Initial Revenue Estimate

May 2020

FY 2020-21

Independent Fiscal Office

About the Independent Fiscal Office

The Independent Fiscal Office (IFO) provides revenue projections for use in the state budget process along with impartial and timely analysis of fiscal, economic and budgetary issues to assist Commonwealth residents and the General Assembly in their evaluation of policy decisions. In that capacity, the IFO does not support or oppose any policy it analyzes, and will disclose the methodologies, data sources and assumptions used in published reports and estimates.

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IFO

The Independent Fiscal Office was created
by the Act of Nov. 23, 2010 (P.L.1269, No.120).

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INDEPENDENT FISCAL OFFICE

May 26, 2020

The Honorable Members of the Pennsylvania General Assembly:

The Independent Fiscal Office hereby submits its initial revenue estimate in accordance with Sections 604-B (a)(1) and 605-B (a) of the Administrative Code of 1929. This report provides revenue estimates for fiscal year (FY) 2019-20 and FY 2020-21. Pursuant to statute, the office will release a final estimate by June 22, 2020.

This report contains estimates for unrestricted General Fund and Motor License Fund revenues that may be considered for appropriation in the General Appropriations Act. Estimates for the Lottery Fund represent net revenues after the deduction of certain expenses. Federal funds subject to General Fund appropriation are stated separately. The report also provides detail on the revenue impact of business closures, other mitigation efforts and increased federal funding related to the outbreak of COVID-19. A separate report that describes the methodologies used to produce the various revenue estimates included in this report will be posted to the office website after the final estimate is released.

Questions or comments regarding the contents of this report are welcome and can be submitted to contact@ifo.state.pa.us.

Sincerely,

MATTHEW J. KNITTEL
Director

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Economic Outlook

The mitigation efforts triggered in response to the COVID-19 virus will have a dramatic impact on economic growth for calendar years (CY) 2020 and 2021. For most of 2020 Q1, nearly all national and state economic metrics exhibited solid growth on a year-over-year basis.[1] However, on February 29, 2020, the first U.S. death attributable to the COVID-19 virus was reported in Seattle, and the president declared a national emergency on March 13. One week prior to that declaration, Pennsylvania reported its first confirmed case of coronavirus, and on March 18, the first death due to COVID-19. As of May 24, the Pennsylvania Department of Health reports 67,713 infections and 5,124 deaths statewide due to COVID-19.

Immediate responses to the pandemic included the cancellation of sporting events, conferences and other travel, as well as the closure of university and college campuses. The administration implemented statewide mitigation measures in response to the pandemic and federal emergency declaration. A brief summary of the timeline is as follows:[2]

- March 16: Pennsylvania schools close for 10 days and bars and restaurants close for certain large southeastern counties
- March 23: all non-life sustaining businesses close (some obtain waivers), stay-at-home orders for certain counties
- April 1: stay-at-home orders for all counties
- April 9: schools close for remainder of year
- May 1: construction projects, golf courses and certain other outdoor activities may resume if proper social distancing techniques used
- May 8: 24 rural counties (north and northwest) partially reopen (i.e., yellow status)
- May 15: 13 counties (west and southwest) partially reopen
- May 22: 12 counties (southcentral and northeast) partially reopen
- May 29: 8 counties partially reopen and all remaining counties expected to partially reopen by June 5; 17 rural counties fully reopen on a modified basis

The administration established various metrics to determine when counties can partially reopen (yellow status) or fully reopen (green status, however under a modified basis). One key metric (among others) that informed the determination of a partial reopening was whether a county recorded fewer than 50 new confirmed cases per 100,000 residents over a 14-day period. Under partial reopening, telework must continue where feasible, childcare may reopen if guidance is followed, and limited in-person interactions with appropriate distancing techniques may be used in certain retail settings. Under full reopening, other metrics will be used and counties will need to demonstrate sufficient testing and contact tracing capabilities. All businesses must follow Centers for Disease Control and Prevention (CDC) and Pennsylvania Department of Health guidelines.

[1] A notable exception is energy prices, which had been declining in 2019 Q4 and 2020 Q1, largely due to excess supply.
[2] For a more complete state timeline, see https://www.governor.pa.gov/process-to-reopen-pennsylvania/.

Based on current trends, the forecast assumes that most counties will fully reopen by the end of June. An exception is Philadelphia and surrounding suburban counties where the timeline is more uncertain.

Pennsylvania Economic Forecast

Table 1.1 displays a summary of the Pennsylvania economic forecast used for this revenue estimate. The forecast assumes that:

- Real GDP (real gross domestic product, excludes inflation) decreases by 6.2 percent (2020) and increases by 6.3 percent (2021).
- Wages and Salaries paid to Pennsylvania residents decrease by 3.2 percent (2020) and increase by 5.5 percent (2021). Those amounts exclude compensation earned by self-employed and independent contractors.
- Payroll Employment contracts by 495,300 (2020, annualized basis) and expands by 357,100 (2021) net jobs. These figures exclude self-employed and independent contractors.
- The Philadelphia CPI-U (consumer price index) increases by 0.5 percent (2020) and 1.5 percent (2021).

Table 1.1
Pennsylvania Economic Forecasts

	Annual Growth Rate or Change			
COVID-19	**2018**	**2019**	**2020**	**2021**
Real GDP	2.6%	2.3%	-6.2%	6.3%
Wages-Salaries	4.3%	4.2%	-3.2%	5.5%
Net Payroll Jobs (000s)	68.9	55.5	-495.3	357.1
Philadelphia CPI-U	1.3%	2.0%	0.5%	1.5%
Great Recession	**2007**	**2008**	**2009**	**2010**
Real GDP	3.4%	1.9%	-2.9%	2.8%
Wages-Salaries	5.3%	2.7%	-2.3%	2.0%
Net Payroll Jobs (000s)	42.1	1.4	-184.1	5.1
Philadelphia CPI-U	2.2%	3.4%	-0.4%	2.0%

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

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

The bottom of Table 1.1 displays the corresponding growth rates from the Great Recession. The COVID-19 forecast calls for a much stronger economic contraction due to mandated statewide business closures. For the Great Recession, jobs growth was flat in 2008, followed by a contraction in 2009 and no growth in 2010. By contrast, the COVID-19 forecast has a sharp employment contraction followed immediately by jobs growth as businesses reopen and ramp up operations.

Table 1.2 displays the U.S. economic forecast from the Congressional Budget Office (CBO) and IHS Markit.[3] For 2020, the forecasts project that U.S. real GDP will decline by 6.0 and 7.3 percent and the unemployment rate will increase to 11.5 and 14.9 percent. Both forecasts assume a partial recovery in CY 2021, but not a full recovery to levels observed prior to the pandemic. Both forecasts also project a large reduction in the labor force (i.e., those employed or seeking employment) due to mandated business closures.

Table 1.2
U.S. Economic Forecasts

	Annual Growth Rate or Change				
	2018	2019	2020	2021	2022
CBO					
Real GDP	2.9%	2.3%	-6.0%	4.4%	--
Wages-Salaries	5.0%	4.6%	-6.1%	4.9%	--
Unemployment Rate	3.9%	3.7%	11.5%	9.3%	--
Net Payroll Jobs	1.6%	1.4%	-9.4%	3.0%	--
Labor Force (millions)	1.8	1.4	-3.6	1.3	--
Domestic Corporate Profits	1.4%	-1.9%	-7.0%	27.0%	--
IHS Markit					
Real GDP	2.9%	2.3%	-7.3%	5.1%	4.6%
Wages-Salaries	5.0%	4.6%	-9.0%	7.7%	7.5%
Unemployment Rate	3.9%	3.7%	14.9%	13.5%	9.5%
Net Payroll Jobs	1.6%	1.4%	-13.5%	4.3%	7.3%
Labor Force (millions)	1.8	1.4	-7.1	3.3	3.4
Domestic Corporate Profits	2.4%	-1.2%	-23.0%	14.3%	6.9%

Note: Payroll jobs exclude self-employed and independent contractors. CBO profits include financial firms; IHS Markit profits do not.

