

Innovating Business

ECONOMIC IMPACT REPORT 2020



Table of Contents

Region Description	3
Demographics Overview	5
Population	6
Income	7
Education	7
Diversity	8
Workforce Characteristics	9
Labor Force/Labor Force Trends	9
Retirement Trends	10
Sterling Heights Labor Market Gap Analysis	13
Sterling Heights Labor Availability	15
Sterling Heights Labor Shed Analysis	18

Region Description

Sterling Heights, Michigan, is located in southeast Michigan, 15 miles north of Detroit, Michigan (35 minutes), and just off the coast of Lake St Clair. Sterling Heights is in Macomb County and is 45 miles northeast of Ann Arbor, Michigan (60 minutes), and 70 miles north of Toledo, Ohio (90 minutes).

Sterling Heights is home to 134,605 people with 64,635 jobs. Sterling Heights has a positive net commuter number of 1,175 workers. Area businesses and industry generated nearly \$7.9 billion in gross regional product (GRP) in 2020. The city has strong industry representation in manufacturing, specifically, automotive.

Over ten years, the city has been adding population which directly affects current and future workforce needs as well as the city's ability to attract new businesses. On pages two and three is a regional overview comparing Sterling Heights to the state and to its relevant neighboring geographies.



Table 1. Regional Overview 2020

	STERLING HEIGHTS	MICHIGAN
POPULATION		
Population	134,605	10,024,521
Median Age	40.6	39.7
Number of Households	48,304	3,238,079
Median Household Income	\$63,126 (2018)	\$54,938 (2018)
Per Capita Income	\$49,312 (2018)	\$47,158 (2018)
WORKFORCE		
Total Number of Firms	11,007	834,087
Jobs	64,682	4,825,906
Average Earnings	\$67,393	\$64,929
COL Adjusted Average Earnings	\$71,241	\$71,774
Unemployment	11,410	174,862
Completions	654	134,654
EDUCATIONAL ATTAINMENT		
Associate Degree or Higher (25+)	37.7%	38.0%
REGIONAL OVERVIEW		
GRP	\$7,907,005,758	\$540,597,396,477
Exports	\$38.69B	\$546.02B
Imports	\$30.02B	\$468.03B

Source: Emsi Dataset 2020.3 includes Class of Worker: QCEW, Non-QCEW, Self-Employed: U.S. Bureau of Economic Analysis; U.S. Census, 2011-2015 American Community Survey, 5-year Estimates

Demographics Overview

This section examines the characteristics of the resident population of Sterling Heights.

