



FY 2025 Long-Term Budget Report

Utah Legislature | Office of the Legislative Fiscal Analyst

Executive Summary

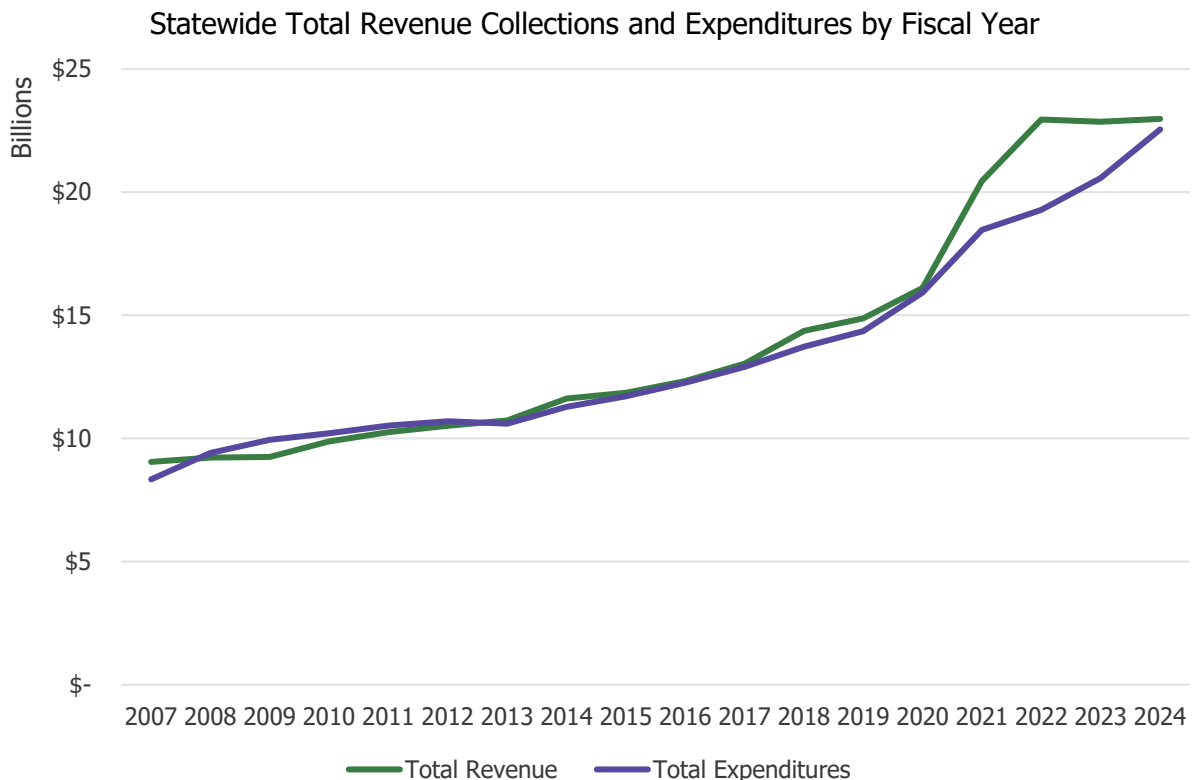
The chief concern of the annual budget process is to bring into balance the inflows and the outflows of state finance in an ideally optimal allocation of resources towards those public services of greatest value to the people of Utah. A monumental task, no doubt, but one taken up enthusiastically each year by the state’s elected Representatives and Senators on behalf of their constituents. A crucial consideration to this perennial balancing act is the sustainability of it – a budget can be balanced today, but will it remain so tomorrow? Next year? In a decade?

Of course, not all commitments the state makes are expected to persist into perpetuity, but nonetheless that essential allocation of resources in the short-term must not also set the state up for imbalance in the long-term. Thus, the ever forward-looking Utah Legislature has directed the Office of the Legislative Fiscal Analyst to conduct a rigorous sequence of comprehensive fiscal sustainability evaluations on a recurring three year schedule.

This being the second year of the triennial process, the topic of this report is the Long-Term Budget. This report comprises a thorough analysis of historical revenue and expenditure data, a critical evaluation of the balance between these two halves of the budget, and a set of five-year-forward forecasts for each of the state’s major sources and uses of funding.

Past to Present

A summary of the historical evaluation as presented in this report can be seen reflected in the chart below, which includes both total revenue and total expenditures through fiscal year 2024.





As shown in the figure, the economic distortion induced by the various responses in the wake of the COVID-19 pandemic had quite sudden and significant impacts on total state revenue, shown clearly in the rapid, steep climb of the green line in the chart. A shift back towards the prior trend in revenue has been seen over the past two years with nearly flat growth; this recent flat trajectory is also reflective of successive reductions to the income tax rate.

Although revenue is largely at the mercy of the broader economy in any given year, thus susceptible to the sort of volatility witnessed over the recent past, the path of expenditures remains much more tangible and subject to the annual decisions of the Legislature. The evidence of this is plain to see in the purple Total Expenditures line also shown in the figure above. In spite of significant increases to revenue, growth in statewide expenditures has remained disciplined through this period, remaining largely in line with the underlying trend in revenue, with increases in fund balances absorbing the residual surplus.

Maintaining expenditures on pace with ongoing, trend revenue is essential to a sustainable, structurally balanced budget. The current state of on-trend expenditures observed in the figure has not happened by accident, but has indeed only been possible owing to the unique and prudent approach to fiscal management employed by the Utah Legislature. As such, regardless of what any long-term budget projections may indicate, the present report included, continued application of this disciplined approach is absolutely vital to the fiscal sustainability of the state.

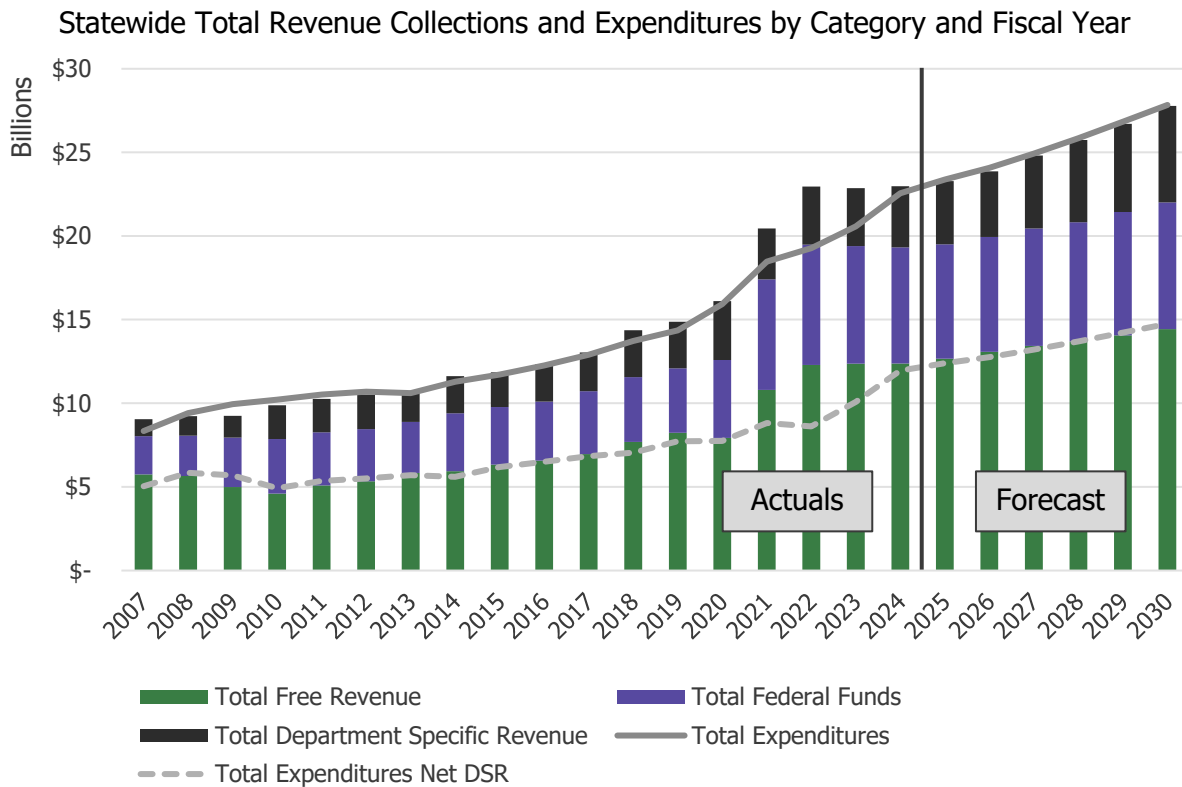
Present To Future

Key to the five-year forecasts of the Long-Term Budget are a set of major drivers of the state budget which have been identified as likely and significant influences on state finances over this period. These include the following demographic, economic, and policy-related dynamics: the absence of federal stimulus, modest total population growth, age demographics shifts, personal income normalization, income tax rate reductions, sunseting of federal Tax Cuts & Jobs Act provisions, and moderate inflation.

Each of these is discussed in greater detail within the report, but the essence of all these factors' influences can be summarized, not in absolute terms, but in relation to how they will likely differ in the next five years from their state over the last five years: in short, a general return to trend from the highly distorted levels of the past five years is expected through the duration of the Long-Term Budget.

The primary concern of this exercise is not to precisely estimate the *size* of the state budget in 2030, but rather to evaluate the impact of the key factors identified on the overall *balance* of the budget throughout this period. Via a methodology of independently forecasting each of the major sources of revenue and each of the major uses of funding without imposing a matching constraint, this long-term budget seeks to determine whether or not, or to what extent, the current balance in the budget can be expected to persist under the set of conditions anticipated over the next five years.

A summary of this prospective evaluation as presented in this report can be seen reflected in the chart below, which includes both total revenue and total expenditures through fiscal year 2030.



Based on the key drivers anticipated over the next five years and their associated impacts as projected forward through the end of the decade, this analysis finds that overall, the long-term budget is expected to remain in balance during this period.

Given the methodology employed in the development of the Long-Term Budget of separately projecting each source and program in isolation, it is quite striking to see in the figure above just how well aligned each half of the state budget is forecasted to remain. As shown in the chart, both total revenue, displayed as the bars, and total expenditures, displayed as the darker grey line, track very much in tandem over the duration of this period. This alignment indicates that the various factors identified to influence the state budget over this period are expected to impact total state revenue in approximately equal proportion to total state expenditures. A result like this is reflective of a structural balance.

A further breakdown of the overall results does indicate the balance between “free revenue” (all revenue not specific to a particular department and thus available for general appropriation) shown in the green bars and the portion of program expenditures not otherwise covered by department-specific revenue, shown in the dashed grey line, may be at relatively greater risk near the end of the forecast horizon.

The anticipated gap projected in the final year of the forecast is not inevitable, rather this should be interpreted as evidence of the tenuousness of the budgetary balancing act and the necessity for prudent fiscal management with an eye to the future needs of the state in the annual budget process if it is to be maintained.



I. Introduction

Fiscal Sustainability Projects Overview

"The best-laid plans of mice and men go oft awry..." - Robert Burns.

Is it not, nonetheless, better to be the mouse prepared for winter?

To this, the Utah Legislature has responded firmly in the affirmative. It was in this spirit of prudent preparedness that the 62nd Legislature passed House Bill 452 during the 2018 General Session, directing the Office of the Legislative Fiscal Analyst to prepare a set of long-term fiscal sustainability analyses on an ongoing basis.

Additional specifications have been included over the years since, and the current state of the relevant statute directs the office as follows:

UCA 36-12-13(2)

- (e) beginning in 2017 and repeating every three years after 2017, to prepare the following cycle of analyses of long-term fiscal sustainability:
 - (i) in year one, the joint revenue volatility report required under Section 63J-1-205;
 - (ii) in year two, a long-term budget for programs appropriated from major funds and tax types; and
 - (iii) in year three, a budget stress test that, in consultation with the Governor's Office of Planning and Budget:
 - (A) compares estimated future revenue to and expenditure from major funds and tax types under various potential economic conditions;
 - (B) analyzes the economic and policy risks associated with funding for the Medicaid program and expansions of the Medicaid program;
 - (C) measures value at risk; and
 - (D) recommends budgetary actions to manage risk;



Long-Term Budget Overview

"In the long run, we are all dead." - John Maynard Keynes.

Fortunately, for the time being we live.

And so, with an eye to perhaps a more intermediate future than Keynes had in mind, we now consider the long-term budget.

Following the revenue volatility report prepared last year, in this second year the office has developed a five-year long-term budget for programs appropriated from major funds and tax types. These long-term revenue and expenditure projections have been adjusted for known policy changes and economic trends, with an emphasis on the overall balance and sustainability of the state budget beyond the standard budget cycle.

This year's report features additional context and analysis of each of the key components underlying the state budget. The major factors that have influenced the budget over the recent past and those that drive the projections over the next five years, at a fairly high level of aggregation and summarization, are each presented in turn through the sections of this report.

Given the high level of uncertainty inherent in any long-range forecast along with the generally low level of detail that can be reasonably covered in a brief report on such a complex topic as the state budget, the commentary provided here is only the broad strokes and the projections represent only one plausible scenario under generalized assumptions. Such projections will inevitably prove inaccurate in time, but the intent of this exercise nonetheless is to provide policymakers with greater context to inform decisions and better prepare for the future.



II. Analysis

Major Funds

For the purposes of this report, Utah's major funds are the General Fund, the Income Tax Fund, the Uniform School Fund, the Transportation Fund, and the Transportation Investment Fund of 2005. The sources of funding to, as well as the allowable expenditure of funding from, each of these major funds are unique.

General Fund

The state's principle operating fund, which accounts for all financial resources not otherwise accounted for in any other fund. Appropriations from this fund may be made for any allowable state purpose. Revenue to this fund comes primarily in the form of federal contract and grant receipts and collections from the state sales and use tax. A significant portion of the revenue to this fund is restricted to use for a specific purpose as directed by statute. What is not otherwise restricted, the remainder of revenue to the fund, is so-called unrestricted general fund revenue.

Income Tax Fund

Formerly known as the Education Fund, the Income Tax Fund is one of the state's two primary special revenue funds, with the other being the Transportation Fund. Appropriations from this fund are relatively restricted, predominantly in support of the state's public and higher education along with certain related programs. Revenue to this fund comes primarily in the form of the individual and corporate income taxes. A majority of the revenue to this fund is subsequently transferred to the Uniform School Fund for the Minimum School Program.

Uniform School Fund

Technically a special revenue fund within the Income Tax Fund, the Uniform School Fund is the primary source fund for the state's public education system via the Minimum School Program. After revenue is deposited into the Income Tax Fund, a significant majority of that revenue is subsequently transferred into the Uniform School Fund; these transfers are the primary source of revenue to the fund.

Transportation Fund

The other of the two primary special revenue funds, the Transportation Fund is the major source fund for the state's transportation construction and maintenance program, predominantly related to the state highways and roads. Appropriations from the fund are restricted in their use for such infrastructure-related purposes. The main sources of revenue to this fund include the special and motor fuel taxes as well as federal contract and grant receipts.

Transportation Investment Fund of 2005

A capital projects fund, the Transportation Investment Fund of 2005 is functionally utilized in concert with the Transportation Fund for the purposes of maintenance, reconstruction, and renovation of the state's transportation and transit infrastructure. The primary source of revenue to this fund is a 17% earmark on state sales tax collections along with discretionary appropriations from the General Fund. As a major "working rainy day fund" for the state, substantial one-time appropriations were made into this fund during the period of significant above-trend revenue following pandemic-related stimulus and recovery.



Major Revenue Sources

Free Revenue

As used throughout this report, “free revenue” consists of the tax collections and other sources of revenue deposited into these major funds which is not dedicated for a specific department or program except to the high-level extent specified for each given fund.

As an example, motor fuel tax revenue is herein considered free revenue because those funds can be used for any allowable purpose within the scope of the transportation fund. Contrast that with the portion of state sales tax revenue not otherwise earmarked (unrestricted), which is deposited into the General Fund and can be used for any allowable purpose. Unrestricted state sales tax revenue is strictly speaking “more free” than motor fuel tax revenue, but as a matter of course both are considered free revenue. Finally, contrast both of these with federal funding received via the American Rescue Plan Act (ARPA), for example, which must be expended for the limited, specific purposes defined in the Act; such revenue is thus not considered “free” revenue.

This definition is consistent with the consensus revenue estimation process and the forecasts from which as presented each year to the Executive Appropriations Committee and reflected in Table 7 of the Budget of the State of Utah. This free revenue forms the core of the state budget and is the part with which the annual appropriations process is chiefly concerned. As such, it is with this free revenue that the long-term budget as presented in this report will likewise be equally concerned.

Figure 1
Free Revenue by Source, Fund, and Fiscal Year





The largest sources of free revenue to the state include the following major tax types: to the General Fund, the state sales and use tax; to the Income Tax Fund, the individual and corporate income taxes; and to the Transportation Fund, the motor fuel and special fuel taxes. For each of these three funds, there are numerous additional sources of revenue, including, for example, other taxes, fees, and earnings, which are collectively consolidated for the purpose of this report as “other” revenue. This “other” free revenue does not include the still more various sources of department-specific revenue, which are discussed in the next section.

