

MICHIGAN'S LABOR MARKET NEWS

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2021 ANNUAL
ECONOMIC ANALYSIS



About the Cover

The Point Betsie lighthouse, located in Frankfort, Michigan, marks the entrance to the southern end of the Manitou Passage, a once-vital maritime shipping channel. Although the lane is no longer used by large commercial vessels, the operating light signal remains a U.S. Coast Guard aid to navigation to this day.

Construction of Point Betsie began in 1854 and was completed in 1858, with service beginning in the shipping season of 1859. The lighthouse was constructed at a cost of \$5,000.

Point Betsie was the last lighthouse on Lake Michigan to be completely automated in 1983.

The French "Pointe Aux Bec Scies" comes from the Indigenous word "Ug-Zig-A-Zee-Bee" which People of the Three Fires [Tribal] Council gave to a river flowing into Lake Michigan just a few miles to the south, where sawbill or Merganser ducks thrived. Translated, Point Betsie means "Saw Beak Point."

Courtesy of www.PointBetsie.org and www.Michigan.org

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IT'S BIGGER THAN DATA.

The Bureau of Labor Market Information and Strategic Initiatives is your one-stop shop for information and analysis on Michigan's population, labor market, and more.

- Our Federal-State Programs division runs the state's cooperative agreements with the U.S. Bureau of Labor Statistics and the U.S. Census Bureau, making us the official source for this information.
- Our Research and Analytics division conducts workforce research and program evaluation, giving you the insight you need to make smarter decisions.

Michigan's labor market, along with the rest of the nation, has undergone dramatic shifts over the past few years. Major swings have occurred in the state's workforce, population, and wages as an outcome of the initial impacts, and subsequent recovery from the COVID-19 pandemic.

This month's issue of *Michigan's Labor Market News* delivers our Annual Economic Report for 2021. The different sections of the report describe recent trends in the labor force, industry jobs, wages, projections, and the state's population. We review how each of these statistics have changed over time, with particular focus on the past two years. These indicators show how Michigan has recovered since the economic shocks of the COVID-19 pandemic, and provide some insight into how Michigan's population and labor market could develop over the coming months and years.

We hope you enjoy this special issue of *Michigan's Labor Market News*. Please let us know if there is something you would like to know more about.



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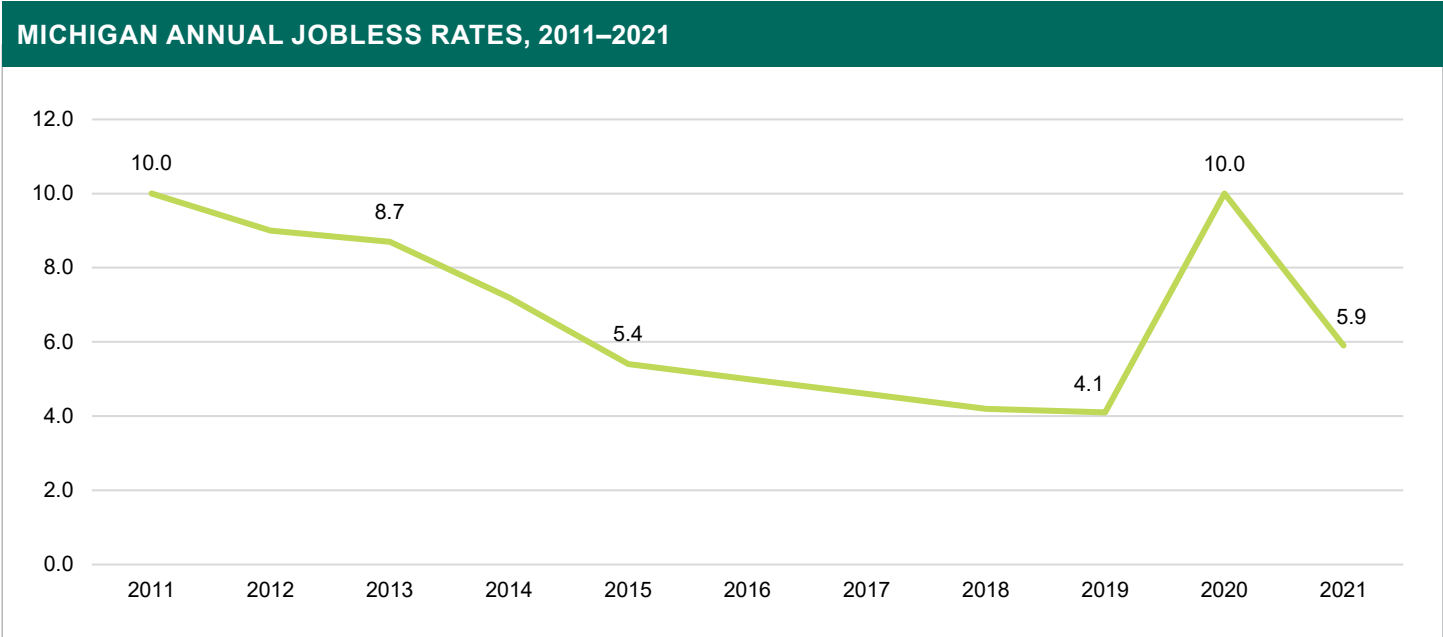
MICHIGAN’S LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Michigan’s labor market has demonstrated a much-improved economy since the height of the pandemic in 2020. Multiple labor market indicators displayed the ongoing recovery in 2021 from the impact of the pandemic the prior year. This section will analyze some of the state’s broad workforce measures such as the unemployment rate, total employment, and labor force, as well as review some of the statistics for those marginally attached to the workforce along with the types of workers who leave their jobs.

Unemployment Rate

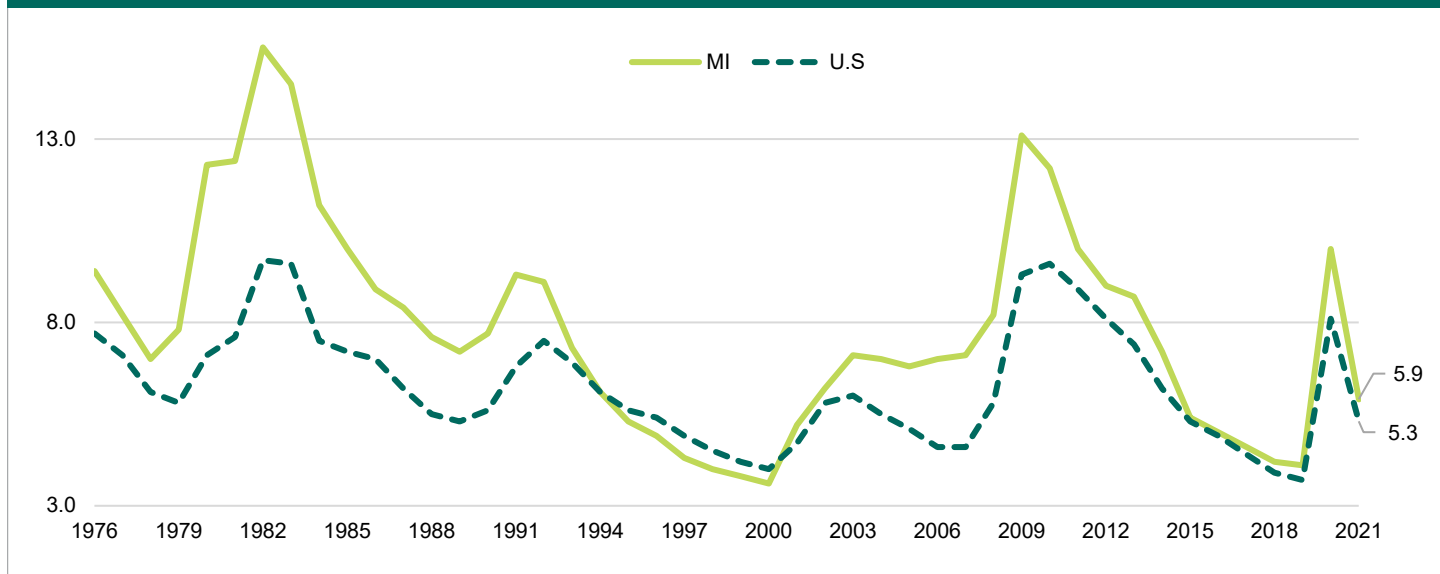
Michigan’s Local Area Unemployment Statistics program (LAUS) provides economic indicators for the state, including official unemployment rate estimates. An examination of annual average jobless rates for the 10-year period between 2011 and 2021 reveals the significant advancement in the state’s jobless rate during 2020 as a result of the pandemic and the subsequent start of recovery in 2021. Between 2011 and 2019 Michigan’s annual unemployment rate

displayed a downward trend, receding by 5.9 percentage points over those eight years. The jobless rate jumped considerably in 2020, back up to 10.0 percent in 2020. Between 2020 and 2021, Michigan’s jobless rate receded by 4.1 percentage points, from 10.0 percent to 5.9 percent. It has continued this downward trend in the first half of 2022, showing a six-month average unemployment rate of 4.5 percent. A comparison of historical Michigan and national annual jobless rates demonstrates that,



Source: Local Area Unemployment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

MICHIGAN AND U.S. JOBLESS RATES, 1976–2021



Source: Local Area Unemployment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

apart from the period between 1994 to 2000, Michigan's unemployment rates were higher than the national rates. Between 2001 and 2016, the largest gap between the Michigan and national rate occurred in 2009 as a result of the Great Recession, with Michigan's jobless rate exceeding the U.S. rate by 3.8 percentage points. For the five-year period between 2017 and 2021, Michigan's jobless rates were very similar to the U.S. rates. Both rates jumped up significantly in 2020, with Michigan's annual average rate hitting 10.0 percent, while the national rate only reached 8.1 percent.

Michigan's 2021 annual average rate of 5.9 percent was six-tenths of a percentage point larger than the national 2021 rate.

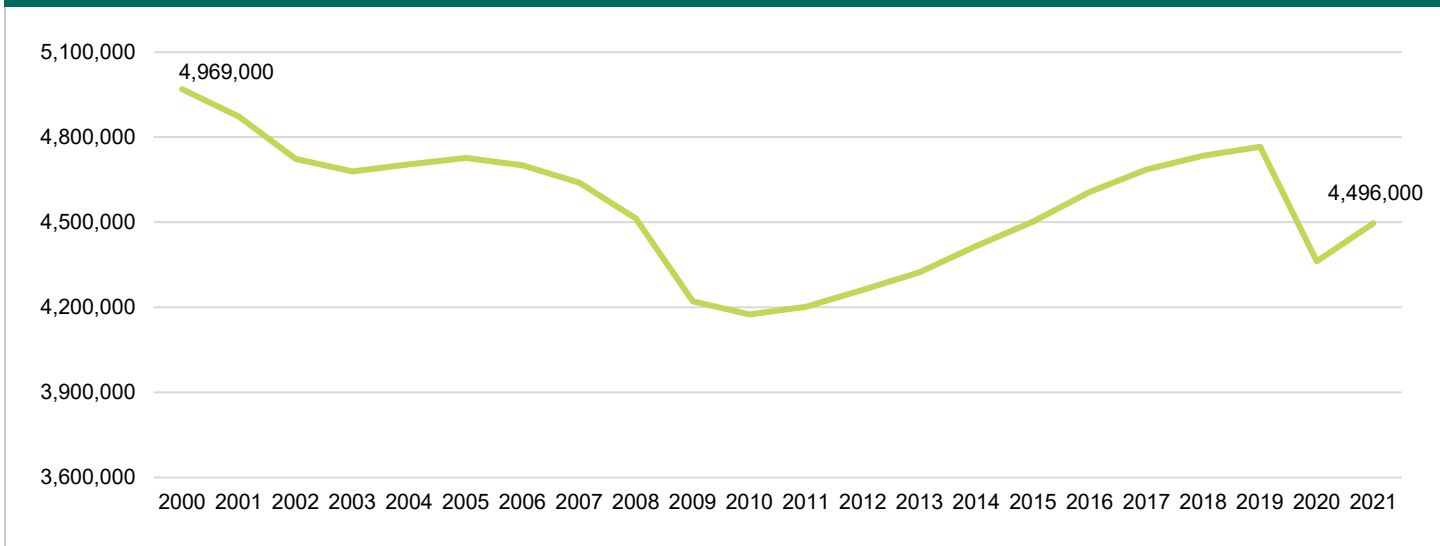
Employment

The total number of employed individuals includes a combination of payroll employment, agricultural jobs, unpaid family workers, as well as the self-employed. After nine consecutive years of annual employment advances, Michigan's annual average employment total dropped substantially by 404,000, or 9.3 percent,

during 2020. This was the largest employment decline seen in the state during the twenty-year period from 2001 to 2021, even exceeding the large employment decrease of 6.9 percent in the state during the Great Recession in 2009

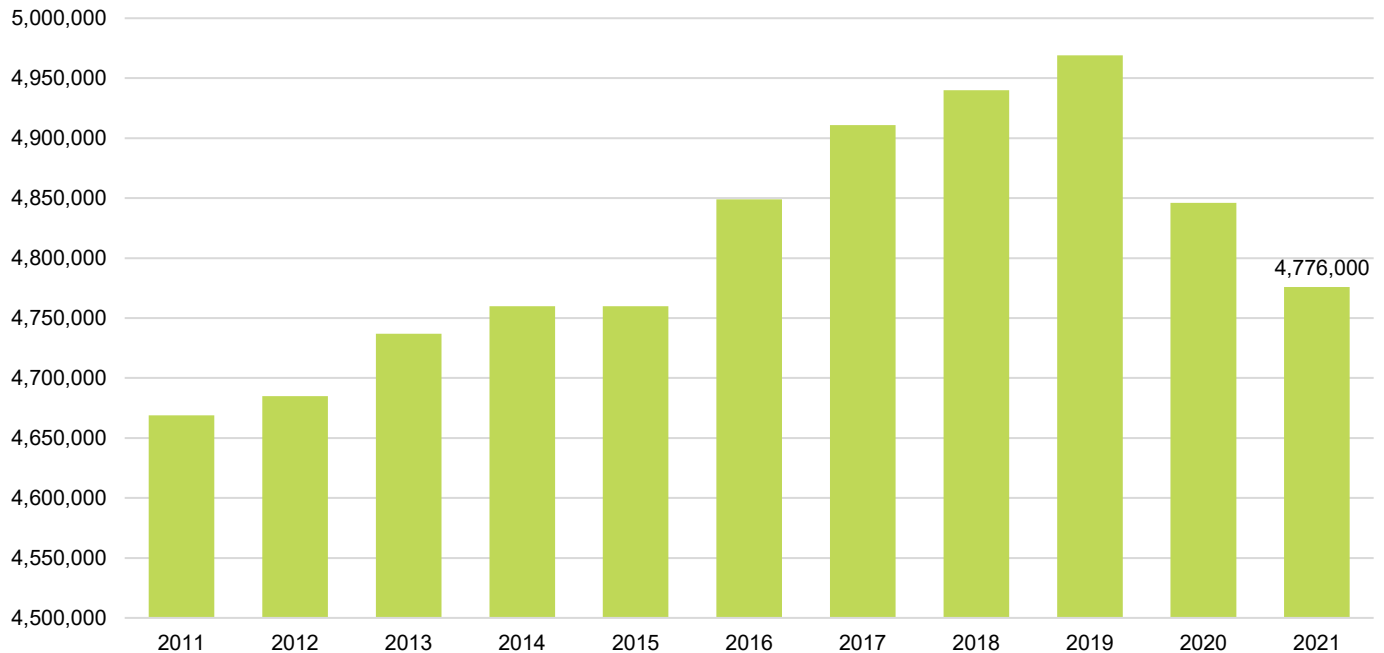
Between 2020 and 2021 Michigan's annual average employment total advanced by 134,000, or 3.0 percent. However, employment remained 270,000 or 5.7 percent, below the pre-pandemic employment level in 2019. This was also 473,000 or 9.5 percent, below Michigan's peak employment level in 2000.