Source: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, CBO and IHS Markit.

Overall, the IFO forecast assumes a relatively quick recovery from the significant contraction imposed on the state economy in 2020 Q2 due to mitigation efforts. For Q3 and Q4, the state recovery ramps up and coincides with business reopenings. In CY 2021, the partial recovery is largely achieved, and growth reverts to rates closer to non-recessionary historical averages. Compared to national forecasts, the projections used by this analysis assume a more moderate downturn and a quicker recovery.[4] The forecast reflects the following assumptions:

- Consumers largely revert to prior spending patterns during the remainder of the calendar year. However, it is recognized that the pandemic has likely caused long-term shifts in some consumer behaviors such as a greater reluctance to attend large social events, dine out and travel.

[3] Release dates were as follows: IHS Markit (May 11) and Congressional Budget Office (May 19).
[4] This assumption is consistent with a recent analysis by Moody's that projects the revenue downturn for Pennsylvania would be least severe across all 50 states due to the composition of the state economy and flat income tax structure. See https://www.taxadmin.org/assets/docs/econ-webinar/StressTesting-States_040920.pdf.

- Businesses largely revert to prior hiring and production operations, but many will streamline operations, implement more liberal telework policies and will encounter lingering supply chain disruptions. It is also projected that a large number of small businesses will not remain operational. Due to these factors, the forecast assumes that the average employment level in CY 2021 will be lower than CY 2019. (Discussed later in this section.)
- There exists pent-up demand for both goods (e.g., homes, vehicles, furniture) and services (e.g., healthcare, personal care and legal services) that will be partially recouped in 2020 Q2 and Q3.
- A second outbreak does not occur later this year or next that would trigger the reinstatement of statewide business closures.
- Schools and colleges reopen in the fall, although new social distancing conventions may be implemented.

Federal and State Programs and Provisions

In response to the pandemic, recent legislation injects a large amount of federal monies into the state economy. Normal state safety net programs, notably unemployment compensation (UC), will also reduce the economic downturn caused by mitigation efforts. **Table 1.3** provides estimates of the funds that will flow into Pennsylvania due to new and expanded federal programs, tax cuts and delays, and state UC payments attributable to COVID-19. These programs and provisions play a crucial role by moderating the economic downturn that would have otherwise occurred.

Table 1.3
Federal and State Programs and Provisions (CY 2020)

	Estimate		Estimate
Individual Provisions		**Federal Support**	
Economic Impact Payments	$10.8	State Governments	$5.8
State UC Payments	6.2	Local Governments	2.4
Federal UC Payments	13.9	Healthcare Providers	1.9
SNAP Benefits	0.3	Educational Institutions	0.5
Business Provisions			
Business Tax Cuts	4.6	**Total**	**78.0**
Delay Employer Payroll Taxes	10.8		
PPP Forgivable Loans	20.8		

Note: Figures in dollar billions.
Source: See text for a description of methodology and sources.

Details regarding the estimates are as follows:

- The **economic impact payments** are based on federal income tax return data for Pennsylvania residents and other data from the Social Security Administration. Payment amounts and phase-out thresholds are as follows: single ($1,200 rebate, $75,000 phase-out begins), head of household ($1,200 and $112,500) and married filing jointly ($2,400 and $150,000). Each qualified dependent under age 17 increases payments by $500. The $10.8 billion estimate includes Social Security recipients and disabled that do not file a tax return. Through May 22, the IRS has issued $10.6 billion in payments to 6.26 million Pennsylvania residents ($1,690 average).

- The **unemployment compensation** estimates assume that 1.1 million workers and 375,000 self-employed/newly eligible are impacted by business closures in 2020 Q2 and receive UC payments.[5] The **state UC payments** assume that roughly 15 percent of laid off workers that receive UC are rehired by the end of Q2, two-thirds by the end of Q3 and 85 percent by the end of Q4. The **federal UC payments** include (1) Pandemic Unemployment Assistance (PUA) benefits paid to self-employed individuals, independent contractors and certain workers that are ineligible under the state program due to insufficient work history, (2) Pandemic Emergency Unemployment Compensation (PEUC) benefits that provide up to 13 weeks of additional benefits to individuals who have exhausted regular UC benefits (from 26 weeks to 39 weeks), (3) Federal Pandemic Unemployment Compensation (FPUC) bonus payments ($600 per week for up to 16 weeks) for individuals receiving regular UC, PUA or PEUC benefits and (4) UC benefits for the first week of unemployment for all affected workers. The estimates assume average weekly benefits paid in Pennsylvania for most affected individuals is $345. This figure is lower than the average for recent UC recipients ($375) due to the disproportionate number of lower-wage workers affected by mandated business closures in the retail trade and food service sectors.[6] The estimates also assume that most workers (but not all) will receive the full 16 weeks of FPUC bonus payments.

- The Commonwealth received approval from the U.S. Department of Agriculture (USDA) to issue emergency allotments for **Supplemental Nutrition Assistance Program (SNAP)** recipients. This emergency funding provides all SNAP households the maximum monthly benefit based on size of household. The amount of additional SNAP benefits for Pennsylvania households is estimated to exceed $90 million per month. The value shown ($0.3 billion) represents three months (March to May) of emergency benefits.

- The **business tax cuts** are national estimates published by the Joint Committee on Taxation and apportioned to Pennsylvania (3.5 percent share).[7] The estimate reflects provisions that impact individual loss limits, the relaxation of the limit on interest deductions and the employee retention credit that are part of the Coronavirus Aid, Relief and Economic Security (CARES) Act.

- The **delay of 2020 employer payroll taxes** to no later than December 2021 (one-half) and December 2022 (remaining half) is an estimate based on published data from the Social Security Administration. The figure assumes that 80 percent of eligible taxes are shifted. This provision enhances immediate cash flow.

- The **small business loans** from the Paycheck Protection Program (PPP) are based on data published by the Small Business Administration. The loans will be forgiven if used for eligible expenses such as rent, mortgage, utilities and certain employee compensation. It is likely that a significant share of loan amounts will be forgiven.[8]

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[5] The 1.1 million figure represents the four-week average for continued claims for the weeks ending April 11 through May 2.

[6] Individuals receiving UC prior to the pandemic are assumed to receive $375 in average weekly PEUC benefits. Average weekly benefits for PUA recipients are estimated at $220 based on benefits paid through May 20.

[7] See https://www.jct.gov/publications.html?func=startdown&id=5252.

[8] The estimate assumes that PPP loans are not taxable to the recipient.

- **State support** reflects funds allocated to states to support various state and local government operations and programs. Of the allocated amounts, $3.9 billion represents general state aid administered by the U.S. Treasury Department, and the remaining $1.9 billion represents support for education, public health initiatives, food and nutrition access, small urbanized and rural transit agencies and other various activities.[9]
- **Local support** reflects funds allocated to eligible large local governments ($1.0 billion) by the U.S. Treasury Department and also includes roughly $1.0 billion in grants administered by the Federal Transit Agency to support local transit agencies. The remaining amount represents transfers for various local government programs, including $124 million in Community Development Block Grants and Emergency Solution grants that have been awarded.
- Additional support for **healthcare providers** ($1.9 billion) and **educational institutions** ($0.5 billion) reflects payments made directly to those entities by the federal government. This includes funds for testing, preparedness and response, and research related to the COVID-19 virus.

Employment and Wages

The most immediate and quantifiable impact of business closures due to mitigation efforts is employment levels. **Table 1.4** displays the year-over-year growth rate of payroll employment for the United States and Pennsylvania for January through April. The data reveal the dramatic employment contraction in April. It is noted that the April data may reflect only part of the employment impact because the establishment survey upon which the data are based references the pay period that includes April 12. Hence, for some firms, the snapshot may not fully reflect layoffs that occurred in the latter part of the month.