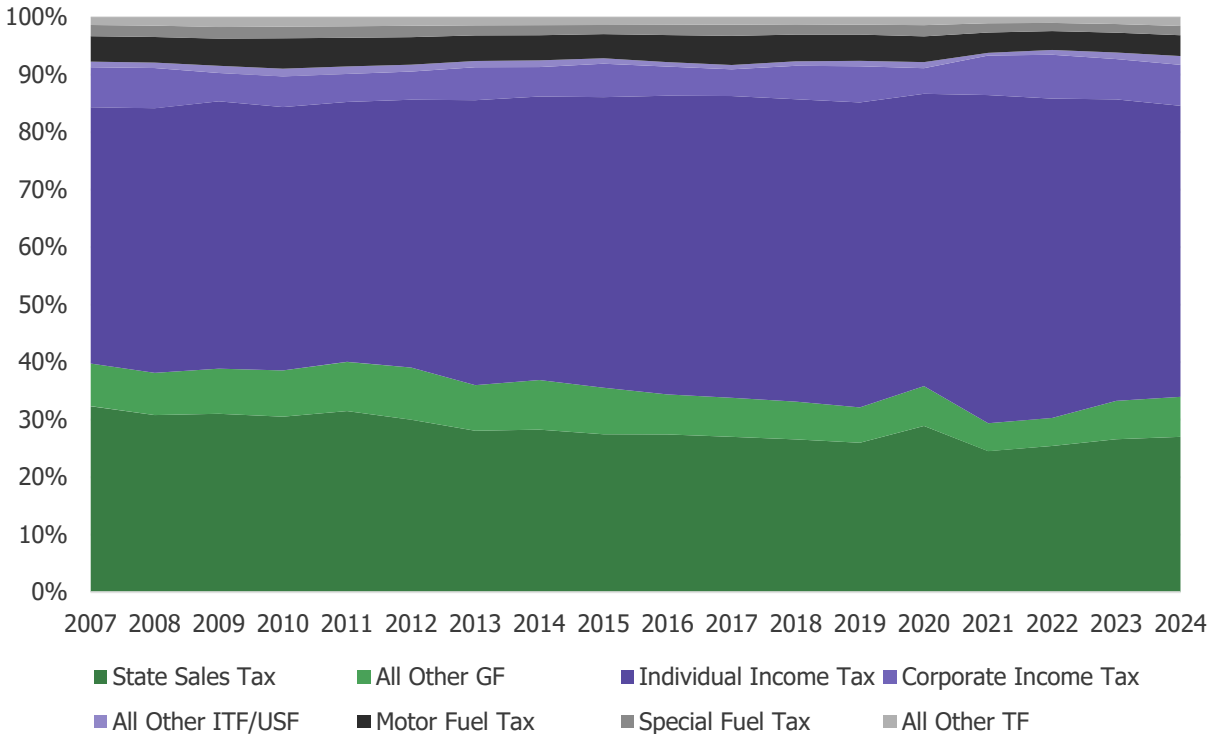
In total, combined free revenue across all sources amounted to nearly \$12.4 billion in fiscal year 2024. This amount is nominally approximately double the amount collected ten years prior. A chart of this history can be found in Figure 1, with General Fund revenue sources featured in shades of green, Income Tax Fund sources in shades of purple, and Transportation Fund sources in shades of grey. As can be clearly seen, the collections from the state sales and use tax and the individual income tax constitute the vast majority of total free revenue.

With no significant expansion of the tax base, policy-wise, during this period, and in fact in tandem with a series of income tax rate reductions and increased deductions, this significant increase in nominal tax collections is reflective of the growth and strength of the state’s economy during this period. As the two primary sources of free revenue to the state are directly a function of personal income and personal consumption, as goes the financial wellbeing of the people so too goes the tax collections from them. Additionally, with most of the largest revenue sources being a percentage-based tax, the period of high inflation experienced during the recovery and expansion following the brief recession with the onset of the COVID-19 pandemic has also been a major contributor to this growth. Finally, all else equal, the growth in total tax collections and revenue has been marginally enhanced as the state population has grown during this period, particularly from working-age population in-migration.

The relatively modest growth seen the last two years has largely been a function of a return to normal, absent federal stimulus, combined with successive year over year decreases in the income tax rate as enacted in recent legislative sessions.



Figure 2
Free Revenue by Source, Fund, and Fiscal Year, Percent of Total



Taking the individual sources' collections as shown in Figure 1 each as a percentage of the total of all free revenue collections, the relative weight of each source can be put into clearer context. A chart of this can be seen in Figure 2, following the same color scheme as earlier.

From this perspective, it can be seen that the transportation fund revenue sources have made up a fairly consistent 6% to 8% of all free revenue collections. Looking now at the remainder, the over 90% from sources to the General Fund and Income Tax Fund, it can be seen that the balance between these two has steadily been shifting towards the Income Tax Fund over most of this period.

From fiscal year 2007's 53%, Income Tax Fund revenue sources had increased to a high of 64% of the total as of fiscal year 2022. The key factor behind this shift has been that taxable personal income has tended to grow at a faster rate on average over this period than has taxable personal consumption. There are budgetary consequences to this shift, as the Income Tax Fund revenue is relatively more restricted in its allowable uses, as previously discussed. Ignoring the relative anomaly of fiscal years 2020 and 2021, which reflect the COVID-related filing deadline shift for individual income tax, this trend has been consistently in place up until the most recent two years. This recent reversal has primarily been the result of the series of income tax rate reductions enacted by the legislature.



Department-specific Revenue

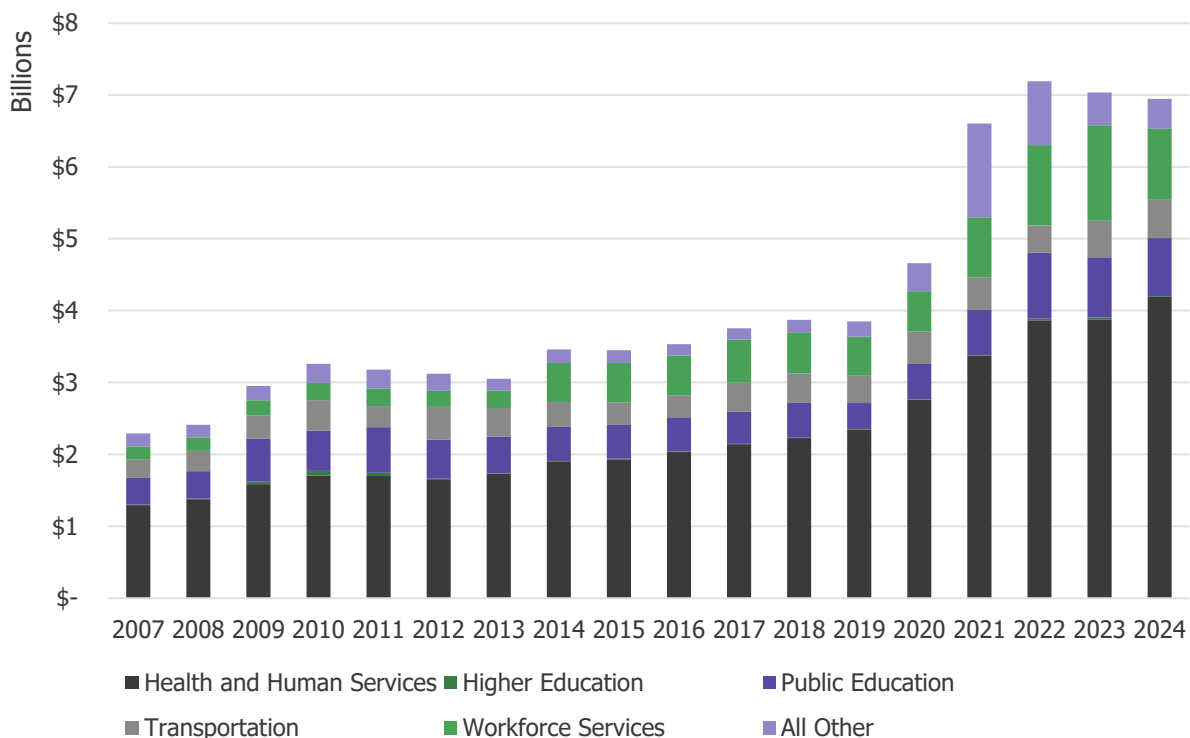
The remainder of the revenue half of the budgetary equation consists of department-specific revenue, the largest component of which being federal funds. These department-specific sources are unique to each department or state agency, as the term implies, and generally relate to the particular “business” of the entity.

Federal Funds

Such revenue is generally designated for a specific, related purpose by the collecting entity. Perhaps the most notable example of this kind of revenue would be the federal funding received by the Department of Health and Human Services to support the Medicaid program in the state. In general, all federal funds revenue received by the state is of this nature, where any given agency might apply for funding through a federal grant program, receive funds as awarded, and expend those funds for the designated purpose; the revenue in such cases is unique to the particular recipient agency.

Federally derived revenue makes up a large part of the funding for several other large public programs administered by the state in addition to Medicaid. Some of these include the Supplemental Nutrition Assistance Program (SNAP) within the Department of Workforce Services, the Women, Infants and Children Program (WIC) within the Department of Health and Human Services, the Student Nutrition Program within Public Education, and various construction and maintenance projects involving federal highways within the Department of Transportation.

Figure 3
Federal Funds Receipts by Department and Fiscal Year

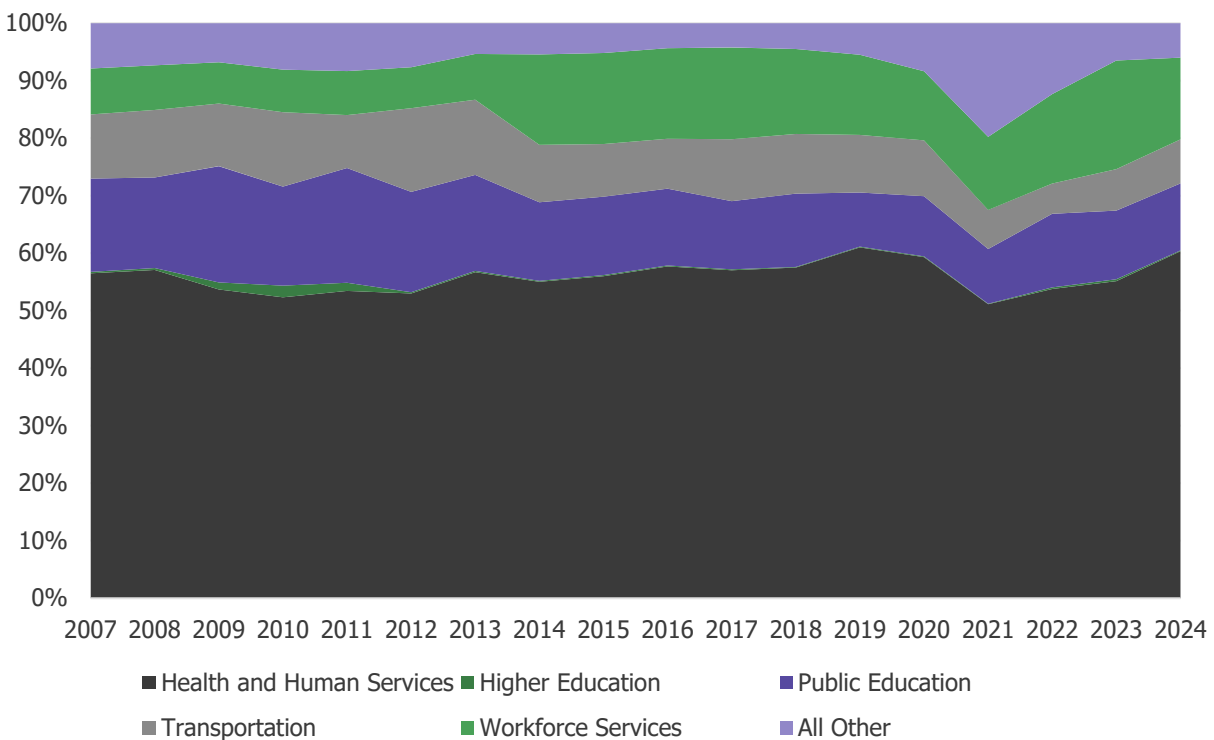




In total, federal funds received across all departments in fiscal year 2024 amounted to nearly \$7 billion. This amount is nominally approximately double the amount received ten years prior. A chart of this history can be found in Figure 3. Increases to various federal programs in the wake of the COVID-19 pandemic and the expansion of Medicaid have been the leading contributors to this large growth. Additionally, many such programs are adjusted for inflation each year. Finally, as the state’s population has grown, so too has the number of members of such federally-funded support programs, all else equal, thus any per-member federal receipts have scaled up along with the population.

On average, more than half of all federal funds received in the state are directed to the Department of Health and Human Services. Note that in Figure 3 and elsewhere in this report, prior years’ data labeled as the Department of Health and Human Services reflect the sum of the formerly separate Department of Health and Department of Human Services. Combined with the other major federal funds recipient departments, Public Education, Workforce Services, and Transportation, these four combined for just over \$6.5 billion in receipts in fiscal year 2024, approximately 94% of all state receipts. A chart of this along with a history of these relative weightings by department can be seen in Figure 4.

Figure 4
Federal Funds Receipts by Department and Fiscal Year, Percent of Total



Federal receipts are generally countercyclical, meaning the state tends to have significant increases in total receipts during recessions when most other sources of revenue are experiencing significant decreases in total collections. This is plain to see by comparing Figure 1 with Figure 3 for the period of the Global Financial Crisis (GFC), between fiscal years 2007 and



2010. The reason for this dynamic is fairly intuitive: most federal funds to the state finance various social support programs, which in turn see greater demand and membership during times of widespread financial distress as is the case during economic recessions.

After the GFC but prior to the COVID-19 pandemic, total federal funds to the state generally grew steadily but at a modest pace, approximately in line with population growth and inflation. The majority of the doubling of total receipts over the last ten years happened only in the three years from fiscal year 2020 through fiscal year 2023. This happened primarily as a result of the combination of the expansion of Medicaid in the state along with the vast amount of federal aid to states in response to the pandemic. As that aid has tapered off along with the end of the federally-mandated policy of continuous enrollment within Medicaid, the most recent two fiscal years have seen moderate decreases in total receipts.

It should be noted that most of this recent moderation in total federal receipts has come from the "All Other" category, a catchall for any department not explicitly otherwise listed, as shown in Figure 3. These All Other amounts expanded significantly during the pandemic due principally to various grants related to ARPA and CARES. This is all the more clear to see in Figure 4.

While total enrollment in Medicaid has been decreasing over the past year with the end of continuous enrollment, the coincident expansion of Medicaid that occurred in the midst of the pandemic means that the largest part of federal funds, which has also been the largest driver of the overall growth during this period, is not expected to return to levels, in dollar terms, similar to those prior to fiscal year 2020.

The substantial reliance on federal funds to support many of these major programs of the state does represent a kind of risk to the state in the event that such funding were to come into question. Legislation passed during the 2024 General Session directs the Office of the Legislative Fiscal Analyst to analyze the economic and policy risks associated with funding for the Medicaid program and expansions of the Medicaid program; this analysis will be presented in next year's budget stress test.