MICHIGAN TOTAL EMPLOYMENT, 2000–2021



Source: Local Area Unemployment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

MICHIGAN WORKFORCE LEVELS, 2011–2021



Source: Local Area Unemployment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

Workforce

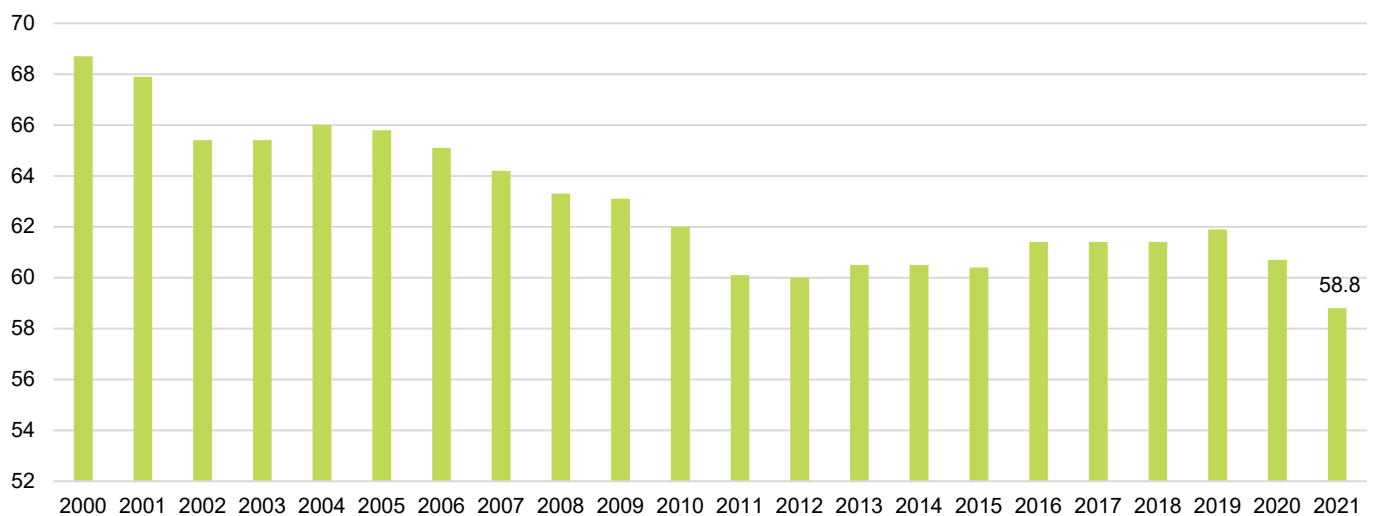
An examination of the state workforce from 2011 to 2021 reveals that, with the notable exceptions of 2020 and 2021, the state workforce generally advanced from 2011 to 2019. From 2011 to 2019, Michigan's workforce rose by 300,000, or 6.4 percent. Between 2019 and 2020 the state's

workforce fell by 123,000, or 2.5 percent. Michigan's labor force declined even more during 2021 by an additional 70,000, or 1.4 percent. However, the average workforce from January through June in 2022 has trended upward, and was 1.1 percent above the labor force level in 2021.

Labor Force Participation Rates

The labor force participation rate is an important indicator that has historically correlated with the availability of jobs in the labor market. It is defined as the number of individuals in the labor force as a percentage of the 16-and-older non-institutionalized population.

MICHIGAN LABOR FORCE PARTICIPATION RATES, 2000–2021



Source: Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics

An examination of annual labor force participation rates from the U.S. Bureau of Labor Statistics Current Population Survey (CPS) from 2000 to 2021 demonstrates that rates since 2010 have remained notably below participation rates seen in the early 2000s.

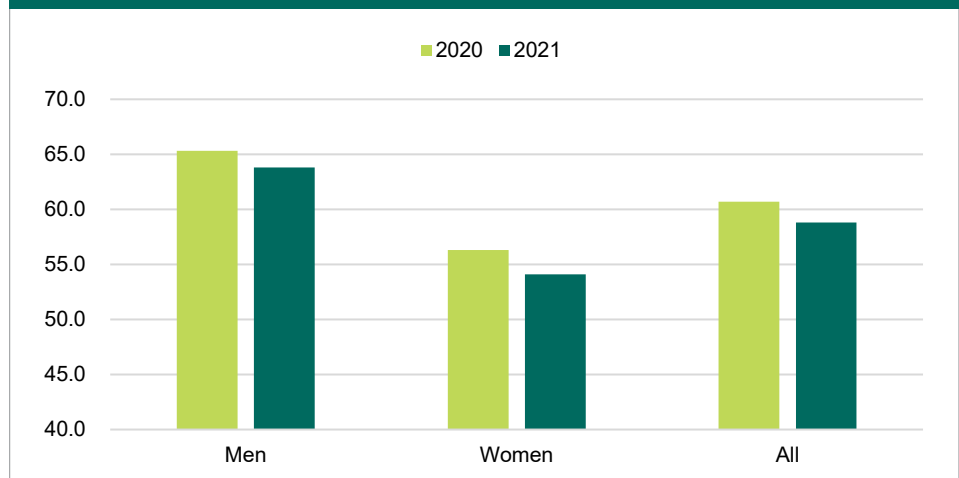
Between 2020 and 2021 the annual participation rate declined by 1.9 percentage points to 58.8 percent. This was the lowest labor force participation rate seen in the 21-year period since 2000. It is likely that Michigan's population of those 65 years of age and older will increase in future years, impacting the labor force participation rate by pushing it down further as this demographic ages out of the workforce.

A breakdown of labor force participation rates by gender during 2020 and 2021 shows that male labor force participation exceeded female labor force participation during both years. Between 2020 and 2021, male labor force participation fell by 1.5 percentage points. Female labor force participation receded by even more, reducing by 2.2 percentage points during 2021. The 2021 male labor force participation rate exceeded the female labor force participation rate by 9.7 percentage points. This was below the average gap in participation rates observed between both genders between 2011 and 2019 of 10.7 percentage points.

Unemployment

The number of unemployed persons includes Michigan residents who are not currently working but are actively seeking employment.

MICHIGAN'S LABOR FORCE PARTICIPATION RATE BY GENDER, 2020 AND 2021



Source: Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics

Individuals who are not actively looking for work are not counted as unemployed, but instead are considered as out of the labor force.

As Michigan's economy recovered from impact of the Great Recession, the number of unemployed in the state continuously decreased between 2011 and 2019, falling by 264,000, or 56.5 percent. The COVID-19 recession in 2020 caused joblessness to expand exponentially between 2019 and 2020 by 281,000, or 138.4 percent.

During 2021, the number of unemployed in the state receded considerably since the height of the recession, reducing by 204,000, or 42.1 percent. Michigan's 2021 unemployment level remained 77,000, or 37.9

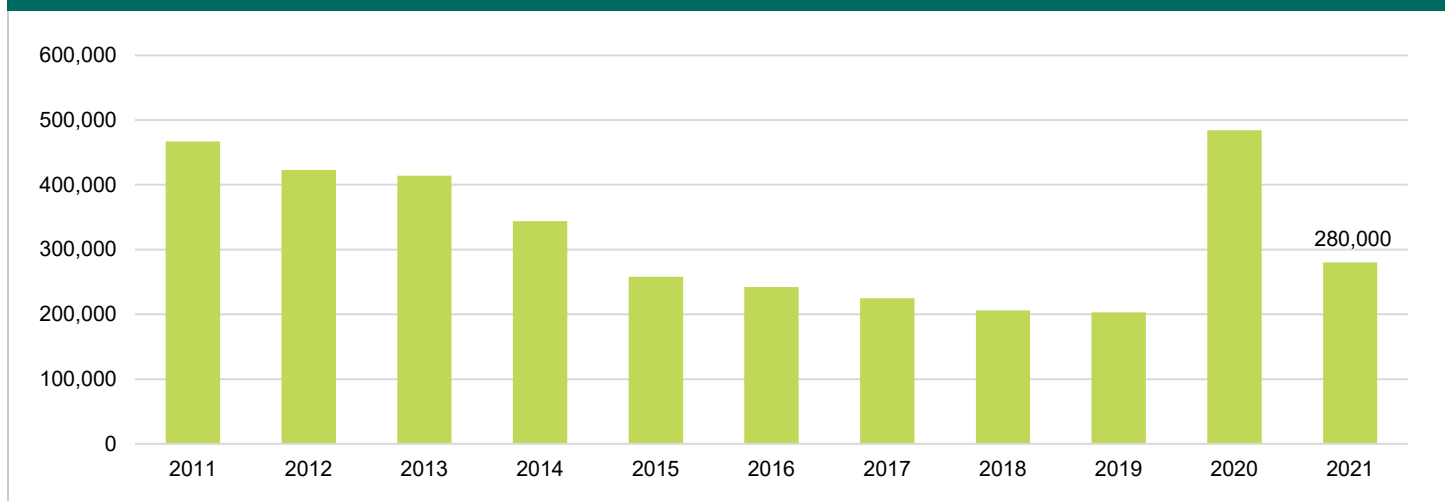
percent, above the 2019 pre-pandemic annual unemployment total.

Marginally Attached to the Labor Force

The Current Population Survey (CPS) provides information about Michigan residents who are marginally attached to the workforce. Individuals who are considered marginally attached to the labor force are defined as persons who want a job, but are not currently working, and have not searched for work during the prior month but have looked for a job during the prior year.

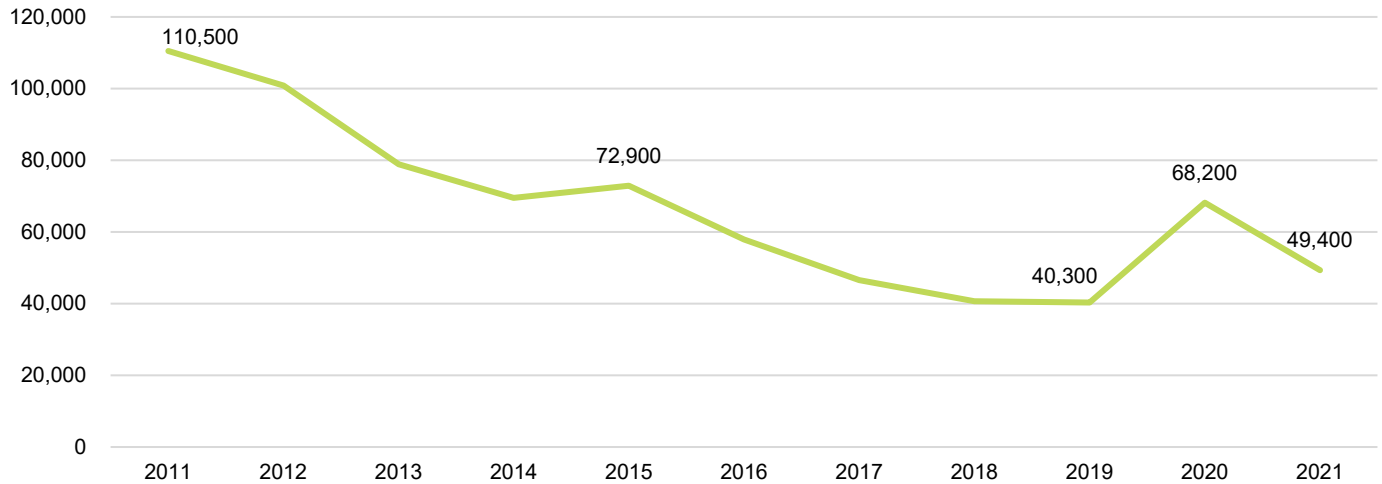
An examination of the annual number of marginally attached in Michigan for the 10-year

NUMBER OF UNEMPLOYED IN MICHIGAN, 2011–2021



Source: Local Area Unemployment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

MARGINALLY ATTACHED TO MICHIGAN'S WORKFORCE, 2011–2021



Source: Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics

period between 2011 and 2021 reveals a general decline. During 2021, the number of marginally attached persons in Michigan was 49,400. This was 18,800, or 27.6 percent, below the amount of marginally attached in the state during 2020. Michigan's 2021 level of marginally attached was below the ten-year peak seen in 2011 by 61,100, or 55.3 percent.

