OHIO LEGISLATIVE SERVICE COMMISSION

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Office of Research
and Drafting

Legislative Budget
Office

Baseline Forecast of GRF Tax Revenues and Medicaid Expenditures for the FY 2022-FY 2023 Biennial Budget

Testimony before the Senate Finance Committee

April 14, 2021

Chair Dolan, Vice-Chair Gavarone, Ranking Member Sykes, and members of the Senate Finance Committee, I am Wendy Zhan, Director of the Legislative Service Commission (LSC). I am here to testify on LSC's forecasts for General Revenue Fund (GRF) tax revenues and Medicaid service expenditures in fiscal years 2021 through 2023. The accompanying forecast book provides more detailed information on the current state and forecast of the economy and forecasts of GRF tax revenues and Medicaid service expenditures. These forecasts were developed by LSC's Legislative Budget Office (LBO) in late January. They are baseline forecasts, meaning that LBO economists made these forecasts assuming no changes to the then current Revised Code tax structure throughout the next biennium. When LSC presents its updated budget forecast for the Conference Committee, changes made in recently enacted S.B. 18 (effective March 31, 2021) will be incorporated into the updated baseline forecast.

The economy

The outlook for state government revenues is greatly influenced by the course of Ohio's economy and the economy of the nation. U.S. economic expansion was strong through February of last year, but the COVID-19 outbreak caused severe economic dislocation, starting in March. Despite decreases in employment and wide swings in Ohio gross domestic product, federal income support via the CARES Act and other legislation succeeded in raising the aggregate personal income of Ohioans for 2020 compared with 2019. The economic forecast on which LBO based our revenue forecast projects continuing recovery through the upcoming biennium.

Inflation-adjusted gross domestic product (real GDP) is the broadest measure of economic activity. Nationwide, real GDP declined sharply in the second quarter of 2020 but recovered strongly in the third quarter and continued to grow in the fourth quarter; it decreased by 3.5% in all of 2020. The pattern of Ohio's real GDP growth last year mirrored the national pattern, falling sharply in the second quarter, recovering strongly in the third, and growing by 5.0% in the fourth quarter. Ohio's real GDP decreased by 4.0% in 2020 as a whole, compared to 2019.

Labor market dislocations due to the pandemic were substantial in 2020 and though payroll employment has partially recovered, for the U.S. it remains about 8.4 million below the level of February 2020, seasonally adjusted, despite an increase of 916,000 in March. Industrial

production, the output of the country's factories, mines, and utilities, fell 2.2% in February, though that was largely due to severe weather in the south central region of the country, affecting especially petroleum refineries, petrochemical plants, and plastic resin plants. Retail sales fell 3.0% in February from January's level, presumably also affected by the weather, but were 6.3% above the February 2020 level. In Ohio, total payroll employment fell by 8,400 (0.2%) in February and was about 314,000 below February 2020. Most of that employment loss has been in service industries, particularly the leisure and hospitality sector, which has seen an 89,600 reduction since last year, accounting for over 28% of the total job loss. Educational and health services employment and government employment have also suffered, down 59,100 and 50,200, respectively, since a year ago. Unemployment rates in the nation and the state have edged lower in recent months but that is partly due to workers leaving the workforce; about 143,000 have left the labor force in Ohio since the state's pandemic response began.

In developing our revenue forecasts, LBO economists have relied on IHS Markit, a leading economic forecasting firm, for the macro economic forecasts. Specifically, we have used the company's December baseline forecasts for the nation and Ohio as the source for most input or explanatory variables in our models. Those forecasts are for the economic expansion in the nation and Ohio to continue at a moderate pace during the period corresponding to state FY 2022 and FY 2023. As is detailed in the accompanying forecast book, for the upcoming biennium, IHS Markit's December baseline forecast shows national real GDP continuing to grow, at about a 3.4% annual rate on average, up from 1.0% growth in FY 2021. Ohio's real GDP is also predicted to continue growing during this period but at a slower average annual rate of about 2.9%. Personal income is forecast to grow during the same period, by about a 2.8% annual rate on average for the nation and about 2.4% on average for Ohio. The unemployment rate is anticipated to average around 4.8% annually for the nation and 5.2% annually for Ohio in the next biennium. Both are lower than the projected annual rates of 7.0% for the nation and 6.8% for Ohio for the current fiscal year. Inflation, measured by the consumer price index, is projected to be around 2.3% through the upcoming biennium.

A number of risks might alter the course of the current expansion. While COVID-19 vaccination totals increase, new variants of the virus are emerging; a possible resurgence of the COVID-19 pandemic and any potential set-back in vaccinations could lead to increased labor market dislocations again. The experience of 2020 is instructive, as few foresaw the possibility of the pandemic, and its economic consequences, during the time when the current biennial budget was put together. Exports could be reduced due to events abroad; though few U.S. exports transit the Suez Canal, the recent experience of a large container ship blocking the canal for days is another example of unforeseen circumstances impacting the global economy. There remains considerable tension between the U.S. and China over trade issues, and some parts of the European Union have entered further lockdowns in an attempt to mitigate the spread of COVID-19, signaling difficulties in emerging from the pandemic even among developed countries with access to top-tier medical care. As always, there is the possibility of unforeseen geopolitical risks.

As you consider our tax revenue projections, then, please remember that economic forecasts are inherently uncertain, just like any other attempt to predict the future. We are confident in our methodology, but we know that the forecast will be wrong in some respects and

to some degree. Our baseline forecast could prove too optimistic regarding economic growth in the nation and Ohio. Alternatively, it could be too pessimistic.

Revenue forecasts

LBO developed the baseline forecasts for FY 2022 and FY 2023 in late January assuming the then current Revised Code tax structure. So, for example, the personal income tax forecast reflects the 4.0% reduction in income tax rates enacted in H.B. 166 of the 133rd General Assembly. But our baseline forecasts assume the Public Library Fund (PLF) and the Local Government Fund (LGF) would each receive 1.66% of GRF tax receipts during the next biennium, which is the percentage established in the Revised Code. A temporary provision of H.B. 166 increases these two funds' shares of GRF tax receipts during the current biennium to 1.70% for the PLF and 1.68% for the LGF.

LBO Baseline GRF Tax Revenue Forecasts (after Distributions to PLF and LGF)			
	FY 2021	**FY 2022**	**FY 2023**
Total	$24,788.5 million	$25,236.8 million	$26,027.2 million
Dollar Growth	$2,165.3 million	$448.3 million	$790.4 million
Percent Growth	9.6%	1.8%	3.1%

As seen from the table above, for FY 2021, LBO estimates total GRF tax revenue, after distributions to the two local government funds, to be $24.79 billion, which is an increase of $2.17 billion (9.6%) from FY 2020. The estimated high growth rate in FY 2021 reflects the impact of the pandemic on FY 2020 total GRF tax revenue, which declined 3.7% from FY 2019, and the effect of various federal stimulus programs along with the effects of pent-up consumer demand and the shift from services to goods in consumer expenditures, among other factors.

For FY 2022, LBO forecasts total GRF tax revenue to be $25.24 billion, an increase of $448 million (1.8%) from FY 2021. For FY 2023, LBO forecasts total GRF tax revenue to be $26.03 billion, an increase of $790 million (3.1%) from FY 2022. Major GRF taxes are generally forecast to grow at a moderate rate during the upcoming biennium. The forecasted small decrease of 0.3% in income tax revenue in FY 2022 was due entirely to the delay in the tax year 2019 filing deadline that inflated income tax receipts for FY 2021. Income tax revenue is forecast to increase 4.2% in FY 2023. Revenue from the nonauto sales tax is expected to increase 3.9% in FY 2022 and 2.9% in FY 2023. Auto sales tax revenue is expected to decrease somewhat (-0.6%) in FY 2022 after estimated strong growth in FY 2021 (11.8%) and then resume moderate growth of 2.4% in FY 2023. The commercial activity tax (CAT) is forecast to grow 5.7% in FY 2022 and 3.2% in FY 2023, after an estimated decrease of 3.0% in FY 2021, reflecting the anticipated economic recovery after the pandemic. Cigarette tax revenue is projected to decline in both FY 2022 (-3.2%) and FY 2023 (-2.2%). This is due to the continuation of a long-term trend that was temporarily interrupted during the pandemic.

Comparison of LBO and executive budget baseline tax revenue forecasts

LBO economists forecast higher baseline GRF tax revenues for the current fiscal year and the next biennium than are forecast for the executive budget. The differences between LBO's forecasts and those in the executive budget are summarized in the table below. The differences are presented as LBO's forecast minus the executive's, so the positive numbers indicate a higher LBO forecast for each year.

Summary of LBO and OBM Baseline GRF Tax Revenue Forecast Differences			
	FY 2021	**FY 2022**	**FY 2023**
Dollar Difference	$494.1 million	$447.8 million	$390.3 million
Percent Difference	2.0%	1.8%	1.5%

The differences between LBO's forecast and the executive budget forecast for FY 2022 and FY 2023 are mainly due to the forecast difference for FY 2021. The forecasted growth rates for total GRF tax revenue for FY 2022 and FY 2023 are fairly similar between the two forecasts. As indicated earlier, LBO economists forecast total GRF tax revenue to increase by 1.8% in FY 2022 and 3.1% in FY 2023, in comparison with a growth rate of 2.0% in FY 2022 and 3.4% in FY 2023 under the executive budget baseline forecast. However, LBO economists anticipate FY 2021 total GRF tax revenue to grow 9.6% from FY 2020 compared with a growth rate of 7.4% in the executive budget forecast.

Medicaid service expenditure forecast

Medicaid services are an entitlement for individuals who meet eligibility requirements. This means that if eligible for Medicaid, the individual is guaranteed the benefits and the state is obligated to pay for them. Medicaid expenditures also comprise a significant portion of the state GRF budget. It is for these two reasons that LBO and the executive forecast Medicaid service expenditures.

For FY 2022, LBO's baseline forecast for Medicaid service expenditures (excluding administrative costs) is $33.24 billion in combined state and federal dollars. This is a $1.94 billion (6.2%) increase from estimated service expenditures of $31.30 billion for FY 2021. For FY 2023, combined state and federal Medicaid service expenditures are projected to be $34.68 billion, a $1.44 billion (4.3%) increase from FY 2022.

The differences between LBO's Medicaid forecasts and those in the executive budget are summarized in the table below. The differences are presented as LBO's forecast minus the executive's, so the negative numbers indicate a lower LBO forecast and the positive numbers indicate a higher LBO forecast.

Summary of LBO and OBM Baseline GRF Medicaid Forecast Differences			
	FY 2021	**FY 2022**	**FY 2023**
Dollar Difference	$19.1 million	-$446.1 million	$155.6 million
State Share	*$5.9 million*	*-$138.3 million*	*$48.2 million*
Percent Difference	0.1%	-1.7%	0.6%

The differences between LBO's and the executive's baseline projections are largely influenced by somewhat different assumptions on caseloads. For example, LBO assumes that the Medicaid caseload level will go up until the fall of 2021, while the executive assumes the caseloads will continue going up until the end of 2021.

Medicaid caseload is driven by a number of factors. The impact of the COVID-19 pandemic has played a major role on the caseloads since last year. Due to its high uncertainty, it is possible that the pandemic could have a material impact on the forecast presented here. Nonetheless, at this time the total number of persons enrolled in Medicaid is expected to increase from an estimated 3.1 million in FY 2021 to 3.3 million in FY 2022, a 5.6% increase, but decrease to 3.2 million in FY 2023, a 1.5% decrease from FY 2022.

Chair Dolan and members of the Committee, thank you for the opportunity to present the LSC forecasts. The staff and I would be happy to answer any questions that you may have.

OHIO LEGISLATIVE SERVICE COMMISSION

LEGISLATIVE BUDGET OFFICE

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BASELINE FORECASTS OF GRF REVENUES & MEDICAID EXPENDITURES

FY 2022-FY 2023 Biennial Budget

February 4, 2021

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ECONOMIC CONDITIONS AND OUTLOOK

State of the Economy

The longest economic expansion in the nation's history ended during FY 2020, and many businesses and households struggled to remain financially viable during the COVID-19 pandemic. Nonfarm payroll employment dropped by 9.8 million (-6.5%), from an all-time peak in February 2020 to December 2020. The national unemployment rate jumped to historic levels during 2020, with the substantial majority of job losses occurring in the service sector. Inflation-adjusted gross domestic product (real GDP) fell 3.5% in 2020, though annualized growth in the third (+33.4%) and fourth (+4.0%) quarters represented an uptick from a record-breaking contraction in the spring (-31.4%). Despite job losses, the wages and salaries component of personal income ended 2020 above its 2019 level; total personal income was 6.3% greater in 2020 than the year prior. In response to the economic shutdowns early on in the pandemic, financial markets were supported by inexpensive credit in the spring of 2020, as the U.S. Federal Reserve Open Market Committee (FOMC) cut the federal funds interest rate to near zero.

Nonfarm payroll employment in Ohio fell by 357,400 (-6.4%) from its February peak to December 2020, as the state grapples with a winter resurgence of COVID-19 cases. In recent years, the personal income growth of Ohioans has lagged that of the nation by approximately one percentage point, while the state's real GDP and population growth have also trailed comparable measures for the U.S. as a whole. The state's economy has largely mirrored that of the nation during 2020, with a rapid decline in real GDP in the second quarter (-33.0% annualized rate) followed by a record-setting rise in the third quarter (+36.9% annualized rate). Housing demand and residential construction activity both grew in 2020, as the market for homes became heated amidst a bump in income, somewhat widespread work-from-home orders, and other market adjustments.

The National Economy

The national economy experienced a monumental setback in 2020 during the COVID-19 pandemic which prompted temporary closure of many businesses. In the spring of 2020, an initial round of federal stimulus to individuals, businesses, and governments propped up consumer spending, while a second wave of stimulus is expected to flow through the economy during the first half of 2021. Just prior to the pandemic, the nation had reached all-time peaks in real GDP and total employment (152.5 million); the national unemployment rate (3.5%) was the lowest on record since the 1960s. These peaks were incubated generally by high levels of consumer confidence, but also by financial and credit market conditions and corporate tax incentives that encouraged business fixed investment in the preceding years. Since March 2020, indicators of economic well-being have been largely mixed and prone to rapid swings. In the second quarter of 2020, real GDP fell at an annualized rate of 31.4%, the most rapid contraction in records kept since 1947, but trends now point in a direction of normalization.

The chart below demonstrates real GDP growth and changes in national industrial production over the last four years.[1] The average annualized rate of real GDP growth from 2017

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[1] Industrial production as measured by the Federal Reserve Board's Industrial Production Index.

to 2019 was 2.5%. National real GDP underwent record-setting swings in 2020, as annualized growth rates in the first (-5.0%), second (-31.4%), third (+33.4%), and fourth (+4.0%) quarters demonstrate the effects of the nation's rapid reaction to health threats and associated shutdowns. Real GDP in all of calendar year (CY) 2020 is estimated to have been 3.5% below that in 2019. Similarly, industrial production fell precipitously during the first half of 2020, but has since recovered most of this drop. As of December, total industrial production was 3.6% below its level a year prior.

**United States Output Measures**
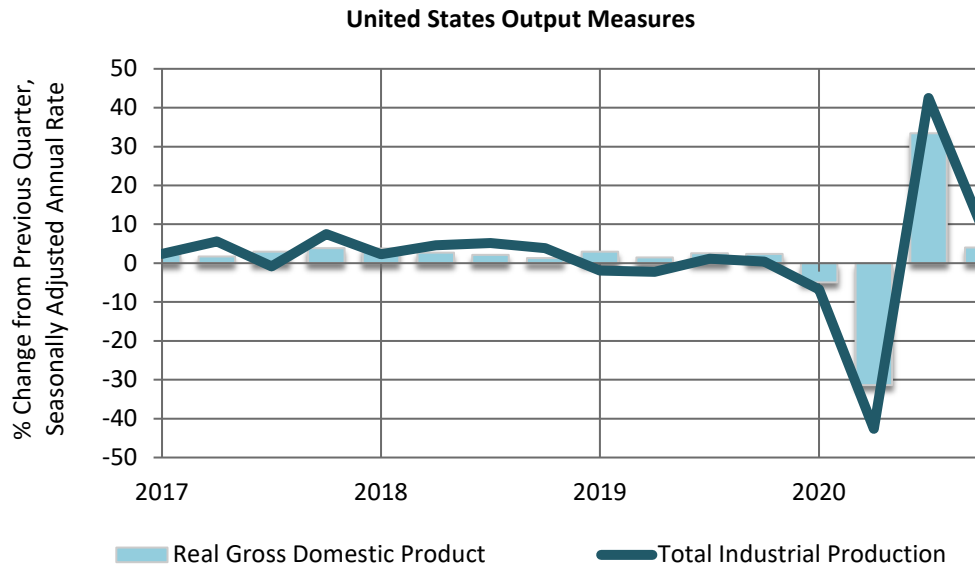
The nation reached its highest-ever level of seasonally adjusted total nonfarm payroll employment in February 2020 (152.5 million). Employment plunged in March and April, then recovered partially, and was 9.4 million lower in December than a year earlier, as a result of the ongoing pandemic and efforts to contain it. The pandemic has influenced all areas of economic activity, though its effects have reverberated more in service-sector employment (-8.6 million; -6.6%) than in goods-producing occupations (-0.8 million; -3.7%).[2] Many workers, some classified as on temporary layoff, began drawing unemployment insurance. Others dropped out of the labor force. During 2020, the number of persons age 16 and over who were not in the labor force increased by 5.1 million (+5.3%), and the employment-population ratio declined to its lowest point on monthly records kept since 1948.

Business closures during 2020 resulted in weakness in real consumer spending during 2020 (-3.9%), following growth of 2.4% in 2019. The service sector (-7.3%) bore the brunt of the restrictions, while the jump in real disposable income during 2020 led to strength in the durable (+6.4%) and nondurable goods (+2.6%) sectors. Residential fixed investment rose 5.9% last year. Nonresidential fixed investment declined 4.0% during 2020, though trends in the third and fourth quarters marked a pickup from the lulls in the year's first half.

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[2] Employment changes from December 2019 to December 2020.

National personal income growth ran counter-cyclical to real GDP growth in 2020;[3] annualized growth in personal income jumped from 4.1% in the first quarter to 35.8% in the second quarter, followed by decreases in the third (-10.2%) and fourth (-6.7%) quarters. On an annual basis, personal income increased by nearly $1.2 trillion (+6.3%) in 2020. Transfer receipts (+36.6%) comprised most of the increase in personal income, but were not the only source of rising income during the year.[4] Wages and salaries (+0.6%), business income (+2.3%), and rental income (+1.9%) were all higher in 2020 than the previous year.

Average inflation, as measured by the consumer price index (CPI) for all items, has generally run below 2% in recent years; annual inflation rates from 2017 through 2020, displayed in the chart, averaged 1.9%. The average annual inflation rate from 2013 to 2016 was 1.2%.[5] In December, consumer prices were 1.4% higher than a year prior. Over the last year, overall inflation has been largely influenced by both a decline in energy prices (-7.0%) and an increase in food prices (+3.9%).

