RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS
UNIVERSITY OF MICHIGAN

Gabriel M. Ehrlich, Director

George A. Fulton & Saul H. Hymans
Directors Emeriti

University of Michigan, Ann Arbor
Department of Economics
611 Tappan Avenue
Ann Arbor, MI 48109-1120

lsa.umich.edu/econ/rsqe
734-764-2567

For Release: 9/1/2023

The Michigan Economic Outlook for 2023–2025

Jacob T. Burton, Gabriel M. Ehrlich, and Michael R. McWilliams
University of Michigan

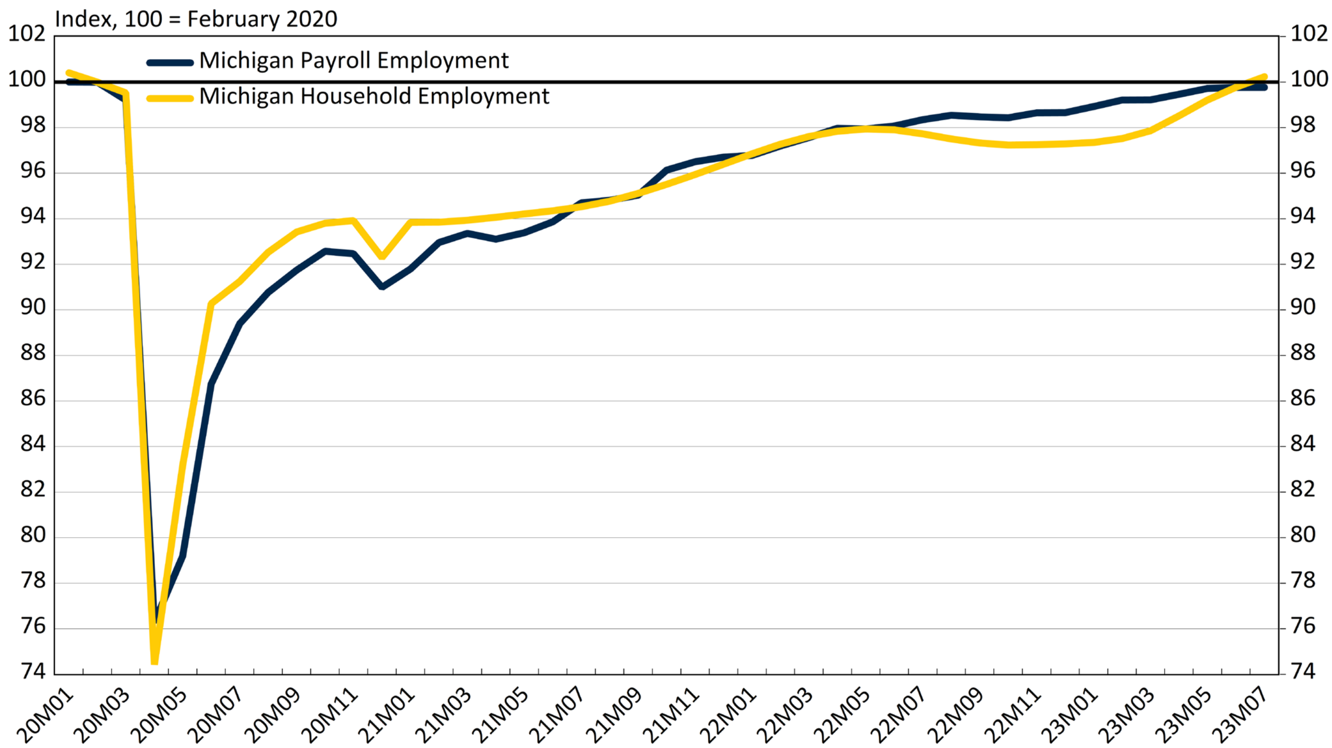
Introduction

Michigan's labor market has now made a full recovery from the pandemic recession on one key metric, the count of its employed residents. The Bureau of Labor Statistics reports that 4,764,400 Michiganders were employed as of July 2023, 11,100 more than in February 2020. Figure 1 shows that payroll employment in Michigan, the count of jobs located in the state, has not quite recovered from the pandemic. As of July, it stood 10,300 jobs shy of its level in February 2020, or 0.2 percent. We are very encouraged to see the state's progress in making a full recovery from the severe downturn at the start of the pandemic.

At the same time, we are keenly aware that the state economy faces several risks in the near future, including a potential strike by the UAW against one or more of the Detroit Three automakers and a potential national economic slowdown. Despite these risks, our base case is for Michigan's economy to continue growing over most of the next three years apart from a strike-induced wobble this fall. Our forecast calls for the state to add 65,700 payroll jobs this year, 52,400 next year, and 45,800 in 2025. That path would take Michigan's payroll jobs count 2.3 percent higher than its pre-pandemic level by the end of 2025, although it would remain 3.3 percent lower than the all-time peak reached in the second quarter of 2000.

Our outlook for the national economy has improved over the course of 2023, as the economy has continued to grow in the face of tighter monetary policy. We had previously been more optimistic for the state economy than the national economy, noting that continued backlogs of demand in the auto and construction industries should cushion employment against a national downturn. We would now characterize our outlook for Michigan's economy as roughly in line with our outlook for the nation's. We now expect moderate growth for both economies over most of our forecast horizon.

Figure 1
Michigan's Employment Recovery



The most pressing near-term risk to Michigan's economy is a prolonged strike by the UAW against one or more of the Detroit Three automakers. We believe that the economic toll of a strike would be modest at first, but spillover effects along the automotive supply chain and other affected industries would accumulate as the strike progressed. Our forecast assumes a strike of approximately six weeks against a single Detroit Three automaker. A strike against multiple automakers, or one that persists substantially longer than we have assumed, would have a larger effect on the state's economy. Still, we believe it is premature to panic about a strike's likely impact on the state economy. As one piece of evidence, we point to the UAW's strike against General Motors in 2019. That strike involved 48,000 workers nationally and lasted for 40 days, yet there were limited spillovers in Michigan's labor market.

In the long term, Michigan faces demographic headwinds from an aging workforce and limited population growth. Our hope, expressed with some trepidation in this forecast, is that the state can make it through a challenging bargaining cycle in the auto industry and a restrictive macroeconomic policy environment without a prolonged downturn. That would give state policymakers a chance to plan for the long-term future from a position of relative prosperity that Michigan has not enjoyed since the beginning of the millennium.

Inputs to the Forecast

Major elements from our U.S. forecast dated August 17, 2023, include the following:

- Broad economic growth continued in the second quarter of 2023. The BEA's advance estimate indicated that headline real GDP increased at an annualized rate of 2.4 percent last quarter (subsequently revised to 2.1 percent), driven by positive contributions from consumption, business fixed investment, and government expenditures. We expect growth to slow slightly this quarter and then decelerate further during 2023Q4–2024Q2, as the return of student debt payments and tighter credit conditions take a bite out of consumption. By mid-2024, a decrease in inflation prompts the Federal Reserve to begin lowering rates, gradually spurring economic growth to a 2.5 percent pace by the third quarter of 2025.

- The Federal Reserve has raised its target range for the federal funds rate by over 500 basis points since March 2022. Other key interest rates are also up sharply, and lending standards have tightened considerably for most business and personal lending. Our forecast assumes that the Fed will increase the federal funds rate one more time in 2023, to a range of 5.5–5.75 percent. By mid-2024, with inflation falling convincingly toward the Fed's 2.0 percent target and the labor market softening, we expect the Fed to start cutting rates at a measured pace. By the end of 2025, we expect that the federal funds range will be at 4.5–4.75 percent.

