# Detroit Economic Indicators Report

Q1 2023 Release

This project is part of the City of Detroit University Economic Analysis Partnership between the City of Detroit Economics team, Wayne State University, Michigan State University, and the University of Michigan. The goal of this paper is to report the most recent Detroit and Michigan employment statistics as well as current topics surrounding the field of Economics. Each quarter's report includes a new topic of interest at the time (housing, inflation, GDP, etc.). It also lists upcoming data releases that are significant for this report.

Authors: Erika Barker (Economist, City of Detroit), Dr. Liang Hu (Associate Professor of Economics, Wayne State University), Hasan Alaswad (Ph.D. Candidate, Wayne State University), Owen Fleming (Ph.D. Candidate, Wayne State University, Sarah Klammer (Extension Specialist, Michigan State University), Research Seminar in Quantitative Economics team from the University of Michigan

## Executive Summary

- Detroit's average quarterly unemployment rate increased slightly from 6.9 percent in the fourth quarter of 2022 to 7.4 percent in the first quarter of 2023. Michigan's unemployment rate decreased from 4.3 percent to 4.2 percent during that time. The average quarterly labor force for Detroit held mostly flat in the first quarter of 2023, while Michigan's increased.
- Employment in the Finance and Insurance industry is slipping, while employment in Administrative and Support and Waste and Remediation Services is rising.
- A new cost-of-living index for Detroit is in development and will be tracked over time. As a starting point, an average population is defined and discussed in this report.
- National and local inflation has come down from its peak in the 2nd quarter of 2022.

## Employment – Detroit and Michigan

Michigan's labor force increased by 10,000 people in the first quarter of 2023 on a seasonally adjusted basis. Meanwhile, Detroit's labor force held effectively flat, nudging down by 85 residents.[1] The average quarterly unemployment rate for Michigan dropped from 4.4 percent in the fourth quarter of 2022 to 4.2 percent in the first quarter of 2023, on par with the unemployment rate from a year earlier. Detroit's average quarterly unemployment rate increased from 6.7 percent to 7.4 percent in that time.

---

[1] The Bureau of Labor Statistics does not publish seasonally adjusted data for Detroit's labor force or unemployment rate. The numbers for the city of Detroit in this section are not seasonally adjusted.
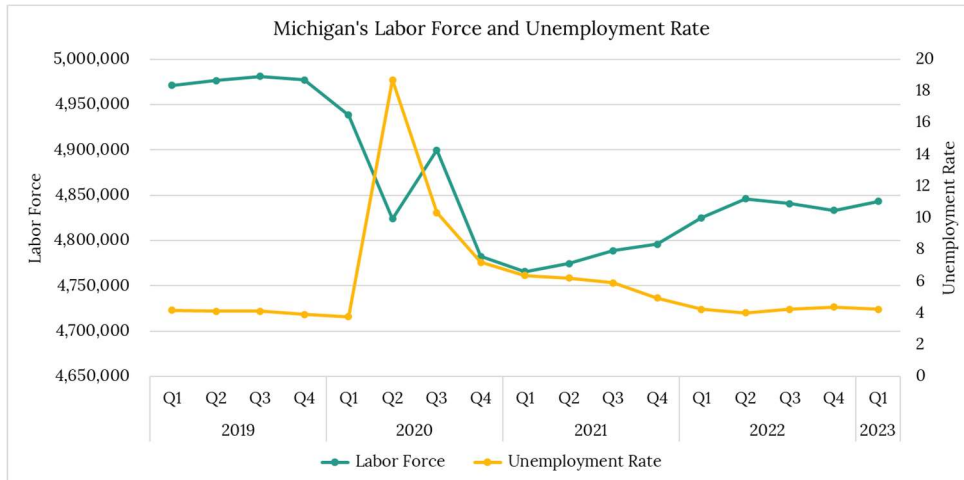
Source: *Michigan Bureau of Labor Market Information and Strategic Initiatives, Local Area Unemployment Statistics, seasonally adjusted*
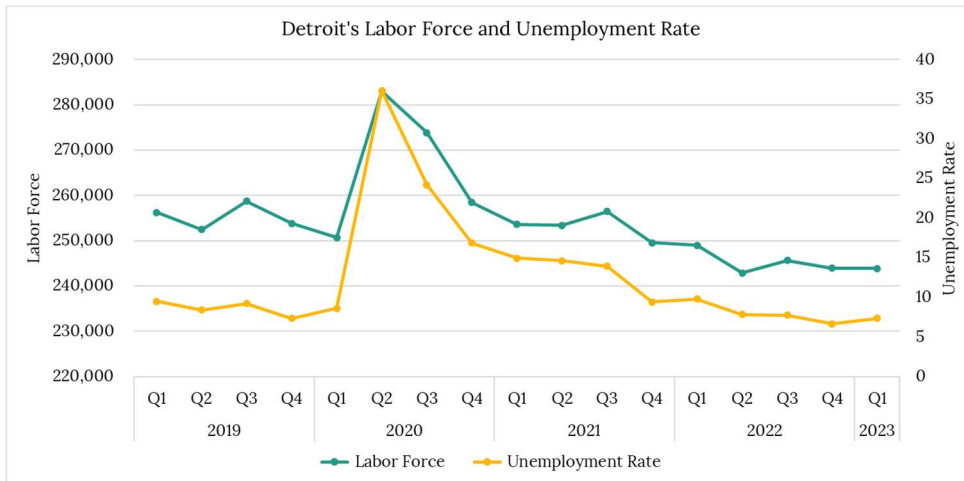


