

The Detroit Economic Outlook for 2019–2024

Research Seminar in Quantitative Economics University of Michigan

February 10, 2020

Prepared as part of the City of Detroit University Economic Analysis Partnership with:







Gabriel M. Ehrlich, Director George A. Fulton & Saul H. Hymans

Directors Emeriti

Isa.umich.edu/econ/rsqe

For Release: 02/10/2020

The Detroit Economic Outlook for 2019–2024

Jacob T. Burton, Gabriel M. Ehrlich, Donald R. Grimes, Daniil Manaenkov, Michael R. McWilliams, and Aditi Thapar University of Michigan

The Current State of Detroit's Economy

The pace of job growth for Detroit residents has accelerated this summer and fall after a slowdown in the spring. We estimate that as of October 2019, the most recent month for which data is available, the number of employed Detroiters was 3,800 higher than the level one year ago using the Bureau of Labor Statistics' (BLS') "household survey" employment measure, which includes the self-employed. That performance translates into a growth rate of 1.7 percent, well outpacing the 1.1 percent growth rate of household employment in Michigan overall in that time.

There are not currently any official statistics for payroll employment at establishments in the City of Detroit, so Figure 1 shows Detroit's household employment count alongside two measures of payroll (also known as "establishment-based") employment for Wayne County. The first measure of Wayne County employment comes from the BLS' Current Establishment Survey (CES), which measures the number of payroll jobs located in Wayne County and does not include the self-employed. The second measure of Wayne County employment comes from the BLS' Quarterly Census of Employment and

_

¹ The Bureau of Labor Statistics publishes monthly estimates of the household employment count for Detroit residents on a non-seasonally-adjusted basis. We have seasonally adjusted the data ourselves using the Census Bureau's X-13 adjustment procedure.

Wages (QCEW), which is built from state unemployment insurance records.² The CES measure currently extends through October 2019, while the latest QCEW measure is for June 2019.

Both establishment-based employment measures for Wayne County show job growth through the second quarter of 2019, with the CES measure registering a 0.8-percent growth rate relative to the year-ago level and the QCEW measure registering stronger growth of 1.4 percent. Job growth in Wayne County has leveled off substantially in the CES measure recently, with a decline of 2,600 jobs from the second to third quarters. Wayne County's payroll employment count fell by 5,100 jobs in October, held down by the United Automobile Workers' (UAW's) strike against General Motors (GM). We expect the job count to rebound in the November numbers.

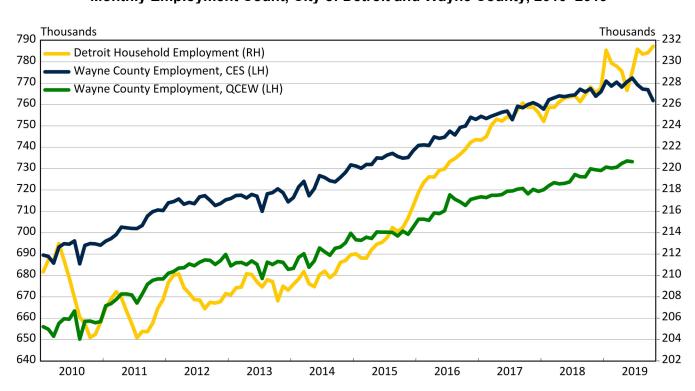


Figure 1
Monthly Employment Count, City of Detroit and Wayne County, 2010–2019

² Not all jobs are part of the unemployment insurance system, so the QCEW-based employment measure has run an average of 4.7 percent lower than the CES measure since 2010. The CES measure is also more timely than the QCEW measure. On the other hand, the QCEW measure provides an administrative count of employment and wages for jobs in the unemployment insurance system, whereas the CES measure is based on a survey. Therefore, the QCEW measure is less susceptible to revision and statistical noise than the CES measure.