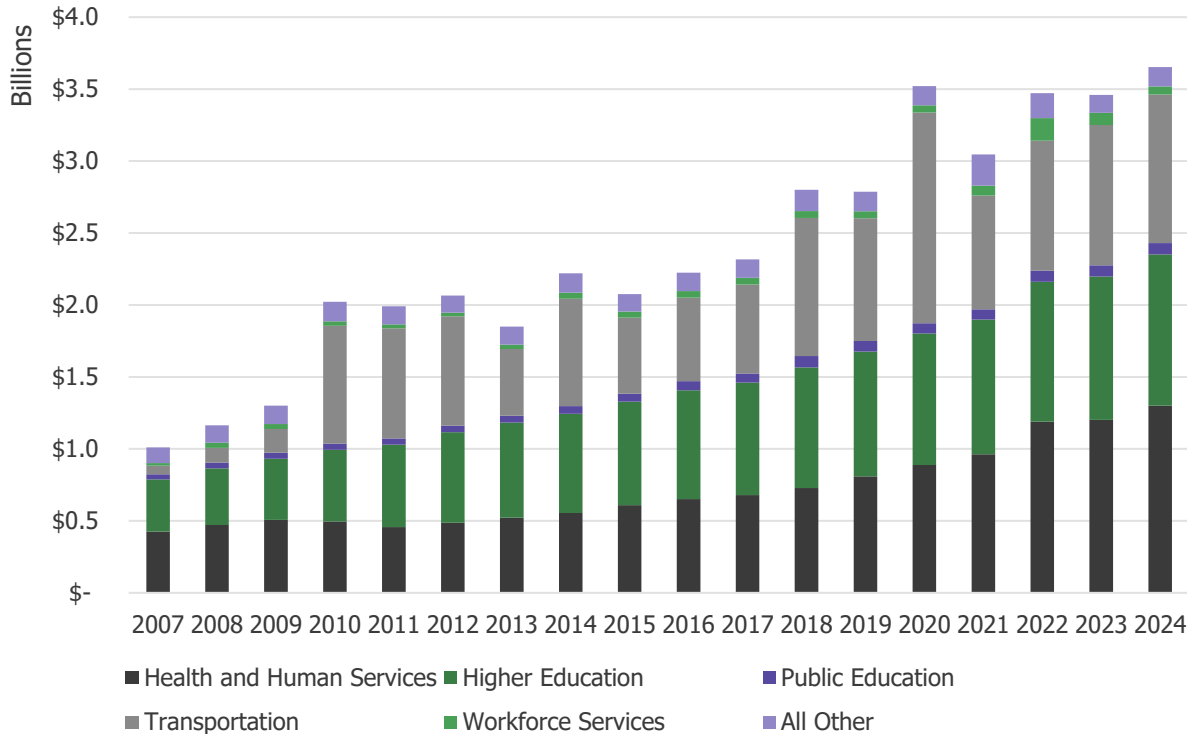
All Else

Apart from federal funds, department-specific revenue is something of a catchall of numerous, generally smaller magnitude, though not unimportant, sources of funding to a department. An example of this would be so-called publication sales, which consists of the proceeds of book and map sales from the Department of Natural Resources bookstore. Generally, this kind of revenue is restricted or dedicated to use only for specific or related purposes within the department.

There are several significant exceptions to this though, where department-specific, non-federal revenue, does make up a substantial proportion of an agency's funding. A history of these revenues can be seen charted in Figure 5.



Figure 5
Department Specific Revenue (Excluding Federal Funds) by Department and Fiscal Year



In Higher Education, for example, student tuition is a large source of department-specific revenue. In the Department of Transportation, as another example, the proceeds from cooperative agreements with local governmental entities involved in joint transportation projects are a significant source of such revenue; the sales tax earmark to the TIF of 2005 and the interest earned on its balance are additional sources of revenue attributed to the Department of Transportation. Health and Human Services too has very large non-federal departmental revenue, though this is a bit of a technicality that these proceeds are non-federal, given that the largest among them are entirely a function of the Medicaid program, namely the Medicaid Drug Manufacturers Rebate and various other revenue received from non-state sources for Medicaid expenditures.

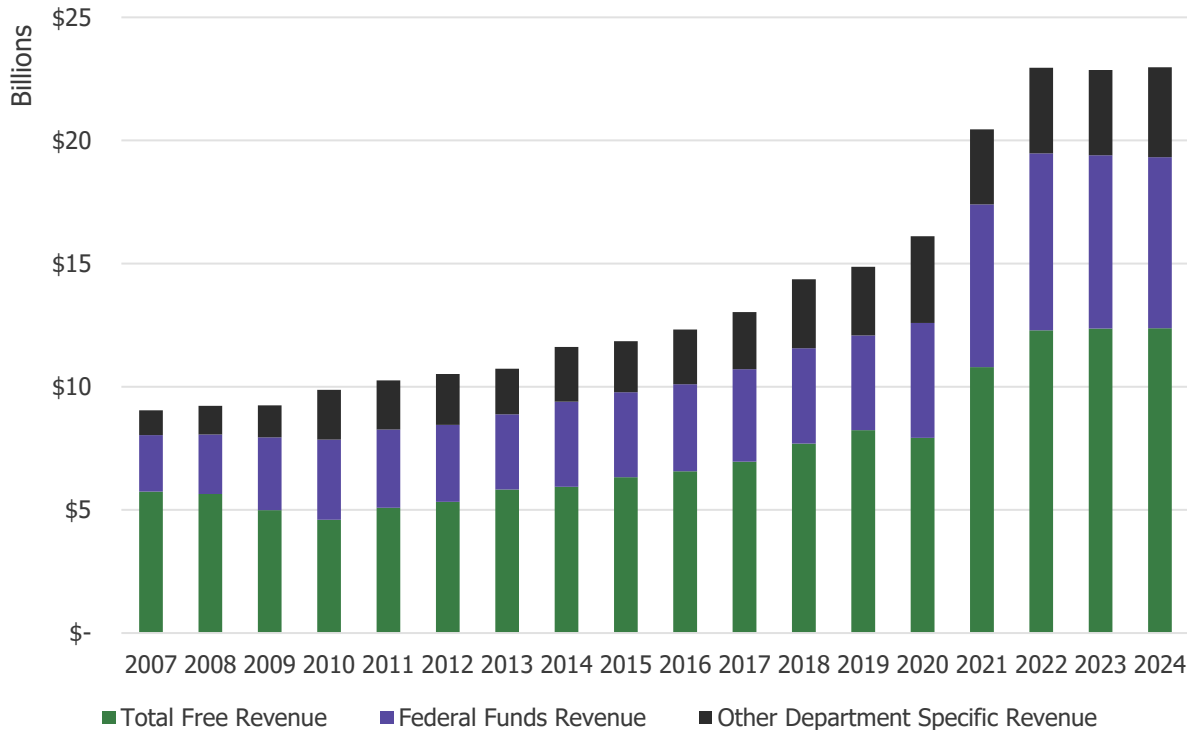
Compared to free revenue and federal receipts, these department-specific sources of revenue have grown relatively more moderately over the last ten years and with somewhat greater consistency, particularly through the period of the pandemic. In total, these funds amounted to just over \$3.6 billion in fiscal year 2024. A key factor driving the growth during this period has been inflation – the Medicaid Drug Manufacturers Rebate is adjusted for inflation each year and based on the average price of the drugs which similarly are driven by inflation; sales tax collections too are sensitive to inflation, the earmark on which makes up the majority of this category of revenue attributed to Transportation; and finally tuition as well has increased over time in tandem with steady enrollment growth across the state.



Total Revenue

Taken together, free revenue, federal receipts, and department-specific sources amounted to nearly \$23 billion in fiscal year 2024. A history of total collections among these broad categories can be seen charted in Figure 6.

Figure 6
All State Revenue by Category and Fiscal Year

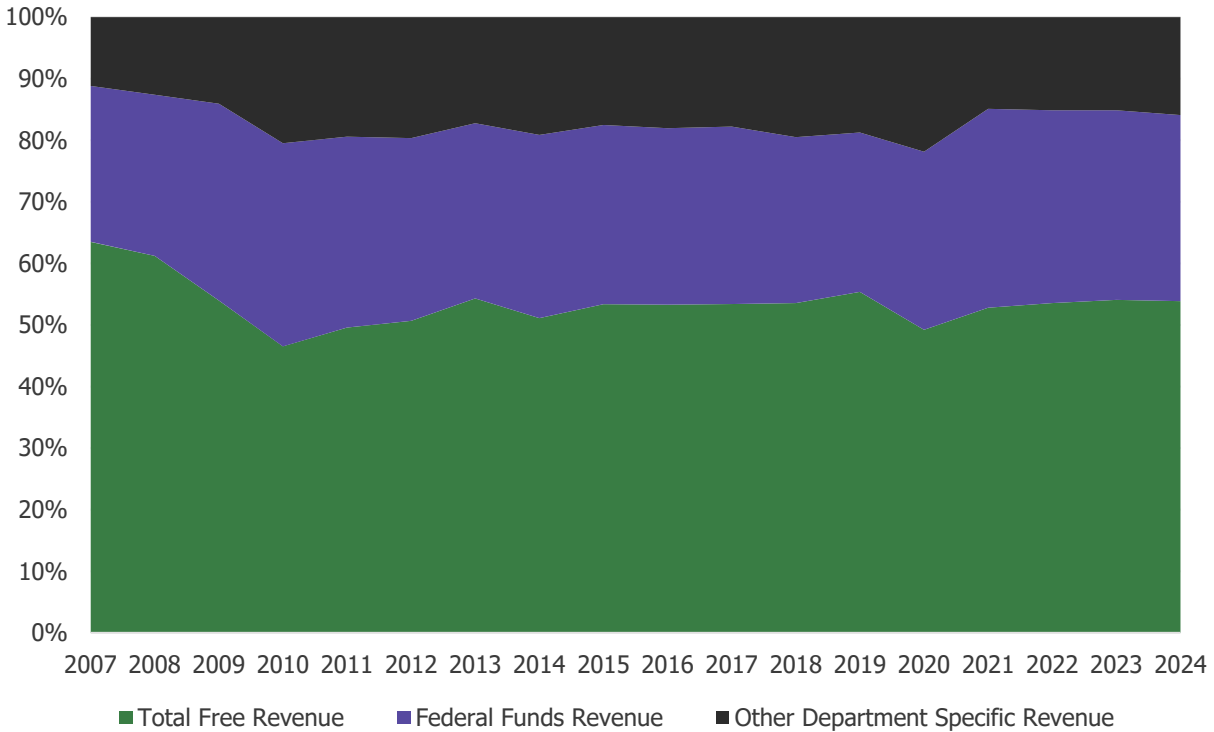


When viewed in aggregate, it becomes even more clear how the complementary dynamic between federal funds and free revenue tends to smooth over recessionary periods, which can be seen during the period between 2007 and 2010.

This also highlights one of the major factors that was at play through the pandemic period which drove up total revenue (and the overall budget by extension) to such a large and rapid extent – both federal funds and free revenue were growing very strongly simultaneously. The typical scenario involving a period of economic turbulence such as was experienced through the Global Financial Crisis did not materialize during the pandemic. Perhaps more precisely this scenario did happen, but only very briefly; however, the federal response to this had impacts of a much less brief nature. As a result, the economy as reflected in personal income and personal consumption had largely recovered while the full effects of the federal response were still working through it.



Figure 7
All State Revenue by Category and Fiscal Year, Percent of Total



Another perspective on the relative mix of sources of revenue to the state can be seen in Figure 7, which shows the percentage of total revenue made up by each category of funding. Previous to the GFC, free revenue constituted approximately 63.5% of total state funding as measured from fiscal year 2007. This level declined significantly to a low of just 46% by 2010 before recovering back to the low 50's throughout the 2010's; the most recent year ended at a level of about 54% from free revenue. The relative expansion of federal funds' share of total revenue that occurred in the wake of the GFC has largely been maintained over the last ten years.

The general stability in the balance between these funding categories over the period since the pandemic is further evidence of the relatively unique scenario that played out during this period, with both free revenue and federal funds growing simultaneously. Under more typical recessionary circumstances, as with the GFC, the balance would have generally been expected to tilt more towards federal funds.



Major Programs

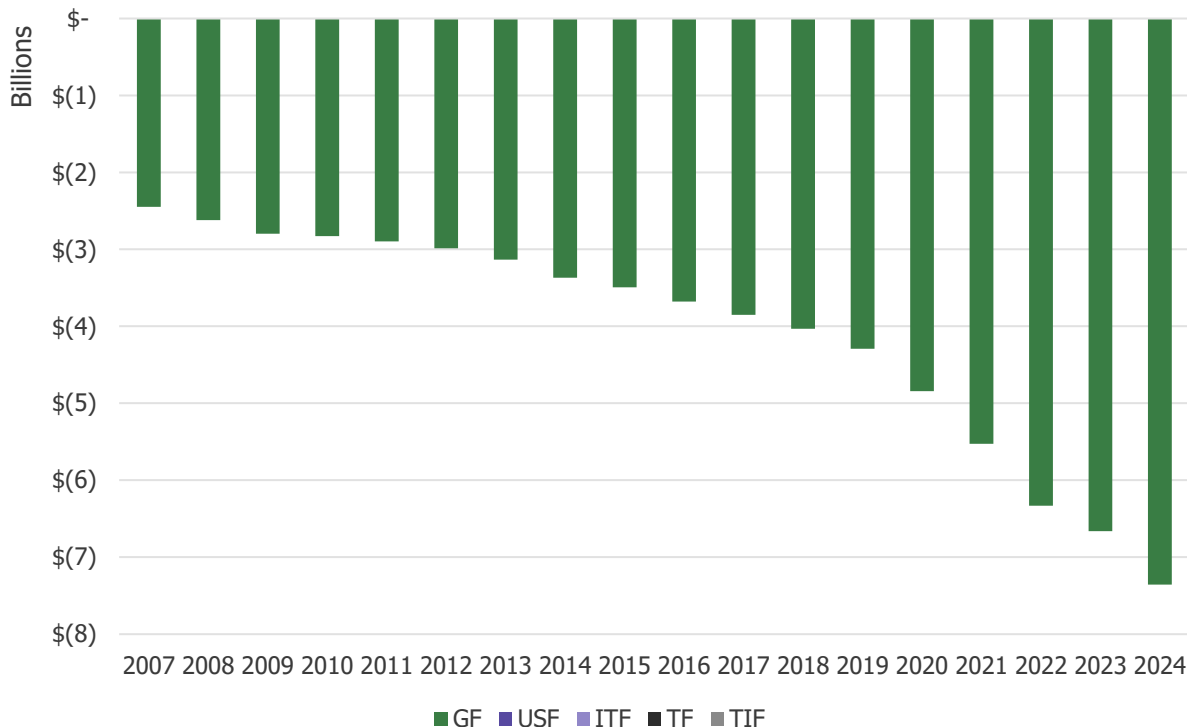
For the purposes of this report, Utah’s major programs are defined as those administered within the following agencies: Health and Human Services, Higher Education (Utah Board of Higher Education), Public Education (Utah State Board of Education), Transportation, and Workforce Services, with all remaining programs included in a catchall major program category called “All Other.” This is consistent with the presentation of department-specific revenue discussed previously. The designation of a major program as such is based on the size of the agency’s budget, not a judgement of subjective value or importance. All state programs, “major” and “minor” are included in this analysis; the distinction is for aggregation purposes.

The following sections will provide an overview of each major program’s expenditures by source fund. Please note that the amounts shown are reflective of only those amounts booked against the five major funds previously defined. As such, sources of funding and associated expenditures beyond these funds are not included here.

Health and Human Services

As one of the state’s major programs, the prime public function within Health and Human Services is to help provide for the physical and mental health of all Utahns. This is done through the oversight or direct administration of several of the state’s largest support programs, including Medicaid, Aging and Adult Services, Services for Individuals with Disabilities, and numerous other public health services, both statewide and regional.

Figure 8
Health and Human Services, Expenditures by Major Fund and Fiscal Year





As with department-specific revenue presented for Health and Human Services previously in the report, here again as shown in Figure 8 historical data for this program represents the sum of the previously separate departments of Health and of Human Services in years prior to the reorganization. Sources of funding include both free revenue and a significant amount of federal contract and grant receipts, primarily as related to the state's Medicaid program.

It can be seen in the figure that total expenditures attributed to Health and Human Services expanded significantly during the most recent five years. In addition to the substantial amount of increased federal support flowing through in response to the pandemic, this growth of total expenditures under HHS can also be attributed to the expansion of Medicaid that occurred following 2018's Proposition 3, Medicaid Expansion Initiative. Further, for the duration of the National Public Health Emergency, federal mandate prohibited non-voluntary disenrollment from Medicaid, thus resulting in a period of relatively inflated "continuous enrollment" in the program with associated increased expenditure.

The key factors that have driven, and will continue to drive, expenditures within Health and Human Services are population- and usage-based. As a result, with the end of continuous enrollment and a broader expectation for moderate economic conditions, years of significant growth during the past five years are presumed to transition to a period of moderate growth over the next five years.

A complicating factor in this, though, is the result of annual adjustments made at the federal level to the relative share of Medicaid costs spread between them and the state. This adjustment, which is benchmarked to Utah's per capita income relative to the nation, has already shifted 7.2% more of the cost of Medicaid to the state as of the most recent year compared to fiscal year 2018. Thus, as Utah continues to outpace the nation overall in economic growth, these adjustments are expected to lead to a continuation of that cost shift to the state.