Persons on Temporary Layoff

Persons on temporary layoff in the Current Population Survey include people who are

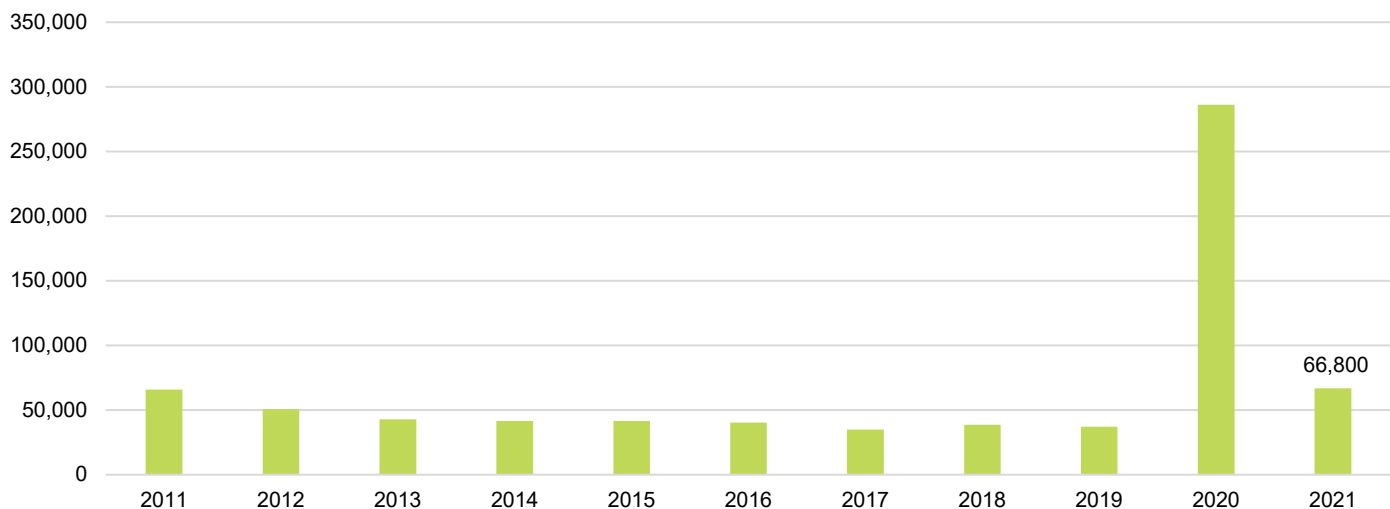
currently unemployed and have been given a date to return to work as well as those who expect to return to work during the next six months. Analysis of temporary layoff data for Michigan from 2011 to 2021 reveals the pronounced impact of the pandemic on persons on temporary layoff during 2020 as well as the subsequent commencement of the recovery in 2021. Between 2019 and 2020, Michigan individuals on temporary layoff expanded by 249,000, or over 600 percent. During 2021, temporary layoffs receded to 66,800, falling by 219,000, or 76.7 percent

since 2020. While the number of people on temporary layoff in 2021 was still elevated compared to the previous decade, this number has continued to decline during the first six months of 2022

Permanent Job Losers

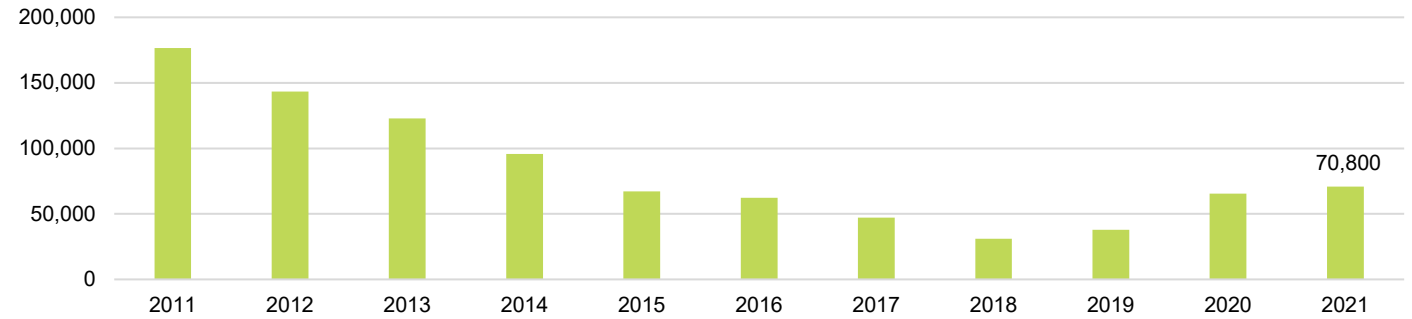
In addition to those on temporary layoff, the CPS also collects data on permanent job losers. These are people whose employment ended involuntarily. The number of individuals on temporary layoff and the amount of permanent

MICHIGAN ANNUAL PERSONS UNEMPLOYED AND ON TEMPORARY LAYOFF, 2011–2021



Source: Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics

MICHIGAN ANNUAL NUMBER OF PERMANENT JOB LOSERS, 2011–2021



Source: Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics

job losers together make up the total amount of job losers in the CPS.

Between 2011 and 2018, the amount of permanent job losers in Michigan progressively decreased, culminating in a 10-year low level of 31,200 during 2018. Permanent job losers advanced by 6,600, or 21.2 percent, during 2019, and then advanced by another 27,700, or 73.3 percent, during 2020. The increase in the number of permanent job losers during 2020 was largely influenced by the pandemic's impact on Michigan's labor market. Between 2020 and 2021, the amount of permanent job losers in the state edged up by an additional

5,300, or 8.1 percent. However, the first six months of 2022 demonstrated a drop in the average amount of permanent job losers in the state, with job losers receding by 28,700, or 40.5 percent since 2021 annual.

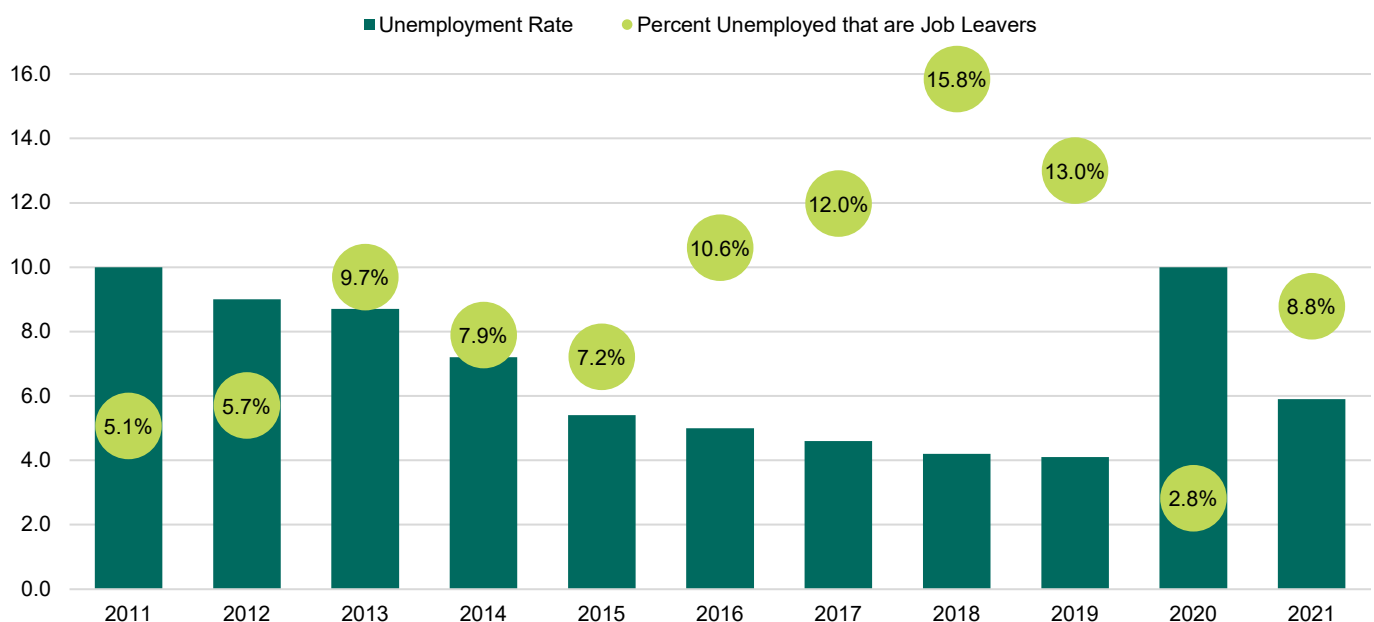
Job Leavers

The Current Population Survey defines job leavers as unemployed individuals who voluntarily left their previous job and began searching for new employment. The percentage of unemployed who are characterized as job leavers can provide additional information on the health of the statewide economy. When the

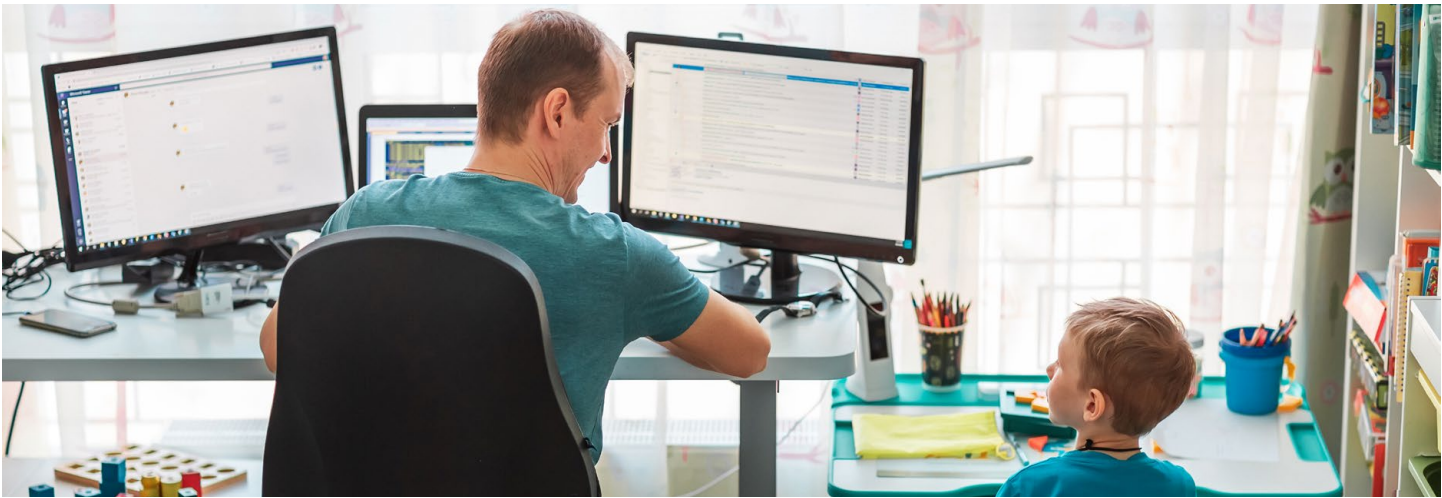
unemployment rate is low, people may be more likely to voluntarily leave their current job for new employment opportunities.

An examination of annual average Michigan Current Population Survey data over the 10-year period between 2011 and 2021 displays an inverse relationship between the statewide unemployment rate and the percentage share of the unemployed who are job leavers. The highest jobless rate in Michigan during this 10-year period occurred during 2011, due to the lingering effects of the Great Recession. The percent of job leavers was 5.1 percent, the second-lowest percent during this 10-year

MICHIGAN UNEMPLOYMENT RATE AND PERCENT OF JOB LEAVERS, 2011–2021



Source: Local Area Unemployment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget; Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics



period. During 2020, the lowest percentage of job leavers occurred (2.8 percent), largely due to the pandemic's impact on Michigan's labor market. In 2021, the CPS unemployment rate receded by 4.1 percentage points. Consecutively, the percentage of job leavers in the state advanced by 6.0 percentage points to 8.8 percent, further demonstrating the inverse relationship between the two data points.

Unemployment Rates by Educational Attainment

The Current Population Survey collects data about the employment status of Michigan's civilian population age 25 years and older by educational attainment. Analysis of this data for the 10-year period from 2011 to 2021 reveals

that those with a bachelor's degree or higher consistently had the lowest jobless rates out of the four education categories tracked in the CPS.

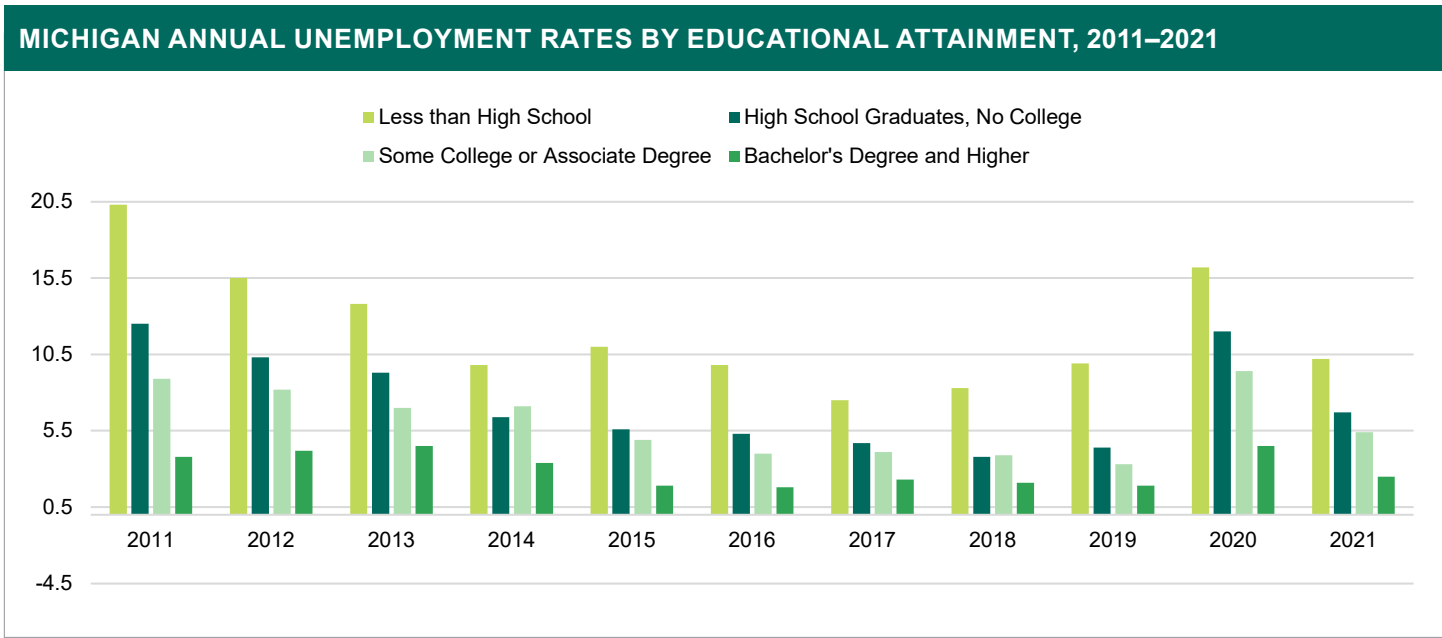
Between 2020 and 2021, jobless rates for all four education categories receded. The largest annual jobless rate reduction was observed for those with less than a high school education, with the unemployment rate decreasing by 6.0 percentage points since 2020. Annual jobless rates for all four educational groups in 2021 still remained elevated above 2019 levels.

Conclusion

Michigan's labor market exhibited marked improvement between 2020 and 2021 as a result of the recovery from the height of the

pandemic. Advances in employment and decreases in unemployment resulted in a lower annual jobless rate during 2021. The amount of those on temporary layoff declined notably over the year as well, though permanent job losers remained elevated since 2019. The state's workforce decreased by 193,000, or 3.9 percent, in 2021, but early indications in the first six months of 2022 show the workforce is rising again.

SHIBANI PUTATUNDA
Economic Specialist



Source: Current Population Survey, U.S. Census Bureau and U.S. Bureau of Labor Statistics



JOB TRENDS BY INDUSTRY

Regional and local economies have experienced much in recent years. Beginning with the onset of the COVID-19 pandemic in the early part of 2020 followed by the economic recovery during 2021, the labor market trends of both statewide and regional industries have fluctuated significantly.

In order to better understand such changing economic landscapes, analyzing the Current Employment Statistics (CES) data published by the Bureau of Labor Market Information and Strategic Initiatives, is imperative.

This section will provide an analysis of Michigan's seasonally adjusted jobs including the 2021 annual average job change for the state. Additionally, a review of job trends will be covered for Michigan's major industry sectors, both before the COVID-19 pandemic, and how each industry has rebounded since the initial shock to the workforce.

Current Statewide Nonfarm Job Trends

Michigan nonfarm payroll jobs continued to rebound since April 2020 job level lows, on a seasonally adjusted basis. Prior to the COVID-19 pandemic-related employment decline however, total nonfarm jobs had grown steadily between

the Great Recession job low in July 2009 through February 2020, where jobs increased by 621,200 or 16.2 percent. Despite this decade-long job gain, total statewide jobs were still 5.1 percent below their June 2000 all-time high (4,694,100).