We are currently working with the State of Michigan Department of Technology, Management, and Budget's Bureau of Labor Market Information and Strategic Initiatives to produce payroll employment and wage estimates for the City of Detroit economy based on the data underlying the QCEW. We believe that those statistics will provide a level of insight into the Detroit economy that is not currently available.

Turning to other measures of Detroit's labor market, the city's unemployment rate edged down slightly from an average of 8.6 percent in the third quarter of 2018 to an average of 8.5 percent in the third quarter of this year. The city's labor force grew from 247,500 to 251,900 in that time, an increase of 4,400 people, or 1.8 percent.³ We see the ongoing increase in the labor force as a bullish sign for the city's economy, which will need to draw additional workers into the workforce as the unemployment rate declines. Both the labor force and the number of unemployed fell sharply in October, but it is difficult to know how to interpret those trends in light of the UAW-GM strike.

Overall, the available data suggest that the economic recovery in Detroit is continuing. The flattening out of payroll employment growth in Wayne County is consistent with the broader trend in Michigan, and it is certainly a cause for concern. Nonetheless, the city-specific data that are available suggests continued growth in Detroit, and our broader forecast for the state economy is that growth should pick up over the next two years after a slowdown in the final three quarters of this year. Given the many challenges Michigan's and Detroit's economy have faced from the external environment this year, we consider that message to be good news.

Employment Outlook

Figure 2 displays calendar year employment growth since 2011 for both Detroit and Michigan overall, as well as our forecast through 2024. The data in Figure 2 come from the BLS household survey and measures the number of Detroit (and state) residents with jobs, including the self-employed. Between 2015 and 2018 (the post-bankruptcy period), city resident employment growth has outpaced Michigan

³ We have again seasonally adjusted the monthly estimates produced by the Bureau of Labor Statistics.

job growth by a cumulative 1.7 percent. With 2019 data available through October as of this writing, we project household employment to increase by 1.7 percent in 2019, which would outpace the 1.0 percent growth we currently forecast for the state of Michigan. We expect Detroit resident employment growth to dip slightly below that of the state in 2020, to 0.4 percent. In 2021–22, city resident employment outpaces the state by 0.3–0.5 percentage points, as large-scale projects such as brownfields redevelopment, the Gordie Howe International Bridge, and the new FCA plant boost city resident employment. In 2023–24, employment growth for city residents will converge with state household employment growth.

One key reason that city resident employment growth has outperformed the state in recent years, and is projected to continue doing so, is the relatively large pool of untapped labor in the city. Detroit's rate of labor force participation currently lags the state average by almost 14 percentage points, while the city unemployment rate is more than double that of the state. As labor markets continue to tighten, we expect city residents to benefit more than the rest of the state. Anecdotally, the increase in economic activity in downtown Detroit and elsewhere in the city is also creating a substantial number of new jobs, but until we have establishment-level employment data, as discussed earlier, the exact spillover effects will be hard to quantify.

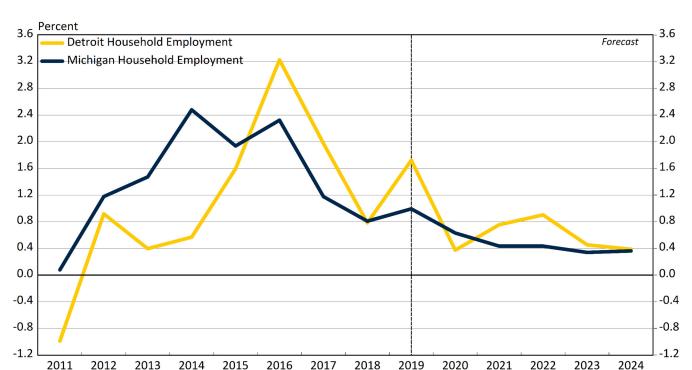


Figure 2
Annual Household Employment Growth, City of Detroit and Michigan, 2011–2024

Table 1 shows calendar-year historical data for city resident employment from the American Community Survey (ACS), as well as our projections.⁴ Between 2013 and 2018, city resident employment in the ACS averaged about 12,600 jobs higher than in the BLS survey, largely reflecting concept and coverage differences. The major advantage of the ACS data is that it contains industry-level detail.