- Headline CPI inflation fell to an annualized pace of 2.7 percent in the second quarter of 2023. Core inflation stood at 4.7 percent, driven largely by high shelter inflation. We project inflation to continue moderating over the course of the next 6–12 months as shelter costs ease and consumer spending softens. By the end of our forecast, we expect the annualized pace of both headline and core inflation to hover around 2.4–2.5 percent. Inflation of the PCE deflator, the Fed's preferred measure, gradually slows from 3.1 percent this quarter to 2.2 percent in the final quarter of 2025.

- The labor market has remained resilient in the face of the Fed's tightening cycle. The unemployment rate has averaged 3.5–3.6 percent for the past five quarters, but it jumped to 3.8 percent in August. We expect restrictive monetary policy to begin to bite in the labor market within the next year. We project that the unemployment rate will rise to 4.0 percent by the end of 2024 and hover at that level throughout 2025. Payroll job gains averaged 235,500 jobs per month this year through August, but we expect that pace to slow to 36,500 jobs per month by the end of 2024. Average monthly job gains then pick back up to 114,000 by the end of 2025, as economic growth reaccelerates.

- Higher mortgage rates have severely limited supply in the existing homes market as potential sellers choose to hold on to their 3.0-percent mortgages. Boosted by the shortage of homes in the existing market, annualized sales of new single-family homes rose by almost 9 percent in the second quarter of 2023. Single-family construction also rebounded in the second quarter—single-family housing starts rose by 11.2 percent following four quarters of declines. We expect single-family starts to receive a boost as interest rates fall in 2024–25. Single-family starts finish our forecast period running nearly 5 percent above their pre-pandemic levels in the final quarter of 2025.

- The federal deficit has widened considerably in 2023. It grew from 4.3 percent of GDP during fiscal 2022 to above 6.0 percent currently. Growing federal expenditures and falling revenues have both contributed to the larger deficit, delivering roughly 2.0 percent of GDP's worth of fiscal stimulus into an economy already at full employment. We do not anticipate any major reform from the upcoming budget talks this fall, and we project fiscal deficits to linger around 6.0 percent of GDP through fiscal 2025.

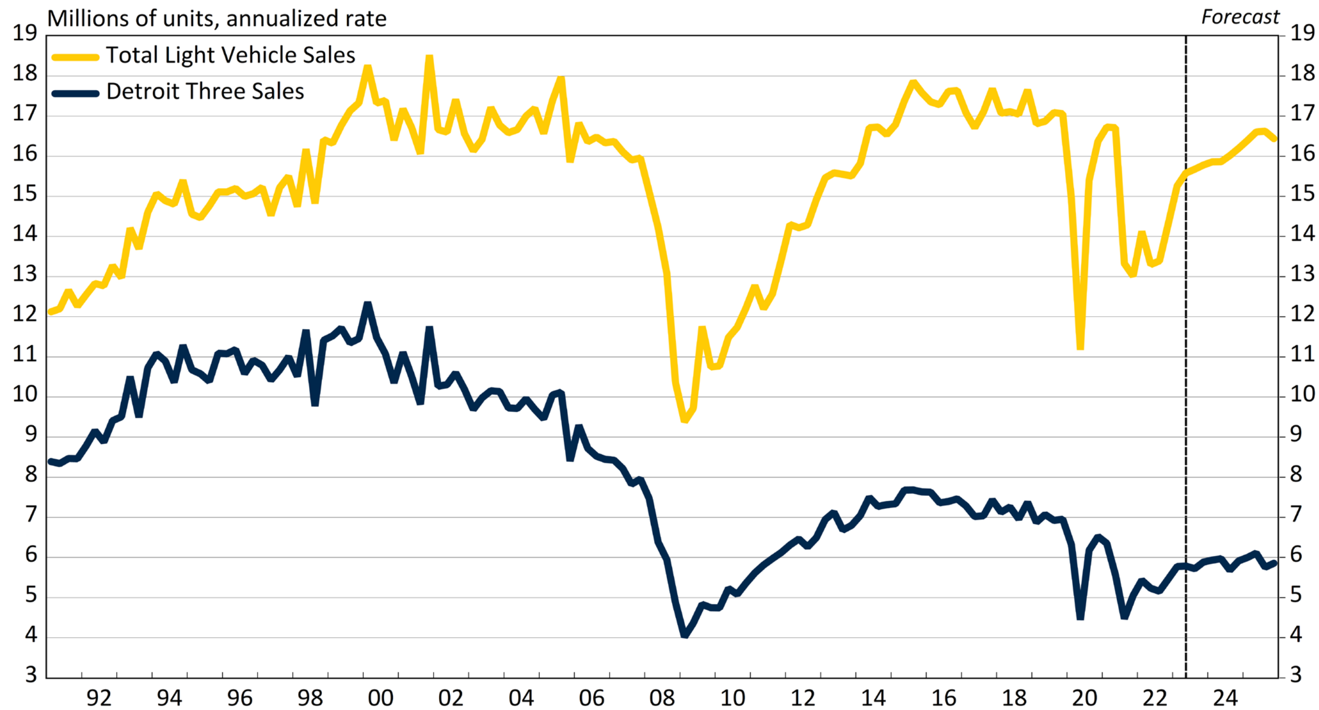
The Forecast of the State Economy

Detroit Three Light Vehicle Sales

Figure 2 shows our quarterly forecast for total U.S. and Detroit Three light vehicle sales. The annualized pace of light vehicle sales reached 15.6 million units in the second quarter of 2023, marking the fourth consecutive quarterly increase. Domestic light vehicle assemblies also reached 11 million units in the second quarter of 2023, the first time that had happened since 2018. Supply chain disruptions in the auto sector appear finally to be improving in earnest. We nonetheless expect the sales pace to run below 16 million units until the second half of 2024, as dealer inventories remain historically low and vehicle financing interest rates hinder sales. Light vehicle sales climb to an average pace of 16.5 million units by the second half of 2025, as economic growth accelerates, job growth picks up, and interest rates fall.

Our forecast assumes that there will be a strike during the contract negotiations between the UAW and the Detroit Three automakers later this year. We have penciled in a company-wide strike against a single automaker lasting approximately six weeks, roughly in line with the experience in 2019. A strike's impact on production and inventory levels could be severe, but we believe that the automakers can mitigate disruptions by adjusting production schedules and dealer inventories. We believe that the recent increase in domestic production will cushion the work stoppage's impact on sales to some extent despite tight inventory levels.