FIGURE 3. Demographic Overview, Sterling Heights

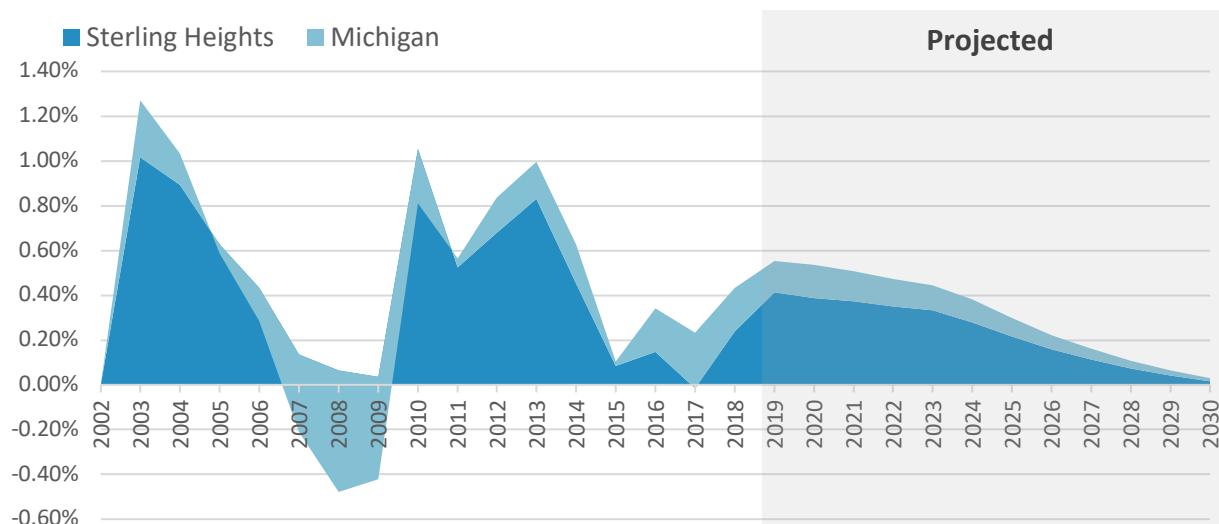
	STERLING HEIGHTS	MICHIGAN	UNITED STATES
Median Age	40.6	39.7	37.9
Age Dependency	57.6%	64.3%	63.1%
Population Change % 2014-2019	+1%	+1%	+4%
2015 Per Capita Income (Adjusted for inflation)	\$46,900	\$44,872	\$50,428
	↑	↑	↑
2018 Per Capita Incomes (Adjusted for Inflation)	\$49,312	\$48,423	\$54,526
2018 Median Household Income	\$63,126	\$49,576	\$53,890
Population Below Poverty Line	11.2%	14%	13.10%
EDUCATIONAL ATTAINMENT			
	Age 18-24 / 25+	Age 18-24 / 25+	Age 18-24 / 25+
Less than High School	11% / -	13% / -	13% / -
High School	29% / 28%	30% / 29%	31% / 27%
Some College or Associate Degree	47% / 9%	47% / 9%	46% / 8%
Bachelor's Degree or Greater	14% / 18%	10% / 17%	11% / 19%
Graduate Degree or Greater	- / 10%	- / 11%	- / 12%

Population

Demographics can explain what types of industries and services will thrive in a given area. For instance, an older population relies more heavily upon health care support services, restaurants, and other service-based businesses, while young populations require schools and childcare services. The total population in Sterling Heights has increased by .8% in the past five years, while the state's population grew by about 0.7%. Despite this recent positive trend, the Sterling Heights population is expected to grow at a slower rate over the next five years (Figure 1).

The patterns described below directly impact current and future workforce needs. At first glance, such stagnation and decline could appear to weaken the economic base and create skill shortages.

FIGURE 4. Year-Over-Year % Change in Population, 2003-2030



Source: Emsi Dataset 2020.3

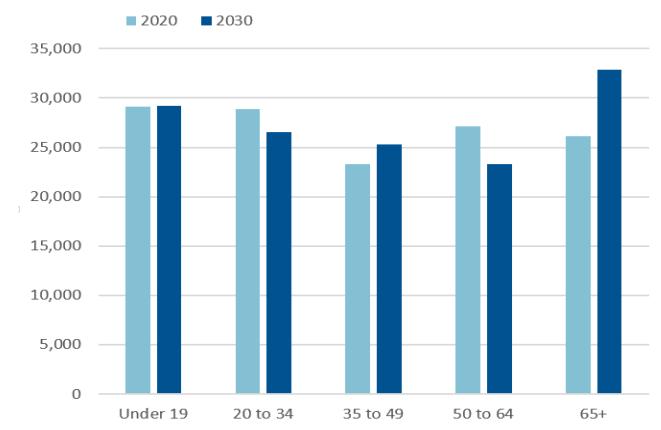
The data shows that while the 65 and older cohort continues to grow, as is much of the case nationally, there is anticipated mild growth in the 35-49 cohort. Unfortunately, the 20-34 still appears to dwindle. It is important that the city continues to invest in parks and recreation and support innovative mixed-use projects to attract a younger family and overall younger population of people.

TABLE 3. Population by Age Group

Sterling Heights	
134,605	.8%
2019 Population	Population Growth for the last 5 Years
1.3% of State	State Growth 0.7%

Source: Emsi Dataset 2020.3

FIGURE 5. Population by Age Group, 2020-2030



Income

The median income of households in Sterling Heights was \$63,126 in 2018, approximately 14.9% above the state's median income. Sterling Heights' per capita income (\$30,030) is lower than the state's per capita income (\$30,336) by approximately 1%.

Education

Long-term changes in educational attainment cause structural change in the economy. Regional increases in educational attainment in the past decade can be considered a structural change with a permanent impact on the labor market.

