Revenue Business Cycle Report

EXECUTIVE SUMMARY

Each year, the Office of the Legislative Fiscal Analyst and the Governor's Office of Performance and Budget compare tax revenue projections with historical trends. Lawmakers then determine how to allocate the projected revenue depending on whether the revenue can be counted upon into the future or whether it might be anomalous. For FY 2022, combined General and Education Fund projections are above trend by $356 million, whereas FY 2023 projections are $275 million below trend. Federal funds for the same periods are expected to be about $1.76 billion above trend for FY 2022 and about $987 million below trend for FY 2023.

ANALYSIS

UCA 36-12-13 and 63J-1-201, require an annual review of the fifteen-year revenue trends associated with major tax types. Specifically, statute requires: a projection of estimated revenues by major tax type; fifteen-year trends for each major tax type; estimated receipts of federal funds; and fifteen-year trends for federal funds receipts.

Consistent with prior versions of this report and based on historical revenue figures, economists this year again identified a revenue trend that would have been expected absent any business cycle. They did so using a fifteen-year time series of collections by tax type. In performing the analysis, analysts applied a Hodrick-Prescott (HP) filter to the data using a lambda value of 25. HP filters smooth variable data over time and may capture cycles better than straight-line trends. The lambda value determines how flat or wavy an HP trendline might be. Lower lambda values produce flatter lines. After performing the HP method, economists then compared the trend to FY 2022 and FY 2023 consensus revenue estimates.

The current economic moment is a particularly interesting time to conduct a trend/cycle analysis. Utah is currently experiencing record-breaking revenue collections in all major tax types, primarily due to significant federal stimulus and other economic anomalies related to the COVID-19 pandemic. These aberrations are leading to larger-than-normal cycle components of the analysis. Additionally, considering the actual collections figures are abnormally high for FY 2021 and FY 2022, the model begins to pick up some of that inflation in the trend, leading to significant below-trend projections for FY 2023. These results should be interpreted cautiously; future iterations of this analysis will lead to a more normalized trend.

GENERAL AND EDUCATION FUND REVENUE

Economists calculate that $356 million of projections is above trend for FY 2022 and $275 million of projected General and Education Fund revenue is below-trend for FY 2023[1]. These figures correct for the income tax filing delay, which deflated FY 2020 Education Fund revenues and inflated the same revenues for FY 2021.

Table 1 on page 2 summarizes trend and point estimates for each broad revenue source affecting the General and Education Funds. Figure 1 on page 3 breaks down the cycle component of General and Education Fund revenue by revenue type. Figures 2 through 11 provide a time-series view of select revenue types. In the line graphs, the purple lines depict the trend, whereas the red lines show actual or estimated

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[1] These figures do not include sales tax earmarks. To provide broader view, at the end of this report are two figures depicting the business cycle associated with total sales tax revenue.

revenue collections. In the bar graphs, the bars capture the estimated trend component of the relevant point estimate.

TABLE 1: CYCLE/TREND ACCOUNTING FOR THE TIMING SHIFT IN INCOME TAX PAYMENTS

Summary (millions $)

General Fund	FY 2022 Trend	FY 2022 Cycle	FY 2023 Trend	FY 2023 Cycle
Sales tax (GF only)	$2,680	$185	$2,846	($79)
Cable tax	$27	($1)	$26	($0)
Liquor profits	$129	($1)	$133	($1)
Insurance premiums	$161	($1)	$169	($2)
Beer, cigarette, and tobacco	$103	($0)	$100	$1
Oil and gas severance	$15	$6	$15	$7
Metal severance	$12	$1	$13	$3
Investment income	$18	($6)	$16	($2)
Other	$104	($1)	$107	($4)
Property/energy credit	($6)	($0)	($6)	($0)
Subtotal	**$3,243**	**$183**	**$3,420**	**($77)**
Education Fund				
Individual income tax	$5,463	$113	$5,816	($116)
Corporate tax	$586	$60	$617	($84)
Mineral production withholding	$23	$0	$24	$2
Escheats & other	$27	($1)	$27	$0
Subtotal	**$6,100**	**$173**	**$6,484**	**($197)**
Total, GF + EF	**$9,344**	**$356**	**$9,905**	**($275)**
Federal Funds	**$6,949**	**$1,762**	**$7,565**	**($987)**