Figure 2
Quarterly Light Vehicle Sales, Total U.S. vs. Detroit Three

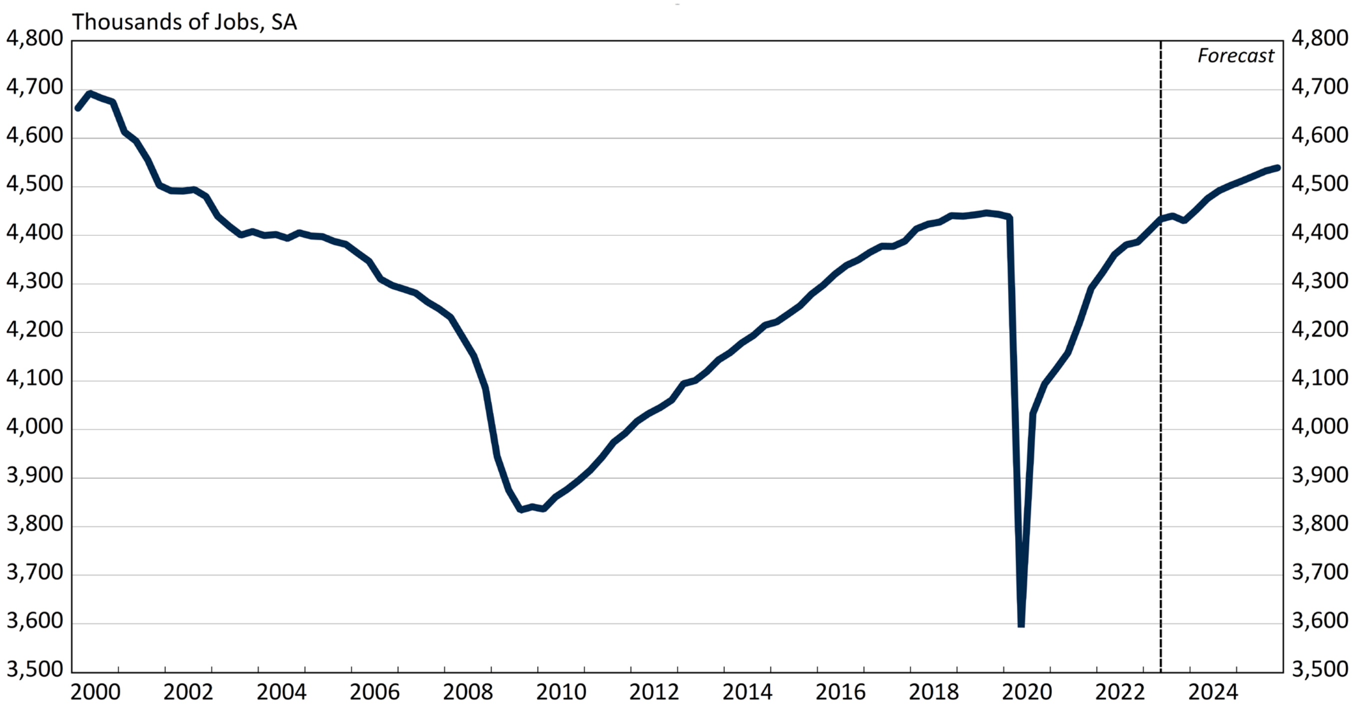


We expect the Detroit Three's share of the light vehicle market to average 37.3 percent in the final quarter of 2023, as annualized sales reach 5.9 million units, or 420,000 units higher than year-ago levels. Sales of Detroit Three light vehicles hold steady around the 2023 year-end pace in 2024–25, as the recent positive momentum brings sales in line with the longer-term trend. The Detroit Three's market share declines to 35.6 percent by the end of our forecast amid growing total sales in the light vehicle market. We expect the Detroit Three automakers to continue to broaden their product lines with high value-added light trucks and electric vehicles in order to maintain margins, potentially at the cost of lower unit sales.

Payroll Employment

Figure 3 shows our forecast of Michigan's quarterly payroll job count. We are projecting statewide employment to fall by nearly 10,000 jobs on a quarterly basis in the fourth quarter of the year amid a strike in the auto industry. Still, employment climbs by 65,700 jobs on a calendar year basis in 2023 due to the strong gains so far this year. Job gains continue their post-pandemic deceleration over the next two years, moderating to 52,400 in 2024 and 45,800 in 2025.

Figure 3
Quarterly Michigan Payroll Employment

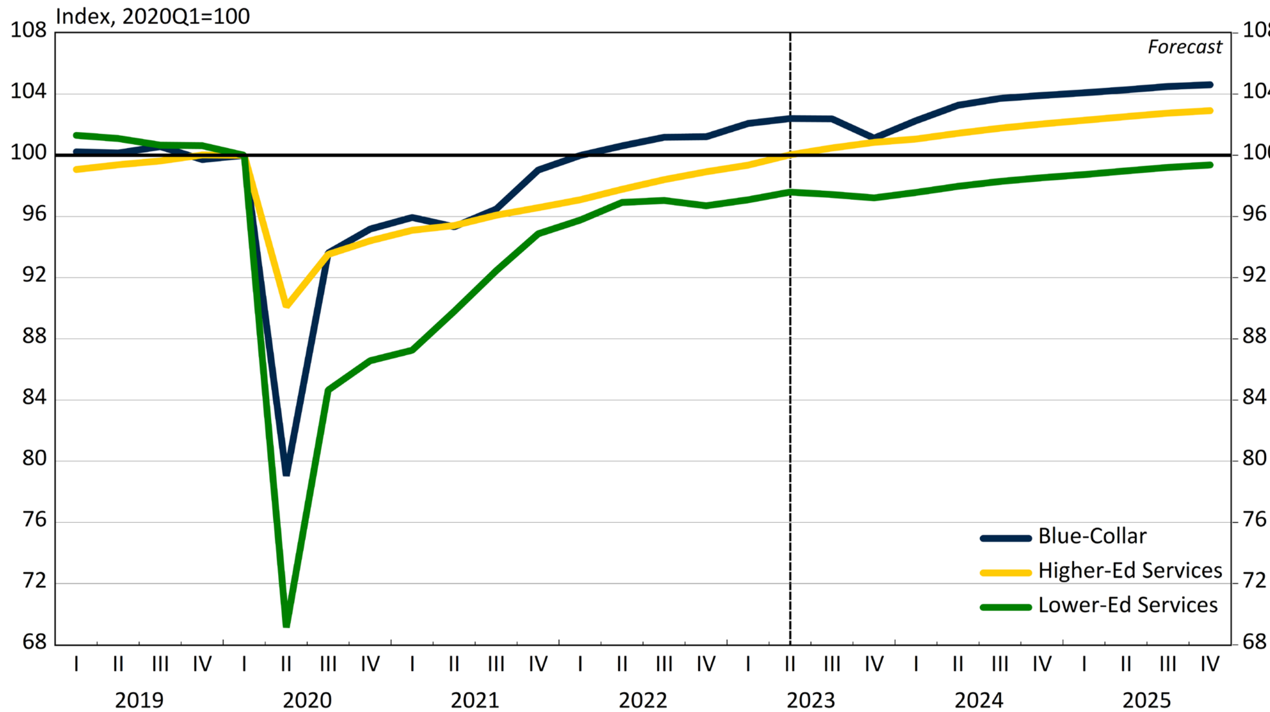


We expect Michigan's payroll employment count to surpass its pre-pandemic level in the third quarter of 2023 before dipping back below that level during the anticipated strike. It climbs back above the pre-pandemic level after the end of the strike and does not look down from there. By the end of 2025, statewide employment climbs to 101,400 jobs (2.3 percent) above the pre-pandemic level, although it remains 153,900 jobs (3.3 percent) below its all-time peak from the second quarter of 2000.

Table 1 below displays our forecast for annual job growth for Michigan's individual industries, while Figure 4 splits the state's industries into three groups: "Blue-Collar Industries," "Lower-Education Services Industries," and "Higher-Education Services Industries."[1] The figure plots the recent history and our quarterly forecast for each of these industry groups as index values, with the first quarter of 2020 normalized to a value of 100.

[1] The blue-collar industries comprise mining; construction; manufacturing; and wholesale trade, transportation, and utilities. The higher-education services industries (which generally require employees to hold a bachelor's degree or higher educational level) comprise information; finance; professional, scientific, and technical services; management of companies and enterprises; private education and health services; and government. The lower-education services industries (which typically do not require a college education) comprise retail trade; leisure and hospitality; administrative support services and waste management; and other services.

