Pennsylvania Economic & Budget Outlook

Fiscal Years 2022-23 to 2027-28

2022

Independent Fiscal Office

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INDEPENDENT FISCAL OFFICE

November 15, 2022

The Honorable Members of the Pennsylvania General Assembly:

Section 604-B (a)(2) of the Administrative Code of 1929 specifies that the Independent Fiscal Office (IFO) shall "provide an assessment of the state's current fiscal condition and a projection of what the fiscal condition will be during the next five years. The assessment shall take into account the state of the economy, demographics, revenues and expenditures." In fulfillment of that obligation, the IFO submits this report to the residents of the Commonwealth and members of the General Assembly. In accordance with the mission of the office, this report does not make any policy recommendations.

The data and projections presented in this report are from various sources. Economic projections for Pennsylvania are from the IFO, while projections for the U.S. are from IHS Markit, Wells Fargo and PNC. Demographic projections are from the IFO based on tabulations from the 2021 Population Estimates by the U.S. Census Bureau and data from the U.S. Centers for Disease Control and Prevention. Historical revenue and expenditure data are from the *Governor's Executive Budget*, the state accounting system and various departmental reports. All revenue and expenditure projections are from the IFO. Other data sources are noted in the relevant sections of this report.

The office would like to thank all of the individuals, agencies and organizations that assisted in the production of this report. Questions and comments can be submitted to contact@ifo.state.pa.us.

Sincerely,

Matthew J. Knittel

Dr. Matthew J. Knittel
Director

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Executive Summary

This report examines the demographic, economic, revenue and expenditure trends that will affect the Commonwealth's fiscal condition through fiscal year (FY) 2027-28. Based on the economic and demographic assumptions used by this report, the analysis projects a substantial General Fund ending balance for FY 2022-23, but operating deficits for all future years.

For FY 2022-23, General Fund revenues contract by 9.2% ($4.45 billion). If the $3.84 billion transfer from American Rescue Plan Act funds is removed, then the decline is 1.4% ($0.61 billion). The contraction is due to the corporate net income tax (CNIT) rate cut ($0.20 billion), the new motor vehicle sales and use tax transfer ($0.50 billion) and a decline in personal income tax final payments as capital gains income contracts following a surge of 85% in tax year 2021. For FY 2023-24, tax revenues expand by 2.7% ($1.16 billion) as the economic forecast begins to converge to long-term growth rates. From FY 2023-24 to FY 2027-28, the forecast projects that General Fund revenues will increase at an average rate of 2.6% per annum, or 3.1% excluding the CNIT rate cut and new/expanded tax credits enacted with the FY 2022-23 state budget. During that time, the state economy continues to partially revert to pre-COVID patterns as labor force participation rates increase and asset markets resume long-term growth rates.

For FY 2022-23, enacted General Fund appropriations increase by 8.7% largely due to increased levels of education spending and the assumed expiration of federal COVID-relief funds for state Medicaid programs by December 2022. For FY 2023-24, expenditures increase by 5.7% due to strong growth in agency personnel costs (including pensions and retiree healthcare) and the expected shift of additional Medicaid costs to state funds after the enhanced federal match for COVID relief expires. From FY 2023-24 to FY 2027-28, expenditures expand at an average rate of 3.3% per annum. When combined with available revenues, the projected operating deficit reaches roughly $3.0 billion in FY 2025-26 and future years.

General Fund Financial Statement

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Beginning Balance[1]	$4	$5,537	--	--	--	--	--
Current Year Revenues	48,134	43,686	$44,850	$45,804	$46,921	$48,339	$49,606
Less Refund Reserve	-1,420	-1,220	-1,300	-1,325	-1,350	-1,375	-1,400
Net Revenue	46,714	42,466	43,550	44,479	45,571	46,964	48,206
State Expenditures[2]	-39,351	-42,766	-45,222	-46,910	-48,725	-50,099	-51,467
Current Year Balance	7,367	-300	-1,672	-2,431	-3,155	-3,135	-3,261
Reduced Spending[3]	0	1,302	0	0	0	0	0
Adjustment for Lapses[4]	-1,830	140	140	140	140	140	140
Preliminary Ending Balance	**5,537**	**6,680**	**-1,532**	**-2,291**	**-3,015**	**-2,995**	**-3,121**

Note: Millions of dollars. Excludes the Budget Stabilization Reserve Fund Balance of $4.99 billion.

1 Beginning balance omitted for FY 23-24 and thereafter.

2 Based on appropriations. Includes current year lapses and approved supplemental appropriations.

3 Reflects the administration's recommended changes to enacted General Fund appropriations.

4 Prior year lapses and actual transfers to the Budget Stabilization Reserve Fund.

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Introduction

This report provides an overview of the demographic, economic, revenue and expenditure trends that will affect the Commonwealth's fiscal condition through FY 2027-28. The report examines long-term trends to facilitate an assessment of current tax and spending policies. The projections are best viewed as plausible outcomes from the application of reasonable economic assumptions and the continuation of current policies and demographic trends. Actual revenues and expenditures could deviate significantly from the projections in this report due to the uncertainty of economic outcomes and unanticipated technical factors, such as changes to federal tax laws and federal matching funds.

The economic projections displayed in this report motivate most General Fund revenues through FY 2027-28. The projections do not represent a formal economic forecast, but rather a controlled simulation. They assume that economic growth is consistent with full employment, historical labor productivity gains and inflation expectations. The economic simulation provides a neutral baseline that policymakers can use to assess fiscal sustainability, and it assumes that a recession does not occur over the five-year budget window. In this manner, the economic forecast represents an optimistic scenario.

The report designates FY 2022-23 as the base year. All revenue and expenditure projections use that year as a reference year and assume that the policy choices embedded therein do not change through FY 2027-28. The report makes two forecasts of baseline expenditures. The first forecast represents a "cost to carry" concept and only includes increases in mandatory spending such as debt service, pension contributions and entitlement programs. The second forecast assumes that expenditures grow in a manner that is sufficient to maintain the level of real services provided to service populations in the base year. Hence, most expenditure projections include an inflationary adjustment to compensate for rising prices. Combined, the two forecasts provide a reasonable lower and upper bound for future spending.

The report projects expenditures supported by General Fund revenues, as well as other revenue sources. To that end, the report includes projections for the Lottery, Tobacco Settlement and Oil and Gas Lease Funds. Certain disbursements from those funds support General Fund programs, and the projections allow policymakers to determine if legislative or policy changes are needed so the funds can maintain their current levels of support. Projections of non-General Fund revenues are included in the Appendix.

The report starts with the demographic and economic outlooks. Those outlooks provide the foundation for the five-year projections of General Fund tax revenues and expenditures that follow. Several appendices provide further details on all forecasts contained in this report.

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Demographic Outlook

Demographics are a critical factor that motivate long-term economic, revenue and expenditure trends. Demographic trends determine key populations such as the labor force that affects economic growth, elementary and secondary students who require educational services and elderly residents who may require long-term care. All population projections and certain descriptive text contained in this section are from the IFO report *Pennsylvania Demographic Outlook* (October 2022).[1]

Table 2.1 presents the population change for various age cohorts for three time periods. Those periods are: 2010 to 2020 (previous decade), 2020 to 2025 (near-term projections) and 2025 to 2030 (long-term projections). While near-term projections should be similar to actual population estimates, long-term projections are less certain because birth, death and migration rates can vary significantly due to changing economic conditions, immigration policies, domestic migration incentives and health care.

Table 2.1
Pennsylvania Demographic Trends and Projections

Age	Number of Residents (000s)				Change (000s)		
Cohort	2010	2020	2025	2030	2010-20	2020-25	2025-30
0-19	3,173	3,044	2,916	2,790	-129	-128	-126
20-64	7,566	7,528	7,311	7,136	-38	-217	-175
65-79	1,343	1,839	2,108	2,208	496	269	100
80+	620	578	626	762	-42	48	136
Total	**12,701**	**12,990**	**12,960**	**12,897**	**288**	**-29**	**-63**

Note: Detail may not sum to total due to rounding.

Sources: The 2010 data are from the U.S. Census Bureau 2020 Population Estimates. The 2020 data are from the U.S. Census Bureau 2021 Population Estimates. 2025 and 2030 are projections by the IFO using data from the U.S. Census Bureau and U.S. CDC.

Table 2.1 reveals the following trends:

- The total population grew 288,000 from 2010 to 2020 and is projected to contract by 92,000 from 2020 to 2030: 29,000 in the near term and 63,000 in the long term.
- The school age cohort (age 0 to 19) declined 129,000 from 2010 to 2020 and is projected to decline by 254,000 from 2020 to 2030: 128,000 in the near term and 126,000 in the long term.
- The working-age cohort (age 20 to 64) decreased 38,000 from 2010 to 2020 and is projected to contract by 392,000 from 2020 to 2030: 217,000 in the near term and 175,000 in the long term. In 2025, this group includes mostly Generation X (born 1965 to 1980) and Millennials (born 1981

[1] The *Pennsylvania Demographic Outlook* used data from the U.S. Census Bureau, U.S. Centers for Disease Control and Prevention (CDC) and Pennsylvania Department of Health (DOH).

to 1997) and a portion of Generation Z (born 1998 to 2015). If labor force participation rates (LFPRs) do not increase, then this decline will constrain future economic and revenue growth.

- The retiree cohort (age 65 to 79) increased 496,000 from 2010 to 2020 and is projected to expand by 369,000 from 2020 to 2030: 269,000 in the near term and 100,000 in the long term. In 2025, this group includes most of the Baby Boom Generation (born 1946 to 1964). The increase in this age cohort and the next age cohort implies strong demand for health care and long-term care services.
- The elderly cohort (age 80+) decreased 42,000 from 2010 to 2020 and is projected to expand by 184,000 from 2020 to 2030: 48,000 in the near term and 136,000 in the long term. In 2025, this group mostly includes the Silent Generation (born 1926 to 1945) and a small number of individuals from the Greatest Generation (born 1905 to 1925).

Components of Population Change

Table 2.2 decomposes the change in state population from 2010 to 2030 to illustrate the factors that motivate low population growth rates. Two factors drive the trends during the 20-year time period:

- The forecast projects that the number of births will decline while the number of deaths increases. In the previous decade (2010 to 2020), births outnumbered deaths by 93,000 or 9,300 per annum. For 2020 to 2025, deaths are projected to outnumber births by 62,000 (12,400 per annum).
- In the previous decade, net migration was 195,000 (19,500 per annum). For 2020 to 2030, the projections assume a reduction to an average net inflow of 7,700 per annum. Net migration projections are lower because the forecast is based on migration patterns from 2016 to 2019, which were notably lower than 2010 to 2015.

Table 2.2
Components of Pennsylvania Population Change

	By Time Period		
	2010-20	2020-25	2025-30
Start of Period	**12,701**	**12,990**	**12,960**
Natural Increase	**93**	**-62**	**-108**
Births	1,400	660	645
Deaths	-1,307	-722	-753
Net Migration	**195**	**33**	**44**
End of Period	**12,990**	**12,960**	**12,897**
Total Population Gain	**288**	**-29**	**-63**

Note: Thousands of residents.

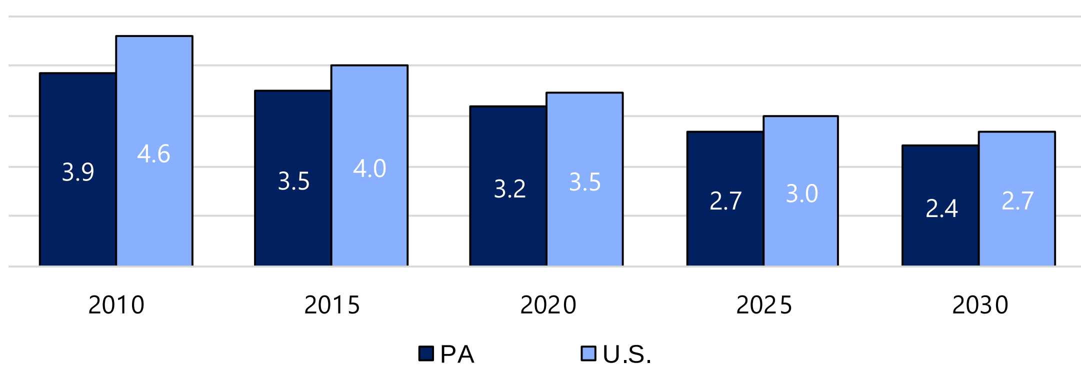
Sources: The 2010 through 2019 data are from the U.S. Census Bureau 2020 Population Projections and U.S. CDC with adjustments by the IFO. 2020 through 2021 data are from the U.S. Census Bureau 2021 Population Projections. 2022 through 2030 data are projections by the IFO using data from the U.S. Census Bureau and U.S. CDC. Calculations by the IFO.

Dependency Ratios

Working-age residents remit the majority of state tax revenues that support dependents who attend school and elderly residents who require dedicated healthcare services. Demographers use two metrics known as dependency ratios to illustrate the relationships between these three groups. The two ratios are the working-age (age 20 to 64) to youth (age <20) and working-age to retiree (age 65+) populations. From 2010 to 2030, the working-age to youth ratio is projected to remain stable at roughly 2.4 to 2.6 for Pennsylvania and 2.2 to 2.4 for the U.S. (not shown in figure below). This implies that there are roughly 2.4 working-age adults per youth.

Unlike the working-age to youth ratio, the working-age to retiree ratio is trending downward for Pennsylvania and the U.S. **Figure 2.1** displays this ratio for Pennsylvania (dark blue) and the U.S. (light blue) for 2010 to 2030 using five-year increments. In 2010, there were 3.9 working-age residents per retiree in Pennsylvania and 4.6 for the U.S. Both ratios declined substantially by 2020 (3.2 for Pennsylvania, 3.5 for the U.S.) and continue to decline through 2030 (2.4 for Pennsylvania, 2.7 for the U.S.). The downward trend corresponds to the retirement of Baby Boomers and the contraction of the working-age population.

Figure 2.1
Working-Age (20-64) to Retiree (65+) Ratios



Sources: Pennsylvania data for 2010, 2015 and 2020 are from U.S. Census Bureau various population estimates with adjustments by the IFO for 2015. Data for 2025 and 2030 are projections by the IFO. U.S. data are from the U.S. Census Bureau. International Database (last accessed on August 16, 2022).

Figure 2.1 illustrates the challenges that policymakers will encounter during the next decade. Over time, there will be relatively fewer working-age residents to support the needs of rapidly expanding retiree and elderly populations. Stated differently, the burden of support will fall on a smaller group of taxpayers. The actual contraction of the working-age cohort, which remits most state taxes, suggests that real per capita taxes for that age group must increase to keep pace with the anticipated increase in demand for health care and other services.

Labor Force Participation Rates

Labor force participation rates (LFPRs) determine the size of the Pennsylvania labor force (i.e., the supply of labor). The labor force includes all residents age 16 or older if they are employed or actively seek employment. The statewide LFPR is equal to the ratio of the labor force to all non-institutionalized residents age 16 or older. Future jobs growth in the Commonwealth will require that the working-age population expands and/or a larger share of the working-age population joins the labor force.