United States Consumer Price Index

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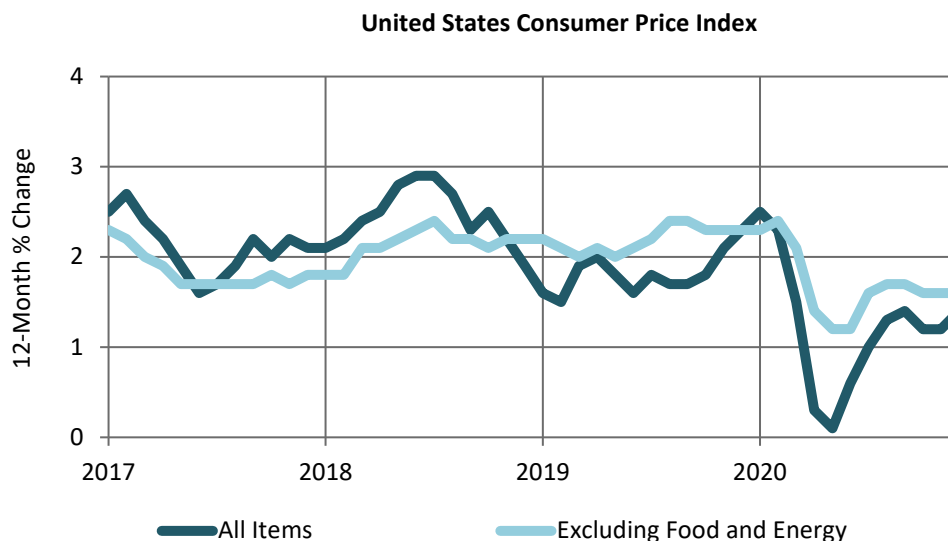
[3] Personal income is income received from all sources: labor force compensation, rental or proprietorship income, income from financial assets, and government transfer receipts.

[4] Transfer receipts include federal economic impact payments, unemployment insurance receipts, lost wages supplemental payments, Medicare, Medicaid, Social Security, and select other pandemic-specific federal money.

[5] Annual growth rates as measured by the December-to-December change in the CPI for all items.

The FOMC ceased raising interest rates during its first meeting of 2019, when the committee determined that inflation remained muted near the central bank's target, domestic job growth was strong, and unemployment low. Beginning on July 31, 2019, the FOMC began lowering short-term interest rates citing muted inflation and concerns about slowing economic growth abroad. Following sequential 0.25 percentage point rate reductions, the nation began its efforts to contain the COVID-19 pandemic. In meetings during March 2020, the federal funds rate range was reduced to its lowest possible positive level, as displayed in the chart below. In addition to these steps, the FOMC has also adjusted its criteria for setting monetary policy and stepped up its bond-purchasing programs.

Effective Federal Funds Rate
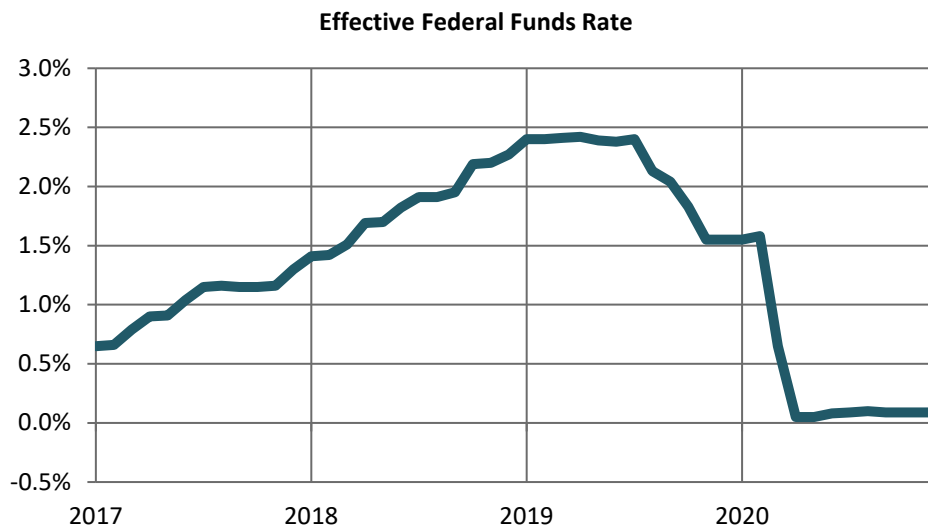
The Ohio Economy

In recent years, the economy in Ohio has grown at a slower rate than the national economy. From 2017 to 2019, the average growth rate of real GDP was 1.7% in Ohio and 2.5% nationally.[6] In the second quarter of 2020, Ohio's real GDP contracted 1.6 percentage points more than the national rate, and in the third quarter, real GDP growth was 3.5 percentage points greater than the national rate. The industry contributing most to real GDP growth during the third quarter of 2020 was durables manufacturing, at least in part due to the steep reduction in output during the previous quarter.

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[6] Annualized quarter-to-quarter growth rates of real GDP.

Real Gross Domestic Product Growth
Seasonally Adjusted
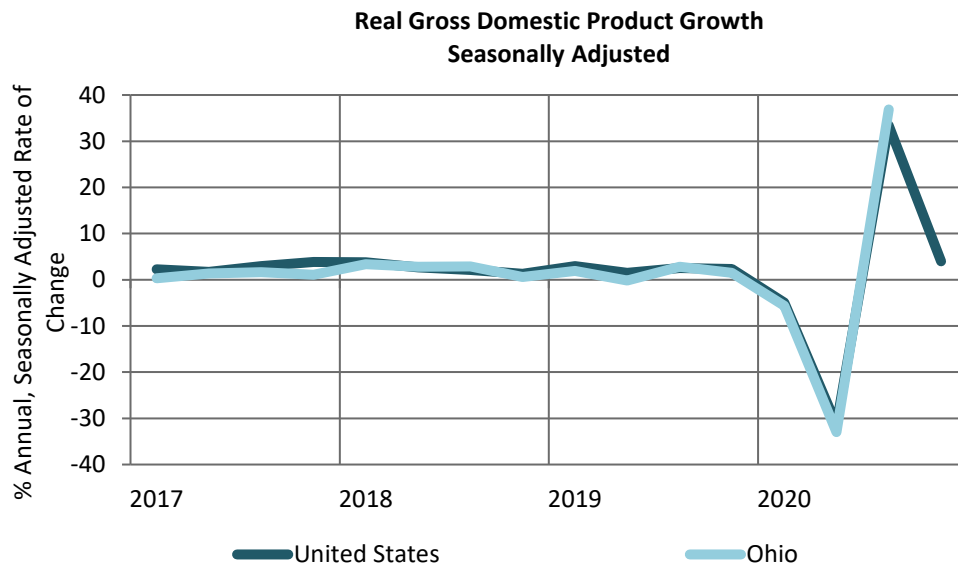
As with GDP, job growth in Ohio, at least in sheer numbers, has generally lagged behind that of the country in recent years. From 2017 to 2019, average annualized employment growth in the service sector was 0.4% in Ohio compared to 1.6% nationally; in the same years, average employment growth in goods-producing industries was 1.2% in Ohio and 2.2% nationally.[7] Total nonfarm employment growth is shown in the chart below. In December 2020, Ohio's nonfarm payroll employment fell 11,500 (-0.2%). There were 350,200 (-6.3%) fewer jobs in the state in December 2020 than there were a year prior; the service-providing sector lost 304,600 jobs (-6.5%) and the goods-producing sector lost 45,600 jobs (-4.9%).

Total Nonfarm Payroll Employment
Millions, Seasonally Adjusted

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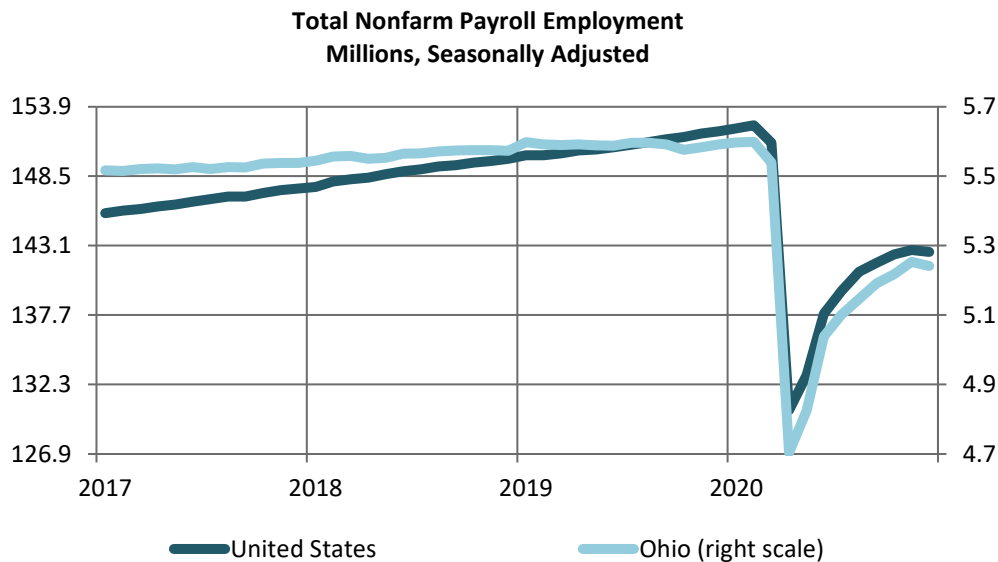
[7] Annualized quarter-to-quarter growth rates of nonfarm payroll employment.

Ohio's unemployment rate has been higher than the national unemployment rate since 2016, except for some months during the current pandemic. Ohio's unemployment rate in December was 5.5%, a decrease of 0.2 percentage point from November, while the national unemployment rate was 6.7%. As of December 2020, the state's civilian labor force was down by 128,000 participants (-2.2%) from December 2019, while the United States lost 2.4% of its labor force during that time.[8] The Ohio and national unemployment rates from 2017 to 2020 are charted in the figure below.

Unemployment Rate
Seasonally Adjusted
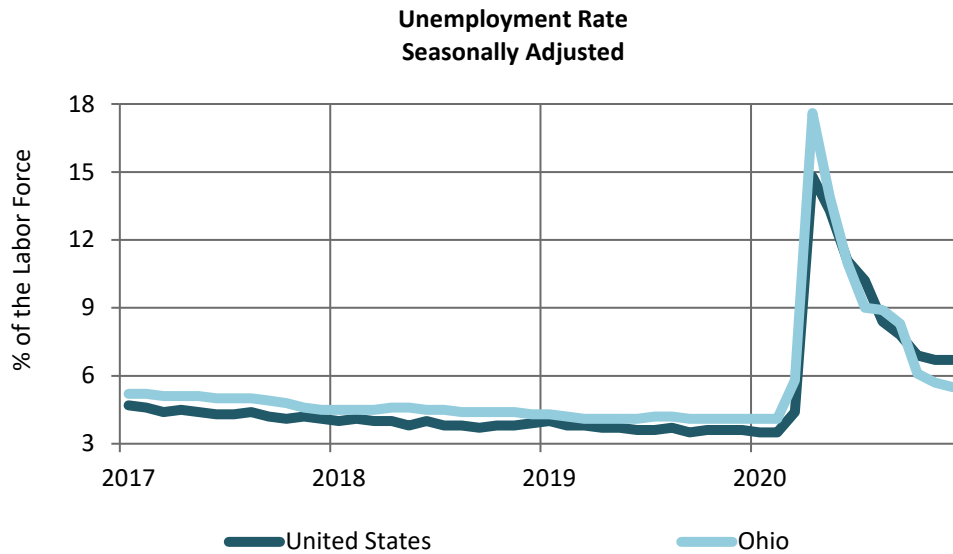
Personal income grew fairly steadily in Ohio and nationally prior to 2020. Between 2017 and 2019, personal income grew at an average annualized rate of 3.6% in Ohio, compared with 4.6% nationally; the growth can be viewed in the chart below, which displays personal income growth in Ohio and the United States. During 2020, personal income grew sharply in some months, then contracted, as federal stimulus, including Payroll Protection Program payments and enhanced unemployment benefits, bolstered incomes.

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[8] Civilian, noninstitutionalized individuals over the age of 16 are counted as labor force participants if they currently hold a job or are unemployed and have searched for work during the most recent four-week period.

Personal Income
Billions of Dollars, Seasonally Adjusted Annual Rates
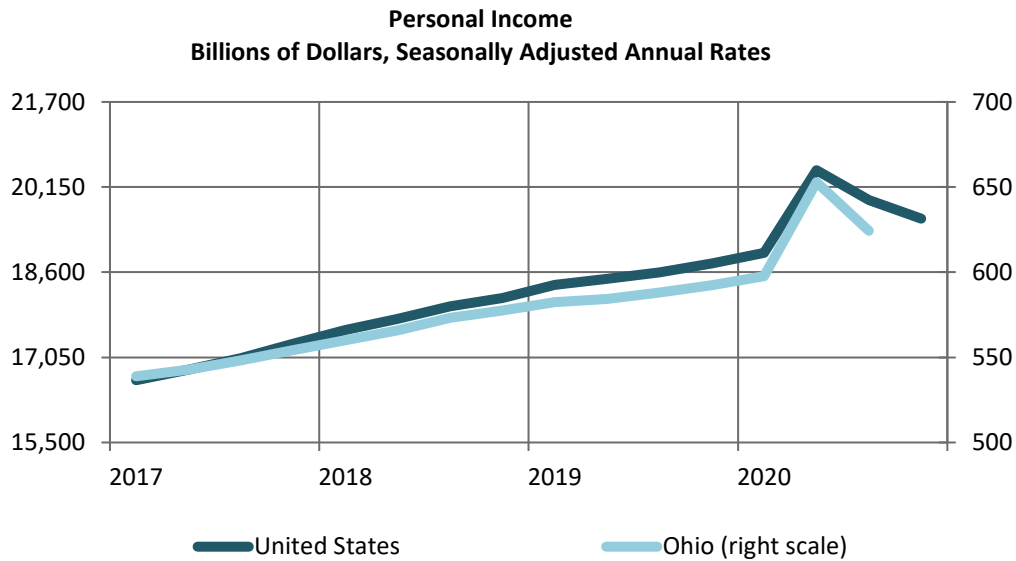
Markets for new and previously occupied housing were strong in 2020. Annual new housing completions nationwide during the last four years exceeded those in any prior year since 2007, the business cycle peak year ahead of the Great Recession of 2007-2009. New housing construction in Ohio, as indicated by the number of building permits issued, soared 26% during the year. The marketplace for existing homes in the state was heated in 2020, according to data from the Ohio Realtors trade organization. The number of homes sold during 2020 was 4.3% greater than in 2019. Perhaps more striking, the average sale price for an existing home during the year was $212,517, an increase of 9.9% from the previous year. The total dollar volume of existing home sales in Ohio was just over $34.4 billion last year, an annual increase of 14.7%.

New Privately Owned Housing Units
Authorized by Building Permits
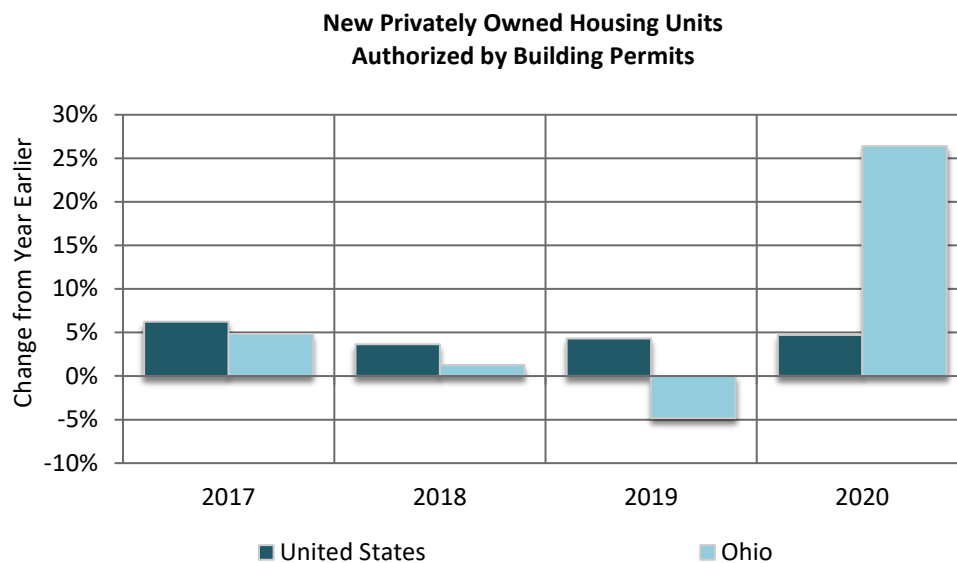
Economic Forecasts

The following are forecasts of key indicators of the economic environment that will determine state revenues during the next biennium. Some of the indicator forecasts were inputs to LBO models used to make state revenue forecasts. Both these economic indicator forecasts and LBO's forecasts for state revenues are inherently subject to uncertainty. The economic indicator projections shown below are from IHS Markit's baseline forecasts released in December 2020. Assumptions regarding further COVID-19 stimulus, as well as the timing of public health orders, are built inherently into the IHS forecast.

The first line in each table contains quarter-by-quarter projected changes in the indicator at seasonally adjusted annual rates. The second line contains year-over-year projected changes in the indicator averaged over the four quarters of the fiscal year. The unemployment rate tables are IHS Markit's unemployment rate projections for the quarters indicated (first line) and the average of the rates in the quarters of each fiscal year (second line).

U.S. Gross Domestic Product

U.S. real GDP is projected to increase about 3.4% annually on average in the next biennium, as shown below.

U.S. Real GDP Growth												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-------------------------------- Percent change at annual rate --------------------------------											
Quarterly	2.9	2.3	4.8	4.1	4.2	3.3	2.7	2.2	2.5	2.6	2.6	2.6
Fiscal Year		1.0				3.8				3.0		

Ohio Gross Domestic Product

Economic growth in Ohio is expected to continue through 2023 at a pace which reflects a post-economic-shock expansion. Ohio real GDP is projected to increase about 2.9% annually on average in the next biennium, somewhat slower than that of the nation.

Ohio Real GDP Growth												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-------------------------------- Percent change at annual rate --------------------------------											
Quarterly	3.4	2.2	4.2	3.6	3.4	2.5	2.4	2.0	2.2	2.2	2.2	2.2
Fiscal Year		0.4				3.4				2.5		

U.S. Inflation

Inflation, as measured by the rate of increase in the CPI for all urban consumers, is predicted to average around 2.3% annually during the next biennium.

U.S. Consumer Price Index Inflation												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	--------------------------------- Percent change at annual rate ---------------------------------											
Quarterly	1.5	2.2	2.8	2.8	2.4	2.4	2.4	2.3	1.7	2.0	1.9	1.9
Fiscal Year		1.5				2.4				2.3		

U.S. Personal Income

Nationwide personal income is projected to grow about 2.8% on average annually during the upcoming biennium. Projections from IHS Markit reflect the firm's expectations for wage income and government transfers to persons, given potential Executive and congressional actions, during the forecast period.

U.S. Personal Income Growth												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	--------------------------------- Percent change at annual rate ---------------------------------											
Quarterly	6.9	-2.6	0.7	3.4	4.9	4.1	3.8	3.5	4.7	4.5	4.4	4.4
Fiscal Year		2.8				1.5				4.1		

Ohio Personal Income

Income to persons who reside in Ohio also is forecast to grow in the next biennium, at 2.4% annually on average, slightly lower than the pace of growth projected for the U.S.