Due mainly to the onset of the COVID-19 pandemic, by April 2020, total nonfarm jobs in Michigan had plummeted by an unprecedented amount (-1,053,300 or 23.7 percent). Comparatively, total nonfarm employment on the nationwide level also fell significantly between February and April of 2020 (-14.4 percent), but at a markedly lesser magnitude than Michigan.

Strong job recovery has been noted throughout the past two years on both the nonfarm and industry sector level. As of June 2022, seasonally adjusted total nonfarm employment in Michigan had rebounded substantially and was only 125,600 or 2.8 percent below its February 2020 pre-pandemic level.

The COVID-19 pandemic had unprecedented effects in nearly every industry in every state. Between February and April 2020, seasonally adjusted nonfarm payroll jobs in Michigan declined by the largest percent among all 50 states (-23.7 percent). Furthermore, only six states recorded a total payroll job cut of 20.0

percent or more during the two-month timeframe between February and April of 2020.

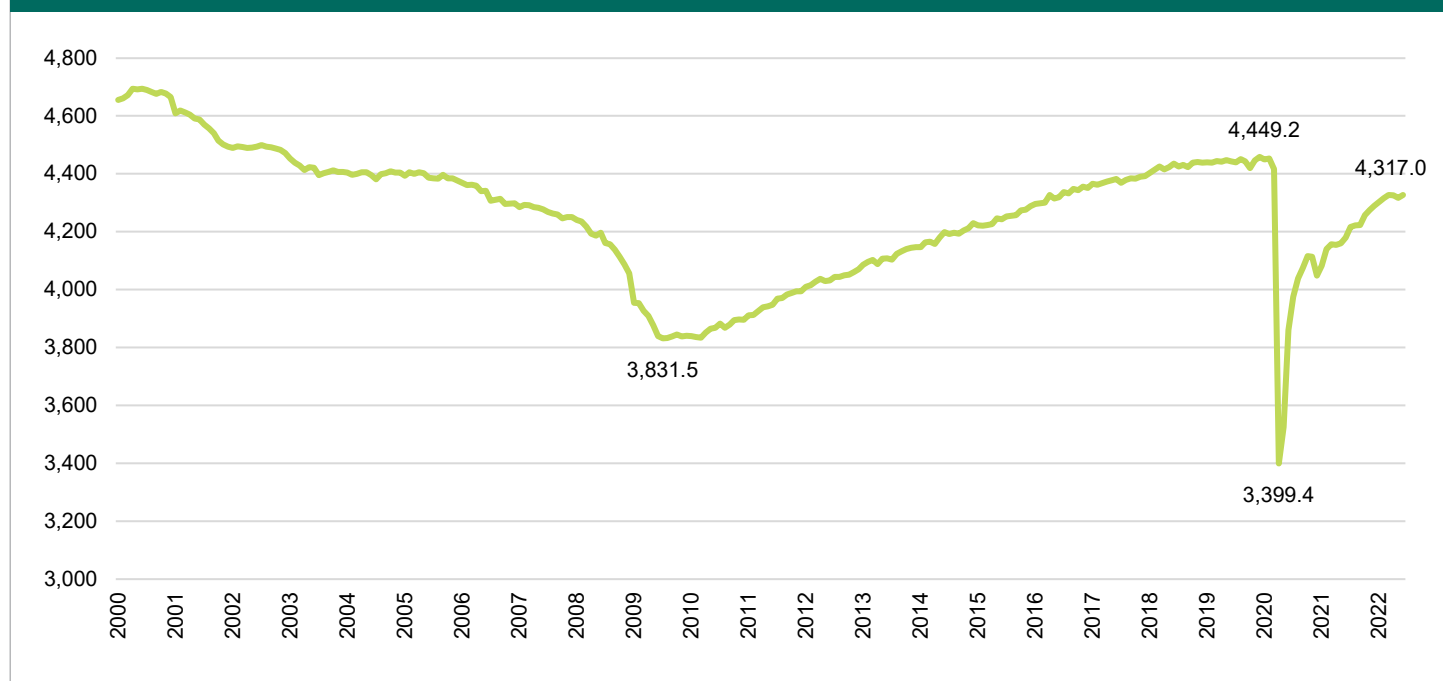
However, as of June 2022, Michigan recovered 88.1 percent (+927,700) of all nonfarm payroll employment lost between February to April 2020, which ranked 33rd in the share of total jobs recovered. A total of 15 states, led by Utah (+162.9 percent), Idaho (+155.5 percent), and Texas (+132.1 percent), have now surpassed their February 2020 pre-pandemic total nonfarm job levels.

Michigan Annual Average Payroll Employment

Statewide annual average total nonfarm payroll employment increased by 154,200 or 3.8 percent between 2020 and 2021, according to the Current Employment Statistics (CES) survey. Prior to the previous year's decline (-403,500 or 9.1 percent), annual average nonfarm payroll jobs were at their highest level since 2002.

Nationally, payroll jobs moved up by only 2.8 percent on an annual average basis between 2020 and 2021, noticeably less than Michigan. Again, this was due mainly to the fact that Michigan lost significantly more jobs from the COVID-19 pandemic during 2020 than the

SEASONALLY ADJUSTED TOTAL NONFARM PAYROLL JOBS IN MICHIGAN, JAN 2000–JUN 2022 (IN THOUSANDS)



Source: Current Employment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

United States. Consequently, during 2021, Michigan recorded annual job advancement rates that exceeded national averages across most major industry sectors.

Due primarily to the COVID-19 pandemic, substantial job cuts were recorded in every major industry sector in both Michigan and the United States on an annual average basis between 2019 and 2020. However, since 2021, annual average jobs have rebounded in nearly every major industry sector on both levels. Notable upticks were recorded in several major industry sectors in Michigan and the United States, including *Leisure and hospitality*; *Professional and business services*; and *Trade, transportation, and utilities*. Despite these increases, jobs continued to stay below 2019 annual average job levels.

Nationally, *Government* jobs increased slightly more than in Michigan between 2020 and 2021, rising by 0.1 percent, whereas Michigan recorded a 1.3 percent decline, on an annual average basis. Additionally, the only other nationwide major industry sector opposite the 2021 trend in Michigan was the *Mining and*

logging sector, which declined by 5.7 percent versus a 3.8 percent increase in Michigan.

Job Trends in Michigan's Major Industry Sectors

Significant job loss occurred in every major industry sector in Michigan during the early onset of the COVID-19 pandemic. However, nearly three-fourths of the total nonfarm employment decline was recorded in only four of Michigan's 14 major industry sectors between February and April 2020. These major industries included *Leisure and hospitality*; *Manufacturing*; *Trade, transportation, and utilities*; and *Professional and business services*.

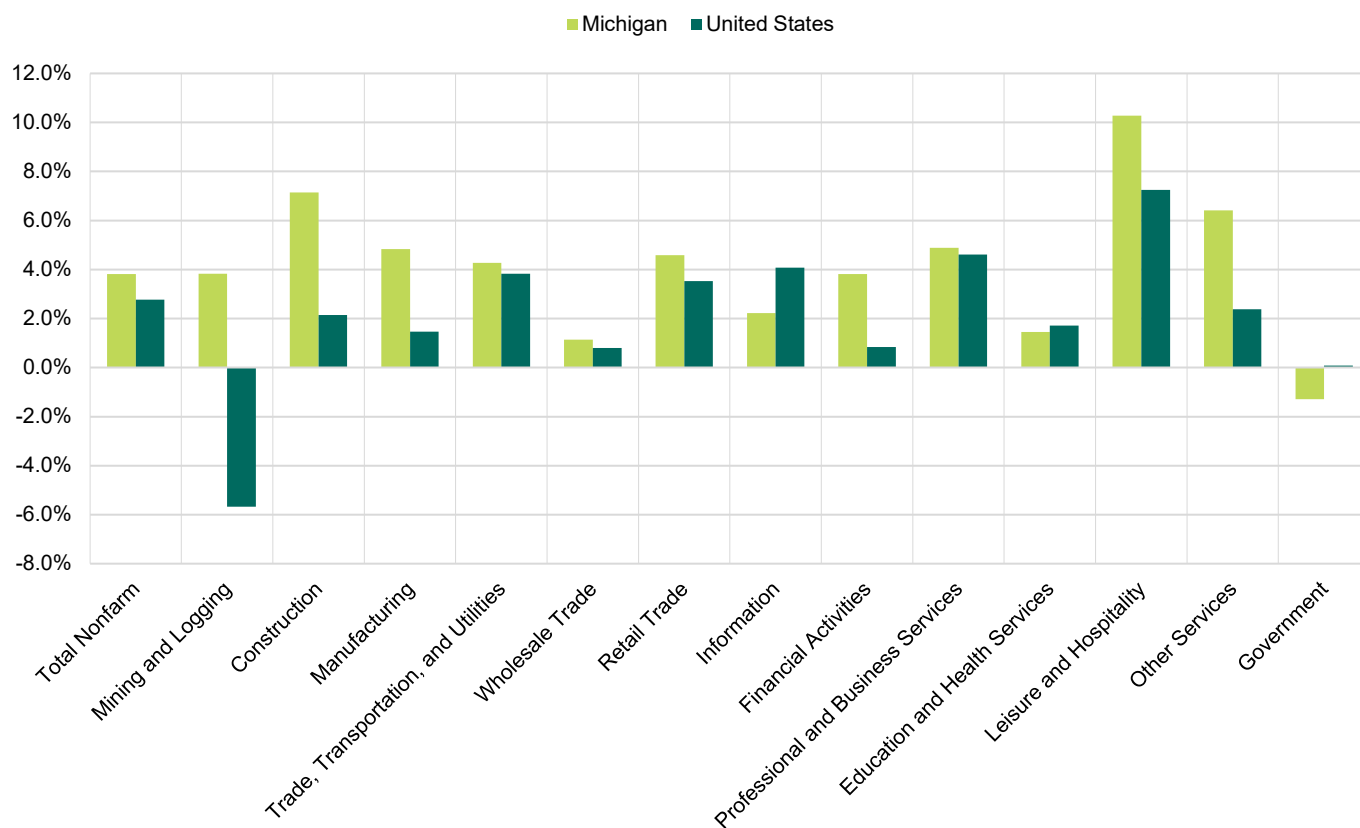
Conversely, as of June 2022, notable job rebounds have occurred in a multitude of statewide major industry sectors. Several major Michigan industry sectors have surpassed their February 2020 pre-pandemic level, including *Mining and logging*; *Trade, transportation, and utilities*; *Information*; *Financial activities*; and *Professional and business services*. These five major industries have combined for 57.0 percent of the seasonally adjusted nonfarm job

gain since April 2020. On the nationwide level, seven major industry sectors: *Construction*; *Manufacturing*; *Trade, transportation, and utilities*; *Retail trade*; *Information*; *Financial activities*; and *Professional and business services*, recorded job levels that surpassed their February 2020 pre-pandemic levels.

Many major industry subsectors were also affected substantially by pandemic-related layoffs over the past years. Mainly due to extensive layoffs during the initial months of the COVID-19 pandemic, employment within the *Accommodation and food services* subsector decreased by 211,800 or 55.4 percent, between February and April 2020. However, as of June 2022, many regional restaurants have since re-opened and the industry has now recovered about 81 percent of jobs lost since the onset of the pandemic.

The *Durable goods* subsector also plunged by an unprecedented amount at the start of the COVID-19 pandemic, declining by 188,300 or 40.3 percent between February and April 2020. As of June 2022 however, total jobs in this subsector had recovered about 93.2 percent

ANNUAL AVERAGE JOB CHANGE, 2020–2021



Source: Current Employment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

SEASONALLY ADJUSTED MAJOR MICHIGAN INDUSTRY SECTOR JOB CHANGE (IN THOUSANDS)

MAJOR INDUSTRY SECTOR	FEBRUARY TO APRIL 2020 JOBS LOST DUE TO COVID-19 PANDEMIC		SHARE OF JOBS LOST IN APRIL 2020 THAT WERE RECOVERED BY JUNE 2022	
	NUMERIC	PERCENT	NUMERIC	PERCENT
TOTAL NONFARM	-1,053.3	-23.7%	927.7	88.1%
Mining and Logging	-0.9	-12.9%	1.6	177.8%
Construction	-72.6	-40.8%	69.9	96.3%
Manufacturing	-217.0	-35.0%	202.8	93.5%
Trade, Transportation, and Utilities	-162.3	-20.4%	163.8	100.9%
Wholesale Trade	-26.7	-15.4%	24.5	91.8%
Retail Trade	-110.9	-23.9%	99.4	89.6%
Information	-6.8	-12.3%	7.9	116.2%
Financial Activities	-14.2	-6.2%	22.2	156.3%
Professional and Business Services	-131.5	-20.1%	138.2	105.1%
Education and Health Services	-109.3	-15.8%	73.0	66.8%
Leisure and Hospitality	-243.1	-55.8%	192.8	79.3%
Other Services	-53.6	-32.0%	48.4	90.3%
Government	-42.0	-6.8%	7.1	16.9%

Source: Current Employment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

NOT SEASONALLY ADJUSTED TOTAL NONFARM PAYROLL JOBS IN MICHIGAN (IN THOUSANDS)

METROPOLITAN STATISTICAL AREAS (MSAS)	FEBRUARY TO APRIL 2020 JOBS LOST DUE TO COVID-19 PANDEMIC		SHARE OF JOBS LOST IN APRIL 2020 THAT WERE RECOVERED BY JUNE 2022	
	NUMERIC	PERCENT	NUMERIC	PERCENT
Ann Arbor	-38.1	-16.5%	32.4	85.0%
Battle Creek	-11.9	-20.8%	9.3	78.2%
Bay City	-7.6	-21.6%	7.1	93.4%
Detroit	-533.9	-26.0%	482.5	90.4%
Flint	-39.3	-28.1%	32.7	83.2%
Grand Rapids	-125.3	-21.9%	113.3	90.4%
Jackson	-12.7	-21.2%	9.7	76.4%
Kalamazoo	-29.2	-19.2%	24.5	83.9%
Lansing	-49.6	-20.8%	39.7	80.0%
Midland	-6.2	-16.8%	5.4	87.1%
Monroe	-9.7	-23.6%	8.2	84.5%
Muskegon	-15.9	-24.9%	15.0	94.3%
Niles	-13.0	-20.6%	10.2	78.5%
Saginaw	-22.1	-25.4%	15.7	71.0%

Source: Current Employment Statistics, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget



of all jobs that were lost from February to April 2020. Furthermore, the essential *Transportation equipment manufacturing* subsector, which includes industries such as *Motor vehicle* and *Motor vehicle parts manufacturing*, also lost (-115,000), but has since recovered (99.9 percent) nearly all jobs that were lost between February and April 2020. Massive job loss occurred initially due to short-term shutdowns among auto assembly plants and auto parts facilities but later continued into 2021 due to plant shutdowns and layoffs related to the global semiconductor shortage.

Total employment loss within the *Retail trade* (-110,900 or 23.9 percent) subsector contributed a majority of the job decline in the larger *Trade, transportation, and utilities* (-162,300 or 20.4 percent) sector between February to April 2020. Job cuts were substantial across this sector due to temporary layoffs and numerous store closures during the first several months of the COVID-19 pandemic. However, as of June 2022, nearly 90 percent of total jobs lost in this Michigan industry have since been recovered.