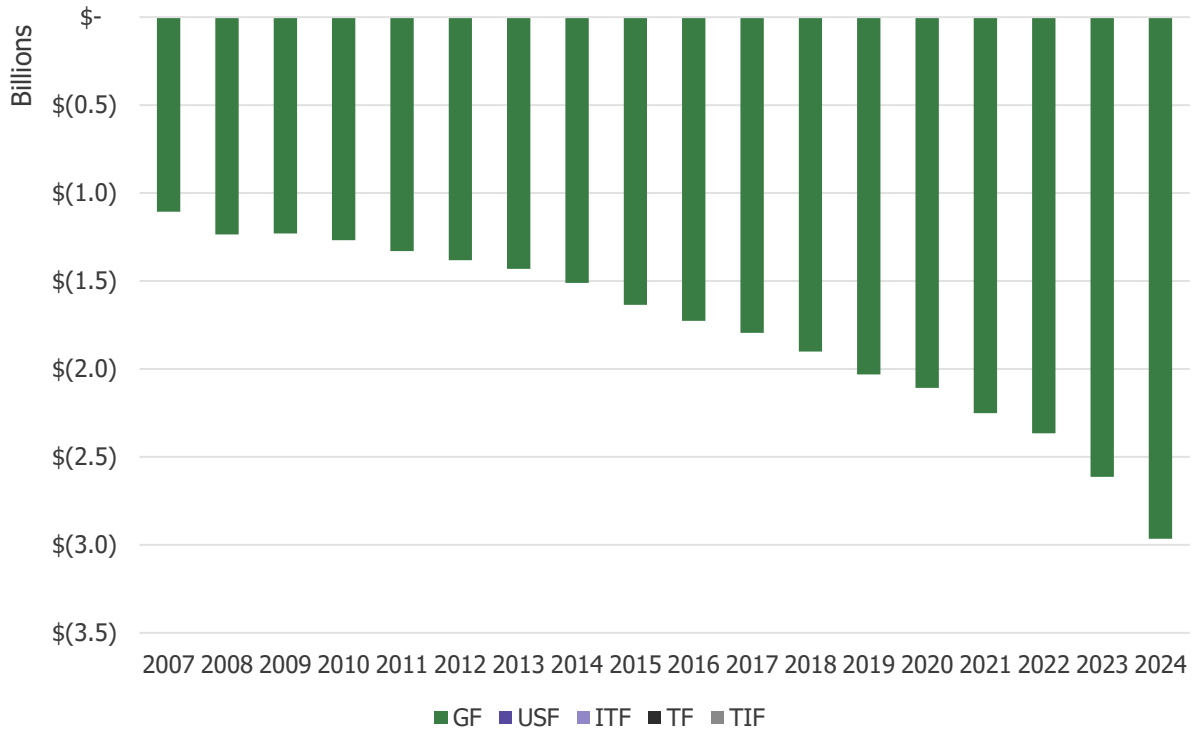
Higher Education

The primary public function within Higher Education is to provide students with postsecondary education. This is done through both degree programs and technical certificates. The state has eight degree-granting institutions, offering students access to various specializations leading to associates, bachelors, masters, and doctoral degrees. Utah also has eight technical colleges, concentrating on providing more skills-focused education for students pursuing a career certification. An additional public function within the scope of Higher Education is basic research – the state is home to two R1 universities, a designation which indicates the highest level of research activity among the nation's universities.

Sources of funding for Higher Education, as previously alluded to, include both free revenue as well as a significant amount of department-specific funding via student tuition. Higher Education may be funded from both the General Fund and Income Tax Fund; apart from Public Education, Higher Education receives the second largest portion of total Income Tax Fund appropriations. Given that some institutions are more focused on basic research than others, federal grant receipts are also a significant source of funding as well for those universities.



Figure 9
Higher Education, Expenditures by Major Fund and Fiscal Year



As charted in Figure 9, total expenditures attributed to Higher Education have grown steadily year to year over the last decade. Due to the way that state finance records these expenditures against the General Fund with separate pass-through transfers from the Income Tax Fund, to avoid double counting, all amounts in the figure are shown as General Fund. In reality the Income Tax Fund is also a major source of funds behind these expenditures.

The overall growth in expenditures within Higher Education has been the result of two main factors over this period: enrollment growth and performance funding. With student tuition as a major source of funding, as the number of students has increased each year, so too has total tuition received across the state’s higher education institutions, which in turn supports increased expenditures. Additionally, appropriated funding increases have resulted as institutions have attained performance targets set by the legislature over the years.

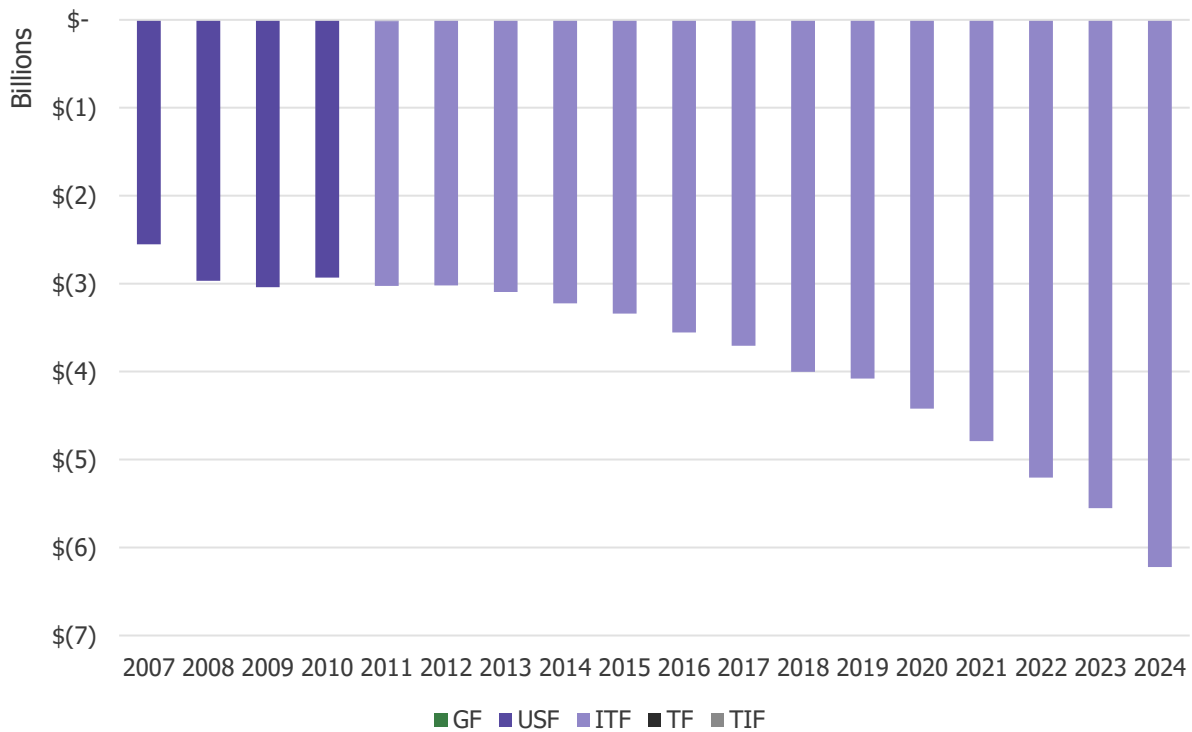
Looking forward, shifting age demographics will become increasingly impactful on this major program of the state. While a tailwind of growth among the traditional college-age population has served to bolster enrollment among Higher Education institutions through most of the past two decades, projections indicate this trend will taper off over the next five years before subsequently entering a period of decline in the 2030s. As a result, the full effects of this reversal may not materialize during the period of the current long-term budget, but it remains a significant headwind to enrollment growth over the longer term.



Public Education

Public Education’s chief function is to provide students with primary and secondary education. This is done through both local school districts as well as charter schools. The state currently has 41 school districts with an additional 125 charter schools in operation. Along with direct funding to schools, state resources also support the statewide administration of public schools through the State Board of Education and the Utah Schools for the Deaf and the Blind.

Figure 10
Public Education, Expenditures by Major Fund and Fiscal Year



Funding for Public Education from the state comes primarily from free revenue in addition to a significant amount of federal funding via student aid programs such as the Student Nutrition Program; a large part of Public Education funding comes from locally assessed property taxes, thus are not captured within the scope of state-specific expenditures. Free revenue flowing to Public Education comes primarily from the Income Tax Fund, including the individual income tax and the corporate income tax. Similarly to the caveat mentioned for Higher Education, the largest part of this funding flows through the Uniform School Fund, but for accounting purposes expenses are recorded directly against the Income Tax Fund. As a result, Public Education expenditures as charted in Figure 10 are shown as entirely from the Income Tax Fund though in reality it is technically a mix.

As charted in the figure, total expenditures attributed to Public Education have generally grown steadily year to year over the last decade, approximately doubling over this period. Some of the key factors which supported this increase have included: growth in income tax collections at the state level, growth in property tax collections by school districts, and the development of a



Public Education Funding Framework by the Legislature to stabilize education funding over time. This framework includes annual appropriations for student enrollment growth, inflationary adjustments, and the development of an ongoing savings account (the Public Education Economic Stabilization Restricted Account) to fund growth and inflation during economic downturns.

As was the case with Higher Education, the anticipated changes to age demographics within Utah are likely to be the key driver of change within the budget for Public Education into the future. Although the state has seen smaller declines than have been observed elsewhere in the country, birth rates have trended lower and a consequence of that will likely be relatively declining enrollment over the next decade as the larger older classes graduate and are replaced by smaller incoming classes. This age shift is a national phenomenon, but the impact of it in the state may nonetheless be somewhat offset by relatively stronger in-migration.

Transportation

The primary public function within Transportation is to provide for construction and maintenance of much of the transportation infrastructure within the state. This includes maintaining existing state and federal highways, construction of new highways, improvements to existing highways, and, in collaboration with local counterparts, numerous aspects of the road network and related infrastructure across the state. Along with partners in law enforcement, the dispatching of snowplows from four regional offices and the removal of various other debris from the roads to maintain safety is administered under the umbrella of Transportation.

Sources of funding for Transportation include both free revenue as well as a significant amount of department-specific funding as previously discussed. Supplementing this state funding, Transportation is also a major recipient of Federal Funds, primarily related to work done on federal highways and via project-specific grants. Significant sources of free revenue supporting Transportation are the motor fuel tax and special fuel tax through the Transportation Fund, with the earmark on state sales tax through the Transportation Investment Fund of 2005 (TIF) providing the largest part of department-specific revenue for Transportation. Additionally, much of the above-trend, one-time revenue that resulted in the wake of the pandemic was appropriated one-time for Transportation via the TIF, which functions as a working rainy-day fund, effectively supporting increased expenditures.

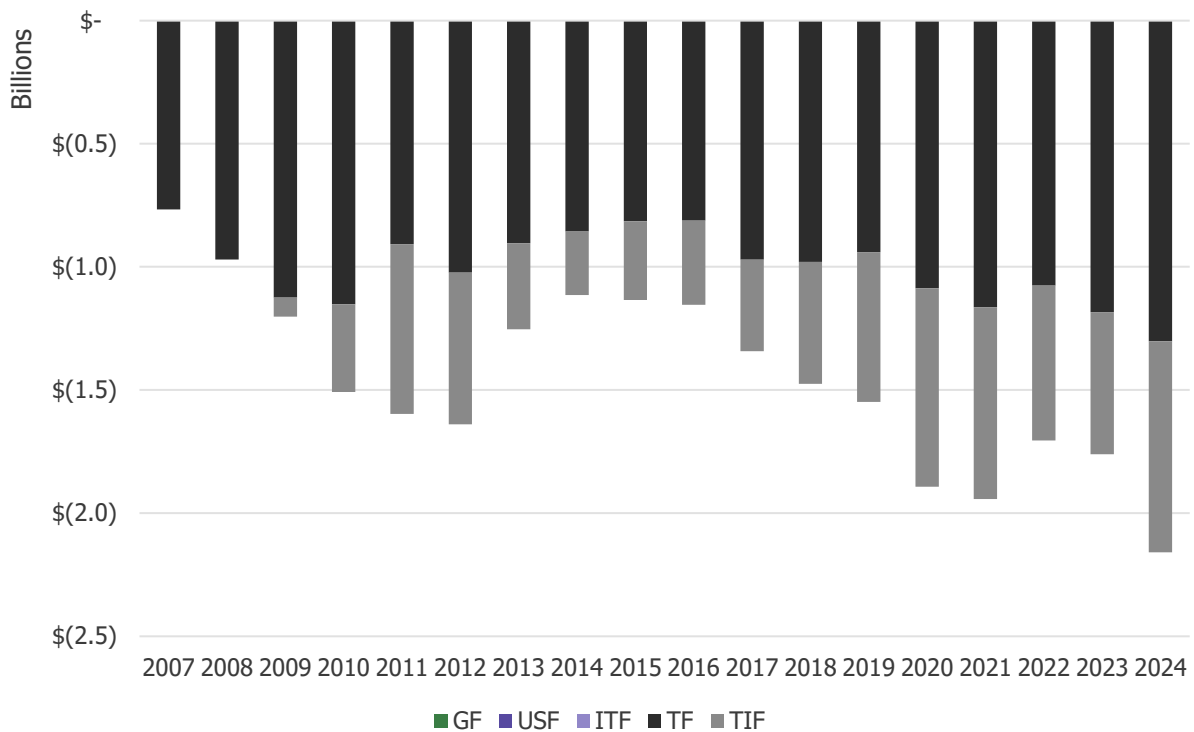
As shown charted in Figure 11, total expenditures within Transportation have been relatively more variable over time than those within the other major programs. Given the nature of the actual work which is supported by this program, namely large-scale infrastructure projects, there is often a delay between funding (appropriation) and the full expenditure of that funding in Transportation. This relates to the state's practice of fully funding projects up front, regardless of the expected timeline over which the funds are to be utilized. A consequence of this is that, in spite of the large increase in the balance of the TIF over the past five years, actual expenditure from the fund has grown only modestly over the same period.

Looking to the next five years and beyond, this forward funding of transportation projects represents a kind of "pent up demand" which may serve as a tailwind to increased expenditure



as it is unwound. A key factor driving the Transportation budget, both to date and into the future, is population growth – as the state continues to grow, the demands on its infrastructure network grows as well. As a result, projects to scale capacity and increase efficient travel to accommodate that larger population are likely to drive continued growth in Transportation expenditures throughout the long-term.

Figure 11
Transportation, Expenditures by Major Fund and Fiscal Year



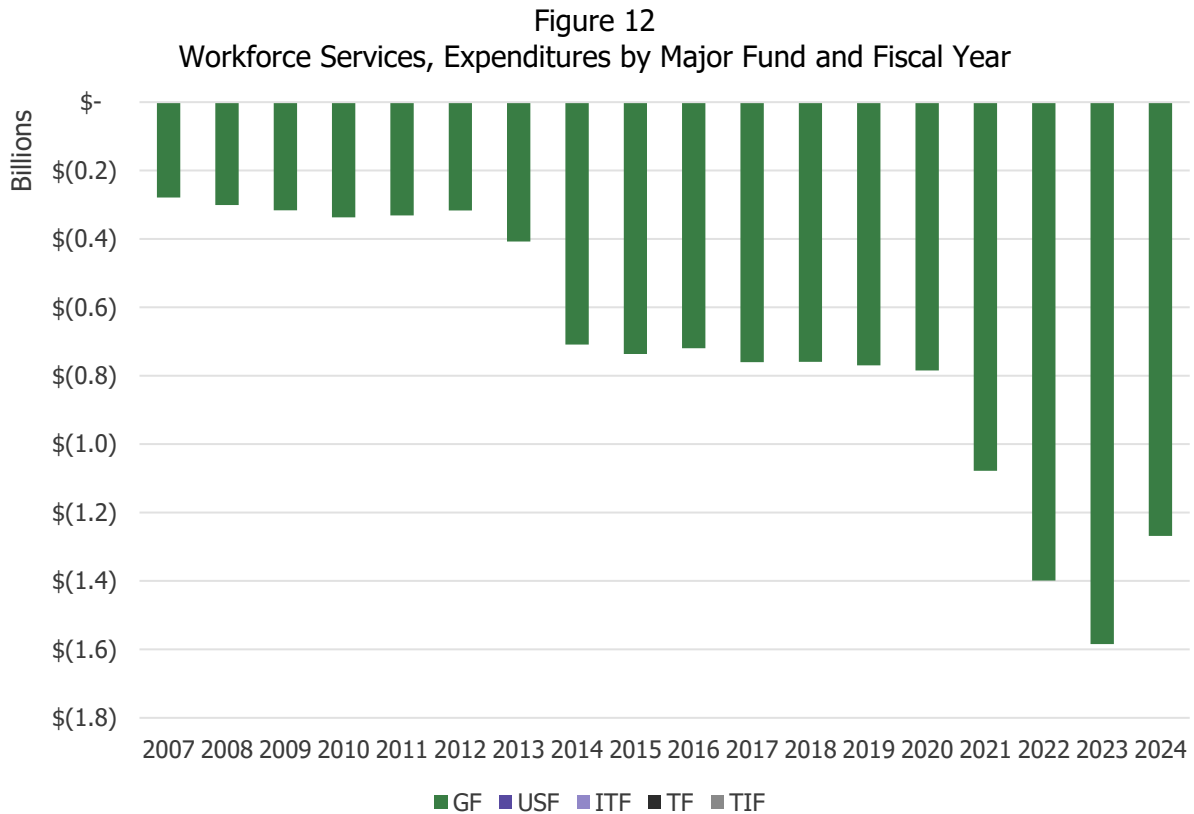
Workforce Services

Under the banner of Workforce Services are numerous public functions such that it is difficult to pin down just one as the primary. The largest among these many components are housing and community development, child care, refugee services, unemployment insurance, workforce development, nutrition assistance, and homeless support services. A wide range of research and analysis related to the state’s workforce is also conducted within Workforce Services as part of its support function. These various sub-programs are carried out from 58 facilities throughout the state, including 30 employment centers and a statewide call center. An additional major function within Workforce Services is determination of eligibility for Medicaid and CHIP applicants.