Source: *Michigan Bureau of Labor Market Information and Strategic Initiatives, Local Area Unemployment Statistics, not seasonally adjusted*

## Payroll Employment Data (Q3 2022)

The Finance and Insurance industry experienced a decrease in average employment in the third quarter of 2022 for the fourth consecutive quarter. The losses accelerated in the third quarter with a decline of 12 percent, or 1,800 jobs. In total, employment in the Finance and Insurance industry fell by 22 percent, or about 3,800 jobs compared to the third quarter of 2021. Employment in Administrative and Support and Waste and Remediation Services, on the other hand, grew by 7 percent in the third quarter of 2023, or 850 jobs, taking it 20

percent higher than a year earlier. Manufacturing jobs stayed flat in the third quarter of 2023 but were 1,600 jobs down over the year.

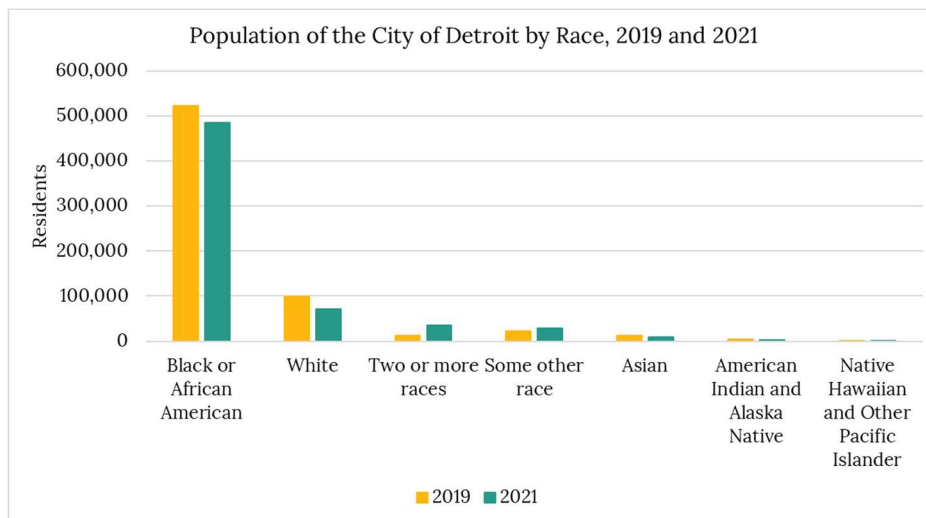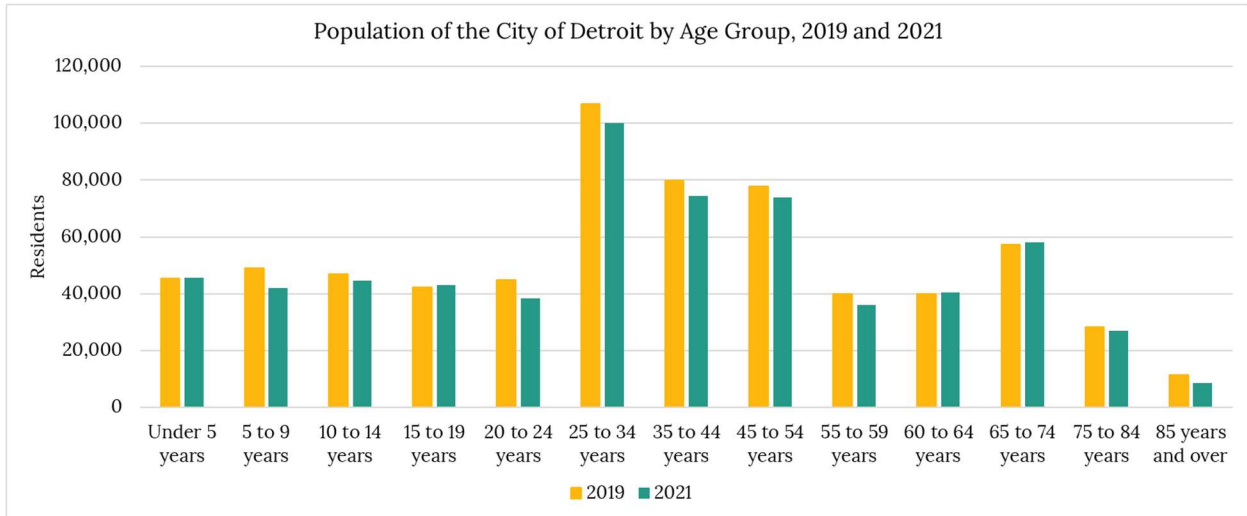## Detroit Payroll Employment by Sector