In the 18 to 24-year-old age group, 47% of Sterling Heights residents have either completed some college or hold an associate degree, compared to 47% statewide and 45% nationally. Additionally, only 13% of residents have earned a bachelor's degree, which is just above the national and state averages, which are both 10%.

Comparatively, in the 25 and over age group, 9% of Sterling Heights residents have an associate degree. This is on-par with state and national averages, which are 9% and 8%, respectively. In this same age group, 28% of Sterling Heights residents have either a bachelor's degree, graduate degree, or higher. Again, this is similar to the state and national averages, which are 28% and 32%, respectively.

Diversity

Diversity in the workforce can be a driving factor in helping businesses appeal to larger markets and customer preferences. The variety of background and experiences that can be found in diverse employee groups often brings more creativity into the workplace. Many local economies have economic development efforts that seek to attract a diverse population base in efforts to increase local entrepreneurship and grow local creative endeavors, such as in the arts.

Being a more urban area, Sterling Heights comprises a slightly more diverse resident base than less populated, rural regions, of the state. Almost 20% of the region classifies themselves as ethnic or racial minorities and 74% of the foreign-born residents are of Asian and Oceanic descent.

TABLE 4. Population by Race and Ethnicity, 2019

	Estimate	% of Total Population
Total	134,605	100%
By Race		
White alone	107,668	80.3%
Asian alone	11,056	8.25%
Black or African American alone	8,621	6.43%
Two or More Races	2,855	2.13%
All Other Races	3,885	2.89%
Diversity Breakdown	Estimate	% of Total Foreign-born
Foreign-born	35,818	26.71%
Europe	7,307	20.40%
Asia & Oceania	26,505	74%
Americas	1,611	4.50%

Source: Emsi Dataset 2020.3



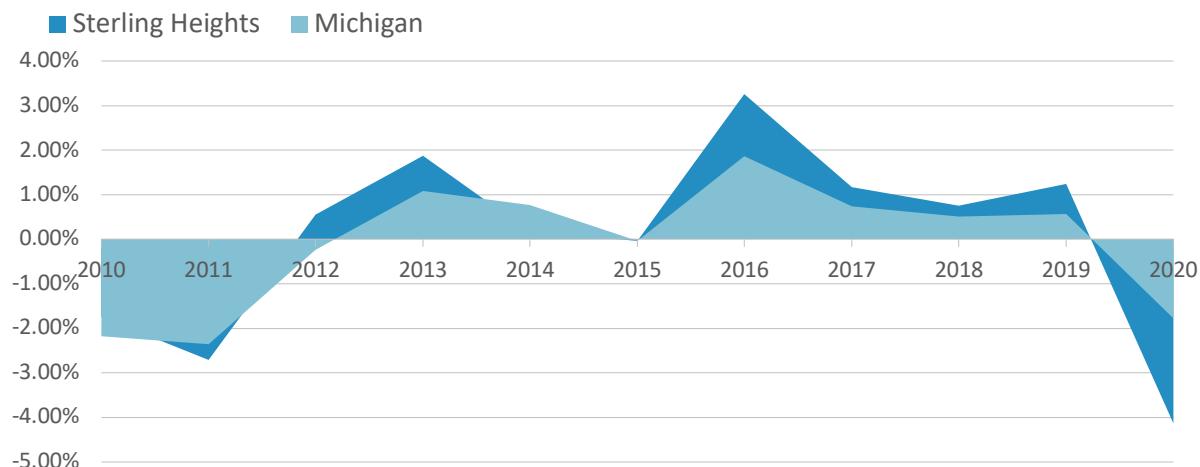
Workforce Characteristics

The labor force is composed of people age 16 and over in the civilian noninstitutionalized population, including those classified as unemployed. Understanding labor force composition, particularly in terms of skills availability, provides some indications of an economy's dynamism. For example, some economists project lower rates of economic growth in the coming years driven largely by slowing growth of the labor force.