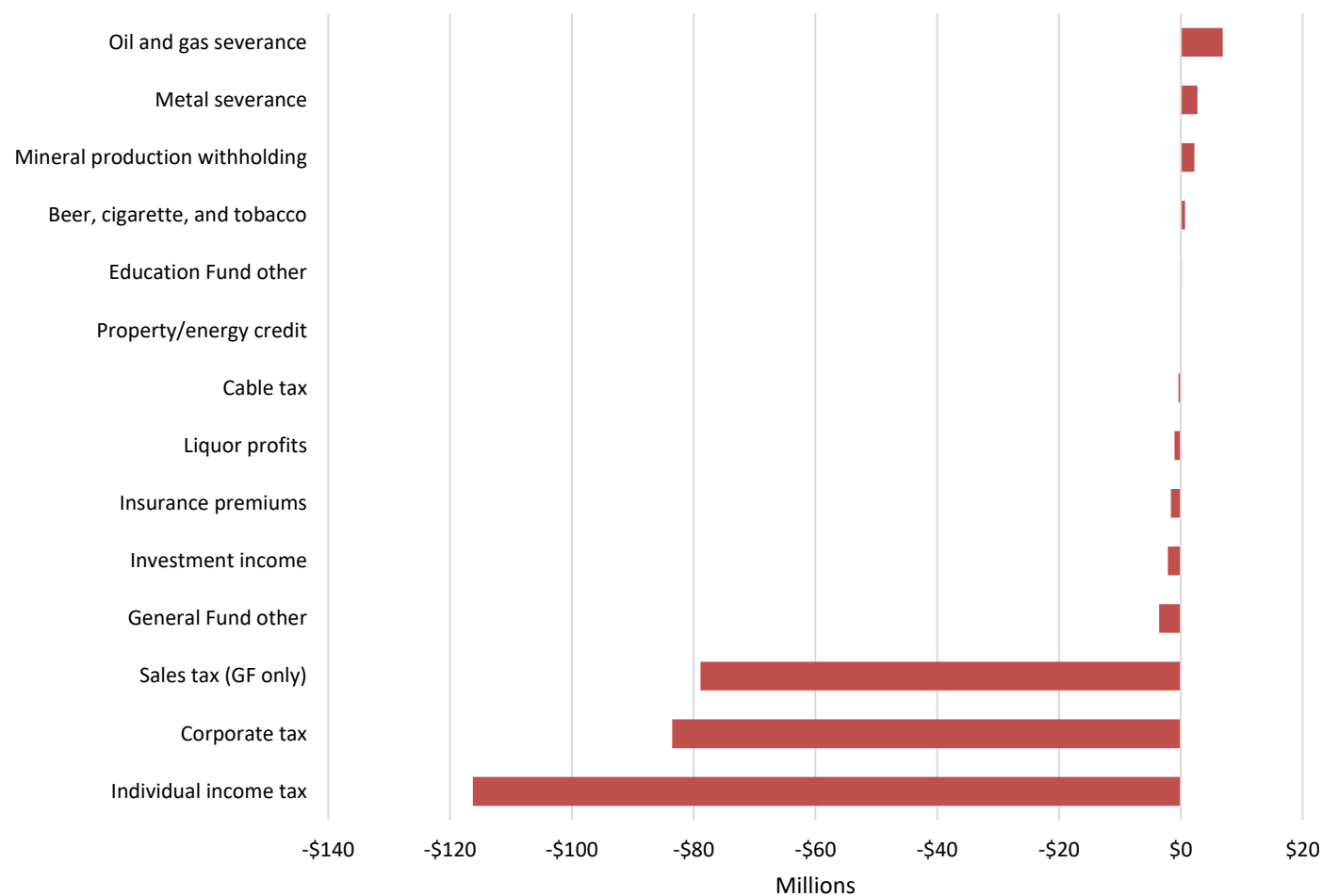**FIGURE 1: REVENUE ABOVE OR BELOW TREND BY BROAD SOURCE FOR FY 2023 (THE CYCLE)**