Figure 4
Job Growth in Michigan
Blue-Collar, Higher-Education Services, and Lower-Education Services Industries



Michigan's **blue-collar industries** have led the recovery from the pandemic recession, but they are most at risk from a potential strike in the auto industry this fall. We expect employment in Michigan's transportation equipment manufacturing industry to fall by 10,100 jobs on a quarterly average basis in the fourth quarter. Spillover effects to Michigan's other manufacturing sector and transportation, warehousing, and utilities sector lead to 14,300 job losses for Michigan's blue-collar industries in the fourth quarter. We would expect significantly larger losses if the strike involved more than one of the Detroit Three automakers or lasted two months or longer. Michigan's blue-collar industries recover most of their losses in the first quarter of next year and make a complete recovery by the second quarter.

We are projecting Michigan's transportation equipment manufacturing industry to add only 300 jobs this year after adding 5,800 last year. Growth then bumps up to 5,500 jobs in 2024 and 2,200 in 2025. Michigan's other manufacturing sector follows a similar pattern, with 1,500 job gains this year followed by an average of 5,000 gains per year in 2024 and 2025.

Michigan's construction industry has held up well in the face of sharply higher interest rates over the past eighteen months. We believe that a slowdown is coming in construction next year, however, as builders work through their backlog of previously started projects. After adding an impressive 6,600 jobs in 2023, the construction industry adds only 500 jobs next year and 2,400 in 2025.

Table 1
Forecast of Payroll Jobs in Michigan by Major Industry Division
(Thousands of Jobs)

		Forecast Employment Change			
	2022	'22–'23	'23–'24	'24–'25	'22–'25
Total Jobs	**4362.9**	**65.7**	**52.4**	**45.8**	**164.0**
Total Government	589.5	19.9	10.9	6.1	36.9
Total Private	3773.4	45.8	41.5	39.7	127.1
Natural resources and mining	7.2	0.3	0.0	-0.1	0.2
Construction	183.8	6.6	0.5	2.4	9.5
Manufacturing	603.0	1.9	11.0	6.8	19.6
Transportation equipment manufacturing	184.6	0.3	5.5	2.2	8.1
Other manufacturing	418.4	1.5	5.5	4.6	11.6
Trade, transportation, and utilities	805.3	5.1	0.1	1.7	6.9
Retail trade	454.9	-0.3	-3.1	-1.5	-4.9
Transportation, Warehousing, and Utilities	178.1	-2.5	1.3	1.3	0.1
Wholesale trade	172.3	8.0	2.0	1.8	11.8
Information	56.4	0.5	-0.4	-0.1	0.1
Financial activities	232.0	-2.8	0.6	1.6	-0.6
Professional and business services	658.1	7.0	6.3	7.2	20.5
Professional, scientific & technical services	314.7	6.1	3.0	3.4	12.5
Management of companies & enterprises	70.9	0.1	0.4	1.3	1.8
Admin & support & waste mgmt.	272.5	0.9	2.8	2.5	6.2
Private education and health services	661.5	18.0	13.0	8.1	39.2
Leisure and hospitality	403.1	12.1	9.4	11.0	32.4
Other services	162.9	-2.8	1.0	1.1	-0.7
Addendum: Percent Change in Total Jobs	**3.9**	**1.5**	**1.2**	**1.0**	**3.8**

RSQE: September 2023

Michigan's wholesale trade and transportation, warehousing, and utilities sectors have been some of the star performers of the post-pandemic period, but we anticipate slower growth ahead. Job gains in wholesale trade decelerate from 8,000 this year to an average of 1,900 per year over the next two years as consumer spending hits a soft patch. Employment in Michigan's transportation, warehousing, and utilities sector has already started to turn down; we project 2,500 job losses this year after the sector added a whopping 30,000 jobs from 2019–2022. Modest growth of 1,300 jobs per year returns in 2024–25.

Michigan's **higher-education services industries** recovered to their pre-pandemic employment level this spring, and we expect them to continue growing over our forecast horizon. The pace of growth slows from 41,800 job additions this year to 27,600 next year and 20,500 in 2025. The higher-education services industries finish our forecast with an employment level 2.9 percent, or 57,300 jobs, higher than prior to the pandemic.

We project the state's finance industry to lose 2,800 jobs this year amid sharply higher mortgage rates. Although the sector recovers an average of 1,100 jobs per year over the next two years, its employment level in 2025 remains below its average from 2021.

Michigan's government sector has posted strong job gains recently, and we expect that strength to continue in our forecast. We are projecting a total of 19,900 job gains in government this year, followed by an average of 8,500 per year in each of the next two years. The recovery in government employment will likely be supported by funding still working its way through state and local governments from the American Rescue Plan Act of 2021. Despite that growth, government employment accounts for just 13.8 percent of the statewide total in 2025. For comparison, government's share of statewide employment has averaged 15.5 percent since 1956 and 14.8 percent since 2000.

Michigan's private education and health services sector is on track to add 18,000 jobs this year after a disappointing pace of less than 10,000 last year. Growth moderates to 10,600 jobs per year in 2024–25. Even with that robust recovery, the state's health sector does not recover to its pre-pandemic employment level until the second quarter of next year.

Michigan's professional, scientific, and technical services sector has been another strong performer in the recovery from the pandemic, adding back all of its lost jobs by the end of 2021. We expect growth to slow over the next few years as the sector continues to expand. Job gains step down from 13,600 in 2022 to 6,100 this year and an average of 3,200 per year in 2024–25. We will be watching this sector closely to see if there are any lasting spillovers from the anticipated strike in the auto industry this fall.

Michigan's **lower-education services industries** remained over 32,000 jobs short of their pre-pandemic employment level as of this spring. They have delivered an encouraging performance so far in 2023, but we expect them to give some of those gains back later this year amid spillovers from the strike in the auto industry. Growth registers 9,800 jobs in 2023, followed by 10,100 in 2024 before accelerating to 13,200 in 2025 as the national economy gathers steam. Even so, these industries do not make a full employment recovery from the pandemic during our forecast horizon.

The leisure and hospitality industry added nearly 46,000 jobs last year, but the pace of growth has slowed down recently. We are forecasting that the sector will add 12,100 jobs this year and settle in with an average of 10,200 gains per year over the next two years. We are projecting leisure and hospitality to recover to its pre-pandemic employment level early in 2025.