Ohio Personal Income Growth												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	--------------------------------- Percent change at annual rate ---------------------------------											
Quarterly	8.2	-2.9	0.0	3.2	4.4	3.6	3.4	3.1	4.5	4.0	4.1	4.0
Fiscal Year		2.9				1.1				3.7		

U.S. Unemployment Rate

According to IHS Markit's December baseline forecast, the national unemployment rate is anticipated to decline throughout CY 2021. The unemployment rate will average around 4.8% annually during the upcoming biennium.

U.S. Unemployment Rate												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-------------------------------- Percent of the labor force --------------------------------											
Quarterly	6.3	6.2	5.7	5.2	4.8	4.6	4.5	4.5	4.5	4.4	4.3	4.3
Fiscal Year		7.0				5.1				4.5		

Ohio Unemployment Rate

Ohio's unemployment rate is projected to decline to a low of 4.7% during the biennium. The statewide unemployment rate in December 2020, released subsequent to this forecast, was 5.5%.

Ohio Unemployment Rate												
	2021				2022				2023			
Forecast	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-------------------------------- Percent of the labor force --------------------------------											
Quarterly	6.3	6.3	6.1	5.7	5.3	5.1	5.0	5.0	4.9	4.7	4.6	4.5
Fiscal Year		6.8				5.6				4.9		

REVENUE FORECASTS

Summary

The LBO baseline forecasts for FY 2022 and FY 2023 assume the current statutory tax structure, including tax changes enacted by the 133rd General Assembly. It thereby includes the changes to the personal income tax (PIT) enacted in H.B. 166 of the 133rd General Assembly, including the elimination of the two lowest tax brackets and a 4% reduction in nonbusiness income tax rates for incomes over $21,750. LBO economists also accounted for a change in the nexus standard for the use tax enacted in H.B. 166 of the 133rd General Assembly; that change increased receipts from the sales and use tax by facilitating the collection of use taxes on online purchases. An enhancement to the earned income tax credit under the PIT, enacted in H.B. 62 of the 133rd General Assembly was also accounted for. Other tax changes having smaller revenue effects were also incorporated into the forecast.

One of the more dramatic recent tax changes was temporary and affects only the FY 2021 PIT estimate: the delay of the April 15, 2020, filing deadline until July. That had the effect of increasing FY 2021 PIT receipts. H.B. 197 of the 133rd General Assembly authorized the Tax Commissioner to delay the filing date.

H.B. 166 included an uncodified provision that temporarily increased the share of GRF tax revenue allocated to the Public Library Fund (PLF) from its statutory level of 1.66% of such revenue to 1.70% for the current biennium. Another such provision temporarily increased the share of GRF tax revenue allocated to the Local Government Fund (LGF) from 1.66% to 1.68% for the biennium. The forecast assumes that the 1.66% shares in codified law will resume for the upcoming biennium for both funds.[9]

Three taxes that generated some revenue during FY 2020 and FY 2021, the corporate franchise tax (CFT), the business and property tax, and the estate tax, have been repealed. We expect no revenue from these taxes in future years.[10]

GRF tax revenue under current law is forecast to increase by $448.3 million (1.8%) in FY 2022. Growth is expected for most tax revenue sources, as Ohioans' incomes are expected to recover from COVID-19 related economic dislocation. But the PIT is expected to decline slightly, because of the one-time boost that FY 2021 revenue received from the filing deadline delay. Also, the auto sales tax is forecast to decline slightly, giving up a bit of its strong FY 2021 growth, and the cigarette and other tobacco products tax is expected to resume its historical trend downward (that is usually interrupted only by an increase in tax rates, though there was a strong increase in the first half of FY 2021).

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[9] To give a sense of the amounts involved, assuming the PLF receives 1.66% instead of 1.70% of GRF tax revenue increases the forecast of GRF tax revenue by $10.4 million in FY 2022, and decreases the expected amount of PLF revenue by the same amount.

[10] The total GRF revenue collected from the three taxes amounted to less than $500,000 in FY 2020, though FY 2021 revenue through January from the CFT was notably higher due to collections resulting from an audit. Recent revenue is due to adjustments to prior filings and audits, and drawn out settling of estates. The financial institutions tax, which first received revenue in FY 2014, replaced the CFT and the business and property tax.

GRF tax revenue under current law is forecast to increase by $790.4 million (3.1%) in FY 2023. Growth is expected to continue for most tax sources, at rates closer to historical experience. Receipts from the tax on cigarettes and other tobacco products are expected to continue their typical decline, though, and slight decreases are expected in revenue from the kilowatt-hour (kWh), natural gas consumption, and alcoholic beverage taxes.

The following chart and table provide overviews of GRF receipts from taxes.
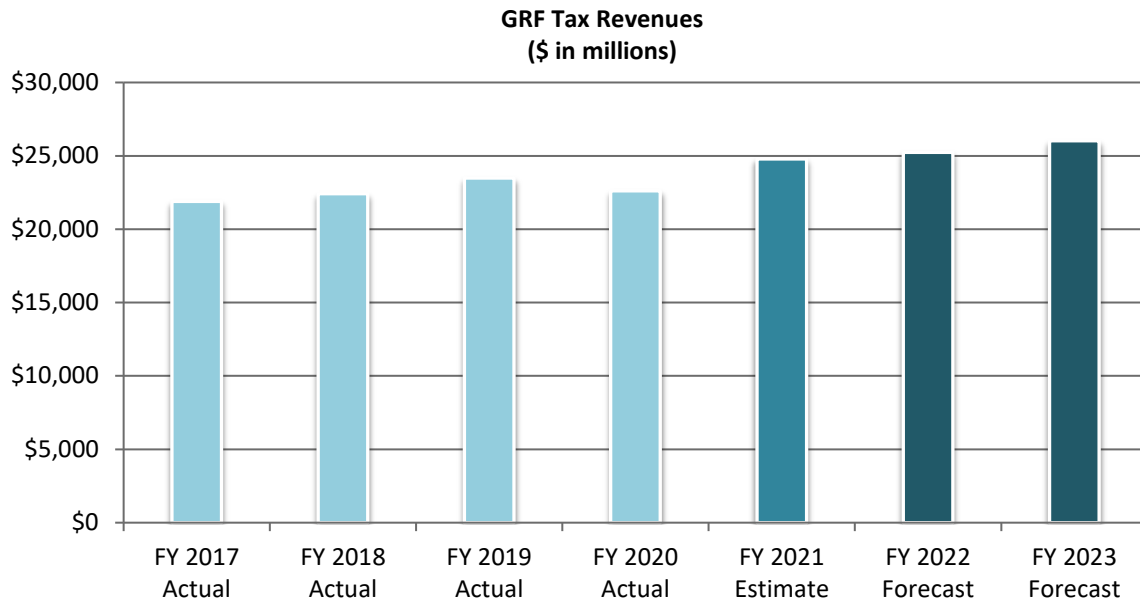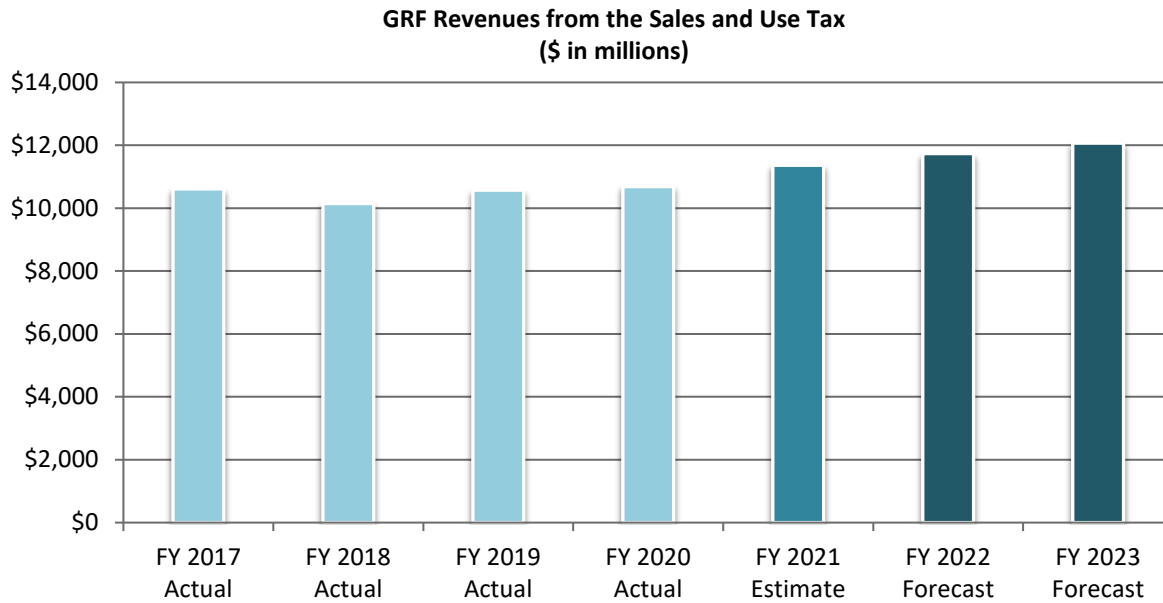
GRF Tax Revenues
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$21,885.6	$22,422.6	$23,489.6	$22,623.2	$24,788.5	$25,236.8	$26,027.2
Growth	0.3%	2.5%	4.8%	-3.7%	9.6%	1.8%	3.1%

LBO Baseline GRF Tax Revenue Forecasts, FY 2022-FY 2023 ($ in millions)							
TAX	**FY 2020 Actuals**	**FY 2021 Estimates**	**Growth Rate**	**FY 2022 Forecast**	**Growth Rate**	**FY 2023 Forecast**	**Growth Rate**
Auto Sales & Use	$1,502.7	$1,680.0	11.8%	$1,670.0	-0.6%	$1,710.0	2.4%
Nonauto Sales & Use	$9,183.0	$9,684.9	5.5%	$10,066.3	3.9%	$10,358.6	2.9%
Total Sales & Use	**$10,685.8**	**$11,364.9**	**6.4%**	**$11,736.3**	**3.3%**	**$12,068.6**	**2.8%**
Personal Income	$7,881.3	$9,379.0	19.0%	$9,348.7	-0.3%	$9,743.1	4.2%
Commercial Activity	$1,671.7	$1,621.0	-3.0%	$1,712.8	5.7%	$1,768.0	3.2%
Cigarette	$913.0	$945.0	3.5%	$915.0	-3.2%	$895.0	-2.2%
Kilowatt-Hour Excise	$331.8	$317.9	-4.2%	$321.3	1.1%	$319.6	-0.6%
Foreign Insurance	$305.1	$316.0	3.6%	$325.0	2.8%	$336.0	3.4%
Domestic Insurance	$303.0	$330.0	8.9%	$334.0	1.2%	$347.0	3.9%
Financial Institutions	$214.9	$200.0	-6.9%	$205.0	2.5%	$210.0	2.4%
Public Utility	$141.0	$123.0	-12.8%	$143.0	16.3%	$144.0	0.7%
Natural Gas Consumption	$59.7	$59.0	-1.3%	$64.9	10.1%	$64.8	-0.2%
Alcoholic Beverage	$53.6	$61.0	13.7%	$62.0	1.6%	$61.5	-0.8%
Liquor Gallonage	$53.4	$58.0	8.6%	$59.0	1.7%	$59.3	0.5%
Petroleum Activity	$8.7	$7.7	-12.3%	$9.8	27.9%	$10.4	6.1%
Corporate Franchise	-$0.4	$6.0	--%	$0.0	-100.0%	$0.0	--
Business & Property	$0.4	$0.1	-85.2%	$0.0	-100.0%	$0.0	--
Estate	$0.1	$0.0	-100.0%	$0.0	--	$0.0	--
Total Tax Revenue	**$22,623.2**	**$24,788.5**	**9.6%**	**$25,236.8**	**1.8%**	**$26,027.2**	**3.1%**

Sales and Use Tax

GRF Revenues from the Sales and Use Tax
($ in millions)

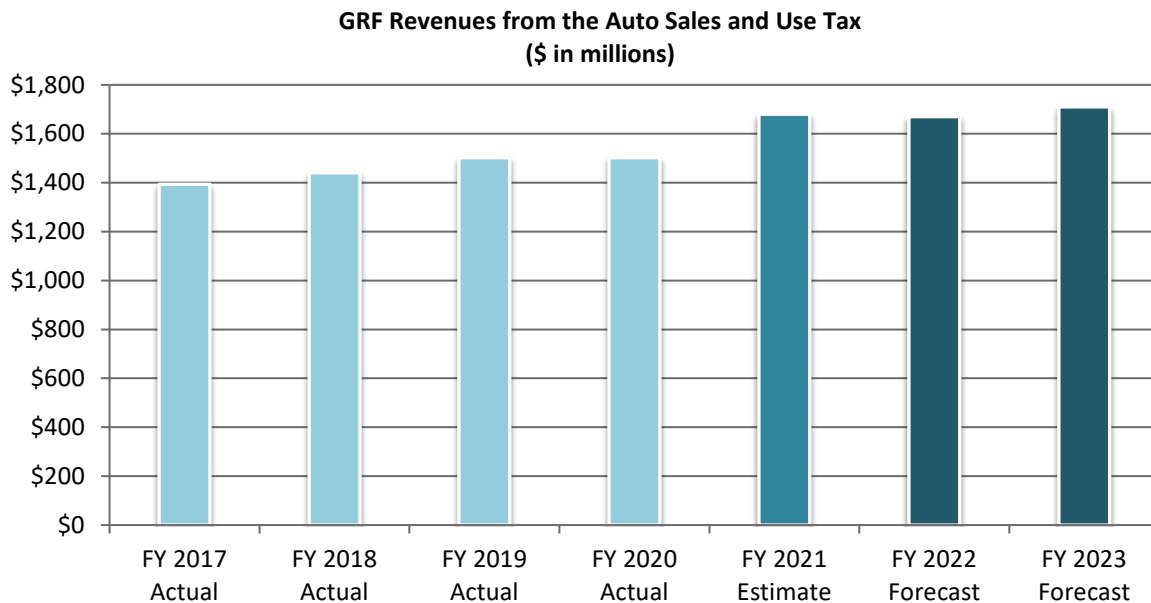| $ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$10,614.6	$10,148.2	$10,573.4	$10,685.8	$11,364.9	$11,736.3	$12,068.6
Growth	2.6%	-4.4%	4.2%	1.1%	6.4%	3.3%	2.8%

Under current law, the state sales and use tax is levied at a rate of 5.75% on retail sales of tangible personal property, rental of some tangible personal property, and selected services. Major exemptions to the sales and use tax include: food for human consumption off the premises where sold, motor fuel (taxed separately), packaging and packaging equipment, prescription drugs and medical supplies, and property used primarily in manufacturing or used directly in mining or agriculture. There is also a credit for trade-ins on purchases of new motor vehicles.

For forecasting purposes, the tax is separated into two parts: auto and nonauto. Auto sales and use tax collections generally arise from the sale of motor vehicles while nonauto sales and use tax collections arise from other sales. One major exception is auto taxes arising from leases, which are paid at the lease signing and are mostly recorded under the nonauto tax, instead of the auto tax. The level of auto sales is dependent on the level of incentives provided by manufacturers and dealers and changes in gasoline prices. Those incentives have changed the way consumers decide whether to purchase or lease their vehicles. Those changes have affected the nonauto sales tax because taxes arising from leases are recorded under the nonauto sales tax.

The elimination of the sales tax on Medicaid health insuring corporations (MHICs), which was effective July 1, 2017, decreased revenue in FY 2018. FY 2020 revenue growth was

affected by a stay-at-home requirement and business closures from an effort to slow the COVID-19 pandemic outbreak. Various federal income support programs buttressed FY 2021 sales and use tax revenue by offsetting the economic drag from the COVID-19 pandemic. Total sales and use tax revenues under current law are projected to rise in FY 2022, though the auto sales tax is forecast to decline slightly, giving up a bit of its strong FY 2021 growth. Total revenues are projected to increase further in FY 2023.
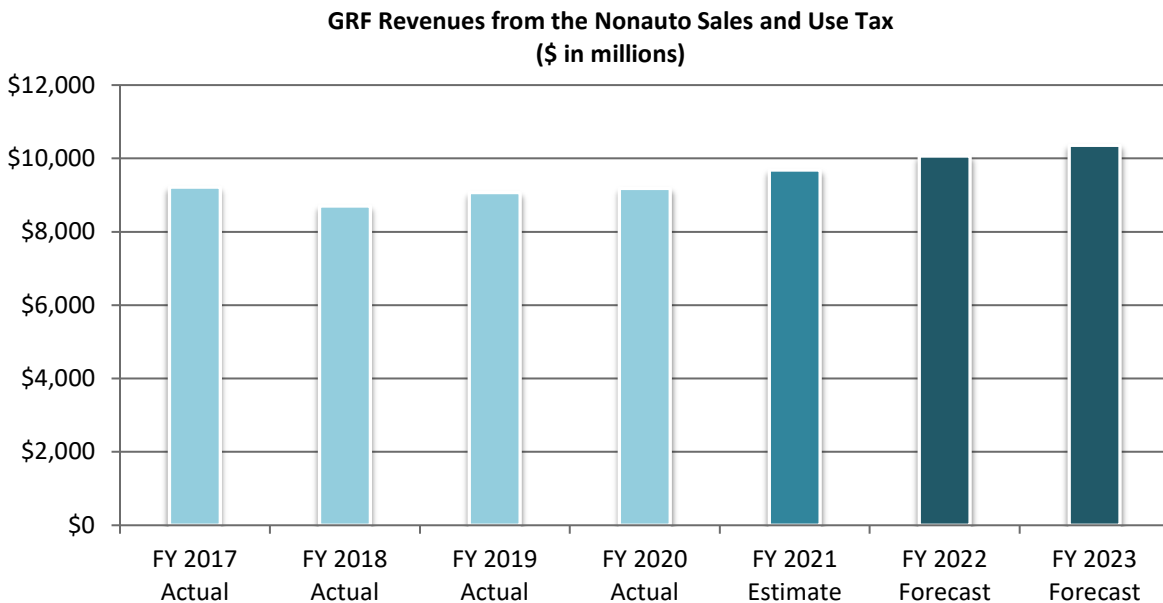
Auto Sales and Use Tax

GRF Revenues from the Auto Sales and Use Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$1,394.0	$1,440.5	$1,501.7	$1,502.7	$1,680.0	$1,670.0	$1,710.0
Growth	3.5%	3.3%	4.2%	0.1%	11.8%	-0.6%	2.4%