Labor Force/Labor Force Trends

Sterling Heights had nearly 62,543 people in the labor force in 2019. That is 1.7% less than in 2016, or roughly 1,057 residents. Pre-recession, the labor force was constantly in a cycle of ebb and flow, averaging -0.4% annually. But the recession took its toll on residents; the number of people in the labor force slowed throughout the recession and continues to do so. The slower growth is attributed partly to the sluggish labor force growth in Sterling Heights over the past decade.

Figure 6. Year-Over-Year % Change in Labor Force, 2010-2020



Source: U.S. Department of Labor, Bureau of Labor Statistics

Figure 7. Number in Labor Force
Sterling Heights (2009-2020)

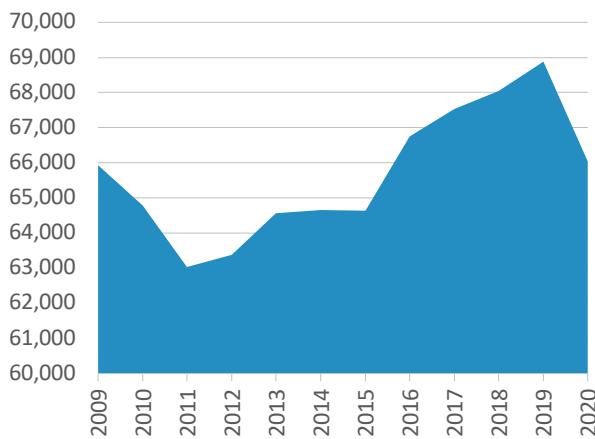
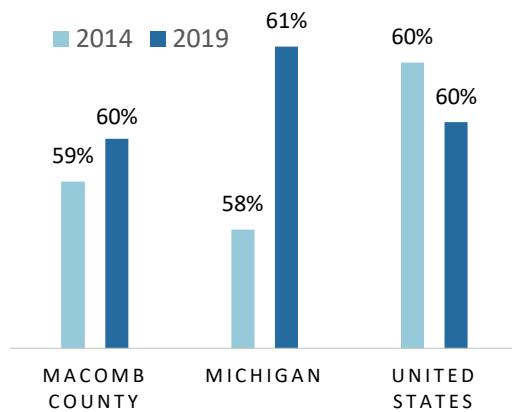


Figure 8. Labor Force
Participation Rates



Retirement Trends

One of several reasons labor force participation has been dropping so dramatically in recent years is the rising number of retirees. This demographic shift, coined as the “Silver Tsunami,” is causing a structural shift in the labor force. This trend is causing businesses, workforce boards, economic development agencies, and governments to flounder. There are an estimated 60 million ‘Baby Boomers’ in the process of retiring (nationwide), to be replaced by an estimated 40 million ‘Millennials’. However, the labor force participation rate for Millennials (who are entering the workforce) is significantly lower than the labor force participation rate of the Baby Boomers when they were at the age of just entering the workforce. Economists continue to ferret out the details of changing patterns (remaining in school longer, marrying later) that are impacting Millennial labor force participation rates. In the interim, attracting Millennial workers through locating closer to urban centers, providing more flexible work arrangements, and offering greater amenities at the office have become popular employer workforce recruiting tactics.

One-quarter of all people working in Macomb County are age 55 and older, and 26% of manufacturing workers are over the age of 55. That means that the largest industry in the city has slightly more than a quarter of its workers set to retire in the next ten years.

TABLE 5. Largest Employing Industries and Share of Workers age 55 and over (2016)

Macomb County	55+ (% of Industry)
All Industries	25%
Manufacturing	26%
Retail Trade	22%
Health Care and Social Assistance	24%
Government	27%
Professional, Scientific, and Technical Services	29%

Source: U.S. Census Quarterly Workforce Indicators

To further illustrate the retiring population in this region, the depiction below shows where the most concentrated changes in the 55-and-over cohort will take place over the next five years.

