

# 2023-2024 ESTIMATE DOCUMENTATION

**BUREAU OF  
RESEARCH**

MARCH  
**2023**



**Josh Shapiro, Governor**

**Patrick M. Browne, Acting Secretary of Revenue**

# ESTIMATE DOCUMENTATION

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# ESTIMATE DOCUMENTATION

## ECONOMIC OVERVIEW

The Pennsylvania Department of Revenue and the Office of the Budget utilize economic forecast data supplied by S&P Global Market Intelligence and Moody's Analytics in constructing the official tax revenue estimates and forecasts. Analysis and discussion throughout this section are based upon data from each source in addition to further analysis from the Department of Revenue and the Office of the Budget.

### U.S. Recent Trends and Current Conditions

The 2023 projected forecast for real GDP growth has been revised from 0.3% to 0.5%. With the level of GDP projected higher, the S&P forecast for unemployment in late 2023 has been revised down from 5.3% to 5.1%. The forecast still includes a mild recession beginning Q1 of 2023, with recovery beginning Q3 of 2023.

S&P estimates that over the second half of 2022, GDP grew at an above-trend 2.7% annualized rate after declining at a 1.1% rate over the first half of the year. The reason for this growth can be attributed to unexpectedly strong net exports and inventory investment.

S&P projects the Fed to raise its policy rate to 4.75% - 5.00% by March 2023 before reversing course in May of 2024. However, another upward revision in the forecast shows an emerging risk: that a resilient economy remains stronger for longer than previously anticipated, requiring a more aggressive and persistent monetary tightening to contain inflation, and precipitating a recession that is later but more severe than the downturn shown in S&P base forecast.

### The Forecast

Consumer spending is expected to grow modestly through 2024, constrained by a rebound in the personal saving rate from recent unsustainable lows below 2 percent. In contrast, fixed investment is projected to decline 4.4 percent in 2023, with weakness concentrated in construction, both residential (-17.8%) and nonresidential (-4.3%).

Table 1 and Table 2 are U.S. macro forecast projections from IHS. Table 1 outlines the expected outlook for lower unemployment and a decrease in GDP in 2022. Assumptions in this chart, as well as other assumptions, are incorporated in the 2022-23 fiscal year revenue estimates. Table 2 notes that over the next two years there is a 50% probability of real GDP rising 5.7% in 2021 and growth slowing to 4.3% in 2022, consumer spending bouncing back, and business fixed investment recovering. Table 2 also provides narrative for each economic indicator.

Chart 1  
REAL GROSS DOMESTIC PRODUCT  
Annual Growth

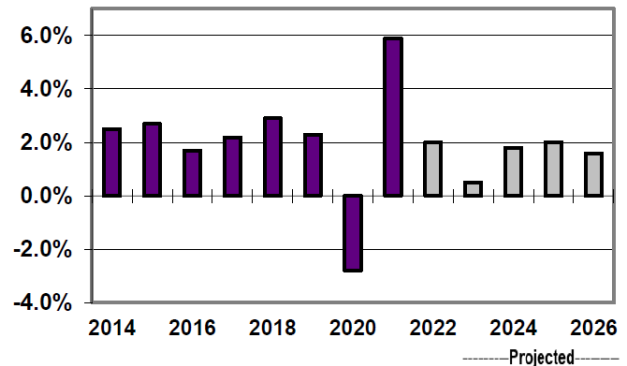
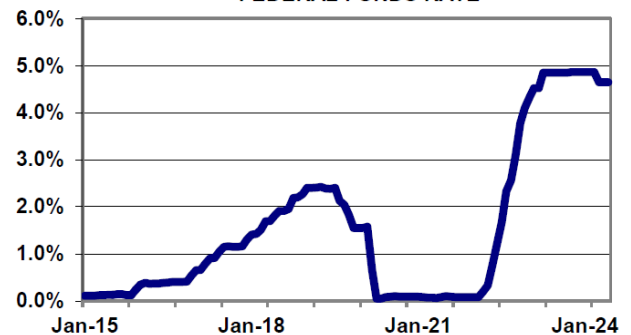


Chart 2  
FEDERAL FUNDS RATE



# ESTIMATE DOCUMENTATION

## ECONOMIC OVERVIEW

**Table 1**  
**Forecast Change in**  
**Key U.S. Economic Indicators**  
**Annual Percentage Growth**

Indicator	2022	2023p	2024p	2025p
Nominal GDP	9.2	4.2	4.1	4.1
Real GDP	2.0	0.5	1.8	2.0
Total Consumption	2.9	1.5	1.2	1.7
Corporate Profits (After Tax)	6.7	-2.8	0.7	2.3
Unemployment Rate (Rate)	3.7	4.6	4.8	4.5
CPI	8.0	3.9	2.2	2.0
Federal Funds (Rate)	1.68	4.77	4.33	2.97

\*Assumptions in this chart, as well as other assumptions, are incorporated in the 2023-24 fiscal year revenue estimates

p = projected

**Table 2**  
**U.S. Macro Forecast Projection from IHS Global Insight**  
**December 2021**

Baseline Forecast (50% Probability)	
<b>GDP Growth</b>	Rises 2.0% in 2022 as the aggressive recovery following the pandemic-induced downturn begins to chill. Growth slows to 0.5% in 2023 before rising to 1.8% in 2024.
<b>Consumer Spending</b>	Slips from 8.3% in 2021 to a more subtle 2.9% in 2022. Growth continues in 2023 and 2024 at 1.5% and 1.2%, respectively.
<b>Business Fixed Investment</b>	Increases 3.7% in 2022 with growth slowing in 2023 and 2024 to 0.2% and 0.9%, respectively.
<b>Housing</b>	Starts to shrink from 1.61 million in 2021 to 1.56 million in 2022 before continuing downward to 1.19 million in 2023 and popping slightly up to 1.26 million in 2024.
<b>Exports</b>	Grow 7.0% in 2022, 3.2% in 2023, and 5.2% in 2024.
<b>Fiscal Policy</b>	Reflects legislation enacted before December 29th but does not (yet) include the Consolidated Appropriations Act that funds the government for fiscal year 2023.
<b>Monetary Policy</b>	Upper end of the federal funds rate target expected to reach 4.86% by late 2023.
<b>Credit Conditions</b>	Eased in 2021 and remain mostly stabilized in 2022–2024.
<b>Consumer Confidence</b>	Dips through the middle of 2023 before gently escalating.
<b>Oil Prices (Dollars/barrel)</b>	Brent crude oil averages rise from \$71/barrel in 2021 to \$101 in 2022 before falling to \$90 in 2023 and \$87 in 2024.
<b>Stock Markets</b>	S&P 500 experiences a drop of 20.6% over 2022 before rising 1.0% over 2023.
<b>Inflation (CPI)</b>	Rises from 3.5% in 2021 to 5.0% in 2022, before moderating to 3.6% in 2023 and 2.4% in 2024.
<b>Foreign Growth</b>	Eurozone GDP rises 3.3% in 2022 and slips to -0.2% in 2023 after a 5.3% rebound in 2021.
<b>U.S. Dollar</b>	Appreciates through early 2023 before gently falling through the end of the forecast horizon.



### Pennsylvania Outlook

Pennsylvania benefits from a highly diversified economy with a mix of industries. No single employment sector dominates Pennsylvania. The state includes two of the larger metro areas in the country in Philadelphia and Pittsburgh, with the rest of the state featuring smaller cities and towns that support both service and goods-producing sectors. The state's education providers, especially its notable research universities, not only provide jobs on campus but also help develop new businesses. As of January 2023, Pennsylvania total nonfarm employment was up 0.8% from 2022 levels. The expected pullback in the national economy is projected to cause a gradual decrease in payrolls across the country in 2023. As a result, total nonfarm payrolls in the state are projected to drop by 1.0% over the period from Q1 2023 to Q1 2024.

Natural gas production in Pennsylvania has shown little growth for several months despite historically high output prices. The rapid increase in production over the last decade or so spurred a wave of pipeline-building to move the gas to markets, but that buildout has since stalled, creating a firm ceiling on output in the short-to-medium term. The state's massive reserve of natural gas in the Marcellus and Utica Shales also led to construction of a large plant in western Pennsylvania by Royal Dutch Shell. Part of the plant's activity includes turning natural gas liquids into 1.6 million metric tons of pellets to be used in producing plastics. The plant began production in late 2022 and employs 600. The state is also pursuing projects in developing hydrogen production and carbon capture and storage, part of the ongoing evolution of the energy sector.

The state's high-tech sectors continue to make immense contributions to Pennsylvania's economic growth. Pittsburgh has emerged as a leading center of research into commercial development of robotics, advanced manufacturing, artificial intelligences, and related technologies. Philadelphia's life science sector, in the meantime, is seeing a resurgence of investment in development and manufacturing of new technologies. Children's Hospital of Philadelphia (CHOP) is set to begin construction of a 290,000-square-foot research center on the east bank of the Schuylkill River. The new facility will continue the hospital's work in cell-and-gene therapy. Pittsburgh International Airport's cargo facility will undergo an expansion and upgrade that will bring new technology and increased capacity.

Pennsylvania has posted steady employment gains over the past year, as reduced COVID-19 concerns have allowed a return to relative normalcy. However, healthcare services, notably in hospitals, nursing homes, and daycare centers, have had more difficulty in restoring jobs than initially anticipated. High-tech fields such as artificial intelligence, industrial automation, and biosciences will see the most growth, while more traditional fields such as legal services will see more moderate gains.

# ESTIMATE DOCUMENTATION

## ECONOMIC OVERVIEW

Table 3 shows various historical and projected key economic indicators for Pennsylvania and the U.S. economy.

**Table 3**  
**Key Economic Indicators for Pennsylvania and the United States**

<b>PENNSYLVANIA: Key Economic Indicators</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Real Gross State Product (in millions, 2012 dollars)	680,957	710,973	725,664	732,000	745,982	759,088
Real Gross State Product (percentage change)	(4.8)%	4.4%	2.1%	0.9%	1.9%	1.8%
Total Employment (in thousands)	5,604.1	5,750.6	5,955.7	6,003.9	5,986.7	6,004.4
Total Employment (percentage change)	(7.6)%	2.6%	3.6%	0.8%	(0.3)%	0.3%
Manufacturing Employment (in thousands)	537.3	542.3	562.2	560.9	532.6	523.6
Nonmanufacturing Employment (in thousands.)	5,066.9	5,208.2	5,393.5	5,443.1	5,454.1	5,480.8
Population (in thousands)	13,000.8	13,007.1	12,970.4	12,964.5	12,973.0	12,984.2
Population (percentage change)	0.1%	0.0%	(0.3)%	0.0%	0.1%	0.1%
Unemployment Rate (percentage)	9.1%	6.4%	4.5%	5.1%	5.5%	5.1%
Personal Income (percentage change)	6.5%	5.7%	1.3%	4.5%	4.6%	4.4%
<b>U.S. ECONOMY</b>						
Real Gross Domestic Product (percentage change)	(2.8)%	5.9%	2.0%	0.5%	1.8%	2.0%
Employment (percentage change)	(5.8)%	2.8%	4.1%	0.7%	(0.2)%	0.5%

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# ESTIMATE DOCUMENTATION

## METHODOLOGY OVERVIEW

For the 2022-23 revised and 2023-24 budget estimates, three types of models were used: (1) econometric, (2) structural, and (3) combined structural and econometric models. An econometric model assumes that tax revenues are a function of one or more economic factors. An example of such a model is the realty transfer tax model. Structural models forecast revenue based on the statutory requirements, on the timing of tax remittances, and on projected changes in aggregate liabilities. Projected changes in tax liabilities are estimated either from economic data or from historic patterns.