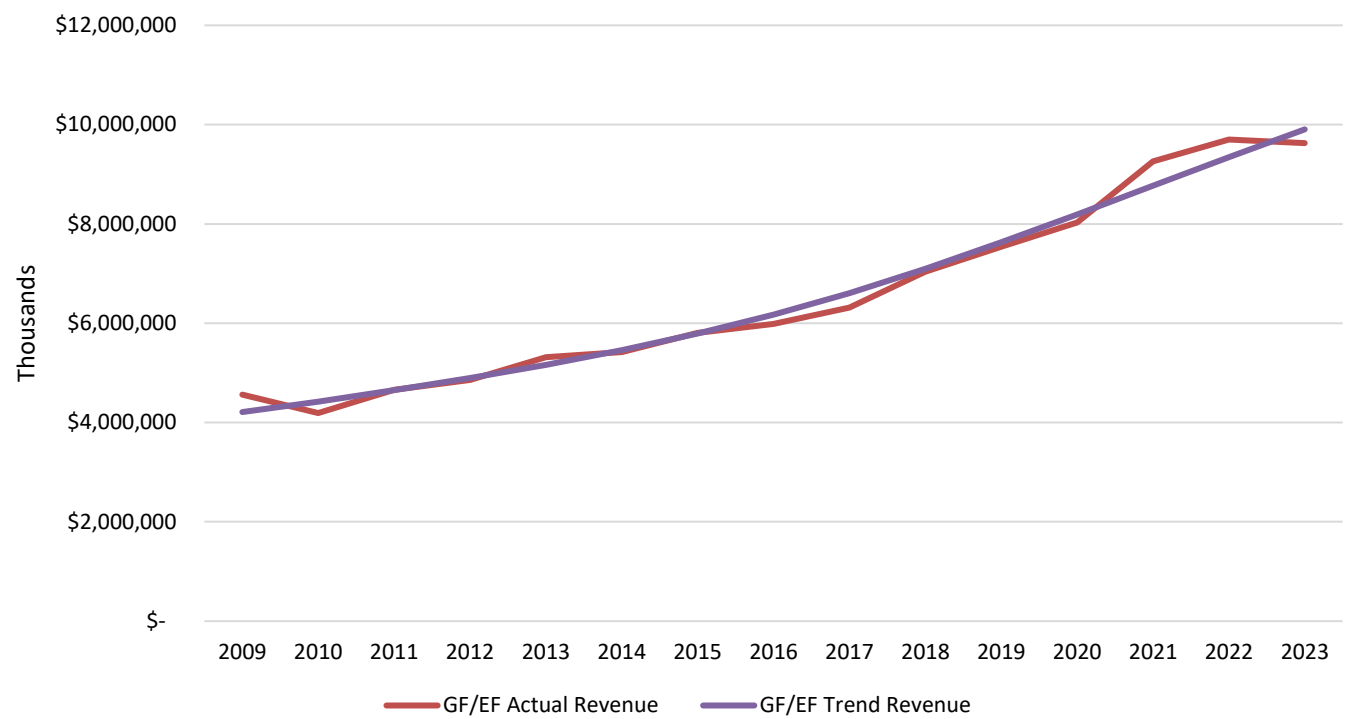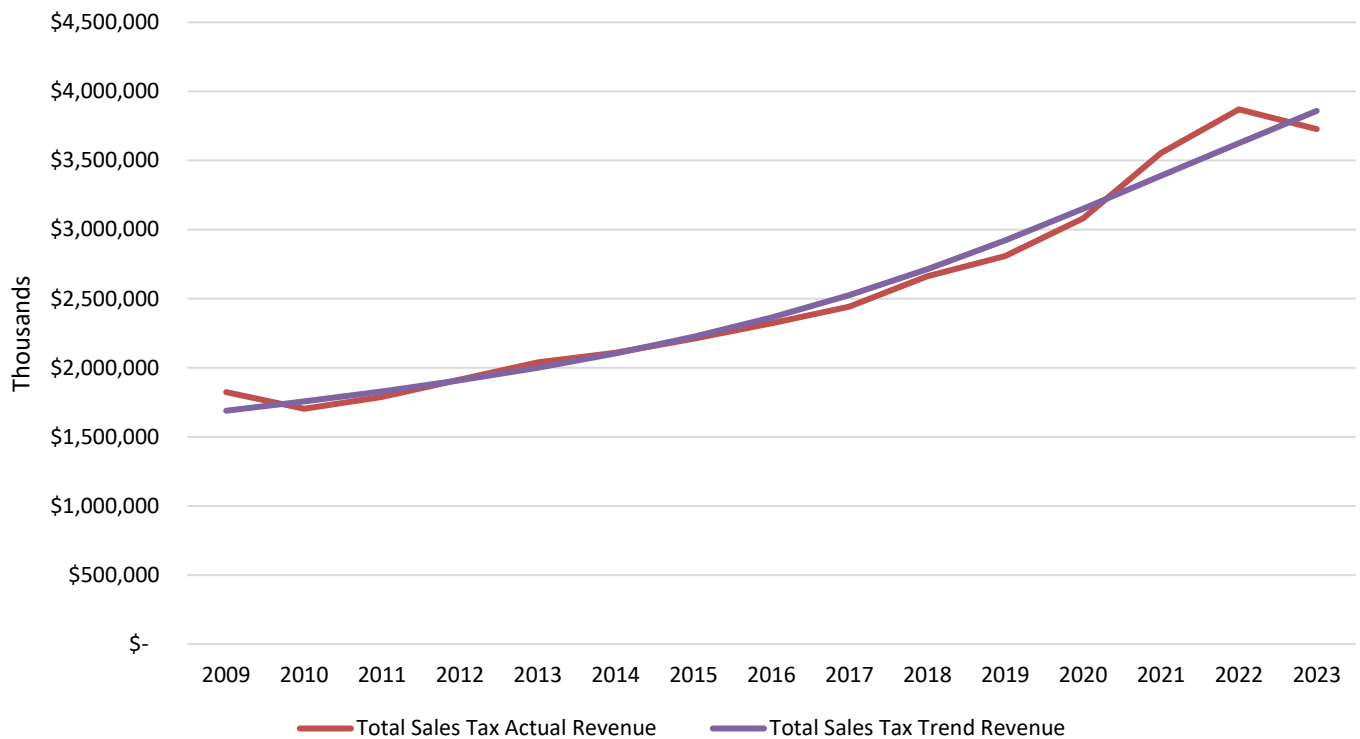## FIGURE 2: GF/EF REVENUE HISTORY AND ASSOCIATED TREND