Workforce Services receives funding from both free revenue sources as well as federal and non-federal grants, with Federal Funds making up the largest part of total funding by a significant margin. Free revenue supporting Workforce Services comes primarily from General Fund sources, though it is also a minor recipient of Income Tax Fund appropriations. Much of the Federal Funds which support program expenditures are effectively pass-through, with those



funds not being directly utilized by Workforce Services but instead flowing ultimately to recipient members, such as those enrolled in the Supplemental Nutrition Assistance Program (SNAP).



With Workforce Services expenditures being largely related to social assistance and federal programs, it can be seen charted in Figure 12 that total expenditures increased substantially between fiscal year 2020 and fiscal year 2023. These increases were primarily a function of expanded federal aid through the pandemic. As a result, with much of those one-time increases phasing out, fiscal year 2024 saw a marked decrease in total expenditures. Additionally, efforts on the part of the state to address the issue of housing affordability and homelessness in recent years have been key factors in the increase in expenditures over the last five years.

Demand for employment and social support services is countercyclical, meaning it increases as economic conditions worsen and vice versa. As such, the outlook for Workforce Services expenditures into the future is largely driven by the prevailing broader economic outlook. As conditions have tended from recovery to expansion and most recently moderation, the underlying drivers of program expenditures are expected to result in continued moderation through the long-term budget period, absent deterioration of economic conditions.

All Other

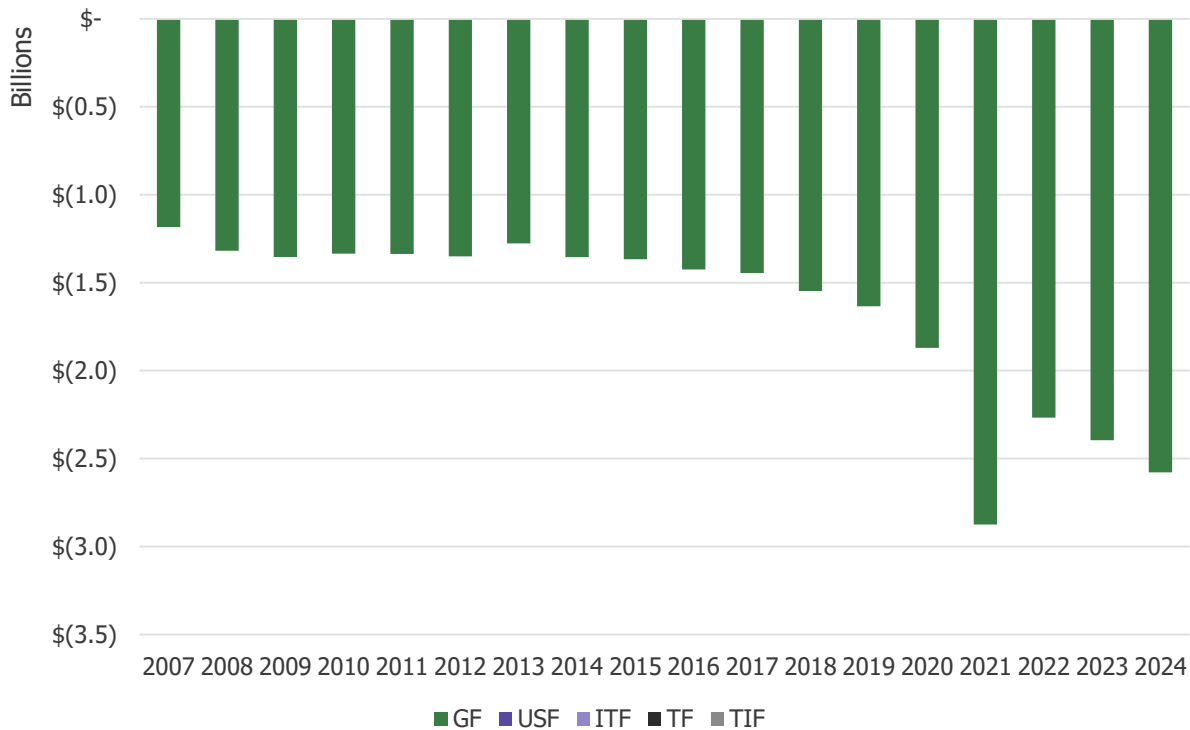
Among the bucket of "All Other" is exactly every other state program and associated expenditure not otherwise broken out in the major programs above. As a result, the primary



public functions provided within this category are many. As previously noted, programs included within the All Other category are numerous but individually smaller in magnitude of expenditure, and are thus aggregated here for simplicity not lack of importance.

The primary source of funding for All Other programs is the General Fund, with free revenue and federal sources contributing to varying degrees from one constituent program to another.

Figure 13
All Other, Expenditures by Major Fund and Fiscal Year



As shown in Figure 13, total expenditures across this aggregate category have in all but one year steadily increased over the past decade. This notable exception in fiscal year 2021 resulted from the sizable one-time federal funds which became more broadly available during that time in response to the pandemic.

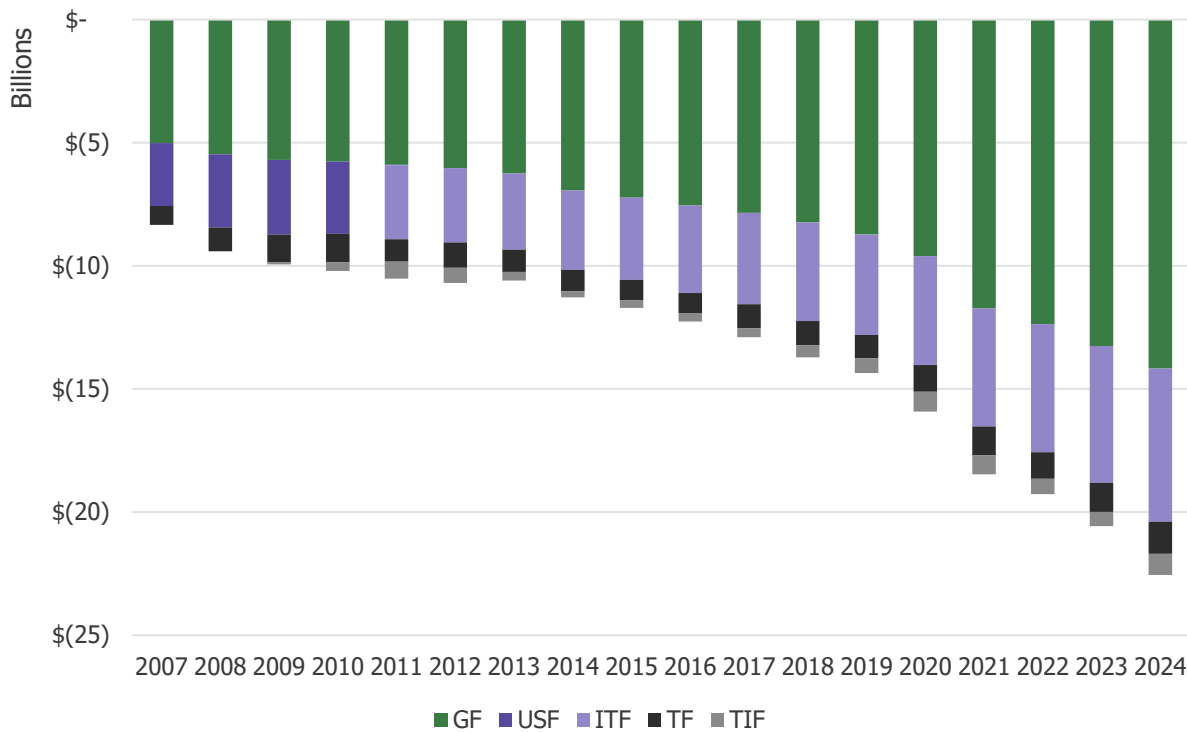
Looking ahead, given the great variety of constituent programs within this aggregate category, there are numerous factors that may impact total expenditures in this budget area. In general though, demand for public services broadly tends to scale with the size of the population, all else equal. As a result, along with moderate growth in inflation, total expenditures among the remainder of state programs not otherwise broken out are likely to grow modestly each year of the long-term budget.



Statewide Total

In aggregate across all programs, total expenditures of the state from major funds amounted to approximately \$22.5 billion in fiscal year 2024. A history of these combined total expenditures can be seen charted in Figure 14. Bar colors correspond to the source fund for the expenditure consistent with previous charts throughout the report.

Figure 14
Statewide Total, Expenditures by Major Fund and Fiscal Year



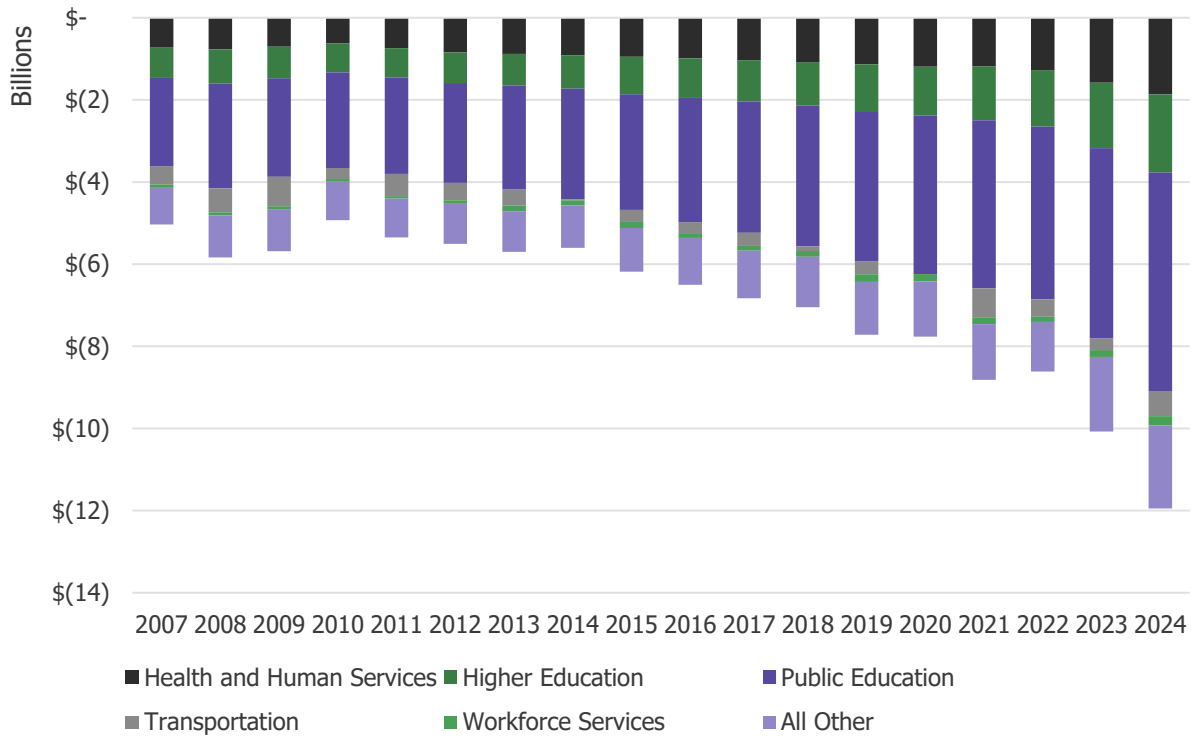
From this summary perspective it becomes more apparent that overall expenditures have grown quite consistently over most of the included period. In the context of the analogous chart of total state revenue featured earlier in Figure 6 some additional insights can be found in the contrast. For example, looking at the left end of the chart in Figure 14 it can be seen that total expenditures maintained a period of growth through the years of the GFC whereas it was shown previously that revenue, even supplemented with increased federal funds, was quite flat through the same time. Conversely, looking to the right end of the chart in Figure 14 again, there was relatively little variation in the pace of growth across the state’s expenditures during the period following the pandemic, whereas revenue was shown to have abruptly increased during that same period. The x-factor that does not appear in either Figure 14 or Figure 6 is fund balances, which make up the residual between these inflows and outflows, a topic to be discussed further in the following section.

To reiterate an earlier point, in Figure 14 as well, the amounts shown attributed to each of the major funds is as charged in the state accounting system, without distinction between whether the funding is only passed through or the product of a transfer from another fund. As a



consequence, the amount of expenditures shown for the General Fund is larger than is ultimately coming from General Fund sources directly, with the primary factor being Higher Education, a significant recipient of Income Tax Fund resources. Again, also recall that federal funds are a General Fund revenue source.

Figure 15
Statewide Total, Expenditures by Major Program and Fiscal Year,
Net of Department-specific Revenue



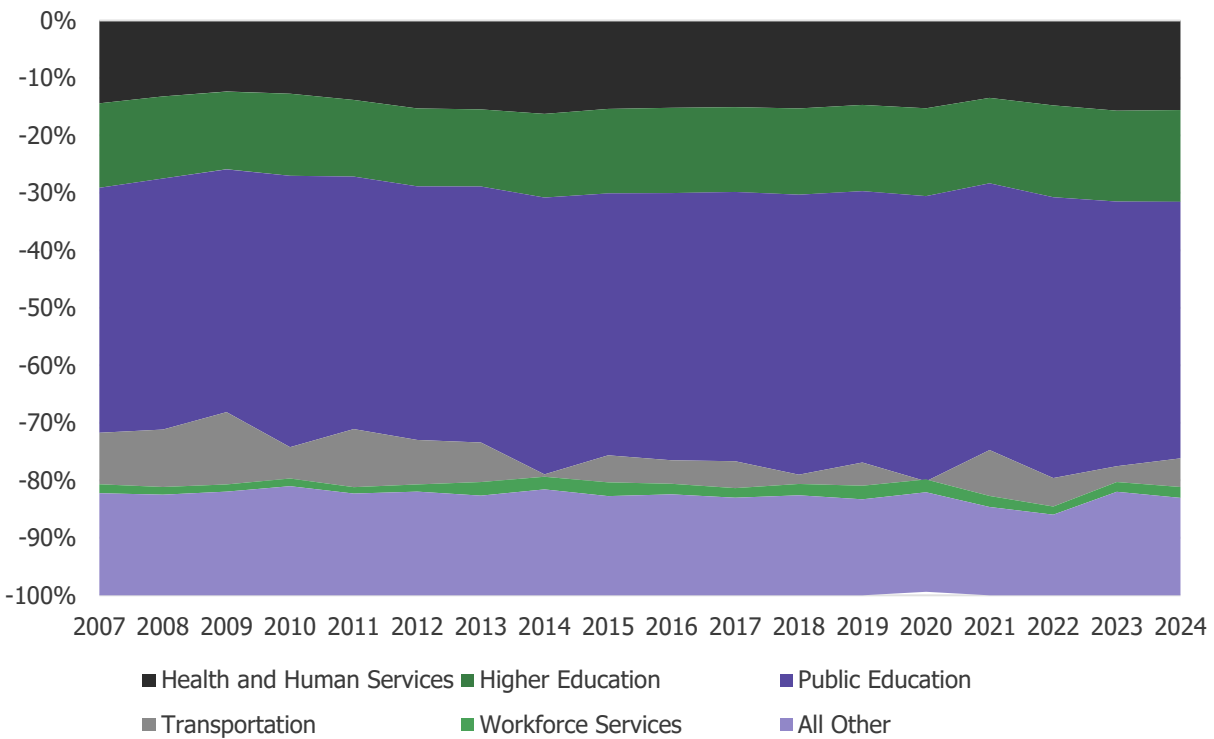
To help clarify how much of statewide expenditures are funded from free revenue, Figure 15 provides a chart of expenditures by major program net of all department-specific revenue sources and federal funds. It is not technically correct to assume that every dollar of department-specific revenue is spent in the same budget year as it is collected as a result of non-lapsing balances, which is the embedded assumption in Figure 15's presentation, however it is generally the case that this is true.

In this light it now becomes much clearer to see that the distribution of free revenue to the state's major programs is largely dominated by Public Education and Higher Education. Also, note the significantly smaller amounts attributed to Health and Human Services, Transportation, and Workforce Services in comparison with each's total expenditures presented earlier. This is the result of the large amount of federal funds in particular which flow through these agencies.



The relative weight of each of these major program's expenditures net of department-specific revenue as a percentage of the total each year can be seen charted in Figure 16.

Figure 16
Statewide Total, Expenditures by Major Program and Fiscal Year,
Net of Department-specific Revenue, Percent of Total



As shown in the figure, approximately 75% of these free-revenue-supported expenditures are attributed to just Public Education, Higher Education, and Health and Human Services. Interestingly, it has been the proportion of such expenditures attributed to Transportation which has generally declined over the period shown, reflective of the increased use of department-specific revenue via the TIF to support Transportation expenditures over the more recent past.