As of June 2022, Michigan had recovered 88.1 percent (+927,700) of total nonfarm jobs that were lost between February and April 2020, well below the national rate of 97.6 percent for the same time period. Nationally, industry-wide recovery outpaced Michigan in most areas, as nine of the 14 major industry sectors

recorded higher recovery rates between April 2020 and June 2022 on the nationwide level. Only the *Michigan Mining and logging; Trade, transportation, and utilities; Financial activities; and Other services* sectors outpaced their national industry counterparts.

Michigan Metropolitan Statistical Area (MSA) Job Change

Following the sharp employment drops among Michigan's major industry sectors in April 2020, substantial pandemic-related job declines were also recorded in Michigan's 14 Metropolitan Statistical Areas (MSAs) between February and April 2020. However, as of June 2022, job levels in most metro areas have seen notable improvement.

Not seasonally adjusted total nonfarm payroll jobs decreased by over 20.0 percent in 11 of Michigan's 14 metro areas on a percentage basis, between February and April 2020. Smaller job reductions were recorded in both the Ann Arbor (-16.5 percent) and Midland (-16.8 percent) MSAs during this same time frame. Equivalent to the rebound observed on the statewide level, nonfarm payroll jobs have also moved up gradually since April 2020.

As of June 2022, four metro areas in Michigan recovered 90.0 percent or more of total

jobs lost between February and April 2020, including Bay City, Detroit, Grand Rapids, and Muskegon. Conversely, four metro areas remained notably lower in their recorded rates of recovery since April 2020. The Battle Creek, Jackson, Niles-Benton Harbor, and Saginaw MSAs recovered between 71.0 to 78.2 percent of total jobs initially lost during the early onset of the COVID-19 pandemic.

Conclusion

Overall, industry jobs in Michigan have been moving in a positive direction since the start of the COVID-19 pandemic. Despite a total employment decline of over one million between February 2020 and April 2020, total nonfarm payroll jobs have gradually rebounded, recovering nearly 90 percent of all jobs lost, as of June 2022. Although a majority of statewide industries have not reached their February 2020 pre-pandemic job levels, many sectors and subsectors have increased notably since April 2020. Additionally, even though national recovery rates continued to outpace several statewide industry recovery rates, it is important to note that Michigan lost a larger share of jobs in all of its major industry sectors on a percentage basis between February 2020 and April 2020, than did the United States.

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Economic Analyst

WAGES

Wage growth is a key indicator of labor market health, and since the initial impacts of the pandemic recession in 2020, Michigan's workers have shown increased earnings in many areas. In general, wages have seen substantial increases in jobs and industries that typically pay lower wages, while higher-earning occupations and industries recorded less wage growth. This section will provide additional detail on Michigan's wage growth trends by industry, occupation, and educational attainment by comparing pre-pandemic, peak-pandemic, and current data.

Average Hourly Earnings by Industry

With the exception of April 2020 in which pandemic job losses of low-wage jobs caused a spike in average hourly earnings, wages have trended upward at a fairly stable rate in recent years.

Average hourly earnings data from the Current Employment Statistics (CES) program showed wage growth across the private sector over the year. From June 2021 to June 2022, private sector average hourly earnings advanced by 4.3 percent, moving from \$28.55 to \$29.77.

All but one major industry experienced wage growth from June 2021 to June 2022. The largest rise in wages during this time occurred in the *Leisure and hospitality* sector, as average hourly earnings increased 11.1 percent from \$16.34 to \$18.15. This is the highest average hourly earnings level in the *Leisure and hospitality* industry in the past ten years of available data, and only the second time that it has risen above \$18 dollars (\$18.10 in April 2022). Other sectors with notable wage advancement included *Education and health services* (+8.7 percent), *Other services* (+ 8.5 percent), and *Information* (+5.6 percent). The *Financial services* sector was the only major industry to report a reduction in average hourly earnings, as wages fell from \$34.53 to \$33.83 (-2.0 percent).

Total Wages for Industries

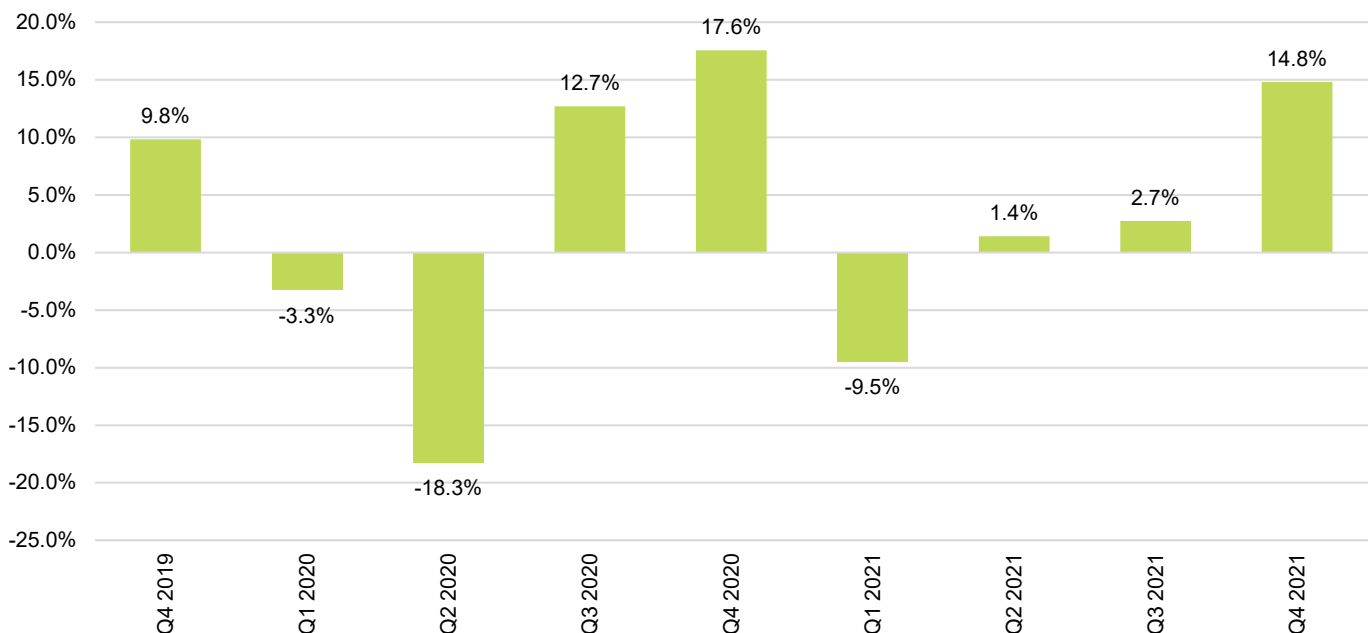
In 2021, Michigan's private sector total wages were \$222.1 billion, a 9.0 percent increase from 2020, but slightly lower than the national rise (+10.2 percent) over the same period. Since the peak of the pandemic's impact in the second quarter of 2020, total private wages recorded double-digit growth in three out of six quarters (Figure 1).

When comparing total wages paid within each industry in 2021, the *Manufacturing* sector had the greatest increase in total wages paid, rising +2.7 billion (+7.0 percent) from 2020 after declining by 3.5 billion (-8.4 percent) from 2019 to 2020. *Professional and technical services* had the second largest over-the-year growth, gaining 2.6 billion (9.8 percent), followed by *Retail trade* (+1.8 billion or 12.3 percent), *Administrative and waste services* (+1.7 billion or 16.9 percent), and *Construction* (+1.2 billion or 11.3 percent).

On a percentage basis, *Accommodation and food services* had the largest bump in total wages paid in 2021, climbing 21.9 percent (+1.2 billion). This is a sizeable shift compared to the total wages lost in the initial year of the pandemic, when this sector's total wages fell -21.6 percent (-1.5 billion).

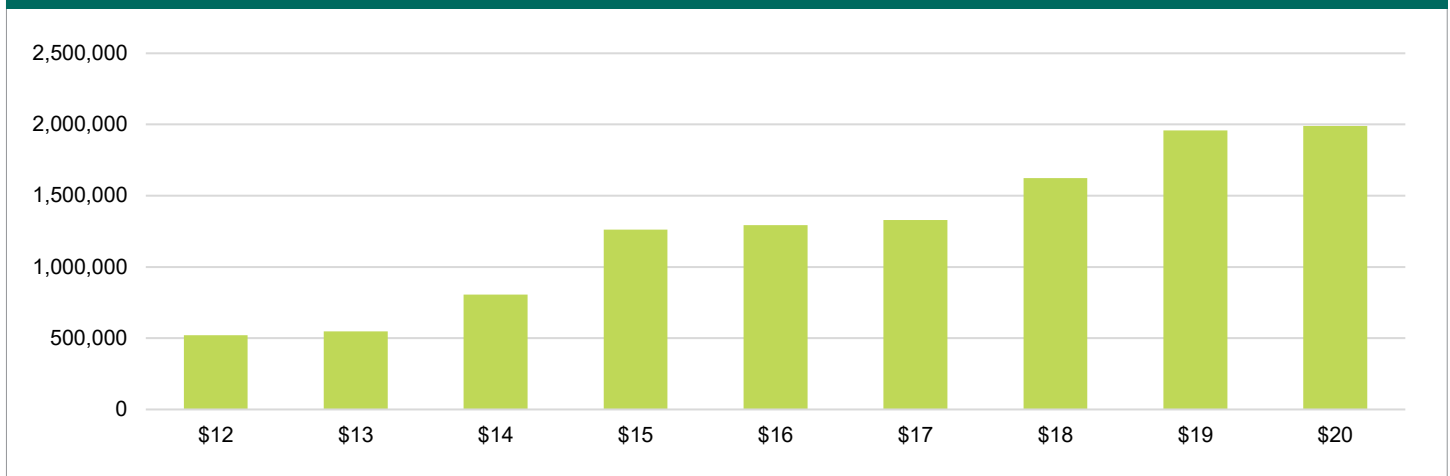
Arts, entertainment, and recreation had the second largest percent growth in total wages paid in 2021, showing a 13.3 percent (+193 million) rise over the year. This industry's gain was another huge turnaround compared it's previous year's loss of -20.9 percent (-380 million) in total wages.

FIGURE 1: QUARTERLY MICHIGAN PRIVATE SECTOR WAGE GROWTH, 4TH QUARTER 2019 TO 4TH QUARTER 2021



Source: Quarterly Census of Employment and Wages, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

FIGURE 2: TOTAL MICHIGAN JOBS EARNING UNDER SELECT DOLLAR THRESHOLDS



Source: 2021 Occupational Employment and Wage Statistics Survey, Bureau of Labor Market Information and Strategic Initiatives, Michigan Department of Technology, Management & Budget

Number of Jobs Earning Below Certain Dollar Increments

There were about 1,263,000 jobs paying \$15 per hour or less in Michigan in 2021, just over 30 percent of all occupations. There were also roughly 520,000 jobs paying \$12 per hour or less, nearly 13 percent of all jobs. The most common occupations earning under \$12 were *Fast food and counter workers*; *Cashiers*; *Retail salespersons*; and *Home health and personal care aides*. These four occupations accounted for about 40 percent of all jobs earning under \$12 per hour. These same four occupations were still the most prevalent jobs earning under \$15

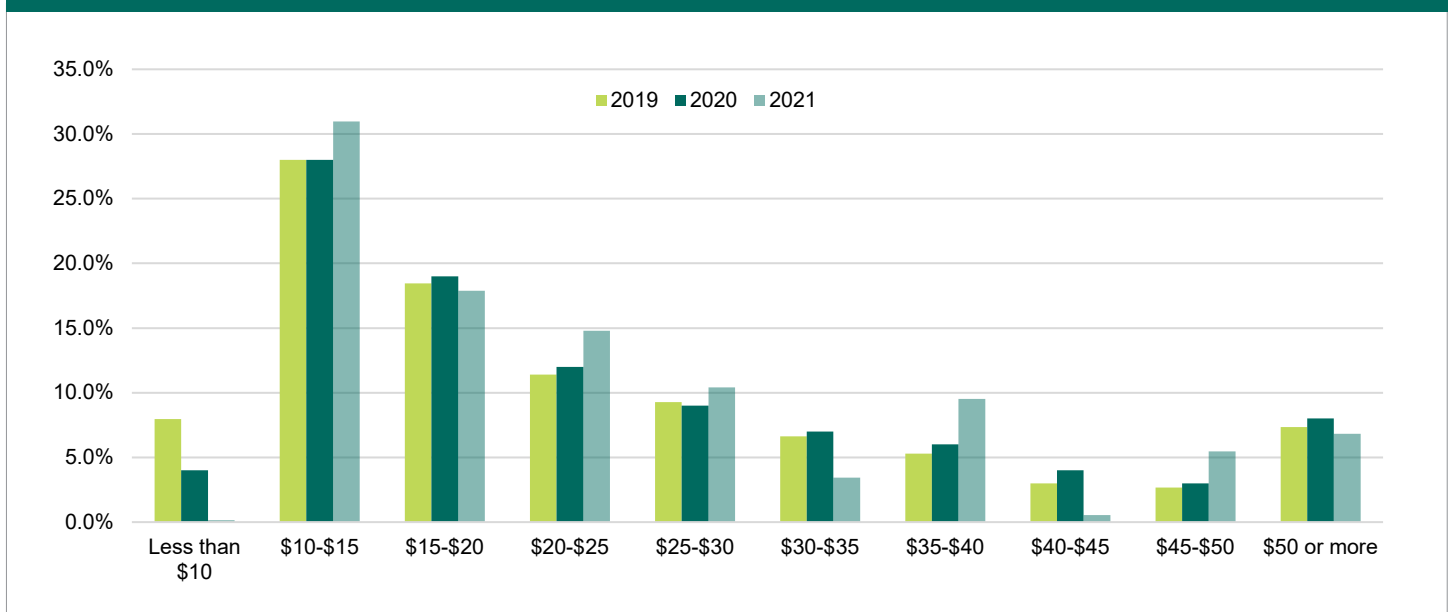
per hour, however they made up only 27 percent of all occupations in that range. These are also four of the largest occupations by employment in Michigan, so they will always hold a high proportion of jobs in whatever category they are in.

Comparing the makeup of occupations earning hourly wages under \$12 to those earning under \$15, there were several occupational groups that had big increases in their proportion of workers. *Production*; *Office and administrative support*; *Educational instruction and library*; and *Protective service occupations* all had less than 10 percent of their jobs earning under \$12 per hour, but had about one quarter of their jobs earning under \$15.

There were also many occupations that had very few jobs earning under \$12 per hour, but began to show some prevalence when viewing occupations earning less than \$15 per hour. *Nursing assistants*; *Tellers*; *Pharmacy technicians*; and *First-line supervisors of food preparation and serving workers* were occupations with over 10,000 employees in Michigan. These occupations all had less than 10 percent of their jobs earning under \$12 per hour but had over 40 percent of their jobs earning under \$15.