## FIGURE 3: GF/EF ABOVE/BELOW TREND REVENUE

The following Figures 4 and 5 captures the business cycle and trend of total sales tax revenue[2]. The HP filter suggests that total sales tax will be $244 million above trend in FY 2022 and $131 million below trend in FY 2023.

**FIGURE 4: TOTAL SALES TAX REVENUE HISTORY AND ASSOCIATED TREND**

**FIGURE 5: TOTAL SALES TAX ABOVE/BELOW TREND REVENUE**

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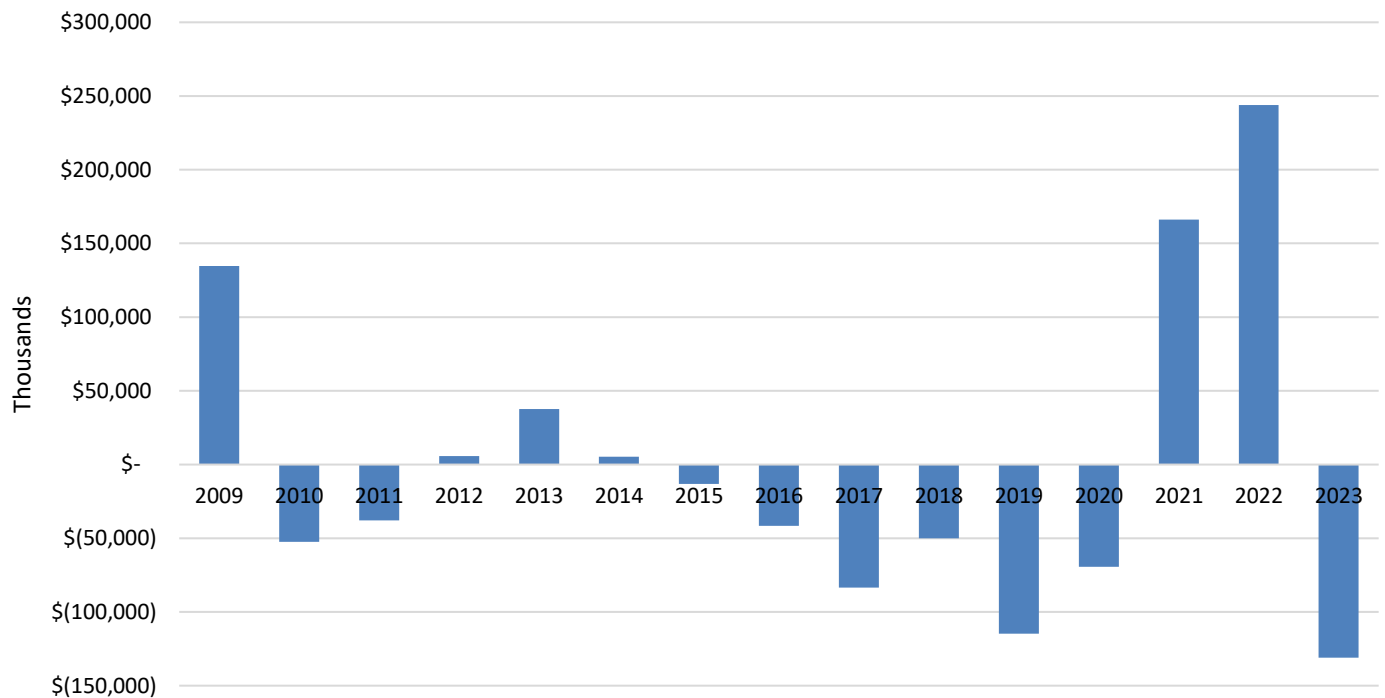
[2] Total sales tax means sales tax deposited in the General Fund and sales tax earmarks.