Table 2.3
LFPR by Age Group for PA and U.S. (2018 - 2022)

Age Group	2018	2019	2020	2021	2022
Pennsylvania					
16-19	42.5%	41.5%	41.4%	45.1%	--
20-24	71.8	75.9	76.1	74.8	--
25-34	83.9	85.4	84.6	83.9	--
35-44	84.7	85.2	85.1	83.2	--
45-54	83.4	80.6	80.2	80.7	--
55-64	66.3	67.5	66.7	66.1	--
65-74	27.2	29.6	26.8	25.1	--
75+	8.8	9.6	9.0	8.4	--
Total (16+)	**62.6**	**63.2**	**62.1**	**61.3**	**61.5**
Adjusted (16-74)	*68.2*	*68.9*	*67.8*	*67.0*	--
United States					
16-19	35.1%	35.3%	34.5%	36.2%	36.7%
20-24	71.1	72.2	69.3	70.8	70.8
25-34	82.5	82.9	81.4	81.9	83.4
35-44	82.9	83.1	82.2	82.0	83.1
45-54	80.8	81.4	80.6	80.7	81.2
55-64	65.0	65.3	64.7	64.6	65.1
65-74	27.0	27.8	26.6	25.8	26.5
75+	8.7	9.1	8.9	8.6	8.4
Total (16+)	**62.9**	**63.1**	**61.7**	**61.7**	**62.3**
Adjusted (16-74)	*67.7*	*68.0*	*66.7*	*66.7*	*67.4*

Source: U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics. Pennsylvania age 65-74 and 75+ data estimated by IFO. 2022 data are estimated by IFO using BLS data through September 2022.

Table 2.3 displays LFPRs by available age cohort data from 2018 to 2022. The figures for 2022 are estimates based on monthly data through September 2022. Prior to the COVID-19 pandemic, the overall state LFPR was 63.2%, nearly identical to the U.S. rate (63.1%). Table 2.3 includes an adjusted rate to isolate trends for the primary working-age population.[2] For that rate, Pennsylvania is consistently higher than the U.S. average.

In 2020, LFPRs declined dramatically, with the contraction largely in the younger workforce for the U.S. and older workers for Pennsylvania. Preliminary data for 2022 suggest that the Commonwealth's LFPR is largely unchanged from 2021, while the U.S. LFPR increased. Both rates remain below pre-pandemic levels, but the decline for Pennsylvania (-1.7 percentage points) is notably larger than the U.S. (-0.8 percentage points).

[2] The adjusted rate excludes residents age 75 or older from the computation. National data show that the LFPR for those age 75 or older is 8% to 9%. Therefore, the adjusted rates shown in the table are slightly overstated by 0.1 to 0.2 percentage points but provide a more accurate depiction of trends that controls for the rapid aging of state and national populations.

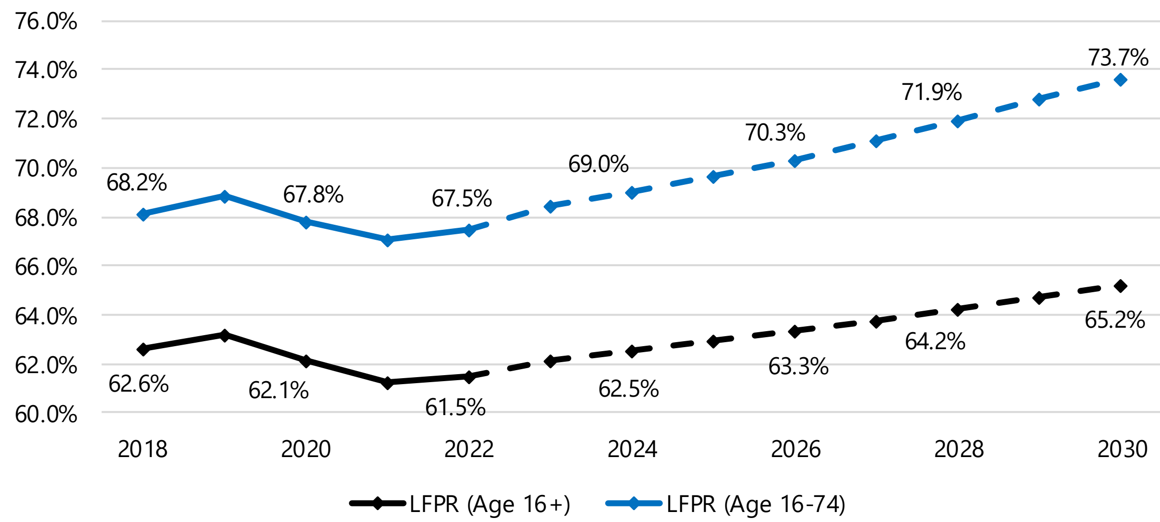
All else equal, the LFPR will need to increase considerably to facilitate the creation of a "normal" level of payroll jobs. **Figure 2.2** estimates the future LFPRs for two age groups that will be necessary to generate a net gain of 50,000 jobs per year (pre-COVID average): (1) individuals 16 years of age or older and (2) individuals age 16 to 74 years. These projections assume the following:

- LFPRs for the various age cohorts shown in Table 2.3 change proportionately with the LFPR for the total population.
- The demographics forecast is accurate.
- The unemployment rate is 5.0%.

For those age 16 and older, the LFPR must increase by roughly 0.5 percentage points each year to facilitate the creation of 50,000 payroll jobs. For those age 16 to 74, the LFPR must increase between 0.5 to 1.0 percentage points each year. The increase for the second age cohort is larger because it excludes residents age 75 and older who have very low LFPRs. Due to the rapid aging of the state population, the second age cohort provides a better representation of the changes needed to facilitate normal jobs creation.

Figure 2.2

Estimated LFPR for Pennsylvania to Gain 50K Jobs per Year



Notes: Assumes IFO estimated population by age group and unemployment rate of 5% in 2023 and after. Assumes only a small number of jobs held by individuals age 75 and older. 2018 to 2021 from BLS. 2022 estimates by IFO. Labor force data for age 65+ are estimated by IFO in all years.

Impact of Recent Demographic Trends on the State Labor Force

Table 2.4 displays IFO estimates and projections of the state population based on the latest data from the U.S. Census. Three years are shown (2019, 2022 and 2025) for various age groups.[3] From 2019 to 2022,

[3] Estimates for 2019 use a "backwards vintaging" methodology based on the official Census estimate for 2020.

the state population contracted by an estimated 36,000 residents and the median age increased.[4] While the first outcome is relatively new, the second is a continuation of a long-term trend. Both factors cause the state labor force to contract: the first due to fewer potential workers, and the second because older residents have lower LFPRs.

Table 2.4
Pennsylvania Demographic Trends by Age Group

	Number of Residents (000s)			Change (000s)		2022
	2019	2022	2025	19-22	22-25	LFPR
0 to 17	2,721	2,651	2,580	-70	-71	--
18 to 24	1,143	1,141	1,153	-2	12	70.2%
25 to 54	4,920	4,857	4,811	-63	-46	82.7
55 to 64	1,854	1,779	1,682	-75	-96	65.0
65 to 69	769	823	853	54	30	34.7
70 to 74	602	659	714	57	55	17.9
75 or older	991	1,055	1,166	64	112	8.6
Total	**13,001**	**12,965**	**12,960**	**-36**	**-4**	

Note: LFPRs are September 2022 for U.S. due to small number of data points for state by age group. Rate for 18 to 24 age cohort is rate for 20 to 24 year olds.
Source: U.S. Census Bureau and IFO projections. See 2022 Demographic Outlook (October 2022).

From September 2019 to September 2022, the state labor force contracted by 120,000 workers. If national LFPRs by age group can be used for Pennsylvania, then the combination of the decline in population and lower LFPRs for older residents implies a contraction in the state labor force of roughly 65,000.[5] Therefore, recent demographic trends motivate slightly more than one-half of the labor force contraction and related worker shortage. The residual contraction is due to other factors such as savings and wealth accumulation, increased popularity of home and cyber schooling, care of elderly parents, on-going health concerns (e.g., long COVID) and extension of federal emergency health declarations (e.g., the vertical SNAP benefits cliff).

Near-term demographic trends suggest that the outlook for the next three years will not improve and the labor market will remain tight. The prime working age cohort is projected to contract (-46,000) while those nearing retirement (age 55 to 64) record stronger contraction (-96,000). By contrast, the number of retirees and elderly residents expands rapidly. As illustrated by Figure 2.2, future LFPRs will need to surpass pre-COVID rates, and then increase each year to facilitate "normal" payroll jobs growth of 50,000 workers per annum generated prior to the pandemic.

[4] The population contraction was driven by three factors: (1) a net domestic outflow to other states (-8,496 for 2020 to 2021, 2022 data not yet available), (2) lower international migration and (3) deaths that exceeded births (-38,543 for 2020 to 2021). For 2020 and 2021, the IFO estimates that COVID-19 caused 38,650 "excess deaths," and the great majority (nearly 90%) impacted residents age 65 or older. See IFO Research Brief *COVID-19 Impact on Pennsylvania Deaths* (February 2022).
[5] See IFO Research Brief *Where Did the Workers Go? (Update)* (October 2022).

Economic Outlook

The state and national economies have largely recovered from the COVID-19 pandemic, but much uncertainty remains regarding the near and long-term economic outlook. This section provides the economic forecast used to project most General Fund revenue sources. The subsections that follow provide further detail regarding specific forecasts such as employment and inflation.

Table 3.1 displays the economic forecast used for this report. Similar to past reports, the forecast is a simulation that assumes the Pennsylvania economy generally reverts to long-term historical patterns but also reflects changes to underlying structural parameters such as demographic trends and labor force participation rates. The forecast assumes flat growth for CY 2023, recovery in CY 2024 and a reversion to long-term growth for CY 2025 and later years. (See Appendix for further details.) The economic forecast reflects the following assumptions which do not include an economic contraction, and therefore might be viewed as a scenario that leans optimistic:

- Labor force participation rates recover to rates that exceed those observed prior to the pandemic. Currently, those rates are much lower.
- Inflation decelerates to 2.3%, somewhat higher than the Federal Reserve target rate of 2.0%.
- While many national forecasts project a mild recession, Pennsylvania economic growth is flat in CY 2023 because the state economy is less volatile than the U.S.

Table 3.1
Pennsylvania Economic Forecasts

	Annual Growth Rate or Change						
	2020	2021	2022	2023	2024	2025	2026
Real GDP	-4.8%	4.4%	1.5%	0.0%	1.2%	1.7%	1.8%
Nominal GDP	-3.5%	9.4%	9.3%	4.4%	3.8%	4.2%	4.1%
Wages and Salaries	-0.2%	7.2%	8.4%	4.7%	4.3%	4.0%	3.9%
Net Payroll Jobs (000s)	-461	146	180	0	30	39	42
Philadelphia Metro CPI-U	0.9%	4.0%	7.9%	4.5%	2.8%	2.5%	2.3%

Note: Payroll jobs exclude self-employed and independent contractors.

Source: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics. All forecasts by IFO.

Economic growth is typically measured by real Gross Domestic Product (GDP, excludes inflation), the value of all final goods and services produced by the state economy. Projected real GDP growth is flat for CY 2023 and then reverts to a long-term steady state growth rate of 1.8% per annum. That growth rate is the product of the employment (0.7%) and labor productivity (real output per worker, 1.0%) growth rates. If inflation is included (2.3%), then nominal GDP is projected to grow by 4.1% per annum. Nominal GDP is the broadest statewide metric to quantify the real and inflationary expansion of the state economy. The next section of this report compares General Fund tax revenues to nominal GDP to assess the revenue generating capacity of the state economy before and after the COVID pandemic.

Table 3.2
U.S. Macroeconomic Forecasts

	Annual Growth Rate or Change				
	2020	2021	2022	2023	2024
Real GDP					
IHS Markit	-2.8%	5.9%	1.8%	-0.2%	1.3%
Wells Fargo	-2.8%	5.9%	1.9%	0.1%	-0.2%
PNC	-2.8%	5.7%	1.8%	1.0%	1.0%
Consumer Price Index					
IHS Markit	1.2%	4.7%	8.1%	4.3%	2.7%
Wells Fargo	1.2%	4.7%	8.1%	4.1%	2.7%
PNC	1.2%	4.7%	7.9%	3.6%	2.4%
Avg Monthly Change in Payroll Jobs (000s)					
IHS Markit	-729	330	493	-1	-44
Wells Fargo	-729	330	374	-18	-69
PNC	-729	330	492	108	25

Note: IHS Markit released November 7, 2022. Wells Fargo released November 10, 2022. PNC released September 2022.

Table 3.2 displays national economic forecasts by IHS Markit, Wells Fargo and PNC bank. Two national forecasts project no growth or modest contraction for CY 2023. Two forecasts project that the national economy will expand moderately in CY 2024 and inflation will decelerate, but remain above the 2.0% target rate. Overall, there is consensus that the Federal Reserve will need several years to return inflation to target rates.

Table 3.3 moves back to the Pennsylvania forecast and displays economic data for recent quarters. Notable trends include:

- Real GDP contracted by 0.9% on an annualized basis in 2022 Q2.
- Wages and Salaries paid grew by 9.3% (year-over-year) in 2022 Q2 and decelerated to 6.4% (estimate) by 2022 Q3.
- Inflation as measured by the Consumer Price Index (CPI-U) peaked in 2022 Q2 at 8.6% and decelerated in 2022 Q3 to 8.1%. If the Shelter component is excluded (largely rent imputed to homeowners), the rates are 9.7% and 8.8%.
- The Unemployment Rate recorded an all-time low in September at 4.1% (seasonally adjusted) and 3.4% (non-seasonally adjusted, not shown).
- The Labor Force Participation Rate for 2022 is slightly lower than 2021 Q2.

Table 3.3
Recent Pennsylvania Economic Growth Rates or Change

	2021.2	2021.3	2021.4	2022.1	2022.2	2022.3
Real GDP	4.6%	1.3%	8.4%	-1.1%	-0.9%	--
Wages and Salaries	11.9%	8.5%	8.3%	10.1%	9.3%	6.4%
CPI-U - All Items	4.2%	4.6%	6.1%	7.3%	8.6%	8.1%
CPI-U - Exclude Shelter	5.8%	6.1%	7.4%	8.5%	9.7%	8.8%
Change Payroll Jobs (000s)	558	235	195	212	209	212
Unemployment Rate	6.7%	6.1%	5.5%	5.1%	4.6%	4.2%
Labor Force Participation Rate	61.8%	61.3%	61.0%	61.1%	61.6%	61.7%

Notes: All growth rates or changes are year-over-year except Real GDP, which is quarterly annualized. 2022 Q3 Wages and Salaries growth rate based on withholding revenues.

Sources: U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics.

Payroll Employment

In Spring 2020, the Pennsylvania labor market made a rapid recovery from the initial shock of 1.13 million payroll job losses (excludes self-employed) as businesses reopened and partially resumed normal operations. Since then, the state economy has continued to generate jobs and unemployment rates are now at the lowest levels on record. **Table 3.4**. displays the latest payroll jobs data for September 2021 and 2022 relative to September 2019. For September 2021, payroll jobs contracted by 294,700 compared to September 2019. For September 2022 (preliminary), the jobs contraction is 85,200 across all sectors.