| | | Q2 2022 AVG Employment | Q3 2022 AVG Employment | Change over the: | |
|---|---|---|---|---|---|
| | | | | Quarter | Year |
| 11 | Agriculture, Forestry, Fishing and Hunting | 210 | 222 | + 12 (6%) | + 46 (26%) |
| 21 | Mining, Quarrying, and Oil and Gas Extraction | 493 | 506 | + 12 (3%) | + 18 (4%) |
| 22 | Utilities | 3,682 | 3,722 | + 40 (1%) | + 31 (1%) |
| 23 | Construction | 7,538 | 7,588 | + 50 (1%) | + 841 (12%) |
| 31-33 | Manufacturing | 23,076 | 23,008 | - 68 (0%) | - 1,567 (-6%) |
| 42 | Wholesale Trade | 5,139 | 5,112 | - 27 (-1%) | + 11 (0%) |
| 44-45 | Retail Trade | 13,000 | 12,812 | - 188 (-1%) | - 103 (-1%) |
| 48-49 | Transportation and Warehousing | 8,075 | 8,059 | - 15 (0%) | + 285 (4%) |
| 51 | Information | 2,380 | 2,391 | + 10 (0%) | + 78 (3%) |
| 52 | Finance and Insurance | 15,289 | 13,460 | - 1,829 (-12%) | - 3,814 (-22%) |
| 53 | Real Estate and Rental and Leasing | 2,017 | 1,961 | - 55 (-3%) | + 11 (1%) |
| 54 | Professional, Scientific, and Technical Services | 13,699 | 14,023 | + 325 (2%) | + 798 (6%) |
| 55 | Management of Companies and Enterprises | 9,571 | 9,198 | - 373 (-4%) | + 1,851 (25%) |
| 56 | Administrative and Support and Waste Management and Remediation Services | 11,872 | 12,726 | + 854 (7%) | + 2,142 (20%) |
| 61 | Educational Services | 20,261 | 19,768 | - 493 (-2%) | + 155 (1%) |
| 62 | Health Care and Social Assistance | 45,598 | 46,376 | + 778 (2%) | + 537 (1%) |
| 71 | Arts, Entertainment, and Recreation | 4,867 | 4,942 | + 75 (2%) | + 980 (25%) |
| 72 | Accommodation and Food Services | 17,631 | 18,149 | + 518 (3%) | + 2,787 (18%) |
| 81 | Other Services (except Public Administration) | 6,661 | 6,894 | + 233 (3%) | + 577 (9%) |
| 92 | Public Administration | 18,825 | 19,403 | + 579 (3%) | + 3,154 (19%) |
| 99 | Nonclassifiable Establishments | 478 | 459 | - 18 (-4%) | + 88 (24%) |

*Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics*

## Detroit's Cost of Living – Defining the Population

The City of Detroit and University partnership has recently set a new goal of establishing a cost-of-living index for Detroit. The approach is to define the population of interest, then use associated costs of living to build an index that can be tracked over time. Inflation measures will also be used to provide insight into the changing prices faced by families and individuals in Detroit.

In this report, we begin by exploring the population that the cost-of-living index will represent. Data from the U.S. Census Bureau is presented below for a range of metrics such as age, race, poverty status, and household income.[2] Based on the charts, the typical Detroit resident in 2021 is Black or African American and between the ages of 25 and 54. This was also the case in 2019, before the COVID-19 pandemic.