The top portion of the table lists growth rates for primary sectors. Notable results are as follows:

- Prior to the pandemic, February employment growth for both the U.S. (1.6 percent) and Pennsylvania (1.0 percent) was strong. For Pennsylvania, a 1.0 percent growth rate implies an annualized pace of roughly 60,000 new payroll jobs for the full year.
- The April employment contraction for Pennsylvania was stronger than the U.S. because the mandated business closures were more comprehensive and affected more industries.
- The arts-entertainment (e.g., movie theatres, sports events, bowling alleys) and accommodations-food service sectors recorded the largest contractions for the U.S. and Pennsylvania.
- Other services (repair, personal care) contracted by 30.9 percent.
- The financial-real estate and government sectors recorded the smallest contraction.

[9] See "Estimated State Funding for Coronavirus Epidemic," Federal Funds Information for States (May 15, 2020). The state support amount does not include federal funds associated with the temporary increase in the Federal Medical Assistance Percentage (FMAP) used to reimburse states for Medicaid program costs (effective January 1, 2020 until the termination of the national public health emergency declaration).

Table 1.4
April Employment Levels Decline Dramatically

	YOY Growth Rate, United States				YOY Growth Rate, Pennsylvania			
	Jan	Feb	Mar	Apr	Jan	Feb	Mar	Apr
Total	**1.5%**	**1.6%**	**0.8%**	**-12.9%**	**0.7%**	**1.0%**	**-0.3%**	**-17.1%**
Construction	2.4	3.0	2.2	-11.3	2.2	3.2	0.3	-39.9
Manufacturing	0.2	0.3	-0.1	-10.5	-0.2	0.1	-0.7	-13.6
Retail	-0.4	0.0	-0.1	-13.4	-1.8	-0.7	-0.4	-20.9
Wholesale	1.2	0.8	0.8	-5.5	-0.3	-0.6	-1.5	-12.0
Transport-Storage	2.3	1.6	1.3	-9.4	1.5	2.2	2.7	-10.2
Financial-Real Estate	1.7	1.9	1.6	-1.6	1.8	2.0	2.4	-0.1
Professional Business	2.1	1.9	1.3	-9.0	0.8	0.7	0.1	-9.1
Education	3.9	3.1	1.4	-10.3	1.7	2.3	-2.3	-15.5
Healthcare	2.3	2.2	1.8	-7.2	0.2	0.5	-0.6	-9.8
Social Assistance	4.3	4.6	3.5	-12.8	5.1	5.3	5.2	-12.3
Arts-Entertainment	3.4	3.1	0.3	-53.6	6.0	4.1	-0.9	-63.7
Accomm-Food Service	2.1	2.6	-0.9	-46.2	0.7	1.0	-5.2	-59.5
Other Services	1.5	1.6	0.6	-21.3	0.8	2.3	-1.5	-30.9
All Government	1.0	1.1	0.7	-3.6	0.7	0.7	0.4	-2.2
All Other	0.5	0.4	0.0	-7.2	1.3	-1.3	-0.8	-10.0
Sub-Sector Detail								
Full-Service Restaurants	1.6%	2.5%	-2.8%	--	-2.5%	-1.1%	-8.1%	-81.3%
Amusement-Gaming	4.0	3.9	1.8	-58.7	2.4	1.5	-1.3	-73.6
Personal Care-Laundry	1.7	1.2	-0.7	-53.1	1.7	3.0	-4.2	-61.9
Dentist Offices	1.3	1.3	-0.9	-52.9	--	--	--	--
Child Care	3.5	3.1	1.2	-31.6	3.1	2.5	0.8	-40.8
Employment Services	0.7	-0.1	-1.2	-27.5	-5.5	-7.0	-10.3	-24.3
Courier and Messengers	10.3	6.4	5.8	5.3	5.1	7.9	6.7	3.1
Federal Government	1.6	1.9	2.6	2.1	1.6	1.4	2.5	2.5

Note: Data are not seasonally adjusted. Figures for April are preliminary. YOY is the year-over-year growth rate.
Source: U.S. Bureau of Labor Statistics, Current Employment Statistics and State and Area Employment.

The bottom of the table displays detail for specific subsectors:

- Amusements and gaming declined by nearly 75 percent for Pennsylvania while full-service restaurants contract by more than 80 percent.
- Personal care and laundry services (e.g., dry cleaning) declined by more than one-half.
- Dentist offices also declined by one-half for the U.S. (state-level data are not available on a monthly basis).
- Child care services dropped by roughly 40 percent.
- Business employment services (e.g., temporary workers) declined by roughly one-quarter.
- Couriers-messengers (e.g., package delivery) and the federal government were the only subsectors to record employment gains at the national and state levels. For the federal government, part of

that result is due to the hiring of temporary Census workers. Currently, the federal government has not announced plans to reduce staff.

Table 1.5 displays the historical and projected annual change in Pennsylvania payroll employment by sector. For CY 2020, the analysis projects an annual net jobs contraction of 495,300 (excludes self-employed and independent contractors). The estimate reflects the following elements:

- It is the annualized average job loss attributable to COVID-19 relative to CY 2019. It is noted that the figure represents an average loss for the entire year, and the average job loss for 2020 Q2 is considerably higher (-1,035,000). It is also noted that 2020 Q1 employment was largely unaffected by the virus and had increased by 30,000 relative to the prior year.
- It does not include any lost employment opportunities from the general downturn. That is, under normal conditions, 40,000 to 50,000 more state residents would have been hired in CY 2020 compared to CY 2019, and those lost employment opportunities are not included in Table 1.5.
- The table does include 60,000 to 70,000 seasonal workers that would have been employed in Q2 and Q3 but are assumed to not attain employment. Those individuals would not be reflected in current UC filings as many are high school and college students.
- The figure includes dependents who were employed in 2020 Q1 and lost their job, but are not eligible to file for UC. Based on data from the U.S. Census Quarterly Workforce Indicators, roughly 140,000 14- to 18-year-olds were employed in CY 2019. The analysis assumes that one-half lose employment due to COVID-19 and are not eligible to file for UC. The analysis assumes a high percentage lose employment because most are employed in the food service and wholesale-retail sectors.
- The figure excludes "normal" UC filings that occur each year. Prior to mandated business closures, roughly 110,000 residents (annual average) filed UC claims each quarter. Those individuals are not included in the CY 2020 job loss figures from Table 1.5. However, those filers are eligible for extended UC and federal bonus payments.

Table 1.5
Pennsylvania Net Payroll Employment Change

	Annual Change (000s)			
	2017	2018	2019	2020
Construction	10.0	6.6	5.2	-51.7
Manufacturing	2.0	8.0	4.1	-36.3
Wholesale-Retail	-8.3	-2.6	-10.3	-86.5
Transportation and Storage	7.4	8.7	8.8	-6.9
Finance and Real Estate	3.8	4.6	3.9	-2.6
Professional Services	4.0	2.0	6.8	-7.7
Administrative and Waste Management	1.2	2.4	2.9	-36.9
Education	0.7	1.9	0.3	-11.3
Healthcare	12.3	13.6	6.9	-27.6
Social Assistance	13.9	13.8	14.2	-8.7
Arts and Entertainment	2.0	1.0	3.0	-34.0
Accommodation and Food Service	7.1	4.2	3.3	-133.9
All Government	0.2	-0.5	3.7	-15.6
All Other	1.7	4.9	2.7	-35.6
Total	**58.1**	**68.7**	**55.5**	**-495.3**

Note: Excludes self-employed and independent contractors.

Source: U.S. Bureau of Labor Statistics and State and Area Employment. 2020 is a forecast by IFO.

Table 1.5 shows that for the past three years, the state economy generated 55,000 to 70,000 net payroll jobs. That figure excludes any gains for self-employed and independent contractors. For CY 2020, the analysis assumes that:

- Construction sector jobs contract by 51,700 due to reduced demand for business and home construction, as well as home remodeling. Surveys have noted that firms have postponed plans for new construction due to the uncertainty regarding the economic recovery form COVID-19, in addition to cash flow issues. PennDOT estimates that a projected shortfall in Motor License Fund revenues will result in the cancellation of many large projects, and some school districts have announced a freeze on current and planned construction.
- The wholesale-retail and accommodation-food service sectors record the largest contractions, which is consistent with UC filings. These sectors also include many seasonal workers that will not attain employment relative to the prior year.
- The administrative-waste management sector contracts by 36,900. Many of those positions are with firms that supply temporary workers.
- The arts-entertainment sector contracts by 34,000. This sector includes movie theaters, casinos, and bowling alleys.