We forecast ACS city resident employment to expand by about 9,900 jobs in 2020–24, after an initial step down in 2019, which largely reflects outsized employment gains for 2018. We project service sector jobs to account for a large portion of job growth over the forecast period, with financial, professional and business services, leisure and hospitality, and education and healthcare adding about 6,400 new jobs. Service sector employment growth in the city largely keeps pace with statewide gains over the same period. Transportation, warehousing, and utilities is another sector with considerable growth, adding about 1,700 jobs over 2020–24. In this sector, city employment growth outpaces that of the state, as

-

⁴ Tables 1 through 4 are located in the back of the document.

large new construction projects bring new businesses into the city and its surroundings. Major construction projects such as brownfields redevelopment and the Gordie Howe International Bridge boost construction employment, adding another 1,500 jobs for city residents.⁵ Manufacturing is projected to remain Detroit's second-largest sector, behind only education and health services, accounting for just under 16 percent of overall employment. City resident manufacturing employment, however, gains just 123 jobs between 2019 and 2024, even with the new FCA Mack Avenue plant coming online in 2021.⁶ The flat profile of manufacturing employment in our forecast outlook largely mirrors our projection for the state economy.

Table 2 shows historical data and our projections for ACS city employment by industry, tabulated by fiscal year. The data are interpolated from the calendar-year measures reported in Table 1.

Income Outlook

Figure 3 depicts our forecast of nominal household income growth in the city of Detroit along with our forecast of nominal personal income growth for the state of Michigan. We construct our measure of household income for the city using data from the American Community Survey, whereas our measure of Michigan Personal Income comes from the Bureau of Economic Analysis. Due to differences in the two sources' definitions of income, there is not an exact one-to-one correspondence between these two measures. It is also important to note that forecasted growth in Detroit household income is not the same as growth in Detroit income tax revenues due to differences between the tax base and the household income measurements.

⁵ We have adjusted our forecast of the city economy to reflect our expectation of the job gains for city residents associated with those projects.

⁶ We have adjusted our forecasts of the state and city economies to reflect the opening of the Mack Avenue plant, with employment effects beginning in 2021. We estimate that the adjustments increase projected employment in the manufacturing sector among Detroit residents by approximately 1,200 jobs by calendar year 2022. The slow employment growth we are forecasting in the manufacturing sector stems from our view that the national manufacturing sector faces several headwinds to growth, including slowing light vehicle sales, the strong exchange value of the dollar, and uncertainty arising from international trade tensions.

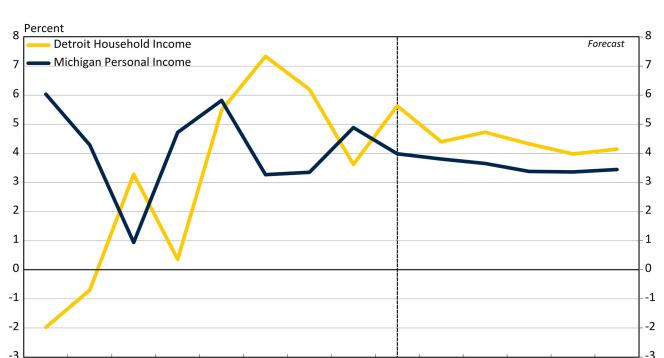


Figure 3
Annual Income Growth, City of Detroit and Michigan, 2011–2024

Table 3 contains our forecast of nominal resident income in Detroit on a calendar-year basis, while Table 4 contains our forecast on a fiscal-year basis. Between 2015 and 2018, household income in the city of Detroit grew by 5.7 percent per year on average. We expect household income in Detroit to grow by 5.6 percent in 2019, in line with its average growth over the previous four years. Wage and salary income, which counts for approximately 70 percent of overall household income, grew by 7.8 percent per year on average between 2015 and 2018. We expect wage and salary income to decelerate to a 5.9 percent pace in 2019 and subsequently to hover around 4.8–5.3 percent between 2020 and 2024. As a result, total household income growth decelerates from its forecasted 2019 level, but it remains between 4.0 and 4.7 percent per year between 2020 and 2024.