Table 3.4
Change in Payroll Jobs from September 2019

	Number (000s)		Percent	
	Sept '21	Sept '22	Sept '21	Sept '22
Total Payroll Employment	**-294.7**	**-85.2**	**-4.8%**	**-1.4%**
Construction	-9.4	-8.0	-3.4	-2.9
Manufacturing	-28.2	-8.0	-4.9	-1.4
Retail and Wholesale Trade	-28.6	1.6	-3.5	0.2
Transport and Warehouse	7.9	39.2	2.6	12.9
Financial and Real Estate	-3.5	0.5	-1.1	0.2
Professional and Technical	9.6	21.4	2.7	6.0
Admin and Waste Management	-27.5	-24.5	-8.4	-7.5
Education (excludes local SD)	-19.7	-11.5	-8.1	-4.8
Healthcare-Social Assistance	-60.6	-30.0	-5.7	-2.8
Arts-Entertainment	-15.9	-4.4	-15.0	-4.2
Accommodation-Food Service	-64.0	-29.2	-13.4	-6.1
Other Services	-23.1	-15.9	-8.8	-6.1
All Government	-31.8	-28.2	-4.4	-3.9
All Other	0.1	11.8	0.0	4.7

Note: Data are not seasonally adjusted. Figures for September 2022 are preliminary. Excludes self-employed.
Source: U.S. Bureau of Labor Statistics, State and Metro Area Employment.

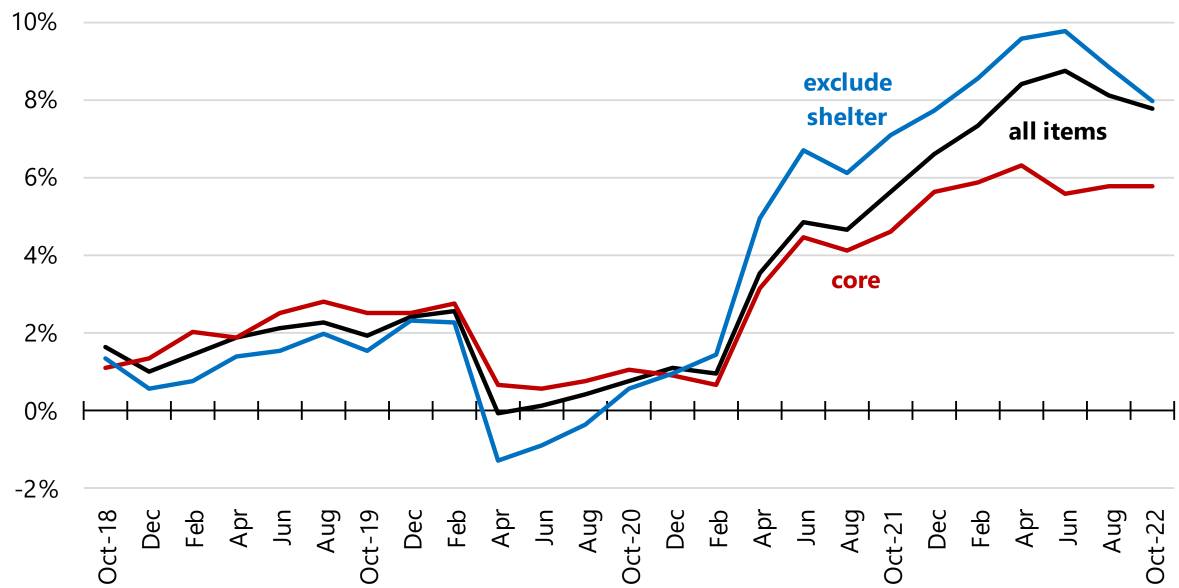
Notable results for September 2022 for specific sectors are as follows:

- The healthcare-social assistance sector lost most jobs with 30,000 (-2.8%) fewer payroll jobs. Most job losses occurred in the nursing facility and residential care subsector (-26,500).
- The all government sector (state, local and federal) contracted by 28,200 payroll jobs (-3.9%). Most job losses are due to the state government-education (-9,300), local government-excluding education (-9,000) and local government-education (-6,600) subsectors.
- The administration and waste management sector recorded the largest relative jobs contraction (-24,500 jobs, -7.5%) due to the employment services subsector (i.e., temp workers, -19,200).
- Transportation and warehousing (+39,200, +12.9%) and professional and technical services (+21,400, +6.0%) recorded significant employment gains.

Consumer Inflation

The latest reading for consumer price index (CPI) for the Philadelphia metro region is 7.8% year-over-year growth (October 2022). **Figure 3.1** displays the inflation series for the All Items CPI-U, the CPI-U excluding Shelter and the Core CPI-U (excludes the volatile food and energy components). The series that excludes Shelter is a better measure of actual consumer spending because it omits the large, imputed homeowner rent component (27.1% of the CPI), which reflects rent foregone by homeowners, as opposed to actual spending. For October 2022, the All Items and Exclude Shelter series both decelerated from highs reached in June 2022, but remain highly elevated. Conversely, Core CPI-U growth is much lower, but accelerated slightly in August and October. That outcome is attributable to the lag for the large Shelter component, which continues to accelerate. The economic forecast projects that all three series will decelerate significantly in CY 2023.

Figure 3.1
Annual Growth in Philadelphia CPI-U



Source: U.S. Bureau of Labor Statistics.

Financial Trends

Table 3.5 displays year-over-year growth rates for metrics that track the stock market, Pennsylvania home values and rent, and consumer debt. Notable trends include the following:

- For 2022 Q3 (average value for quarter), the S&P 500 Index was down 11.8% from the prior year. As of November 11, 2022, it is down 16.2% since the end of CY 2021.
- The 30-year conventional mortgage rate was 6.70% at the end of 2022 Q3 and the latest value is 7.08%.
- The Pennsylvania home price index increased rapidly throughout CY 2022, but growth is decelerating. Rent growth increased by double digits for most metro areas, but is also decelerating.
- Auto loan debt surged in CY 2021, but growth decelerated in CY 2022. By contrast, credit card debt expanded rapidly and debt balances now exceed pre-pandemic levels.

Table 3.5
Financial, Housing and Debt Trends

	Year-Over-Year Growth Rate						2019.3 to
	2021.2	2021.3	2021.4	2022.1	2022.2	2022.3	2022.3
Financials							
S&P 500 Index	42.8%	32.4%	30.1%	19.2%	-1.7%	-11.8%	30.7%
30-year conv. mortgage	3.0	3.0	3.1	4.7	5.8	6.7	--
Housing							
PA Home Price Index	16.2	14.8	13.4	14.6	12.9	11.0	37.9
Rent - Philadelphia	3.8	8.0	11.3	12.1	11.4	9.2	19.7
Rent - Pittsburgh	4.3	7.0	8.7	8.8	8.2	8.1	18.2
Rent - Harrisburg	10.0	13.9	13.6	14.9	13.5	7.9	25.4
Rent - Scranton	14.4	17.3	15.1	13.1	13.2	11.4	36.2
PA Consumer Debt							
Auto Loan	12.7	9.9	8.9	7.4	5.0	--	16.3
Credit Card	-6.2	-2.8	3.1	8.9	11.0	12.5	8.6
Primary Mortgage	4.2	6.3	6.4	4.4	4.2	--	10.9

Note: S&P 500 uses average level for quarter. 30-year mortgage rate from end of quarter. FHFA Home Price Index is purchase only, non-seasonally adjusted. 2022.3 values for Home Price Index and credit cards are estimates. Primary mortgage includes closed-end home equity loans.

Source: Wall Street Journal, Freddie Mac, Federal Housing Finance Agency, Zillow and NYFRB.

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Revenue Outlook

General Fund revenues of $48.13 billion in FY 2021-22 include a one-time transfer of $3.84 billion of federal funds. After adjusting for (1) this transfer, (2) a corporate net income tax (CNIT) rate reduction/base expansion, (3) new/expanded tax credits and (4) the new motor vehicle sales and use tax (SUT) transfer to the Public Transportation Trust Fund (PTTF), collections for FY 2022-23 are expected to increase 0.5% to $43.69 billion. (See **Table 4.1**.) Including statutory changes enacted with the state budget, the updated FY 2022-23 forecast used by this report reflects an increase of $1.50 billion over the IFO's Official Revenue Estimate released in June 2022.[6] This result is driven by CNIT, non-motor vehicle SUT and Treasury collections, which combined are expected to outperform the IFO's Official Revenue Estimate by $1.27 billion.

Table 4.1
General Fund Revenues

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Personal Income	$18,126	$17,539	$18,361	$19,141	$19,932	$20,914	$21,652
Sales and Use	13,914	13,837	14,213	14,631	15,078	15,523	15,972
Corporate Income	5,323	5,170	5,002	4,749	4,627	4,542	4,479
Gross Receipts	1,022	1,106	1,095	1,069	1,044	1,029	1,015
Inheritance Tax	1,550	1,462	1,489	1,554	1,604	1,656	1,718
All Other	8,198	4,573	4,690	4,659	4,636	4,676	4,770
Total Revenue	**48,134**	**43,686**	**44,850**	**45,804**	**46,921**	**48,339**	**49,606**
Growth Rate	19.2%	-9.2%	2.7%	2.1%	2.4%	3.0%	2.6%

Note: Millions of dollars.

For FY 2023-24, revenues are projected to increase at a rate of 2.9% (adjusted to exclude the phase-in of tax law changes). Revenues then increase at an average rate of 3.1% per annum for FY 2023-24 to FY 2027-28 (adjusted). In the near term, notable factors that impact revenues include:

- PIT withholding revenue growth slows from 10.2% for FY 2021-22 to 5.5% for FY 2022-23 (growth rates adjusted for transfers and extra due dates). PIT non-withheld revenues for tax year (TY) 2022 continue to benefit from strong net profits and dividends, but that strength wanes over the forecast period as growth rates revert to historical averages.
- Strong SUT collections are driven by (1) robust consumer spending that exceeds income (i.e., willingness to spend savings/incur debt) and (2) rising prices (inflation).

[6] See *Official Revenue Estimate FY 2022-23* for more information: http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/Revenue_Estimate_2022_06.pdf.

- A new transfer from SUT to the Public Transportation Trust Fund (PTTF) begins in FY 2022-23. For that year, the forecast projects a transfer of $504 million from motor vehicle SUT and the transfer increases to $580 million by FY 2027-28.
- Profits subject to CNIT and PIT reach historic highs in absolute terms and relative to state GDP for TY 2021 and TY 2022. Although some gains are assumed permanent, the long-term forecast assumes a partial reversion to levels more consistent with recent historical values relative to the size of the state economy.
- Treasury collections increase dramatically from $23 million in FY 2021-22 to a projected $373 million in FY 2022-23. This increase is due to unusually high General Fund cash balances and continued increases in the federal funds rate (+3.75 percentage points since March 2022). Collections remain elevated for FY 2023-24 ($409 million), but decline in the out-years, as General Fund balances are depleted.

The subsections that follow provide a broad overview of projected revenues relative to state GDP, a brief discussion of revenue trends, the outlook for the three largest General Fund revenue sources and highlights for smaller revenue sources. Historical data for General Fund revenues can be found in the Appendix.

Tax Revenue Trends and Projections

The economic forecast used for this report assumes a reversion to "normal" economic growth to provide a neutral baseline scenario that can be used to assess the fiscal condition of the state. Tax revenue growth is largely determined by economic growth, and a widely used method to analyze long-term revenue trends is to compare tax revenues to nominal GDP. The ratio of tax revenues to GDP reflects the revenue generating capacity of the state economy. **Table 4.2** shows the results of this comparison. FY 2018-19 was the last full year prior to COVID and is used as the base year to determine tax revenues generated under "normal" economic conditions. For that year, the ratio of tax revenues to GDP was 4.33% (excludes non-tax revenues). The table itemizes large revenue sources prior to the impact of recent policy changes that impact tax revenues in FY 2022-23 and future years (shown at bottom of table).

For FY 2021-22, the ratio increased dramatically (+0.58 percentage points [ppts]) and increased for all revenues sources except cigarettes, which continued its long-term trend decline. *The higher ratio translates into $5.1 billion of extra tax revenues*. That is, tax revenues were $5.1 billion higher due to factors other than real economic and inflationary growth included in nominal GDP. Relevant factors include highly inflated asset values (stock market and home values), unusually high consumer and business spending due to temporary federal stimulus, changes to consumer spending patterns and record-breaking levels of profit.[7]

The revenue forecast assumes that these temporary gains cannot be sustained, and there is partial reversion to the pre-COVID ratio of 4.33%. By FY 2024-25, the ratio falls to 4.51%. By FY 2027-28, the ratio falls to 4.41%. For all major tax revenue sources, ratios are higher than FY 2018-19 (see final column), indicating that some factors that drove the FY 2021-22 revenue surge are assumed to be permanent. If cigarette tax revenues are excluded (not dependent on economic growth), then the ratio is 0.17 ppts higher in FY 2027-28 than FY 2018-19. That premium increases tax revenues by nearly $2.0 billion in FY 2027-28

[7] Prior to the pandemic, tax revenues grew at roughly the same average rate (over several years) as the state economy or nominal GDP, once tax law changes are taken into account. The analysis assumes that a similar relationship would generally hold after the pandemic. It is noted that capital gains are not included in GDP.

compared to a scenario if the ratio had not changed. Stated differently, the forecast assumes COVID resulted in permanent changes that raised the revenue generating capacity of the state economy (i.e., the ratio of tax revenues to GDP is higher).

The bottom of the table shows the impact of the CNIT rate reduction/base expansion, new SUT transfer to the PTTF (begins FY 2022-23, discussed in subsections that follow) and new/expanded tax credits. Those impacts were excluded from all ratios computed. If those changes are included, then the ratio of tax revenues to GDP is lower in FY 2027-28 than FY 2018-19. That outcome is solely due to policy choices.

Table 4.2
Tax Revenue as Share of Pennsylvania Nominal GDP

	Fiscal Year				Change from 18-19	
	18-19	21-22	24-25	27-28	21-22	27-28
Adjusted Tax Revenue	**4.33%**	**4.91%**	**4.51%**	**4.41%**	**0.58%**	**0.08%**
Corporate Net Income	0.43	0.60	0.53	0.51	0.17	0.08
Sales and Use	1.41	1.57	1.49	1.43	0.16	0.02
PIT-Withholding	1.33	1.36	1.35	1.34	0.03	0.02
PIT-Non-Withholding	0.46	0.69	0.53	0.54	0.22	0.08
Inheritance	0.13	0.17	0.15	0.15	0.04	0.02
Cigarette	0.14	0.10	0.07	0.06	-0.04	-0.09
All Other Tax	0.42	0.42	0.39	0.37	0.00	-0.04
CNIT rate and base changes	--	--	-0.06	-0.12	--	-0.12
SUT new transfer	--	--	-0.05	-0.05	--	-0.05
New/expanded tax credits	--	--	-0.01	-0.01	--	-0.01

Note: CNIT is corporate net income tax. SUT is sales and use tax. PIT is personal income tax. Adjusted Tax Revenue excludes CNIT rate reduction/base expansion, the new SUT transfer and new/expanded tax credits. Excludes non-tax revenues.