The forecast for the auto sales and use tax is based on statistical regressions of its quarterly tax base against new Ohio auto registrations, vehicle prices, and interest rates. The auto sales and use tax taxable base grew in recent years, supported by a long economic expansion. Consumer preference shifted from passenger vehicles to light trucks, more than two-thirds of unit sales in recent years; and the shift has generally sustained receipts by pushing average vehicle prices higher. However, FY 2020 revenue was essentially unchanged from the prior-year due to dealership closures and stay-at-home orders in the spring of 2020. GRF revenue from this tax is expected to rebound strongly in FY 2021, due to pent-up demand realized in the earlier months, and also the impact of federal income transfer programs on consumer expenditures. The forecast for the upcoming biennium assumes gasoline prices remain relatively low, increases in interest rates are benign, and average vehicle prices continue to rise. Following a very strong performance from this tax in FY 2021, revenue to the GRF is forecast to slightly decrease in FY 2022, and then resume its growth in FY 2023.
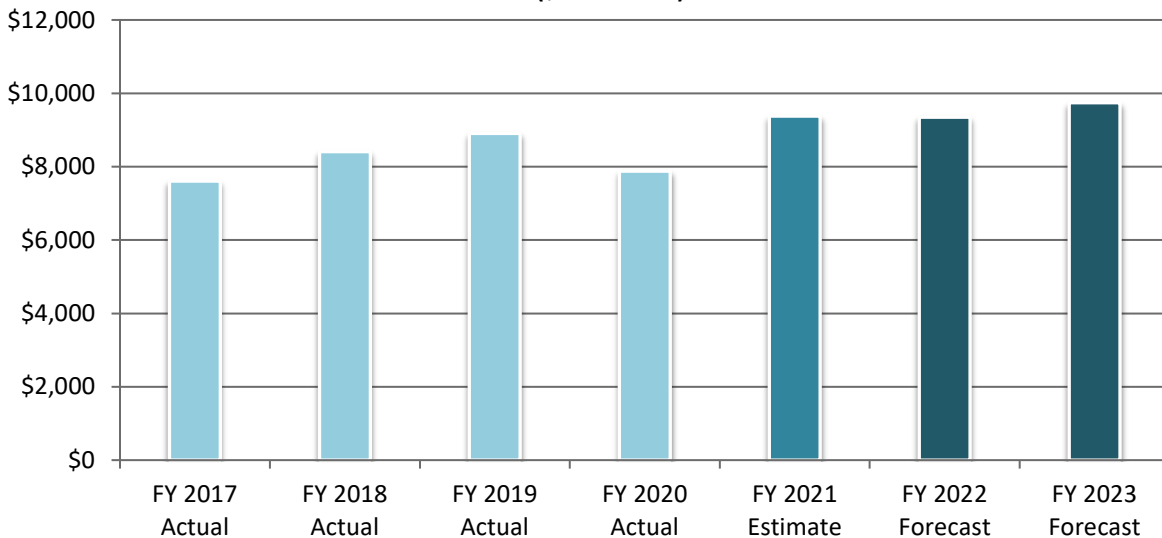
Nonauto Sales and Use Tax

**GRF Revenues from the Nonauto Sales and Use Tax
($ in millions)**

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$9,220.6	$8,707.6	$9,071.7	$9,183.0	$9,684.9	$10,066.3	$10,358.6
Growth	2.4%	-5.6%	4.2%	1.2%	5.5%	3.9%	2.9%

The forecast for the nonauto sales and use tax is based on statistical regressions of quarterly nonauto sales and use tax revenues against Ohio wages and salaries, and housing starts and values. Prior to FY 2018, growth in nonauto sales and use tax receipts was supported by tax payments by MHICs (which were added to the nonauto sales and use tax by H.B. 1 of the 128th General Assembly).[11] The Ohio sales tax on MHICs was found to not conform to federal rules, and was eliminated starting July 1, 2017. Consequently, nonauto sales and use tax revenue declined in FY 2018, though the non-MHIC tax base expanded. Revenue growth resumed in FY 2019. A provision in H.B. 166 which imposed collection of sales taxes by marketplace facilitators and other remote sellers provided a boost to FY 2020 receipts. On the other hand, receipts decreased in the last spring due to business closures and stay-at-home requirements, affecting revenue growth in FY 2020. FY 2021 performance is due to rebound in economic growth in the first quarter and stronger than expected consumer spending on durable goods. For the next biennium, GRF nonauto sales tax revenue is expected to grow by 3.9% and 2.9% in FY 2022 and FY 2023, respectively, generally in line with expected income growth and expansion of economic activity.

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[11] MHIC sales tax payments totaled about $809 million, approximately 9% of total nonauto sales tax receipts in FY 2017.

Personal Income Tax

GRF Revenues from the Personal Income Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$7,606.5	$8,411.0	$8,910.2	$7,881.3	$9,379.0	$9,348.7	$9,743.1
Growth	-2.5%	10.6%	5.9%	-11.5%	19.0%	-0.3%	4.2%

The PIT is levied on Ohio taxable income, which equals federal adjusted gross income (FAGI) as reported to the U.S. Internal Revenue Service (IRS), plus or minus various adjustments and minus personal and dependent exemptions. A taxpayer's tax liability before credits is determined by applying Ohio's graduated tax rates to the taxpayer's Ohio taxable nonbusiness income. These tax rates currently range up to 4.797% for the highest incomes. Business income has been given separate treatment since tax year (TY) 2013, with the first $250,000 of a taxpayer's business income currently exempted from tax by a deduction.[12] The balance, taxable business income, is taxed at a 3% rate. Certain credits may be subtracted from imposed tax to derive the taxpayer's final tax liability.

The estimate of PIT revenues in FY 2021 and the forecasts for FY 2022 and FY 2023 are based on the results of models of revenue collections. The models work with four components of state income tax collections: employer withholding, payments from individual taxpayers (quarterly estimated tax payments and annual returns), other revenues (trust income and miscellaneous collections), and refunds. The data are largely organized on a fiscal-year basis. Withholding is estimated as a function of Ohio wage and salary income, nonfarm payroll

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[12] The $250,000 threshold is for single taxpayers and joint filers. Married taxpayers filing separately may deduct up to the first $125,000 of business income.

employment, withholding rates, the amount of wages per employee, and the number of employees per household. The individual taxpayer component is a function of the Standard and Poor's (S&P) 500 index (used to represent capital gains), proprietors' income, dividend income, interest income, rental income, household holdings of equities and nonfinancial assets, tax rate variables, and the estimated impact of the business income deduction and lower tax rate. All other income tax collections are a function of revenue trends in miscellaneous collections and the S&P 500 index (used as a predictor of receipts derived from taxable trusts). Refunds are a function of gross tax collections (withholding plus individual plus other), the change in gross tax collections from the previous year, the value of the personal exemption, the percent of business income that may be deducted, a variable representing the 3% rate on taxable business income, refunds in the previous year, and tax rate variables. Projections of future values of the explanatory variables are from economic forecasting firm IHS Markit, except for withholding and tax rates and personal exemption amount.

The global pandemic and related U.S. economic shutdowns led policymakers to delay until July 2020 the due date for tax year 2019 final settlements, as well as due dates for quarterly estimated tax payments, making predictions of state FY 2021 income tax revenues exceptionally uncertain. With widespread vaccinations underway against the virus that has caused the pandemic, and on the assumption that no other extraordinary events complicate the outlook, income tax revenues in FY 2022 and FY 2023 may be less volatile.

Income tax rates and withholding rates were reduced 36% between TY 2004 and TY 2020. Income tax rates were reduced 21% between TY 2004 and TY 2011 by H.B. 66 of the 126th General Assembly, as modified by H.B. 318 of the 128th General Assembly. Income tax rates were lowered an additional 10% between TY 2012 and TY 2014 by H.B. 59 and H.B. 483, both of the 130th General Assembly. Income tax rates were cut another 6.3% in TY 2015 by H.B. 64 of the 131st General Assembly, and 4.0% in TY 2019 by H.B. 166 of the 133rd General Assembly. A 4.0% withholding rate reduction in 2020 brought the cumulative reduction in the withholding rate since TY 2004 into line with the cumulative reduction in the tax rate on nonbusiness income.

Through December, FY 2021 GRF revenues from the PIT were 1.5% above estimate and 14.4% above revenues in the first six months of FY 2020. The large increase from year ago resulted from the pandemic-related delay in due dates for estimated payments and final settlements, and the resulting shift of tax revenues from FY 2020 into early FY 2021. Gross collections through December were 1.2% above estimate and 16.2% higher than FY 2020 year-to-date levels. Refunds were 2.8% below estimate and 38.6% above FY 2020 levels. Many refunds appear to have been delayed from April into FY 2021.

The FY 2021 estimate for GRF revenues from the personal income tax is $9,379.0 million, a 19.0% increase from FY 2020 revenues. GRF revenues under current law are projected to decline by 0.3% in FY 2022 and to rise by 4.2% in FY 2023.

Commercial Activity Tax
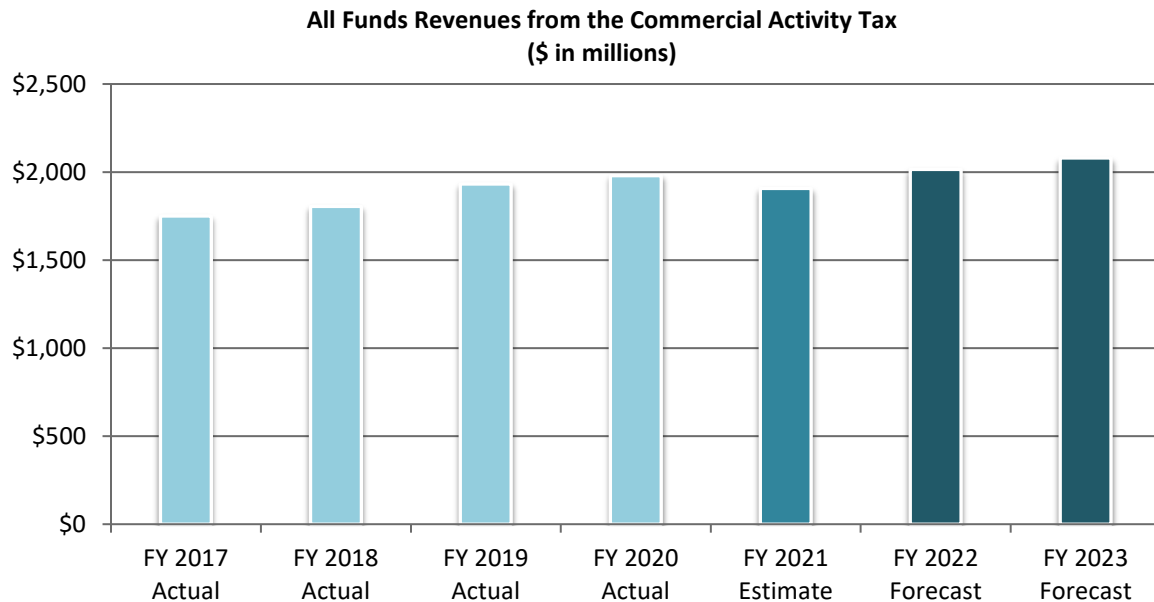
All Funds Revenues from the Commercial Activity Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
All Funds Revenue	$1,750.8	$1,805.5	$1,932.0	$1,979.9	$1,907.0	$2,015.0	$2,080.0
Growth	3.7%	3.1%	7.0%	2.5%	-3.7%	5.7%	3.2%
GRF Share	$1,301.5	$1,522.8	$1,629.5	$1,671.7	$1,621.0	$1,712.8	$1,768.0

The commercial activity tax (CAT) is a privilege tax on business entities operating in Ohio. Generally, business entities with annual taxable gross receipts below $150,000 are exempt from the CAT and those with annual taxable gross receipts above $150,000 and less than $1 million pay the minimum tax of $150. Taxpayers with taxable gross receipts between $1 million and $2 million pay $800 plus 0.26% of the taxable gross receipts in excess of $1 million, those with taxable gross receipts between $2 million and $4 million pay $2,100 plus 0.26% of the taxable gross receipts in excess of $1 million, and those with taxable gross receipts in excess of $4 million pay $2,600 plus 0.26% of the taxable gross receipts in excess of $1 million. Taxpayers who pay the minimum tax pay the CAT once a year. The other CAT taxpayers generally pay the CAT each quarter, based on gross taxable receipts in the previous quarter. Major tax credits available against the tax include the job retention, job creation, research and development (R&D), R&D loan repayment, and credit for net operating losses and other deferred tax assets.

Current law earmarks revenues from the CAT for the GRF and for reimbursing school districts and other local governments for the reductions and phase out of local taxes on most tangible personal property. This revenue sharing changed over the years, and the latest change in H.B. 49 of the 132nd General Assembly increased the GRF share to 85%, up from 75%,

effective July 1, 2017.[13] Earmarked amounts that exceed the required reimbursement payments to school districts and other local governments are transferred back into the GRF.

CAT collections are directly linked to levels of economic activity. FY 2021 receipts are likely to decline due to poor revenues in the first fiscal quarter from business closures in the spring of 2020. Revenue growth is expected to resume in the next biennium. However, actual GRF revenue from the tax depends on the value of tax credits and refunds claimed each year.[14] The CAT forecast is based on statistical regressions and trend analyses of quarterly CAT collections against changes in Ohio's Industrial Production and Gross State Product, with some adjustments for estimates of tax credits applied against the tax.

Cigarette and Other Tobacco Products Tax

GRF Revenues from the Cigarette and Other Tobacco Products Tax
($ in millions)
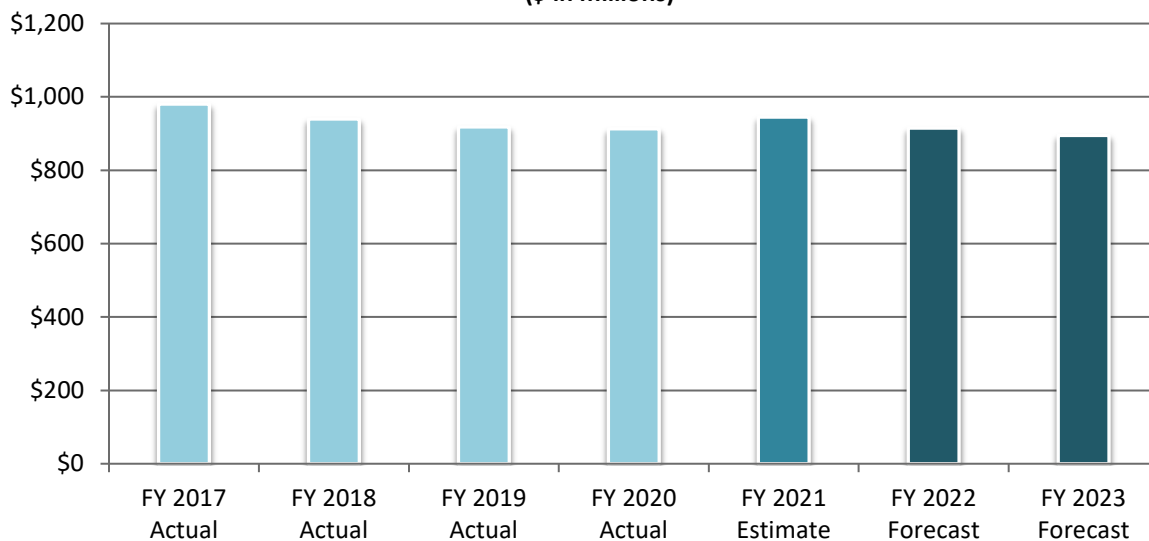
$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$980.5	$939.8	$918.2	$913.0	$945.0	$915.0	$895.0
Growth	-2.7%	-4.2%	-2.3%	-0.6%	3.5%	-3.2%	-2.2%

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[13] Other revenues from the CAT are split between the School District Tangible Property Tax Replacement Fund (13%) and the Local Government Tangible Property Tax Replacement Fund (2%) for reimbursement purposes. Also, a provision in current law allows the Tax Department to deduct 0.65% of CAT collections to defray administrative costs.

[14] Tax credits and refunds change annually and have varied significantly in the last few years: they were $137.2 million in FY 2016, $104.5 million in FY 2017, $159.2 million in FY 2018, $136.6 million in FY 2019, and $122.1 million in FY 2020.

The cigarette and other tobacco products (OTP) tax is levied on cigarettes, cigars, chewing tobacco, snuff, smoking tobacco, and other tobacco products. Cigarettes are taxed at a rate of $1.60 per pack of 20 cigarettes. Receipts from the sales of cigarettes were 91% of total receipts in FY 2020. The tax on OTP is an ad valorem tax, generally 17% of the wholesale price paid by wholesalers for the product, except for "little cigars" which is 37% of the wholesale price, and "premium cigars" which was $0.52 per cigar in FY 2020.[15] Revenue from that portion of the tax base grows with OTP price increases. H.B. 166 of the 133rd General Assembly levied a tax of 10¢ per milliliter (or gram) of vapor product (depending on the form of the product) that contains nicotine and is depleted as it is used in an electronic smoking product.[16] Revenue collected from the tax is deposited into the GRF.

The COVID-19 pandemic has temporarily suspended the historical downward trend in cigarette and OTP revenue. Since March 2020, fewer opportunities for travel and entertainment might have afforded smokers more disposable income for cigarettes. Fewer social interactions and more time at home might also have allowed for more tobacco use occasions. As a result, FY 2021 receipts from the cigarette and OTP are expected to increase relative to FY 2020 revenue. It is unclear how long smokers will maintain this higher level of tobacco consumption, though this forecast assumes the long-term annual decline in per capita cigarette consumption is expected to resume in the next biennium.

The forecast for the cigarette and OTP tax is based on trend analyses of the recent per capita consumption of cigarettes and price increases for OTP. Smokers are expected to make downward adjustments to their current consumption of taxed cigarettes in the next biennium. Revenue from the tax on OTP generally increases each year, primarily from increases in the wholesale price of those products.

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[15] A "little cigar" is defined as a smoking roll that does not satisfy the excise tax law's definition of a cigarette, that contains an integrated cellulose acetate filter or other filter, and that is not wrapped in natural leaf tobacco. Generally, a "premium cigar" is a roll for smoking other than a cigarette or little cigar. The tax rate on premium cigars is indexed annually for inflation.

[16] Of total receipts in FY 2020 of $82.4 million from the sale of OTP, the tax on vapor products contributed $3.6 million, or about 4%, according to the Ohio Department of Taxation.