- The healthcare sector contracts by 27,600. The job loss is largely due to mandated business closures for firms that provide routine medical care such as general practitioners and dentists. The sector is very large and most of the average annual job loss is concentrated in Q2. The analysis assumes most of these employees return to work quickly.
- The all other sector contracts by 35,600. This residual sector includes information, mining, personal care and other miscellaneous services.

Table 1.6 displays the quarterly patterns for wage growth and net payroll jobs for CY 2020 and 2021 Q1. The growth rates or change are relative to the same quarter in the prior year. The table illustrates the dramatic impact of mitigation efforts in 2020 Q2, and the rapid recovery from that point as more businesses resume normal (albeit modified) operations. Although average payroll employment in 2020 Q2 falls by 17.3 percent relative to the prior year, total wages paid decline by only 9.7 percent because most employees who lose employment work in sectors with low average wages and/or are part-time workers. By 2021 Q1, the analysis assumes that the state economy has largely returned to a new equilibrium, with employment levels that are 165,000 lower than 2020 Q1.

Table 1.6
Wage and Employment Growth

	Change or Growth from Prior Year				
	2020.1	2020.2	2020.3	2020.4	2021.1
Wages-Salaries	3.7%	-9.7%	-5.2%	-1.7%	-1.3%
Payroll Jobs (000s)	30	-1,035	-615	-315	-165

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

Source: Value for 2020.1 payroll jobs from the U.S. Bureau of Labor Statistics. Forecast by IFO.

Non-Wage Income

Mitigation efforts will also have a dramatic impact on non-wage income such as corporate and non-corporate profits, dividends, capital gains and rental payments. **Table 1.7** displays the assumptions used for this revenue estimate for large non-wage income sources that impact remittances of personal income tax and corporate net income tax. It is noted that all of these income sources are volatile even under normal conditions, and a reliable model cannot be used to forecast these sources under economic conditions that have no historical precedent. Therefore, the growth rates displayed in Table 1.7 merely reflect reasonable assumptions that are generally consistent with employment and wage trends. For CY 2021, the analysis assumes that all non-wage income sources will revert to 90 percent of the level attained in CY 2019. For context, the table also includes growth rates from the Great Recession.

The non-wage income sources include:

- **Net Profits** are profits of self-employed, independent contractors (generally compensation for labor provided), partners and S-corporation shareholders that are reported on the Pennsylvania income tax return. For tax year 2018, the IFO projects that roughly $44 billion of net profits will be reported. The analysis assumes a 15 percent contraction for CY 2020.[10]

- **Capital Gains** are largely profits from the sale of securities. The analysis assumes a 25 percent contraction for CY 2020. Through May 22, the monthly average S&P 500 Index was up 2 percent compared to the full-year CY 2019 average. (See Table 1.7.) However, relative to the December average, the index is down 7 percent.
- **Dividends** are shareholder distributions from C corporation profits and the analysis also assumes a 25 percent reduction. The reduction is consistent with the decline in domestic corporate profits.
- **Domestic Corporate Profits** are profits of both C and S corporations, excluding any profits of foreign subsidiaries. The analysis assumes a 25 percent decline in national non-financial corporate profits (state-level profits data are not available). Relative to the Great Recession, the single year profit decline is much more dramatic, but is less than the cumulative three-year decline from CY 2007 to CY 2009.

The actual growth rates for these income sources will be driven by the pace of business reopenings and how quickly consumers revert to prior spending patterns. A longer delay in either factor implies a stronger contraction.

Table 1.7
Non-Wage Income Growth Rates

	Great Recession				COVID-19 Pandemic		
	2007	2008	2009	2010	2019	2020	2021
Net Profits	15%	8%	-9%	8%	5%	-15%	6%
Capital Gains	26%	-40%	-39%	73%	8%	-25%	20%
Dividends	35%	-30%	-35%	14%	8%	-25%	20%
Domestic Corporate Profits							
All Corporations	-16%	-26%	15%	28%	-1%	-23%	14%
Non-Financial Only	-10%	-11%	-14%	37%	-3%	-25%	20%
S&P 500 Index							
Annual Average	12%	-16%	-23%	20%	7%	2%	--
December Average	5%	-39%	24%	10%	20%	-7%	--

Note: Net Profits, Capital Gains and Dividends are amounts reported on state income tax return. S&P 500 Index for 2020 represents values through May 22. All Corporation profits include financial firms. All Corporation profits growth rates for 2020 and 2021 are forecasts by IHS Markit.

Source: U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis and Pennsylvania Department of Revenue.

[10] The contraction could be larger, but the federal CARES act allows the deferral of the employer share of Social Security payroll taxes. If those payments are delayed and not deducted, then taxable income receives a moderate boost.

Economic and Revenue Impact of COVID-19 and Related Mitigation Efforts

The section concludes with estimates of the economic and revenue costs due to COVID-19 and related mitigation efforts. In order to quantify those impacts, the analysis must make a counterfactual projection of economic growth and revenue collections that would have occurred under "normal" conditions (i.e., in the absence of the pandemic and consequent mitigation efforts). For that forecast, the IFO assumed a continuation of economic and revenue growth from recent historical years, albeit at a slightly slower rate that is consistent with a mature economic expansion.

Table 1.8 displays the results. Notable outcomes include:

- Based on the assumptions noted previously, the analysis projects that wage and salary income is reduced by $24.8 billion (CY 2020) and $20.0 billion (CY 2021). For CY 2020, tipped occupations (e.g., food servers, hair dressers, nail technicians) may have also lost $1 to $2 billion in tip income. By comparison, the analysis estimates that economic impact payments, state UC and federal UC payments will total $30.9 billion in CY 2020. Hence, the analysis finds that those provisions offset lost wages for CY 2020, although it is noted that the economic impact payments flow to residents who both lose and retain employment, or are not part of the labor force.
- Taxable net profits of pass-through businesses and self-employed reported on the state tax return is reduced by $8.7 and $8.3 billion. This does not reflect substantial activity that is not reported on tax returns by self-employed. For the U.S., the IRS estimates that roughly one-half of sole proprietorship and self-employed net income is not reported. Therefore, the true economic impact could be larger.
- Average payroll employment falls by 540,000 and 228,000 jobs. The figures represent the employment contraction relative to a counterfactual scenario that assumes normal economic growth and the addition of roughly 45,000 payroll jobs each year.
- General Fund revenues fall by $3.9 and $0.9 billion with revenue shifts or $1.8 and $3.0 billion without revenue shifts. These revenues are not recouped and the analysis assumes that the state economy settles at a lower level of output. Therefore, there is a permanent loss of revenues.

Table 1.8
Economic and Revenue Costs of COVID-19 and Mitigation Efforts

Economic Metrics	CY 2020	CY 2021
Wages-Salaries	-$24.8	-$20.0
Taxable Business Income	-$8.7	-$8.3
Payroll Employment (000s)	-540	-228
Revenue Collections	**2019-20**	**2020-21**
General Fund (include shifts)	-$3.9	-$0.9
General Fund (exclude shifts)	-$1.8	-$3.0

Note: Figures in dollar billions.

Table 1.8 can only attempt to quantify a limited number of high-level economic variables because there are no data available, and no precedent exists, regarding other impacts from mitigation efforts that will also negatively impact economic growth. For example, it is not possible to reliably quantify the number of business failures that will result due to the immediate suspension of all sales. The potential impact on renters and homeowners can also not be reliably quantified at this early stage. Due to job losses, it is likely that more renters will be unable to remit monthly payments and more homeowners will have difficulty making monthly mortgage or periodic property tax payments. An increase in business failures, renter evictions or homeowner foreclosures would further reduce long-term economic growth.