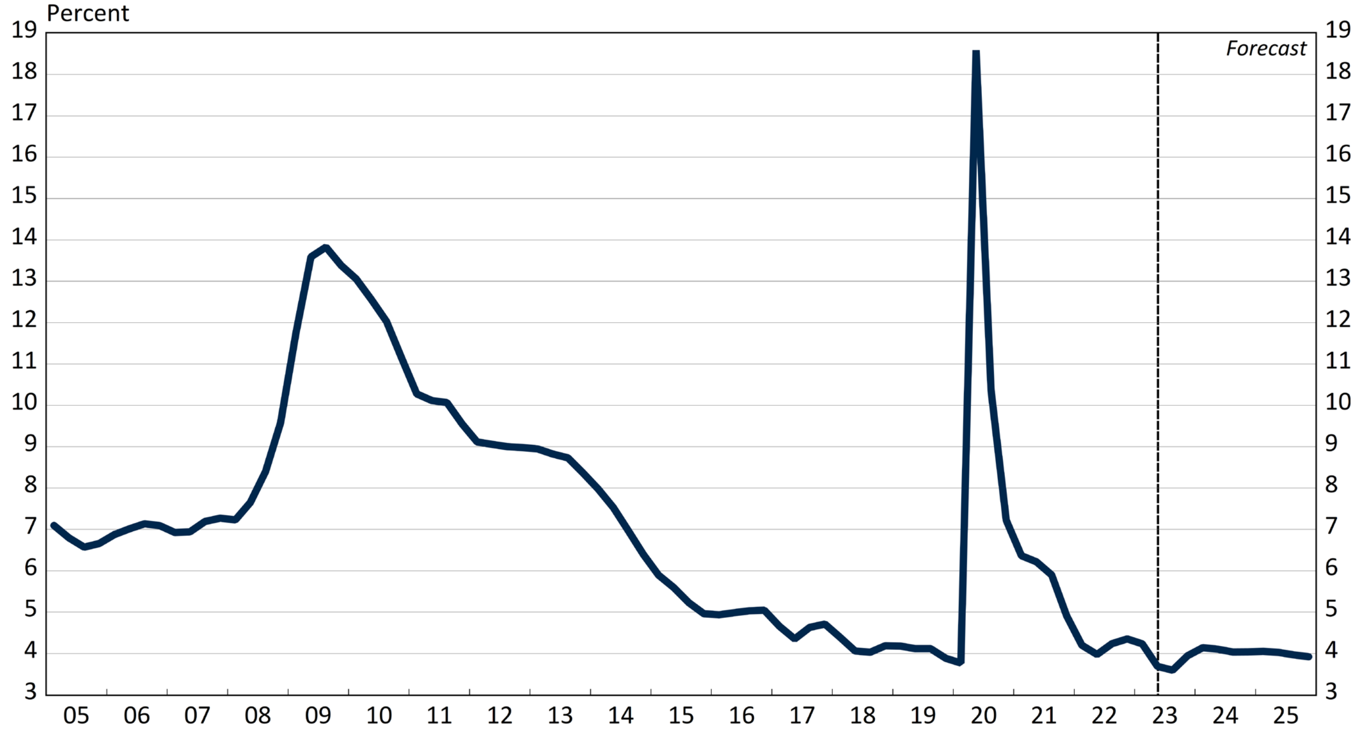
The retail trade sector cannot seem to make up its mind on whether it wants to grow or to shrink. It has moved basically sideways over the past four quarters, losing an average of 100 jobs per quarter. We are penciling in 300 jobs losses for calendar year 2023. Job losses accelerate to 3,100 in 2024 amid the soft patch we are forecasting for consumer spending. The sector loses another 1,500 jobs in 2025 as the shift away from bricks and mortar retail continues.

The other two sectors we categorize in Michigan's lower-education services industries are administrative support services and waste management and other services. We expect administrative support and waste management services to suffer as a result of the strike that we anticipate in the automotive industry later this year; partially as a result, job gains in the sector decelerate to 900 this year from 13,300 last year. Growth then picks back up slightly to a pace of 2,700 jobs per year in 2024–25. The other services industry has been losing jobs recently, a trend we expect to continue over the remainder of this year. After losing 2,800 jobs in 2023, the sector ekes out modest gains of 1,000–1,100 jobs per year over the following two years.

Unemployment and Labor Force Participation Rates

Figure 5 shows the history and our forecast for Michigan's quarterly unemployment rate. It averaged 3.7 percent in the second quarter of 2023, one-tenth of a percentage point below its pre-pandemic average in the first quarter of 2020. We expect the unemployment rate to increase to 3.9 percent in the final quarter of 2023, as the anticipated strike in the auto industry puts a chill in the local labor market. The unemployment rate inches up to 4.1 percent in the first half of 2024, amid a period of below-trend growth for the national economy. We project Michigan's unemployment rate to fall back down to 3.9 percent by the end of 2025 as economic growth rebounds.

Figure 5
Quarterly Michigan Unemployment Rate



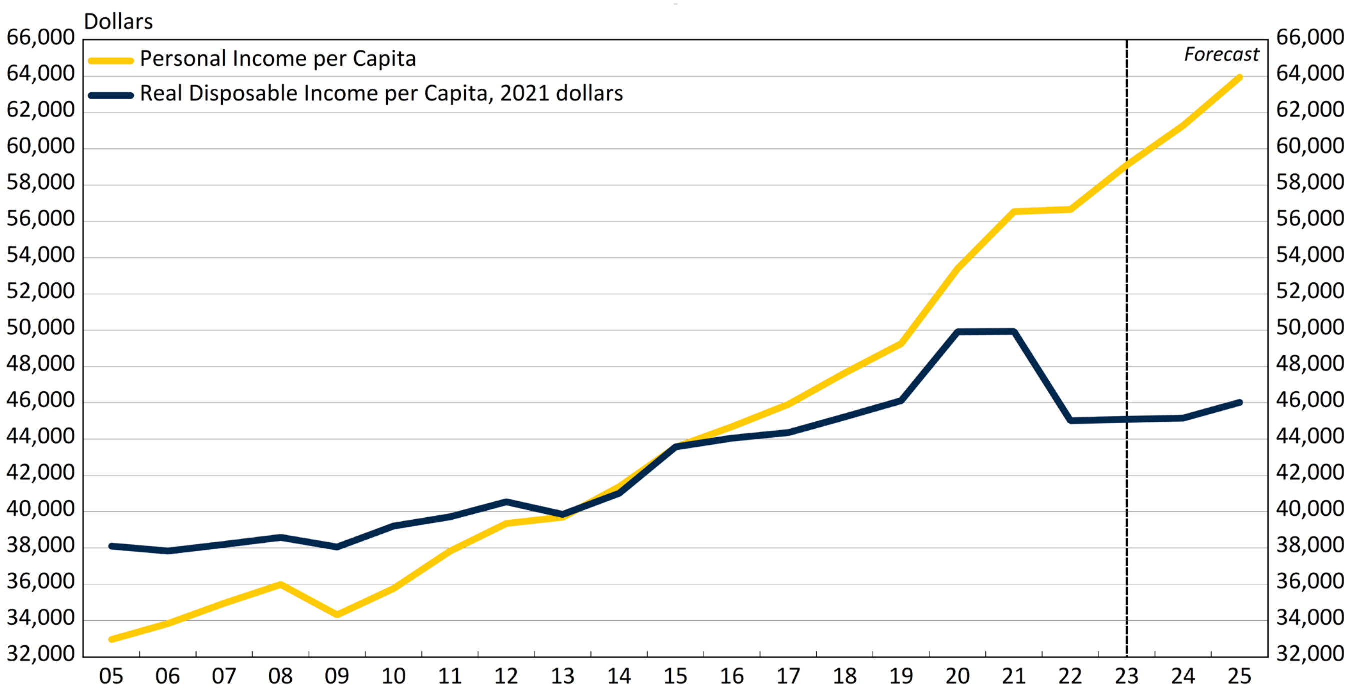
Michigan's labor force participation rate increased to 61 percent this July for the first time in three years. That positive turn in the state's labor force growth was encouraging to see, but we believe labor availability will linger as a concern for the state economy throughout our forecast period. Despite the recent surge in labor force participation, the broader demographic dynamics are not favorable. The state's population is aging, which will slowly constrain Michigan's labor force growth. We expect that one-fifth of Michigan residents will be 65 or older by 2025, an increase of 2.4 percentage points from 2019.

We project that Michigan's labor force and household employment will grow roughly on par with one another during our forecast period. That means that Michigan's labor force participation rate will hover just below July's level during our entire forecast period, marking almost two and a half years without any further improvement. Even though the tight labor market will continue to draw workers back into the labor force, it will not be enough to overcome the downward pull exerted by Michigan's aging population.