Population of the City of Detroit by Age Group, 2019 and 2021



Population of the City of Detroit by Race, 2019 and 2021

---

Educational attainment levels for Detroit residents aged 25 and older are shown below. The composition changed slightly between 2019 and 2021; there was an increase in both the number of individuals with a high school graduate degree (or the equivalent) and the number with a bachelor's degree or higher. There was a decrease in the "some college" and "less than high school graduate" categories. Education is an important piece in identifying the typical Detroit resident because it is a strong determinant of an individual's wage. From the chart below, the typical person in Detroit that is 25 or older has a high school graduate degree or the equivalent (e.g., GED).
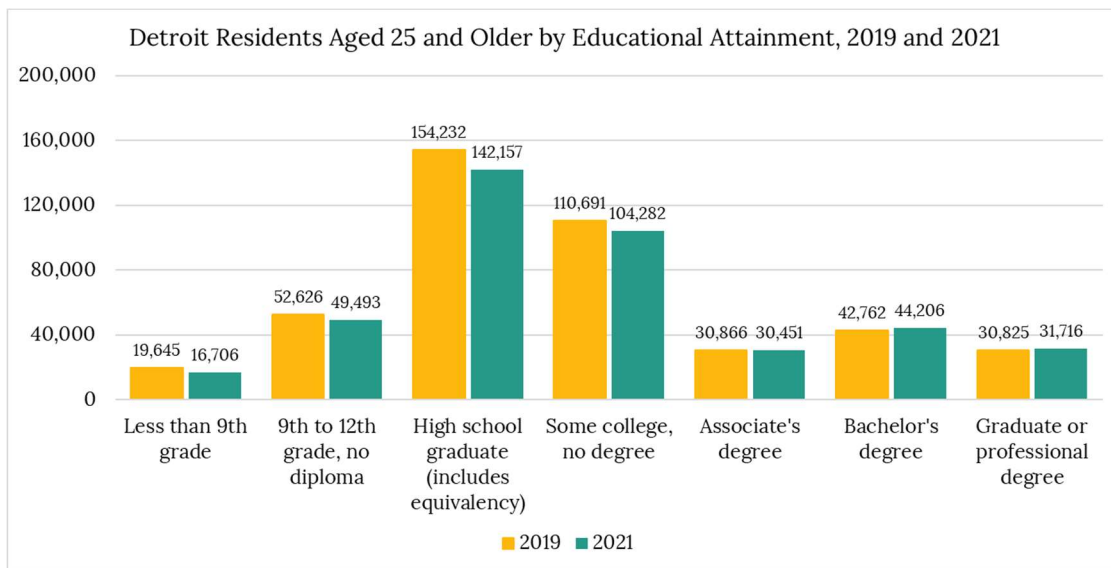


Detroit's average annual labor force is shown in the chart below, except for 2023, which includes only the first quarter of the year. An individual is characterized as being part the labor force if they are either employed or unemployed and actively looking for work. The chart shows that while unemployment in Detroit has decreased since the height of the pandemic in 2020, the total labor force has steadily declined as well.

Labor Force of the City of Detroit, 2019–2023
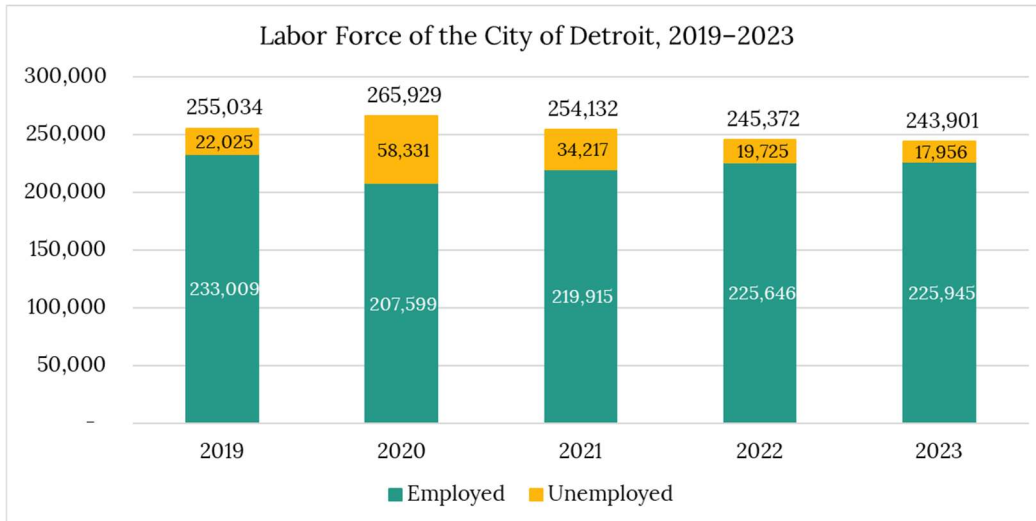
The Census Bureau reports the number of individuals below the Federal Poverty Level (FPL), as shown in the chart below for Detroit residents in three different age categories. For the nation as a whole, 14.8 percent of the population aged 18–34 was below the FPL in 2021, while 10.3 percent for both the population aged 35–64 as well as those 65 and older were classified as living in poverty.[3] As shown below, the percentage of Detroit residents in poverty exceeds the national average for all three age categories. Poverty status will be an important consideration in our discussions of the cost of living in Detroit due to the high concentration of adults in poverty. There has been extensive research on poverty status by various groups, such as the ALICE initiative[4], which focus on households and individuals with incomes under the Federal Poverty Level or alternative income thresholds.