Overall, the IFO anticipates a permanent and multi-year reduction in output and employment compared to the counterfactual scenario without the pandemic and mitigation efforts. That result occurs due to shifts in consumer behaviors, business operations and the elimination of significant financial and other wealth. While the reduction in financial wealth can be estimated based on stock or other financial indexes, the reductions in non-financial wealth and productive assets are much harder to quantify. For small firms that do not emerge from mandated closures, a significant amount of prior investments will have little or no economic value and cannot be recouped. Overall productive capacity is reduced and must be rebuilt over many years through new investments. A similar result occurs for the state labor force as forecasts assume that many workers will depart the labor force and not return. Similar to machinery and other investments, labor is a productive asset and a reduced labor supply will also diminish productive capacity. National forecasts reflect these outcomes for the U.S.:

- IHS Markit projects that real GDP will be 2.6 percent lower and payroll employment 9.7 percent lower in CY 2021 compared to CY 2019.
- The CBO projects that real GDP will be 1.9 percent lower and payroll employment 6.7 percent lower in CY 2021 compared to CY 2019.

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Initial Revenue Estimate

This section provides revised revenue estimates for FY 2019-20 and initial estimates for FY 2020-21 for the General Fund, Motor License Fund, Lottery Fund and federal funds subject to appropriation. The subsequent pages provide detail on the projected levels and growth rates for those funds. For the purpose of this initial revenue estimate, all projections are made on a "current law" basis and exclude any statutory changes or administrative actions proposed in the *2020-21 Executive Budget*.

The General Fund

In June 2019, the Independent Fiscal Office (IFO) released its official FY 2019-20 General Fund revenue estimate of $35.5 billion.[11] Based on actual revenue collections through April 2020 and projections for the remainder of the fiscal year, the revised estimate for FY 2019-20 is $31.8 billion, or $3.7 billion below the IFO's official estimate. (See **Table 2.1**.) The dramatic downward revision is solely attributable to business closures, mitigation and relief efforts related to the COVID-19 pandemic (-$3.9 billion). Roughly half of the reduction ($2.1 billion) is the result of virus-related extended payment deadlines and should be recouped in FY 2020-21. Major revisions to the FY 2019-20 forecast include:

- Revised corporate net income tax (CNIT) collections are expected to fall short of the IFO's official estimate by $760 million. The reduction is primarily the result of a due date extension for most tax year (TY) 2019 CNIT final payments to August 14, 2020 (-$470 million). After adjusting for the payment delay, CNIT collections are projected to decline by 6.7 percent for FY 2019-20.
- The revised sales and use tax (SUT) estimate is $974 million below the IFO's official estimate, with shortfalls anticipated in both non-motor (-$714 million) and motor vehicle (-$260 million) collections. In an effort to increase cash flow to businesses coping with COVID-19, the non-motor vehicle SUT prepayment obligation has been waived for due dates through June 22. The IFO projects that this waiver reduces current year revenue by $135 million. This loss will be recouped when the prepayment requirement resumes in July.
- The revised personal income tax (PIT) estimate is below the IFO official estimate by $1.9 billion, with shortfalls in withholding (-$268 million), quarterly (-$658 million) and annual payments (-$967 million). Approximately $1.5 billion of the shortfall is related to the extension of due dates for TY 2019 annual payments and the first two quarterly payments for TY 2020 to July 15. The remaining loss is largely attributable to withholding and is the result of widespread layoffs this spring.
- Liquor tax, realty transfer tax (RTT) and gaming taxes have also been adversely impacted by business closures in response to COVID-19. The virus and mitigation efforts reduced FY 2019-20 collections for those tax types by $30 million, $65 million and $40 million, respectively.

For FY 2020-21, the initial estimate is $36.1 billion, an increase of $4.3 billion over the current fiscal year. (See **Table 2.2**.) The increase is $38 million (0.1 percent) after adjustments for delayed due dates.

[11] The estimate reflects the IFO's official estimate released on June 21, 2019 and updated for statutory changes that were enacted with the FY 2019-20 state budget.

Table 2.1
Adjustment to Revenue Estimate for FY 2019-20

	June 2019 Estimate		May 2020 Estimate		Dollar
	Amount	Growth	Amount	Growth	Change
Total General Fund	**$35,518**	**1.9%**	**$31,771**	**-8.9%**	**-$3,747**
Total Tax Revenue	**34,896**	**2.5**	**31,123**	**-8.6**	**-3,773**
Total Corporation Taxes	**5,550**	**0.7**	**4,714**	**-14.5**	**-836**
Corporate Net Income	3,458	1.8	2,698	-20.6	-760
Gross Receipts	1,211	-3.1	1,122	-10.3	-89
Utility Property	37	2.8	38	3.9	1
Insurance Premiums	461	3.7	458	3.1	-3
Financial Institutions	383	0.9	399	4.9	16
Total Consumption Taxes	**13,046**	**2.3**	**12,001**	**-5.9**	**-1,045**
Sales and Use	11,544	4.0	10,570	-4.8	-974
Non-Motor	9,996	4.0	9,282	-3.5	-714
Motor	1,548	4.3	1,288	-13.2	-260
Cigarette	948	-15.3	914	-18.3	-34
Other Tobacco Products	135	3.6	126	-3.0	-9
Malt Beverage	23	-1.0	23	-1.0	0
Liquor	396	3.8	368	-3.7	-28
Total Other Taxes	**16,300**	**3.2**	**14,408**	**-8.8**	**-1,892**
Personal Income	14,544	3.2	12,651	-10.3	-1,893
Withholding	10,793	3.3	10,525	0.8	-268
Quarterly	2,058	7.1	1,400	-27.2	-658
Annual	1,693	-2.1	726	-58.0	-967
Realty Transfer	553	3.5	494	-7.6	-59
Inheritance	1,067	1.2	1,167	10.8	100
Gaming	172	30.3	139	5.7	-33
Minor and Repealed	-35	-50.8	-42	-82.5	-7
Total Non-Tax Revenue	**622**	**-22.4**	**648**	**-19.2**	**26**
State Store Fund Transfers	185	0.0	185	0.0	0
Licenses and Fees	189	-42.1	126	-61.4	-63
Treasury	43	-40.9	27	-63.0	-16
Escheats	91	11.3	209	155.7	118
Other Miscellaneous	39	-38.1	31	-51.3	-8
Fines, Penalties & Interest	76	3.6	70	-3.4	-6

Note: Figures in dollar millions. Due to rounding, detail may not sum to total. Growth rates based on the unrounded amounts. The June 2019 estimate reflects the IFO's official estimate released on June 21, 2019 and updated for statutory changes that were enacted with the FY 2019-20 state budget.

Table 2.2
General Fund Revenue Estimate for FY 2020-21

	Estimated 2019-20		Projected 2020-21	
	Amount	Growth	Amount	Growth
Total General Fund	**$31,771**	**-8.9%**	**$36,073**	**13.5%**
Total Tax Revenue	**31,123**	**-8.6**	**35,422**	**13.8**
Total Corporation Taxes	**4,714**	**-14.5**	**5,129**	**8.8**
Corporate Net Income	2,698	-20.6	3,178	17.8
Gross Receipts	1,122	-10.3	1,085	-3.2
Utility Property	38	3.9	39	2.4
Insurance Premiums	458	3.1	448	-2.2
Financial Institutions	399	4.9	379	-4.9
Total Consumption Taxes	**12,001**	**-5.9**	**13,032**	**8.6**
Sales and Use	10,570	-4.8	11,590	9.6
Non-Motor	9,282	-3.5	10,011	7.8
Motor	1,288	-13.2	1,579	22.6
Cigarette	914	-18.3	881	-3.6
Other Tobacco Products	126	-3.0	126	0.1
Malt Beverage	23	-1.0	23	0.0
Liquor	368	-3.7	412	12.1
Total Other Taxes	**14,408**	**-8.8**	**17,261**	**19.8**
Personal Income	12,651	-10.3	15,462	22.2
Withholding	10,525	0.8	10,774	2.4
Quarterly	1,400	-27.2	2,220	58.6
Annual	726	-58.0	2,468	240.0
Realty Transfer	494	-7.6	537	8.8
Inheritance	1,167	10.8	1,128	-3.3
Gaming	139	5.7	178	27.7
Minor and Repealed	-42	-82.5	-44	-5.0
Total Non-Tax Revenue	**648**	**-19.2**	**651**	**0.5**
State Store Fund Transfers	185	0.0	185	0.0
Licenses and Fees	126	-61.4	140	10.9
Treasury	27	-63.0	26	-3.4
Escheats	209	155.7	203	-2.8
Other Miscellaneous	31	-51.3	28	-8.2
Fines, Penalties & Interest	70	-3.4	69	-1.6

Note: Figures in dollar millions. Due to rounding, detail may not sum to total. Growth rates based on the unrounded amounts.