Econometric models are estimated using least squares regression. Regression analysis assumes a relationship where the dependent variable,  $y$ , equals the sum of the products of independent variables,  $x_n$ , and their respective coefficients,  $\beta_n$ , plus an error term,  $e$ :

$$y = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + e.$$

A regression equation,  $y = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + e$ , differs from the true equation by an error term  $e$ . The method of least squares regression estimates values for the coefficients  $\beta_0, \beta_1, \dots, \beta_n$  such that the sum of the squared error terms is minimized. Once a regression equation is determined, a projection of future estimates may be derived using forecasts of the independent variables.

Certain econometric models need to be adjusted for a serial correlation bias. The autoregressive coefficient of the residual,  $\rho$  (rho), is used to adjust these forecasts. The corrected forecast equals:

$$y_t = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + v_t$$

$$v_t = \rho_1 v_{t-1} + \dots + \rho_z v_{t-z} + \varepsilon_t$$

where  $t$  equals the number of observations into the forecast period and  $z$  equals the number of prior periods included in the autoregressive equation. All models for which  $v_t$  is shown are adjusted to correct for a serial correlation bias.

For further information on individual tax types, such as tax rate, tax base, subject entities, exemptions, etc., please refer to the Tax Compendium.

# GENERAL FUND OVERVIEW

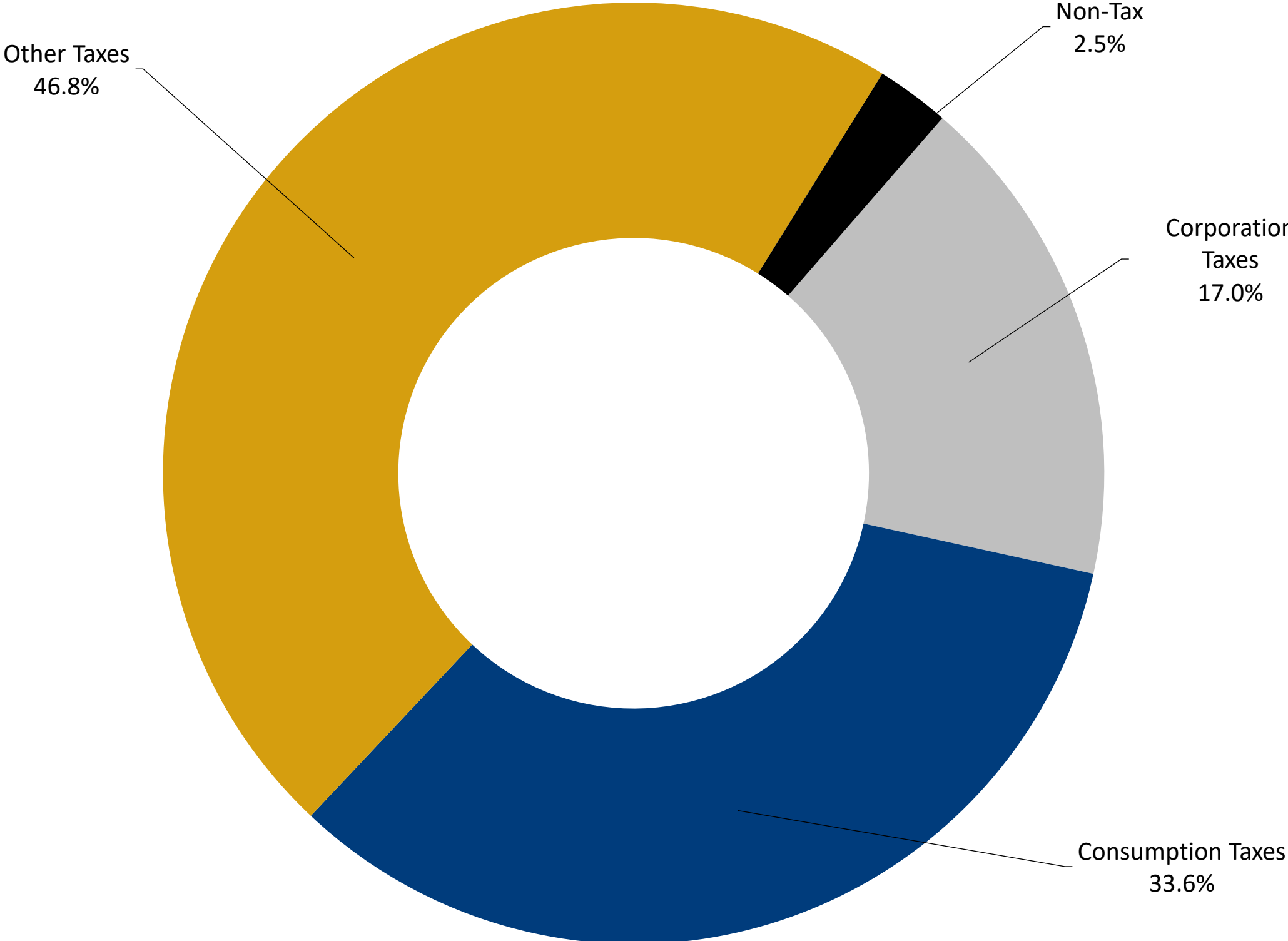
## REVENUE ESTIMATES (\$M)

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	GROWTH RATES				
	REVISED	BUDGET	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Total General Fund</b>	<b>43,927.2</b>	<b>43,229.4</b>	<b>43,943.5</b>	<b>44,842.5</b>	<b>45,959.3</b>	<b>46,844.6</b>	<b>-1.6%</b>	<b>1.7%</b>	<b>2.0%</b>	<b>2.5%</b>	<b>1.9%</b>
<b>Total Tax Revenue</b>	<b>42,938.8</b>	<b>42,136.9</b>	<b>43,002.8</b>	<b>43,983.5</b>	<b>45,153.6</b>	<b>46,072.6</b>	<b>-1.9%</b>	<b>2.1%</b>	<b>2.3%</b>	<b>2.7%</b>	<b>2.0%</b>
<b>Total Corporation Taxes</b>	<b>7,581.2</b>	<b>7,365.6</b>	<b>7,173.1</b>	<b>6,891.0</b>	<b>6,592.4</b>	<b>6,340.7</b>	<b>-2.8%</b>	<b>-2.6%</b>	<b>-3.9%</b>	<b>-4.3%</b>	<b>-3.8%</b>
Accelerated Deposits	0.0	0.0	0.0	0.0	0.0	0.0					
Corporate Net Income	5,517.4	5,347.1	5,130.1	4,822.7	4,494.6	4,211.3	-3.1%	-4.1%	-6.0%	-6.8%	-6.3%
Gross Receipts	1,059.4	1,008.2	997.8	992.1	986.1	979.8	-4.8%	-1.0%	-0.6%	-0.6%	-0.6%
Utility Property	42.1	42.5	42.9	43.3	43.7	44.1	1.0%	0.9%	0.9%	0.9%	0.9%
Insurance Premium	511.4	519.6	540.7	552.4	564.3	577.6	1.6%	4.1%	2.2%	2.2%	2.4%
Bank Shares	420.9	419.7	432.8	451.4	474.3	498.2	-0.3%	3.1%	4.3%	5.1%	5.0%
Mutual Thrift	30.0	28.5	28.8	29.1	29.4	29.7	-5.0%	1.1%	1.0%	1.0%	1.0%
<b>Total Consumption Taxes</b>	<b>15,369.5</b>	<b>14,525.4</b>	<b>14,755.9</b>	<b>15,068.3</b>	<b>15,404.8</b>	<b>15,797.7</b>	<b>-5.5%</b>	<b>1.6%</b>	<b>2.1%</b>	<b>2.2%</b>	<b>2.6%</b>
<b>Sales and Use - Total</b>	<b>13,993.6</b>	<b>13,795.3</b>	<b>14,057.8</b>	<b>14,367.5</b>	<b>14,678.4</b>	<b>15,055.9</b>	<b>-1.4%</b>	<b>1.9%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.6%</b>
Nonmotor	12,618.4	12,897.2	13,220.3	13,569.5	13,914.4	14,328.0	2.2%	2.5%	2.6%	2.5%	3.0%
Motor Vehicle	1,375.2	898.1	837.5	798.0	764.0	727.9	-34.7%	-6.7%	-4.7%	-4.3%	-4.7%
Cigarette	759.8	708.1	660.3	615.2	572.4	531.7	-6.8%	-6.8%	-6.8%	-7.0%	-7.1%
Other Tobacco Products	152.4	0.0	0.0	0.0	0.0	0.0	-100.0%				
Malt Beverage	22.3	22.0	21.9	21.5	21.4	21.3	-1.3%	-0.5%	-1.8%	-0.5%	-0.5%
Liquor	441.4	0.0	0.0	0.0	0.0	0.0	-100.0%				
Adult Use Cannabis	0.0	0.0	15.9	64.1	132.6	188.8			303.1%	106.9%	42.4%
<b>Total Other Taxes</b>	<b>19,988.1</b>	<b>20,245.9</b>	<b>21,073.8</b>	<b>22,024.2</b>	<b>23,156.4</b>	<b>23,934.2</b>	<b>1.3%</b>	<b>4.1%</b>	<b>4.5%</b>	<b>5.1%</b>	<b>3.4%</b>
<b>Personal Income - Total</b>	<b>17,668.0</b>	<b>18,050.9</b>	<b>18,784.0</b>	<b>19,627.7</b>	<b>20,596.6</b>	<b>21,252.1</b>	<b>2.2%</b>	<b>4.1%</b>	<b>4.5%</b>	<b>4.9%</b>	<b>3.2%</b>
Withholding	12,634.1	13,048.6	13,534.8	14,015.2	14,642.3	14,960.4	3.3%	3.7%	3.5%	4.5%	2.2%
Quarterly	2,914.6	3,070.0	3,274.5	3,500.2	3,721.0	3,949.8	5.3%	6.7%	6.9%	6.3%	6.1%
Annual	2,119.3	1,932.3	1,974.7	2,112.3	2,233.3	2,341.9	-8.8%	2.2%	7.0%	5.7%	4.9%
Realty Transfer	634.5	534.1	630.7	728.0	875.5	975.9	-15.8%	18.1%	15.4%	20.3%	11.5%
Inheritance	1,413.7	1,393.5	1,390.0	1,408.4	1,434.5	1,467.7	-1.4%	-0.3%	1.3%	1.9%	2.3%
Gaming	340.6	357.6	368.1	379.1	391.0	403.6	5.0%	2.9%	3.0%	3.1%	3.2%
Minor and Repealed	-68.7	-90.2	-99.0	-119.0	-141.2	-165.1	-31.3%	-9.8%	-20.2%	-18.7%	-16.9%
<b>Total Nontax Revenue</b>	<b>988.4</b>	<b>1,092.5</b>	<b>940.7</b>	<b>859.0</b>	<b>805.7</b>	<b>772.0</b>	<b>10.5%</b>	<b>-13.9%</b>	<b>-8.7%</b>	<b>-6.2%</b>	<b>-4.2%</b>