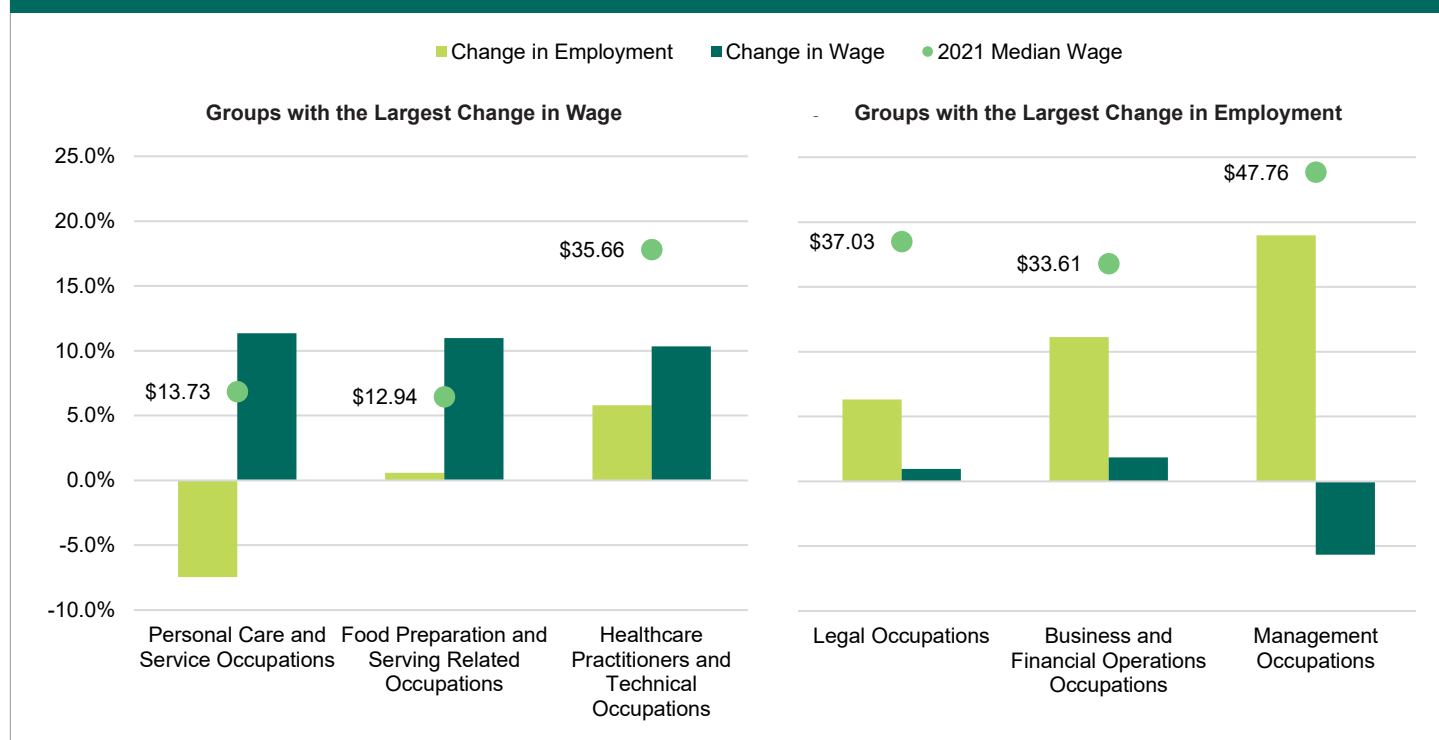
There were 1,990,000 jobs earning under \$20 per hour in Michigan in 2021, almost half of

FIGURE 3: DISTRIBUTION OF MICHIGAN JOBS BY HOURLY WAGE, 2019–2021



Source: 2021 Occupational Employment and Wage Statistics Survey, Bureau of Labor Market Information and Strategic Initiatives, Michigan Department of Technology, Management & Budget

FIGURE 4: OCCUPATIONAL GROUPS IN MICHIGAN WITH THE LARGEST CHANGES IN WAGE AND LARGEST CHANGES IN EMPLOYMENT, 2020–2021



Source: 2021 Occupational Employment and Wage Statistics Survey, Bureau of Labor Market Information and Strategic Initiatives, Michigan Department of Technology, Management & Budget

all jobs. Compared to the number of workers earning under \$15 per hour, the occupational groups of *Office and administrative support* and *Production* roughly doubled the proportion of workers earning under \$20. *Educational instruction and library* and *Protective service* occupations had much smaller proportional increases between these two wage thresholds, showing that there is a divide between the low-wage occupations and the high-wage occupations within these groups.

The industries with the most jobs earning under \$12 per hour were *Food services and drinking places*; *Administrative and support services*; and *Educational services*. These industries, along with *Food and beverage stores*; and *General merchandise stores* consisted of the most jobs earning under \$15 and \$20 as well.

The number of jobs paying less than \$10 per hour essentially disappeared in 2021. Overall, there was a decreased share of jobs paying less than \$10 per hour or more than \$50 per hour, highlighting the wage growth seen primarily in low-wage occupations. In contrast, the share of jobs paying between \$10 and \$50 increased for most groups of wages. In particular, the proportion of jobs providing between \$45 and \$50 nearly doubled, while those with wages between \$35 and \$40 also rose significantly.

Figure 3 illustrates the shift in the wage distribution for Michigan that contributed to the overall increase in statewide median wage.

Median Wages and Employment

Michigan's 2021 median wage of \$21.73 was a 10.5 percent rise from 2020. This growth was attributed primarily to the return of jobs lost during the pandemic in occupations earning above the median wage, meanwhile lower-wage occupations recovered at a much slower rate.

The occupational groups with the largest boost in wages generally had earnings below the statewide median wage and had slow or negative employment growth. This is illustrated on the left side of Figure 4, which shows the three occupation groups with the largest wage growth in 2021.

Occupational groups with the largest employment percentage growth saw small or negative wage growth, and generally had higher median wages (right side of Figure 4). Increasing wages among occupations earning lower hourly rates, along with the employment gains of professions with higher earnings, has contributed to the growth of the overall statewide median wage.

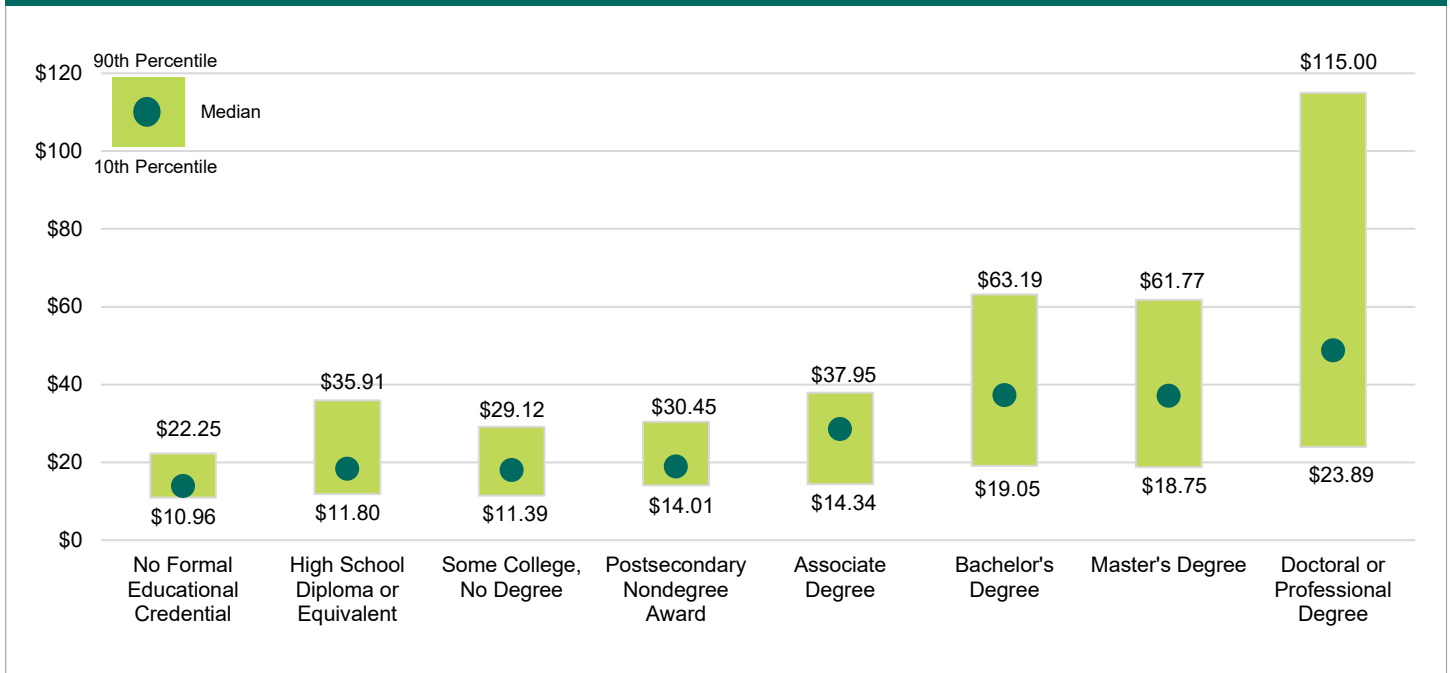
The wage range measures the difference in hourly wage between the 10th and 90th percentile. Michigan's 2021 wage range fell between \$11.48

and \$47.49, meaning that 80 percent of workers in the state earn between these wages. Between 2020 and 2021 the 10th percentile lower-bound increased by nearly 5 percent, while the 90th percentile upper-bound increased less than one percent, again highlighting that wages are increasing faster for lower wage jobs.

Wage by Educational Attainment

Figure 5 shows the wage ranges (10th to 90th percentile) for occupations by typical entry-level education requirements. In general, workers with higher education levels had higher starting wages and career earning potential. Having a bachelor's degree doubled the median wage when compared to jobs requiring a high school diploma or equivalent; however, in 2021, the range of pay for occupations requiring a high school diploma or less increase more than jobs requiring more education. Both the wage range for occupations typically requiring a high school diploma or no formal educational credentials had an increase of about 6 percent over 2020. The group of jobs requiring beyond high school education had very little change in their wage range. Despite the wage advantage for jobs with additional education requirements, the jobs requiring only a high school education or less had a more notable upward wage shift over the year.

FIGURE 5: MICHIGAN WAGE RANGES FOR JOBS BY EDUCATIONAL REQUIREMENT, 2021



Source: 2021 Occupational Employment and Wage Statistics Survey, Bureau of Labor Market Information and Strategic Initiatives, Michigan Department of Technology, Management & Budget

Conclusion

Many of Michigan's industries and occupations have seen substantial wage growth as they continued to rebound from pandemic related losses. Michigan's total private sector wages have grown in recent years, totaling \$222.1 billion in 2021, up 9.0 percent from 2020. The state's median wage increased by 10.5 percent to \$21.73 in 2021, driven by a slower return of jobs earning below the median wage, coupled with a faster increase of employment in higher paid occupations. Occupational data for 2021 showed a continued trend of higher education equating to higher pay. With a few exceptions, overall, the data shows steady wage growth for Michigan across many industries, occupations, and levels of education.

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MICHIGAN DEMOGRAPHIC TRENDS

THE FIRST COVID-19 PANDEMIC YEAR (2020 TO 2021) AND A HISTORICAL PERSPECTIVE (1900 TO 2021)

This article summarizes Michigan's population trends in a one-year period, 2020 to 2021, and provides a historical analysis of births and deaths since 1900. The 2020 to 2021 period was of particular interest since it was the first year that data captured population change during the COVID-19 pandemic. This article first discusses population estimates and the components of population change (births, deaths, and migration) in 2020 to 2021, providing a comparison between Michigan and the United States. This article then examines historical patterns of births and deaths in Michigan since 1900, a 122-year period which spans two pandemics: COVID-19 and the Spanish Flu.

It is important to understand the components of population change (births, deaths, and migration) since they drive the change in the total population between two time periods. The demographic balancing equation in Figure 1 demonstrates how the components of change sum to the total population in the second time period. The population in 2021, for example, was the sum of three components: the population in 2020, natural change from 2020 to 2021 (births minus deaths), and net migration from 2020 to 2021 (in-migration minus out-migration). "Natural change" can be positive or negative. When a population experiences more births than deaths, this is referred to as "natural increase." The reverse is true when there are more deaths than births, which is referred to as "natural decrease." Net migration is expressed as the number of in-migrants (people who move to Michigan) minus the number of out-migrants (people who leave Michigan). Net migration includes domestic migration (migration between states) and international migration (migration between countries).

Michigan's Total Population and Components of Population Change from 2020 to 2021

According to U.S. Census Bureau estimates, Michigan's total population declined by approximately 16,800 persons between July 1st, 2020 and June 30th, 2021. Natural decrease was a major driver of this decline. Michigan had 102,983 births and 117,336 deaths, resulting in a natural decrease of 14,353 persons in this one-year period. This has historical significance because it is first time since at least 1900 that Michigan experienced natural decrease. Natural decrease was compounded by out-migration: it is estimated that, on net, approximately 3,726 people moved out of Michigan in 2020 to 2021.

Michigan and National Population Trends

Figure 2 ranks the top 15 states and the bottom 15 states with the highest and the lowest annual natural change in 2020 to 2021. Annual population change and net migration are also listed for these 30 states. Michigan has the fourth lowest ranking in natural change, with a natural decrease of -14,353. Natural decrease was not unique to Michigan or the other 14 states displayed on this list; Michigan was among 25 states that experienced natural decrease during this one-year period. As a point of pre-pandemic comparison, between 2018 and 2019, only four states (New Hampshire, Maine, Vermont, and West Virginia) experienced natural decrease. Michigan was also not unique among states that experienced population decline in 2020 to 2021. Seventeen other states also experienced population decline in this period.

Michigan was among 20 states estimated to have experienced net negative domestic migration in 2020 to 2021. All 50 states experienced net positive international migration in 2020 to 2021, resulting in a net inflow of persons to the United States. In Michigan, however, the net inflow of 4,167 international migrants was not enough to offset losses from domestic migration (-7,893 persons), resulting in net negative migration when summing both the international and domestic components of migration (-3,726 persons).

When examining population trends, it is also helpful to examine rates of population change. Comparing rates helps account for variation in states' total population sizes, facilitating comparisons between states with smaller populations and states with larger populations. Michigan had a -0.17 percent rate of population change, placing it at the 40th lowest rank among all U.S. states. Although Michigan's population change rate lags below the nation, the United States overall experienced slow growth rates in 2020 to 2021. The nation's population grew by only 0.12 percent in this one-year period.

When examining rates of natural change (i.e., per 1,000 residents), Michigan ranked 41st in the nation in 2020 to 2021. Rates of natural change were historically low in the United States in this period. However, natural change in the United States remained net positive in 2020 to 2021, with approximately 148,000 more births than deaths in the U.S. in this one-year period.