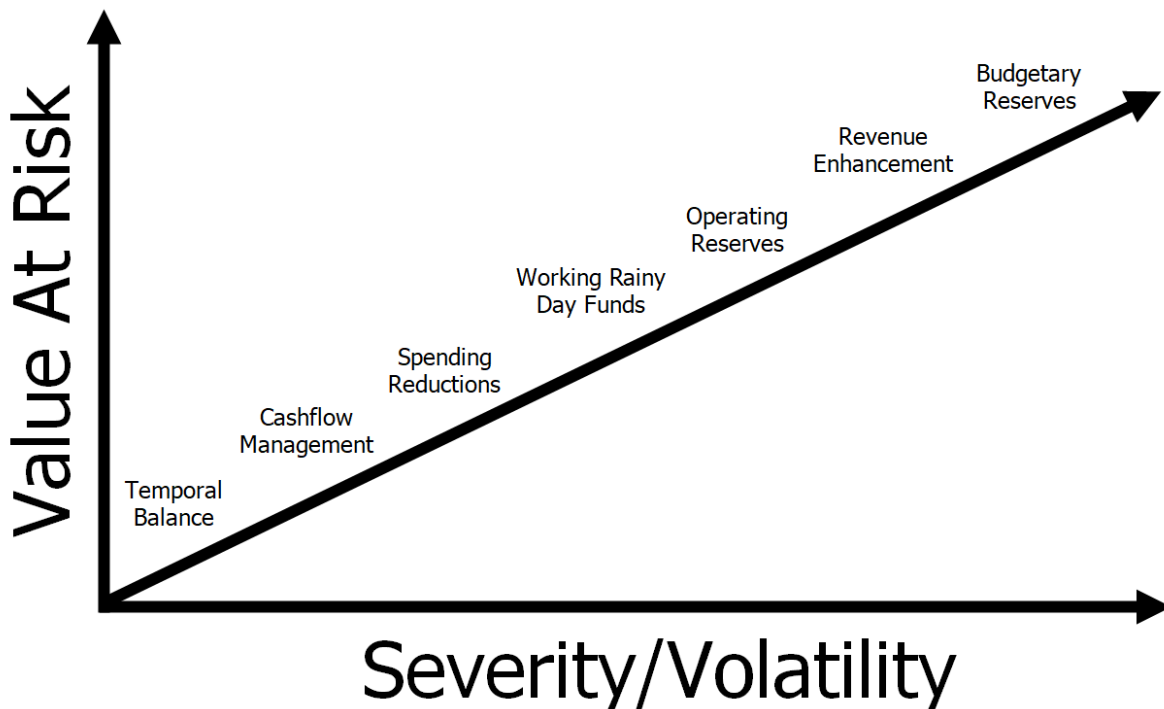
The Balancing Act

Now that the two halves of the budgetary equation have been defined, the next step naturally is to “solve the problem” so to speak, as Utah does so well, and bring together the inflows and the outflows to find the balance. For the sake of presenting in a common frame, figures in this section forward display both revenues and expenditures as positive values.

The state is required by law to pass a balanced budget each year. In reality, the state passes a budget *in advance* of actual collections and the expenditure of appropriations, thus the budget passed is balanced between *estimated* revenue and *estimated* expenditures. While state economists make their best attempt to forecast state revenues twice each year through a consensus process among the Tax Commission, the Governor’s Office of Planning and Budget, and the Office of the Legislative Fiscal Analyst, such estimates are all but inevitably wrong, at least to some, hopefully small, extent. As a consequence, the hypothetically balanced budget, too, is ultimately either actually in surplus or deficit at year-end.

There are various means by which the gap between the budget as passed and actual revenue and expenditures can be bridged. These are known collectively as the state’s fiscal toolkit; the major “tools” available for use are presented in Figure 17. These are not formally organized sequentially as shown in the figure, but they nonetheless are generally utilized along a continuum as a function of the severity of the variance between the budget and actuals, with the relatively minor amounts generally experienced in any given year being addressed by timing and cashflow management means. A key factor in managing this variance is the budgetary distinction between one-time and ongoing revenue and expenditures, to be discussed shortly.

Figure 17
Utah’s Fiscal Toolkit

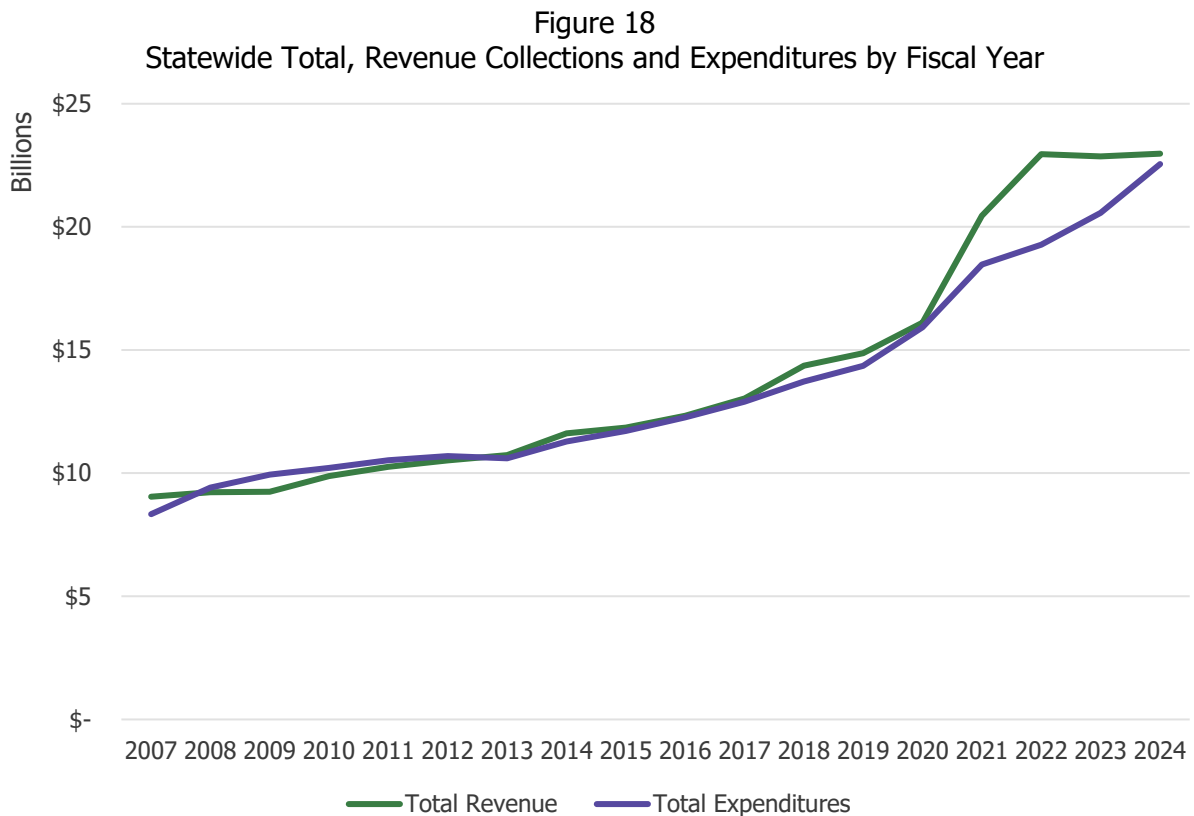




As can be seen charted in Figure 18, the state’s total revenue and expenditures are generally very well aligned year to year. Here again it can be observed how the effects of the Global Financial Crisis rippled through the state’s budget, with essentially flat revenue growth along with still growing expenditures statewide. A crucial mechanism that underlies this apparent mismatch during the recession is the drawdown of reserve funds – the combination of the General Fund Budgetary Reserve Account and the Income Tax Budgetary Reserve Account decreased from a total balance of just over \$400 million to just over \$200 million during this period.

Other, more informal, reserves are also an important part of supporting expenditures through periods of low or negative revenue growth, such as the numerous non-lapsing and restricted fund and account balances held primarily within specific agencies. These funds see net inflows during periods of surplus, allowing for later periods of net outflows when collections are less abundant.

One such period of net inflows to the state’s many reserve accounts, perhaps the most significant in the state’s history, occurred across fiscal years 2021 through 2023. This period stands out clearly in Figure 18 on the right end of the chart with revenues significantly above expenditures.



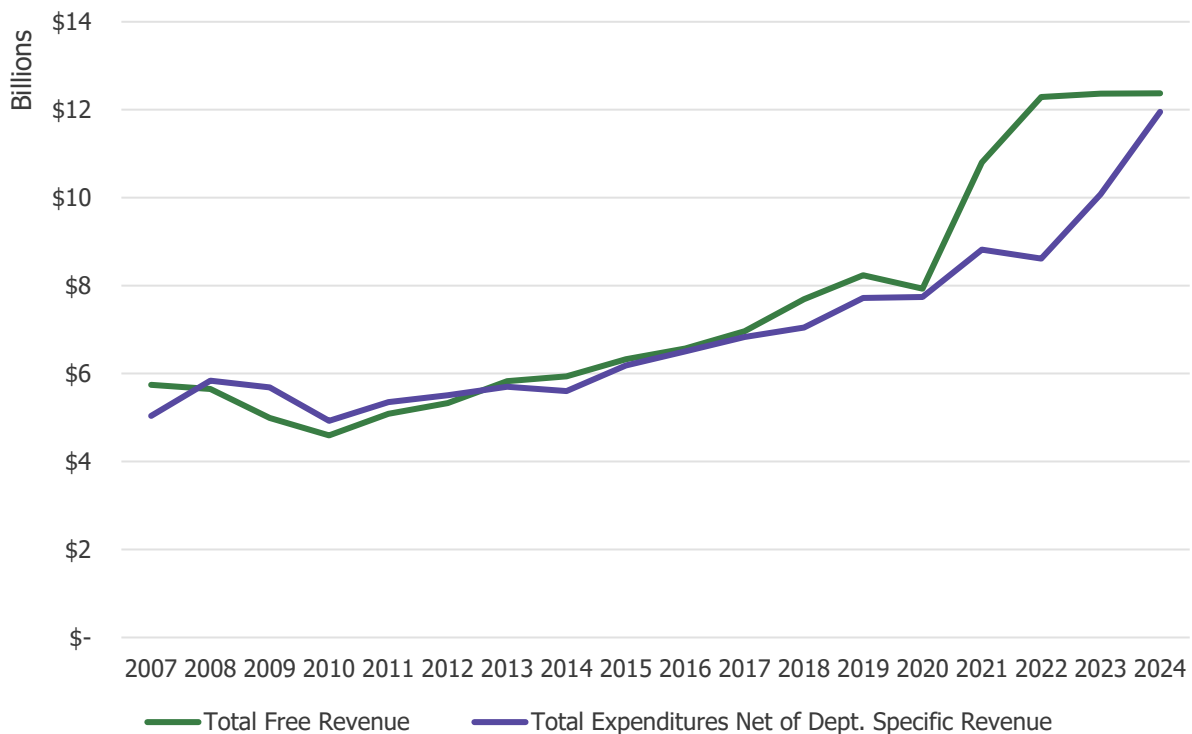
A large proportion of the growth in revenue during this time was from COVID-related aid and the expansion of the Medicaid program in the state, as was previously discussed. By excluding



these federal funds and other department-specific revenues and associated expenditures, the remainder can be seen charted along with only the free revenue portion of total funds in Figure 19. As shown, even without the influence of direct federal funding, revenue collections from the state’s other major sources were growing remarkably strongly in both fiscal year 2021 and 2022 before largely leveling off for the most recent two fiscal years since.

A major contributor to the historically wide gap between revenues and expenditures during these years was a bolstering of the state’s fund balances through both automatic transfers and discretionary one-time appropriations, such as those made to the Transportation Investment Fund of 2005. These increasing balances were only possible amidst the relatively stable growth in expenditures that occurred at the same time as can be seen clearly in the figure. Such balances will allow the state to better maintain that stable growth in expenditures even through future downturns, as was the case through the GFC.

Figure 19
Statewide Total, Free Revenue Collections and Expenditures Net of Department-specific Revenue by Fiscal Year



That stable growth in expenditures could even be considered in some sense restrained – while many other states quickly ramped up expenditures during this period under the ultimately false assumption that such rates of revenue growth would persist, Utah maintained a much more consistent rate of expenditure growth. The result of that restraint is that in the subsequent years of moderate economic activity that have occurred since, the state has avoided the massive budget shortfalls that have been faced elsewhere.

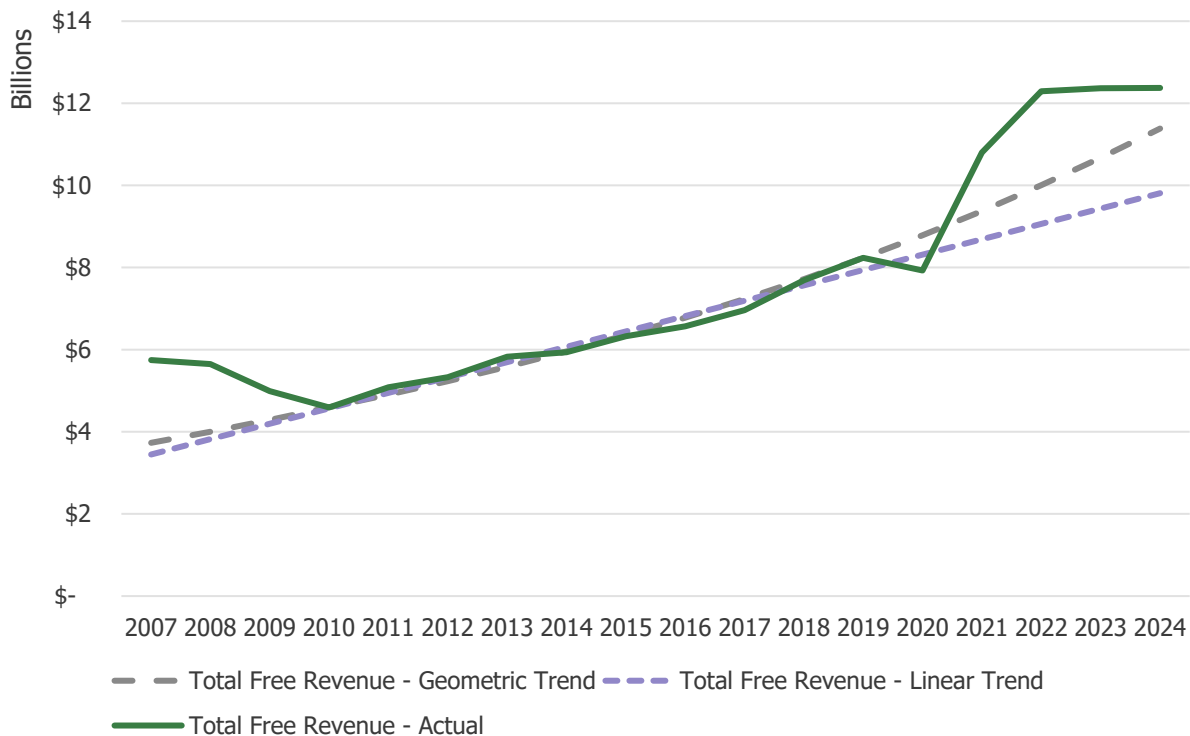


This situation has not come about by accident – it is the direct result of Utah’s unique approach to fiscal management. The cornerstone of that approach, the secret sauce that puts the state at the top of national rankings of fiscal health, is the simple but powerful distinction between one-time and ongoing revenue and expenditures. In concert with this, long-term fiscal sustainability analyses such as this very report, are crucial to making that distinction.

To better understand the difference between one-time and ongoing, as well as why it is so vital to the stability of the state’s budget, we first look to revenue to evaluate collections in the context of trend versus cycle. Total free revenue collections can be seen charted here again in Figure 20 along with two different models for the underlying trend in the data.

In broad terms the trend can be thought of as the central tendency of the data while the cycle can be thought of as the variation around, meaning above and below, that central tendency. Applied to state revenue, this means the trend is where collections tend to track during periods of average economic activity and where they tend to return after periods of above or below average economic activity such as those defined by recessions or bubbles.

Figure 20
Statewide Total, Free Revenue Collections and Trend by Fiscal Year



This tendency to return to trend is precisely what makes collections at levels above trend so risky. As shown in Figure 20, total free revenue was consistently on, or very near trend for almost the entire decade between the GFC and COVID. Although the linear model happens to fit the data quite well during that period, the compounding nature of year over year growth in



general makes the geometric trend the more technically valid, at least in concept; as a result, we tend to focus on the geometric trend as shown in the dashed grey line.

Based on this model for the underlying trend, it can be seen that total free revenue dipped below trend in 2020 (though this was in large part the result of the income tax filing deadline shift previously mentioned) before surging significantly above trend the following two years. The most recent two years have remained above trend, though moving generally sideways; this low growth can in part be attributed to the reduction of the income tax rate as previously discussed.