Personal Income Tax

PIT revenues of $17.54 billion are $172 million higher than the IFO's official estimate for FY 2022-23. The increase is due to higher non-withheld collections attributable to continued strength in net profits and dividends for TY 2022.

After a 3.2% decline in FY 2022-23, PIT revenues are projected to increase at a rate of 4.2% per annum through FY 2027-28. (See **Table 4.3**.) Non-withholding tax revenues grow at a stronger rate (4.7%), while withholding tax revenues increase more slowly (4.0%) as wage growth moderates over the long term. Over the five-year window, non-withholding revenues grow faster than withholding due to capital gains and net profits. For non-recession years, those two income sources generally outpace statewide economic growth, and they comprise nearly three-quarters of non-withholding payments.

The forecast includes strong growth (5.0%) in FY 2026-27 withholding payments due to the occurrence of 53 weekly due dates (Wednesdays) in that fiscal year. This strength is reversed in FY 2027-28 (3.0%), as the number of due dates return to normal.

Table 4.3
Personal Income Tax Revenue

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Withholding	$12,026	$12,658	$13,245	$13,796	$14,343	$15,058	$15,510
Quarterly	2,760	2,680	2,910	2,989	3,092	3,180	3,272
Annuals	3,339	2,200	2,207	2,356	2,498	2,676	2,871
Total Revenue	**18,126**	**17,539**	**18,361**	**19,141**	**19,932**	**20,914**	**21,652**
Growth Rate	11.3%	-3.2%	4.7%	4.2%	4.1%	4.9%	3.5%

Note: Millions of dollars.

Sales and Use Tax

The FY 2022-23 SUT estimate reflects an increase of $641 million from the IFO's official estimate entirely due to strength in non-motor vehicle SUT collections. (See **Table 4.4**.) Non-motor collections have been bolstered by (1) strong retail sales as households spend down savings and incur debt, (2) higher prices (inflation) and (3) various federal policies (e.g., student loan moratorium and significant expansion of SNAP benefits). During CY 2020 and CY 2021, consumers dramatically shifted spending from services to durable goods in response to the pandemic and related mitigation efforts. For CY 2022, spending on goods and services record strong growth. For example, September 2022 data show that U.S. retail sales were 8.2% higher than the prior year, and sales at food services and drinking places increased 11.4% from the prior year.

For motor vehicle SUT, vehicle sales are beginning to recover from the limitations imposed by shortages of semiconductor chips and other parts. According to J.D. Power, October sales of new vehicles increased by 12.1% from the prior year.[8] The October sales data show that new vehicle inventory levels realized modest improvement, albeit still below potential due to historically lean vehicle availability. Furthermore, vehicle price inflation has moderated due to increased supply. The October Philadelphia CPI-U for used cars increased 2.1% from the prior year while the index for new cars increased 5.5%, significantly lower compared to October 2021 (27.2% used, 24.2% new).

For FY 2022-23, non-motor vehicle SUT collections are projected to increase by 3.2% while motor vehicle SUT collections increase 1.8% (prior to the new transfer). For FY 2023-24 to FY 2027-28, the forecast projects that total SUT will expand at an average rate of 3.0% per annum. The new PTTF transfer is estimated to total $504 million for FY 2022-23 and grow to $580 million by FY 2027-28.[9] The forecast projects that non-motor vehicle SUT revenues will expand at a rate of 3.1% per annum for FY 2023-24 to

[8] J.D. Power's Automotive Forecast (October 2022).
[9] The transfer is equal to the greater of (1) the ratio of $450 million to FY 2020-21 sales tax receipts (roughly 3.28%) multiplied by current year sales tax receipts or (2) $450 million.

FY 2027-28. For motor vehicles, revenues expand at an average rate of 1.7% per annum for the same period. If the new PTTF transfer is excluded, then the average growth rate increases to 2.0% per annum.

Table 4.4
Sales and Use Tax Revenue

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Non-Motor	$12,076	$12,469	$12,821	$13,216	$13,638	$14,060	$14,485
Motor Vehicle	1,838	1,368	1,392	1,415	1,440	1,463	1,487
Total Revenue	**13,914**	**13,837**	**14,213**	**14,631**	**15,078**	**15,523**	**15,972**
Growth Rate	8.4%	-0.6%	2.7%	2.9%	3.0%	3.0%	2.9%

Note: Millions of dollars.

Corporate Net Income Tax

The forecast projects CNIT collections of $5.17 billion for FY 2022-23, an increase of $277 million from the IFO's official estimate and a contraction of 2.9% from the prior fiscal year (increase of 0.9% after adjustments for CNIT rate/base changes enacted with the FY 2022-23 state budget). For FY 2023-24, revenues contract by 3.2% (-1.6% adjusted) and then decline at an average rate of 1.9% per annum for FY 2024-25 through FY 2027-28 (+3.0% adjusted). (See **Table 4.5**.)

Corporations fared much better than expected during the pandemic. For TY 2022, the forecast projects that domestic corporate profits will expand by 7%, following a surge of 33% for TY 2021. Corporations benefited from strong demand and limited supply, which enabled them to pass on higher input costs to consumers. In addition, profit margins increased due to reductions in certain discretionary spending (e.g., travel) and worker productivity gains (e.g., remote working). Although corporate profits reached historically high levels for TY 2021 and TY 2022, only a portion of those gains are assumed permanent, and the long-term forecast assumes a partial reversion to historical profit levels relative to the overall economy.

CNIT collections during the forecast period are significantly impacted by rate/base changes enacted with the FY 2022-23 state budget (Act 53-2022). Act 53 (1) reduced the CNIT rate from 9.99% to 8.99% for tax years beginning after December 31, 2022, to 8.49% for tax years beginning after December 31, 2023, with additional reductions of 0.5% annually until the rate reaches 4.99% for TY 2031 and (2) expanded the CNIT base by sourcing certain intangible property to where the benefit is received, and codifying Corporation Tax Bulletin 2019-04 related to nexus. These changes reduce CNIT collections by an estimated $200 million for FY 2022-23 and $1.37 billion by FY 2027-28 (shown separately in Table 4.5).

Table 4.5
Corporate Net Income Tax Revenue

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Base Revenue	$5,323	$5,370	$5,283	$5,357	$5,480	$5,654	$5,852
Rate/Base Changes	0	-200	-281	-608	-853	-1,113	-1,373
Total Revenue	**5,323**	**5,170**	**5,002**	**4,749**	**4,627**	**4,542**	**4,479**
Growth Rate	20.3%	-2.9%	-3.2%	-5.0%	-2.6%	-1.8%	-1.4%

Note: Millions of dollars.

Other Revenue Highlights

Other notable trends that affect General Fund revenues include the following:

- The FY 2022-23 projection for gross receipts tax collections is $1.1 billion, an increase of $62 million from the official estimate. According to the U.S. Energy Information Administration, revenue from Pennsylvania electricity sales through August increased by 20.1% compared to the prior year, largely due to price growth (+18.1%). The upward revision in the current year estimate is a direct result of the strength in electricity sales for CY 2022. The forecast assumes that gross receipts tax revenues moderate in the out-years, as electric receipts stabilize and telecommunications liabilities continue their long-term decline.
- The realty transfer tax forecast incorporates an increase in the annual cap for the Pennsylvania Housing Affordability and Rehabilitation Enhancement (PHARE) transfer from $40 million to $60 million beginning in FY 2023-24. After strong growth (32.3%) in FY 2021-22, realty transfer tax is anticipated to decline (-7.1%) in FY 2022-23 due to fewer home sales. The forecast reflects 5.7% average annual growth from FY 2023-24 through FY 2027-28 as home prices moderate and sales return to historical growth rates.
- Unusually high General Fund balances and rising interest rates dramatically increase Treasury collections for FY 2023-24 and FY 2024-25, before revenues decline in the out-years, as General Fund balances are depleted.
- Cigarette tax revenues are reduced by $115 million annually for debt service related to the Tobacco Settlement Bonds.
- The forecast excludes a PIT transfer to the Environmental Stewardship Fund after FY 2022-23.
- The estimate assumes that $185 million will be available annually for transfer from the State Stores Fund to the General Fund.

Table 4.6
Other General Fund Revenue Sources

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Accelerated Deposits	$1	$0	$0	$0	$0	$0	$0
Utility Property	39	40	41	41	42	42	42
Insurance Premiums	482	453	499	500	506	517	527
Financial Institutions	449	444	447	453	474	497	522
Cigarette	874	809	768	738	709	681	653
Other Tobacco Products	149	163	171	178	186	194	203
Malt Beverage	22	24	24	24	24	24	24
Liquor	431	445	463	481	501	521	541
Realty Transfer	847	787	806	877	925	976	1,006
Gaming	308	355	379	406	432	452	469
Minor and Repealed	-51	-61	-64	-64	-68	-72	-77
Liquor Store Profits	185	185	185	185	185	185	185
Licenses, Fees & Misc.	4,394	865	907	775	655	594	607
Treasury	23	373	409	269	135	60	60
Fines, Penalties & Int.	67	63	64	65	66	67	68
Total Revenue	**8,198**	**4,573**	**4,690**	**4,659**	**4,636**	**4,676**	**4,770**
Growth Rate	81.6%	-44.2%	2.6%	-0.7%	-0.5%	0.9%	2.0%

Note: Millions of dollars.

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Expenditure Outlook

For FY 2022-23, state General Fund appropriations are $42.77 billion, a $3.41 billion increase (8.7%) over FY 2021-22.[10] The Department of Education (PDE, +$1.68 billion) and Department of Human Services (DHS, +$1.54 billion) receive most of the increase in appropriations. For PDE, basic education funding (non-Social Security portion, +$525 million), school employees' retirement (+$239 million), and the new level-up supplement (+$225 million) receive most of the incremental funds. For DHS, long-term living (+$876 million), intellectual disabilities (+$571 million) and human services programs (+$184 million) receive most of the increase in funds.

Most projections included in this section represent General Fund appropriations required to maintain the same level of services provided in the FY 2022-23 base year. Unless otherwise noted, the analysis assumes that FY 2022-23 expenditures supported by federal funds and other state funds or user fees (sometimes referred to as augmentations) continue to receive support from those sources. An exception occurs when it is clear that the funding source will be unable to provide the same level of relative support in future years. For example, the enhanced Federal Medical Assistance Percentage (FMAP) rate used to reimburse states for Medicaid program costs during the COVID-19 public health emergency are not assumed to be available in FY 2023-24, and therefore, must be replaced with General Fund revenues. Other funding sources that do not maintain the same level of relative support are described in the relevant subsections that follow, as well as the Other Funds subsection in the Appendix.

From FY 2022-23 to FY 2023-24, General Fund expenditures are projected to increase by $2.46 billion (5.7%) driven by the following (See **Tables 5.1** and **5.2**):

- DHS non-personnel costs increase by $1.32 billion (7.6%) due to (1) long-term living ($453 million, 8.4%), (2) Medical Assistance ($367 million, 6.3%), (3) intellectual disabilities ($316 million, 11.6%) and (4) all other programs ($186 million, 5.5%). These program costs increase due to the assumed expiration of the enhanced federal matching rate for state Medicaid programs in the current fiscal year.
- Personnel costs increase by $560 million due to (1) a projected increase in salaries and benefits as a result of inflation and (2) the end of a temporary reduction in executive agency payments for retiree healthcare benefits through the Retired Employees Health Program (REHP). Personnel costs include employee wages, pensions and healthcare and other benefits.
- A general increase for all state agency programs due to the application of inflation adjustments to maintain real purchasing power.

[10] The text in this section uses the terms appropriation and expenditure interchangeably. However, the spending authority granted to a particular department or agency (i.e., the appropriation) need not equal actual expenditures for that year. Unused spending authority is reflected as a lapse that reduces budget shortfalls or increases budget surpluses.

From FY 2023-24 to FY 2027-28, General Fund expenditures are projected to increase at an average rate of 3.3% per annum. Trends after FY 2023-24 are driven by DHS and PDE, as those two agencies comprise over 80% of total General Fund expenditures. Factors that motivate trends in total expenditures include:

- Service populations that expand or contract (e.g., age 65+ population).
- The growth of employee wages, pensions and employee and retiree healthcare.
- Inflation adjustments that maintain the purchasing power of funds appropriated in the base year for all future years.
- Changes in federal funding levels (e.g., federal matching rates for Medicaid programs) to support various DHS program line items.

Table 5.1
General Fund Expenditures by Agency

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Amount							
Education	$14,933	$16,613	$17,150	$17,577	$17,990	$18,367	$18,741
Human Services	16,504	18,045	19,444	20,381	21,464	22,194	22,923
Criminal Justice	2,670	2,732	2,953	3,070	3,157	3,250	3,358
Treasury	1,174	1,181	1,223	1,264	1,367	1,406	1,408
All Other	4,071	4,193	4,452	4,618	4,747	4,882	5,038
Total Expenditures	**39,351**	**42,766**	**45,222**	**46,910**	**48,725**	**50,099**	**51,467**
Growth Rates							
Education	4.0%	11.3%	3.2%	2.5%	2.3%	2.1%	2.0%
Human Services	21.2	9.3	7.8	4.8	5.3	3.4	3.3
Criminal Justice	88.7	2.3	8.1	4.0	2.8	2.9	3.3
Treasury	-1.4	0.6	3.5	3.4	8.1	2.9	0.1
All Other	18.4	3.0	6.2	3.7	2.8	2.8	3.2
Total Expenditures	**15.7**	**8.7**	**5.7**	**3.7**	**3.9**	**2.8**	**2.7**

Note: Millions of dollars. Forecasts by the IFO.