The text that follows provides a brief description of the factors that motivate trends across revenue sources for FY 2019-20 and FY 2020-21.

Corporate Net Income

The revised CNIT estimate for FY 2019-20 is $2.7 billion. The estimate reflects a decrease of $699 million (-20.6 percent) over the prior fiscal year, and is $760 million lower than the IFO's official estimate. The revision is driven by two factors related to the COVID-19 pandemic: tax relief provisions intended to provide firms with additional liquidity in the short-term, and a downturn in the underlying economic conditions that drive the forecast.

Tax relief measures following the mandated closure of all Pennsylvania non-life sustaining businesses in March allowed firms to increase cash on hand during the unprecedented crisis. One such provision was the extension of the due date for most TY 2019 final payments to August 14, 2020, which shifted approximately $470 million in expected CNIT collections from FY 2019-20 to FY 2020-21. Additionally, the federal CARES Act raised the taxable income threshold for the Section 163(j) limit on interest deduction from 30 to 50 percent for TY 2019 and TY 2020. This change reduces FY 2020-21 collections by $60 million.

The economic downturn triggered by the virus drives an additional $260 million reduction to the FY 2019-20 forecast. After remaining relatively flat in CY 2019, IHS Markit projects a decline in corporate domestic profits of 23.0 percent in CY 2020. For CY 2021, profits remain below CY 2019 levels. This is consistent with forecasts from other entities that project a 15 to 30 percent decline in corporate earnings for CY 2020. The IFO's official estimate assumed moderate profits growth in CY 2020. The IFO's revised estimate assumes that domestic non-financial corporate profits contract by 25 percent in CY 2020 and return to 90 percent of CY 2019 levels by CY 2021.

For FY 2020-21, the forecast projects revenue growth of 17.8 percent. The strong growth is primarily due to the extension for final payments, shifting $470 million into FY 2020-21. Without the impact of this payment shift, underlying economic conditions motivate a decline of $463 million in CNIT collections.

Gross Receipts

The revised gross receipts tax (GRT) estimate for FY 2019-20 is $1.1 billion. The estimate reflects a decrease of $129 million (-10.3 percent) from the prior fiscal year, and is $89 million lower than the IFO's official estimate. The downward revision is entirely attributable to weaker than anticipated payments for the telecommunications sector, in both regular (TY 2019) and estimated (TY 2020) payments. For FY 2020-21, GRT revenues are projected to decrease by 3.2 percent. The forecast assumes that the electric sector will experience a 3.0 percent decline in TY 2020 liabilities due to (1) reduced electricity demand resulting from a mild winter (January through March 2020) and business closures related to the COVID-19 pandemic and (2) low energy prices. The telecommunications sector is projected to contract significantly (-15.0 percent in TY 2020), based on very weak estimated payments for TY 2020 and the ongoing erosion of the tax base.

Sales and Use

The revised SUT estimate for FY 2019-20 is $10.6 billion. This estimate reflects a decrease of $530 million (-4.8 percent) from the prior fiscal year, and is $974 million below the IFO's official estimate. The shortfall is attributable to business closures and mitigation efforts associated with the pandemic (-$915 million) and a temporary waiver of the non-motor vehicle SUT prepayment requirement through June 22, 2020 (-$135 million). The loss from the suspension of the prepayment will be recouped next fiscal year, when the requirement resumes. Non-motor revenues are projected to fall by 3.5 percent from the prior fiscal year. E-commerce sales remain strong due to continued shifting of consumer purchasing patterns to online platforms during recent retail closures. Motor vehicle revenues for FY 2019-20 are projected to decline by 13.2 percent from the prior fiscal year, as business closures and stay-at-home orders limited the ability of residents to purchase new vehicles for significant portions of March, April and May 2020.

For FY 2020-21, the forecast projects that SUT revenues will increase by $1.0 billion (9.6 percent), and the growth of motor vehicle revenues (22.6 percent) will outpace non-motor revenues (7.8 percent). Pent-up demand for motor vehicles after months of limited sales activity is expected to boost collections in FY 2020-21. Residual effects of the pandemic (e.g., elevated unemployment, the expiration of federal support and consumer wariness) are expected to restrain non-motor revenue growth in FY 2020-21.

Personal Income

The revised PIT estimate for FY 2019-20 is $12.7 billion. The estimate reflects a decline of $1.4 billion (-10.3 percent) over the prior fiscal year and is $1.9 billion lower than the IFO's official estimate. In an effort to increase taxpayer cash flow, the due dates for TY 2019 annual payments and the first two quarterly payments for TY 2020 were extended to July 15, 2020. As a result, roughly $1.5 billion in FY 2019-20 revenue shifts to next fiscal year. Therefore, most of the FY 2019-20 shortfall in quarterly (-$658 million) and annual (-$967 million) payments is projected to be recouped in FY 2020-21. Withholding revenues are projected to fall short of the IFO's FY 2019-20 official estimate by $268 million, due to widespread layoffs resulting from the virus and mitigation efforts.

For FY 2020-21, the forecast projects an increase of $2.8 billion (22.2 percent) in PIT (a decline of $189 million or 1.3 percent after adjusting for the payment shift). Withholding is expected to increase by $249 million (2.4 percent). The COVID-19 pandemic will continue to impact withholding and non-withholding collections in FY 2020-21, due to increased unemployment, lower wage growth and reduced non-withheld earnings (e.g., net profits, capital gains, dividends, interest and rental payments).

Realty Transfer

The revised RTT estimate for FY 2019-20 is $494 million. The estimate reflects a decrease of $41 million (-7.6 percent) from the prior fiscal year, and is $59 million below the IFO's official estimate. Through February 2020, fiscal-year-to-date RTT revenues exceeded prior year collections for the same period by 6.6 percent, but April and May collections have been dramatically impacted by the cessation of most real estate transactions due to the pandemic, which is estimated to reduce collections for the fiscal year by $65 million. For FY 2020-21, the forecast projects that RTT revenues will grow by 8.8 percent, bolstered by pent-up demand after months of minimal activity, while home prices grow modestly.

Other Revenue Sources

Other revenue sources that have a notable impact on General Fund revenue trends for FY 2019-20 and FY 2020-21 include:

- The revised gaming estimate for FY 2019-20 is $139 million. The estimate reflects an increase of $8 million (5.7 percent) over the prior fiscal year, and is $33 million lower than the IFO's official estimate. The entire shortfall is attributable to the closure of Pennsylvania casinos to mitigate the spread of COVID-19. The forecast for FY 2020-21 is $178 million and assumes that casinos are able to resume full operations by July 1.

- The revised licenses and fees estimate of $126 million is $63 million below the IFO's official estimate, largely due to the refunding of $16 million in gaming license fees and the shifting of $26.0 million in gaming license fees to next fiscal year. For FY 2020-21, licenses and fees are projected to total $140 million.
- Escheats collections are expected to rebound in FY 2019-20, with a revised estimate of $209 million. This projection is $127 million higher than the prior year and $118 million above the IFO's official estimate. Escheats collections for FY 2020-21 are expected to level off, totaling $203 million for the fiscal year.