ALICE, for example, uses county-level American Community Survey (ACS) data to estimate households that earn above the FPL but not enough to afford household necessities. Such households are referred to as "asset limited, income constrained, employed (ALICE)." The ALICE initiative's definition of household necessities includes housing, childcare, food, transportation, health care, and a basic smartphone plan. The ALICE research will be discussed further in next quarter's report and will give valuable insight into this group of households in the context of the cost-of-living index.

---

[3] American Community Survey, 1-year-estimate for 2021, Table S1701.

[4] https://www.unitedforalice.org/

Detroit Residents Living in Poverty, 2019 and 2021
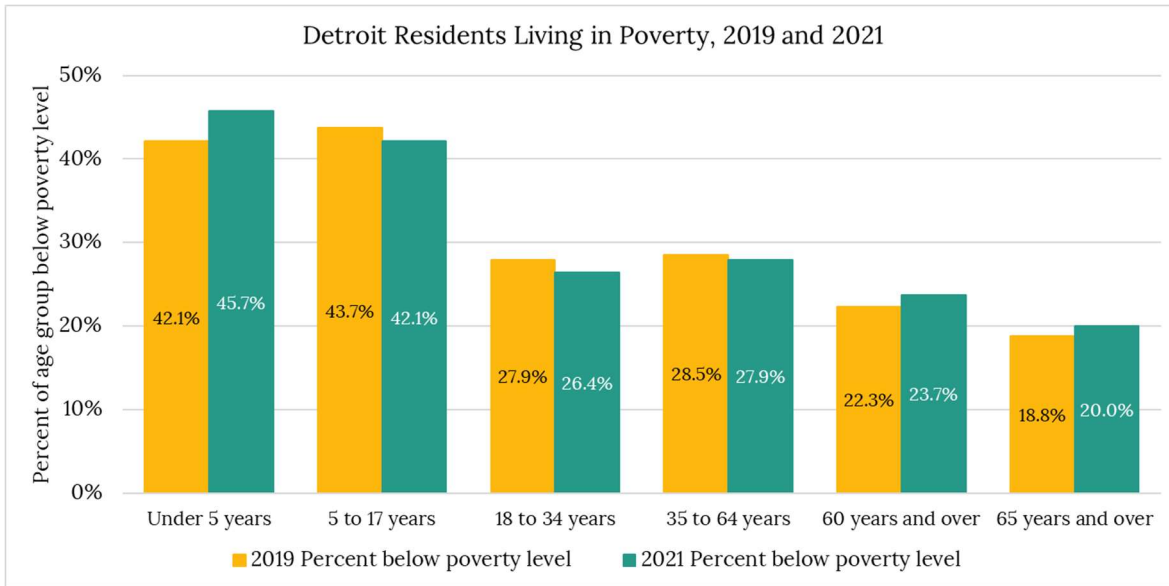
The table below shows the Federal Poverty Level (FPL) by family size — the thresholds for determining poverty status. There are about 2.5 individuals per household in Detroit[5] according to ACS 5-year estimates, so the FPL for the average household in Detroit would fall between 2 and 3 individuals.