Table 5.2
General Fund Expenditures by Category

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Expenditure Type							
Wages[1]	$2,829	$3,105	$3,308	$3,496	$3,614	$3,736	$3,864
Pensions (SERS/PSERS)	3,725	4,006	4,168	4,291	4,414	4,547	4,700
Healthcare/Benefits[2]	853	879	1,073	1,122	1,170	1,213	1,259
Pre-K-12 Education[3]	10,677	12,010	12,437	12,755	13,062	13,339	13,625
Medical Assistance	6,157	5,872	6,239	6,270	6,699	6,939	7,171
Long-Term Living	4,518	5,394	5,847	6,345	6,759	7,005	7,245
Intellectual Disability	2,143	2,713	3,029	3,259	3,368	3,478	3,591
Other Human Services	3,002	3,392	3,578	3,720	3,825	3,930	4,040
Debt Service	1,127	1,132	1,169	1,208	1,309	1,346	1,345
All Other	4,320	4,262	4,373	4,444	4,505	4,565	4,627
Total Expenditures	**39,351**	**42,766**	**45,222**	**46,910**	**48,725**	**50,099**	**51,467**
Growth Rates							
Wages[1]		9.8%	6.5%	5.7%	3.4%	3.4%	3.4%
Pensions (SERS/PSERS)		7.5	4.1	2.9	2.9	3.0	3.4
Healthcare/Benefits[2]		3.0	22.1	4.5	4.3	3.7	3.8
Pre-K-12 Education[3]		12.5	3.6	2.6	2.4	2.1	2.1
Medical Assistance		-4.6	6.3	0.5	6.8	3.6	3.3
Long-Term Living		19.4	8.4	8.5	6.5	3.6	3.4
Intellectual Disability		26.6	11.6	7.6	3.3	3.3	3.3
Other Human Services		13.0	5.5	4.0	2.8	2.7	2.8
Debt Service		0.4	3.3	3.3	8.4	2.8	-0.1
All Other		-1.4	2.6	1.6	1.4	1.3	1.4
Total Expenditures		**8.7**	**5.7**	**3.7**	**3.9**	**2.8**	**2.7**
Extrapolators							
Employee Wages[4]		--	6.8%	6.1%	3.8%	3.8%	3.8%
Pensions (SERS)[5]		--	0.9	-3.5	-1.4	-0.1	2.4
Retiree Healthcare[6]		--	150.0	7.0	7.0	5.3	5.3
Employee Healthcare		--	3.6	2.6	2.4	2.3	2.3
Non-Personnel Expenses		--	3.6	2.6	2.4	2.3	2.3

Note: Millions of dollars.

1 Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).

2 Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits for retirees and employees.

3 Excludes department personnel expenses and the state share of PSERS funding.

4 Reflects an average employee turnover factor. Turnover factors vary by department.

5 Reflects the change in employer contributions as a share of payroll.

6 The growth rate in FY 23-24 is higher than typical due to the temporary reduction of agency and row office payments for retiree healthcare benefits in FY 22-23. Separate extrapolators are used for Pennsylvania State Police troopers, Legislature and Judiciary (not shown).

Technical Notes and Methodology

This subsection provides a brief description of the methodology used to project expenditures. Table 5.2 provides detail based on expenditure category and forecasts used to extrapolate General Fund expenditures based on economic and demographic projections from the FY 2022-23 base year through FY 2027-28. Projected expenditures are a function of (1) service populations, (2) inflation and (3) various technical factors (e.g., changes in the federal matching rate used to reimburse state Medicaid costs or a shift in expenditures between funding sources).

When possible, base year agency expenditures were disaggregated into five categories: (1) wages, (2) pensions, (3) employee healthcare and other benefits, (4) retiree healthcare and (5) other expenditures (e.g., grants and subsidies, non-personnel expenses). Those categories were forecast separately for each appropriation using the extrapolators displayed in Table 5.2 and then recombined at the agency level.

For each agency, two factors were used to extrapolate wages. The first factor is an agency-specific employee turnover rate based on data compiled by the Office of Administration (not shown). For most agencies, that factor is negative due to retirements at the upper end of the pay scale that are replaced by younger workers who earn lower wages. The second factor is a general adjustment that reflects (1) a cost-of-living increase and (2) a general step increase. The forecast assumes that the inflation-adjustment is stronger in FY 2023-24 (5.25%) and FY 2024-25 (4.5%) and then returns to a more typical rate of 2.25% in the out-years. The step increase is projected to be 2.0% per annum in all years.

The SERS pension extrapolator represents the change in pension contributions based on projected employer contributions as a share of payroll. The SERS extrapolator in Table 5.2 does not include the projected growth in payroll. Hence, the total growth in pension contributions would equal the product of the growth rates for (1) SERS contribution rates as a share of payroll and (2) wages.

The forecast assumes that payments for active employee healthcare increase at the general consumer inflation rate of 3.6% for FY 2023-24 and then returns to a more typical rate of 2.3% to 2.6% per annum for future years. The retiree healthcare extrapolator assumes that the employer contribution rate increases significantly in FY 2023-24 to fund a full year of retiree healthcare costs after temporary reductions in prior fiscal years.

Non-personnel expenses include items such as computers, office supplies and utilities. The forecast assumes those expenditures grow at the same rate as the regional CPI-U. Non-personnel expenses also include grants or subsidies made to local units and institutions. Forecasts for grants and subsidies generally assume that the relevant service population grows with demographic projections, and the average cost to provide services grows with inflation.

The remainder of this section discusses (1) the current services and cost-to-carry baselines, (2) General Fund pension costs, (3) DHS, PDE and Department of Criminal Justice (DCJ) program costs and (4) notable trends for other agencies.

Current Services Versus Cost-to-Carry Baselines

Expenditure forecasts can use various methods. A "current services" concept is shown in Tables 5.1 and 5.2 and used throughout this section. The current services concept applies inflationary or demographic adjustments to maintain the same level of real services provided to residents in the base year. An alternative method projects cost-to-carry expenditures. The cost-to-carry concept only increases funding for programs or line items that must be funded due to state or federal law, debt or pension obligations or the care of individuals under the jurisdiction of a state agency. Based on this distinction, the following items or agencies are treated the same under both concepts:

- Programs administered by DHS, DCJ and Pennsylvania State Police (PSP);
- State employee personnel costs including wages, retiree healthcare and current employee healthcare and other benefits;
- General obligation debt service funded by the General Fund;
- Pension contributions funded by the General Fund;
- Payments to school districts for partial reimbursement of school employee Social Security employer costs; and
- PlanCon reimbursements for school district construction costs.

All other programs or line items (referred to as discretionary spending) are held flat at FY 2022-23 funding levels. Those items include the basic and special education subsidies and non-personnel expenses such as office supplies, rent, utilities, furniture, computers and travel.[11]

Table 5.3 itemizes the adjustments needed to convert current services into a cost-to-carry baseline. For example, in FY 2023-24, the current services baseline includes $257 million more in basic education funding than the cost-to-carry baseline. The cost-to-carry baseline holds basic education funding flat at FY 2022-23 levels because it represents discretionary spending.

The difference between the current services and cost-to-carry baselines increases from $486 million in FY 2023-24 to $1.81 billion in FY 2027-28. From FY 2022-23 to FY 2027-28, the cost-to-carry forecast grows at an average rate of 3.0% per annum while the current services forecast grows by 3.8% per annum. The subsections that follow use the current services approach.

[11] Within the basic education subsidy, the school district Social Security portion is allowed to grow.

Table 5.3
Cost-to-Carry Versus Current Services Baseline

Fiscal Year	22-23	23-24	24-25	25-26	26-27	27-28
Current Services Baseline	**$42,766**	**$45,222**	**$46,910**	**$48,725**	**$50,099**	**$51,467**
Less increased funding for:						
Basic Education[1]	0	257	451	632	809	991
Special Education	0	49	85	119	153	187
Post-Secondary Education[2]	0	18	21	21	21	21
Other Education	0	104	183	256	328	401
PHEAA[2]	0	5	6	6	6	6
DCED[2]	0	10	18	26	33	40
Health[2]	0	6	10	14	18	22
Agriculture[2]	0	7	13	18	23	28
Other Discretionary[2]	0	30	53	75	96	117
Cost-to-Carry Baseline	**42,766**	**44,736**	**46,069**	**47,559**	**48,613**	**49,655**
Difference	**0**	**486**	**841**	**1,166**	**1,486**	**1,813**

Note: Millions of dollars.

1 Excludes the school district Social Security portion of this line item.

2 Excludes personnel expenditures.

General Fund Pensions

Combined payments to SERS and PSERS from General Fund appropriations are projected to grow from $3.73 billion in FY 2021-22 to $4.70 billion in FY 2027-28. Pension contribution projections are based on (1) growth of employer payrolls and (2) change in the employer contribution rate. The Commonwealth reimburses school districts for a portion of their employer contributions, and the PSERS projection represents the state share (approximately 57%). **Table 5.4** displays the most recent estimates for employer defined benefit contribution rates from the two pension systems.

In June 2022, the SERS Board reduced the assumed rate of investment return from 7.00% to 6.875%. The change in the assumed rate of return starts with CY 2023, and the lower rate is reflected in the forecast. No changes were made to the assumed return rate for PSERS, which remains 7.00%.

Table 5.4
Projected Employer Contribution Rate Simulation

Fiscal Year	Employer Rate		% Change in Rate	
	SERS	PSERS	SERS	PSERS
2018-19	32.93%	33.43%	-0.9%	2.6%
2019-20	33.59	34.29	2.0	2.6
2020-21	33.48	34.51	-0.3	0.6
2021-22	33.81	34.94	1.0	1.2
2022-23	34.10	35.26	0.9	0.9
2023-24	34.24	35.84	0.4	1.6
2024-25	32.99	36.33	-3.7	1.4
2025-26	32.43	36.96	-1.7	1.7
2026-27	32.28	37.45	-0.5	1.3
2027-28	32.88	37.77	1.9	0.9

Source: Rates are from information transmitted to the IFO by SERS and PSERS. Rates reflect simulations requested by the IFO which assume alternative rates of return (SERS: -10% net investment return for CY 2022; PSERS: 2.5% for FY 2022-23). These assumptions are not incorporated into employer rates to be certified by SERS or PSERS and are not endorsed by either system.

The SERS projection in **Table 5.5** represent the amounts estimated to be paid from General Fund appropriations. In addition to these appropriations, state agencies make employer contributions from other sources such as augmentations, federal funds and other state special funds.

Table 5.5
Employer Pension Contributions - State General Fund Share

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
SERS	$978	$1,020	$1,097	$1,118	$1,138	$1,175	$1,243
PSERS	2,747	2,986	3,072	3,173	3,275	3,372	3,457
Total	**3,725**	**4,006**	**4,168**	**4,291**	**4,414**	**4,547**	**4,700**
Growth Rate	12.7%	7.5%	4.1%	2.9%	2.9%	3.0%	3.4%
GF Revenue Share	8.4%	9.2%	9.3%	9.4%	9.4%	9.4%	9.5%

Note: Millions of dollars.

Table 5.5 also projects the share of General Fund revenue needed to support the state's pension obligations. The FY 2021-22 budget includes $3.8 billion in revenue from the American Rescue Plan (ARP) Act that is not included in the General Fund revenue base. The share of General Fund revenues used for pension costs is projected to be 9.2% in FY 2022-23 and reach 9.5% by FY 2027-28.

Human Services

For FY 2022-23, General Fund appropriations for the Department of Human Services (DHS) total $18.05 billion. State special funds, augmenting revenues and federal funds provide additional support. While General Fund appropriations are the primary focus of the analysis, those appropriations will fluctuate in response to the availability of funds from other sources. For example, the General Fund may pick up the difference if a special fund, such as the Lottery Fund or the Tobacco Settlement Fund, cannot maintain its current level of support.

For FY 2022-23, base year appropriations for DHS are $1.54 billion higher than the prior fiscal year. (See **Table 5.6**.) This funding level does not reflect all actual program costs due to the use of nearly $1.30 billion in temporary or one-time sources to manage current year appropriations. For example, FY 2022-23 expenditures are offset by the pandemic-related enhanced FMAP used to reimburse states for Medicaid program costs. FY 2023-24 expenditures are expected to increase by 7.8% due to the elimination of the enhanced FMAP and the long-term growth trend. By FY 2027-28, the forecast projects that General Fund expenditures will be $22.92 billion, an average increase of 4.2% per annum after FY 2023-24.

The provision of Medicaid services comprises the largest share of expenditures for DHS. Medicaid is a joint state/federal program that plays an important role in the provision of (1) physical and behavioral healthcare services to eligible low-income individuals and families and (2) home and community-based and long-term care services to eligible residents who have physical or cognitive disabilities. Medicaid services are provided through various programs grouped under the Medical Assistance (MA), Long-Term Living (LTL) and Intellectual Disabilities (ID) categories. These program categories comprise nearly 80% of DHS General Fund expenditures, and the forecast projects that they will increase at an average rate of 4.5% per annum from FY 2023-24 to FY 2027-28.

Two general factors that impact the forecast are identified in the following bullets. Specific factors that affect expenditure projections for FY 2022-23 and beyond are discussed in the paragraphs that follow.

- The projections assume costs per enrollee for MA and LTL will increase by 3.7% per annum. These rates are motivated by inflation.
- Increases in the service population track the growth in the age 60 or older population (1.2% per annum) for LTL programs, while the service population for the ID program remains flat. Enrollment for MA is assumed to decline approximately 13% after the termination of the COVID-19 public health emergency, then remain flat for the remainder of the forecast period.

Table 5.6
General Fund Expenditures - Department of Human Services

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Wages[1]	$328	$413	$440	$466	$482	$500	$518
Pensions	162	118	127	129	132	137	145
Retiree Healthcare	23	24	61	65	70	74	77
Employee Healthcare[2]	170	118	123	126	129	132	135
All Other							
Medical Assistance	6,157	5,872	6,239	6,270	6,699	6,939	7,171
Long-Term Living	4,518	5,394	5,847	6,345	6,759	7,005	7,245
Intellectual Disabilities	2,143	2,713	3,029	3,259	3,368	3,478	3,591
Human Services Programs	1,427	1,611	1,714	1,802	1,858	1,914	1,974
Mental Health	698	730	775	803	830	858	886
Child Development	462	515	532	544	552	560	568
Income Maintenance	223	277	287	295	302	309	316
Human Services Support	145	164	171	175	179	184	188
Children's Health Insurance	46	95	99	101	104	106	108
Total	**16,504**	**18,045**	**19,444**	**20,381**	**21,464**	**22,194**	**22,923**
Growth Rate	21.2%	9.3%	7.8%	4.8%	5.3%	3.4%	3.3%

Note: Millions of dollars.

1 Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).

2 Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.

Appropriations from the Lottery Fund and the Tobacco Settlement Fund supplement General Fund expenditures for MA and LTL programs. The Lottery Fund is projected to supply $322 million for DHS expenditures in FY 2023-24 and remain at that level through FY 2027-28. The Tobacco Settlement Fund is projected to supply $266 million in FY 2022-23 and remain at that level through FY 2027-28. See the Appendix for additional information regarding these special fund forecasts.

Support for MA and LTL programs is derived from augmenting revenues from various assessments (e.g., MCOs, hospitals and nursing facilities). These assessments expire at various points prior to the end of the forecast period in this report, but the analysis assumes that they are extended. The forecast further assumes that the augmenting facility assessments, along with the corresponding federal matching revenues, supply the same share of funding for total DHS expenditures as supplied in the base year.

Specific factors that affect DHS expenditures for the current fiscal year and forecast period are as follows:

- Use of a temporary enhanced FMAP for Medicaid program costs. Due to the COVID-19 pandemic, the federal government allows a higher matching rate to state funds. The enacted budget assumed $1.26 billion in additional federal funds to offset Medicaid costs from July to December 2022. These funds will need to be replaced with additional state funds in FY 2023-24, assuming the enhanced federal matching rate is not extended.