FIGURE 9. Numeric Change in Age 55 and older Population, by County (2017-2022)

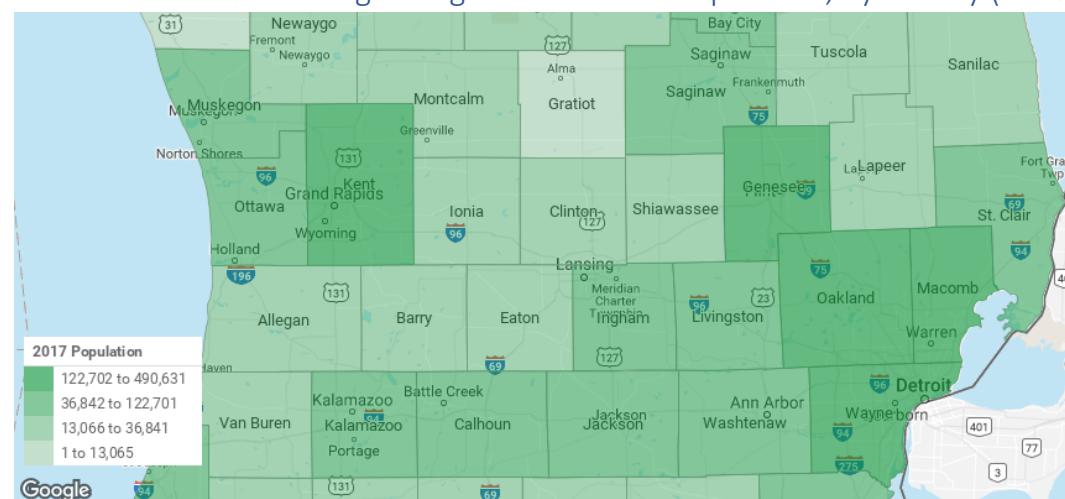


TABLE 6. Population Age 55 and over by Counties around Region, 2019-2025

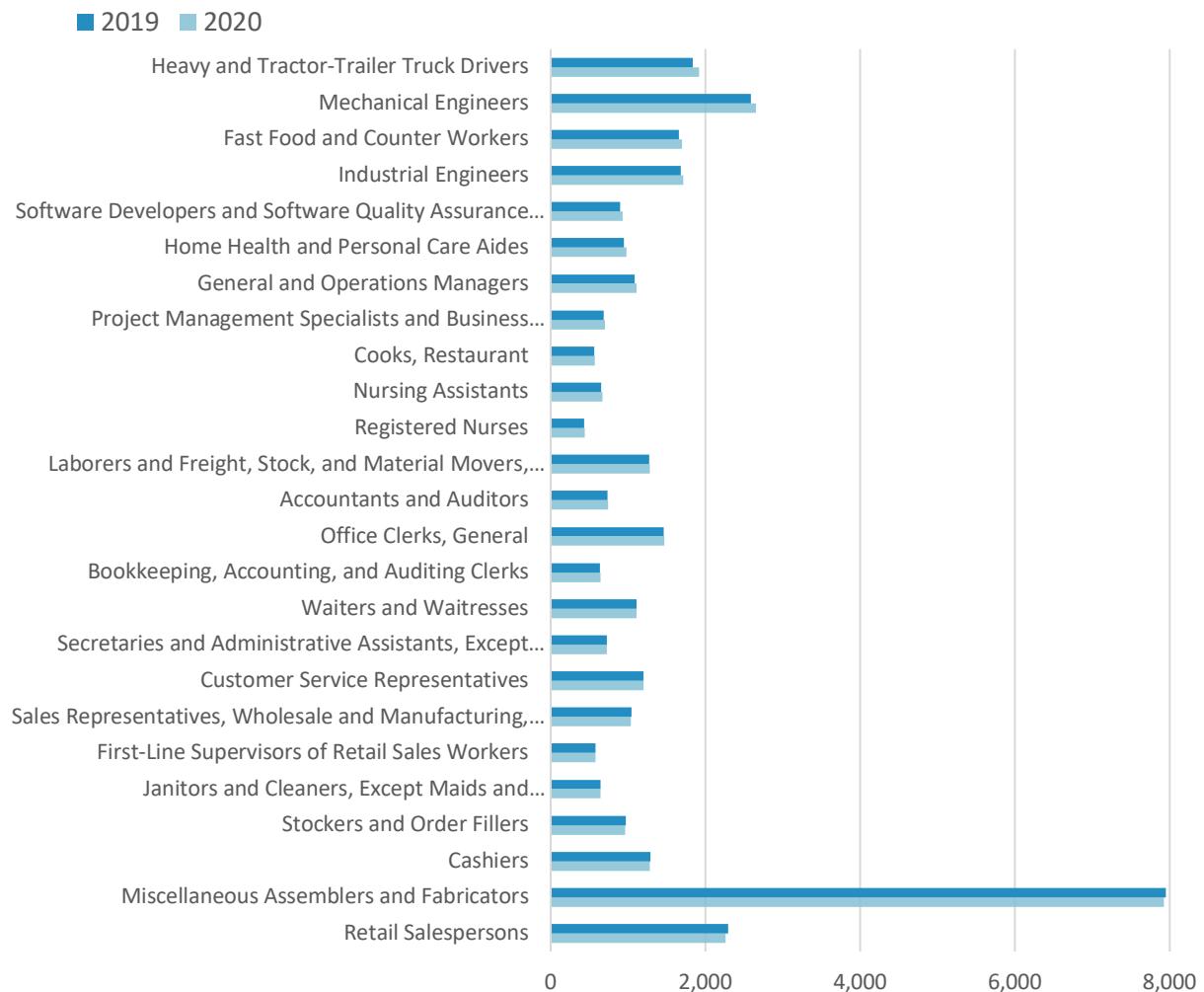
County Name	2017 Population	2022 Population	Change	% Change
Wayne County, MI	507,694	527,874	20,181	4%
Oakland County, MI	398,539	428,074	29,534	7%
Macomb County, MI	278,931	299,858	20,927	8%
Kent County, MI	174,043	189,684	15,641	9%
Genesee County, MI	130,806	137,107	6,301	5%
Washtenaw County, MI	95,503	104,388	8,885	9%
Ottawa County, MI	80,655	90,225	9,569	12%
Ingham County, MI	74,025	79,056	5,031	7%
Kalamazoo County, MI	71,520	74,958	3,437	5%
Livingston County, MI	65,466	73,550	8,083	12%