What we have seen in total free revenue collections over the past two years is a consistent return to trend. It is in some sense fortunate that the return to trend has thus far been relatively gradual – the great risk posed by the significant deviation above trend, especially during fiscal years 2021 and 2022 when it was at its greatest extent, was that it could have instead reverted to the trend much more suddenly with a year or more of negative growth as happened following the prior peak through the great recession.

With this distinction between trend and cycle in mind, we can then substitute in the concepts of ongoing and one-time, respectively. To use more qualitative language, the ongoing revenue, as reflected in the trend, is the generally reliable part of revenue collections, while the one-time revenue, as reflected in the cycle, is often just the opposite. It may still be the case that above-trend revenue collections persist for more than a single year, as has been the case for much of the last four years, but it is nonetheless expected that reversion to the trend is inevitable.

Connecting this now to the other side of the budget, the importance of this distinction can be fully appreciated. When the state authorizes an appropriation, it is in effect making a commitment to provide funding. Some commitments, like those to support additional employees in state agencies, are implicitly recurring in nature, while others are more single-use in nature: for example, a new road is only built once. As such, if the state makes commitments of a recurring nature based on sources of funding which are not recurring in nature, it is virtually certain that an imbalance will soon result.

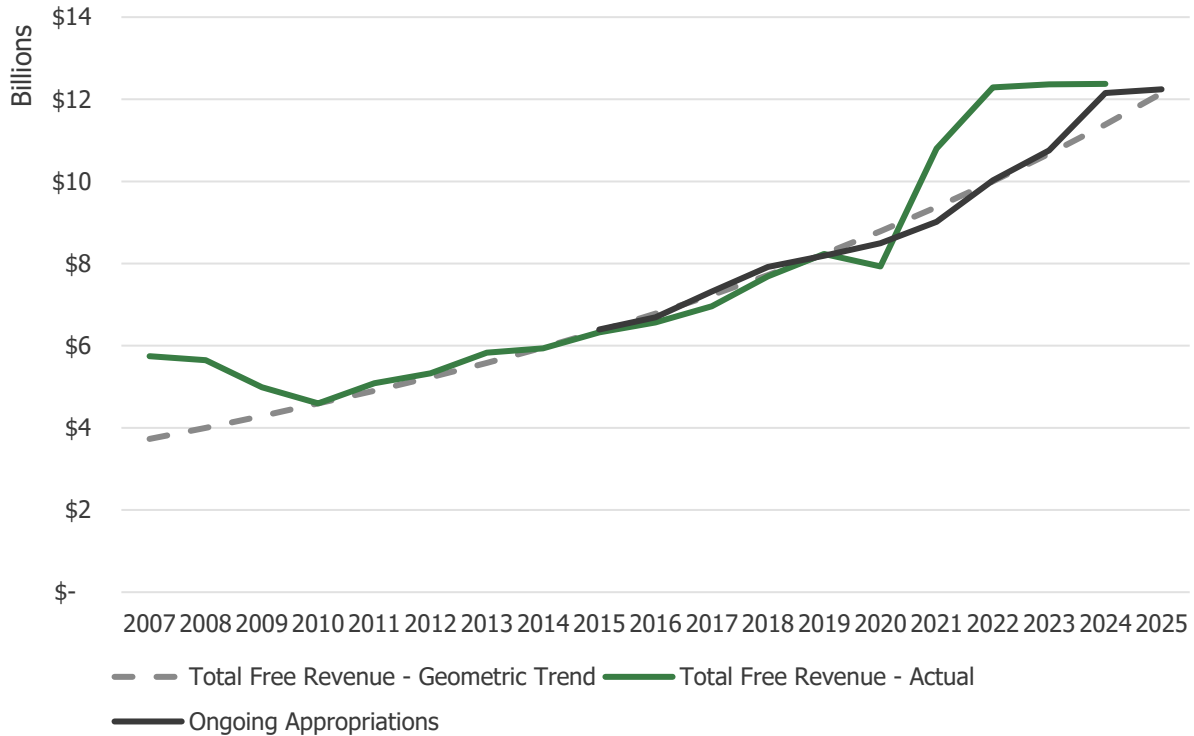
This is the key insight – by matching ongoing (recurring) inflows to ongoing (recurring) outflows, the core of the budget can generally remain structurally balanced through all but the more extreme scenarios of deviation.

So how has the state done in this regard over the last decade?



Figure 21

Statewide Total, Free Revenue Collections, Trend, and Ongoing Appropriations by Fiscal Year



In short, strikingly well. As can be seen charted in Figure 21, ongoing appropriations over the last ten years have been matched very closely year after year to the underlying trend in revenue collections, most notably even through the most recent period of significantly-above-trend revenue years. A slight deviation from this can be seen in fiscal year 2024, however the ongoing appropriations for the current fiscal year anticipate this promptly returning to trend.

Maintaining ongoing expenditures in line with the latent trend in revenue while one-time expenditures and changes in fund balances make up the residual difference between the trend and actual collections has been the crucial factor in keeping the state budget sustainably balanced even as revenue collections have moderated over the past two years. The same will no doubt hold true in the years ahead.

Leaving off from this place of balance, in the next sections of the report key factors impacting the state’s finances over the next five years will be identified and the extent to which they may disturb this delicate balance will subsequently be assessed.



How the Next Five Will Be Unlike the Last Five

In general terms, the key drivers of Utah's budget are expected to maintain or grow moderately from the most recent levels. However, compared to the exuberant growth witnessed across nearly all of the state's major sources of funding during the four years prior, the outlook over the next five years may feel quite meek by contrast.

The following key factors have been identified for Utah's long-term budget:

The Absence of Federal Stimulus

The impact of this is difficult to understate. Apart from the Coronavirus itself, there was perhaps no greater factor, economically speaking, at work over the past five years. The effects from this were not only the direct increase of federal receipts to the state, but also the direct payments to households and individuals which boosted both personal income and helped support increased personal consumption; the indirect and induced effects of this original direct stimulus have subsequently produced reverberations still felt years later. However, such stimulus and the resulting effects on state revenue will have increasingly less influence over the next five years.

Modest Population Growth

In the 2020 decennial census, Utah was declared the fastest growing state in the country with a growth rate of over 18% since the 2010 census. This growth rate was more than double that of the nation overall. The widespread adoption of remote work through the pandemic and the lure of a strong economy and quality of life led to a large influx of people to the state, especially during 2020 when the population was estimated to have grown by over 2.5% that year alone. The latest projections from the Kem C. Gardner Policy Institute for the next five years average approximately 1.6%. This is no doubt still a healthy increase each year but will nonetheless be marginally lower than that of the previous five years. Growth of the population has broad-based impacts to both sides of the state budget.

Demographic Shifts

Within the rising tide of population growth overall there are various currents among the constituent parts of population that have been steadily shifting over the past decade, specifically related to age demographics. Although the key economic demographic of working age population between 25 and 64 years old has remained quite stable if not slightly up in the range just below 50% of total population, the proportion of the population 65 years old or more has moved from less than 9% of the total 15 years ago to just over 12% of the total most recently.

At the same time, the percentage of the total from the under five years old demographic has fallen from nearly 10% to less than 7% over this same period. As a consequence, the school-age population, between 5 and 25 years old, is anticipated to see its modest growth fully reverse through the end of the decade and actually decline in total number. Greater demands on social support and healthcare are likely to come along with the growing cohort of 65 plus year olds, while the declines in school-age groups will have increasing ramifications for public and higher education over the next five years.



Personal Income Normalization

By the beginning of 2011, both total wages and total personal income excluding wages had fully retaken levels prior to the GFC. From this point until the onset of COVID, both components grew in relatively similar proportion annually. In the last five years, direct stimulus payments, increased levels of social assistance, and booming financial and housing markets fueled at various points by the responses to the pandemic and their consequences resulted in personal income other than wages and salaries growth vastly outpacing the wage component of income.

This period witnessed two separate quarters of non-wage personal income levels greater than those of wages, whereas the historical relationship is closer to a 60/40 split with wages as the majority. Windfall revenues from the individual income tax resulted during the past five years in large part through this unusually high non-wage income growth. Barring the extreme factors that fueled this divergence between the two sources of individual income, moderation back towards the historical trend is expected.

Income Tax Rate Reductions

The growth, or rather the lack of it, in income tax revenue over the last two fiscal years can be attributed at least in part to tax rate reductions enacted in previous legislative sessions. Three years of reductions have lowered the income tax rate from 4.95% to most recently 4.55%. Although no additional reductions have been assumed in the long-term budget, the impacts of these cuts are ongoing and have the effect of reducing the marginal benefit to income tax collections from a marginal increase in personal and corporate income, all else equal. In the absence of further cuts, the growth rate of income tax collections is expected to more closely resemble its historical relationship with personal income growth through the end of the period.

Sunsetting of Federal Tax Cuts and Jobs Act (TCJA) Provisions

This federal act, barring intervention to maintain it, will fully sunset in 2028, with the phaseout of the increased standard deductions for individuals due to occur even sooner in 2026. The key provisions which have direct impacts on the state's income tax due to adoption by reference include a near halving of the standard deduction and child tax credit and various changes to itemized deductions. In total, the rollback of these provisions is assumed to amount to approximately \$475 million ongoing. The federal government may move to continue these provisions, and the state may enact its own provisions to maintain their effect in the event the federal government does not. In the event that continuation of the provisions is realized, a forecast both with and without the effect of this is provided in the final analysis.

Moderate Inflation

In 2022, the Federal Reserve began its campaign of interest rate increases to combat the spike in inflation that had by that point reached a level that hadn't been seen previously since the 1990's as measured by the Consumer Price Index. Like population, inflation also has significant and broad-based impacts to both sides of the state budget. On the revenue side in particular, this period of high inflation has been a major component of the similarly high growth in both sales tax and income tax collections previously observed. A number of factors have since driven inflation back down to levels between 2% and 3% according to the CPI. Levels similar to those seen most recently have been assumed to persist over the next five years.



A Long-Term Budget

Having looked at the key factors on both revenues and expenditures that have brought the overall budget to its present state, along with identifying those which will likely influence it into the future, the final step now is to bring it all together and develop the long-term budget projections. The crucial question that this exercise seeks to answer is not what the particular levels of revenues or expenditures will be in 2030. There is significant uncertainty inherent over such extended time horizons which will no doubt ultimately result in significant deviations from the projections presented in this report by the time the future has become the past.

The crux of this analysis, rather, is to evaluate the underlying balance between the two halves of the budgetary equation, as was presented in the previous section, and whether or not the key factors identified over the next five years are likely to result in a material change in that balance. In plain terms, the question is simply are the key factors' impacts to revenue proportional to their impacts to expenditures?

Of course, as previously mentioned the state will ultimately have to find a balance in any given year, utilizing the various tools available in its toolkit. The projections presented here thus are "all else equal" and assume no specific policy interventions which would force expenditures to match revenues in the forecasted years.

Each half of the equation has been separately modeled and projected, enabling an independent look, in turn, at how the key factors may impact revenues compared to how they may impact expenditures. A consistent modeling framework was utilized for both revenues and expenditures, specifically a statistical technique called Auto-Regressive Integrated Moving Average with exogenous regressors (ARIMAX).

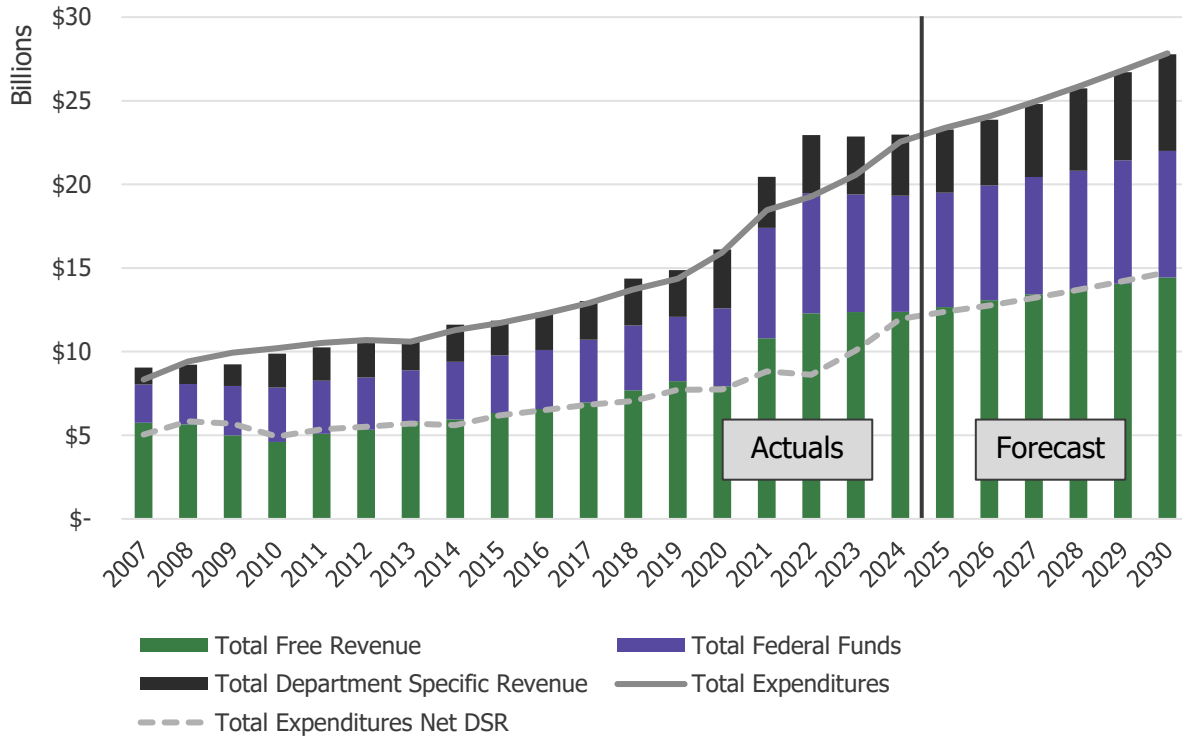
This ARIMAX method allows for forecasts of the target variable to be a function of both prior values of itself (the auto-regressive part in the name) as well as contemporary values of exogenous (other) variables. For example, a given year of federal funds revenue may be forecasted based on the prior year's value of that revenue plus that year's forecast for Medicaid enrollment, which is an exogenous variable with a high degree of explanatory power for federal funds revenue.

More than just the two halves, in fact each of the major revenue sources and expenditures (major programs) as previously identified were independently forecasted using this technique and aggregated as shown in Figure 22. Additional details on the methodology can be found in the appendix.



Figure 22

Statewide Total, Revenue Collections and Expenditures by Category and Fiscal Year



Given this procedure of separately developing projections for each source and program in isolation, it is quite striking to see in the figure how well aligned each half of the state budget is forecasted to remain through the end of the decade. As shown in the chart, both total revenue, displayed as the bars, and total expenditures, displayed as the darker grey line, track very much in tandem over the duration of this period.

This alignment indicates that the various factors identified to influence the state budget over this period are expected to impact total state revenue in approximately equal proportion to total state expenditures. A result like this is reflective of a structural balance, meaning the underlying economic conditions expected throughout the next five years are not projected to disproportionately disturb one side of the budget more than the other.

Drilling down one step further into these highest-level results, a comparison of the projections for just “free revenue” and “expenditures net of department-specific revenue”, an extension of the similar, historical-only series shown in Figure 19, can be seen charted in the green bars and lighter grey dashed line in Figure 22. Within this subset of the overall budget, it can be seen that at the very end of the forecast period this subcategory of expenditures is projected to slightly outpace this subcategory of revenue.