The following Figures 6 and 7 look at the business cycle associated with individual income tax. The FY 2020 and FY 2021 numbers are adjusted to account for the income tax filing shift.

FIGURE 6: INDIVIDUAL INCOME TAX REVENUE HISTORY AND ASSOCIATED TREND
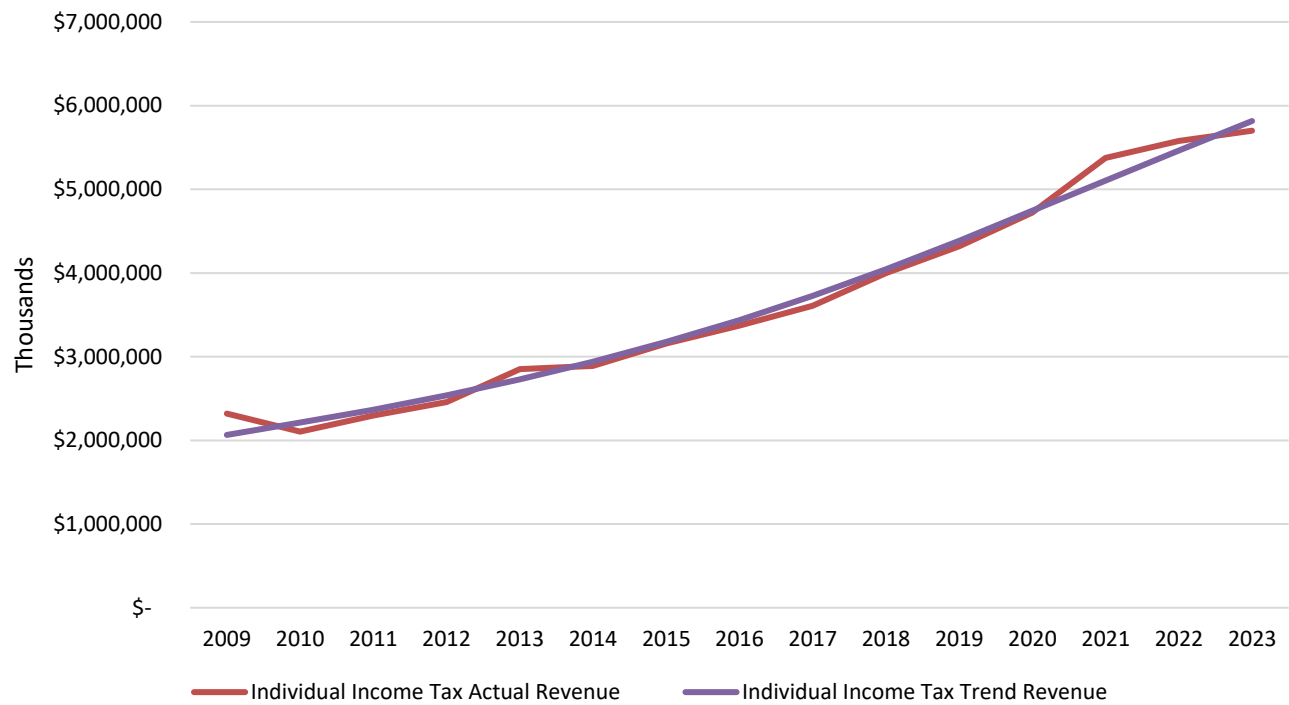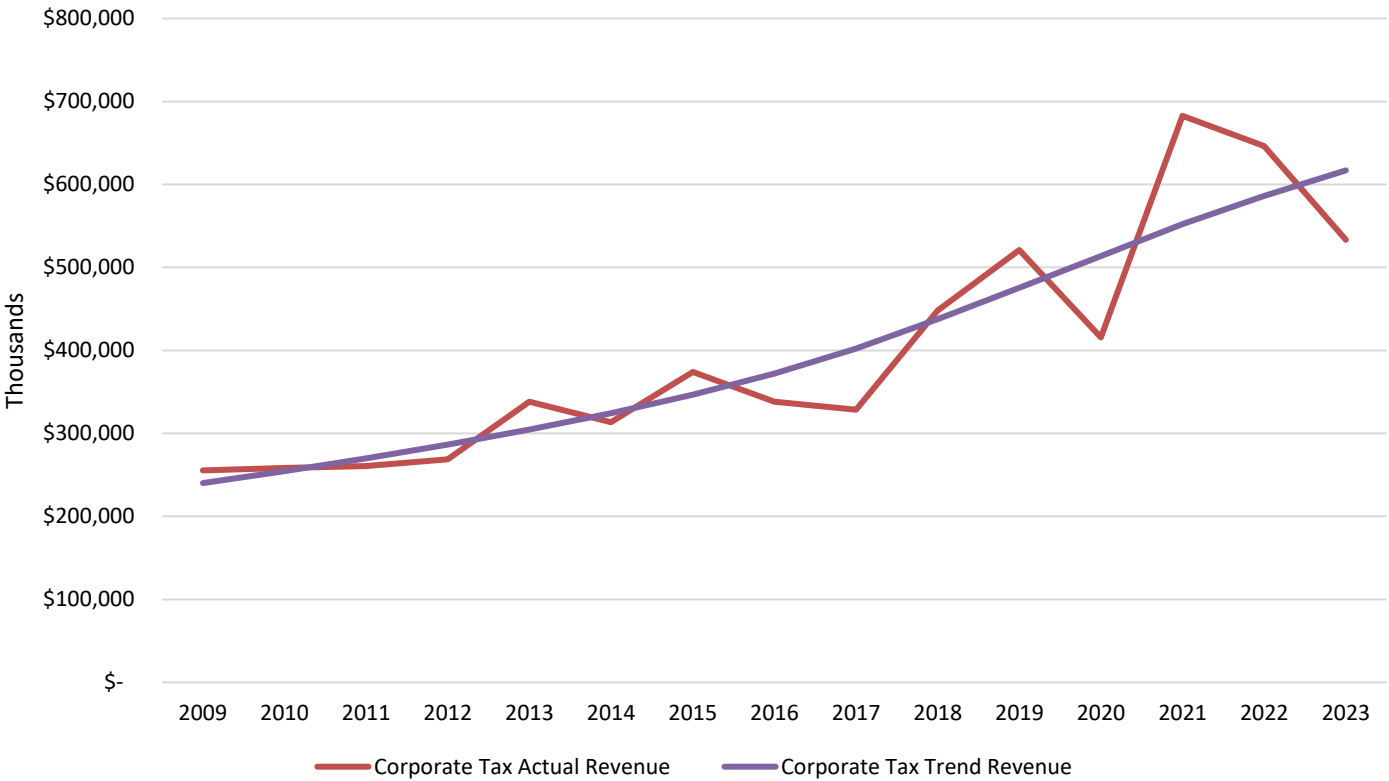