Federal Poverty Levels for Various Family Sizes by Year

| Family Size | 2019 Income | 2021 Income | 2022 Income | 2023 Income |
|---|---|---|---|---|
| Individuals | $12,490 | $12,880 | $13,590 | $14,580 |
| 2 | $16,910 | $17,420 | $18,310 | $19,720 |
| 3 | $21,330 | $21,960 | $23,030 | $24,860 |
| 4 | $25,750 | $26,500 | $27,750 | $30,000 |
| 5 | $30,170 | $31,040 | $32,470 | $35,140 |
| 6 | $34,590 | $35,580 | $37,190 | $40,280 |
| 7 | $39,010 | $40,120 | $41,910 | $45,420 |
| 8 | $43,430 | $44,660 | $46,630 | $50,560 |
| 9+ | Add $4,420 per person | Add $4,540 per person | Add $4,720 per person | Add $5,140 per person |

---

[5] From Census Bureau: www.census.gov/quickfacts/fact/table/detroitcitymichigan,MI/PST045222

The distribution of household income for Detroit residents in 2019 and 2021 is shown below. In 2021, 15.5 percent of households in Detroit earned less than $10,000, 13 percent earned between $15,000 and $24,999, 15.7 percent earned between $35,000 and $49,999, and 14.7 percent earned between $50,000 and $74,999. The median household income in Detroit was $33,965 in 2019 and $36,140 in 2021. For families, median household income was $40,529 in 2019 and $42,577 in 2021. While median household income in Detroit exceeds the FPL for the city's average of 2.5 people per household, individuals and families earning above the FPL may still struggle to afford all necessities. For that reason, ALICE qualifications might be better suited to guide the scope of the cost-of-living index for Detroit.



The Distribution of Household Income in Detroit, 2019 and 2021
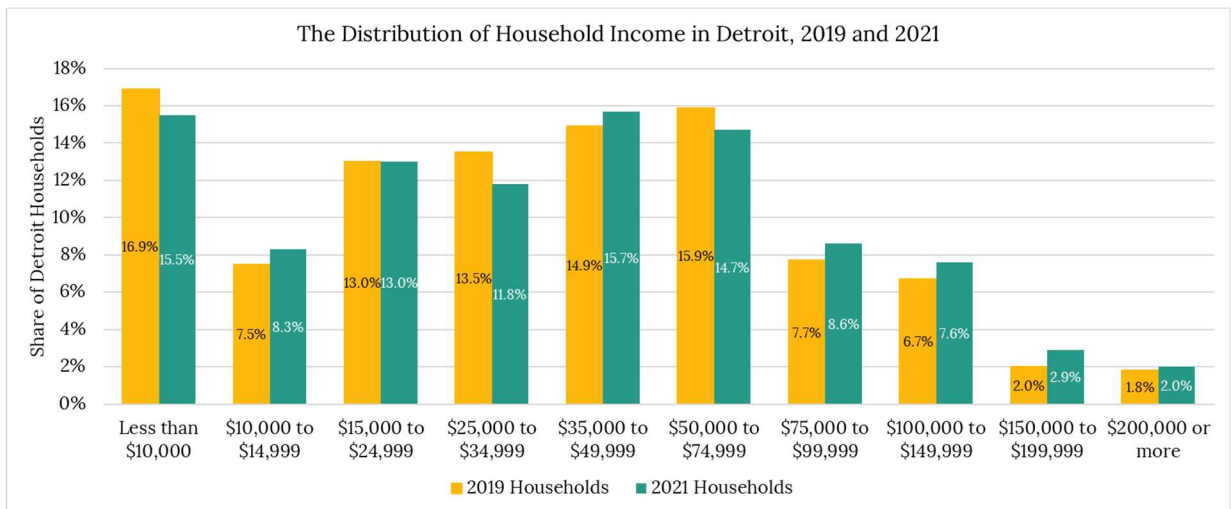
Housing is generally the largest cost that Detroit households face. For those renting, the costs can change from year to year, which is perhaps one of the reasons that the number of Detroit households living in owner-occupied units increased between 2019 and 2021, as shown below.[6]

---

[6] A possible reason for the decrease in total number of households is recent demolition efforts; since 2014, over 20,000 vacant buildings [have been taken down] in Detroit neighborhoods according to the City of Detroit website