- Extension of enhanced FMAP in current fiscal year. The administration's Fall Update recommends reducing DHS appropriations by $1.31 billion for FY 2022-23. A primary reason for the reduction is the extension of the enhanced FMAP through the third quarter of the fiscal year. The administration's updated estimates also account for changes in program enrollment, utilization and assessment revenues.
- Declines in MA enrollment from the termination of the enhanced FMAP. The forecast assumes that enrollment declines by approximately 13% once the public health emergency ends. The redetermination process is assumed to begin in the last quarter of FY 2022-23 with the bulk of the disenrollment occurring throughout FY 2023-24. Most individuals expected to be disenrolled fall into the newly eligible category (90% FMAP) while the remainder are families and children (traditional FMAP).
- Enrollment increases in other MA and related programs. As MA enrollment declines, CHIP enrollment returns to historical levels as families move off MA and back to CHIP. The redetermination process is expected to increase enrollments in other MA programs as well, such as Medical Assistance for Workers with Disabilities.
- Changes in the federal matching rate used to reimburse state costs for Medicaid and Title IV-E foster care and adoption assistance. The blended FMAP increases significantly from 52.17 in FY 2022-23 to 53.59 in FY 2023-24, which increases the level of federal funds available to offset state program costs in the budget year. The projections assume that Pennsylvania's FMAP returns to a more traditional blended rate of 52.25 by FY 2025-26, which reduces federal reimbursements and increases state program costs after FY 2023-24.
- Enacted funding for provider rate and fee increases. The forecast reflects enacted fee increases for ambulance services as well as provider rate increases for MA and long-term living programs. These include a 17.5% nursing facility rate increase and provider rate increases for physical health, behavioral health, CHC and the LIFE program effective January 2023. The nursing facility rate increase will assist long-term care providers to meet new staffing requirements that take effect in CY 2023.
- Expiration of the additional 10% federal match for home and community-based programs. Beginning in FY 2024-25, it is projected that approximately $330 million in program costs will shift to state funds due to the expiration of the pandemic-related enhanced FMAP for home and community-based services.

Education

The Pennsylvania Department of Education (PDE) provides resources, support and oversight for the state's 500 school districts and post-secondary institutions including: 10 universities (across 14 campuses) within the Pennsylvania State System of Higher Education (PASSHE), 15 community colleges and 4 state-related universities. PDE appropriations can be separated into three broad categories: (1) Pre-K to Grade 12, (2) Post-Secondary and (3) other. The text that follows provides brief descriptions of the two largest categories (Pre-K to Grade 12 and Post-Secondary). The other category includes general government operations and libraries and comprises less than 1% of PDE General Fund expenditures.

For FY 2022-23, PDE's total appropriation is $16.61 billion, a $1.68 billion (11.3%) increase from the prior fiscal year, primarily due to increased state funding for the basic education subsidy, school employees retirement and new level-up supplement line items. (See **Table 5.7**.) The forecast projects that expenditures will increase to $18.74 billion (2.4% per annum) by FY 2027-28.

Pre-K to Grade 12

Most PDE appropriations (approximately 90%) are dedicated for Pre-K to Grade 12. For FY 2022-23, Pre-K to Grade 12 appropriations are $15.00 billion, $1.57 billion (11.7%) higher than FY 2021-22 appropriations. These amounts include the basic education and special education subsidies, the state share of school employees' retirement contributions, pupil transportation, school employees' Social Security, early intervention, level-up supplement, Ready to Learn Block Grant, Authority Rentals and Sinking Fund and other miscellaneous expenditures.[12] From FY 2022-23 to FY 2027-28, Pre-K to Grade 12 expenditures generally expand at the rate of inflation with slightly higher growth in Public School Employees' Retirement (3.0% per annum) and nearly flat growth for the Authority Rentals and Sinking Fund line item.

Post-Secondary

For FY 2022-23, PDE's post-secondary appropriations are $1.49 billion, an increase of $91 million (6.5%) from FY 2021-22. These amounts comprise roughly 9% of total PDE expenditures and include state-owned and state-related universities, community colleges and the Thaddeus Stevens College of Technology. Due to demographic trends and fewer young adults attending traditional post-secondary school, student enrollments are expected to decline. The forecast projects that post-secondary expenditures increase modestly to $1.52 billion (0.3% per annum) by FY 2027-28 as the impact of inflation is largely offset by reduced enrollments.

[12] The Authority Rentals and Sinking Fund appropriation, also known as PlanCon, provides funds to reimburse school districts for school construction costs. The appropriation also supports annual charter school lease reimbursements.

Table 5.7
General Fund Expenditures - Department of Education

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Pre-K to Grade 12							
Basic Education Subsidy[1]	$6,555	$7,080	$7,337	$7,531	$7,712	$7,890	$8,071
School Employees' Retirement	2,747	2,986	3,072	3,173	3,275	3,372	3,457
Special Education Subsidy	1,237	1,337	1,385	1,422	1,456	1,490	1,524
Pupil Transportation	479	603	625	641	657	672	687
School Employees' Social Sec.[1]	596	614	630	641	650	660	670
Early Intervention	337	347	359	369	377	386	395
Level-up Supplement	0	225	233	239	245	251	256
Ready To Learn Block Grant	288	396	410	421	431	441	451
Authority Rentals & Sinking Fund	201	212	217	217	230	216	206
All Other[2]	989	1,202	1,246	1,280	1,310	1,341	1,372
Total Pre-K to Grade 12	**13,428**	**15,001**	**15,515**	**15,934**	**16,344**	**16,717**	**17,088**
Post-Secondary							
State-Related Universities	597	597	604	606	606	606	606
Community Colleges[3]	306	320	324	325	325	325	325
PASSHE-State Universities	477	552	559	560	560	560	560
Thaddeus Stevens Coll. of Tech.	19	19	20	20	20	20	20
Other Post-Secondary	3	5	5	5	5	5	5
Total Post-Secondary	**1,403**	**1,494**	**1,512**	**1,515**	**1,515**	**1,515**	**1,515**
General Government Operations[4]	34	40	43	44	45	47	48
Libraries[5]	67	78	81	84	86	88	90
Grand Total	**14,933**	**16,613**	**17,150**	**17,577**	**17,990**	**18,367**	**18,741**
Growth Rate	4.0%	11.3%	3.2%	2.5%	2.3%	2.1%	2.0%

Note: Millions of dollars.

1 The school district Social Security subsidy is excluded from the basic education subsidy line and included in the school employees' Social Security line.

2 Includes Pre-K Counts, special education-approved private schools, services to nonpublic schools, nonpublic and charter school pupil transportation and other line items.

3 Includes community colleges, transfer to Community College Capital Fund, Northern PA Regional College and regional community colleges.

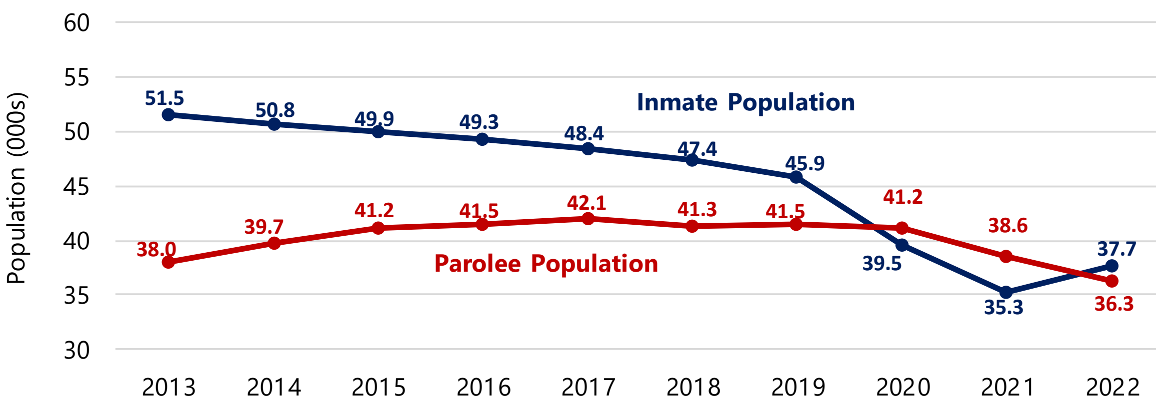
4 Includes the General Government Operations and Information and Technology Improvement line items.

5 Includes library services for the disabled, public library subsidy, library access and state library.

Criminal Justice

The Department of Criminal Justice (1) provides for the care and supervision of all offenders under its jurisdiction and (2) ensures citizen safety through careful selection of offenders who qualify for parole and their re-entry into society. **Figure 5.1** displays a time series of inmates and parolees under the jurisdiction of DCJ. From CY 2013 to CY 2019, the inmate population decreased at a rate of 1.9% per annum, while the parolee population expanded at a rate of 1.5% per annum. These trends were motivated by structural and data-driven changes implemented by the Justice Reinvestment Initiative, which diverted technical parole violators (TPVs) from state prisons to contracted county jails and community corrections centers. In CY 2020 and CY 2021, the prison population fell dramatically due to various factors related to the COVID-19 pandemic, including court closures and increased diversion of offenders from prison. There were 35,286 inmates at the end of CY 2021, a decrease of 10,589 inmates (-23.1%) from the end of CY 2019. Through August, the CY 2022 inmate population increased from the prior year but remains significantly below historical levels. Prior to CY 2020, the last time that the inmate population was below 40,000 was in CY 2002.

Figure 5.1
Department of Criminal Justice Population Over Time



Note: Parolee population is reported on a fiscal year basis.
Source: Pennsylvania Department of Criminal Justice.

For FY 2022-23, total General Fund appropriations for DCJ are $2.73 billion, $63 million (2.3%) more than FY 2021-22. Most of the increase is attributable to State Correctional Institutions, which increased by $44 million (2.1%) from FY 2021-22. In general, line items received moderate increases in FY 2022-23 that are comparable to years prior to FY 2020-21 and FY 2021-22, when General Fund appropriations were impacted by federal funding in response to the COVID-19 pandemic.

Table 5.8 displays expenditures for DCJ. For FY 2022-23 to FY 2027-28, the forecast projects that DCJ expenditures will grow at an average rate of 4.2% per annum. The annual average growth rate increases by 0.9 percentage points due to unusually strong growth for FY 2023-24, largely due to inflationary adjustments (e.g., employee compensation) and a significant increase for retiree healthcare (similar to other agencies). After that year, expenditures grow at an average rate of 3.3% per annum.

Table 5.8
General Fund Expenditures - Department of Criminal Justice

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Wages[1]	$1,304	$1,327	$1,408	$1,483	$1,529	$1,577	$1,626
Pensions	425	434	464	472	479	494	521
Retiree Healthcare	51	51	127	136	146	153	162
Employee Healthcare[2]	255	260	270	277	284	290	297
Inmate Medical Care[3]	208	209	216	222	227	233	238
All Other	427	452	468	480	492	503	515
Total	**2,670**	**2,732**	**2,953**	**3,070**	**3,157**	**3,250**	**3,358**
Growth Rate	88.7%	2.3%	8.1%	4.0%	2.8%	2.9%	3.3%

Note: Millions of dollars.

1 Includes wages, salaries, bonuses and payroll taxes (Medicare and Social Security).

2 Includes all non-pension benefits such as health and life insurance and other miscellaneous benefits.

3 Excludes personnel costs.

All Other Expenditures

The forecasts for all other agencies use the extrapolators shown in Table 5.2. For FY 2022-23, total General Fund appropriations for other agencies grow by 2.5%. (See **Table 5.9.**) For FY 2022-23, notable results include:

- Department of Community and Economic Development (DCED) appropriations grow $123 million (+63.3%) due to three new appropriations for Community and Economic Assistance (+$66.7 million), Workforce Development (+$5.0 million) and Invent Penn State (+$2.4 million).
- PSP appropriations grow $107 million (16.8%) due to a decline in Motor License Fund (MLF) support that is absorbed by the General Fund.
- Executive offices appropriations decline $330 million (-62.0%) due to a large one-time appropriation in FY 2021-22 to repay prior year transfers from the Workers' Compensation Security Fund ($350 million).
- All other agency appropriations increase $230 million (5.9%) due to increased appropriations for the Department of Agriculture (+$52 million), Pennsylvania Higher Education Assistance Agency (PHEAA, +$45 million) and Department of Military and Veterans Affairs (+$37 million).

For FY 2022-23 to FY 2027-28, General Fund appropriations for most agencies listed in Table 5.9 are projected to grow between 2.9% to 4.6% per annum. Notable exceptions include:

- PSP appropriations are projected to increase $195 million (4.8% per annum) by FY 2027-28. The projection assumes annual MLF support for PSP expenditures will remain capped at $500 million. As a result, the General Fund absorbs future growth in PSP costs.

- PHEAA is projected to modestly increase $6 million (0.3% per annum) due to the declining college population nearly offsetting projected inflationary increases.
- Department of Conservation and Natural Resources (DCNR) expenditures are projected to grow $36 million (4.3% per annum) from FY 2022-23 through FY 2027-28. The forecast assumes that the Oil and Gas Lease Fund (OGLF) supports $50 million in annual appropriations for DCNR operations from FY 2023-24 through FY 2027-28. Recent natural gas price increases are projected to yield significantly higher OGLF royalty revenues over the forecast period. As a result, the OGLF ending balance is projected to build a substantial surplus totaling $285 million by FY 2027-28. Any future OGLF surplus could be used to fund new programs or to offset General Fund expenditures. See the Other Funds subsection in the Appendix for more information.

Table 5.9
General Fund Expenditures - All Other Agencies

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Treasury	$1,174	$1,181	$1,223	$1,264	$1,367	$1,406	$1,408
State Police	636	743	804	844	871	900	937
Legislature[1]	428	441	468	491	507	525	545
PHEAA	369	414	419	420	420	420	420
Judiciary	356	362	385	403	416	431	449
Community & Economic Dev.	194	317	330	340	349	357	366
Health	210	224	238	246	253	260	267
Executive Offices	533	203	214	222	228	235	242
Agriculture	175	226	237	244	250	256	263
Military & Veterans Affairs	161	198	214	223	231	238	246
Revenue	195	197	212	220	226	233	241
Environmental Protection	169	183	199	207	214	221	229
Cons. & Natural Resources	139	152	164	170	176	181	188
All Others[2]	508	533	567	588	606	624	644
Total	**5,245**	**5,375**	**5,675**	**5,882**	**6,114**	**6,288**	**6,445**
Growth Rate	13.4%	2.5%	5.6%	3.7%	3.9%	2.9%	2.5%

Note: Millions of dollars.

1 Includes government support agencies.

2 Includes all other agencies not listed above with the exception of PDE, DHS and DCJ.

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Fiscal Outlook

This report provides an assessment of the Commonwealth's fiscal outlook based on projected demographic and economic trends. To facilitate that assessment, **Table 6.1** combines the revenue and expenditure projections from previous sections to identify any potential long-term structural imbalance over the forecast period.[13] The IFO's previous long-term assessment (November 2021) identified an approximate $1.7 billion structural deficit by the end of the five-year forecast window (FY 2026-27). For this update, the long-term structural deficit is roughly $3.1 billion by the end of the forecast horizon (FY 2027-28). In the current fiscal year, the use of federal relief funds (e.g., enhanced FMAP) to offset state expenditures produces a temporary budget surplus. Over the forecast period, increased state spending and tax cuts (expanded tax credits and reduction of the CNIT rate) increase the size of the annual structural imbalance compared to the IFO's prior year report. The FY 2022-23 projected ending balance ($6.68 billion) is sufficient to offset projected budget deficits through FY 2025-26 (residual deficit of $0.16 billion), but the full $3.0 billion deficit for FY 2026-27 remains. (Note: The Budget Stabilization Reserve Fund Balance of $4.99 billion is excluded from the balance sheet, but if used, could offset all but $1.3 billion of the projected deficits through FY 2027-28.)