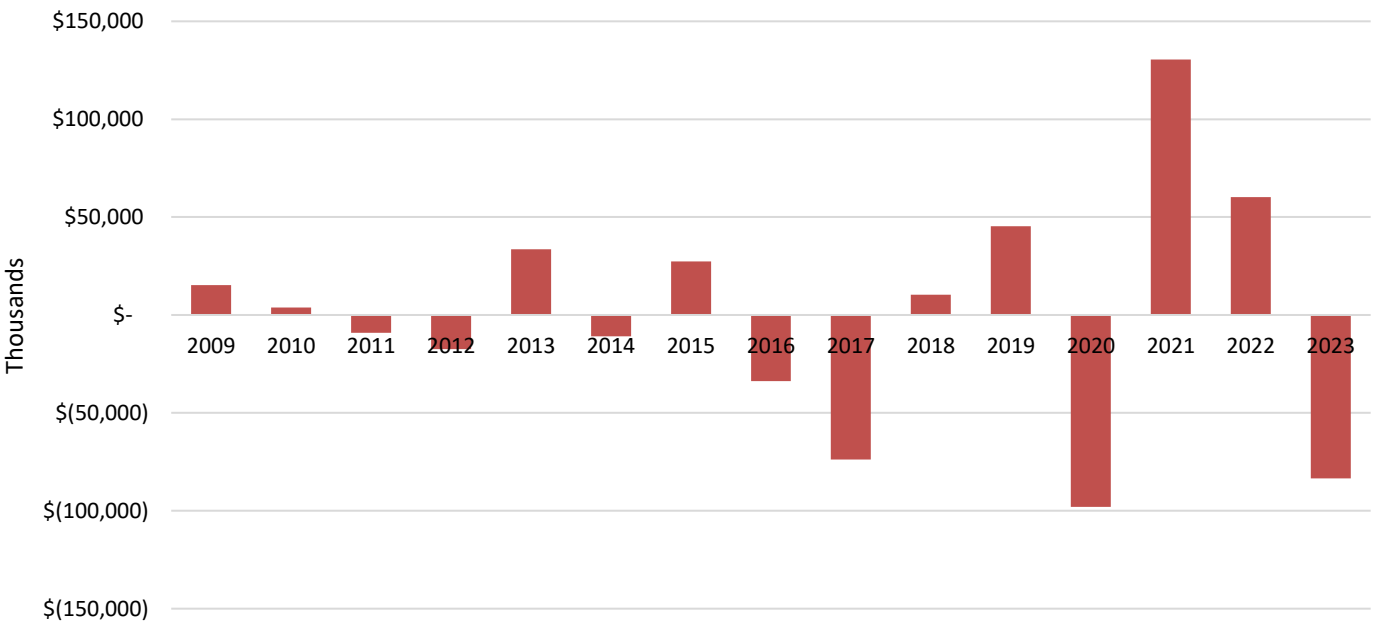**FIGURE 7: INDIVIDUAL INCOME TAX ABOVE/BELOW TREND REVENUE**
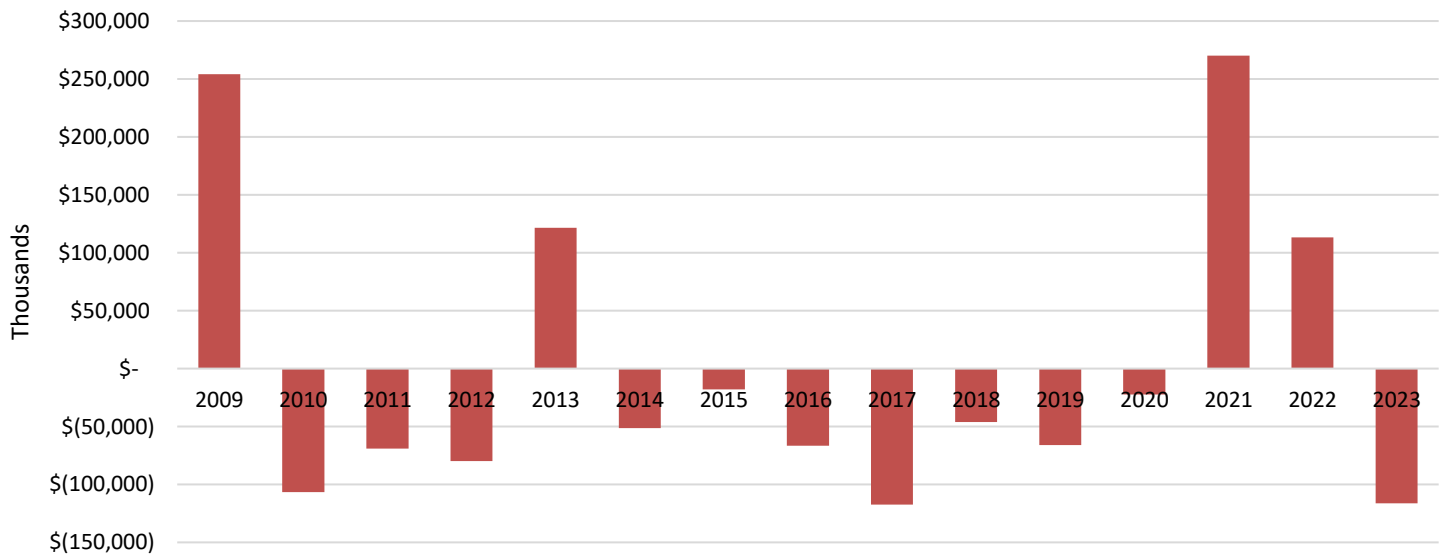
The following Figures 8 and 9 look at the business cycle associated with corporate income tax. The FY 2020 and FY 2021 numbers are adjusted to account for the income tax filing shift.