Finally, when examining net migration rates, Michigan ranked 36th in the nation. Michigan experienced a more pronounced population decline in 2020 to 2021 compared to other states, even in a one-year period where

FIGURE 1: DEMOGRAPHIC BALANCING EQUATION

$$\text{Population in Time 2} = \text{Population in Time 1} + \text{Natural Change (Births - Deaths)} + \text{Net Migration (In-Migration - Out-Migration)}$$

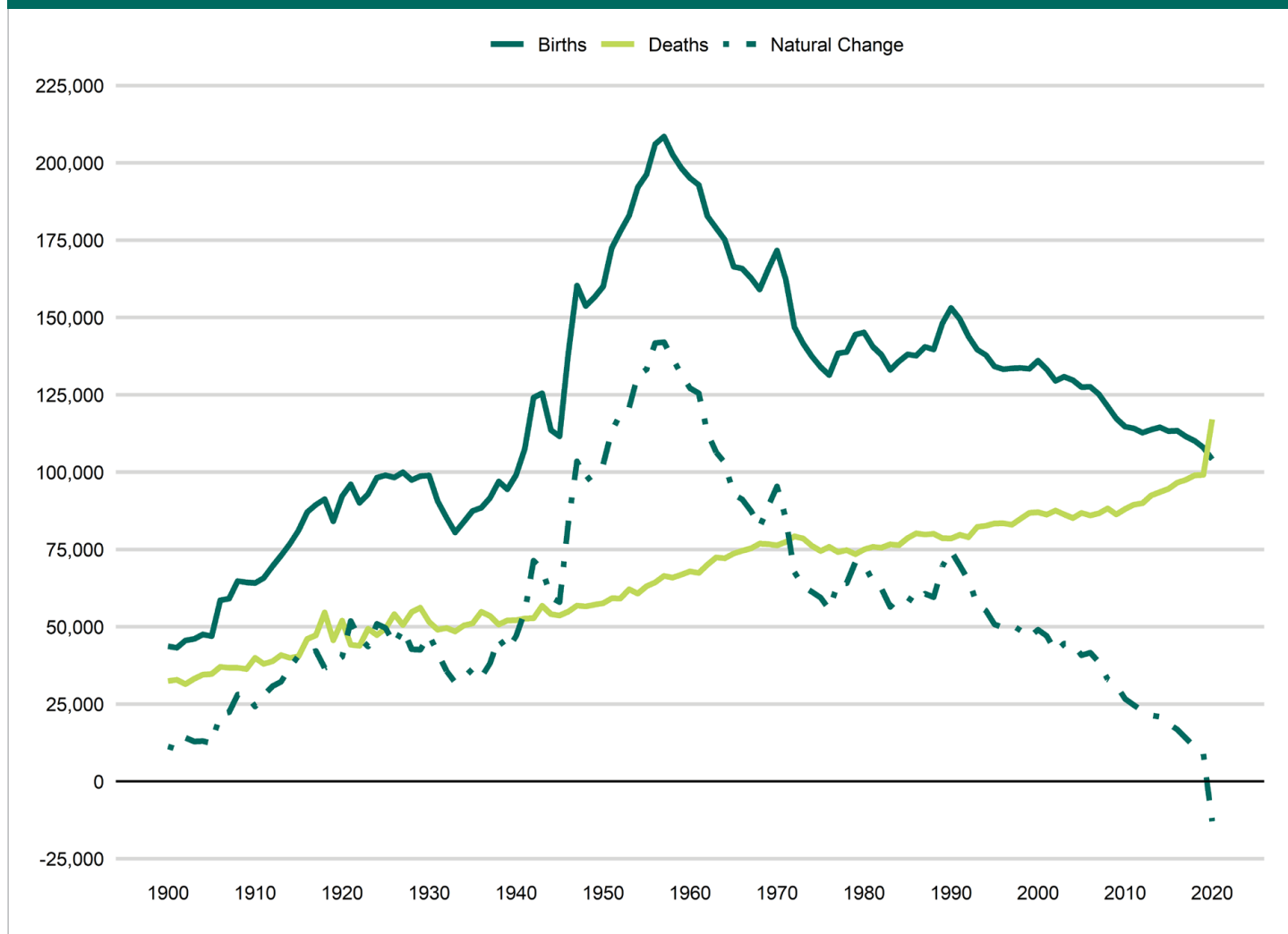


**FIGURE 2: TOP 15 AND BOTTOM 15 STATES,
RANKED BY ANNUAL NATURAL CHANGE IN POPULATION, 2020–2021**

NATURAL CHANGE RANKING	STATE	NATURAL CHANGE 2020–2021	POPULATION CHANGE 2020–2021	NET MIGRATION 2020–2021
1	Texas	113,845	310,288	197,492
2	California	91,996	-261,902	-352,960
3	Utah	22,992	56,291	33,380
4	New York	18,503	-319,020	-333,878
5	Georgia	15,993	73,766	57,629
6	Colorado	12,687	27,761	14,731
7	Washington	10,357	19,907	9,204
8	Minnesota	9,487	225	-9,411
9	Virginia	8,340	10,230	1,935
10	Maryland	5,252	-7,550	-13,033
11	New Jersey	4,697	-12,613	-17,752
12	Idaho	4,398	53,151	49,289
13	Nebraska	4,311	2,237	-2,269
14	Alaska	3,639	232	-3,353
15	Illinois	2,778	-113,776	-116,694
35	Mississippi	-3,237	-6,905	-3,805
36	New Hampshire	-3,744	11,144	14,851
37	Massachusetts	-4,234	-37,497	-33,512
38	Missouri	-4,515	13,706	17,803
39	Oregon	-4,715	4,611	9,181
40	Connecticut	-4,975	5,337	9,717
41	Kentucky	-6,128	5,436	11,204
42	Maine	-6,344	9,967	16,340
43	Tennessee	-7,591	55,099	63,141
44	South Carolina	-7,807	59,976	67,971
45	Alabama	-8,548	15,074	23,380
46	West Virginia	-9,870	-6,839	2,899
47	Michigan	-14,353	-16,853	-3,726
48	Ohio	-15,811	-10,570	3,956
49	Pennsylvania	-30,878	-25,569	4,273
50	Florida	-45,248	211,196	259,480

Source: Vintage 2021 Population Estimates Program, U.S. Census Bureau

FIGURE 3: MICHIGAN BIRTHS, DEATHS, AND TOTAL NATURAL CHANGE 1900–2021



Source: Michigan Department of Health and Human Services

national rates of population growth were low and an unprecedented number of states are experiencing natural decrease. Since these estimates represent only one year's worth of data that is subject to corrections and updates, it is helpful to also examine historical patterns of natural change in Michigan.

Historical Patterns of Natural Change in Michigan (1900 to 2021)

To understand Michigan's slowing growth rate the past 50 years and its population decline in the 2020 to 2021 period, it is helpful to examine how the components of population change have shifted within the state over the past 122 years. Figure 3 provides three series representing births, deaths, and the total natural change (births minus deaths) in Michigan each year from 1900 through 2021. These data, along with the population totals in the corresponding years,

were sourced from the Michigan Department of Health and Human Services.

Strikingly, in the 2020 to 2021 annual period, Michigan experienced natural decrease for the first time in modern history. The large increase in COVID-19 deaths contributed to this trend. In fact, from 2020 to 2021, Michigan experienced the highest annual percentage increase in deaths (18.63 percent) since 1900. This precedent is historically interesting given that the second highest peak in deaths was 15.63 percent in 1918, during the Spanish flu pandemic.

However, it is also important to note that Michigan likely would have entered a period of natural decrease during the 2020s even in the absence of the COVID-19 pandemic. Michigan's natural increase has been declining since 1957 as the number of births decreased and the number of deaths increased. This increasing ratio of deaths to births has become more prominent since 2011

as the Baby Boomer generation began turning 65 and entered higher mortality age classes.

As demonstrated in Figure 3, births in Michigan peaked in 1957 at 208,488. 1957 also represents the year of peak natural increase in Michigan, when the State had 142,053 more births than deaths. Births in Michigan have declined relatively steadily from the 1950s through the 2010s, to a low of 104,135 in 2020. This represents a 50 percent decline in births over the last 65 years. To further illustrate this point, there were approximately 3.4 million births in Michigan during the 18-year birth period (1946 to 1964) that the Census Bureau defines as the Baby Boomer generational cohort. In contrast, in a comparable and more recent time interval, 2003 through 2020, there were only 2.1 million births in Michigan.

In terms of the natural change component of the demographic balancing equation (Figure 1), births



have been a larger driver of natural change than deaths in Michigan during the 122-year period of this analysis. Figure 3 provides a visual demonstration of this correlation. The series that represents births and the series that represents natural change track closely together over time, indicating that increases or decreases in births correspond to increases or decreases in natural change. In contrast, since 1900, the correlation between deaths and natural change has been weaker than the correlation between births and natural change. The dramatic increases in mortality, such as those seen during the recent pandemic, contributed to natural decrease in the 2020 to 2021 period. However, historically, births have been the main driver of natural change in Michigan.

It is important to note, however, that natural change is only one component of change in the total population. The other component of change in the demographic balancing equation, net migration, is less fixed and is more variable than the natural change component. Since working- and family-age adults tend to be more mobile than older adults, net migration also affects the age structure of a population, which correspondingly affects birth and death rates. Figure 3 does not include historical estimates of migration in Michigan. However, the state's declining natural increase the past 50 years and its natural decrease and overall population decline in 2020 to 2021 are compounded by the persistent out-migration of working- and family-age individuals the past several decades.

It is also important to note that there are several limiting factors to Michigan's population growth that will persist even when the pandemic recedes. Even if high mortality rates due to COVID-19

continue receding in 2022 and 2023, Michigan will likely continue experiencing low rates of natural increase or even natural decrease due to declining birth rates. The declining birth rates in Michigan are aligned with nationwide trends, and deaths will continue to increase in the next decades as the Baby Boomer generation ages into higher mortality years and fewer babies are born to replace this cohort. Unless more people migrate into Michigan, the effect of low birth rates on slow population growth or even population decline will be experienced more acutely in Michigan due to Michigan's aging population and higher mortality rates.

In terms of migration, since the 1970s, Michigan has consistently lost more people to other states than it has gained. The net positive international migration in Michigan does not completely offset this domestic loss, but the inflow of international migrants mitigates what would otherwise be more severe rates of out-migration. Unless these patterns of overall net out-migration are reversed, both out-migration and natural decrease will contribute to population decline in Michigan.

Conclusions

In the first half of the 20th century, Michigan experienced rapid population growth, due in part to high birth rates and positive net migration. Incredibly, Michigan's natural increase in 1957 was only 5,990 fewer persons than the natural increase for the entire nation in the 2020 to 2021 annual period. Michigan's population gains were so high in the 1940s through the 1960s that—despite persistent out-migration from the 1970s through the 2010s—this population base sustained Michigan's ranking in the top 10 most populous states through present day.

Population growth that occurs in the absence of in-migration is referred to as "population momentum." However, as births have decreased and mortality has increased, Michigan's population momentum has slowed to the extent that the state will likely enter a prolonged period of natural decrease this decade.

In the twenty-first century, Michigan has experienced persistent net out-migration, declining birth rates, and increased mortality due to the aging of the Baby Boomer generation. Although births contributed to rapid population growth in the first half of the twentieth century, birth rates have declined and are historically low in recent decades. Michigan's reversal from natural increase to natural decrease in 2020 to 2021 was accelerated by the combination of low births and record-high COVID-19 mortality that exceeded death rates during the Spanish Flu. This natural decrease, paired with continued net out-migration, contributed to Michigan's overall population decline in 2020 to 2021. Migration influences a population's age structure, which influences the prevalence of births and deaths in a population. Without positive and higher rates of migration moving forward, it is likely that Michigan is near, or past, its peak population size. As such, migration will be an increasingly important component of potential population growth in the future.

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MICHIGAN LONG-TERM EMPLOYMENT PROJECTIONS, 2020–2030

The Michigan Bureau of Labor Market Information and Strategic Initiatives releases long-term employment projections each year. On even-numbered years, such as this one, the bureau releases statewide long-term projections, and on odd-numbered years the bureau releases regional long-term projections. This July, the bureau released the 2020 to 2030 long-term Michigan employment projections. While much of the data in this new set of projections is dominated by the impact that COVID-19 had on the Michigan economy in 2020, long-term demographic trends continue to drive many changes we expect to see in Michigan's labor market.

Michigan's population is a major driving force of long-term expectations for economic expansion. Between 2020 and 2030, the total population in Michigan is expected to grow by 4.0 percent. However, all growth is expected to occur among Michiganders age 65 and over, with younger age groups either declining in number or remaining flat over the 10-year period. Consequently, the prime working-age population, ages 25 to 64, is expected to decline by 1 percent over this period. This decrease

translates into a slight expected decrease of 1.2 percent in the number of labor force participants.

Figure 1 shows that a significant decrease in unemployment or increase in population or labor force can all drive increases in employment. While no significant change in population is expected to occur, the additional employment expected to be gained from 2020 to 2030 can be derived from projected decreases in the number of unemployed from the high levels of 2020. This large-scale reemployment is the main driving factor in the employment growth that is expected to take place between 2020 and 2030.

Projections can provide several insights to help businesses and individuals make planning decisions. For example, these projections can be viewed as a constant change over the 10-year period. As such, an occupation that is expected to grow through the end-year of 2030 is also expected to be an occupation with healthy growth through years five, seven, and nine. This information is especially important to those Michiganders seeking to begin a multi-year education or training program, since an occupation expected to grow at a healthy

rate throughout the projection period is a positive sign that there will be employment demand when exiting their long-term training or education program.

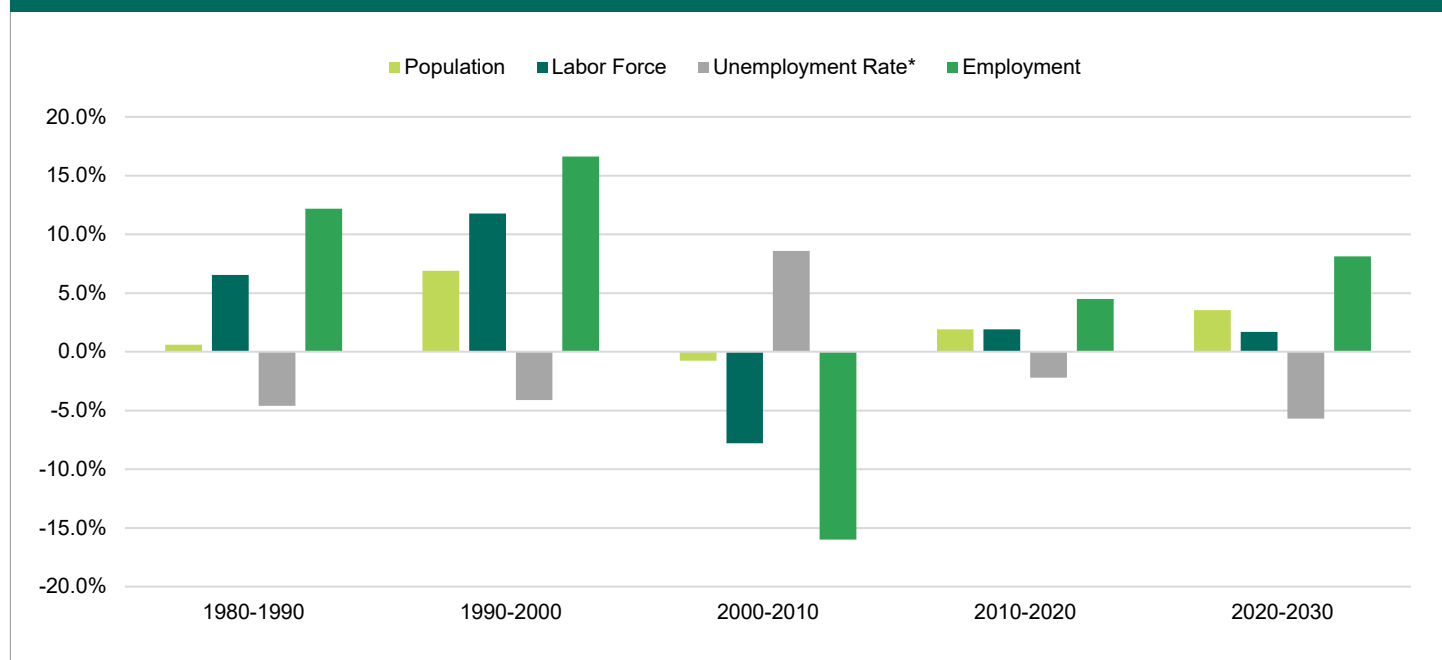
Top Line Data

Total employment in Michigan is projected to grow 8.8 percent from 2020 to 2030, a rate that can be attributed to the downward push of COVID-19 on Michigan employment in 2020. Michigan is not an outlier among other states in terms of its high expectations of total employment growth over the projection period. Among all states, Michigan ranks 34th for total percentage growth in jobs. So, while this new projected rate of growth is high, it is neither a prediction of a significant divergence from previous trends nor is it an outlier among other states.