Source: Emsi Dataset 2020.3

Labor Market Gap Analysis

Of the top 25 fastest growing occupations in Sterling Heights, 15 have a higher wage than \$15 per hour. From 2019 to 2020, eight of the fastest-growing occupations in the region grew by 1% or more, with the fastest-growing occupations—in the retail sector—growing by 1.11%. This is a pre-pandemic data set, so undoubtedly retail is no longer growing.

FIGURE 10. Fastest Growing Occupations by Numeric Job Growth, Sterling Heights (2019-2020)



Source: Emsi Dataset 2017.3

TABLE 7. Fastest Growing Occupations in Sterling Heights, Ranked by Numeric Job Growth (2019-2020)

OCCUPATIONS	2019 JOBS	2020 JOBS	CHANGE IN JOBS (2019-2020)	% CHANGE	2019 MEDIAN HOURLY EARNINGS
Retail Salespersons	2,264	2,289	25	1.11%	\$11.58
Miscellaneous Assemblers and Fabricators	7,925	7,949	24	0.30%	\$17.16
Cashiers	1,281	1,291	9	0.73%	\$11.09
Stockers and Order Fillers	965	973	8	0.82%	\$13.18
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	644	647	3	0.40%	\$11.58
First-Line Supervisors of Retail Sales Workers	579	581	2	0.35%	\$17.87
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,040	1,042	2	0.18%	\$30.43
Customer Service Representatives	1,198	1,199	1	0.07%	\$15.64
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	729	725	(3)	-0.45%	\$17.74
Waiters and Waitresses	1,112	1,108	(4)	-0.33%	\$9.88
Bookkeeping, Accounting, and Auditing Clerks	641	637	(4)	-0.58%	\$17.84
Office Clerks, General	1,465	1,461	(4)	-0.28%	\$15.92
Accountants and Auditors	740	732	(8)	-1.14%	\$31.03
Laborers and Freight, Stock, and Material Movers, Hand	1,281	1,272	(9)	-0.67%	\$14.81
Registered Nurses	442	432	(10)	-2.18%	\$32.91
Nursing Assistants	665	655	(10)	-1.51%	\$14.45
Cooks, Restaurant	573	562	(11)	-1.93%	\$11.76
Project Management Specialists and Business Operations Specialists, All Other	704	688	(16)	-2.33%	\$34.27
General and Operations Managers	1,107	1,088	(19)	-1.71%	\$50.51
Home Health and Personal Care Aides	977	949	(28)	-2.82%	\$10.91
Software Developers and Software Quality Assurance Analysts and Testers	929	901	(28)	-3.01%	\$44.96
Industrial Engineers	1,716	1,678	(37)	-2.18%	\$44.94
Fast Food and Counter Workers	1,700	1,659	(41)	-2.43%	\$10.13
Mechanical Engineers	2,655	2,584	(72)	-2.69%	\$47.07
Heavy and Tractor-Trailer Truck Drivers	1,914	1,838	(75)	-3.94%	\$19.81