On average, household income in Detroit grows 0.9 percentage points per year faster than Michigan personal income over our forecast horizon. Part of that difference is likely due to the definitional differences between the two income concepts, as mentioned earlier. The remainder of the difference reflects more rapid improvement in Detroit's labor market relative to Michigan overall, including faster employment growth, which helps to boost the incomes of city residents.

Unemployment and Labor Force Participation Rates

Figure 4 shows our forecast for the unemployment rate in the City of Detroit and the state of Michigan. Detroit's unemployment rate was 12.2 percentage points higher than Michigan's in 2010, but that gap has narrowed substantially over the decade, reaching 4.9 percent in 2018. We expect the unemployment rate in the city to fall from an average of 9.0 percent in 2018 to an average 8.6 percent in 2019, a decline of 0.4 percentage points. We project Detroit's jobless rate will continue to edge down throughout the forecast period, reaching 7.9 percent by 2024, which would be 4.2 percentage points higher than our estimate for Michigan as a whole in that year. We forecast Detroit's unemployment rate to fall a bit more quickly than the state's due to the higher proportion of residents in the city who are either unemployed or not currently participating in the labor force. This difference in untapped labor should allow the city to benefit more than the state as labor markets continue to tighten.

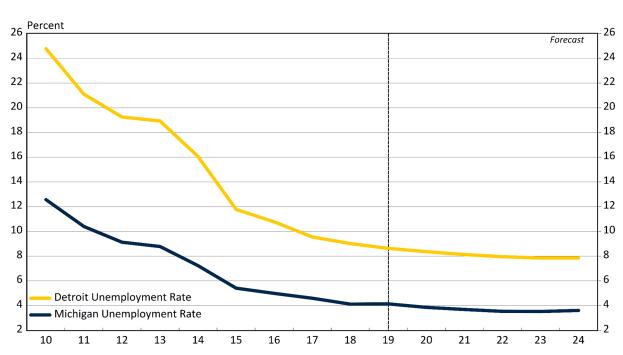


Figure 4
Annual Average Unemployment Rates, City of Detroit and Michigan, 2010–2024

Figure 5 illustrates our forecast for the labor force participation rate in Detroit and the state of Michigan. Overall, Michigan's labor force participation rate remains relatively flat throughout the forecast as the state's strong job opportunities and aging populace counterbalance each other. We predict that the labor force participation rate in Detroit will increase from 47.3 percent in 2018 to 48.5 percent in 2024

as new job opportunities pull residents back into the workforce. A handful of projects coming online should provide major sources of additional job opportunities for Detroit residents. Those projects include brownfields redevelopment, FCA's Mack Avenue plant, the modernization of FCA's Warren Truck Assembly plant, and the construction of the Gordie Howe International Bridge. More generally, however, the ongoing recovery in Detroit's economy and labor market will continue to create better employment opportunities for the city's residents.

Percent Percent 63.0 51.0 Detroit Labor Force Participation Rate (RH) Forecast Michigan Labor Force Participation Rate (LH) 62.5 50.5 50.0 62.0 61.5 49.5 49.0 61.0 60.5 48.5 48.0 60.0 47.5 59.5 59.0 47.0 58.5 46.5 58.0 46.0 57.5 45.5 45.0 57.0 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Figure 5
Annual Average Labor Force Participation Rates, City of Detroit and Michigan, 2010–2024

Concluding Thoughts

We expect the ongoing economic recovery of Michigan's largest city to continue throughout our forecast. Detroit's seasonally-adjusted unemployment rate fell from 18.7 percent in July 2013 to 7.5 percent in October 2019, a decrease of 11.2 percentage points from the time when the city filed for bankruptcy. Since its bankruptcy, Detroit has vastly improved its financial position, running budget

⁷ We have seasonally adjusted the monthly estimates of Detroit's unemployment rate produced by the Bureau of Labor Statistics.

surpluses for the past few years and doubling its rainy day fund. Despite that progress, Detroit's economy continues to face well-known challenges, including an elevated poverty rate and relatively low educational attainment among its residents. Although we do not currently anticipate either a national or a state recession over our forecast horizon, we do expect the pace of growth in Michigan to be substantially slower over the next four years than the pace earlier in the state's recovery period.