The Motor License Fund

The Motor License Fund (MLF) includes various excise taxes levied on a per gallon basis and revenue from licenses and registration fees. Based on actual revenue collections through April 2020 and projections for the remainder of the fiscal year, the revised estimate for FY 2019-20 is $2.8 billion, a decline of 1.9 percent from the prior year and $79 million below the IFO's official estimate. Reduced gasoline consumption (associated with business closures and stay-at-home orders) and due date extensions for most license and fee renewals (from March, April and May to June 30, 2020) in response to the COVID-19 virus reduced collections by $105 million.[12] Approximately $10 million of the shortfall will be recouped in FY 2020-21.

The MLF is projected to increase at a rate of 0.5 percent ($14 million) for FY 2020-21 and is impacted by three primary factors:

- Increases for most fees levied under Title 75 (the Vehicle Code) are tied to the rate of inflation, with adjustments occurring in calendar years ending in an odd number. Therefore, there is no inflation adjustment for FY 2020-21.
- The oil company franchise tax (OCFT) rate is calculated annually based the average wholesale price (AWP) of gasoline and diesel fuel in the prior calendar year. Beginning with calendar year 2017 and thereafter, the minimum AWP is $2.99 per gallon. For the 12-month period ending September 30, 2019, the Pennsylvania Department of Revenue determined the actual AWP to be $1.90 per gallon. Therefore, the AWP used to calculate the 2020 OCFT rate remains at the statutory minimum of $2.99 per gallon. (No increase.)
- The lingering effects of suppressed gasoline consumption related to COVID-19.

[12] Most sources indicate that diesel consumption (primarily heavy trucks) has been largely unaffected by COVID-19 mitigation efforts.

Table 2.3
Motor License Fund Summary

	Estimated 2019-20		Projected 2020-21	
	Amount	Growth	Amount	Growth
Total Motor License Fund	**$2,795**	**-1.9%**	**$2,809**	**0.5%**
Liquid Fuels Taxes	**1,741**	**-5.3**	**1,722**	**-1.1**
Oil Company Franchise	954	-5.2	942	-1.2
Act 89 OCFT - Liquid Fuels	494	-7.9	486	-1.6
Act 89 OCFT - Fuels	145	-0.6	145	0.0
Other Liquid Fuels Taxes	149	-0.7	149	0.4
Motor Licenses and Fees	**1,038**	**4.6**	**1,063**	**2.4**
Vehicle Registration & Titling	813	11.4	794	-2.3
Registration Other States - IRP	155	12.0	155	0.0
Operator's Licenses	67	-6.7	66	-0.7
Other Licenses and Fees	2	-95.3	47	--
Other Motor Receipts	**16**	**-18.3**	**25**	**52.8**
Vehicle Fines Clearing Acct	2	155.6	2	0.0
Treasury	11	-29.8	19	71.7
Transportation	2	-8.7	3	19.0
General Services	0	0.0	0	0.0

Note: Figures in dollar millions. Due to rounding, detail may not sum to total. Growth rates based on the unrounded amounts.

Act 89 of 2013 was enacted to provide additional support and stability to the MLF, the largest source of Pennsylvania transportation funds. The Act (1) tied increases for most fees levied under Title 75 (the Vehicle Code) to the rate of inflation and (2) gradually lifted the average wholesale price (AWP) of fuel, until the cap was eliminated beginning in calendar year 2017 and thereafter. In the five years prior to enactment of Act 89, total MLF revenues increased at an average annual rate of only 0.3 percent. (See **Table 2.4**.) For the five years subsequent to passage of Act 89, revenues increase at an average annual rate of 6.8 percent. This outcome was largely driven by increases in the statutory minimum AWP used in the annual computation of the OCFT rate and statutory increases in most Title 75 fees. Now that the new minimum AWP is fully phased in, increases in fuel efficiency and constrained fuel prices are expected to mitigate MLF growth over the long term.

Table 2.4
Motor License Fund Revenue

	2008-09	2013-14[1]	2018-19
Non-Restricted			
Liquid Fuels Taxes	$1,163	$1,294	$1,837
Motor Licenses and Fees	879	894	992
Other Revenues[2]	509	258	20
Total	**2,551**	**2,447**	**2,849**
Restricted			
Aviation Revenues	8	9	9
Highway Bridge Improvement	104	124	227
State Highway Transfer	24	28	55
Oil Company Franchise Tax	437	515	1,005
Supplemental Maintenance	306	361	703
Total	**878**	**1,037**	**1,999**
MLF Revenue Grand Total	**3,429**	**3,484**	**4,848**
AAGR[3]		**0.3%**	**6.8%**

Note: Figures in dollar millions.

1 Act 89 of 2013 was enacted in this year.

2 Other Revenues are primarily payments from the Pennsylvania Turnpike Commission, interest earnings and sales of inspection stickers. Act 44 of 2007 required the Pennsylvania Turnpike to make deposits into the Motor License Fund. Act 89 of 2013 redirected those deposits to the Public Transportation Trust Fund and Multimodal Transportation Fund beginning in FY 2014-15.

3 AAGR is the average annual growth rate for the most recent five fiscal years.

The Lottery Fund

Similar to other consumer purchases, Lottery sales have been impacted by the COVID-19 pandemic. **Table 2.5** displays year-over-year growth rates for recent months for each category of Lottery game. For January and February combined, all Lottery games recorded positive growth with the exception of numbers games, which were largely flat. In March, sales began to decline due to mandated business closures. For example, March Keno and Xpress Sports sales (often played in bars and restaurants) declined by 9.7 percent despite strong growth in the two prior months. April sales contracted dramatically across all game types except iLottery, which benefited from business closures and stay-at-home orders.

Preliminary data for May show a dramatic reversal of the sales contraction in April. The IFO believes this outcome is tied directly to the receipt of federal payments, and more importantly, the extra weekly $600 Federal Pandemic UC (FPUC) payments. A recent article by Pew Research also found significant gains in scratch off sales in many states, but the gains occurred in April.[13] The article noted that multistate lotto

[13] See https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/05/13/scratch-off-lottery-sales-soar?utm_campaign=2020-05-18+SW&utm_medium=email&utm_source=Pew.

games continued to record large declines due to stay-at-home orders and a reluctance to pick numbers, hand cash to retailers and await outcomes. For Pennsylvania, the sales pattern is different and appears to correlate more closely with the extra FPUC payments. The forecast assumes that Lottery sales will receive a similar boost in June and July, until the federal payments are discontinued in mid-to-late July.

Table 2.5
Sales Growth Rates by Lottery Game for CY 2020

	January	February	March	April	May
Instant Tickets	-4%	8%	-2%	-13%	21%
Numbers	-3	3	-9	-11	7
In-State Lotto	7	13	-33	-37	25
Multistate Lotto	49	-27	-74	-30	-29
iLottery	62	73	61	110	119
Keno/Xpress Sports	14	20	-10	-38	-26
Total	**0**	**5**	**-17**	**-15**	**14**

Note: Growth rates for April and May based on weekly sales reports through May 18. Other growth rates based on monthly Lottery income statements.

Table 2.6 displays historical sales by category of Lottery game from FY 2015-16 to FY 2018-19 and projected sales for FY 2019-20. Instant ticket sales have exhibited solid growth due to market penetration and the introduction of new games on a regular basis. Numbers games have declined slightly over the same period (-0.5 percent per annum) related to challenges in attracting new players and the demographics of existing players. The table also demonstrates the volatility of multistate lotto sales due to the heavy reliance on large jackpots to drive sales. Prior to the current year, in-state lotto games grew by roughly 5 percent per annum. The decline for the current year may be partially attributable to the rapid expansion of iLottery.

The bottom of the table shows the rapid growth of iLottery sales. For FY 2019-20, iLottery sales are projected to comprise roughly 14 percent of total Lottery sales. However, compared to traditional Lottery games, iLottery has a much smaller impact on net revenues due to the higher prize (payout) ratio. The average prize ratio is 0.65 for traditional games (i.e., 65 cents of prize payouts for every $1.00 in sales) compared to 0.87 for iLottery. Therefore, it takes nearly three times the amount of iLottery sales to generate the same impact on net lottery collections compared to traditional games.[14]

[14] This simple example disregards commissions, bonuses and operational expenses.