**GENERAL FUND REVENUE**

**FY 2023-24 SHARE OF TOTAL**



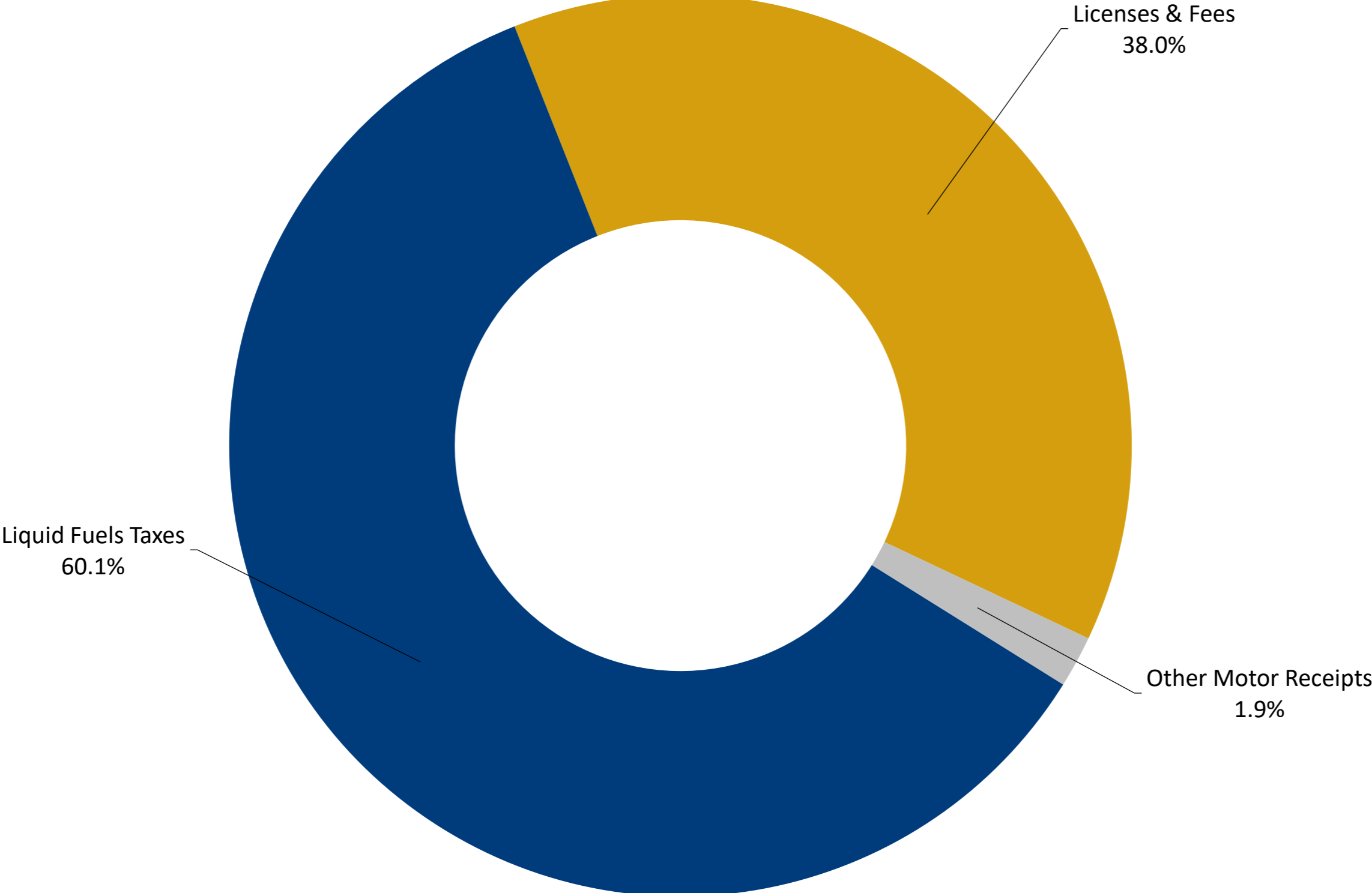
# MOTOR LICENSE FUND OVERVIEW

## REVENUE ESTIMATES (\$M)

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	GROWTH RATES				
	REVISED	BUDGET	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Total Motor License Fund</b>	<b>2,941.1</b>	<b>2,991.1</b>	<b>2,906.0</b>	<b>2,921.6</b>	<b>2,948.3</b>	<b>2,965.5</b>	<b>1.7%</b>	<b>-2.8%</b>	<b>0.5%</b>	<b>0.9%</b>	<b>0.6%</b>
<b>Total - Liquid Fuels Taxes</b>	<b>1,783.8</b>	<b>1,798.2</b>	<b>1,730.7</b>	<b>1,726.4</b>	<b>1,722.1</b>	<b>1,717.8</b>	<b>0.8%</b>	<b>-3.8%</b>	<b>-0.2%</b>	<b>-0.2%</b>	<b>-0.2%</b>
Motor Carriers / IFTA	147.9	150.6	145.1	145.9	146.6	147.3	1.8%	-3.7%	0.6%	0.5%	0.5%
Alternative Fuels	17.7	18.4	18.4	19.0	19.6	20.2	4.0%	0.0%	3.3%	3.2%	3.1%
Oil Company Franchise	991.5	998.1	960.9	957.5	954.1	950.7	0.7%	-3.7%	-0.4%	-0.4%	-0.4%
Contra OCFT	-35.0	-35.0	-35.0	-35.0	-35.0	-35.0	0.0%	0.0%	0.0%	0.0%	0.0%
Act 89-2013 OCF - Fuels	147.0	149.8	144.6	144.6	144.6	144.6	1.9%	-3.5%	0.0%	0.0%	0.0%
Act 89-2013 OCF - Liquid Fuels	514.7	516.3	496.7	494.4	492.2	490.0	0.3%	-3.8%	-0.5%	-0.4%	-0.4%
Minor and Repealed	0.0	0.0	0.0	0.0	0.0	0.0					
<b>Total - Licenses &amp; Fees</b>	<b>1,113.2</b>	<b>1,137.4</b>	<b>1,162.8</b>	<b>1,181.7</b>	<b>1,214.4</b>	<b>1,234.5</b>	<b>2.2%</b>	<b>2.2%</b>	<b>1.6%</b>	<b>2.8%</b>	<b>1.7%</b>
Special Hauling Permits	33.5	36.2	36.5	37.7	38.0	39.2	8.1%	0.8%	3.3%	0.8%	3.2%
International Registration Plan (IRP)	188.4	187.9	192.5	201.8	206.8	216.6	-0.3%	2.4%	4.8%	2.5%	4.7%
Operators' Licenses	70.0	91.9	94.2	96.6	99.0	101.5	31.3%	2.5%	2.5%	2.5%	2.5%
Real ID	14.0	14.0	14.0	14.0	14.0	14.0	0.0%	0.0%	0.0%	0.0%	0.0%
Vehicle Registration & Titling	804.4	804.4	822.6	828.6	853.5	860.1	0.0%	2.3%	0.7%	3.0%	0.8%
Miscellaneous Collections	2.9	3.0	3.0	3.0	3.1	3.1	3.4%	0.0%	0.0%	3.3%	0.0%
<b>Total - Other Motor Receipts</b>	<b>44.1</b>	<b>55.5</b>	<b>12.5</b>	<b>13.5</b>	<b>11.8</b>	<b>13.2</b>	<b>25.9%</b>	<b>-77.5%</b>	<b>8.0%</b>	<b>-12.6%</b>	<b>11.9%</b>
Fines, Pen., & Int.	0.0	0.0	0.0	0.0	0.0	0.0					
Misc.-Treasury	41.7	53.1	10.1	11.1	9.4	10.8	27.3%	-81.0%	9.9%	-15.3%	14.9%
Other Miscellaneous	2.4	2.4	2.4	2.4	2.4	2.4	0.0%	0.0%	0.0%	0.0%	0.0%

MOTOR LICENSE FUND REVENUE

FY 2023-24 SHARE OF TOTAL



# GENERAL FUND ESTIMATE METHODOLOGIES

## ADULT USE CANNABIS

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	0.0	NA
2017-18	0.0	NA
2018-19	0.0	NA
2019-20	0.0	NA
2020-21	0.0	NA
2021-22	0.0	NA
-----		
2022-23	0.0	NA
2023-24	0.0	NA
2024-25	15.9	NA
2025-26	64.1	303.1%
2026-27	132.6	106.9%
2027-28	188.8	42.4%

These estimates have been derived using wholesale Marijuana Excise Tax collections and retail sales from Colorado and assume similar growth patterns and markup percentages.

The legalization of adult use cannabis with a 20% wholesale tax is proposed. Retail sales, which would be subject to Sales and Use Tax, are presumed to begin January 1, 2025.



# GENERAL FUND ESTIMATE METHODOLOGIES

## BANK AND TRUST COMPANY SHARES TAX AND TITLE INSURANCE COMPANY SHARES TAX

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	302.2	-2.3%
2017-18	339.5	12.4%
2018-19	352.2	3.7%
2019-20	369.8	5.0%
2020-21	399.9	8.2%
2021-22	415.7	4.0%
2022-23	420.9	1.2%
2023-24	419.7	-0.3%
2024-25	432.8	3.1%
2025-26	451.4	4.3%
2026-27	474.3	5.1%
2027-28	498.2	5.0%

**MODEL**      STRUCTURAL

The Bank Shares Tax (BST) estimate results from a structural model that utilizes historical BST return data to estimate taxable shares. Growth is determined using historical BST collections and industry trends.

# GENERAL FUND ESTIMATE METHODOLOGIES

## CIGARETTE TAX

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC		
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA			
2016-17	1,261.6	38.4%	$\ln CIGADJ_t = 5.7634 + 0.0909 \text{ PANDEMIC} - 0.0118 T + v_t$ $v_t = 0.8433 v_{t-4}$			
2017-18	1,198.3	-5.0%				
2018-19	1,118.8	-6.6%	<b>VARIABLES</b> CIGADJ Quarterly CIG receipts adjusted for transfers PANDEMIC Variable to account for pandemic effects T Linear time variable (2017Q4 = 1)			
2019-20	924.3	-17.4%				
2020-21	964.2	4.3%				
2021-22	874.1	-9.3%				
2022-23	759.8	-13.1%	<b>STATISTICS</b> R <sup>2</sup> 0.855 F 33.5 DW 2.27 DF 17 N 21	<b>COEFFICIENT T STATS</b> $\beta_0$ 129.74 $\beta_1$ 3.77 $\beta_2$ -4.82 $\beta_3$ -7.83		
2023-24	708.1	-6.8%				
2024-25	660.3	-6.8%				
2025-26	615.2	-6.8%				
2026-27	572.4	-7.0%				
2027-28	531.7	-7.1%				

Quarterly Cigarette Tax collections are converted to base levels by adding back all transfers. These base collections are then forecasted using time and an adjustment variable that captures the effect from the pandemic; the model is also corrected for serial auto correlation.

The transfer from Cigarette Tax collections to the Local Cigarette Tax fund varies based on collections and must therefore be forecasted separately. That regression uses time and autoregressive components.

# GENERAL FUND ESTIMATE METHODOLOGIES

## CORPORATE NET INCOME TAX

HISTORY & FORECAST (\$M)			MODEL ECONOMETRIC AND STRUCTURAL				
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA $\ln CNIT_t = 2.3264 + 0.2808 \ln PROFIT_t + \ln CNIT_{t-1}$				
2016-17	2,751.5	-3.2%	VARIABLES CNIT Corporate Net Income Tax payments by tax year PROFIT US Corporate profits, adjusted for PA law and timing				
2017-18	2,879.0	4.6%					
2018-19	3,397.5	18.0%	STATISTICS				
2019-20	2,826.9	-16.8%					
2020-21	4,423.8	56.5%	R <sup>2</sup>	0.911	COEFFICIENT T STATS	$\beta_0$	3.68
2021-22	5,323.1	20.3%	F	71.9		$\beta_1$	4.07
2022-23	5,517.4	3.7%	DW	1.15		$\beta_2$	3.69
2023-24	5,347.1	-3.1%	DF	15			
2024-25	5,130.1	-4.1%	N	18			
2025-26	4,822.7	-6.0%					
2026-27	4,494.6	-6.8%					
2027-28	4,211.3	-6.3%					

A vector autoregression equation forecasts Corporate Net Income Tax payments by tax year, based on total US corporate profits. Corporate profits estimates from IHS Global Insight are adjusted for changes in Pennsylvania law and differences from federal law. Predicted values are then distributed on a quarterly basis, according to historical patterns. Quarterly estimates are then summed to create fiscal year estimates.