Table 6.1
General Fund Financial Statement

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Beginning Balance[1]	$4	$5,537	--	--	--	--	--
Current Year Revenues	48,134	43,686	$44,850	$45,804	$46,921	$48,339	$49,606
Less Refund Reserve	-1,420	-1,220	-1,300	-1,325	-1,350	-1,375	-1,400
Net Revenue	46,714	42,466	43,550	44,479	45,571	46,964	48,206
State Expenditures[2]	-39,351	-42,766	-45,222	-46,910	-48,725	-50,099	-51,467
Current Year Balance	7,367	-300	-1,672	-2,431	-3,155	-3,135	-3,261
Reduced Spending[3]	0	1,302	0	0	0	0	0
Adjustment for Lapses[4]	-1,830	140	140	140	140	140	140
Preliminary Ending Balance	**5,537**	**6,680**	**-1,532**	**-2,291**	**-3,015**	**-2,995**	**-3,121**

Note: Millions of dollars. Excludes the Budget Stabilization Reserve Fund Balance of $4.99 billion.

1 Beginning balance omitted for FY 23-24 and thereafter.

2 Based on appropriations. Includes current year lapses and approved supplemental appropriations.

3 Reflects the administration's recommended changes to enacted General Fund appropriations.

4 Prior year lapses and actual transfers to the Budget Stabilization Reserve Fund.

[13] A long-term structural imbalance is an imbalance that remains after unusual economic conditions or other factors (e.g., one-time revenue transfers) are no longer relevant or available.

From FY 2022-23 to FY 2027-28, average expenditure growth (3.8% per annum) significantly exceeds average revenue growth (2.6%). Major factors that motivate these trends include:

- By FY 2027-28, revenues are reduced by $1.58 billion for tax credits enacted or expanded in conjunction with the FY 2022-23 state budget ($202 million) and CNIT rate reduction/base expansion ($1.37 billion).
- Strong wage gains and historic levels of net profits that boosted revenues for TY 2021 and TY 2022 revert to levels more consistent with recent historical values relative to the size of the overall economy. (Although some gains e.g., increases in worker productivity, are assumed permanent.)
- DHS expenditures grow at an average rate of 4.9% per annum from FY 2022-23 to FY 2027-28. Factors that affect DHS program costs over this time include (1) the expiration of federal COVID-relief in the form of the 6.2% enhanced FMAP used to offset state Medicaid costs, (2) provider rate and fee increases, (3) changes in the regular FMAP rate used to reimburse state Medicaid and Title IV-E foster care and adoption assistance, and (4) the expiration of the additional 10% federal match for home and community-based services in FY 2024-25. The temporary enhanced federal matching rate that provides approximately $1.85 billion in additional federal funds to offset Medicaid costs in the current fiscal year is assumed to expire at the end of March 2023. In FY 2023-24, additional state funds are needed to absorb these costs.
- Relatively high rates of inflation increase costs related to agency programs and operations, including employee salaries and benefits. Those costs are carried forward to future years, but growth rates moderate due to lower inflation adjustments.

Expenditure growth exceeds historical averages for FY 2023-24 and FY 2024-25 and outpaces revenue growth as revenues partially revert to an historical share of state GDP, driving the projected deficit to $3.01 billion for FY 2025-26. By FY 2026-27, revenue and expenditure growth rates are similar and future deficits remain at roughly $3.00 billion. As noted, the forecast assumes that the Pennsylvania economy operates at its long-term potential (i.e., full employment) with moderate inflation (2.3%) and a recession does not occur.

Appendix

Demographics

The table that follows is from an IFO report titled *Pennsylvania Demographic Outlook* (October 2022). That report used data from the U.S. Census Bureau and Centers for Disease Control and Prevention (CDC). However, all demographic projections are by the IFO.

Table A.1
Pennsylvania Population Projections 2020 to 2030

Age	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	696	681	674	667	663	659	662	659	656	653	650
5-9	737	735	731	725	716	705	689	681	674	670	667
10-14	788	778	766	753	746	743	740	736	731	721	710
15-19	823	820	819	819	815	809	800	788	775	768	764
20-24	794	793	803	814	820	818	815	812	812	808	803
25-29	838	823	806	790	780	780	786	796	806	811	810
30-34	873	879	879	873	861	844	825	808	792	782	782
35-39	822	831	838	847	861	872	877	877	871	860	842
40-44	757	775	790	802	811	818	826	833	843	856	867
45-49	767	736	724	725	734	748	765	780	792	800	807
50-54	840	835	821	801	776	749	719	708	709	718	731
55-59	920	895	870	845	823	810	806	793	774	750	724
60-64	917	917	909	897	887	873	850	827	804	783	770
65-69	789	805	823	839	849	853	856	849	838	829	816
70-74	630	660	659	674	693	714	732	749	764	773	777
75-79	419	425	468	489	514	540	569	569	581	598	616
80-84	278	282	292	309	320	327	334	369	386	405	425
85-89	176	175	177	180	182	184	187	195	207	214	218
90-94	90	85	83	80	78	77	78	78	80	80	81
95-99	29	28	29	29	28	27	26	25	24	24	23
100+	5	5	6	8	9	10	11	12	13	13	14
Total	**12,990**	**12,964**	**12,965**	**12,966**	**12,965**	**12,960**	**12,954**	**12,944**	**12,932**	**12,916**	**12,897**

Note: Thousands of residents.

Source: Data are projections by the IFO using data from the U.S. Census and U.S. CDC.

Economics

The economic forecast used for this report follows the general methodology used by the U.S. Congressional Budget Office (CBO). The approach is a simplified "growth accounting" framework, where real economic output or Gross Domestic Product (GDP) is equal to the product of (1) growth in employment and (2) growth in average worker output, also known as labor productivity. For example, if the number of individuals employed grows by 1.0 percentage point and the average productivity of all workers grows by 0.5 percentage points, then real economic growth would equal (1.01) * (1.005) - 1.0, or 1.5%. Hence, an increase (decrease) in employment growth or labor productivity will translate into higher (lower) economic growth.

The state economic forecast is built upon four basic assumptions. They are as follows:

- Over several years, the Federal Reserve achieves its target inflation rate of 2.0%, as measured by the personal consumption expenditures price index. Based on historical trends, the more widely used consumer price index (CPI-U) would increase at a slightly faster pace, and the analysis assumes that rate is 2.3%.
- The Philadelphia CPI-U grows at the same rate as the U.S. CPI-U.
- Statewide labor productivity reverts to a historical average and is consistent with U.S. projections.
- The average worker's wage grows by inflation plus a modest premium that is consistent with historical trends for the U.S. and Pennsylvania.

The economic forecast is somewhat different than forecasts typically issued by government entities or private firms. The forecast assumes that certain economic variables revert to historical rates of growth that are consistent with (1) forecasts for the U.S. economy and (2) demographic projections by the IFO. The main purpose of the forecast is to serve as a neutral benchmark against which policymakers could assess the sustainability of fiscal policies over a five-year time horizon. Therefore, the economic forecast employs a simple methodology and does not attempt to capture the many intricacies of the Pennsylvania economy that may ultimately drive economic growth.

The model first establishes the real growth rate of the Pennsylvania economy, which is a function of employment growth and labor productivity. Prior to 2020, the Pennsylvania economy generated an average of 50,000 net jobs per year. The forecast assumes a moderate reduction in that trend through 2027. This assumption yields an upward trend in the employment to population ratio, which is consistent with recent historical data. (See **Table A.2**.) This trend is also consistent with the assumption of higher labor force participation rates. The middle of Table A.2 displays the average output per worker, and the growth in that metric, which may also generally be viewed as labor productivity. For 2019, the average worker produced $117,900 of real output or production. The forecast assumes that labor productivity greatly accelerated in 2020 and reverts to a historical rate of growth of roughly 1.1% per annum. The employment and worker productivity forecasts yield real economic growth of roughly 1.8% per annum.

The bottom of Table A.2 displays the forecast for the Philadelphia CPI-U. As noted, the forecast assumes that the regional inflation measure follows the level and trends of the national inflation forecast. The CBO forecast assumes that the national CPI-U will increase at an average rate of 2.3% per annum from 2023 to 2028, the same rate assumed by this forecast.

The final primary economic variable is total wages and salaries paid to workers. The Pennsylvania forecast assumes that wages for the average worker will increase by the rate of inflation, plus a modest premium so that the purchasing power of those wages increases over time. For this analysis, that premium ranges from 0.6 to 0.8% per annum. The CBO forecast also includes a premium for U.S. workers, and the premium generally ranges from 1.0 to 1.2% per annum. The Pennsylvania premium is consistent with historical state trends.

Given these assumptions, the average wage for all workers increases by roughly 3.2% per annum. If employment expands by 0.7% per annum, then total wages paid to all workers will increase by the product of those growth rates, or roughly 3.9% per annum.

Table A.2
Pennsylvania Economic Variables

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Payroll Employment[1]	5,789	5,835	5,883	5,941	6,010	6,066	5,605	5,750	5,930	5,930	5,960	5,999	6,041	6,083	6,126
Change	48.0	46.8	47.5	58.4	68.6	56.1	-461.1	145.5	180.0	0.0	29.7	38.7	42.0	42.3	42.6
Growth Rate	0.8%	0.8%	0.8%	1.0%	1.2%	0.9%	-7.6%	2.6%	3.1%	0.0%	0.5%	0.6%	0.7%	0.7%	0.7%
Residents: Age 20 to 69[1]	8,649	8,669	8,686	8,655	8,647	8,630	8,647	8,618	8,589	8,562	8,527	8,487	8,445	8,398	8,351
Employ / Population	0.669	0.673	0.677	0.686	0.695	0.703	0.648	0.667	0.690	0.693	0.699	0.707	0.715	0.724	0.734
Avg. Output per Worker[1]	$115.7	$117.0	$117.0	$117.0	$117.1	$117.9	$121.5	$123.6	$121.8	$121.8	$122.7	$123.9	$125.2	$126.6	$128.0
Growth Rate	1.2%	1.1%	0.0%	0.0%	0.2%	0.6%	3.1%	1.8%	-1.5%	0.0%	0.7%	1.0%	1.1%	1.1%	1.1%
Real GDP[2]	$669.6	$682.5	$688.4	$694.9	$704.0	$715.1	$681.0	$711.0	$722.3	$722.3	$731.0	$743.2	$756.6	$770.3	$784.2
Growth Rate	2.1%	1.9%	0.9%	0.9%	1.3%	1.6%	-4.8%	4.4%	1.6%	0.0%	1.2%	1.7%	1.8%	1.8%	1.8%
Philadelphia CPI-U	244.1	243.9	245.3	248.4	251.6	256.6	258.9	269.4	290.7	303.7	312.2	320.0	327.4	334.9	342.6
Growth Rate	1.3%	-0.1%	0.6%	1.3%	1.3%	2.0%	0.9%	4.0%	7.9%	4.5%	2.8%	2.5%	2.3%	2.3%	2.3%
Wages-Salaries[2]	$296.4	$308.4	$312.7	$325.3	$339.3	$354.1	$353.5	$378.9	$410.7	$430.1	$448.6	$466.4	$484.7	$503.8	$523.5
Average Wage[1]	$51.2	$52.8	$53.2	$54.8	$56.5	$58.4	$63.1	$65.9	$69.3	$72.5	$75.3	$77.8	$80.2	$82.8	$85.5
Growth Rate	3.0%	3.2%	0.6%	3.0%	3.1%	3.4%	8.0%	4.5%	3.6%	3.2%	3.0%	3.0%	3.1%	3.1%	3.1%

1 Thousands of units or dollars.

2 Billions of dollars.

Revenues

Table A.3
General Fund Revenues

FY Ending	Amounts ($ millions) Corporate Net Income	Other Corporate	Sales and Use	Personal Income	All Other	General Fund	Share of GDP
2011	$2,132	$2,761	$8,590	$10,436	$3,578	$27,497	4.47%
2012	2,022	2,941	8,772	10,801	3,141	27,678	4.35
2013	2,423	2,766	8,894	11,371	3,192	28,647	4.35
2014	2,502	2,397	9,130	11,437	3,142	28,607	4.20
2015	2,811	2,305	9,493	12,107	3,875	30,593	4.34
2016	2,842	2,295	9,795	12,506	3,463	30,902	4.29
2017	2,751	2,030	10,004	12,664	4,219	31,669	4.30
2018	2,879	2,010	10,381	13,399	5,898	34,567	4.55
2019	3,398	2,113	11,100	14,096	4,152	34,858	4.43
2020	2,827	2,012	10,818	12,835	3,784	32,276	4.11
2021	4,424	1,910	12,835	16,283	4,940	40,392	5.00
2022	5,323	1,994	13,914	18,126	8,777	48,134	5.45
2023	5,170	2,044	13,837	17,539	5,098	43,686	4.63
2024	5,002	2,082	14,213	18,361	5,192	44,850	4.57
2025	4,749	2,063	14,631	19,141	5,219	45,804	4.48
2026	4,627	2,066	15,078	19,932	5,218	46,921	4.41
2027	4,542	2,085	15,523	20,914	5,276	48,339	4.36
2028	4,479	2,107	15,972	21,652	5,397	49,606	4.30
Average Annual Growth Rates							
2011 to 2022	8.7%	-2.9%	4.5%	5.1%	8.5%	5.2%	--
2022 to 2028	-2.8%	0.9%	2.3%	3.0%	-7.8%	0.5%	--

Note: GDP is nominal GDP and includes inflation.

Source: Executive Budget, various years. Projections by IFO.

Expenditures

Table A.4
General Fund Expenditures

FY Ending	Amount ($ millions) PDE[1]	DHS	Criminal Justice[2]	Treasury	All Other	General Fund	Share of GDP
2011[3]	$10,455	$8,780	$1,663	$1,023	$3,146	$25,067	4.08%
2012	10,491	10,495	1,856	1,090	3,099	27,031	4.25
2013	10,967	10,623	1,867	1,139	3,121	27,717	4.21
2014	11,114	11,045	1,998	1,117	3,121	28,395	4.17
2015	11,564	11,362	2,134	1,144	2,949	29,153	4.14
2016	12,103	11,517	2,402	1,177	2,927	30,127	4.18
2017	12,801	12,380	2,564	1,171	3,027	31,942	4.34
2018	13,243	12,151	2,438	1,121	2,995	31,948	4.20
2019	13,748	12,802	2,562	1,165	3,125	33,402	4.24
2020[3]	14,378	12,593	2,616	1,197	3,306	34,090	4.34
2021[3]	14,356	13,615	1,415	1,190	3,437	34,013	4.21
2022	14,933	16,504	2,670	1,174	4,071	39,351	4.45
2023	16,613	18,045	2,732	1,181	4,193	42,766	4.53
2024	17,150	19,444	2,953	1,223	4,452	45,222	4.60
2025	17,577	20,381	3,070	1,264	4,618	46,910	4.59
2026	17,990	21,464	3,157	1,367	4,747	48,725	4.58
2027	18,367	22,194	3,250	1,406	4,882	50,099	4.52
2028	18,741	22,923	3,358	1,408	5,038	51,467	4.46
Average Annual Growth Rates							
2011 to 2022	3.3%	5.9%	4.4%	1.3%	2.4%	4.2%	--
2022 to 2028	3.9%	5.6%	3.9%	3.1%	3.6%	4.6%	--

Note: GDP is nominal GDP and includes inflation.