Personal Incomes and Inflation

Figure 6 shows our forecast for Michigan personal income per capita, measured in nominal dollars, and real disposable income per capita, measured in 2021 dollars. Personal income per capita in Michigan rose from $49,300 in 2019 to $56,500 in 2021, an increase of 14.8 percent. That increase was driven by the unprecedented federal stimulus injected into the economy during the COVID-19 pandemic. Personal income per capita then flatlined in 2022, as gains to wage income offset the waning federal stimulus. We expect personal income per capita to grow at an average pace of 4.1 percent per year in 2023–25 as the pandemic-era swings move into the rearview mirror. That growth would bring Michigan's personal income per capita to $64,000 in 2025, nearly 30 percent higher than in 2019.

Figure 6
Personal Income per Capita and Real Disposable Income per Capita in Michigan



Our forecast for real disposable income per capita in Michigan combines our forecast of nominal personal income with our forecasts for taxes and local inflation. After skyrocketing by 8.3 percent in 2020 amid low inflation and largescale federal support, Michigan's real disposable income per capita leveled off in 2021 as inflation began to accelerate. Real disposable income per capita in Michigan declined by nearly 10 percent in 2022 amid decades-high inflation, setting living standards back by four years. After that setback, it is no wonder that many Michiganders feel like the state has entered a recession despite the solid labor market.

The good news is that our forecast calls for a return to growth in living standards over the next two and a half years, as inflation slows and nominal income growth picks up. The bad news is that growth will remain modest as the national economy enters a soft patch and inflation takes time to decline back toward the Fed's 2 percent target. We expect that real disposable income per capita will grow by only 0.1–0.2 percent in 2023 and 2024, as incomes barely outpace inflation. Solid growth of 1.9 percent makes a return in 2025, propelling real disposable income per capita to $46,000, just below the 2019 average of $46,100. Unfortunately, this implies that state residents will see zero growth in living standards over the span of six years, from 2019 to 2025.

Figure 7
Local Inflation, Headline and Core Detroit CPI

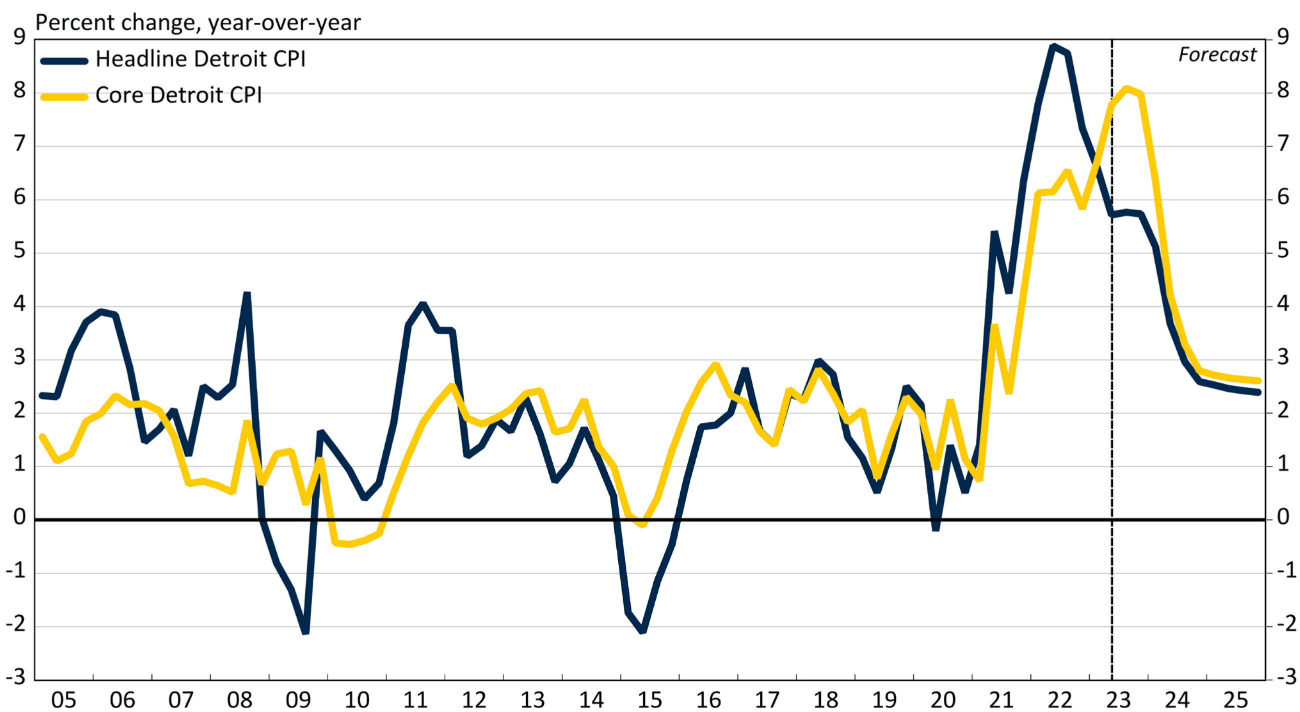


Figure 7 shows the history and our forecast of headline (all-item) and core (excluding food and energy) Detroit CPI inflation from 2005 to 2025. We expect year-over-year headline inflation to decline to 5.7 percent by the end of the year, down from its recent high of 8.9 percent in the second quarter of 2022. The decrease in energy prices and dramatic moderation in food price inflation over the last year help to explain the improvement. We project local headline inflation to decline to 2.6 percent by the end of 2024 and 2.4 percent by the end of 2025, which would be welcome progress, if still slightly higher than the Federal Reserve's target.

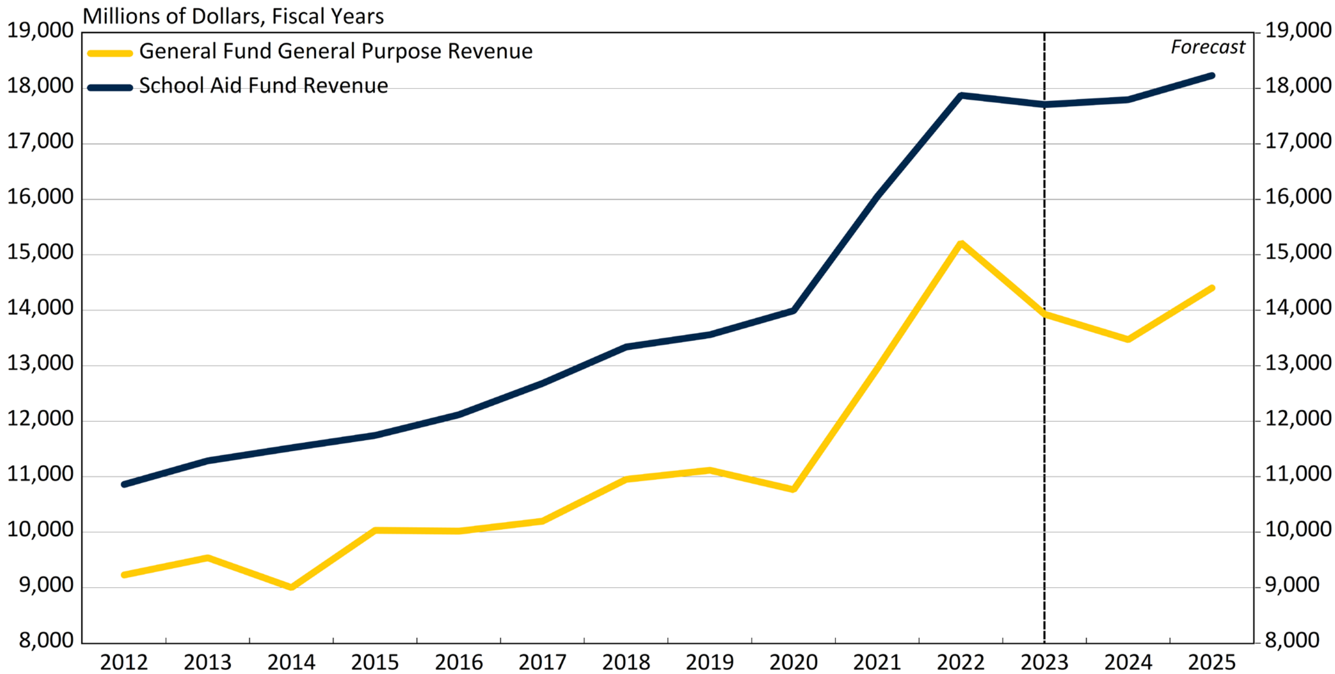
Local core inflation, on the other hand, accelerated from 5.8 percent year-over-year in the final quarter of 2022 to 7.8 percent in the second quarter of 2023. We expect that it will remain elevated around 8 percent through the end of the year, as service and shelter costs continue to exert upward pressure. We forecast that core inflation will remain slightly above headline inflation for the duration of our forecast, due to food and energy inflation lagging the core. However, we project that the current 2 percentage point gap between the headline and core measures will shrink to just 0.2 percentage points by the end of 2024, as inflation moderates broadly. By the end of 2025, local core inflation registers just 2.6 percent, the slowest year-over-year change since 2021.