Kilowatt-Hour Excise Tax
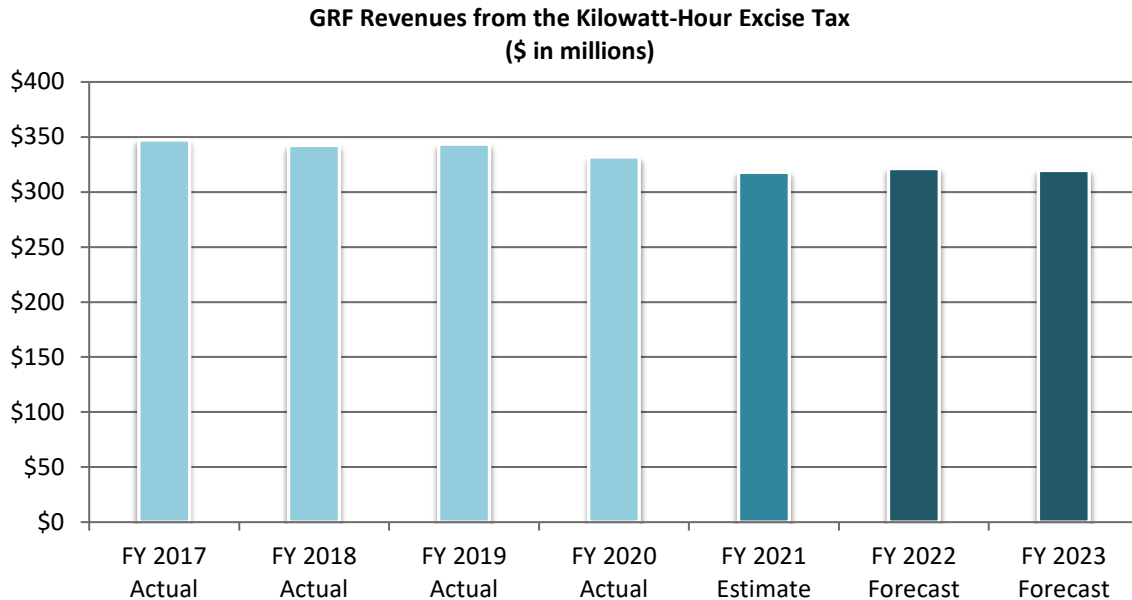
GRF Revenues from the Kilowatt-Hour Excise Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
GRF Revenue	$347.4	$342.4	$343.6	$331.8	$317.9	$321.3	$319.6
Growth	2.8%	-1.5%	0.4%	-3.4%	-4.2%	1.1%	-0.6%

The kilowatt-hour (kWh) excise tax is levied on electric distribution companies with end users in Ohio. The tax rate depends on the volume of electricity used by the customer. There are three distinct marginal tax rates: $0.00465 per kWh for the first 2,000 kilowatt hours consumed in a month, $0.00419 per kWh for the next 13,000 kilowatt hours consumed, and $0.00363 per kWh for all kilowatt hours consumed over 15,000. Very large users, those that use over 45 million kWh per year, have the option of self-assessing the tax, which enables them to pay a lower rate. Beginning January 1, 2011, self-assessors have paid a flat tax rate of $0.00257 per kWh for the first 500 million kilowatt hours used in a year and $0.001832 per kWh over 500 million.

Total (all funds) revenue from the tax has been fairly stable over the years, though there was a 3% drop in FY 2020. Since the beginning of FY 2016, all revenues from this tax have been deposited into the GRF.[17] But half of the share of GRF total tax revenue that is transferred to

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[17] Prior to FY 2016, 12% of revenues from the tax was shared with two property tax replacement funds and 88% was deposited into the GRF. Prior to FY 2012, the GRF received 63%, and the property tax replacement funds shared the other 37%.

the Public Library Fund (PLF) is debited against this tax source for accounting purposes. As a result, the annual growth rate for the GRF portion of this tax may deviate from this tax's total revenue growth rate.

Revenue to all funds from the tax is estimated to increase in both FY 2022 and FY 2023. The forecast of total kWh tax revenues was generated using a model that used Ohio's gross state product as a proxy for overall economic conditions and used an Ohio manufacturing industrial production index, cooling degree days, and Ohio population growth as proxies for electricity consumption growth in commercial, industrial, and residential sectors.
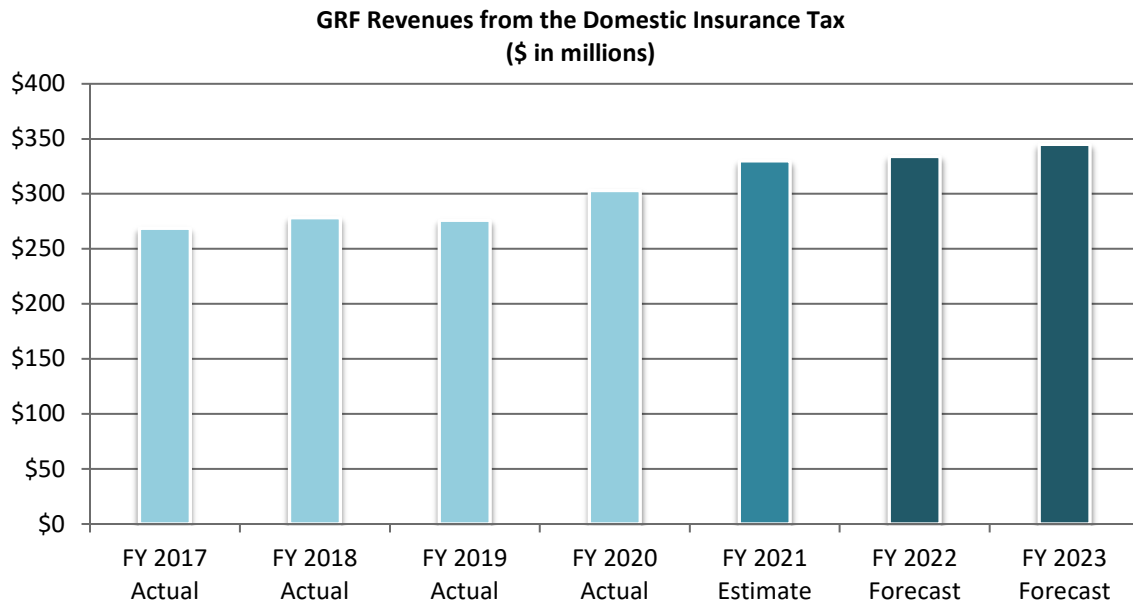
Foreign Insurance Tax
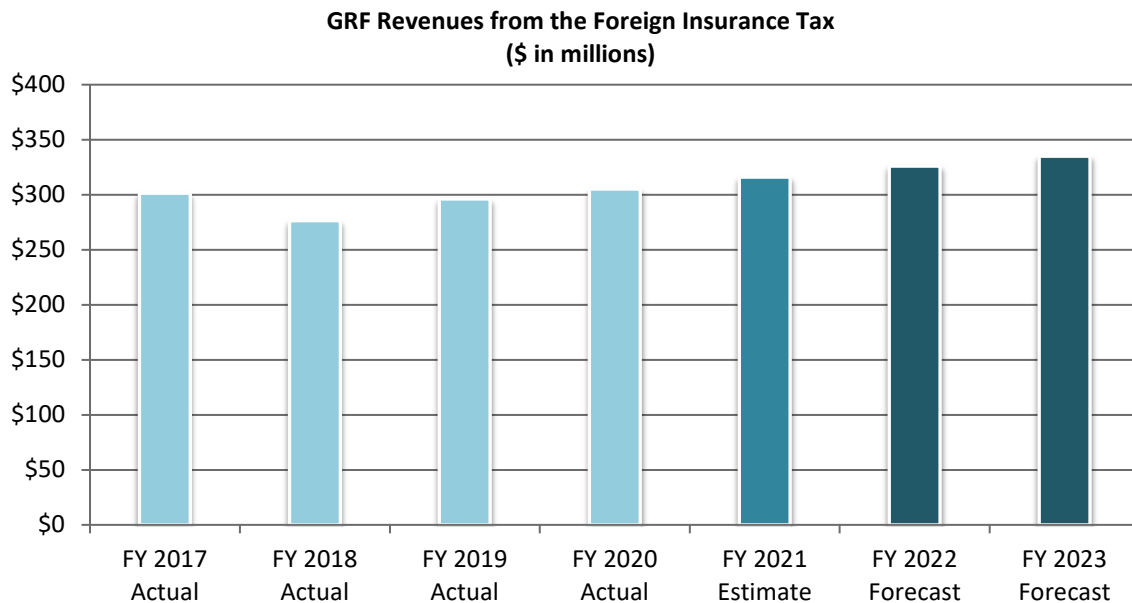
GRF Revenues from the Foreign Insurance Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$301.5	$276.5	$296.3	$305.1	$316.0	$325.0	$336.0
Growth	2.7%	-8.3%	7.2%	3.0%	3.6%	2.8%	3.4%

The foreign insurance tax is levied on premiums collected by insurance companies headquartered in a state other than Ohio. The tax is generally 1.4% of premiums; the primary exception is foreign insurance companies that are health insuring corporations (HICs), which pay 1.0% of premiums. Premiums paid for property and casualty insurance accounted for slightly over half of the revenue from the tax in FY 2020, with premiums paid for life and health insurance accounting for a substantial portion of the remainder.

Revenue from this tax depends on overall economic conditions and on interest rates. Insurance companies derive revenue from both the premiums they collect and the interest earned from investing those premiums. The forecast is the average derived from several models, which generally used Ohio personal income as a proxy for overall economic conditions,

used median home prices in Ohio as a proxy for claims growth, and used changes in six-month Treasury bill yields as a proxy for company revenues from the other main source.
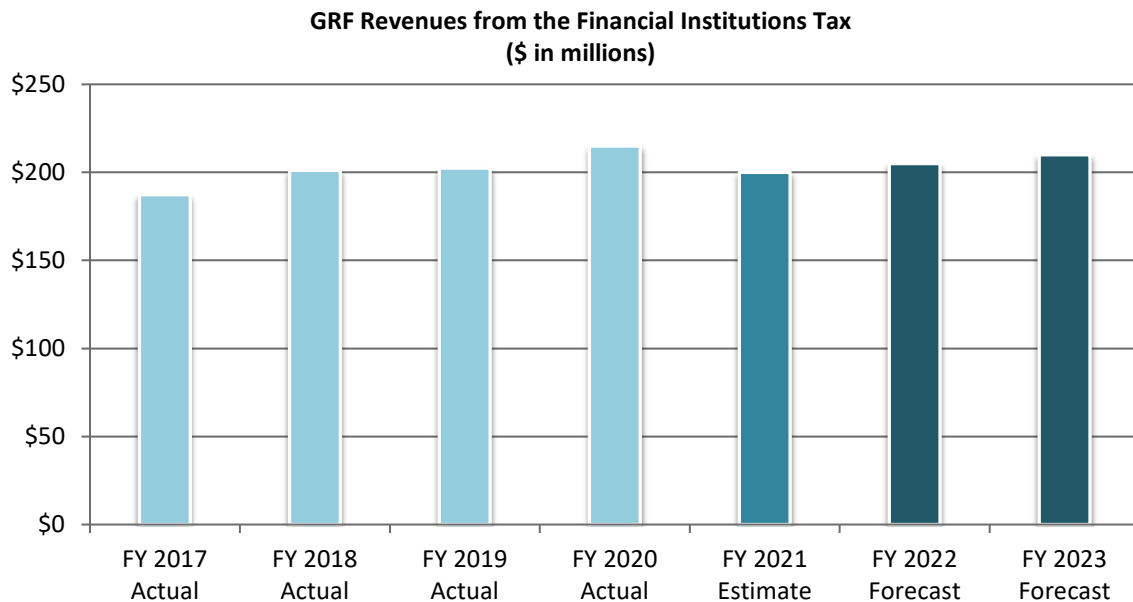
Domestic Insurance Tax

GRF Revenues from the Domestic Insurance Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$268.6	$278.4	$276.0	$303.0	$330.0	$334.0	$347.0
Growth	4.0%	3.6%	-0.9%	9.8%	8.9%	1.2%	3.9%

The domestic insurance tax is levied on premiums collected by insurance companies headquartered in Ohio. The tax is generally 1.4% of premiums; the primary exception is domestic insurers that are HICs, which pay 1.0% of premiums. This tax structure is the same as the foreign insurance tax structure. About 58% of the tax liability under the tax in FY 2020 was attributable to premiums paid for health insurance. Premiums paid to property and casualty insurers were responsible for about 37% of tax liabilities.

Growth in tax revenue in recent years has been primarily due to growth in revenue attributable to HICs[18] and increases in Medicaid coverage. Revenues from this tax in the future will be primarily driven by Medicaid managed care. The forecast for revenue paid by HICs is based on the LBO Medicaid forecast for expenditures for managed care. Revenue attributable to other premium sources declined for a number of years but seems to be bottoming out. Such revenue is projected to increase during the upcoming biennium in line with growth in personal consumption expenditures for financial and insurance services.

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[18] H.B. 1 of the 128th General Assembly subjected premiums paid to Medicaid HICs to the tax.

Financial Institutions Tax

GRF Revenues from the Financial Institutions Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$187.3	$201.1	$202.4	$214.9	$200.0	$205.0	$210.0
Growth	-12.3%	7.4%	0.7%	6.2%	-6.9%	2.5%	2.4%

The financial institutions tax (FIT) is a tax on banks and other types of financial institutions. The FIT was first levied in tax year (TY) 2014.[19] All receipts from the FIT are credited to the GRF. The FIT is levied on the "total Ohio equity capital" of financial institutions, which includes a firm's common stock, perpetual preferred stock, surplus, retained earnings, treasury stock, and unearned employee stock ownership plan shares. Taxpayers operating in multiple states are required to apportion total equity capital in proportion to gross receipts apportioned to Ohio. Beginning January 1, 2020, the tax base (total equity capital) is limited to 14% of a financial institution's total consolidated assets; this provision was enacted under H.B. 166 of the 133rd General Assembly.

The FIT specifies three tax rates: a rate of 0.8% (8 mills) applied to the first $200 million of a taxpayer's total Ohio equity capital, a rate of 0.4% (4 mills) applied to a taxpayer's total Ohio equity capital between $200 million and $1.3 billion, and a rate of 0.25% (2.5 mills) applied to the amount of a taxpayer's total Ohio equity capital in excess of $1.3 billion. The minimum tax is $1,000. Estimated payments are due on January 31, March 31, and May 31 of

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[19] The FIT was created by H.B. 510 of the 129th General Assembly as a replacement for the corporate franchise tax (CFT) and the dealers in intangibles tax (DIT), which were both eliminated at the end of 2013.

the tax year, and each taxpayer must file an annual report and file all tax payments by October 15 of each year.

Revenues from the FIT are projected to increase slightly from the FY 2021 estimate during the next biennium, generally in line with economic activity in Ohio's financial sector.

Public Utility Excise Tax
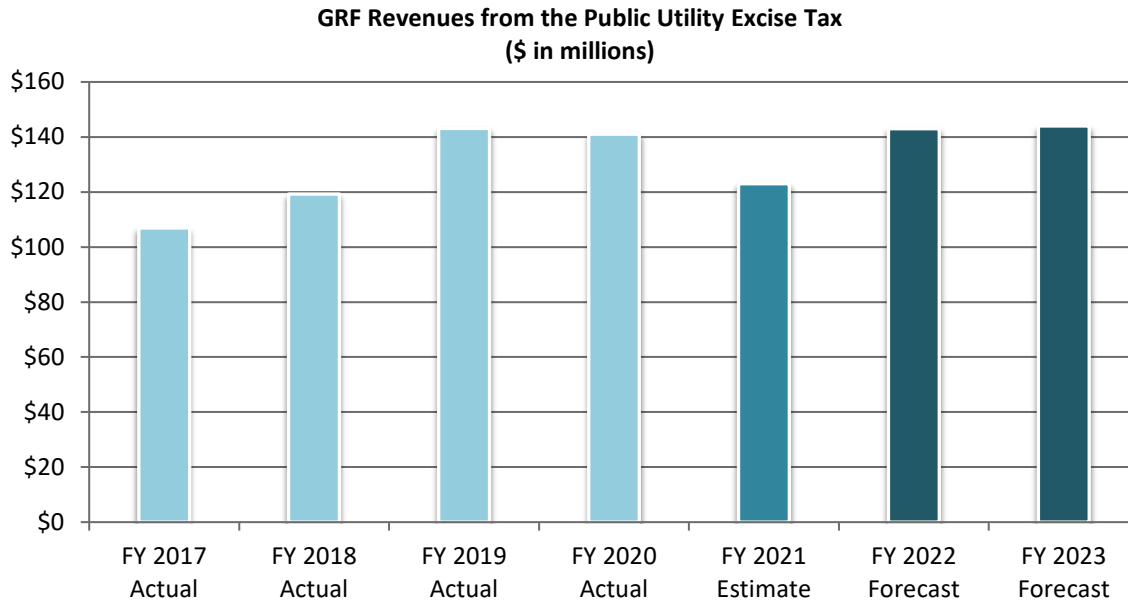
GRF Revenues from the Public Utility Excise Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$106.9	$119.2	$143.2	$141.0	$123.0	$143.0	$144.0
Growth	3.5%	11.5%	20.1%	-1.5%	-12.8%	16.3%	0.7%

The public utility excise tax (PUET) is imposed on the gross intrastate receipts of natural gas utilities, pipeline companies, heating companies, waterworks, and water transportation companies. Other types of public utilities are exempt from the tax, as are all public utilities owned by municipal corporations. Companies subject to the tax pay 4.75% of gross receipts, except for pipeline companies which pay 6.75%. All companies receive an annual deduction of $25,000. Gross receipts from sales of merchandise, interstate transactions, sales to other utilities for resale, sales to federal government entities, and billings on behalf of other entities are exempt from the tax.

Most of the revenue from the PUET is from natural gas companies. They accounted historically for 95% or more of total PUET revenue. In recent years, pipelines have accounted for a growing share of revenues from this tax. Changes in natural gas prices and consumption remain the main determinants of PUET revenues. All revenue from the PUET goes to the GRF.

Revenue from this tax rose 20% to $143.2 million in FY 2019, the highest amount since FY 2009, and remained elevated in FY 2020 at $141.0 million. The higher level reflected increased quantities of natural gas delivered to customers, rather than higher prices. Physical volumes of natural gas delivered to electric power plants ramped up particularly strongly, as the industry relied increasingly on natural gas to power generators, and less on coal. Taxes due from pipelines also grew substantially in recent years.

In CY 2020, with the pandemic-related recession starting in March, prices for natural gas delivered to customers remained below a year earlier in most months through November, the latest month published. The total volume of natural gas delivered to Ohio customers was lower than a year earlier in the calendar year's first 11 months.

Because of billing and payment lags, the recession's impact on PUET revenues occurs in FY 2021. In addition, a large refund paid in December 2020 resulted in a $10 million net outflow from the tax in that month. Tax revenues for all of FY 2021 are projected to be 13% lower than FY 2020. Annual PUET revenues recover 16% in FY 2022 and rise an additional 1% in FY 2023. The forecast is based on projections from the U.S. Energy Information Administration, released January 12, 2021, showing a recovery in prices for natural gas delivered to customers in 2021 and 2022. In this forecast, natural gas volumes do not recover in these years. Other public utility excise taxes, on water works, water transport, and heating companies, are assumed to remain stable.