Despite those challenges, we are forecasting ongoing increases in Detroit's household income, residential employment, and labor force participation rate over the next several years, combined with a falling unemployment rate. We expect Detroit's ongoing recovery to form a key component of Michigan's economic growth through 2024.

Table 1Employment Among City of Detroit Residents
Number of Persons
Calendar Years

		Actual		Forecast						
	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Total Employment, BLS	220,368	224,714	226,473	230,371	231,233	232,979	235,080	236,145	237,057	
Annual Change	6,887	4,346	1,759	3,898	862	1,746	2,101	1,065	912	
Percent Change	(3.2)	(2.0)	(0.8)	(1.7)	(0.4)	(0.8)	(0.9)	(0.5)	(0.4)	
Total Employment, ACS	239,033	234,102	249,478	243,871	245,909	248,150	250,801	252,363	253,778	
Agricultural and Mining	937	625	1,069	940	960	981	1,002	1,023	1,045	
Construction	8,424	8,491	9,448	9,859	10,604	11,053	11,173	11,259	11,335	
Manufacturing	35,962	37,262	42,449	39,300	39,019	39,165	39,779	39,601	39,423	
Transportation and Utilities	13,735	14,296	18,378	18,152	18,321	18,734	19,175	19,520	19,848	
Retail Trade	23,178	22,849	22,327	22,449	22,484	22,546	22,605	22,616	22,598	
Wholesale Trade	5,068	3,775	4,800	4,341	4,324	4,306	4,285	4,249	4,214	
Information	4,389	3,693	2,944	3,438	3,425	3,410	3,395	3,379	3,361	
Financial Activities	12,016	13,336	10,559	12,200	12,483	12,698	12,894	13,076	13,252	
Professional and Business Services	25,312	24,666	27,941	26,695	26,751	27,277	27,810	28,342	28,876	
Education and Health Services	58,197	53,471	57,987	54,976	55,230	55,767	56,289	56,756	57,154	
Leisure and Hospitality	29,877	31,637	29,963	31,112	31,386	31,622	31,825	31,990	32,136	
Other Services	13,533	11,440	11,149	11,275	11,340	11,362	11,373	11,373	11,364	
Public Administration	8,405	8,561	10,464	9,133	9,581	9,230	9,196	9,177	9,171	
ADDENDA:										
Labor Force	246,990	248,453	248,928	252,130	252,333	253,610	255,397	256,277	257,253	
Labor Force Participation Rate (%)	47.6	47.3	47.3	47.9	47.8	48.0	48.2	48.3	48.5	
Unemployment	26,621	23,740	22,454	21,759	21,100	20,631	20,318	20,133	20,196	
Unemployment Rate (%)	10.8	9.6	9.0	8.6	8.4	8.1	8.0	7.9	7.9	

Table 2
Employment Among City of Detroit Residents
Number of Persons
Interpolated Fiscal Years (July 1–June 30)