The State Revenue Outlook

Total state tax revenue collection over the summer has come in slightly above the projections established at the state's Consensus Revenue Estimating Conference (CREC) in May. After soaring by $8.4 billion from fiscal year 2019 to fiscal year 2022, combined General Fund General Purpose (GFGP) and School Aid Fund (SAF) revenues were forecast to fall by $1.6 billion in fiscal 2023 and another $400 million in fiscal 2024 before adding back $1.1 billion in fiscal 2025. We now project a decline of $1.5 billion in fiscal 2023, due largely to stronger than expected growth in personal income tax withholding. We continue to forecast a combined revenue drop of nearly $400 million in fiscal 2024, but we now expect a stronger rebound in fiscal 2025, with the state gaining back $1.4 billion. That would put total state tax revenue nearly $8 billion higher in fiscal 2025 than its level from fiscal 2019, well above the pre-pandemic trend.

In the near term, the softening national economy and changing consumer patterns are contributing to the moderation in state tax revenue growth. Still, the sweeping changes to the state's tax laws that were adopted in early March (outlined below) are playing a much more significant role in our projections. Overall, the new revenue changes combine to lower our forecast by nearly $4.4 billion over fiscal years 2023–25, which is far more than the expected total decline in revenue. Our forecast calls for a total drop of only $500 million over the next three fiscal years, highlighting our optimism for a moderating, but still expanding, economic recovery in Michigan.

Figure 8
Michigan Tax Revenues, General and School Aid Funds



The changes to Michigan's tax structure with the largest impacts on state revenue come primarily from [Public Act 4 of 2023] and include the following:[2]

- Exemptions for certain **retirement income** were expanded by Public Act 4 of 2023. Because the act was not passed with immediate effect, the new exemptions will not take effect until 90 days after the adjournment of the current legislative session. We anticipate that the legislative session will adjourn in December 2023, resulting in the exemptions taking effect in March 2024. The exemptions adjustment is expected to reduce fiscal year 2024 revenue by $281 million and fiscal 2025 revenue by $350 million.
- Beginning with tax year 2022, the state's **Earned Income Tax Credit (EITC)** was expanded from 6 percent of the federal credit to 30 percent. This change was also included as part of Public Act 4 of 2023. Even though the change affects payments related to tax year 2022, it will only come into play once the act itself takes effect, as discussed in the previous bullet. As a result, two years' worth of expanded EITC payments are expected to be paid around tax time in March and April

[2] The dollar value impacts of Michigan's tax changes can be found in the joint presentation document for the May 2023 CREC prepared by economists at the Michigan Department of Treasury, the Michigan House Fiscal Agency, and the Michigan Senate Fiscal Agency. The presentation can be accessed at https://www.senate.michigan.gov/sfa/Publications/BudUpdates/CRECMay2023/CRECMay2023.html

2024, reducing state tax revenue by an estimated $768 million in fiscal 2024. Fiscal 2025 sees a reduction of $384 million in state tax revenue from the expanded EITC.

- Various earmarks to Michigan's **Corporate Income Tax** were also adopted in Public Act 4. The earmarks include distributions to the Michigan Housing and Community Development Fund, the Revitalization and Placemaking Fund, and the state's Strategic Outreach and Attraction Fund (SOAR). In total, the earmarks are expected to reduce state tax revenue by $600 million each year beginning in fiscal 2023.

- Though not stipulated in Public Act 4, the state's **Individual Income Tax rate** has been lowered from 4.25 percent to 4.05 percent for calendar year 2023. The change arises due to a provision of the state's 2015 road funding law, which set a cap for general fund revenues in any year. In summary, total GFGP revenue in fiscal 2022 grew too fast with respect to an adjusted inflation rate, automatically triggering the lower income tax rate for one calendar year. The lower tax rate is expected to reduce state tax revenue by $428.2 million in fiscal 2023 and $218.7 million in fiscal 2024. Adjustments to the income tax rate are not expected to be triggered again during the forecast period. While the reversion to the 4.25 percent tax rate is slated to be challenged in court, our forecasts are based on the state's current interpretation of the law. If the challenges in the courts are successful at making the rate cut permanent, we will adjust our forecast accordingly at that time.

- Public Acts 20, 21, and 29 of 2023 provide new **sales and use tax** exemptions for most delivery and installation charges in Michigan. The new exemptions are expected to decrease sales and use tax revenue by $18 million in fiscal 2023, $62.9 million in fiscal 2024, and $63.8 million in fiscal 2025.

We now describe our forecast of state revenues in more detail. Table 2 breaks down fiscal 2022 revenues as well as our forecast for fiscal years 2023–25. The upper portion details GFGP revenues, and the lower portion summarizes SAF revenues.

Net Personal Income Tax Revenue

- We expect net personal income tax revenue to decline by 9.2 percent in fiscal 2023 after two years of extraordinary growth during the pandemic. The fiscal 2023 contraction is due to large reductions in annual, quarterly, and flow-through entity tax revenue. Pushing in the opposite direction is personal income tax withholding, which is expected to grow by 3.6 percent despite the tax rate adjustment to 4.05 percent. It is unclear at this time how many individuals in the state have adjusted their withholding to the new level. Elevated refunds are likely next year to account for taxpayers who have not adjusted their withholding.

- We forecast net personal income tax revenue to decline an additional 2.4 percent in fiscal 2024. Although we expect withholding growth to pick up, overall net personal income tax collections are projected to fall due to the expansion of the EITC, the revised exemptions on retirement income, and an increase in refunds owing to this year's tax rate adjustment.

- Net personal income tax revenue rebounds in fiscal 2025 with growth of 10.2 percent, as all components of personal income tax revenue show solid growth.