Table 2.6
Historical Lottery Sales by Category

	2015-16	2016-17	2017-18	2018-19	2019-20	AAGR
Instant Tickets						
Amount	$2,793	$2,782	$2,939	$3,093	$3,213	3.6%
Growth	7.8%	-0.4%	5.6%	5.2%	3.9%	
Numbers						
Amount	581	590	568	575	569	-0.5%
Growth	-2.6%	1.5%	-3.7%	1.3%	-1.1%	
In-State Lotto						
Amount	233	241	250	272	253	2.0%
Growth	0.2%	3.4%	3.8%	8.6%	-7.0%	
Multistate Lotto						
Amount	496	369	424	507	271	-14.0%
Growth	30.3%	-25.6%	14.9%	19.4%	-46.4%	
Raffle and Other						
Amount	32	19	19	57	61	18.1%
Growth	79.7%	-40.5%	2.8%	193.5%	8.3%	
Total						
Amount	**$4,135**	**$4,001**	**$4,201**	**$4,503**	**$4,367**	**1.4%**
Growth	8.3%	-3.2%	5.0%	7.2%	-3.0%	
Prize Ratio	0.64	0.65	0.65	0.65	0.65	
iLottery	--	--	21	381	743	--
Prize Ratio	--	--	0.90	0.87	0.87	

Note: Figures in dollar millions. AAGR is average annual growth rate. Other includes Keno and Xpress Sports.

The revised revenue estimate projects that Lottery Fund net revenues will increase by $6 million (0.3 percent) for FY 2019-20 and by $41 million (2.1 percent) for FY 2020-21. Despite solid sales growth, the lower profit margin of iLottery games restrains growth of net revenues. Growth of iLottery is expected to remain strong (11.2 percent) in FY 2020-21 due to the enrollment of new players during the COVID-19 pandemic. Instant ticket sales, which include Fast Play, are projected to grow by $120 million (3.9 percent) for the current fiscal year and $64 million (2.0 percent) for FY 2020-21. Multistate lotto sales fell significantly in FY 2019-20 (-46.4 percent) due to the lack of large jackpots for Powerball and Mega Millions compared to the prior year. For FY 2020-21, the projection reverts to an average historical level of sales for these games, or an increase of $152 million (55.9 percent).

Table 2.7
Lottery Fund Summary

	Estimated 2019-20		Projected 2020-21	
	Amount	Growth	Amount	Growth
Total Lottery Fund	**$1,937**	**0.3%**	**$1,977**	**2.1%**
Gross Ticket Sales	5,110	4.6	5,401	5.7
Field Paid Prizes & Commissions	-3,322	7.2	-3,545	6.7
Miscellaneous Revenues	149	2.3	121	-18.6
Detail				
Gross Ticket Sales	5,110	4.6	5,401	5.7
Instant Tickets	3,213	3.9	3,277	2.0
Multistate Lotto Games	271	-46.4	423	55.9
In-State Lotto	253	-7.0	254	0.4
Numbers Games	569	-1.1	559	-1.7
iLottery	743	94.7	826	11.2
Raffle and Other	61	8.3	62	1.7
Miscellaneous Revenues	149	2.3	121	-18.6
Gaming Fund Transfers	146	3.2	119	-18.9
Other Miscellaneous Revenue	2	-36.0	2	0.0

Note: Figures in dollar millions. Due to rounding, detail may not sum to total. Growth rates based on the unrounded amounts. Other includes Keno and Xpress Sports.

Federal Funds

Federal funds appropriations confer authority to spend monies that the federal government may provide, and state agencies request annual spending authority as part of the budget process. A federal funds appropriation does not guarantee funding at any particular level. In fact, the actual funds received and disbursed may be considerably less than the appropriated amounts. Agencies typically request authority to spend all federal funds anticipated for a given fiscal year. In response to the current COVID-19 pandemic, Congress has enacted additional amounts of funding for state agencies that will affect federal funding levels in the current year and budget year.

The IFO reviewed Request for Appropriation of Federal Funds (RAFF) forms and reports provided by the Office of the Budget for base federal appropriations as well as for additional federal funds authorized in response to the COVID-19 pandemic. In addition, the IFO reviewed Federal Funds Information for States (FFIS) reports on estimated state COVID-19 federal funding and proposed state legislation to appropriate those funds.

The RAFF forms show $27.9 billion in requested federal appropriations of General Fund monies across all agencies for FY 2019-20 excluding those federal funds enacted in response to the COVID-19 virus. The IFO projects that state agencies are eligible for an additional $6.9 billion in federal funds enacted to address the COVID-19 virus impacts in Pennsylvania. (See **Table 2.8**.) Executive authorizations and non-General Fund requests for appropriations are not included.

Table 2.8
Federal Funds Summary

	2018-19 Amount	2019-20 Enacted Amount	2019-20 COVID-19 Suppl.	2019-20 Total	2020-21 Budget
Total Federal Funds	**$28,121**	**$27,940**	**$6,900**	**$34,841**	**$28,280**
Coronavirus Relief Fund[1]	0	0	3,935	3,935	0
Human Services	22,925	22,463	1,235	23,697	22,765
Education	2,464	2,610	946	3,557	2,648
Health	571	583	394	977	573
Labor & Industry[2]	500	513	24	537	512
Transportation	205	204	145	349	219
DCED	241	241	89	329	235
Drug & Alcohol	190	263	0	263	204
Executive Offices	174	198	18	216	250
Infrastructure Investment Authority	168	194	0	194	194
Military and Veterans Affairs	175	181	2	183	201
Aging	159	126	48	174	105
DEP	130	135	0	135	135
Agriculture	97	95	9	104	95
PEMA	22	23	41	64	23
All Other	102	112	14	127	123

Note: Figures in dollar millions.

1 The Coronavirus Relief Fund reflects the state's federal allocation for expenditures incurred due to the COVID-19 public health emergency.

2 This table excludes funding for unemployment compensation (UC) administration because those funds do not flow through the General Fund.

The state has been allocated $3.9 billion in federal Coronavirus Relief Funds (CRF) under the CARES Act to offset expenditures incurred by state and local agencies to address the COVID-19 public health emergency. The majority of this funding has not yet been allocated to specific state agencies. Of the additional $3.0 billion in non-CRF state agency funding, roughly 87 percent is targeted for state programs in the Departments of Human Services, Education and Health.

The Department of Human Services (DHS) is expected to receive $1.2 billion in COVID-19 federal funding in FY 2019-20. Approximately $1.1 billion of the supplemental federal funding is related to Medical Assistance programs, which provide healthcare and support services to eligible individuals. The increased federal funding is largely due to the enactment of a temporary increase in the Federal Medical Assistance Percentage (FMAP) used to calculate federal reimbursements for Medical Assistance programs.

The Department of Education is expected to receive $946 million in non-CRF emergency funding to help schools respond to the COVID-19 virus impacts. This includes $524 million for the Elementary and Secondary School Emergency Relief Fund, $317 million for food and nutrition emergency relief and $105 million for the Governor's Emergency Education Relief Fund.

The Department of Health is expected to receive $394 million for activities carried out in response to the COVID-19 public health emergency, including surveillance, epidemiology, laboratory capacity, infection control, mitigation and communications. This amount includes the $301 million Pennsylvania allocation recently enacted for additional COVID-19 testing and surveillance costs in the Paycheck Protection Program and Health Care Enhancement Act.

The office projects that agencies will require $28.3 billion in base General Fund federal spending authority for FY 2020-21. Additional Medical Assistance program funds will be authorized for DHS due to the temporary increase in the FMAP reimbursement rate until the termination of the national public health emergency declaration. As Congress continues to debate additional state relief to address COVID-19 impacts, it is possible that additional federal funding for state agencies may become available in the budget year.