Natural Gas Consumption Tax
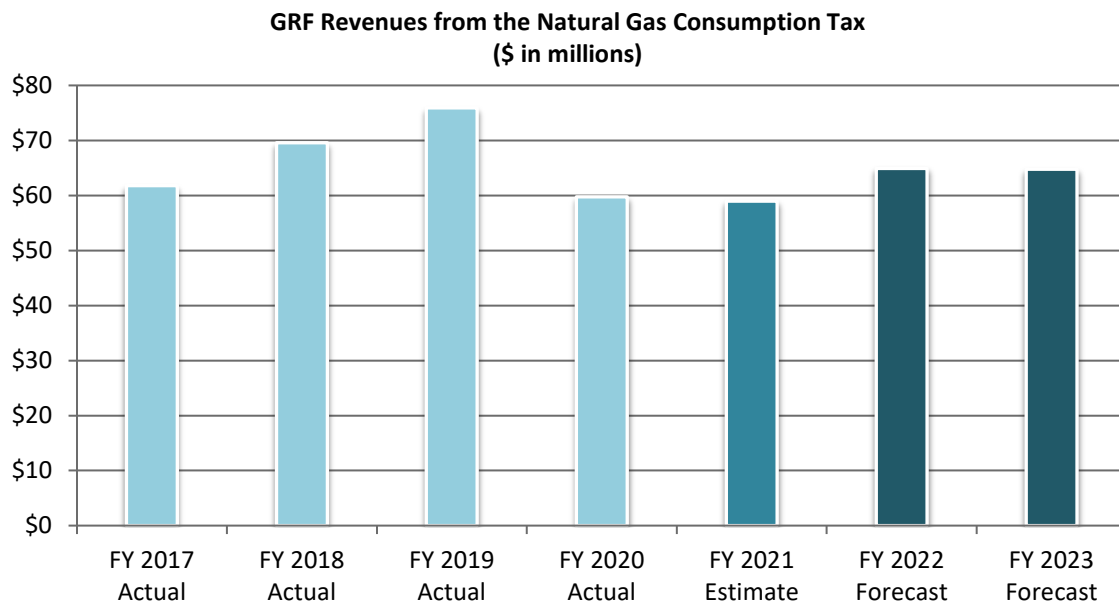
GRF Revenues from the Natural Gas Consumption Tax
($ in millions)

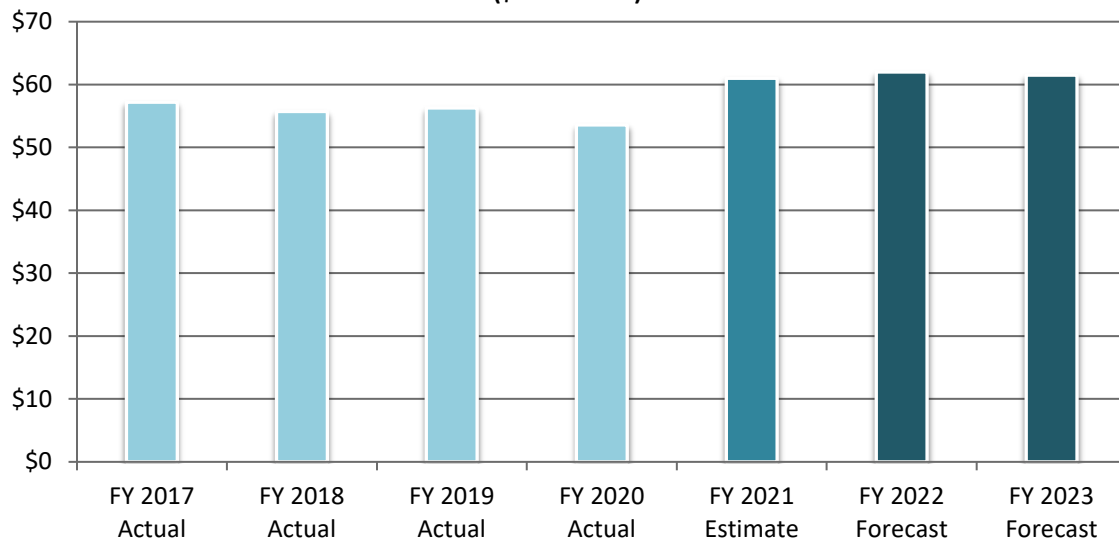| $ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$61.8	$69.6	$75.9	$59.7	$59.0	$64.9	$64.8
Growth	1.8%	12.6%	9.1%	-21.3%	-1.3%	10.1%	-0.2%

The natural gas consumption tax (also referred to as the natural gas distribution tax or Mcf tax) is levied on natural gas distribution companies, based on natural gas distributed through the meters of end users in Ohio. The base for the tax is the volume of natural gas measured in Mcf (1,000 cubic feet). The tax rate depends on the volume distributed to a customer. There are three marginal tax rates: $0.1593 per Mcf for the first 100 Mcfs distributed to an end user in a month, $0.0877 per Mcf for the next 1,900 Mcfs, and $0.0411 per Mcf for all natural gas distributed to the end user in excess of 2,000 Mcfs in the month. Natural gas distributors with 70,000 or fewer customers, up from 50,000 prior to 2009, may pay the rate specified on the total quantity of natural gas distributed in Ohio in a month, as if the distribution was to a single customer. Flex customers, generally industrial or commercial customers with very large natural gas consumption (over one billion cubic feet per year in any of the previous five years) at a single location, or that meet other specified requirements, pay $0.02 per Mcf. About half of annual revenue from this tax is typically received in the fiscal fourth quarter, mostly in May, as a result of natural gas consumption for heating during January through March and a lag in the required payment of the tax by natural gas distribution companies to the state.

The GRF started to receive revenues from the Mcf tax in FY 2012; prior to that, revenue was split between two property tax replacement funds. Full-year revenue from this tax has ranged from $83.7 million in FY 2003 to $57.8 million in FY 2013. FY 2020 revenues fell 21%, with mild winter weather likely a factor. Because of the payment lag, the recession that started in March likely had only limited effect on FY 2020 revenues. The forecast is based on U.S. Energy Information Administration (EIA) annual projections for natural gas consumption by residential, commercial, and industrial users nationwide. The nationwide forecast is used because a current EIA regional forecast was not yet available. Natural gas consumption by the electric power industry is poorly correlated with Mcf tax revenue so was excluded. The EIA forecast drives a regression model of natural gas consumption tax revenues based on the historical volume of natural gas deliveries to Ohio residential, commercial, and industrial customers, and a variable to represent the change in the tax in 2009 noted above.

Alcoholic Beverage Tax

GRF Revenues from the Alcoholic Beverage Tax
($ in millions)

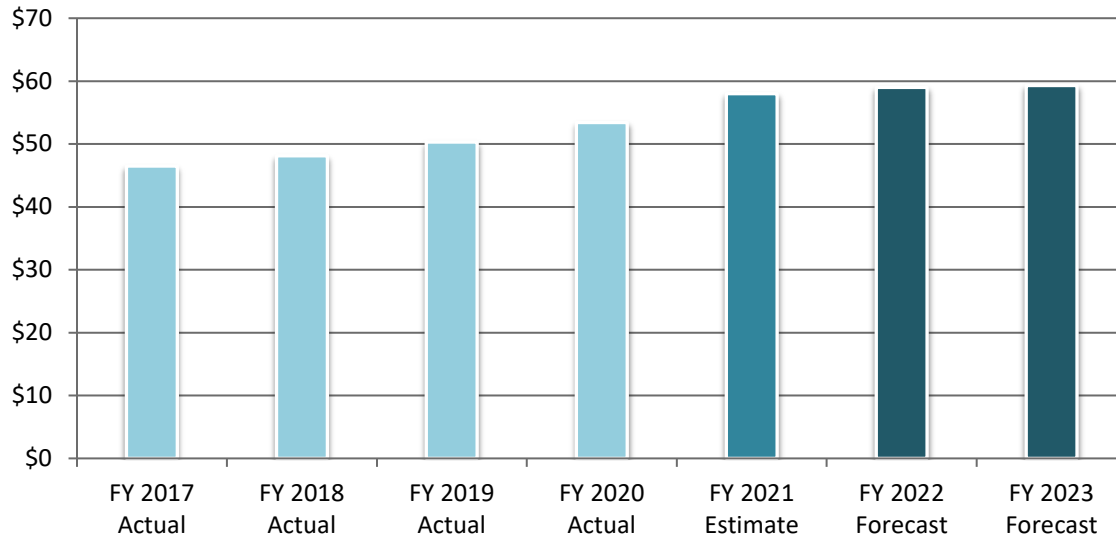| $ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$57.2	$55.7	$56.3	$53.6	$61.0	$62.0	$61.5
Growth	5.1%	-2.6%	1.0%	-4.6%	13.7%	1.6%	-0.8%

The alcoholic beverage tax applies to sales of beer, malt beverages, wine, and mixed alcoholic beverages. All beverages brewed or fermented from malt products and containing at least 0.5% alcohol by volume (ABV) are included in the tax base. The tax is levied on a per-container rate depending on the type of beverage sold. Beer is taxed at varying rates that are equivalent to 0.14 cents per ounce for bottles and cans with a volume of 12 ounces or less (about 10.1 cents for a six pack of 12 ounce containers). Wine containing less than 14% ABV is taxed at 32 cents per gallon (about 6.3 cents for a standard 750 ml bottle). Wine with between 14% and 21% ABV is taxed at $1.00 per gallon (or 19.8 cents for a standard 750 ml bottle). Mixed beverages are taxed at $1.20 per gallon (or 23.8 cents for a standard 750 ml bottle). A portion of the tax paid on each gallon of wine is deposited into the Ohio Grape Industries Fund. All other revenue from the alcoholic beverage tax is deposited into the GRF. During the first half of FY 2021, about 72% of the tax's revenue was from the sale of beer and malt beverages, down from 75% during the first six months of FY 2019.

Revenue during the first half of FY 2021 was 14.3% higher than it was during the first half of FY 2020. This seems to reflect increased consumption of alcoholic beverages coinciding with the initial COVID-19 outbreak. The forecast for tax revenue is based on a combination of two models, one for the general trend in tax revenue from 1994 through 2020, and another for the random component of the time series. Explanatory variables in the regression models include quarterly indicator variables, per-capita personal income, personal consumption

expenditure on nondurable goods, as well as quadratic transforms of some variables. LBO projects revenue of $62.0 million and $61.5 million in FY 2022 and FY 2023, respectively.

Liquor Gallonage Tax

GRF Revenues from the Liquor Gallonage Tax
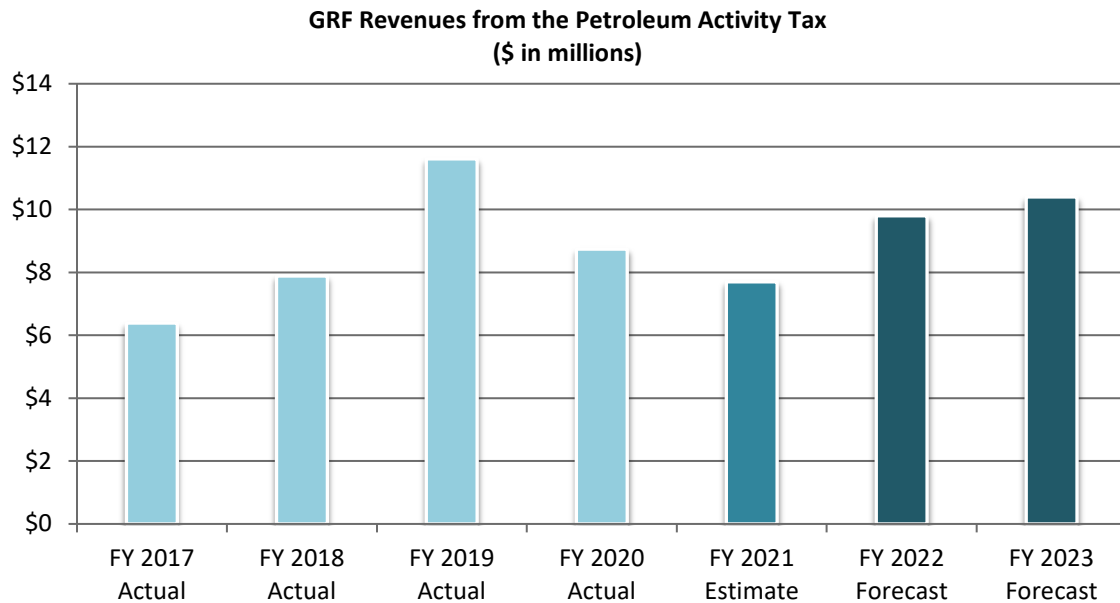**($ in millions)**

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$46.5	$48.1	$50.3	$53.4	$58.0	$59.0	$59.3
Growth	3.1%	3.4%	4.6%	6.0%	8.6%	1.7%	0.5%

The liquor gallonage tax is levied at the rate of $3.38 per gallon of spirituous liquor. This is the equivalent of 67.0 cents per standard 750 ml bottle. The tax is based on the volume of liquor sold and the rate has not changed since 1993, therefore all growth in revenue has come from unit sales. Among alcoholic beverage market shares, spirits have grown mostly at the expense of beer sales, though the market share for wine has increased notably during the COVID-19 pandemic response. All revenue from the liquor gallonage tax is deposited into the GRF.

During the first half of FY 2021 revenue from the tax increased by 10.4% compared to the first half of FY 2020. A rise in liquor sales, likely resulting from the COVID-19 pandemic and resulting social distancing orders, caused an unforeseen spike in this tax source during FY 2021. Currently anticipated FY 2021 collections are $58.0 million, 13.7% above estimate. LBO estimates the tax will produce $59.0 million in GRF revenue in FY 2022 and $59.3 million in FY 2023. The forecast of liquor gallonage tax receipts is based on a two-stage least squares regression model. Some explanatory variables included in the model are quarterly indicators, the consumer price index, wage and salary income, nondurable personal consumption expenditures, and average monthly level of the S&P 500 Index. Time series models, often utilized for similar tax revenue streams, produce similar results.

Petroleum Activity Tax

GRF Revenues from the Petroleum Activity Tax
($ in millions)

$ in millions	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
Revenue	$6.4	$7.8	$11.6	$8.7	$7.7	$9.8	$10.4
Growth	-7.2%	22.8%	48.0%	-27.4%	-12.3%	27.9%	6.1%

The petroleum activity tax (PAT), which commenced on July 1, 2014, was enacted in H.B. 59 of the 130th General Assembly as a replacement for the CAT on motor fuel. On December 7, 2012, the Supreme Court of Ohio ruled that imposing the CAT on gross receipts from the sale of motor vehicle fuel and allocating the revenues to the GRF was unconstitutional and that revenue arising from the sale of motor fuel used on public highways must be used for public highway purposes.

The PAT is computed on the basis of the gross receipts received by a "supplier" from the first sale of motor fuel delivered to a location in the state. The PAT tax rate is 0.65% on a supplier's gross receipts, to be paid quarterly by suppliers. A "supplier" is a person that either acquires motor fuel from a terminal or refinery "rack" and distributes that fuel within the state, or who imports motor fuel for sale or distribution within the state but outside of a bulk distribution system.[20] A "rack" is defined as a mechanism that delivers motor fuel from a terminal or refinery into a means of transport other than a pipeline or vessel.

Revenue from the tax is initially credited to the Petroleum Activity Tax Fund, minus moneys required to pay tax refunds. Of the amount remaining, 1% is transferred to the

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[20] A bulk distribution system is defined as refineries, pipelines, fuel terminals, or marine vessels.

Petroleum Activity Tax Administration Fund to offset Department of Taxation costs. Next, PAT receipts from fuels sold to propel vehicles on public highways are transferred to the Petroleum Activity Tax Public Highways Fund; these moneys comprise the bulk of PAT collections, and must be used for maintaining the state highway system or paying debt service on highway bond obligations. Any revenue from sales of motor fuel not used to propel vehicles on public highways is transferred to the GRF.

There is still very limited experience with revenue from the tax, since the structure of the tax differs significantly from that of the CAT. This limited experience means that a formal model of tax revenue would have little if any reliability. Revenue growth in FY 2022 and FY 2023 is based on projections of growth in nominal personal consumption expenditures on gasoline and other energy goods.[21] Over the next biennium, LBO assumes the ratio of highway to nonhighway fuel usage remains the same as in FY 2020.

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[21] Projection of personal consumption expenditures on gasoline and other energy goods is based on economic data provided in IHS Markit's December 2020 forecast.

MEDICAID SERVICE EXPENDITURE FORECAST

Forecast Summary

Medicaid is a joint state-federal program that provides health care coverage to low-income individuals. The Medicaid forecast includes both state and federal shares of Medicaid expenditures. LBO forecasts most caseload-driven service expenditures and assumes no changes from current law or administrative policies in the baseline forecast. LBO's baseline forecasts for FY 2021 through FY 2023 are shown in the first row of the table below. Certain Medicaid service expenditures incurred by the Ohio Department of Medicaid (ODM) depend more on administrative policies than caseloads. These expenditures were estimated by ODM and are listed as "add-ons" in the table below. Similarly, Medicaid service expenditures incurred by the Department of Developmental Disabilities (DDD) are driven more by administrative policies and appropriations. These expenditures, which were provided by DDD, are listed as "DDD services" in the table below.

As seen from the table, estimates of total Medicaid service expenditures are $31.56 billion in FY 2021, an increase of $3.33 billion (11.8%) from FY 2020. Total service expenditures are projected to further increase by $1.67 billion (5.3%) to $33.24 billion in FY 2022 and by another $1.44 billion (4.3%) to $34.68 billion in FY 2023. The relatively large increases in FY 2021 and FY 2022 reflect the impact of the ongoing COVID-19 pandemic.

Total Medicaid Service Expenditures (Excluding Administration) (Combined State and Federal Dollars, $ in millions)							
Category	FY 2020 Actuals	FY 2021 Estimates	Growth Rate	FY 2022 Forecast	Growth Rate	FY 2023 Forecast	Growth Rate
LBO forecast	$21,565.6	$24,636.6	14.2%	$26,394.7	7.1%	$27,354.6	3.6%
Add-ons	$3,694.7	$3,644.5	-1.4%	$3,395.6	-6.8%	$3,741.4	10.2%
DDD services	$2,972.1	$3,283.0	10.5%	$3,446.6	5.0%	$3,583.6	4.0%
Total	**$28,232.4**	**$31,564.0**	**11.8%**	**$33,236.9**	**5.3%**	**$34,679.6**	**4.3%**

LBO forecasts Medicaid expenditures for two reasons. First, Medicaid services are an "entitlement" for those who meet eligibility requirements. This means that if an individual is eligible for the program then that individual is guaranteed the benefits and the state is obligated to pay for them. Second, the program's costs represent a significant portion of the GRF budget. In FY 2020, Medicaid expenditures represent approximately 46.7% of total GRF expenditures (including both state and federal shares) and 21.7% when only the state share of the GRF is considered.