1 Includes State System of Higher Education and Thaddeus Stevens College of Technology.

2 Prior to FYE 2017, Criminal Justice excludes the Board of Probation and Parole.

3 Excludes expenditures supported by funds provided under the American Recovery and Reinvestment Act of 2009 (ARRA), the Family First Coronavirus Response Act of 2020 and the Coronavirus Aid, Relief, and Economic Security Act of 2020 (CARES Act).

Source: Executive Budget, various years. Projections by IFO.

Other Funds

In addition to the General Fund, the Commonwealth maintains numerous special funds dedicated to specific purposes. In general, this report does not address those funds; however, three special funds have implications for General Fund expenditures. For recent fiscal years, General Fund appropriations for the Departments of Human Services and Conservation and Natural Resources have been supplemented by the Lottery Fund (Human Services), the Tobacco Settlement Fund (Human Services) and the Oil and Gas Lease Fund (Conservation and Natural Resources). **Table A.5** displays a history and forecast for special funds that augment General Fund expenditures.

Table A.5
Other Fund Disbursements to Offset General Fund Expenditures

Fiscal Year	Lottery[1]	Tobacco[2]	Oil & Gas[3]	Total
2010-11	$178	$228	$24	$430
2011-12	178	290	60	528
2012-13	309	255	68	632
2013-14	330	256	102	688
2014-15	477	326	132	935
2015-16	310	284	86	680
2016-17	308	297	50	655
2017-18	253	303	58	614
2018-19	372	291	48	710
2019-20	338	290	70	698
2020-21	442	271	49	762
2021-22	352	306	48	706
2022-23	353	349	56	758
2023-24	322	296	50	668
2024-25	322	296	50	668
2025-26	322	296	50	668
2026-27	322	296	50	668
2027-28	322	296	50	668

Note: Millions of dollars.

1 Includes MA Long-Term Care, Home and Community-Based Services, Community HealthChoices and MA Transportation.

2 Includes MA for Workers with Disabilities, Long-Term Care, Home and Community-Based Services, Community HealthChoices and Uncompensated Care.

3 Includes General Government, State Parks and State Forests Operations.

Due to the interaction between these special funds and certain General Fund appropriations, this Appendix projects revenues and expenditures for the Lottery Fund, Tobacco Settlement Fund and Oil and Gas Lease Fund for FY 2022-23 to FY 2027-28. These forecasts inform the projection of General Fund appropriations found in the main body of the report. Unless otherwise noted, if special funds cannot sustain the same level of funding provided in prior years, the analysis assumes that future General Fund appropriations will increase to make up the difference.

Lottery Fund

Most Lottery Fund revenues support programs that address the needs of a growing elderly population in Pennsylvania. The Departments of Human Services, Revenue and Transportation receive General Fund and Lottery Fund appropriations. Lottery monies fund most of the budget for the Department of Aging, and that agency does not receive any state General Fund appropriations.

For FY 2021-22, net Lottery Fund revenues ($2.10 billion) exceeded expenditures ($2.00 billion) to extend the fund's ending balance to $150 million (after accounting for the $75 million reserves within the fund). (See **Table A.6**.) The forecast assumes that the Lottery Fund will absorb $353 million of DHS program costs in FY 2022-23 and $322 million per annum in FY 2023-24 through FY 2027-28. Combined with higher revenues, these assumptions allow the Lottery Fund to generate a $59 million ending balance for FY 2022-23, while maintaining the fund's traditional $75 million reserve. Annual budget shortfalls in future fiscal years are offset by the projected ending balance in FY 2022-23.

Gross ticket sales are projected to grow at an average rate of 3.2% per annum from FY 2022-23 to FY 2027-28:

- Instant ticket sales grow by 3.7% per annum, as the model projects negative annual growth for FY 2022-23 (-2.9%) to account for a weakening overall economy, followed by moderate growth in the out-years due to increased nominal income.
- Multi-state Lottery sales are primarily driven by large jackpots and grow at an average rate of 2.9% per annum.
- Sales for iLottery are projected to total $810 million in FY 2022-23, which is a 4.7% growth over FY 2021-22. Sales from FY 2022-23 to FY 2027-28 are projected to grow at 4.0% per annum.
- Other games (in-state lottery, numbers, raffle, Keno and Xpress Sports) sales grow modestly by 0.5% per annum.

The forecast projects that net revenues (gross ticket sales less prizes, commissions, transfers and other amounts) grow at an average rate of 2.0% per annum from FY 2022-23 to FY 2027-28, as revenues from ticket sales growth (3.2% per annum) exceed total expenditure growth (0.6% per annum). The department details are as follows:

- Department of Aging appropriations decline by 1.1% per annum. That funding is earmarked for general operations, PENNCARE, Pre-Admission Assessment, Caregiver Support, Alzheimer's Outreach, Pharmaceutical Assistance Fund and Grants to Senior Centers. Most of the Aging appropriations are flat-funded in all years, except for a gradual decline in the Pharmaceutical Assistance Fund to match historical trends. Pharmaceutical Assistance program expenditures decline over time because PACE/PACENET income thresholds are not indexed to inflation. Appropriations for general operations incorporate growth based on the change in the CPI-U.

- Projections for DHS appropriations (primarily MA Community HealthChoices) assume the Lottery Fund will absorb $353 million of program costs in FY 2022-23 and $322 million annually in FY 2023-24 through FY 2027-28. This level of DHS support allows the Lottery Fund to maintain a positive balance in future fiscal years.
- Department of Revenue appropriations are projected to increase by 2.2% per annum from FY 2022-23 through FY 2027-28. Approximately two-thirds of appropriations are used for the payment of prize monies and Property Tax Rent Rebates (PTRR). The PTRR forecast declines over the forecast period due to the program's statutorily set rebate amounts and income eligibility thresholds. As incomes rise over time, more households will exceed the income limits.
- Department of Transportation appropriations are held flat through the forecast period. The revenues are earmarked for the Older Pennsylvanians Shared Ride program and a transfer to the Public Transportation Trust Fund.

Table A.6
Lottery Fund Financial Statement

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Beginning Balance[1]	**$48**	**$150**	--	--	--	--	--
Reserve from Prior Year	75	75	$75	$75	$75	$75	$75
Total	**123**	**225**	**--**	**--**	**--**	**--**	**--**
Gross Ticket Sales	5,783	5,722	5,899	6,088	6,283	6,486	6,696
Less Field Prizes & Comm.	-3,930	-3,915	-4,056	-4,206	-4,361	-4,523	-4,691
Transfers, Earnings and Lapses	247	91	104	99	94	89	87
Net Revenue	**2,100**	**1,898**	**1,947**	**1,981**	**2,016**	**2,052**	**2,092**
Funds Available	**2,223**	**2,123**	**2,022**	**2,056**	**2,091**	**2,127**	**2,167**
Aging	450	452	448	443	438	434	429
Human Services	352	353	322	322	322	322	322
Revenue	1,025	1,013	1,044	1,064	1,084	1,106	1,128
Transportation	171	171	171	171	171	171	171
Total Expenditures	**1,998**	**1,989**	**1,985**	**2,000**	**2,016**	**2,032**	**2,049**
Current Year Reserve	-75	-75	-75	-75	-75	-75	-75
Ending Balance	**150**	**59**	**-38**	**-19**	**0**	**20**	**42**

Note: Millions of dollars.

1 Beginning balance omitted for FY 23-24 and thereafter.

Tobacco Settlement Fund

The Tobacco Settlement Fund receives monies paid to the Commonwealth under the Tobacco Master Settlement Agreement. The agreement ended litigation between certain large tobacco companies and state attorneys general regarding the advertising, marketing and promotion of tobacco products, as well as the costs incurred by state Medicaid programs to treat smoking-related illnesses. The revenues received by the fund generally are used for health-related programs.

Table A.7
Tobacco Settlement Fund Financial Statement

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Beginning Balance[1]	**$135**	**$152**	**--**	**--**	**--**	**--**	**--**
Gross Settlements	372	365	$365	$365	$365	$365	$365
Transfer to Tobacco Revenue Bond Debt Service	-115	-115	-115	-115	-115	-115	-115
Transfer from Cigarette Tax	115	115	115	115	115	115	115
Total Revenues	**372**	**368**	**365**	**365**	**365**	**365**	**365**
Funds Available	**507**	**520**	**365**	**365**	**365**	**365**	**365**
Community & Economic Development	3	3	3	3	3	3	3
Health	46	144	66	66	66	66	66
Human Services	306	349	296	296	296	296	296
Total Expenditures	**355**	**496**	**365**	**365**	**365**	**365**	**365**
Ending Balance	**152**	**24**	**--**	**--**	**--**	**--**	**--**

Note: Millions of dollars. Excludes federal funds.

1 Beginning balance omitted for FY 23-24 and thereafter.

For FY 2021-22, receipts ($372 million) were greater than expenditures ($355 million), which increased the fund balance from $135 million at the beginning of the fiscal year to an estimated $152 million at the end of the year (excludes federal funds). Tobacco Settlement Fund revenue projections for FY 2022-23 through FY 2027-28 are based on the schedule of annual payments to Pennsylvania included in the Master Settlement Agreement.

As permitted by Act 43 of 2017, the Commonwealth Financing Authority issued 30-year bonds with a principal amount of $1.5 billion backed by proceeds from the Master Settlement Agreement. Annual principal and interest payments totaling $115 million began in FY 2019-20. Funds to make the principal and interest payments will be transferred to the Commonwealth Financing Authority. Act 54 of 2022 mandates a transfer of cigarette tax revenues into the Tobacco Settlement Fund in the amount of the required debt service for FY 2022-23. As a result, the fund is held harmless in the current fiscal year. The forecast assumes that General Fund revenues will continue to be transferred into the fund to cover the annual debt service payments.

The expenditure forecast reflects the following assumptions:

- Department of Health expenditures are based on the FY 2022-23 percentage allocations of receipts for the Tobacco Use, Prevention and Cessation and the Health Research line items. These allocations are used for all years of the forecast.
- Department of Human Services appropriations for MA – Workers with Disabilities and Uncompensated Care are based on the FY 2022-23 allocation percentages for these line items. The Community HealthChoices appropriation is projected at $157 million in FY 2023-24 and remains level through FY 2027-28.
- In FY 2023-24, the Tobacco Settlement Fund offsets $266 million in General Fund costs for Community HealthChoices and MA – Workers with Disabilities.

Oil and Gas Lease Fund

The Oil and Gas Lease Fund (OGLF) receives monies from the leasing of state lands for oil and gas drilling, in the form of rents, royalties, bonus payments and interest. The OGLF revenues support programs related to environmental conservation. Expenditures from the fund are made to the Department of Conservation and Natural Resources (DCNR), with priority given to state park and state forest programs and the Marcellus Legacy Fund, which supports other conservation-related programs.

For FY 2021-22, revenues ($123 million) were more than expenditures ($63 million), and the ending balance for the fund was $64 million. Revenues for this year represented an increase of $57 million (85%) over the prior year. This increase was due to significant year-over-year growth in natural gas prices, which caused royalty revenues to double the prior year amount. The average price of natural gas at Pennsylvania hubs in FY 2021-22 was 139% higher than the prior year, while royalty revenues were 101% higher.

For FY 2022-23, appropriations from the OGLF include (1) $41 million to state park and state forest programs, (2) nearly $15 million for DCNR's general government operations, (3) $56 million for infrastructure projects in state parks and forests and (4) a $15 million transfer to the Marcellus Legacy Fund. Overall, these appropriations represent an increase of $64 million (101%) over the prior year. The forecast projects that royalty revenues will record another substantial increase in FY 2022-23 due to the continued rise of natural gas prices. Regional prices have increased by approximately 90% during CY 2022 due to national and global supply and demand pressures. Based on estimated revenues of $218 million, the fund balance is projected to be $155 million at the end of the fiscal year. **Table A.8** on the next page displays the financial statement for the OGLF.

After 2022, regional prices are projected to remain elevated and then decline modestly to levels that are still significantly higher than pre-pandemic levels (2019) by the end of the forecast period. The revenue projection uses a combination of data provided by DCNR, DEP and Bentek Energy. Royalties are forecasted using expected trends in price and production through the forecast horizon, with adjustments to reflect actual prices received from sales of the gas extracted from state lands. Rentals and bonus payments are projected to remain flat. It should be noted current natural gas price projections beyond the current year are extremely volatile due to international market factors.

The forecast reflects the following assumptions:

- Expenditures from the fund represent statutory provisions for (1) an appropriation of $50 million annually for DCNR and (2) a $35 million transfer to the Marcellus Legacy Fund for distribution to the Environmental Stewardship Fund ($20 million for FY 2017-18 and thereafter) and the Hazardous Sites Cleanup Fund ($15 million for FY 2017-18 and thereafter). This transfer was reduced to $15 million for the last three fiscal years, but the forecast assumes that it returns to $35 million in the out-years.
- Under current law, at least $85 million of available funds are needed each fiscal year to meet the statutory obligations of the OGLF. The current revenue forecast projects that the fund can support $50 million in annual appropriations for DCNR operations and the full transfer to the Marcellus Legacy Fund through FY 2027-28.
- Table A.8 assumes disbursements follow statutory requirements and the OGLF builds a substantial surplus throughout the forecast period, totaling $285 million by FY 2027-28. For FY 2022-23, part of the fund surplus was appropriated to support $56 million in new infrastructure projects within DCNR, including $45 million for three new state parks. Any future surplus in the OGLF could be used to either fund new programs or offset General Fund expenditures.

Table A.8
Oil and Gas Lease Fund Financial Statement

Fiscal Year	21-22	22-23	23-24	24-25	25-26	26-27	27-28
Beginning Balance[1]	**$4**	**$64**	--	--	--	--	--
Royalties	115	210	$115	$100	$100	$100	$100
Rents, Interest and Other	8	8	8	8	8	8	8
Total Revenues	**123**	**218**	**123**	**108**	**108**	**108**	**108**
Funds Available	**127**	**282**	**123**	**108**	**108**	**108**	**108**
Cons. and Natural Resources[2]	48	112	50	50	50	50	50
Transfers to Other Funds	15	15	35	35	35	35	35
Total Expenditures	**63**	**127**	**85**	**85**	**85**	**85**	**85**
Ending Balance	**64**	**155**	**38**	**23**	**23**	**23**	**23**

Note: Millions of dollars.

1 Beginning balance omitted for FY 23-24 and thereafter.

2 FY 22-23 includes $56 million for State Parks and Forests infrastructure projects.