**The Governor's Executive Budget proposes the following change to the Enhanced Revenue Collections Account (this impact is included above):**

The proposal would eliminate Department of Revenue funding through the Enhanced Revenue Collection Account, which in turn increases the amount of tax that remains in the General Fund.

# GENERAL FUND ESTIMATE METHODOLOGIES

## FINES, PENALTIES, AND INTEREST

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	79.3	10.2%
2017-18	75.4	-4.9%
2018-19	72.9	-3.2%
2019-20	68.0	-6.8%
2020-21	64.1	-5.7%
2021-22	66.9	4.3%
2022-23	64.9	-3.0%
2023-24	65.3	0.6%
2024-25	65.3	0.0%
2025-26	65.3	0.0%
2026-27	65.3	0.0%
2027-28	65.3	0.0%

**MODEL**      STRUCTURAL

Fines, penalties, and interest on taxes are included with their respective tax types. Other fines, penalties, and interest are collected by several different departments. Each of these departments prepares estimates which are reviewed and totaled by the Department of Revenue.



# GENERAL FUND ESTIMATE METHODOLOGIES

## GAMING TAXES

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC AND STRUCTURAL			
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA	(A)	$GT = TGT + TGT4 + IGT + FCT + SWT$		
2016-17	120.6	20.4%		(B)	$lnGTGR_t = 5.1088 - 3.0287 P_t + 0.2838 P2_t + 0.0106 T_t - 0.0612 C_t + v_t$		
2017-18	123.1	2.0%			$v_t = 0.4417 v_{t-1}$		
2018-19	131.7	7.0%					
2019-20	143.0	8.6%					
2020-21	241.8	69.1%					
2021-22	307.9	27.3%					
2022-23	340.6	10.6%					
2023-24	357.6	5.0%					
2024-25	368.1	2.9%					
2025-26	379.1	3.0%					
2026-27	391.0	3.1%					
2027-28	403.6	3.2%					
			<b>VARIABLES</b>	GT	Total gaming taxes		
				TGT	Table Game Taxes - Category 1-3 casinos		
				TGT4	Category 4 Table Game Taxes		
				IGT	Interactive Gaming Tax		
				FCT	Fantasy Contest Tax		
				SWT	Sports Wagering Tax		
				GTGR	Quarterly gross table game revenue for category 1-3 casinos		
				P	Pandemic impact		
				P2	Subsequent pandemic impact		
				T	Time series (Q3 2011=1)		
				C	Time series category 4 expansion		
			<b>STATISTICS</b>	<b>EQUATION B</b>	<b>COEFFICIENT T STATS</b>	<b>EQUATION B</b>	
				R <sup>2</sup>	0.996	β <sub>0</sub>	306.30
				F	2043.3	β <sub>1</sub>	-102.94
				DW	2.08	β <sub>2</sub>	10.44
				DF	40	β <sub>3</sub>	14.07
				N	46	β <sub>4</sub>	-4.10
						β <sub>5</sub>	-3.04

### TABLE GAME TAXES

An autoregressive equation is used to forecast quarterly gross table game revenues (GTGR) at Category 1, 2, and 3 facilities, which are then summed and multiplied by the tax rate to create the fiscal year estimate. The model uses historical GTGR, pandemic impacts, and time series to estimate quarterly gross table game revenues, and is corrected for serial autocorrelation bias.

### INTERACTIVE GAMING, FANTASY CONTEST & SPORTS WAGERING TAXES

These tax types are estimated using a structural model based on historical tax collections.

The Interactive Gaming, Fantasy Contest, and Sports Wagering Taxes were all created by Act 42-2017.

# GENERAL FUND ESTIMATE METHODOLOGIES

## GROSS RECEIPTS TAX

### HISTORY & FORECAST (\$M)

<u>FISCAL YEAR</u>	<u>RECEIPTS</u>	<u>GROWTH</u>
2016-17	1,230.5	-5.7%
2017-18	1,149.9	-6.6%
2018-19	1,250.1	8.7%
2019-20	1,104.3	-11.7%
2020-21	990.0	-10.3%
2021-22	1,022.4	3.3%
-----		
2022-23	1,059.4	3.6%
2023-24	1,008.2	-4.8%
2024-25	997.8	-1.0%
2025-26	992.1	-0.6%
2026-27	986.1	-0.6%
2027-28	979.8	-0.6%

### MODEL          STRUCTURAL

These estimates are derived from a database of Gross Receipts Tax history and liability forecasts as well as economic data. The estimates are prepared on a sector-by-sector basis: electric, telephone, and transportation. The telephone sector is then further broken down into collections from intrastate, interstate, and wireless telecommunications services. Total forecasted liabilities are transformed to a fiscal year payment basis to obtain the receipts forecast.

**The Governor's Executive Budget proposes the following change to the Gross Receipts Tax (this impact is included above):**

The proposal would eliminate the 50 mill GRT on mobile telecommunications.

# GENERAL FUND ESTIMATE METHODOLOGIES

## INHERITANCE TAX

HISTORY & FORECAST (\$M)			MODEL		ECONOMETRIC AND STRUCTURAL	
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA			
2016-17	977.9	1.6%	$lnIT_t = 2.4777 + 0.5605 lnSP_{t-1} - 0.4825 lnSP_{t-2} + 0.3147 lnSP_{t-3} + 0.1203 D_{t-3} + 0.1662 D_{t-4} + v_t$ $v_t = 0.3743 v_{t-4}$			
2017-18	1,019.3	4.2%				
2018-19	1,053.6	3.4%	<b>VARIABLES</b> IT      Quarterly Inheritance Tax collections SP      Quarterly Standard and Poor's Index of Common Stocks D      Quarterly COVID-19 deaths, indexed (Q1 2021=1)			
2019-20	1,082.0	2.7%				
2020-21	1,345.5	24.3%				
2021-22	1,550.4	15.2%				
2022-23	1,413.7	-8.8%	<b>STATISTICS</b> R <sup>2</sup> 0.927 <b>COEFFICIENT T STATS</b> F      166.5      β <sub>0</sub> 12.95 DW      2.12      β <sub>1</sub> 5.31 DF      79      β <sub>2</sub> -2.76 N      86      β <sub>3</sub> 2.93 β <sub>4</sub> 2.49 β <sub>5</sub> 3.36 β <sub>6</sub> -3.48			
2023-24	1,393.5	-1.4%				
2024-25	1,390.0	-0.3%				
2025-26	1,408.4	1.3%				
2026-27	1,434.5	1.9%				
2027-28	1,467.7	2.3%				

The autoregressive equation uses the Standard and Poor's Index (SP) from the three preceding quarters and PA deaths (D) from two and three quarters prior to forecast quarterly Inheritance Tax collections, and is corrected for serial autocorrelation bias. PA deaths are indexed, where Q1 2021 equals 1, which is the quarter with the highest number of Covid related deaths. Quarterly collections are then summed to create the fiscal year estimate. Historical collections are adjusted for unusual payments and the impact of enforcement programs, which occur at various times. A decline in collections is forecasted as Covid-19 accelerated deaths into FYs 2020-21 and 2021-22.

**The Governor's Executive Budget proposes the following change impacting the Inheritance Tax (this impact is included above):**

The proposal would eliminate Department of Revenue funding through the Enhanced Revenue Collection Account, which in turn increases the amount of tax that remains in the General Fund.

# GENERAL FUND ESTIMATE METHODOLOGIES

## INSURANCE PREMIUMS TAX

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC		
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA			
2016-17	433.4	-6.7%	$IPT_t = 2.6730 + 0.6845 CSINS_t + v_t$ $v_t = 0.4769 v_{t-1}$			
2017-18	450.9	4.0%				
2018-19	444.3	-1.5%	<b>VARIABLES</b> IPT Insurance Premiums Tax payments by fiscal year CSINS US consumer spending on insurance			
2019-20	473.6	6.6%				
2020-21	451.8	-4.6%				
2021-22	482.3	6.8%				
2022-23	511.4	6.0%	<b>STATISTICS</b> R <sup>2</sup> 0.912 F 93.4 DW 1.73 DF 18 N 21	<b>COEFFICIENT T STATS</b> β <sub>0</sub> 5.73 β <sub>1</sub> 8.44 β <sub>2</sub> -2.30		
2023-24	519.6	1.6%				
2024-25	540.7	4.1%				
2025-26	552.4	2.2%				
2026-27	564.3	2.2%				
2027-28	577.6	2.4%				

The regression equation forecasts gross Insurance Premiums Tax (IPT) payments by tax year based on consumer spending on insurance, with an adjustment for serial correlation bias. Transfers are subsequently layered on to determine cash collections.

Assessments paid to the Pennsylvania Life and Health Insurance Guaranty Association (PLHIGA) generate tax credits to be used against IPT liabilities. Due to recent large assessments, the use of these credits is expected to impact IPT collections during the next several fiscal years.

Collections for fiscal years 2022-23 and forward are impacted by Act 53-2022, which changed the way that IPT revenues are distributed to the Municipal Pension Aid Fund and the Fire Insurance Tax Fund. Previously, revenues from certain IPT payers were deposited into these special funds. Under Act 53-2022, all IPT revenue is initially deposited to the General Fund. Each year, the Municipal Pension Aid Fund receives the greater of 38% of IPT revenues or \$345 million, and the Fire Insurance Tax Fund receives the greater of 8.5% of IPT revenues or \$85 million. Revenue less these transfers remains in the General Fund.

# GENERAL FUND ESTIMATE METHODOLOGIES

## LICENSES, FEES, AND MISCELLANEOUS

### HISTORY & FORECAST (\$M)

FISCAL YEAR	RECEIPTS	GROWTH
2016-17	621.0	8.6%
2017-18	2,303.1	270.9%
2018-19	543.6	-76.4%
2019-20	411.8	-24.2%
2020-21	963.2	133.9%
2021-22	4,393.6	356.2%
2022-23	738.4	-83.2%
2023-24	805.2	9.0%
2024-25	653.4	-18.9%
2025-26	571.7	-12.5%
2026-27	518.4	-9.3%
2027-28	484.7	-6.5%

This category consists mainly of revenues from the sale of licenses, the collection of fees from numerous sources, transfers from other funds, and interest earned on General Fund deposits.

Growth in interest on General Fund deposits, which is forecasted by the Pennsylvania Treasury, has been particularly strong in FY 2022-23, and levels are expected to remain elevated in the near-term. High treasury yields can be attributed to the substantial increase in the principal balance in the General Fund over FY 2021-22, caused by both higher than expected revenues and receipt of COVID-related federal funds. In addition to having more funds available to invest, returns are greater due to increases in the Federal Funds Rate.

Additionally, tax from video gaming terminals (VGTs) is deposited into the General Fund as a transfer. The tax is remitted bimonthly, and collections net of the transfer to the Compulsive and Problem Gambling Treatment Fund are transferred to the General Fund on the last day of the fiscal year. This tax is forecasted in a structural model.

Estimates made by the collecting departments for other revenue items are reviewed and totaled by the Department of Revenue.

**The Governor's Executive Budget proposes the following change to Licenses, Fees, and Miscellaneous (this impact is included above):**

To comply with the intent of Act 16 of 2016, fiscal year 2023-24 reflects a transfer of the undistributed fund balance of the Medical Marijuana Program Fund to the General Fund for Department of Health operations. The change to transfers will increase nontax miscellaneous revenue by \$31.9 million.