As shown in the equation below, forecasted Medicaid service expenditures are equal to the forecasted number of Medicaid beneficiaries (members) each month – the caseload – multiplied by the forecasted cost per Medicaid beneficiary each month – the per member per month (PMPM) cost.

$$\text{Expenditures} = \text{Caseload} \times \text{PMPM Cost}$$

Total forecasted Medicaid service expenditures are the sum of forecasted expenditures for each of the major Medicaid payment categories. Medicaid provides financial reimbursement to health care professionals and institutions for providing approved medical services, products, and equipment to Medicaid enrollees. Medicaid service expenditures can generally be placed into various payment categories. LBO performs a baseline forecast of expenditures for each of the categories listed in the table below.

| LBO Baseline Forecast of Medicaid Service Expenditures by Payment Category (combined state and federal dollars, $ in millions)							
Category	FY 2020 Actuals	FY 2021 Estimates	Growth Rate	FY 2022 Forecast	Growth Rate	FY 2023 Forecast	Growth Rate
Managed Care	**$17,580.2**	**$20,578.6**	**17.1%**	**$22,110.8**	**7.4%**	**$22,935.1**	**3.7%**
CFC	$6,156.5	$7,380.9	19.9%	$7,865.9	6.6%	$8,164.3	3.8%
Group VIII	$4,823.4	$6,279.0	30.2%	$7,100.7	13.1%	$7,354.5	3.6%
ABD	$3,937.1	$4,080.3	3.6%	$4,200.6	2.9%	$4,372.5	4.1%
My Care	$2,663.2	$2,838.5	6.6%	$2,943.6	3.7%	$3,043.7	3.4%
Fee-For-Service	**$3,985.4**	**$4,058.0**	**1.8%**	**$4,283.9**	**5.6%**	**$4,419.5**	**3.2%**
Nursing Facilities	$1,511.2	$1,422.8	-5.9%	$1,407.4	-1.1%	$1,446.6	2.8%
Hospitals	$663.8	$643.9	-3.0%	$684.6	6.3%	$703.4	2.7%
Aging Waivers	$334.2	$337.4	1.0%	$360.3	6.8%	$368.7	2.3%
Prescription Drugs	$304.2	$295.5	-2.8%	$319.7	8.2%	$323.9	1.3%
Home Care Waivers	$119.3	$125.1	4.8%	$126.4	1.1%	$125.7	-0.6%
Behavioral Health	$101.5	$98.4	-3.1%	$105.5	7.2%	$105.7	0.2%
All Other	$951.2	$1,134.8	19.3%	$1,279.9	12.8%	$1,345.5	5.1%
Grand Total	**$21,565.6**	**$24,636.6**	**14.2%**	**$26,394.7**	**7.1%**	**$27,354.6**	**3.6%**

Caseload Forecast

Summary

Ohio Medicaid currently provides health care coverage to (1) uninsured children up to age 19 in families with income up to 206% of federal poverty guidelines (FPG), (2) insured children up to age 19 in families with income up to 156% FPG, (3) pregnant women in families with income up to 200% FPG, (4) parents or caretaker relatives with income up to 90% FPG, (5) adults age 19 to 64 with income up to 133% FPG, and (6) individuals who meet the Supplemental Security Income (SSI) standard and are age 65 and older, or are legally blind, or are determined disabled by the Social Security Administration. Medicaid coverage is also available to working Ohioans with disabilities through the Medicaid Buy-In for Workers with Disabilities Program. Under this program, individuals with income up to 250% FPG may qualify and those with income greater than 150% FPG must pay a monthly premium. Youth, who aged out of foster care on their 18th birthday, until age 26, regardless of income, are also eligible for Medicaid coverage.

The federal Medicare Program provides health care coverage for most of Ohio's elderly population; however, many of the elderly are "dually eligible" (i.e., eligible for both Medicare and Medicaid). The Medicaid Program supplements dual eligibles' Medicare benefits by providing assistance with Medicare premiums, copayments, and deductibles to certain low-income seniors.

The total number of persons enrolled in Medicaid is expected to increase from an estimated 3.124 million in FY 2021 to 3.299 million in FY 2022, a 5.6% increase, but decrease to 3.248 million in FY 2023, a 1.5% decrease from FY 2022. This forecast is shown in the following table and chart.

Total Medicaid Caseload (in millions)							
	FY 2017 Actual	**FY 2018 Actual**	**FY 2019 Actual**	**FY 2020 Actual**	**FY 2021 Estimate**	**FY 2022 Forecast**	**FY 2023 Forecast**
Caseload	3.093	3.010	2.855	2.824	3.124	3.299	3.248
Growth	0.9%	-2.7%	-5.1%	-1.1%	10.7%	5.6%	-1.5%

Total Medicaid Caseload
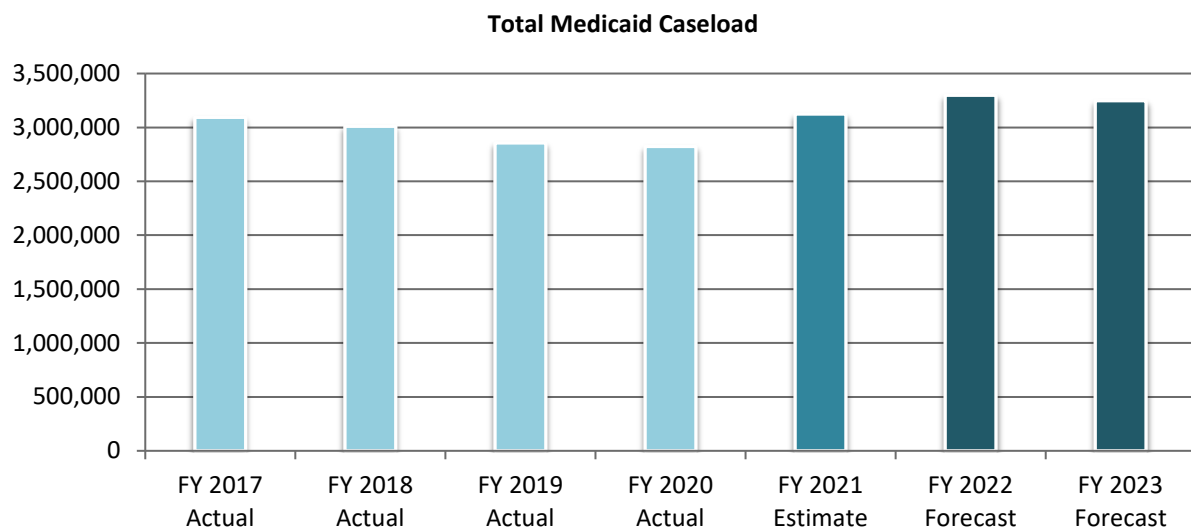
Caseloads by Eligibility

The Medicaid caseload is often presented in two main eligibility categories: covered families and children (CFC) and the aged, blind, and disabled (ABD). Generally, state law does not specify which persons fit into which categories. Rather, the categories have in large part been created administratively. CFC includes families, children, and pregnant women, and, after the Patient Protection and Affordable Care Act of 2010 expansion, low-income individuals age 19 through 64, also called Group VIII. The ABD category includes certain low-income individuals who are aged (age 65 or older), blind, or disabled. In addition to these two main categories, there are a few programs that provide partial Medicaid coverage and are treated separately in the forecast. These individuals are grouped under the Other category.

Medicaid caseloads, particularly for the CFC group, are affected by changes in the economy. As unemployment increases, workers and their dependents may lose access to employer coverage and may become eligible to enroll in Medicaid. Caseloads are also affected by policy changes. For example, the increase in caseloads in FY 2014 and FY 2015 was largely due to the expansion of Medicaid coverage to low-income individuals age 19 through 64. Ohio's implementation, on August 1, 2016, of an eligibility criteria based on Section 1634 of the Social Security Act increased ABD caseloads in FY 2017 and FY 2018. Under the 1634 criteria, a single disability determination is used for both Medicaid and SSI. Under the prior eligibility criteria, which was based on Section 209(b), the income limit for Medicaid was more stringent than that used for SSI.

The impact of the COVID-19 pandemic on Medicaid caseloads began to show in March 2020. In 2019, Medicaid caseloads remained largely flat, declining about 5,000 per month on average. However, from March through December of 2020, caseloads have increased by 33,900 cases per month on average. The growth in caseloads is a result of an increase in the number of new applications and approvals and the suspension of routine redeterminations of eligibility. In March, Congress passed three acts to allocate additional federal funding to states for several programs to address the COVID-19 pandemic. These three acts are: the Coronavirus Preparedness and Response Supplemental Appropriations Act (signed March 6), the Families First Coronavirus Response Act (FFCRA, March 18), and the Coronavirus Aid, Relief, and Economic security (CARES) Act (March 27). The second act, the FFCRA, increases the federal medical assistance percentage (FMAP) by 6.2 percentage points for certain Medicaid expenditures incurred after January 1, 2020, and throughout the duration of the COVID-19 emergency. To qualify for the increase, a state must do the following: (1) maintain eligibility standards or procedures that are no more restrictive than those in place on January 1, 2020, (2) not charge premiums that exceed those in place on January 1, 2020, (3) provide testing, services, and treatments including vaccines, specialized equipment, and therapies related to COVID-19 without cost-sharing requirements, (4) provide continuous coverage to individuals enrolled onto the program during the emergency period, and (5) not require local political subdivisions to pay a greater portion of the nonfederal share of expenditures than was required on March 11, 2020.

CFC category caseload forecasts are shown on the table and associated chart below. LBO forecasts that the overall CFC caseload will increase by 162,992, or 6.6%, in FY 2022, but decrease by 53,977, or 2.0%, in FY 2023. For forecasting purposes, the CFC category is further broken down into traditional CFC, which includes Healthy Start/Healthy Families, the Children's Health Insurance Program (CHIP), the Adopted and Foster Care Children (ADFC) Program, and Group VIII.

| Covered Families and Children Caseloads						
	FY 2017 Actual	**FY 2018 Actual**	**FY 2019 Actual**	**FY 2020 Actual**	**FY 2021 Estimate**	**FY 2022 Forecast**	**FY 2023 Forecast**
CFC (HS/HF)	1,553,736	1,427,115	1,360,070	1,342,875	1,503,807	1,573,881	1,546,131
Growth	-3.7%	-8.1%	-4.7%	-1.3%	12.0%	4.7%	-1.8%
CHIP	209,606	221,877	214,360	201,413	199,707	207,316	210,305
Growth	20.0%	5.9%	-3.4%	-6.0%	-0.8%	3.8%	1.4%
ADFC	32,527	35,822	36,309	36,605	36,105	35,924	35,912
Growth	10.5%	10.1%	1.4%	0.8%	-1.4%	-0.5%	0.0%
Group VIII	722,336	692,557	625,085	618,055	748,703	834,194	804,989
Growth	4.3%	-4.1%	-9.7%	-1.1%	21.1%	11.4%	-3.5%
Total CFC	**2,518,205**	**2,377,372**	**2,235,824**	**2,198,948**	**2,488,323**	**2,651,315**	**2,597,338**
Growth	**0.3%**	**-5.6%**	**-6.0%**	**-1.6%**	**13.2%**	**6.6%**	**-2.0%**

CFC (HS/HF): Traditional Covered Families and Children under the Healthy Start (HS)/Healthy Families (HF) Program
CHIP: Children's Health Insurance Program; ADFC: Adopted and Foster Care Children

Covered Families and Children Caseloads
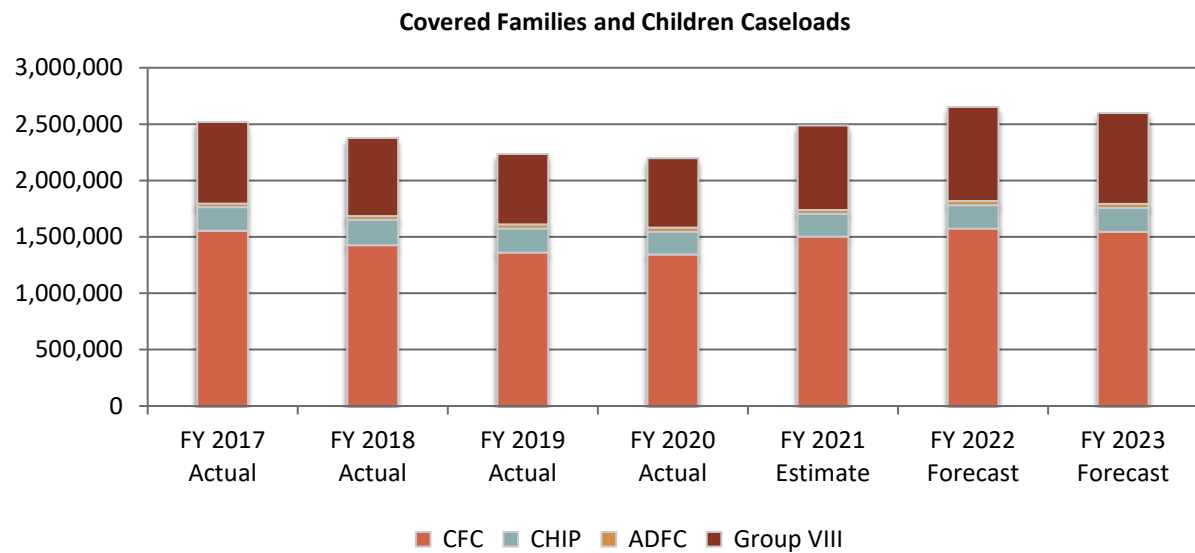
ABD category caseload forecasts are presented in the table and associated chart below. LBO forecasts that the overall ABD caseload will increase by 8,397, or 1.7%, in FY 2022, and remain flat in FY 2023. The Medicaid caseload for ABD has been increasing since April 2020. Furthermore, the caseload for dual eligibles has been increasing since the first quarter of 2019. For forecasting purposes, the ABD category is broken down into children (ABD-Kids), adults (ABD-Adults), and dual eligibles, who are individuals who are eligible for both Medicaid and Medicare (Dual).

| Aged, Blind, and Disabled Caseloads						
	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
ABD-Kids	31,037	52,594	52,613	51,440	50,278	49,573	49,288
Growth	4.2%	69.5%	0.0%	-2.2%	-2.3%	-1.4%	-0.6%
ABD-Adults	151,985	193,866	194,351	191,721	194,177	197,905	196,817
Growth	6.3%	27.6%	0.2%	-1.4%	1.3%	1.9%	-0.5%
Dual	241,798	242,378	239,354	248,276	254,092	259,466	260,744
Growth	13.7%	0.2%	-1.2%	3.7%	2.3%	2.1%	0.5%
Total ABD	424,821	488,838	486,318	491,436	498,547	506,944	506,849
Growth	10.2%	15.1%	-0.5%	1.1%	1.4%	1.7%	0.0%

Aged, Blind, and Disabled Caseloads
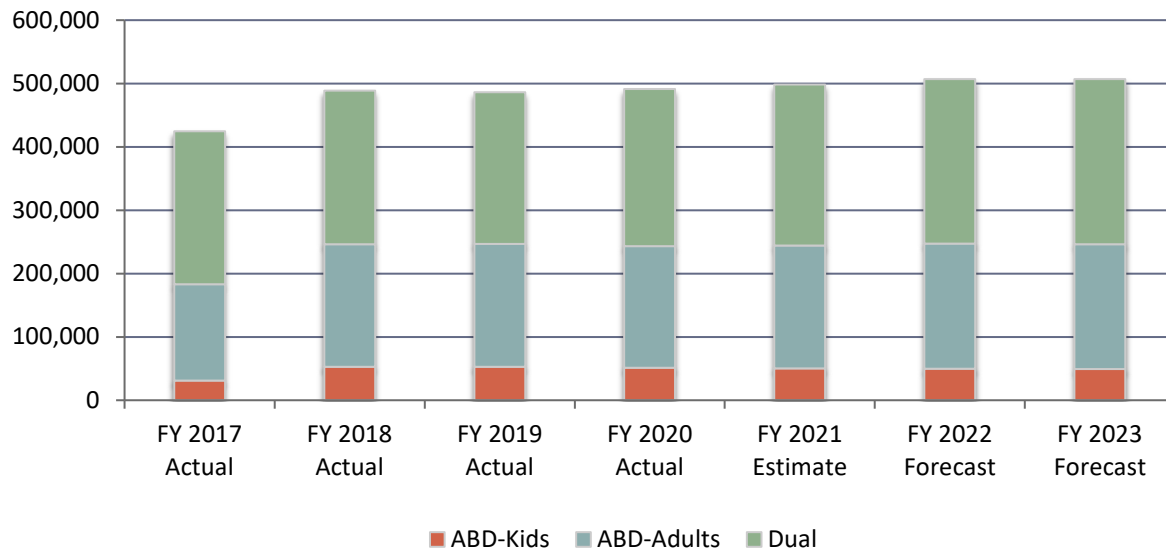
"Other" category caseload forecasts are show in the table and chart below. The Other category includes two programs: Medicare premium assistance (PREM) helps certain qualified Medicare beneficiaries pay their Medicare premiums, and the presumptive eligibility (PSUM) group includes those who receive immediate health care services through Medicaid if they are presumed to be eligible.

Caseloads – Other							
	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
PREM	112,238	119,670	120,779	121,986	127,457	130,015	132,839
Growth	-7.9%	6.6%	0.9%	1.0%	4.5%	2.0%	2.2%
PSUM	38,208	23,825	12,047	11,151	10,049	10,256	10,768
Growth	8.8%	-37.6%	-49.4%	-7.4%	-9.9%	2.1%	5.0%
Total Other	**150,446**	**143,495**	**132,825**	**133,137**	**137,506**	**140,271**	**143,608**
Growth	**-2.6%**	**-4.6%**	**-7.4%**	**0.2%**	**3.3%**	**2.0%**	**2.4%**

PREM: Medicare premium assistance
PSUM: Presumptive eligibility

Caseloads – Other
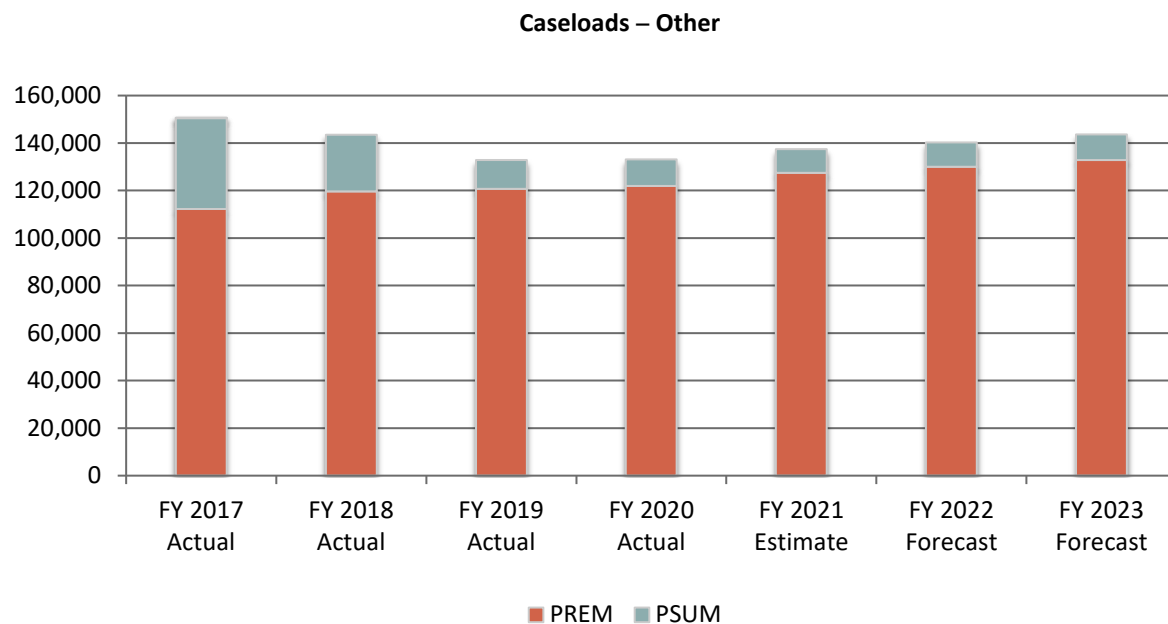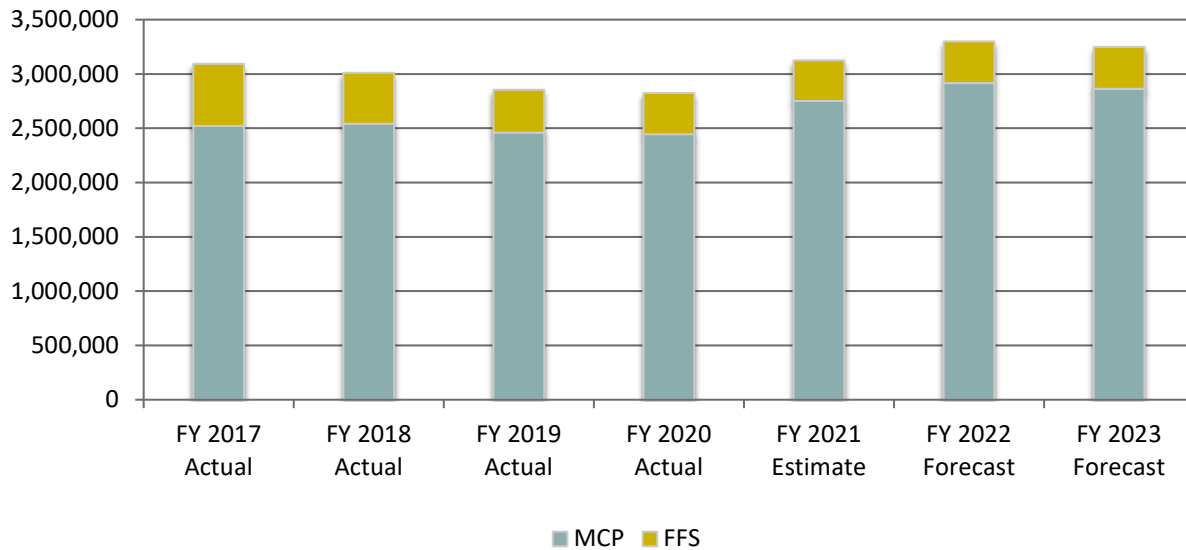
Caseloads by Service Delivery System

Two major service delivery systems for Medicaid are managed care plan (MCP) and fee-for-service (FFS). Historically, Medicaid paid most service providers a set fee for the specific type of service rendered to Medicaid enrollees (termed "fee-for-service" reimbursement). Increasingly, Medicaid pays for services through a managed care plan. A typical MCP is one in which the beneficiary receives all care through a single point of entry, and the plan is paid a fixed (capitated) monthly premium per beneficiary for any health care included in the benefit package, regardless of the amount of services actually used.