**Housing Tenure of Households in Detroit, 2019 and 2021**
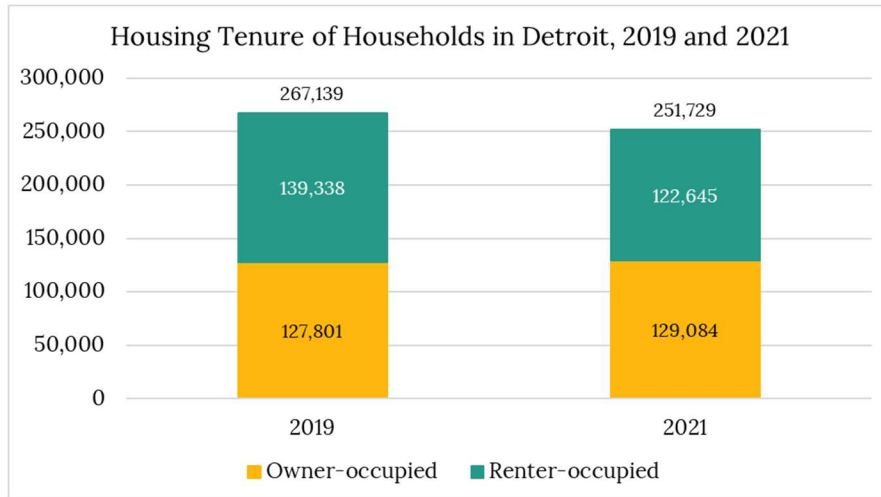
Housing costs as a percentage of household income (HHI) are shown below for Detroit households with a mortgage. Although the majority of homeowning households spend less than 20 percent of their household income on housing, it is the largest share of household expenditures in the Detroit metropolitan area and will be discussed at length as the cost-of-living index is developed.[7]



**Housing Costs as a Percentage of Household Income for Detroit Households with a Mortgage, 2019 and 2021**
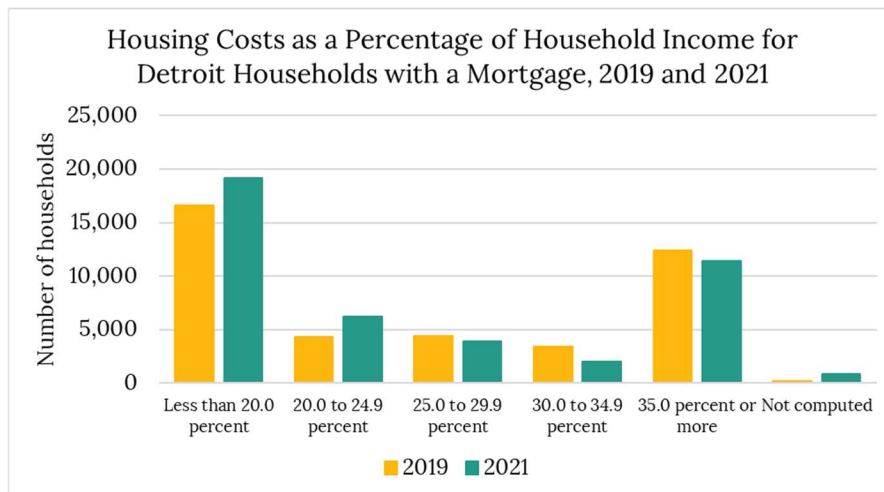
For those renting a house, the percentage of household income spent on housing tends to be much higher than for those paying a mortgage. About half of the households in Detroit spend 35 percent or more of their income on housing.

---

[7] From BLS: www.bls.gov/regions/midwest/news-release/consumerexpenditures_detroit.htm

Rent as a Percentage of Household Income for Renters in Detroit, 2019 and 2021
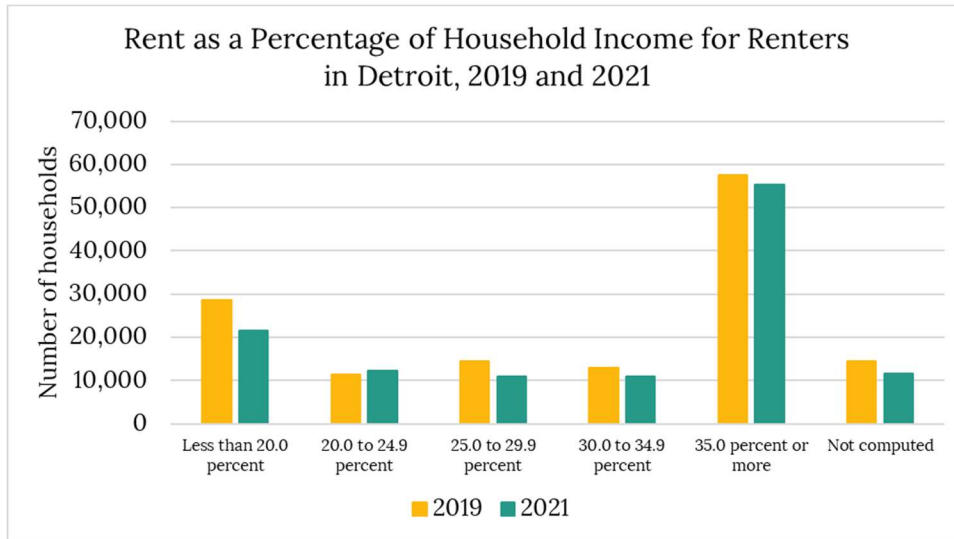
To summarize Detroit's population, the typical individual in the city is Black or African American and between the ages of 25 and 54 with a high school diploma or equivalent. Despite rising employment in Detroit, more than one in five adults lived below the FPL in 2019 and 2021. Nonetheless, the 2021 median household income in Detroit far exceeded the FPL for the average household size. As the ALICE research indicates, however, that does not mean that households are able to afford the necessities of a basic lifestyle. The most significant cost for Detroit residents is housing. The proportion of income spent on housing varies between renters and owners with a mortgage, with renters tending to pay a higher share. Food, healthcare, transportation, and energy costs have not been discussed in this report but will be incorporated in the future.