- After removing the allocation to the School Aid Fund, the GFGP's share of personal income tax revenue falls by 11.6 percent in fiscal 2023 and 3.6 percent in fiscal 2024 before bouncing back with 13.6 percent growth in fiscal 2025.
- The allocation of personal income tax revenue to the SAF falls by 5.2 percent in fiscal 2023 but manages to hold flat in fiscal 2024 before growing by 5.1 percent in fiscal 2025. The better outcome for the SAF is due to its allocation being calculated from gross revenue (before refunds), as well as an adjustment contained in Public Act 4 of 2023. The adjustment gradually increases the percentage of gross income tax revenue deposited into the SAF over fiscal years 2024–27, compensating the fund for the modifications to retirement income tax revenue.

Consumption Tax Revenue

- GFGP consumption tax revenue in Michigan is driven by distributions from the sales and use taxes, with smaller contributions from excise taxes on cigarettes and alcohol.
- During the pandemic, gross sales and use tax revenue experienced explosive growth due to the combination of resilient consumer demand, a shift in spending away from services to taxable goods, and inflationary pressures in goods markets.
- We expect gross sales and use tax revenue to moderate over the forecast period as consumers transition back to services and the overall economic environment softens. We forecast combined gross sales and use tax revenue growth of 0.7 percent in fiscal 2023, 0.1 percent in fiscal 2024, and 0.9 percent in fiscal 2025.
- Even with the weak growth we have projected, gross sales and use tax revenue in fiscal 2025 is projected to total $3.5 billion higher, or 35.1 percent, than in fiscal 2019. We expect gross sales and use tax revenue to remain above its pre-pandemic trend for the foreseeable future.
- Combining the General Fund's share of gross sales and use tax revenue with the excise taxes on cigarettes and alcohol, we forecast GFGP consumption tax revenue to grow by 1.2 percent in fiscal 2023 before falling by 1.8 percent in fiscal 2024 and holding steady in fiscal 2025.

Business Tax Revenue

- Business tax revenue comes primarily from the state's corporate income tax (CIT), insurance company premiums, and oil and gas severance tax payments. Certain businesses continue to pay taxes and claim credits under the previously used Michigan Business Tax (MBT) instead of the CIT. Variability in the timing of when MBT refunds are claimed can lead to swings in the state's overall business tax revenue. All business tax revenue accrues to the General Fund.
- Business tax revenue saw impressive growth during the pandemic, most of which came from sharp rises in CIT payments in fiscal 2021 and fiscal 2022.
- Gross CIT collections have continued to be strong in fiscal 2023, but the new earmarks discussed above will subtract $600 million per year moving forward. As a result, we expect GFGP business tax revenue to give back 19.4 percent in fiscal 2023 and an additional 4.1 percent in fiscal 2024 before inching up by 0.9 percent in fiscal 2025.

Total General Fund Revenue

- In fiscal 2022, exceptionally strong collections from the personal income tax, the sales tax, and the corporate income tax combined for a total GFGP revenue gain of nearly $2.3 billion, or 17.5 percent.
- We forecast most of the GFGP's revenue sources to decline in fiscal 2023, resulting in an overall loss of $1.3 billion, or 8.5 percent, as shown in Figure 8. Total GFGP revenue drops another 3.3 percent in fiscal 2024 before rebounding with 6.9 percent growth in fiscal 2025.
- The tax law changes that take effect during fiscal 2023–24 are largely responsible for the overall decline during that time. In the absence of those changes, we would still be projecting total GFGP revenue to fall in fiscal 2023 due to the softening of the overall economy and shifting consumer behavior. The losses in fiscal 2024, however, are entirely due to the tax changes. Even with the tax changes, our forecast puts total GFGP revenue nearly $3.3 billion higher, or 29.6 percent, in fiscal 2025 than in fiscal 2019.

Total School Aid Fund Revenue

- About half of total SAF revenue comes from sales and use tax collections, while one-fifth derives from the personal income tax, and about one-seventh comes from the state education property tax. Other taxes, such as the real estate transfer tax, liquor tax, casino tax, and tobacco tax, as well as lottery transfers, all contribute smaller amounts.
- As shown in Figure 8, total SAF revenue grew by over $1.8 billion, or 11.4 percent, in fiscal 2022, with over half of that coming from sales tax growth and a third coming from contributions from the personal income tax.
- Revenues related to the housing market also performed well in fiscal 2022. State education property tax (SEP) contributions to the SAF grew by 7.8 percent, while real estate transfer tax revenue expanded by 11.5 percent.
- For homeowners in Michigan, the annual growth of a property's taxable value is limited to the lesser of inflation or 5 percent for property that is not sold or transferred. Elevated inflation, therefore, means that the state is likely to see continued gains in state education property tax (SEP) revenue.
- We expect that SEP revenue growth will decelerate to 6.5 percent in fiscal 2023, 4.2 percent in fiscal 2024, and 3.5 percent in fiscal 2025 as the pace of inflation abates. Elevated mortgage rates and cooling home sales, however, lead real estate transfer tax revenue to decline by 28.5 percent in fiscal 2023 and 16.4 percent in fiscal 2024 before resuming growth of 10.3 percent in fiscal 2025.
- We forecast total SAF revenue to contract by 0.9 percent this fiscal year, due mostly to the drops in real estate transfer tax revenue, sales tax, and the personal income tax contribution. Total SAF nudges up in fiscal 2024 as sales tax and SEP revenues advance. We forecast stronger growth of 2.4 percent for total SAF in fiscal 2025, as all major revenues except use tax and lottery transfers experience growth.
- Total SAF revenue is forecast to finish fiscal 2025 almost $4.7 billion higher than in fiscal 2019.

Table 2
State Revenues by Fiscal Year
(Millions of dollars, except as noted)

	Actual	RSQE Forecast		
	2022	2023	2024	2025
General Fund General Purpose				
Personal income tax	9,212	8,146	7,853	8,920
(% change)	(19.3)	(-11.6)	(-3.6)	(13.6)
Consumption taxes	3,176	3,215	3,158	3,154
(% change)	(4.2)	(1.2)	(-1.8)	(-0.1)
Sales	1,705	1,651	1,710	1,739
Use	1,192	1,290	1,168	1,130
Other consumption	279	273	280	285
Business taxes	1,993	1,607	1,541	1,555
(% change)	(25.7)	(-19.4)	(-4.1)	(0.9)
MBT/SBT/Corporate income	1,531	1,108	1,065	1,070
Other business	462	499	475	485
Other GFGP taxes	182	170	180	188
GFGP tax revenue	14,563	13,137	12,732	13,816
(% change)	(16.3)	(-9.8)	(-3.1)	(8.5)
Nontax revenue	656	793	740	588
GFGP revenue	15,219	13,930	13,472	14,404
(% change)	(17.5)	(-8.5)	(-3.3)	(6.9)
School Aid Fund				
SAF taxes	16,628	16,491	16,587	17,032
(% change)	(13.6)	(-0.8)	(0.6)	(2.7)
Lottery transfer	1,248	1,220	1,213	1,202
(% change)	(-12.1)	(-2.3)	(-0.6)	(-0.9)
Earmarked state SAF revenue	17,876	17,711	17,800	18,234
(% change)	(11.4)	(-0.9)	(0.5)	(2.4)
Addendum				
Combined GFGP and SAF revenue	33,096	31,641	31,272	32,638
(% change)	(14.1)	(-4.4)	(-1.2)	(4.4)
Gross sales and use taxes	13,358	13,446	13,455	13,570
(% change)	(11.0)	(0.7)	(0.1)	(0.9)

RSQE: September 2023