In forecasting Medicaid expenditures, the costs of recipients enrolled in MCPs are generally treated separately from the FFS categories. Managed care has grown steadily since its first implementation in all 88 counties in 2006. Over time, this implementation has dramatically shifted Medicaid expenditures from the FFS categories to the managed care categories. The structure of the managed care rollout evolved from voluntary enrollment to mandatory enrollment. Most Medicaid recipients are currently required to enroll in managed care, including many who formerly were served on a fee-for-service basis.

Forecasted total caseloads for the two delivery systems are shown in the table and associated chart below. The managed care share of the total caseload increases from 81.5% in FY 2017 to about 88% in FY 2021 through FY 2023.

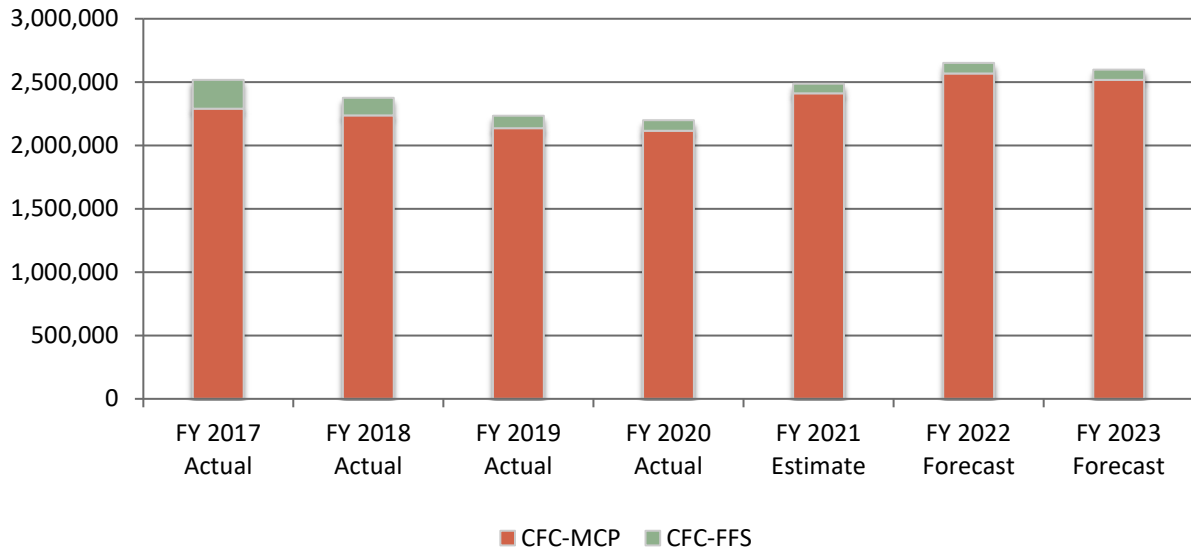| Total ABD and CFC Caseload: MCP vs. FFS							
	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
MCP	2,521,069	2,542,570	2,459,875	2,445,955	2,751,779	2,914,747	2,862,355
Growth	3.6%	0.9%	-3.3%	-0.6%	12.5%	5.9%	-1.8%
FFS	572,403	467,135	395,092	377,565	372,597	383,784	385,440
Growth	-8.3%	-18.4%	-15.4%	-4.4%	-1.3%	3.0%	0.4%

Total ABD and CFC Caseload: MCP vs. FFS

The following two tables and associated charts detail forecasted caseloads for the two service delivery systems for the CFC and ABD populations. The managed care share of the CFC population increase from 91.0% in FY 2017 to almost 97% in FY 2021 through FY 2023. The managed care share of the ABD population also increased from 54.3% in FY 2017 to about 68% in FY 2021 though FY 2023.

CFC Caseload: MCP vs. FFS							
	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2022 Forecast	FY 2023 Forecast
CFC-MCP	2,290,498	2,236,465	2,136,961	2,117,164	2,411,439	2,568,981	2,517,119
Growth	3.8%	-2.4%	-4.4%	-0.9%	13.9%	6.5%	-2.0%
CFC-FFS	227,707	140,906	98,862	81,784	76,884	82,334	80,219
Growth	-24.7%	-38.1%	-29.8%	-17.3%	-6.0%	7.1%	-2.6%

CFC Caseload: MCP vs. FFS

■ CFC-MCP ■ CFC-FFS

ABD Caseload: MCP vs. FFS							
	FY 2017 Actual	**FY 2018 Actual**	**FY 2019 Actual**	**FY 2020 Actual**	**FY 2021 Estimate**	**FY 2022 Forecast**	**FY 2023 Forecast**
ABD-MCP	230,571	306,104	322,914	328,791	340,340	345,766	345,235
Growth	2.2%	32.8%	5.5%	1.8%	3.5%	1.6%	-0.2%
ABD-FFS	194,249	182,734	163,404	162,645	158,206	161,179	161,614
Growth	21.5%	-5.9%	-10.6%	-0.5%	-2.7%	1.9%	0.3%

ABD Caseload: MCP vs. FFS
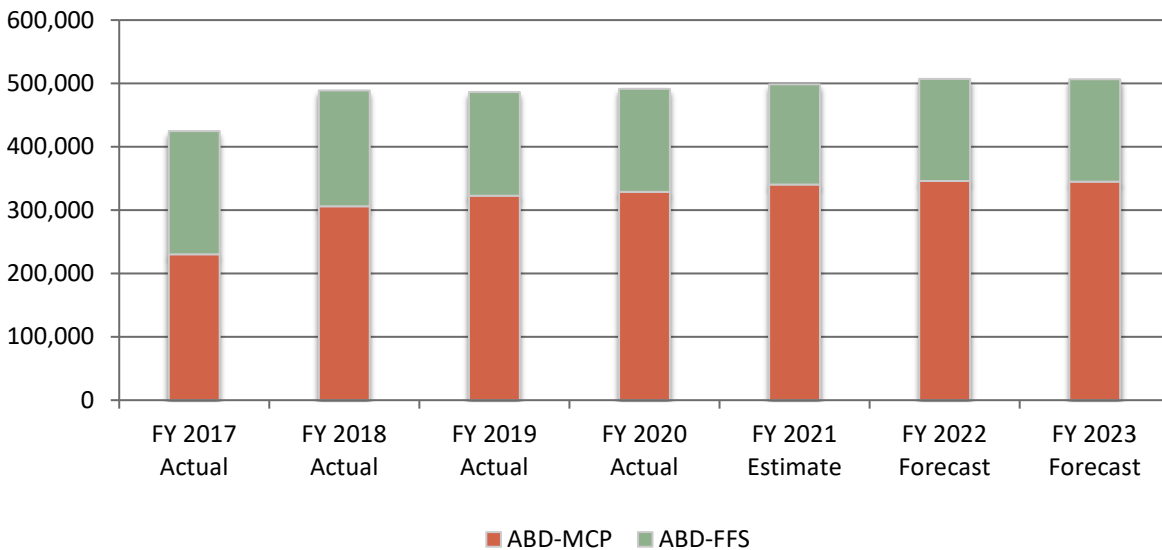
PMPM Cost Forecast

The second component of the forecast equation is the PMPM cost. These costs depend on the services required for each member type and reimbursement rates set by ODM. Although generally the ABD population makes up less than 20% of the total caseload, it comprises almost 60% of the total service costs. This is because the ABD population's health care needs are generally higher. The service delivery system also affects the PMPM cost forecast. The state pays for services through MCPs at a fixed capitation rate, whereas the state pays for the FFS population based on the services actually received. Generally, PMPM costs are forecasted based on the trends in the data and current policies. Following is a discussion of factors affecting the PMPM forecast for the largest service categories.

Managed Care

LBO's forecast assumes annual capitation rate growth of between 4.3% and 4.6% in 2022 and between 4.6% and 4.9% in 2023 for ABD and CFC populations. In addition, the forecast assumes growth of 5.0% in 2022 and 5.3% in 2023 for Group VIII. These growth rates were calculated by Milliman, the state's contracted actuary for Medicaid. Federal regulations require each state's managed care capitation rate to be actuarially sound. Generally, the MCP capitation rates are set at the beginning of each calendar year.

Nursing Facilities

ODM updates nursing facility (NF) payment rates on a semi-annual basis. The statewide average per diem was about $196 for the first half of 2019 and it was increased to about $202 in the second half of 2019. The statewide average per diem remained at about $202 in 2020. Beginning January 1, 2021, the rate has been increased by about 3%. LBO's baseline forecast assumes the FY 2021 rate will continue throughout the FY 2022-FY 2023 biennium.

Effective July 1, 2020, ODM increased the reimbursement rate for individuals who are ventilator-dependent to $972.46 and for individuals who are weaning off ventilator

dependence to $1,166. The Nursing Facility Ventilator Program was implemented on February 1, 2017, and includes an enhanced payment rate for individuals receiving ventilator services in participating NFs. ODM pays eligible NFs an enhanced rate for ventilator-dependent residents instead of the facility's regular Medicaid per diem rate.

Hospitals

In March of 2020, The Centers for Medicare & Medicaid Services (CMS) recommended that healthcare providers postpone elective procedures until further notice to preserve personal protective equipment. An April 16 White House recommendation gave the green light for elective surgical procedures to resume. Many hospitals postponed elective surgeries due to the COVID-19 pandemic last spring. Since then, the availability of elective surgical procedure services has depended on a hospital's capacity to meet the needs of caring for COVID-19 patients. The latest trends in COVID-19 also affect the utilization of these services. In the long term, however, many postponed procedures will eventually be performed.

Nonessential Dental Procedures

On March 16, 2020, the Ohio State Dental Board and Ohio Dental Association addressed the topic of postponing elective and nonurgent dental visits. According to these entities, dentists in Ohio are recommended to reschedule or postpone all elective procedures, including cosmetic procedures, routine hygiene or orthodontic appointments, and periodontal plastic surgery. The Dental Board is also recommending delaying all services for high-risk patients, except in cases of emergency. On April 8, 2020, the Centers for Disease Control and Prevention (CDC) issued similar guidance. Similar to elective surgical procedures, the latest trends in COVID-19 tend to affect the availability and utilization of these services.

Medicaid Waivers Related to COVID-19

On April 22, 2020, CMS approved Ohio's Section 1135 Medicaid Waiver request. ODM and other state Medicaid agencies sought these waivers to improve access to care and ease administrative requirements related to the COVID-19 pandemic. Ohio's waiver request seeks flexibility to do the following: (1) increase the use of telehealth and other technology, (2) waive signature requirements for many providers to encourage safe distancing, (3) ease obstacles to access nursing home care, (4) allow services to be provided at alternative locations, and (5) remove staffing-level requirements for providers. The waiver approval begins on the effective date of the declared emergency and is retroactively effective as of March 1, 2020. Approval ends on the termination of the emergency period unless extended by CMS.

Assumptions and Methodology

As indicated earlier, the Medicaid service expenditure and enrollment projections made by LBO economists are "baseline" or based on current law; that is, they are consistent with current legislation and administrative policy. These projections did not analyze any proposed changes included in the executive budget or future changes in state or federal policy that would affect the Medicaid Program. Furthermore, various "add-ons," including Medicaid Part D and Medicare Buy-In, were projected by ODM and added to the LBO baseline forecast; LBO economists did not forecast the add-ons.

Assumptions and Data Sources

Projections of Medicaid service expenditures and enrollment are dependent on demographic and economic assumptions such as economic growth, population growth, and the growth in health care prices. In addition, assumptions regarding participation rates and the coverage of and enrollment in other health insurance programs affect Medicaid expenditures and enrollment projections. The nature and quality of the available data also affect the projections.

The data on which the LBO forecast is based are provided by ODM. ODM data sources include the following:

- Ohio MITS (Medicaid Information Technology System);

- BIAR (Business Intelligence Analytical Reporting);

- Data Warehouse;

- OAKS (Ohio Administrative Knowledge System); and

- QDSS (Quality Decision Support System).

Ohio MITS is a browser-based healthcare administration platform that allows providers to submit claims and other relevant data electronically. BIAR is a subsystem of MITS that among other things, allows users to run queries and develop reports. The Data Warehouse stores data accumulated from various sources within ODM. OAKS is a system used by the state to manage its purchasing, general ledger, accounts receivable, and accounts payable information. Lastly, QDSS accesses data from the Data Warehouse and provides software tools to analyze aspects of the Medicaid Program.

Methodology Summary

To forecast Medicaid service expenditures for the FY 2022-FY 2023 biennium, LBO economists used both trend analysis and regression analysis. Trend analysis uses historical results to predict future outcome. Regression analysis is used to predict the value of one variable from known or assumed values of other variables related to it.

Trend analysis might be employed, for example, to estimate the change in the cost of providing a specific set of benefits over time. In order to estimate this change, trend factors may also be applied. To select appropriate trend factors the forecaster consults sources that provide regional and national economic indicators and indices that offer broad perspectives of industry trends in the U.S., the Midwest region, and Ohio. For example, the U.S. Department of Labor CPI data (local, regional, and national), federal reports and projections such as National Health Expenditures, and IHS Markit data were all considered and evaluated by LBO economists to produce this forecast.

Regression analysis is used for estimating the relationship between a dependent variable and one or more independent variables. For example, the unemployment rate was included in a regression analysis as the independent variable when forecasting Medicaid caseloads (i.e., the dependent variable).

After numerous forecasts are produced using the methodologies described above, LBO economists choose the most appropriate models by employing statistical tests for goodness of

fit and considering expected growth patterns. The models with the poorest fit are eliminated. LBO economists also consider historical patterns, along with economic and policy expectations when determining the best model and producing the final forecasts.

LBO economists generate baseline forecasts for major expenditure categories by first calculating the PMPM costs for each category. For each typical expenditure category and subcategory, separate forecasts are done for the average cost per member.

Background on Medicaid

Medicaid, established in 1965 in Title XIX of the Social Security Act, is a joint state-federal program that provides health care coverage to low-income individuals. State agencies administer Medicaid subject to oversight by the CMS in the U.S. Department of Health and Human Services (HHS). State participation in Medicaid is voluntary, but all states participate. The federal government provides reimbursement to the states and offers guidance on how to use federal funds, but each state shapes and administers its program to suit the needs of its own population. For instance, states determine their own eligibility requirements and scope of services, set provider payment rates, and administer their own programs. Consequently, Medicaid operates as more than 50 distinct programs – one for each state and territory, and the District of Columbia.

Federal Poverty Guidelines

States use FPG s in developing their income eligibility criteria for various Medicaid groups. FPG is the income guideline established and issued each year in the Federal Register by HHS. Public assistance programs usually define income standards in relation to FPG. The table below provides the 2020 poverty guidelines for various family sizes for the 48 contiguous states and the District of Columbia. Alaska and Hawaii are provided a different set of guidelines.

2020 Federal Poverty Guidelines	
Family Size	Poverty Guidelines
1	$12,760
2	$17,240
3	$21,720
4	$26,200
5	$30,680
6	$35,160
7	$39,640
8	$44,120

Changes to the Medicaid Program over Time

Medicaid has undergone many changes since its inception. The program was initially established to provide medical assistance only to those individuals receiving assistance through Aid to Families with Dependent Children (AFDC) and state programs for the elderly. Over the years, Congress has incrementally expanded Medicaid eligibility to reach more Americans living below or near poverty, regardless of their welfare eligibility.

In 1972, Congress enacted a federal cash assistance program for ABD called SSI, which broadened Medicaid coverage to include this population. A significant expansion of Medicaid was to provide health insurance coverage not just to the welfare population but also to other low-income families, especially low-income children and pregnant women.

In 1996, Medicaid was delinked from welfare with the enactment of the Temporary Assistance to Needy Families (TANF) Program. Families who receive TANF benefits do not automatically qualify for Medicaid as they did under the AFDC Program.

In 1997, the State Children's Health Insurance Program (SCHIP) was created. Title XXI of the Social Security Act added health care coverage for children in low- and moderate-income families who were ineligible for Medicaid, but could not afford private insurance. Under SCHIP, states were offered the option of implementing this health care coverage as a stand-alone program with different benefit packages or as part of their existing Medicaid benefit. Ohio opted to implement SCHIP as a Medicaid expansion beginning in 1998.

The most recent changes to Medicaid came with the enactment of the Patient Protection and Affordable Care Act (ACA) of 2010. The goal of the ACA was to increase access to health insurance through a coordinated system of "insurance affordability programs," including a mandatory expansion of Medicaid to all individuals under age 65 whose income is at or below 133% FPG,[22] and the creation of health insurance exchanges. The ACA also modified how income is calculated for most Medicaid applicants, including those in the new eligibility group. In 2014, states began using modified adjusted gross income (MAGI) to determine eligibility of most applicants. MAGI is adjusted gross income as defined in the Internal Revenue Code, modified by applying a 5% "disregard." This method of determining eligibility eliminated resource tests.

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[22] Under the ACA, the eligibility is 133% FPG. However, a 5% income disregard is allowed, which makes the effective minimum threshold 138% FPG.