# GENERAL FUND ESTIMATE METHODOLOGIES

## LIQUOR STORE PROFITS

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	216.4	NA
2017-18	185.1	-14.5%
2018-19	185.1	0.0%
2019-20	185.1	0.0%
2020-21	185.1	0.0%
2021-22	185.1	0.0%
2022-23	185.1	0.0%
2023-24	222.0	19.9%
2024-25	222.0	0.0%
2025-26	222.0	0.0%
2026-27	222.0	0.0%
2027-28	222.0	0.0%

These estimates have been received from the Liquor Control Board and the Office of the Budget.

# GENERAL FUND ESTIMATE METHODOLOGIES

## LIQUOR TAX

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC			
<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>	<b>FORMULA</b>	$lnLIQ_t = 11.0708 + 0.0095T + 0.2544Q4 - 0.3806PANDEMIC + 0.0442PANDEMIC2 + v_t$ $v_t = 0.9351 v_{t-4}$			
2016-17	361.9	4.0%	<b>VARIABLES</b>	LIQ	Quarterly Liquor Tax revenues		
2017-18	371.5	2.7%		T	Linear time variable (2010 Q3 = 1)		
2018-19	381.9	2.8%		Q4	Seasonal adjustment variable		
2019-20	365.7	-4.2%		PANDEMIC	Variable to account for pandemic-related store closures		
2020-21	415.8	13.7%		PANDEMIC2	Variable to account for pandemic-related rebound effects		
2021-22	431.3	3.7%					
2022-23	441.4	2.4%					
2023-24	0.0	-100.0%					
2024-25	0.0	--		<b>STATISTICS</b>	R <sup>2</sup>	0.995	<b>COEFFICIENT T STATS</b> β <sub>0</sub> 522.29
2025-26	0.0	--			F	1904.2	β <sub>1</sub> 22.43
2026-27	0.0	--		DW	2.05	β <sub>2</sub> 6.96	
2027-28	0.0	--		DF	44	β <sub>3</sub> -37.68	
				N	50	β <sub>4</sub> 6.92	
						β <sub>5</sub> -18.48	

Base Liquor Tax receipts are forecasted using an econometric model adjusted for serial auto correlation, using time as an explanatory variable, as well as a seasonal variable, and variables to adjust for pandemic-related collection changes.

**The Governor's Executive Budget proposes the following change to Liquor Tax (this impact is included above):**

A new Public Safety and Protection Fund to finance the Pennsylvania State Police operations is being proposed, with all Liquor Tax being deposited into this fund beginning in FY 2024-25.

# GENERAL FUND ESTIMATE METHODOLOGIES

## MALT BEVERAGE TAX

HISTORY & FORECAST (\$M)			MODEL		ECONOMETRIC			
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA					
2016-17	24.4	-2.2%	$\ln MBT_t = 1.8464 - 0.0512 CREDIT - 0.0012 T - 0.0954 Q1 + 0.0838 Q2 + 0.1516 Q3$					
2017-18	24.1	-1.1%						
2018-19	23.5	-2.4%						
2019-20	23.2	-1.6%						
2020-21	23.3	0.4%						
2021-22	22.5	-3.4%						
2022-23	22.3	-0.8%						
2023-24	22.0	-1.3%						
2024-25	21.9	-0.5%						
2025-26	21.5	-1.8%						
2026-27	21.4	-0.5%						
2027-28	21.3	-0.5%						
			STATISTICS	R <sup>2</sup>	0.897	COEFFICIENT T STATS	β <sub>0</sub>	158.63
			F	125.9		β <sub>1</sub>	-3.53	
			DW	2.07		β <sub>2</sub>	-4.58	
			DF	72		β <sub>3</sub>	-8.23	
			N	78		β <sub>4</sub>	7.23	
						β <sub>5</sub>	13.26	

Malt Beverage Tax (MBT) receipts are forecasted using an econometric model, utilizing time and Malt Beverage Tax Credit usage as explanatory variables, as well as quarterly variables to adjust for seasonality.

# GENERAL FUND ESTIMATE METHODOLOGIES

## MINOR AND REPEALED TAXES

### HISTORY & FORECAST (\$M)

<u>FISCAL YEAR</u>	<u>RECEIPTS</u>	<u>GROWTH</u>
2016-17	-5.8	-104.0%
2017-18	-35.4	-513.4%
2018-19	-23.0	35.0%
2019-20	-44.2	-91.9%
2020-21	-37.9	14.3%
2021-22	-50.9	-34.2%
-----		
2022-23	-68.7	-35.1%
2023-24	-90.2	-31.3%
2024-25	-99.0	-9.8%
2025-26	-119.0	-20.2%
2026-27	-141.2	-18.7%
2027-28	-165.1	-16.9%

Minor and Repealed tax revenues are derived from:

- the tax on legal documents
- the Tavern Games Tax
- the Excess Vehicle Rental Tax
- the Corporate Loans Tax, repealed for taxable years beginning after December 31, 2013
- the tax on electric cooperatives
- the tax on agricultural cooperative associations
- the Wine Excise Tax
- the Consumer Fireworks Fax created by Act 43 of 2017, with all monies being transferred annually to various special funds related to public safety beginning in FY 2023-24
- the Capital Stock & Franchise Tax, repealed for taxable years beginning after December 31, 2015.

In addition, Minor and repealed includes the General Fund impact of:

- the Neighborhood Improvement Zone,
- the City Revitalization and Improvement Zones,
- the Military Installation Remediation Project, created by Act 101 of 2019

# GENERAL FUND ESTIMATE METHODOLOGIES

## MUTUAL THRIFT INSTITUTIONS TAX

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	20.3	-2.3%
2017-18	31.8	56.2%
2018-19	28.0	-12.0%
2019-20	23.1	-17.4%
2020-21	23.0	-0.3%
2021-22	33.1	43.5%
-----		
2022-23	30.0	-9.3%
2023-24	28.5	-5.0%
2024-25	28.8	1.1%
2025-26	29.1	1.0%
2026-27	29.4	1.0%
2027-28	29.7	1.0%

### MODEL            STRUCTURAL

The Mutual Thrift Institutions Tax (MTIT) structural model estimates are derived from MTIT history and forecasts based on industry data and other impacts on collections, such as the expansion of tax credit utilization and appeals. Little expansion is expected within the industry in the forecast period as the past trend in mergers and acquisitions has yielded to appeal litigation seeking to reduce or eliminate the tax liability of some taxpayers.

# GENERAL FUND ESTIMATE METHODOLOGIES

## OTHER TOBACCO PRODUCTS TAX

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC		
<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>	<b>FORMULA</b>	(A) OTP = ECIG + OTHER		
2016-17	83.9	NA	(B)	$\ln ECIG_t = 1.4720 - 0.1332 Q1 - 0.4760 FED - 0.1830 PANDEMIC + 0.1183 T1 + 0.3154 T2$		
2017-18	119.1	42.0%	(C)	$\ln OTHER_t = 3.2593 - 0.0809 T - 0.0600 Q1 - 0.0671 FED + 0.0427 PANDEMIC$		
2018-19	129.9	9.1%	<b>VARIABLES</b>	OTP	Quarterly Other Tobacco Tax revenues	
2019-20	127.3	-2.0%		ECIG	Quarterly E-Cigarette Tax revenues	
2020-21	134.9	6.0%		OTHER	Quarterly OTP tax revenues, less E-Cigarette Tax revenue	
2021-22	149.4	10.8%		Q1	Quarter 1 seasonal variable	
2022-23	152.4	2.0%		FED	Federal smoking age increase from 18 to 21 years old	
2023-24	0.0	-100.0%		PANDEMIC	Variable to account for pandemic effects	
2024-25	0.0	--		T1	Linear time variable beginning (2017 Q2 = 1)	
2025-26	0.0	--		T2	Logarithmic time variable (2019 Q3 = LN1)	
2026-27	0.0	--		T	Logarithmic time variable (2017 Q3 = LN1)	
2027-28	0.0	--				
			<b>STATISTICS</b>	<b>EQUATION B</b>	<b>EQUATION C</b>	
			R <sup>2</sup>	0.9767	R <sup>2</sup>	0.9677
			F	133.98	F	127.2
			DW	2.13	DW	2.12
			DF	16	DF	17
			N	22	N	22
			<b>COEFFICIENT T STATS</b>	<b>EQUATION B</b>	<b>EQUATION C</b>	
			β <sub>0</sub>	28.99	β <sub>0</sub>	225.33
			β <sub>1</sub>	-3.38	β <sub>1</sub>	-9.36
			β <sub>2</sub>	-5.06	β <sub>2</sub>	-5.95
			β <sub>3</sub>	-3.41	β <sub>3</sub>	-4.44
			β <sub>4</sub>	14.51	β <sub>4</sub>	3.14
			β <sub>5</sub>	7.85		

Regression models are used to forecast quarterly Other Tobacco Products Tax receipts. E-cigarette revenue is estimated by linear and log time trends, and controlled for seasonal effects, federal law changes, and pandemic effects. All other taxable products are forecasted using the same variables, excluding the linear time trend.

**The Governor's Executive Budget proposes the following change to Other Tobacco Products Tax (this impact is included above):**

A new Public Safety and Protection Fund to finance the Pennsylvania State Police operations is being proposed, with all Other Tobacco Products Tax being deposited into this fund beginning in FY 2024-25.



# GENERAL FUND ESTIMATE METHODOLOGIES

## PERSONAL INCOME TAX - EMPLOYER WITHHOLDING

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC				
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA					
2016-17	9,614.5	1.3%	$\ln \text{PITW}_t = -0.5758 + 0.8006 \ln \text{WAGES}_t + 0.1369 \text{WEDS} - 0.0552 P + v_t$ $v_t = -0.0908 v_{t-6} + 0.8410 v_{t-12}$					
2017-18	10,036.5	4.4%						
2018-19	10,443.9	4.1%	VARIABLES	Cash monthly Personal Income Tax receipts from employer withholding payments rate				
2019-20	10,542.8	0.9%	PITW	adjusted to 3.07%				
2020-21	10,838.0	2.8%	WAGES	US wages and salaries				
2021-22	12,026.2	11.0%	WEDS	Variable indicating five Wednesdays in a month				
2022-23	12,634.1	5.1%	P	Pandemic adjustment variable				
2023-24	13,048.6	3.3%	STATISTICS	R <sup>2</sup>	0.972	COEFFICIENT T STATS	β <sub>0</sub>	-2.20
2024-25	13,534.8	3.7%		F	906.5		β <sub>1</sub>	27.67
2025-26	14,015.2	3.5%		DW	2.27		β <sub>2</sub>	32.13
2026-27	14,642.3	4.5%		DF	132		β <sub>3</sub>	-5.45
2027-28	14,960.4	2.2%		N	138		β <sub>4</sub>	2.04
							β <sub>5</sub>	-17.76

An autoregressive equation is used to forecast monthly employer withholding payments (MWITH), using US wage and salary income as an explanatory variable. The variable WEDS accounts for months that have five Wednesdays; larger employer withholding payments are typically made on Wednesdays. There is an additional adjustment variable to account for the effect of the COVID-19 pandemic.

**The Governor's Executive Budget proposes the following changes impacting the Personal Income Tax (this impact is included above):**

The proposal would eliminate Department of Revenue funding through the Enhanced Revenue Collection Account, which in turn increases the amount of tax that remains in the General Fund.

Effective January 1, 2024, the minimum wage in Pennsylvania would be raised to \$15 per hour, which causes a net increase in PIT revenues beginning in 2023-24.