		Actual		Forecast						
	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Total Employment, BLS*	216,862	222,862	225,622	228,478	230,937	232,029	234,072	235,686	236,620	
Fiscal Year Change*	5,413	5,999	2,760	2,857	2,459	1,092	2,043	1,615	933	
Fiscal Percent Change*	(2.6)	(2.8)	(1.2)	(1.3)	(1.1)	(0.5)	(0.9)	(0.7)	(0.4)	
Total Employment, ACS	229,939	236,752	241,832	247,508	244,399	246,991	249,518	251,659	253,089	
Agricultural and Mining	954	753	836	1,031	941	971	991	1,012	1,034	
Construction	7,466	8,501	8,948	9,667	10,229	10,868	11,136	11,219	11,298	
Manufacturing	33,171	36,604	40,134	41,216	38,954	39,036	39,492	39,740	39,512	
Transportation and Utilities	14,119	13,739	16,386	18,509	18,196	18,510	18,959	19,354	19,686	
Retail Trade	23,696	22,968	22,560	22,353	22,470	22,513	22,579	22,616	22,611	
Wholesale Trade	4,394	4,447	4,235	4,636	4,305	4,315	4,297	4,268	4,232	
Information	3,611	4,180	3,244	3,145	3,463	3,418	3,403	3,387	3,370	
Financial Activities	11,874	12,874	11,927	11,188	12,431	12,596	12,798	12,986	13,165	
Professional and Business Services	26,343	24,681	26,341	27,519	26,613	26,984	27,543	28,076	28,609	
Education and Health Services	55,703	55,917	55,622	56,748	54,882	55,482	56,032	56,530	56,964	
Leisure and Hospitality	27,695	31,093	30,838	30,416	31,306	31,508	31,728	31,911	32,065	
Other Services	11,833	12,713	11,156	11,190	11,314	11,354	11,369	11,374	11,370	
Public Administration	9,081	8,282	9,605	9,889	9,296	9,435	9,192	9,185	9,172	
ADDENDA:										
Labor Force*	243,879	248,004	248,582	250,546	252,352	252,872	254,528	255,888	256,753	
Labor Force Participation Rate (%)*	46.8	47.5	47.2	47.6	47.9	47.9	48.1	48.3	48.4	
Unemployment*	27,016	25,143	22,960	22,067	21,415	20,844	20,457	20,202	20,133	
Unemployment Rate (%)*	11.1	10.1	9.2	8.8	8.5	8.2	8.0	7.9	7.8	

^{*}Actual data through fiscal 2019. Fiscal year averages are interpolated from calendar year data. The interpolated estimates do not match historical fiscal year averages calculated from monthly data exactly.

Table 3
City of Detroit Resident Income
Millions of Nominal Dollars (Annual Percent Changes in Parentheses)
Calendar Years

	Actual			Forecast						
	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Total Resident Income	10,555	11,209	11,615	12,269	12,809	13,414	13,995	14,552	15,155	
	(7.3)	(6.2)	(3.6)	(5.6)	(4.4)	(4.7)	(4.3)	(4.0)	(4.1)	
Wage and Salary	7,317	7,418	8,016	8,488	8,916	9,387	9,878	10,354	10,872	
	(18.2)	(1.4)	(8.1)	(5.9)	(5.0)	(5.3)	(5.2)	(4.8)	(5.0)	
Other Household	226	249	250	261	281	305	319	315	314	
	(-7.2)	(10.3)	(0.4)	(4.2)	(7.7)	(8.6)	(4.6)	(-1.1)	(-0.3)	
Self-employment	275	389	289	307	316	326	337	348	360	
	(16.3)	(41.5)	(-25.6)	(6.1)	(3.0)	(3.2)	(3.2)	(3.4)	(3.3)	
Dividends, Interest, and Rental	176	222	232	244	250	271	284	306	329	
	(-44.4)	(26.0)	(4.7)	(5.1)	(2.2)	(8.4)	(5.1)	(7.7)	(7.4)	
Retirement	881	1,128	1,059	1,102	1,119	1,136	1,154	1,172	1,190	
	(-20.7)	(28.1)	(-6.2)	(4.1)	(1.5)	(1.5)	(1.6)	(1.6)	(1.5)	
Public Assistance	35	18	25	22	21	21	20	20	20	
	(3.8)	(-49.5)	(40.1)	(-9.9)	(-3.8)	(-3.4)	(-2.8)	(-1.6)	(-0.1)	
Social Security Transfers	1,266	1,431	1,422	1,499	1,556	1,617	1,647	1,677	1,707	
	(-6.7)	(13.1)	(-0.7)	(5.4)	(3.8)	(3.9)	(1.9)	(1.8)	(1.8)	
Supplemental Security	380	354	322	345	349	352	356	359	362	
	(10.5)	(-6.9)	(-8.9)	(7.2)	(1.0)	(1.0)	(0.9)	(0.9)	(0.9)	
ADDENDA:										
Total Resident Income in 2018\$	11,030	11,475	11,615	12,133	12,440	12,811	13,132	13,404	13,701	
	(5.7)	(4.0)	(1.2)	(4.5)	(2.5)	(3.0)	(2.5)	(2.1)	(2.2)	
CPI, Detroit (1982–84=100)	222.26	226.87	232.26	234.87	239.16	243.20	247.53	252.15	256.91	
	(1.6)	(2.1)	(2.4)	(1.1)	(1.8)	(1.7)	(1.8)	(1.9)	(1.9)	