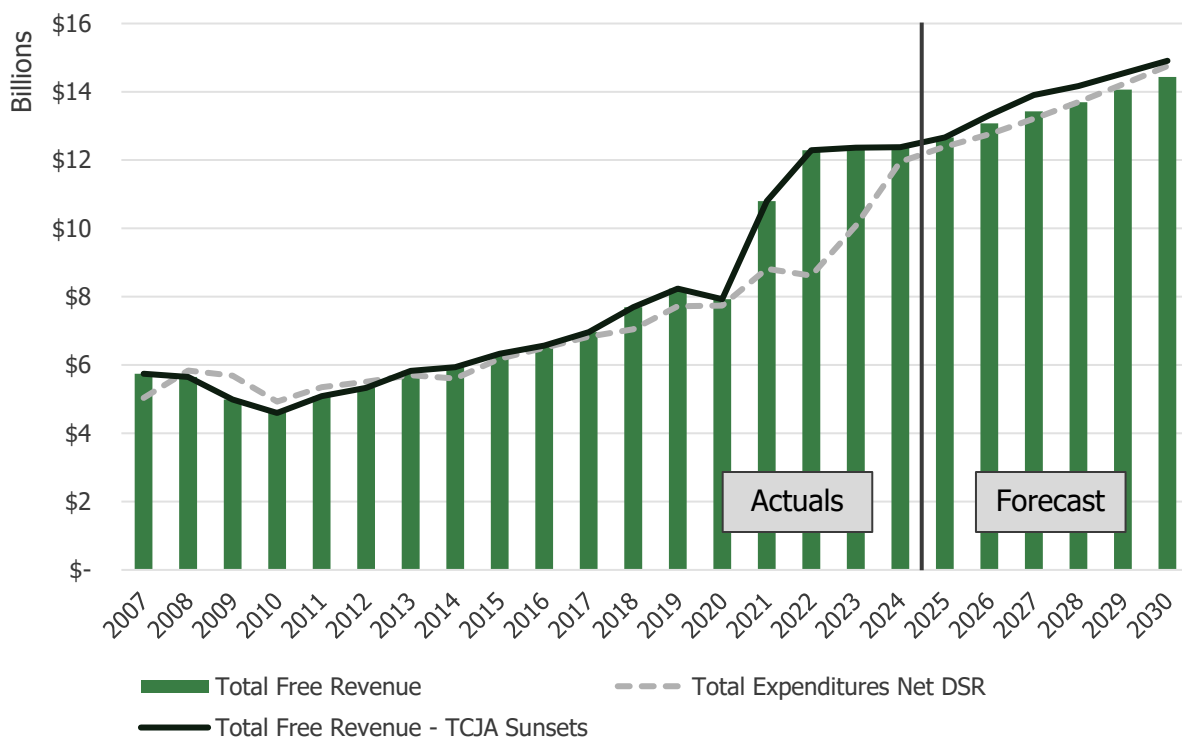
This outcome is by no means certain nor inevitable – what this indicates is that free revenue may grow at a slightly slower rate than its associated expenditures, given the set of assumptions made for the duration of the next five years. Considering the potential for noise in



this derived subset of expenditures as previously discussed (recall that such expenditures assume a dollar of department-specific revenue equals a dollar of same-year expenditure, thus potentially missing the interaction with fund balances) this apparent, slight imbalance may not be strictly speaking significant in the context of a forecast five years into the future.

This result remains, nonetheless, an indication of the delicate nature of such a balancing act and of the necessity for careful fiscal management each year in the budgetary cycle.

Figure 23
Free Revenue Collections and Expenditures Net of Department-Specific Revenue by Fiscal Year With and Without TCJA Provisions Sunsetting



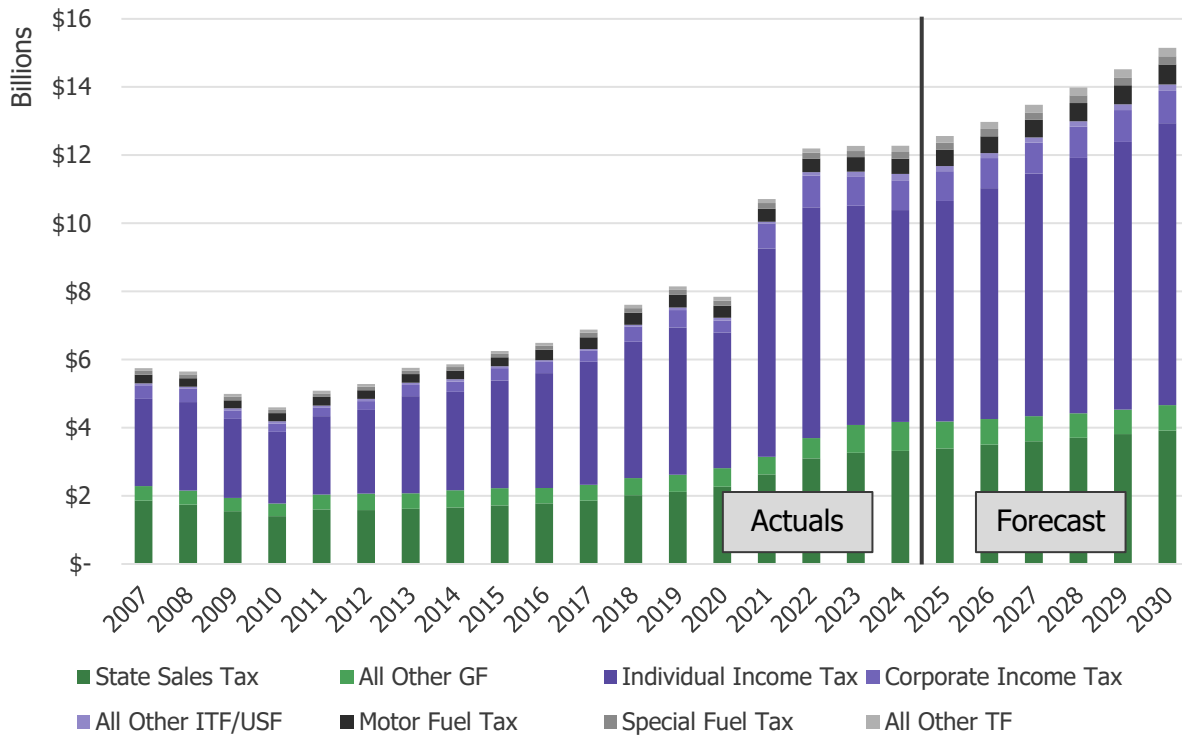
Given the uncertainty around it and the binary nature of its effects, the major policy change which was included in the set of budgetary drivers – the potential sunsetting of the Tax Cuts and Jobs Act – can be seen charted as an alternative forecast along with that assuming the continuation of its provisions in Figure 23. The near halving of the individual standard deductions is the most significant change with the forecast which assumes sunsetting; this has the effect of substantially increasing the forecasted individual income tax collections.

These changes would have initial effects in the second half of fiscal year 2026 and full, ongoing impacts beyond then, which can be seen as the solid black line in the figure. Behavioral changes which may subsequently result from this change, such as a greater proportion of itemized return filers given the lower standard deduction or a reduction in discretionary personal consumption resulting from increased income tax payments, were not considered in this forecast.



The additional revenue resulting from this potential sunseting would be expected to keep projected free revenue above related expenditures through the end of the forecasted period. As mentioned previously, the long-term budget projections did not impose any matching constraint between revenue and expenditures – as a result, this projected gap would in reality be realigned through some combination of increased expenditures and/or increased fund balances in the event that these provisions effectively roll back.

Figure 24
Free Revenue Collections by Source, Fund, and Fiscal Year with Forecasts



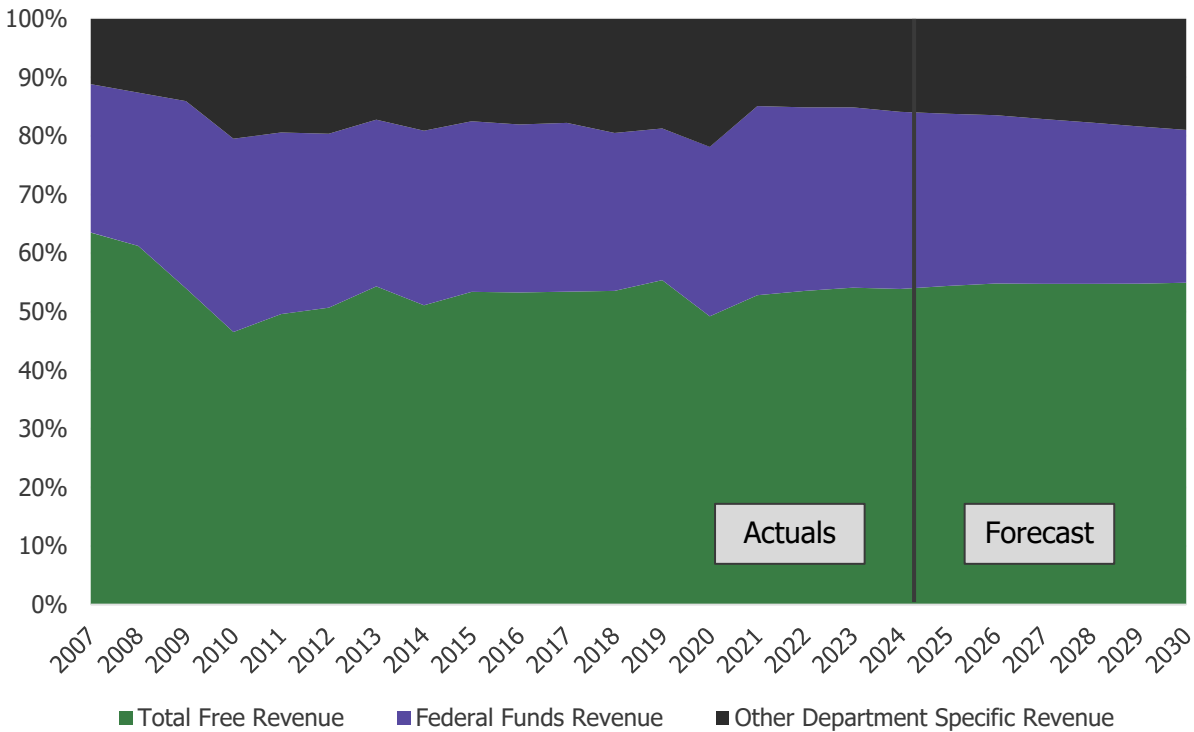
Looking now to Figure 24, the breakdown of free revenue by major source and fund can be seen charted through the end of the forecasted period. After the period of rapid and large growth in state sales tax and individual income tax collections seen through the post-COVID years, the projections from fiscal year 2025 through 2030 largely reflect a return to prior annual growth trends. State sales tax revenue, shown again in dark green, can be seen resuming a steady year over year pace of growth through the forecast.

As for the state’s other major source of free revenue, individual income tax collections are projected to pick up in pace through the latter years of the period after more modest growth initially; this is reflective of the assumption of no further tax rate reductions. Note that the amounts shown in Figure 24 are based on the “continuation of TCJA provisions” scenario, and under the sunseting assumption amounts shown for the income tax fund would be significantly greater as previously discussed.



Finally, as shown in Figure 25, the relative mix of funding sources between the three aggregate categories through the projected period is expected to continue to shift relatively back more towards free revenue from the larger proportion of federal funds seen in the immediate years following the pandemic. This is reflective of both the resumption of higher growth rates from individual income tax collections in the absence of additional rate reductions and the assumed lack of additional federal stimulus funds throughout the forecast.

Figure 25
Statewide Total, Revenue Collections by Major Source and Fiscal Year with Forecasts





Risks

Even for an analysis such as this of risks to the long-term budget of the state, there are significant risks associated with the analysis itself which must be considered.

A set of the major economic and policy factors expected to influence the budget have been identified, and these factors have subsequently formed the core of the overall projections presented in this report. To the extent that any or all of these factors don't materialize or do so in a substantially different way than as has been assumed, the actual path of revenues and expenditures may differ substantially as well. As such, these forecasts should be considered just one of many possible outcomes that could be observed over the next five years. Additional analysis of potential alternative economic scenarios will be provided in next year's fiscal sustainability report, the budget stress test.

Long-term forecasts present unique and often irreconcilable challenges from the analytical perspective. Among the largest of these is the ever-growing uncertainty around increasingly distant points in time and the compounding effects of error in a prior year reverberating through subsequent years. In less abstract terms, as an example, no recession has been forecasted to occur during the projected period; as a result, should a broad-based economic downturn actually occur during this period, the error through the end of the forecast would be substantial.

Additional risk factors which have not been explicitly identified and included in these projections may nonetheless have significant impacts on eventual actual revenue collections and expenditures. Consequently, those factors which have been identified should not be considered an exhaustive list, and the lack of inclusion for any of a number of other factors should not be considered an indication that such factors cannot or will not impact the state budget into the future.



III. Conclusion

Key Takeaways

The highest purpose of this analysis is not to guess how large the state budget will be in 2030. The particular levels of revenue collections or program expenditures forecasted and presented through this report will undoubtedly prove incorrect in hindsight. The intent of this exercise, at the broadest level, is to assess the relative risks facing the state budget beyond the immediate, two-year budgetary cycle. In concert with the other two of the triennial fiscal sustainability analyses, the revenue volatility report and the budget stress test, this analysis seeks to provide context and insights to the state's policymakers, with the overarching aim of providing an ever better guide to evaluating and managing the financial risks to the state.

With this report, the key takeaway is not the specific dollar amount at which the budget arrives at the end of five years, it is whether or not it remains in balance along the way. In this light, the crucial question asked is, "Are the economic factors which are expected to impact the state budget over the next five years likely to disproportionately effect revenues compared to expenditures?" In other words, is a structural balance in the state's budget expected to persist under the conditions identified? In answer to this question, based on the key drivers anticipated over the next five years and their associated impacts as projected forward through the end of the decade, this analysis finds that overall, the long-term budget is expected to remain in balance during this period.

A further breakdown of the overall results does indicate, given the set of assumptions about how the next five years will proceed economically as identified in the report, the balance between free revenue (all revenue not specific to a particular department and thus available for general appropriation) and the portion of program expenditures not otherwise covered by such department-specific revenue may be at relatively greater risk near the end of the forecast horizon. The anticipated gap projected in the final year of the forecast is not inevitable, rather this should be interpreted as evidence of the tenuousness of the budgetary balancing act and the necessity for prudent fiscal management in the annual budget process if it is to be maintained.

The estimates presented in this report primarily reflect the underlying trends among the various pieces of the state budget. This means the cyclical component above and below these trends will, in reality, lead to variation around these forecasts over the years ahead. Ultimately, it remains incumbent upon the legislature to construct and pass a balanced budget each year, regardless of what these projections may indicate.

Finally, although five years is certainly longer-term than 18 months, there are nonetheless factors at work within the state which have impacts over even longer-still time horizons which cannot be fully appreciated or reflected in these five-year projections. The largest example of which is the shifting age demographics within the state and the resultant implications for the budget. Although the initial effects may be captured within the time period of this long-term budget, the full impacts are expected to build up still further out in time. As a result, these very-long-term dynamics are only partially accounted for within these projections, though they remain nonetheless of crucial consideration for policymakers with an eye to the future.



IV. Appendix

Methodology

Historical data included in this analysis were primarily sourced through queries of the state accounting database, the Compendium Of Budget Information (COBI), the Bureau of Economic Analysis, the Census, and the Bureau of Labor Statistics. These historical data were compiled as annual total values from fiscal year 2007, and in the case of calendar year data, were imputed into fiscal year equivalent values for analogous periods. Short-term forecasts for economic indicators utilized the latest Revenue Assumptions Working Group (RAWG) estimates; those for revenue reflect the latest Consensus forecasts; and those for expenditures mirror the latest enacted budget. Long-term forecasts for economic indicators were derived primarily from S&P Global Market Intelligence US Macro – 10 Year Baseline projections, while those for population utilize the Kem C. Gardner Policy Institute Utah State and County Short-Term Planning Projections.

The methodological framework for the long-term revenue and expenditure projections utilized a statistical technique known as Auto-Regressive Integrated Moving Average with exogenous regressors, or ARIMAX for short. ARIMAX, like the similar family of auto-regressive and moving-average based models such as AR, MA, ARMA, or ARIMA, fits a model to the data of interest and makes predictions for each period based on the prior values of that variable itself. With the ARIMAX technique, these endogenous variables (the lagged values of the target variable) are then augmented with the exogenous variables to make predictions based also on other variables (not the prior values of the target itself) similar to a standard regression. In this way, this technique can fit a model and make predictions which incorporate information from both the time series of interest itself as well as other, related variables which have explanatory power for the variation of the target variable.

As presented in this report, forecasts through the end of fiscal year 2030 were computed independently for the following major revenue sources and major programs (expenditures):

Figure 26
Forecasted Variables

Revenues:	Expenditures:
<ul style="list-style-type: none"> • State Sales and Use Tax • All Other General Fund • Individual Income Tax • Corporate Income Tax • All Other Income Tax Fund • Motor Fuel Tax • Special Fuel Tax • All Other Transportation Fund • Federal Funds • All Other Department-Specific Revenue 	<ul style="list-style-type: none"> • Health & Human Services • Higher Education • Public Education • Transportation • Workforce Services • All Other



In addition to these endogenous target time series, exogenous variables incorporated in the long-term forecast models included:

Figure 27
Exogenous Variables

Population:	Economic:	Policy:	Dummies:
<ul style="list-style-type: none"> • Population < 5 Years Old • Population 5 – 24 Years Old • Population 25 – 64 Years Old • Population 65+ Years Old • Total Population 	<ul style="list-style-type: none"> • Consumer Price Index • Private Employment • Average Wages • Non-Wage Personal Income • Total Personal Income • Taxable Sales 	<ul style="list-style-type: none"> • Individual Income Tax Rate • Corporate Tax Rate • Medicaid Enrollment • Tax Cuts & Jobs Act Sunsetting 	<ul style="list-style-type: none"> • Recession Dummy • Federal Stimulus Dummy

Not all exogenous variables were utilized in every model as this would induce multicollinearity; instead, each forecast was optimized for the best fit with only those exogenous variables relevant to the given target series.

Apart from the Consumer Price Index, which reflects the national index, all other variables included in forecasts represent the statewide annual average or aggregate specific to Utah.