# GENERAL FUND ESTIMATE METHODOLOGIES

## PUBLIC UTILITY REALTY TAX

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	40.2	2.5%
2017-18	33.8	-15.8%
2018-19	36.3	7.3%
2019-20	37.8	4.2%
2020-21	40.2	6.3%
2021-22	39.5	-1.8%
2022-23	42.1	6.6%
2023-24	42.5	1.0%
2024-25	42.9	0.9%
2025-26	43.3	0.9%
2026-27	43.7	0.9%
2027-28	44.1	0.9%

**MODEL**      STRUCTURAL

The Public Utility Realty Tax (PURTA) revenue estimates are derived from historical patterns.

# GENERAL FUND ESTIMATE METHODOLOGIES

## SALES AND USE TAX - MOTOR VEHICLE

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC		
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA			
2016-17	1,366.8	1.5%	$\ln MVCASH_t = 0.2473 + 0.7244 \ln CDMV_t - 1.8986 \text{ PANDEMIC} + v_t$ $v_t = -0.1495 v_{t-7} + 0.2250 v_{t-11} + 0.6013 v_{t-12}$			
2017-18	1,392.7	1.9%				
2018-19	1,483.6	6.5%	<b>VARIABLES</b> MVCASH Monthly gross motor vehicle sales and use tax collections CDMV US consumer spending on motor vehicles and parts PANDEMIC Variable to account for pandemic effects			
2019-20	1,365.0	-8.0%				
2020-21	1,847.7	35.4%				
2021-22	1,837.9	-0.5%				
2022-23	1,375.2	-25.2%	<b>STATISTICS</b> R <sup>2</sup> 0.910 F 362.2 DW 1.92 DF 180 N 186	<b>COEFFICIENT T STATS</b>		β <sub>0</sub> 0.75
2023-24	898.1	-34.7%		β <sub>1</sub> 13.62		
2024-25	837.5	-6.7%		β <sub>2</sub> -27.48		
2025-26	798.0	-4.7%		β <sub>3</sub> 2.94		
2026-27	764.0	-4.3%		β <sub>4</sub> -4.44		
2027-28	727.9	-4.7%		β <sub>5</sub> -11.47		

The equation for MV is an econometric model, adjusted for a serial correlation bias, which forecasts monthly motor vehicle sales tax collections using US consumer spending on motor vehicles and parts, and a variable that adjusts for collections during the pandemic.

**The Governor's Executive Budget proposes the following changes to Motor Vehicle Sales and Use Tax (these impacts are included above):**

A new Public Safety and Protection Fund to finance the Pennsylvania State Police operations is being proposed, with transfers from Motor Vehicle Sales Tax in the following amounts (\$M):

2023-24	-400.0
2024-25	-450.0
2025-26	-500.0
2026-27	-550.0
2027-28	-600.0

The legalization of adult use cannabis with a 20% wholesale tax is proposed. Retail sales are presumed to begin January 1, 2025, with Sales and Use Tax being imposed. Any increase in the nonmotor vehicle sales and use tax base will result in an increase to the transfer to the Public Transportation Trust Fund authorized under Act 89-2013, which lowers Motor Vehicle SUT cash collections.

# GENERAL FUND ESTIMATE METHODOLOGIES

## SALES AND USE TAX - NON-MOTOR VEHICLE

HISTORY & FORECAST (\$M)			MODEL		ECONOMETRIC	
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA			
2016-17	8,637.7	2.2%	$\ln NMV_t = -0.5409 + 0.3750 \ln DURABLES_t + 0.2318 \ln FOODACC_t + 0.3156 INCOME + v_t$ $v_t = 0.9589 v_{t-12}$			
2017-18	8,988.7	4.1%				
2018-19	9,616.0	7.0%	<b>VARIABLES</b> NMV Monthly non-motor vehicle sales and use tax liabilities DURABLES US personal consumption of durables, less motor vehicles INCOME US personal income FOODACC US personal consumption expenditures on food services & accommodations			
2019-20	9,452.8	-1.7%				
2020-21	10,987.2	16.2%				
2021-22	12,076.3	9.9%				
2022-23	12,618.4	4.5%	<b>STATISTICS</b> R <sup>2</sup> 0.984 F 1290.5 DW 1.83 DF 85 N 90	<b>COEFFICIENT T STATS</b>		β <sub>0</sub> -1.21
2023-24	12,897.2	2.2%		β <sub>1</sub> 11.12		
2024-25	13,220.3	2.5%		β <sub>2</sub> 15.82		
2025-26	13,569.5	2.6%		β <sub>3</sub> 5.52		
2026-27	13,914.4	2.5%		β <sub>4</sub> -46.58		
2027-28	14,328.0	3.0%				

An econometric model is used to predict NMV. The model utilizes US personal income, US personal consumption of durables (less motor vehicles), US consumption of food services and accommodations, and is adjusted for serial correlation bias.

**The Governor's Executive Budget proposes the following changes to Non-Motor Vehicle Sales and Use Tax (these impacts are included above):**

A proposal would eliminate Department of Revenue funding through the Enhanced Revenue Collection Account, which in turn increases the amount of non-motor vehicle sales tax that remains in the General Fund.

Effective January 1, 2024, an exemption for Sales and Use tax on mobile telecommunications is proposed.

The legalization of adult use cannabis with a 20% wholesale tax is proposed. Retail sales are presumed to begin January 1, 2025, with Sales and Use Tax being imposed.

Effective January 1, 2024, the minimum wage in Pennsylvania would be raised to \$15 per hour. As workers receive higher wages, they will likely increase their purchases of taxable good and services, which increases SUT collections.

# GENERAL FUND ESTIMATE METHODOLOGIES

## REALTY TRANSFER TAX

HISTORY & FORECAST (\$M)			MODEL	ECONOMETRIC		
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA			
2016-17	478.0	-0.8%	$GROSS_t = -3.9372 + 0.9850VALUE_t + .2790IFNRESXF_t + v_t$ $v_t = 0.5513 v_{t-1} - 0.2572 v_{t-2} + 0.5931 v_{t-4} - 0.4694 v_{t-5}$			
2017-18	514.4	7.6%				
2018-19	534.0	3.8%	<b>VARIABLES</b> GROSS Quarterly Realty Transfer Tax receipts VALUE U.S. home sales revenue IFNRESXF U.S. gross private investment in nonresidential, non-farm buildings			
2019-20	497.8	-6.8%				
2020-21	640.2	28.6%				
2021-22	847.1	32.3%				
2022-23	634.5	-25.1%	<b>STATISTICS</b> R <sup>2</sup> 0.947 F 253.6 DW 2.15 DF 85 N 92	<b>COEFFICIENT T STATS</b> β <sub>0</sub> -9.46 β <sub>1</sub> 14.37 β <sub>2</sub> 3.82 β <sub>3</sub> -5.98 β <sub>4</sub> 3.06 β <sub>5</sub> -7.02 β <sub>6</sub> 5.06		
2023-24	534.1	-15.8%				
2024-25	630.7	18.1%				
2025-26	728.0	15.4%				
2026-27	875.5	20.3%				
2027-28	975.9	11.5%				

A regression equation is used to forecast quarterly Realty Transfer Tax (RTT). The equation forecasts quarterly realty transfer tax collections using U.S. home sales (VALUE) and U.S. gross private investment in nonresidential, non-farm buildings (IFNRESXF).

Act 58-2015 provided for a transfer from Realty Transfer Tax funds to the Pennsylvania Housing Affordability and Rehabilitation Enhancement Fund beginning in fiscal year 2015-16. The transfer amount is to be the lesser of \$25 million or 40 percent of the difference between the total dollar amount of the realty transfer tax collected in the prior fiscal year and the total dollar amount of the realty transfer tax official estimate for fiscal year 14-15 (\$447.5 million). The current transfer amount under Act 108-2022 is \$60 million per year.

# MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

## ALTERNATIVE FUELS

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	11.1	17.4%
2017-18	14.2	28.3%
2018-19	15.6	9.6%
2019-20	13.0	-16.8%
2020-21	12.2	-6.2%
2021-22	15.4	26.9%
-----		
2022-23	17.7	14.8%
2023-24	18.4	4.0%
2024-25	18.4	0.0%
2025-26	19.0	3.3%
2026-27	19.6	3.2%
2027-28	20.2	3.1%

**MODEL**      STRUCTURAL

Alternative Fuels Tax estimates are calculated using a compound annual growth rate that is based on historical consumption data. The tax rates are calculated from the current oil company franchise tax rate on gasoline indexed to the energy content of the alternative fuel.

# MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

## LICENSES & FEES

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	1,000.5	3.9%
2017-18	1,045.6	4.5%
2018-19	992.4	-5.1%
2019-20	954.0	-3.9%
2020-21	1,151.4	20.7%
2021-22	1,126.6	-2.2%
2022-23	1,113.2	-1.2%
2023-24	1,137.4	2.2%
2024-25	1,162.8	2.2%
2025-26	1,181.7	1.6%
2026-27	1,214.4	2.8%
2027-28	1,234.5	1.7%

### MODEL STRUCTURAL

The commonwealth receives revenue from the collection of fees levied on the registration of motor vehicles and for the issuance of learners' permits, operators' licenses, and transfers of registration. The implementation of Real IDs in Pennsylvania began during fiscal year 2018-19. Real IDs are optional and require an additional fee over and above the traditional driver's license fee.

# MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

## MINOR AND REPEALED

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	0.1	-107.5%
2017-18	0.0	-86.3%
2018-19	0.0	142.3%
2019-20	0.0	-217.5%
2020-21	0.0	-73.5%
2021-22	0.0	116.1%
<hr/>		
2022-23	0.0	NA
2023-24	0.0	NA
2024-25	0.0	NA
2025-26	0.0	NA
2026-27	0.0	NA
2027-28	0.0	NA

### MODEL      STRUCTURAL

Effective January 1, 2014, Act 89 of 2013 repealed the permanent 12 cents per gallon tax imposed upon liquid fuels and fuels used or sold and delivered by registered distributors within the commonwealth. Revenue from this tax is reported under Minor and Repealed. Motor fuel tax notice payments were temporarily deposited here in fiscal year 2018-19.

# MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

## MOTOR CARRIERS ROAD/IFTA TAXES

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	99.9	4.9%
2017-18	134.7	34.8%
2018-19	134.0	-0.5%
2019-20	128.9	-3.7%
2020-21	123.1	-4.5%
2021-22	136.1	10.5%
2022-23	147.9	8.7%
2023-24	150.6	1.8%
2024-25	145.1	-3.7%
2025-26	145.9	0.6%
2026-27	146.6	0.5%
2027-28	147.3	0.5%

### MODEL STRUCTURAL

Motor Carriers Road/IFTA Tax estimates are calculated using the growth from the autoregressive equation that forecasts diesel consumption within the Oil Company Franchise Tax model.

Effective January 1, 1996, Pennsylvania implemented the International Fuel Tax Agreement (IFTA). Under this agreement, qualified vehicles are subject to base state reporting and payment of fuel tax obligations. Qualified vehicles are those with two axles greater than 26,000 pounds, combinations greater than 26,000 pounds and those with three or more axles regardless of weight. Identification markers cost \$12 per qualified vehicle. The underlying fuel tax rates are unaffected by IFTA.



# MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

## OIL COMPANY FRANCHISE TAX

HISTORY & FORECAST (\$M)			MODEL		ECONOMETRIC AND STRUCTURAL			
FISCAL YEAR	RECEIPTS	GROWTH	FORMULA					
2016-17	1,621.6	4.3%	(A)	$OCFT = OCFT + ACT89LF + ACT89F$				
2017-18	1,697.5	4.7%	(B)	$lnDIESEL_t = 18.5687 - 0.0878 DRATE_t - 1.0021 COVID_t + v_t$				
2018-19	1,687.6	-0.6%		$v_t = 0.3009 v_{t-1} + 0.1432 v_{t-3} - 0.1740 v_{t-4} - 0.1958 v_{t-6} + 0.5937 v_{t-12} - 0.2869 v_{t-13}$				
2019-20	1,566.5	-7.2%	<b>VARIABLES</b>	OCFT	The 57 mills portion of the Oil Company Franchise Tax on gasoline and diesel fuel			
2020-21	1,521.1	-2.9%		ACT89LF	The 39 mills portion of the Oil Company Franchise Tax on gasoline			
2021-22	1,595.4	4.9%		ACT89F	The 39 mills portion of the Oil Company Franchise Tax on diesel fuel			
2022-23	1,618.2	1.4%		DIESEL	Monthly diesel fuel consumption in gallons			
2023-24	1,629.2	0.7%		DRATE	PA tax rate on diesel			
2024-25	1,567.2	-3.8%		COVID	Pandemic adjustment proportion			
2025-26	1,561.5	-0.4%						
2026-27	1,555.9	-0.4%	<b>STATISTICS</b>	<b>EQUATION B</b>	<b>COEFFICIENT T STATS</b>	<b>EQUATION B</b>		
2027-28	1,550.3	-0.4%		R <sup>2</sup>	0.682	β <sub>0</sub>	993.72	
				F	39.0	β <sub>1</sub>	-2.89	
				DW	1.85	β <sub>2</sub>	-6.18	
				DF	146	β <sub>3</sub>	-4.08	
				N	155	β <sub>4</sub>	-2.56	
						β <sub>5</sub>	3.50	
						β <sub>6</sub>	3.61	
						β <sub>7</sub>	-9.94	
						β <sub>8</sub>	3.74	

The amounts in the preceding table include non-restricted Oil Company Franchise Tax (OCFT) revenue within the Motor License Fund. This includes amounts reported as OCFT (57 mills out of the 153.5 mills on gasoline and 208.5 mills on diesel fuel), Act 89 OCFT Liquid Fuels (additional mills added by Act 89-2013 on gasoline), and Act 89 OCFT Fuels (additional mills added by Act 89 on diesel fuel). Act 89 also provided for a transfer of \$35 million annually to the Multimodal Transportation Fund beginning in fiscal year 2015-16. The amounts provided are net of that transfer.

## MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

### OIL COMPANY FRANCHISE TAX (continued)

Annual gasoline consumption is forecasted using a structural model that incorporates historical consumption data and United States Energy Information Administration projections on petroleum consumption. The annual forecast is converted to months using historical consumption data.

An autoregressive equation is used to forecast monthly diesel consumption (DIESEL). The model forecasts monthly diesel consumption using the Pennsylvania tax rate on diesel (DRATE) and a pandemic adjustment proportion (COVID). The equation is adjusted for serial correlation bias.

A structural model applies tax rates to these consumption forecasts and transforms estimated liabilities into monthly collections.

Act 89-2013 increased the OCFT rates beginning in calendar year 2014. Those rates were phased-in through calendar year 2017. Thereafter, the rate is calculated as the product of an uncapped average wholesale price (AWP) and a millage rate. There is an AWP floor in place in calendar year 2017 and thereafter, as well. In 2023, the OCFT rate increased from 57.6 cents per gallon (cpg) to 61.1 cpg for gasoline and from 74.1 cpg to 78.5 cpg for diesel.

# MOTOR LICENSE FUND ESTIMATE METHODOLOGIES

## OTHER MOTOR RECEIPTS

### HISTORY & FORECAST (\$M)

<b>FISCAL YEAR</b>	<b>RECEIPTS</b>	<b>GROWTH</b>
2016-17	25.3	-29.0%
2017-18	56.5	122.9%
2018-19	19.7	-65.2%
2019-20	1.0	-94.9%
2020-21	17.9	1690.9%
2021-22	9.8	-44.9%
2022-23	44.1	348.2%
2023-24	55.5	25.9%
2024-25	12.5	-77.5%
2025-26	13.5	8.0%
2026-27	11.8	-12.6%
2027-28	13.2	11.9%

### MODEL STRUCTURAL

The commonwealth receives revenue from other Motor License Fund transactions. The main source of other Motor License Fund revenue results from Treasury investment income. Other sources include but are not limited to fees for reclaiming abandoned vehicles, fees for right to know requests, highway encroachment permits, the sale of maps and plans, and revenue from the sale of unserviceable property. Per Act 89-2013, all revenue generated from inspection sticker fees has been deposited in the Multimodal Transportation Fund and the Public Transportation Trust Fund since July 2017.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## TAX REFORM CODE

Recent changes in tax law are ordered by fiscal year, and the section of the law they affect; the Tax Reform Code, Fiscal Code, School Code, or other sections. Changes prior to April 2021 can be found in the Tax Compendium.

**ACT #108 of November 3, 2022 made the following changes:**

### To the Personal Income Tax:

- Changes the thresholds at which taxpayers are required to make estimated payments according to the schedule below:

<b>TAX YEAR</b>	<b>THRESHOLD</b>
2023 and Prior	\$8,000
2024	\$9,500
2025	\$11,000
2026	\$14,000
2027	\$17,000
2028	\$20,000
2029 and Forward	Prior Year + \$500

### To the Realty Transfer Tax:

- Increases the transfer to the Housing Affordability and Rehabilitation Enhancement Fund from \$40 million to \$60 million, effective for fiscal years beginning July 1, 2023, and after.

### To the Pennsylvania Economic Development for a Growing Economy (PA EDGE) Tax Credit Program:

- Incorporates the existing Local Resource Manufacturing Tax Credit into the PA EDGE program, and increases the amount of credits available in a fiscal year to \$56.7 million, effective for taxable years beginning after December 31, 2022.
- Creates a credit for qualified Pennsylvania milk processing facilities meeting facility and employment requirements of up to \$15 million per fiscal year, effective for taxable years beginning after December 31, 2022.
- Creates a credit for qualified regional clean hydrogen hubs meeting facility and employment requirements of up to \$50 million per fiscal year, effective for taxable years beginning after December 31, 2022.
- Creates a credit for qualified facilities engaged in semiconductor manufacturing and biomedical manufacturing and research, meeting facility and employment requirements. Up to \$10 million in credits are available each fiscal year for semiconductor manufacturing, and up to \$10 million in credits are available for biomedical manufacturing and research, effective for taxable years beginning after December 31, 2022.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## TAX REFORM CODE (continued)

ACT #53 of July 8, 2022 made the following changes:

To the Corporate Net Income Tax:

- Decreases the corporate net income tax rate according to the schedule below:

<u>TAX YEAR</u>	<u>RATE</u>
2023	8.99%
2024	8.49%
2025	7.99%
2026	7.49%
2027	6.99%
2028	6.49%
2029	5.99%
2030	5.49%
2031	4.99%

- Codifies market sourcing rules applicable to intangible related receipts and provides specific guidance to taxpayers regarding how to source various items of intangible income. These include sourcing of royalties on intangibles used in Pennsylvania, such as patents and trademarks; sourcing of interest associated with loans to purchase land and buildings; sourcing of interest associated with vehicle loans; sourcing of credit card interest and fees; and a mechanism to handle all other types of intangible receipts.
- Codifies the Department of Revenue-issued Corporation Tax Bulletin 2019-04, related to economic nexus, ensuring that businesses that are operating in Pennsylvania’s economic marketplace, but located out of state, are subject to Pennsylvania taxation in a similar manner to businesses with physical operations in Pennsylvania.

To the Insurance Premiums Tax:

- Deposits all insurance premiums tax revenues in the General Fund and provides from transfers to the Municipal Pension Aid Fund (MPAF) and the Fire Insurance Tax Fund (FITF).
- The FITF will receive the greater of 8.5% of fiscal year insurance premiums tax revenues or \$85 million. The MPAF will receive the greater of 38% of fiscal year insurance premiums tax revenues or \$345 million.

To the Personal Income Tax:

- Permits Section 179 property placed into service after December 31, 2022, to be treated as a deductible expense only to the extent allowable under Section 179 of the Internal Revenue Code, which currently is set at \$1 million. Pennsylvania will follow all future federal changes to Section 179 automatically.
- Allows the deferral of tax due on gains from like-kind exchanges of property, effective January 1, 2023.

To the Sales and Use Tax:

- Applies the sales and use tax to sales at retail or use of peer-to-peer car-sharing programs, beginning January 1, 2023.
- Expands the window of benefits received by certified data centers under the sales and use tax exemption program from 15 to 25 years.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## TAX REFORM CODE (continued)

### To the Table Games Tax:

- Provides that tax revenue from table games shall be deposited into the General Fund, rather than the Property Tax Relief Fund, effective July 1, 2022. The Title 4 provision under §13A62(C), which required the transfer to the Property Tax Relief Fund when the Budget Stabilization Fund balance was higher than \$750 million, was repealed.

### To the Dependent and Child Care Enhancement Program:

- Establishes the Pennsylvania Dependent and Child Care Enhancement Tax Credit, which creates a refundable personal income tax credit calculated at 30% of the federal child and dependent care tax credit for those who qualified for the federal program.

### To Airport Land Development Zones:

- Established Airport Land Development Zones and their corresponding tax credits. The program will be administered by the Department of Community and Economic Development.
- The tax credit shall be equal to \$2,100 for each full-time equivalent employee in excess of the number of full-time equivalent employees prior to January 1, 2021. Credits may be applied against personal income (excluding employer withholding), corporate net income, bank and trust company shares, title insurance companies shares, and mutual thrift institutions taxes. The amount of credit per job may not be changed by the legislature before June 30, 2025.

### To City Revitalization and Improvement Zones:

- Requires DOR to notify each contracting authority of all CRIZ report non-filers and strengthens confidentiality provisions on usage of taxpayer data supplied to the authority from the department.
- Permits a CRIZ authority to provide financial assistance in the form of a grant.

### To the Neighborhood Improvement Zone:

- Strengthens confidentiality provisions on usage of taxpayer data supplied to the authority from the department.

### To the Keystone Opportunity Expansion Program:

- Extends the application deadline for the additional zones from October 1, 2022, to October 1, 2023, and extends the approval deadline from December 31, 2022, to December 31, 2023.

### To the Keystone Opportunity Zone Program:

- Permits qualified businesses that receive an additional 10 years of KOZ benefits to extend the benefits to affiliates located within the same zone.
- Provides that any affiliate of a qualified business located within a zone that relocates to the same zone will also qualify for the program.
- Provides that extensions will remain in effect if the original business that made the investment and jobs moves out of the zone if an affiliate remains.

### To the Waterfront Development Tax Credit:

- Increases the fiscal year program cap to \$5 million from \$1.5 million, effective for fiscal year 2022-23, and provides that the program cap may not be changed by the legislature before June 30, 2025.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## TAX REFORM CODE (continued)

### To the Research and Development Tax Credit:

- Increases the fiscal year program cap to \$60 million from \$55 million, effective for fiscal year 2022-23, and maintaining the same 80/20 split for small businesses. The act further provides that the program cap may not be changed by the legislature before June 30, 2025.

### To the Entertainment Economic Enhancement Program:

- Increases the fiscal year program cap to \$24 million from \$8 million, effective for fiscal year 2022-23. The act further provides that the program cap may not be changed by the legislature before June 30, 2025.

### To the Film Production Tax Credit:

- Amends the definition of "multifilm production" and allows productions meeting this definition to submit alternative films to maintain contracts under the program.
- Increases the fiscal year program cap to \$100 million from \$70 million, effective for fiscal year 2022-23. The act further provides that the program cap may not be changed by the legislature before June 30, 2025.
- Sets aside \$5 million of the program cap for productions by Pennsylvania film producers. If the full allocation for PA film producers is not used, the credits may be made available to any approved applicant.