Table 4
City of Detroit Resident Income
Millions of Nominal Dollars (Fiscal Year Percent Changes in Parentheses)
Interpolated Fiscal Years (July 1–June 30)

	Actual			Forecast					
	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Resident Income	10,185	10,902	11,412	11,933	12,542	13,109	13,708	14,272	14,848
	(6.8)	(7.0)	(4.7)	(4.6)	(5.1)	(4.5)	(4.6)	(4.1)	(4.0)
Wage and Salary	6,762	7,400	7,694	8,263	8,703	9,147	9,632	10,114	10,608
	(12.5)	(9.4)	(4.0)	(7.4)	(5.3)	(5.1)	(5.3)	(5.0)	(4.9)
Other Household	232	236	250	254	270	293	313	318	315
	(-6.4)	(1.7)	(6.0)	(1.5)	(6.2)	(8.6)	(6.9)	(1.4)	(-1.1)
Self-employment	254	340	345	291	312	321	331	342	354
	(42.5)	(33.7)	(1.4)	(-15.6)	(7.1)	(2.9)	(3.2)	(3.3)	(3.4)
Dividends, Interest, and Rental	252	190	229	239	246	260	277	295	318
	(-3.6)	(-24.7)	(20.9)	(4.1)	(3.3)	(5.4)	(6.9)	(6.3)	(7.7)
Retirement	987	994	1,106	1,075	1,112	1,128	1,145	1,163	1,181
	(-8.1)	(0.8)	(11.2)	(-2.8)	(3.5)	(1.4)	(1.5)	(1.6)	(1.6)
Public Assistance	35	26	20	24	22	21	20	20	20
	(8.9)	(-26.6)	(-21.9)	(18.5)	(-9.3)	(-3.2)	(-3.1)	(-2.2)	(-0.8)
Social Security Transfers	1,301	1,344	1,432	1,456	1,529	1,588	1,634	1,662	1,692
	(-5.2)	(3.3)	(6.6)	(1.7)	(5.0)	(3.9)	(2.9)	(1.7)	(1.8)
Supplemental Security	362	371	335	332	348	351	354	357	361
	(1.4)	(2.5)	(-9.7)	(-1.0)	(5.1)	(0.6)	(0.9)	(0.9)	(0.9)
ADDENDA:									
Total Resident Income in 2018\$	10,748	11,281	11,541	11,863	12,295	12,624	12,977	13,269	13,550
	(6.9)	(5.0)	(2.3)	(2.8)	(3.6)	(2.7)	(2.8)	(2.3)	(2.1)
CPI, Detroit (1982–84=100)*	220.19	224.73	229.81	233.22	237.25	241.16	245.33	249.80	254.52
	(0.2)	(2.1)	(2.3)	(1.5)	(1.7)	(1.7)	(1.7)	(1.8)	(1.9)

^{*}Fiscal year averages for Detroit CPI are not interpolated but are calculated from RSQE's Michigan quarterly history and forecast.