare and Medicaid Services (CMS) authorized Utah's implementation of full Medicaid expansion at the Affordable Care Act rate of 90% federal cost sharing. As originally enacted through the November 2018 ballot initiative, Utah's Medicaid expansion program is primarily funded by a 0.15 percentage point increase in sales and use tax earmarked for these services, which is expected to bring in over \$113 million in Fiscal Year 2022 and \$117 million in Fiscal Year 2023. Other sources of state match for Utah's Medicaid expansion program include an assessment on Utah hospitals (\$13.6 million), certain preferred drug list savings (about \$1 million), and more than \$58 million in ongoing General Fund. Because Medicaid expansion enrollment has trended below original projections, Utah currently has both a structural surplus in ongoing Medicaid expansion revenues and a sizable one-time reserve to support the program. Utah started Fiscal Year 2022 with a nearly \$160 million balance in the Medicaid Expansion Fund, with Fiscal Year 2022 inflows to the fund estimated at \$130 million and estimated program expenditures at \$107 million. In Fiscal Year 2023, the Medicaid Expansion Fund is expected to start the year with more than \$180 million in balances, with inflows to the fund estimated at \$190 million and estimated program expenditures at \$117 million, resulting in an expected \$255 million fund balance to begin Fiscal Year 2024.

Federal Funding in the State Budget. . Approximately 76% of federal funds included in the Fiscal Year 2023 budget fund the following programs: Medicaid (\$3.854 billion); transportation (\$510 million); education, including special education, school lunch, and Title I for disadvantaged students (\$904 million); Supplemental Nutrition Assistance (\$416 million); Temporary Assistance for Needy Families (\$71 million); and National Guard (\$60 million), Office of Rehabilitation (\$52 million). Not only do federal dollars fund a large portion of the State's major social service programs, but federal dollars also play a key role in funding programs that provide care for elderly veterans, clean drinking water, and air pollution prevention..

According to a 2020 study published by Federal Funds Information for States (FFIS), in FY 2019, Utah had the lowest federal spending when measured on a per capita basis. This comparatively low level of federal funding is in part because Utah's population is the youngest in the nation and receives a much smaller portion of federal dollars for programs such as Social Security and Medicare, two of the largest federal entitlement programs targeted to the elderly. A recent federal spending report from the Pew Charitable Trust shows that Utah has the fifth-lowest total of federal funding compared to all revenue sources. Another group of researchers recently compared gross domestic product (GDP) and federal assistance to federal taxes paid and determined that Utah is the ninth least dependent state on federal revenue.

There can be no assurance that current levels of federal funding to the State will be maintained or that any potential federal budget cuts and potential decreases in flow through of funds to states would not have a material adverse financial impact on the State. The State cannot predict now what, if any, effect such decreases in federal spending would have on the State's budget.

Federal Sequestration. Pursuant to the Budget Control Act of 2011 (the "BCA"), cuts to federal programs necessary to reduce federal spending to levels specified in the BCA (known as "sequestration") were ordered in federal fiscal years ending September 30, 2013 through 2021 and were subsequently extended through September 30, 2029. These reductions include cuts to the subsidy payments to be made to issuers of Build America Bonds ("BABs") and various other federal expenditures.

The State anticipates that any future reductions of subsidy payments with respect to the State's and the Authority's \$708,530,000 in outstanding BABs (the State's \$631,415,000 of general obligation bonds and \$6,830,000 of water revenue bonds; and the Authority's \$70,285,000 of lease revenue bonds) or reductions in other federal grants because of sequestration would have no material impact on their operations or financial position. The State cannot predict whether Congress will act to avoid or extend sequestration in the future.

Litigation

The State is party to numerous legal proceedings, many of which normally occur in government operations. In addition, the State is involved in certain other legal proceedings that, if decided against the State, might require the State to make significant future expenditures or substantially impair future revenue sources. Because of the prospective nature of these proceedings, it is not presently possible to predict the outcome of such litigation, estimate the potential impact on the ability of the State to pay debt service costs on its obligations, or determine what impact, if any, such proceedings may have on a fund's investments.