## Key Inflation Indicators

The chart below displays national and local inflation as measured by the Consumer Price Index (CPI) for all items, as well as core inflation, which excludes food and energy. National and local core inflation has remained steady around 6 percent since the 1st quarter of 2022, although more recent monthly data suggest that local core inflation has been rising. All-item inflation at the national level, on the other hand, has shown more improvement lately. The latest reading for May 2023 put national all-item inflation at 4.0 percent. The most recent CPI-U

observations indicate stronger price stability since they read closer to core CPI-U over the past quarters.

National and Detroit CPI Inflation, All Items and Core
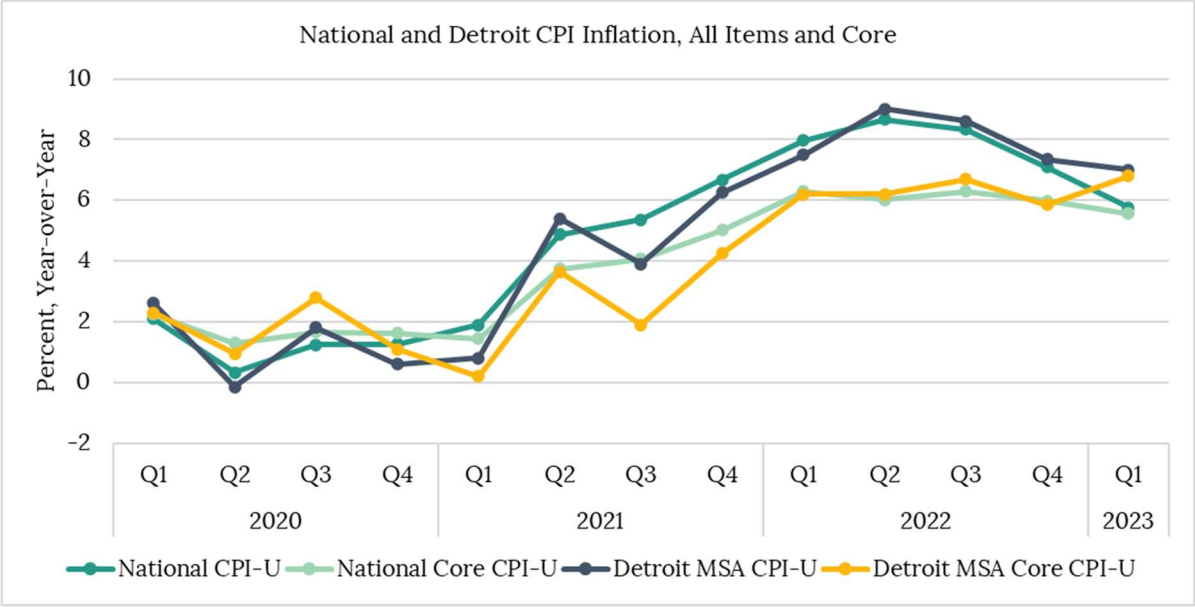


*Sources: Bureau of Labor Statistics and Federal Reserve Bank of St. Louis*

## Next Data Releases

- May 2023 metro area employment and unemployment data will be released on June 28.
- June 2023 national and local CPI will be released on July 12.
- June 2023 metro area employment and unemployment data will be released on August 2.