### To the Inheritance Tax:

- Provides that transfers of property at death by a member of the military on active duty shall be exempt from inheritance tax, effective September 6, 2022.

### To the Public Transportation Assistance Fund:

- Subjects peer-to-peer car sharing programs to the car sharing daily fee.
- Modifies the rate schedule for rentals of less than a day. The \$1.25 fee now applies to rentals of more than three but less than six hours; the \$2.00 fee applies to rentals of 6 hours or more.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## FISCAL CODE

**ACT #54 of July 11, 2022 made the following changes:**

To the Fiscal Code:

- Approves a one-time supplemental rebate from property tax/rent rebate program claimants who received a rebate in claim year 2021. The one-time supplemental rebate is in addition to the original approved rebate and shall be equal to 70% of the claimant's previously approved claim amount for the 2021 PTRR claim year.
- Makes changes to the terms and qualifications for board members of a Military Installation Remediation Project authority and strengthens confidentiality provisions on usage of taxpayer data supplied to the authority from the department.
- Provides for the extension of the transfer of revenues from the Cigarette Tax to the Tobacco Settlement Fund for fiscal year 2022-23.
- Provides for the transfer of \$12,317,000 to the Environmental Stewardship Fund from Personal Income Tax revenue for fiscal year 2022-23.
- Provides for the annual transfer of \$45,000,000 to the Election Integrity Restricted Account from Personal Income Tax revenue. The first transfer must occur by August 1, 2022, and future transfers must occur annually by August 1.
- Provides for the transfer to the Sports Tourism and Marketing Account an amount equal to 5% of Sports Wagering Tax revenue, or \$2,500,000, whichever is greater, but not to exceed \$5,000,000, for fiscal year 2022-23.



# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## SCHOOL CODE

**ACT #55 of July 8, 2022 made the following changes:**

To the Public School Code:

- Increases the fiscal year program cap for the Education Improvement Tax Credit to \$340 million from \$225 million, effective for fiscal year 2022-23.
- Increases the fiscal year program cap for the Education Opportunity Scholarship Tax Credit to \$65 million from \$55 million, effective for fiscal year 2022-23.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2022-2023

## OTHER CHANGES

### **ACT #49 of July 7, 2022 made the following changes:**

#### To Small Games of Chance:

- Extends the ability of club licensees to utilize proceeds from small games of chance for operating expenses without following the 60/40 split until December 31, 2022.

### **ACT #74 of July 11, 2022 made the following changes:**

#### To the Fireworks Law:

- Removes the Fireworks Tax provisions from the Tax Reform Code and moves them to Title 3.
- Changes the calculation of the fireworks tax, which is now calculated on the purchase price only, rather than after sales and use tax has been applied.
- Provides that fireworks tax revenues no longer remain in the General Fund and will instead be transferred to the following programs:
  - \$1.5 million to the EMS Grant Program
  - \$250,000 to the Online Training Educator and Training Reimbursement Account
  - \$1 million to PHEAA for Loan Forgiveness and Tuition Assistance to active volunteer firefighters and volunteer EMS providers
  - \$1 million to Department of Health for EMS Training
  - \$500,000 to Office of the State Fire Commissioner for Emergency Services Training Center Capital Grants
  - \$500,000 to Office of the State Fire Commissioner for Career Fire Dept. Capital Grants
  - \$250,000 to Office of the State Fire Commissioner for Public Safety Campaign
  - \$500,000 to Office of the State Fire Commissioner for FBI-Accredited PA Bomb Squad Reimbursement
  - Any remaining money shall be equally divided and transferred to the EMS Grant Program and the Fire Company Grant Program
- Provides that fireworks tax revenue will remain in the General Fund for 2022-23 and be subject to the new transfers in fiscal year 2023-24.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2021-2022

## TAX REFORM CODE

**ACT #25 of June 30, 2021 made the following changes:**

### To the Sales and Use Tax:

- Provides that the sale at retail of tangible personal property manufactured for the purpose of initiating, supporting, or sustaining breast feeding is exempt from sales and use tax, effective for sales after December 31, 2021.
- Provides that, effective 60 days from passage, the sale at retail of flight simulators, training materials, and corresponding software, and the lease of helicopters and similar rotocraft are exempt from sales and use tax.
- Provides that the sale at retail of multipurpose agriculture vehicles used in farming is exempt from sales and use tax, effective for sales at retail or uses after December 31, 2021.
- Ends the current Computer Data Center Equipment Incentive Program. Tax refunds cannot be issued by the Department of Revenue under the program for the tax imposed upon the sale or use of computer data center equipment purchased after December 31, 2021.
- Replaces the Computer Data Center Equipment Incentive Program with the Computer Data Center Sales and Use Tax Exemption Program. Beginning January 1, 2022, certified entities can annually submit for a sales and use tax certificate of exemption for purchased computer data center equipment used exclusively in the data center certified by the state.

### To the Personal Income Tax:

- Allows farmers to defer income received from disaster-related crop insurance payments for one year, mirroring federal law, applicable to taxable years beginning after December 31, 2020.
- Requires that personal income tax payments equal to or greater than \$15,000 must be made electronically, applicable to payments made after December 31, 2021. Payments not made electronically will be subject to a penalty equaling 3% of the payment amount not to exceed \$500.
- Makes technical clarifications to conform the Tax Reform Code with the new Federal form 1099-NEC.

### To the Corporate Net Income Tax:

- Provides that the qualified manufacturing and reinvestment deductions shall be applied to the taxable income of a taxpayer to reduce the taxpayer's qualified tax liability following the allocation and apportionment of income, applicable to tax years beginning after December 31, 2020.

### To the Bank and Trust Company Shares Tax:

- Provides that the income of two or more banking institutions shall be combined on income statements of Reports of Condition in the event of mergers or acquisitions.

### To the Table Games Tax:

- Removes the sunset date on the additional 2% state tax on casino table games, making permanent the total 14% state tax on table games.

# RECENT CHANGES IN TAX LAW - FISCAL YEAR 2021-2022

## TAX REFORM CODE (continued)

### To the Bad Check Fees:

- Changes the maximum fee assessed on bad checks decreases from \$1,000 to \$100, effective 120 days after passage of the Act.

### To the Keystone Innovation Zone Program:

- Moves the application deadline from September 15 of each year for prior taxable year to December 1 for prior tax year.
- Moves the certificate award deadline from December 15 of each year to May 1 of each year following calendar year of application.
- Moves the report deadline from December 31 of each year to October 1 of each year following calendar year of application.

### To the Keystone Opportunity Zone Program:

- Extends the application and approval deadlines for the Additional Keystone Opportunity Expansion Zones, authorized under Act 13 of 2019, from October 1, 2021 to October 1, 2022 and from December 31, 2021 to December 31, 2022, respectively.
- Allows the Department of Community and Economic Development may grant a five-year extension for a Keystone Opportunity Zone located within a county of the third class with a population between 350,000 and 410,000.

### To the Local Resource Manufacturing Tax Credit:

- Reduces the maximum number of Local Resource Manufacturing Tax Credit recipients from four to two. Additionally, the department can now award unallocated credits to no more than one taxpayer if additional capital investment and job requirements are met.

### To the Mixed-Use Development Tax Credit:

- Increases the total aggregate amount of tax credits available in any fiscal year from \$3 million to \$4.5 million.

### To the Pennsylvania Housing Tax Credit:

- Makes an appropriation of \$10 million to the credit, effective for fiscal year 2021-22.

### To the Research and Development Tax Credit:

- Moves the application deadline from September 15 to December 1.
- Moves the deadline for department approval from December 15 of the calendar year to May 1 of the second calendar year following the close of the taxable year during which the expense was incurred.
- Moves the annual report from March 15 of the following calendar year to October 1 of the following calendar year.

### To the Film Production Tax Credit:

- Permits the award of credits to multi-film projects now within the program, if produced by the same taxpayer over a period of no less than one year and no more than four years and permits the Department of Revenue to reissue tax credits only after allowing taxpayers 90 days to submit applications for alternative individual films.

## RECENT CHANGES IN TAX LAW - FISCAL YEAR 2021-2022

### TAX REFORM CODE (continued)

#### To the Entertainment Economic Enhancement Program:

- Allows unallocated credits to be carried forward to the next program year.
- Expands the parameters of eligible concert tour equipment, tour expenses, and qualified taxpayers.
- Permits streaming performances to be eligible under the PA Live Events Industry Covid-19 Emergency Assistance Program for fiscal years beginning on July 1, 2021 and ending June 30, 2023.
- Expands eligible venues to include qualified rehearsal facilities when used for streaming performances beginning on July 1, 2021 and ending June 30, 2023.

#### To the Administration of Tax Credit Programs:

- Permits the Department of Revenue is to require electronic filing for applications for tax credits or tax benefits, effective within 30 days of the bill's passage.
- Provides that the department may require the submission of additional documentation and verification, in-person or virtual interviews, and site inspections, effective within 30 days of the bill's passage.
- Empowers the department to develop risk-scoring criteria for applications for tax credits or tax benefits, effective within 30 days of the bill's passage.
- Permits the department to issue assessments against taxpayers in the event of improper use or conferring of tax credits or tax benefits and may be represented in all petition-related proceedings, , effective within 30 days of the bill's passage.
- Requires tax credit brokers to register and post \$50,000 bond with the Department of Revenue. Brokers also face a civil fine of up to \$25,000 for the first offense and \$50,000 for each additional offense if broker registration requirements are violated. Fines are payable to the Department of Revenue. The provisions are effective 180 days from the bill's passage.
- Expands reporting requirements to allow for greater transparency. Taxpayers shall report annually to the Department of Revenue or the administering agency after approval and until the tax credit or tax benefit is fully used. Additionally, the Department of Revenue or administering agency is required to provide taxpayer data on the utilization of tax credits or tax benefits to the Independent Fiscal Office, if applicable.
- Puts in place an appeals process for taxpayers, brokers, and the Department of Revenue concerning the administration of tax credits and tax benefits.

## RECENT CHANGES IN TAX LAW - FISCAL YEAR 2021-2022

### FISCAL CODE

**ACT #24 of June 30, 2021 made the following changes:**

To the Fiscal Code:

- Provides that any information gained by any administrative department, board, or commission providing for credits as administered by the Department of Revenue independently or in conjunction with other agencies or revenue transfers to improvement or economic development zones shall be confidential except for official purposes. This does not include information regarding the amount of refunds or credits and the identity of the entitled persons or corporations.
- Provides for the extension of the transfer of revenues from the Cigarette Tax to the Tobacco Settlement Fund for fiscal year 2021-22.
- Provides for the transfer of \$12,289,000 to the Environmental Stewardship Fund from Personal Income Tax revenue for fiscal year 2021-22.

## RECENT CHANGES IN TAX LAW - FISCAL YEAR 2021-2022

### SCHOOL CODE

**ACT #26 of June 30, 2021 made the following changes:**

To the Public School Code:

- Increases the total aggregate amount of all tax credits approved for contributions from business firms to scholarship organizations, educational improvement organizations, and pre-kindergarten scholarship organizations in a fiscal year from \$185 million to \$225 million.
- Increases the minimum amount of the total aggregate amount to be used to provide tax credits for contributions from business firms to scholarship organizations from \$135 million to \$175 million.

**ACT #10 of April 22, 2021 made the following changes:**

To the Tax Reform Code:

- Directs the Department of Revenue to disregard the period after April 14, 2021, and before May 17, 2021, in the calculation of interest, a penalty or an addition to tax for failure to meet an extended deadline for Personal Income Tax, in light of tax administration challenges due to the COVID-19 pandemic.
- Provides various clarifications on filing deadlines for Corporate Net Income Tax.