Industry Projections

Several Michigan industries stand out for their long-term performance, outside of the effects of COVID-19, on the Michigan economy. *Health care and social assistance*-related industries, many of which have been steadily growing in Michigan for many years, will be especially

FIGURE 1: REAL AND PROJECTED LABOR MARKET CHANGES OVER 10-YEAR PERIODS



Source: Current Population Survey (2010–2021), U.S. Census Bureau and U.S. Bureau of Labor Statistics

*The unemployment rate is expressed in percentage point change. All others are expressed in percent change. The 2030 unemployment rate is a model assumption, not a projected level.

important to help take care of Michigan's aging population in coming years. *Education*-related industries are another important long-term focus for the state. It is home to numerous high-quality universities, some of which attract many students from outside of the state, effectively making education an important export good in the state's economy. Additionally, there are a few industries with particularly strong projected growth rates that can be attributed to recovery from the impact of COVID-19 or the impacts of the pandemic itself on consumer habits. Figure 2 displays the top industries by employment growth.

The *Ambulatory health care services* industry is projected to add about four in 10 new jobs in the *Health care and social assistance* sector over the 10-year period. This amounts to an additional 33,260 jobs in the industry, or a growth of 17.3 percent. This industry contains many services important to an aging population such as physicians' and dentists' offices, outpatient care centers, home health services, and medical and diagnostic laboratories.

Employment in the *Social assistance* industry is expected to grow at the fastest rate within the *Health care and social assistance* sector. This 23.9 percent gain in employment is expected to add 17,020 jobs in this industry, which contains services such as *Child day care services* and *Individual and family care services*. Services such as these will be important in the future as both the state population ages and obtaining childcare continues to be a challenge for households with a single working parent or two working parents.

Ambulatory health care services and *Social assistance* industries are some of the fastest-growing industries in the *Health care and social assistance* sector, but *Hospitals* and *Nursing and residential care* have also been registering



steady increases in employment for many years. *Hospitals* are expected to add 18,950 jobs over the projection period, or a gain of 7.8 percent. While *Hospitals* is the slowest growing industry in the sector in terms of percent growth, it is also the largest by employment, and is expected to hold 261,990 jobs at the end of the projection period. *Nursing and residential care facilities* is expected to add 9,750 jobs from 2020 to 2030, for a total growth of 9.9 percent, more than a

percentage point above the expected growth rate for total employment in Michigan.

Another sector that stands out for its long-term growth and importance to the future of the Michigan workforce is *Educational services*. Postsecondary training and education continues to be an important factor in the constitution of a twenty-first century workforce, a fact reflected in the continued projected growth of *Colleges*,

FIGURE 2: TOP MICHIGAN INDUSTRIES BY EMPLOYMENT GROWTH

INDUSTRY	EMPLOYMENT		PROJECTED CHANGE	
	2020	2030	10-YEAR NUMERIC	10-YEAR PERCENT
Food Services and Drinking Places	258,880	326,540	67,660	26.1%
Ambulatory Health Care Services	192,640	225,900	33,260	17.3%
Professional, Scientific, and Technical Services	287,330	318,500	31,170	10.8%
Administrative and Support Services	229,270	251,830	22,560	9.8%
Hospitals	243,040	261,990	18,950	7.8%

Source: 2020–2030 Michigan Long-Term Employment Projections, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

FIGURE 3: TOP MICHIGAN OCCUPATIONAL GROUPS BY EMPLOYMENT GROWTH

OCCUPATIONAL GROUP	BASE	PROJECTED	NUMERIC	PERCENT	TOTAL ANNUAL OPENINGS
Food Preparation and Serving Related Occupations	314,570	389,600	75,030	23.9%	70,895
Transportation and Material Moving Occupations	355,380	402,050	46,670	13.1%	52,460
Healthcare Support Occupations	179,580	210,950	31,370	17.5%	26,655
Healthcare Practitioners and Technical Occupations	281,090	308,970	27,880	9.9%	18,880
Management Occupations	258,290	281,830	23,540	9.1%	23,600

Source: 2020–2030 Michigan Long-Term Employment Projections, Bureau of Labor Market Information and Strategic Initiatives, Department of Technology, Management & Budget

universities, and professional schools and *Junior colleges* (community colleges). These industries are expected to gain a combined 12,240 jobs over the 10-year period. *Elementary and secondary schools*, conversely, are expected to grow by just 0.7 percent over the projection period, a level related to the slight 1.5 percent increase in population ages five to 19 over the 2020 to 2030 period. However, this population group is expected to expand more significantly after 2030 and through 2040, meaning projections for employment demand in this industry may shift more positively in coming years.

While healthcare and education-related industries have been steady centers of growth for total employment in recent years, there are some industries whose projected growth stands out as being mostly or wholly related to recovery from COVID-19. Employment in the *Accommodation* industry is projected to increase by 13,310, or 45.8 percent, while *Food services and drinking places* are expected to show recovery gains of 67,660 jobs, or 26.1 percent over the 10-year period. Projected changes in employment are generally assumed to be constant over the projection term, but it is fair to assume these sharp increases in particular may occur quickly due to the unique nature of the 2020 job market.

One sector, *Transportation and warehousing*, stands out for its relationship with the impacts of COVID-19 on its employment. Two-thirds of the net gain in employment in the *Transportation and warehousing* sector are expected to be focused within the *Truck transportation* and *Warehousing and storage* industries. These two industries account for about 16,200 of the 24,250 jobs projected to be added to the sector over the 10-year period. These two industries, along with *Couriers and messengers*, appear to be in a position to fortify higher-than-typical gains in employment

if the trend of higher direct-to-consumer shipping that accelerated with the COVID-19 pandemic remains in place in years to come.

Occupational Projections

Occupations expected to see the highest growth over the projection period are often closely tied to industries that employ them, such as the case of *Health care and social assistance* industries and *Health care practitioners and technical* occupations or skilled trades occupations and *Construction*-related industries. However, some occupations, such as STEM, can still show strong growth despite not being tied to any particular high growth industry. Figure 3 shows the top occupational groups by employment growth.

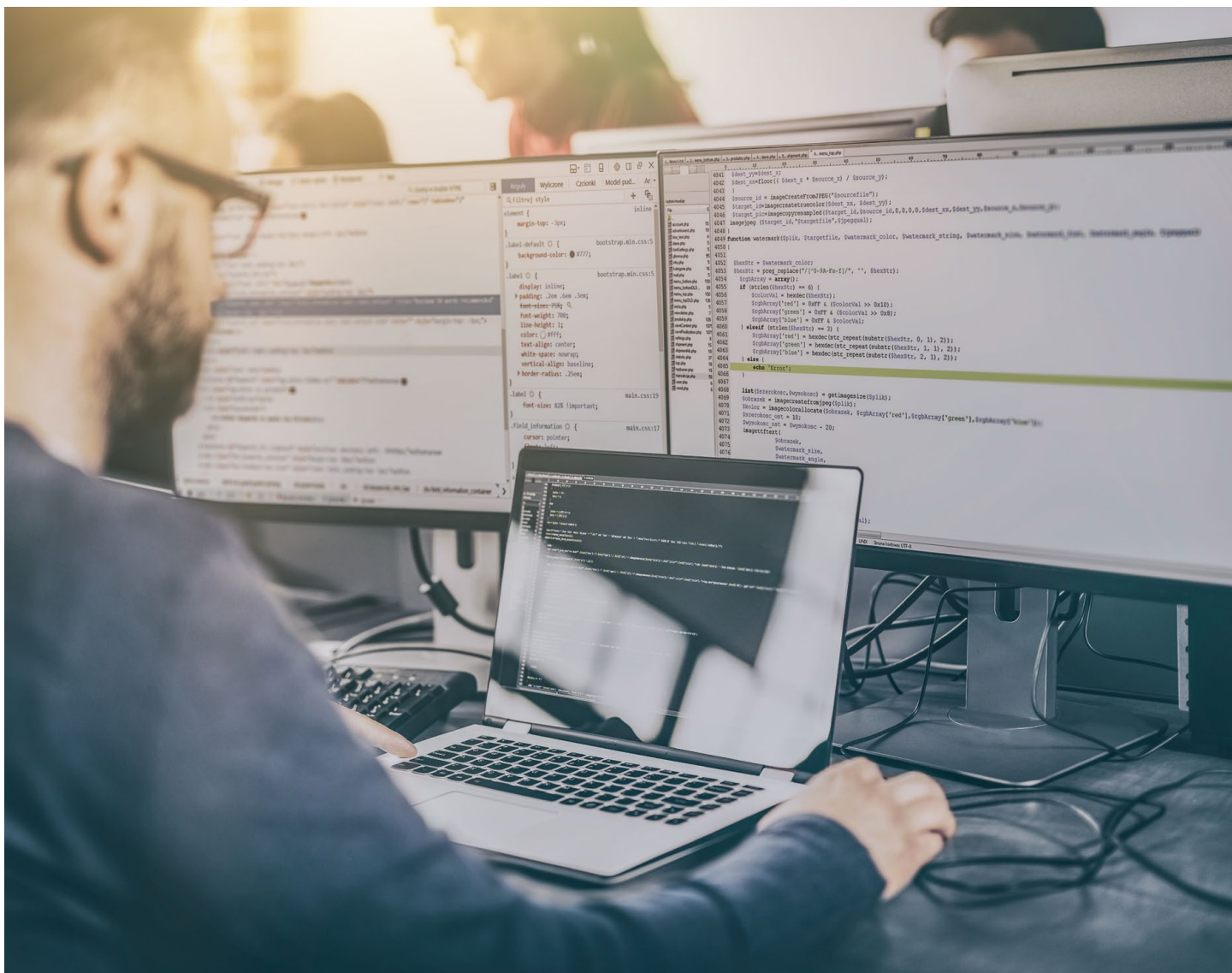
Among *Healthcare practitioners and technical* occupations, *Registered nurses*, *Nurse practitioners*, and *Physicians assistants* have the best mix of projected employment increase, total annual openings, and wages. *Registered nurses* are projected to increase by 8,150 jobs, or 7.9 percent, over the 10-year period, requiring new entrants to fill 6,300 openings each year. These positions make a median annual wage of \$76,710. *Nurse practitioners* are projected to grow by 2,590 over the period, expanding the occupation by half. An expected 595 openings will need to be filled annually in this occupation, earning a median wage of \$102,060. *Physicians assistants*, another relatively small but quickly growing occupation, is projected to expand by 1,440 jobs, or 31.9 percent. This occupation is expected to require 435 annual openings be filled by entrants, with incumbents currently earning a median wage of \$104,810.

Skilled trades occupations are another set of jobs that are expected to show above-average growth over the projection period. As a whole, the group is expected to add 38,590 jobs, or

10.6 percent, bringing the total number of jobs to just under 404,000 by 2030. Some of the top performing occupations in this group are expected to be *Industrial machinery mechanics*, *Electricians*, and *Machinists*. These three occupations are projected to constitute a combined 77,530 jobs in 2030, a gain of 11,390 jobs or 17.2 percent over the 10-year period. A combined 8,045 job openings are expected each year, with a roughly equal number coming from *Industrial machinery mechanics*, *Electricians*, and *Machinists* each.

The roughly 100 occupations described as STEM are expected to grow by 10.9 percent over the projections period, reaching an employment level of 335,000. Many individual STEM occupations are expected to show high growth over the long-term projection period, have many annual openings, and earn higher-than-average wages. *Engineering* occupations such as *Industrial engineers*, *Mechanical engineers*, and *Civil engineers* appear at the top of this list of occupations. *Industrial engineers*, for example, are expected to grow by 20.4 percent over the 10 years, requiring an average of 2,280 new entrants annually, and currently earn a median annual wage of \$80,480.

Many IT-related occupations are also expected to perform highly throughout the projections period, such as *Software developers and software quality assurance analysts and testers* and *Information security analysts*. Developers and QA testers are expected to add 8,750 jobs over the projections period, or 22.8 percent, while showing annual average job openings of nearly 4,000 due to occupational transfers and labor force exits. This occupation is reported as two separate job titles in the latest earnings data, with *Software developers* earning an annual median wage of \$98,560 and *Software quality assurance analysts and testers* earning \$78,800.



Another lens through which to view occupational projections is by the amount of education that is typically required to enter a job. Occupations that require at least a bachelor's degree are expected to grow at the fastest rate, a reflection of past trends. These occupations are expected to grow by about 115,000 jobs, or 9.8 percent, over the 10-year period, the fastest rate among the three broad groups of education that will be examined. Roughly 1,290,000 Michiganders are expected to be employed in this group of occupations by 2030. The count of jobs that require more education than a high school diploma but less than a bachelor's degree is projected to expand by nearly 40,000, or 8.6 percent by 2030. This group is also the smallest of the three, projected to employ about 500,000 in 2030. The largest group of occupations by over double is the group that requires a high school diploma or less. Projected to hold about 2,860,000 jobs in 2030, this large group is expected to narrowly

underperform the Michigan average growth rate over the 10-year period, adding 220,300 jobs or 8.3 percent.

Conclusion

While the impact of COVID-19 on Michigan's job market is driving much of the expected 8.8 percent growth on Michigan's total employment levels, many changes can also be found that are driven by other long-term changes in Michigan's economy. *Health care and social assistance* and *Educational services* stand out as industries driving important shifts in Michigan's occupational structure, and impacts from the COVID-19 pandemic may have accelerated trends in *Transportation and warehousing*. Beyond changes driven by one particular industry, demand for STEM and skilled trades occupations remain a driver of expected occupational shifts across many industries.

These continuing structural changes in occupational demand should be viewed as guidelines for those seeking to enter new occupations throughout the 10-year projection period, not just in 2030, since these structural changes are assumed to be occurring at an even pace throughout the decade.

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