FIGURE 8: CORPORATE TAX REVENUE HISTORY AND ASSOCIATED TREND

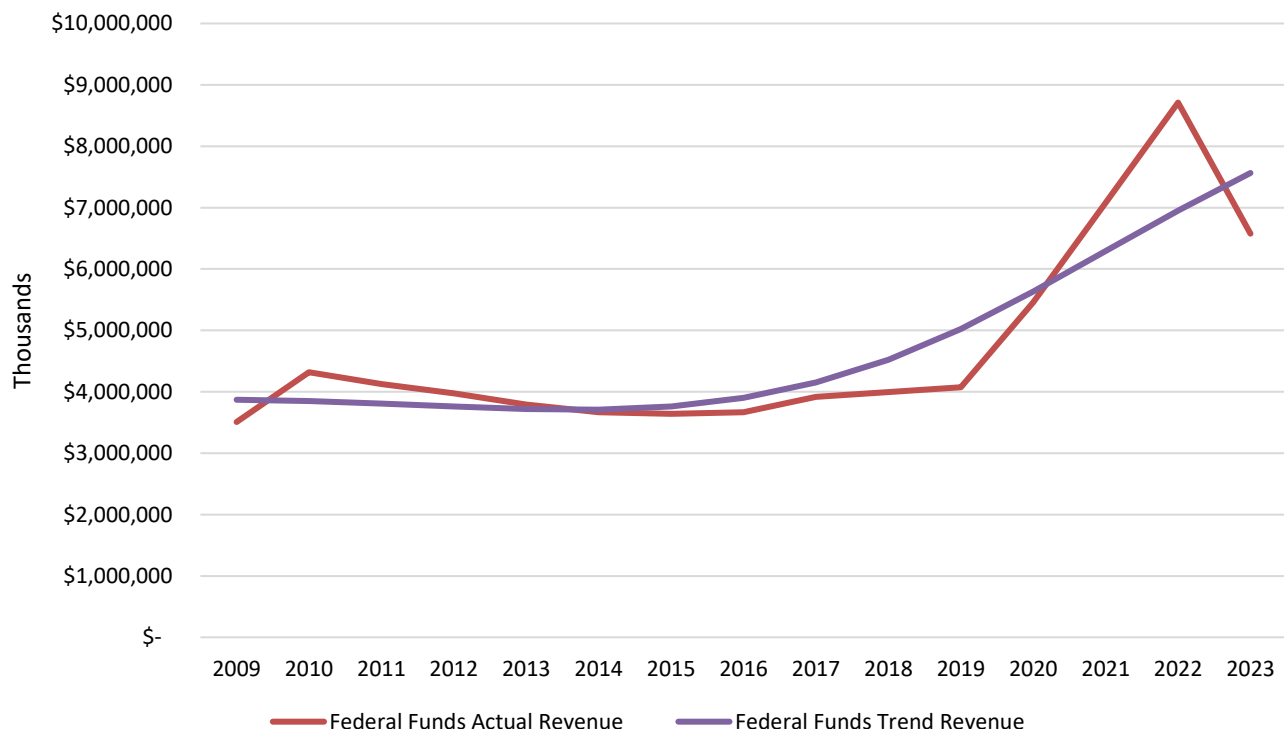**FIGURE 9: CORPORATE TAX ABOVE/BELOW TREND REVENUE**

FEDERAL FUNDS

Statute (UCA Section 63J-1-205) also requires that the revenue volatility report consider federal funding included in the state budget and discuss any projected changes in the amount or value of federal funding.

In FY 2023, Utah is expected to receive $6.6 billion in federal funds, which is approximately 37% of the total budget. Major programs funded by federal funds include Medicaid ($3.3 billion in FY 2022), public education programs and school lunches ($1.1 billion in FY 2022), transportation projects ($604 million in FY 2022), the Supplemental Nutrition Assistance Program ($522 million in FY 2022), and Temporary Assistance for Needy Families ($76 million in FY 2022).

While the concept of normalizing and evaluating funding flows against 15-year trends has been statutorily popularized in recent years, it is difficult to estimate changes in federal funding with precision because it is uncertain what actions Congress will take with the federal budget or exactly how entitlement programs will respond to changes in the economy. Additionally, anomalies in federal funding, such as the sharp increase in federal funds in FY 2020 and FY 2021 due to the COVID-19 pandemic, can have dramatic effects on trendlines. Senate Bill 209, "Budgeting Revisions," of the 2017 General Session requires the Governor's proposed budget to the Legislature to include a projection of 15-year trends of federal funds receipts. Numerous statistically acceptable methods for calculating the trend of a time-series exist and final "over/under" trend determinations are very sensitive to the methods selected. When using a Hodrick-Prescott filter to decompose the 15-year timeseries of federal funds, it is estimated that Utah's receipt of federal funds in FY 2022 will be about $1.76 billion above trend and about $987 million below trend in FY 2023. As discussed previously, the sensitivity of the Hodrick-Prescott model begins to pick up on the anomalous increases in federal funding in FY 2020 and FY 2021, thus indicating that FY 2023 federal fund receipts, which will likely begin to normalize, will be below the now-inflated trend.

The following Figures 10 and 11 look at the business cycle associated with federal funds.

FIGURE 10: FEDERAL FUNDS REVENUE HISTORY AND ASSOCIATED TREND