Source: Emsi Dataset 2020.3

Labor Availability

To analyze the current skills and occupations of the people residing within an area, we used data from the Census LEHD program coupled with Census' new Longitudinal Origin-Destination Employment Statistics (LODES) program. We then matched this information with occupational data using staffing patterns.

Resident workers are where workers live in comparison to where they work. The first table below provides a breakdown of occupations filled by residents of Sterling Heights. Using a standardized scale from the U.S. Bureau of Labor Statistics, the second table provides a list of the top skills of Sterling Heights residents based on the top 25 occupations.

TABLE 8. Occupations held by Sterling Heights Residents, Ranked by Number of Resident Workers (2019)

DESCRIPTION	2019 JOBS	2019 RESIDENT WORKERS	2016 NET COMMUTERS	ANNUAL OPENINGS	MEDIAN HOURLY EARNINGS
Retail Salespersons	2,289	2,716	(427)	344	\$11.58
Miscellaneous Assemblers and Fabricators	7,949	2,241	5,708	1,152	\$17.16
Fast Food and Counter Workers	1,659	1,913	(254)	367	\$10.13
Cashiers	1,291	1,698	(407)	247	\$11.09
Customer Service Representatives	1,199	1,566	(367)	164	\$15.64
Office Clerks, General	1,461	1,525	(64)	180	\$15.92
Registered Nurses	432	1,443	(1,011)	33	\$32.91
Waiters and Waitresses	1,108	1,371	(263)	217	\$9.88
Mechanical Engineers	2,584	1,265	1,319	250	\$47.07
Home Health and Personal Care Aides	949	1,173	(224)	176	\$10.91
Stockers and Order Fillers	973	1,168	(195)	133	\$13.18
Heavy and Tractor-Trailer Truck Drivers	1,838	1,166	672	285	\$19.81
Laborers and Freight, Stock, and Material Movers, Hand	1,272	1,153	119	191	\$14.81
General and Operations Managers	1,088	1,087	1	114	\$50.51
Software Developers and Software Quality Assurance Analysts and Testers	901	992	(91)	99	\$44.96
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	647	990	(343)	87	\$11.58
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,042	858	184	111	\$30.43
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	725	796	(71)	86	\$17.74
Nursing Assistants	655	759	(104)	83	\$14.45
Industrial Engineers	1,678	741	937	155	\$44.94
Accountants and Auditors	732	734	(2)	77	\$31.03
First-Line Supervisors of Retail Sales Workers	581	712	(131)	67	\$17.87
Cooks, Restaurant	562	696	(134)	90	\$11.76
Project Management Specialists and Business Operations Specialists, All Other	688	664	24	82	\$34.27
Bookkeeping, Accounting, and Auditing Clerks	637	656	(19)	79	\$17.84

Source: Emsi Dataset 2020.3

Table 9. Top Skills of Sterling Heights Residents Based on Occupations Held (2019)

Top Skills	
Customer Service	Research
Management	Team Building
Sales	Communications
Leadership	Strategic Planning
Microsoft Office	Strategic Thinking
Microsoft Excel	Team Leadership
Microsoft Word	Time Management
Microsoft PowerPoint	Sales Management
Operations	Complex Problem Solving
Public Speaking	Business Process Improvement

Source: Emsi Dataset 2020.3

Based on resident worker data, the following industries match the occupations held by Sterling Heights residents based on inverse staffing patterns:

Table 10. Industries Most Likely to Match Skills of Sterling Heights Residents (2019)

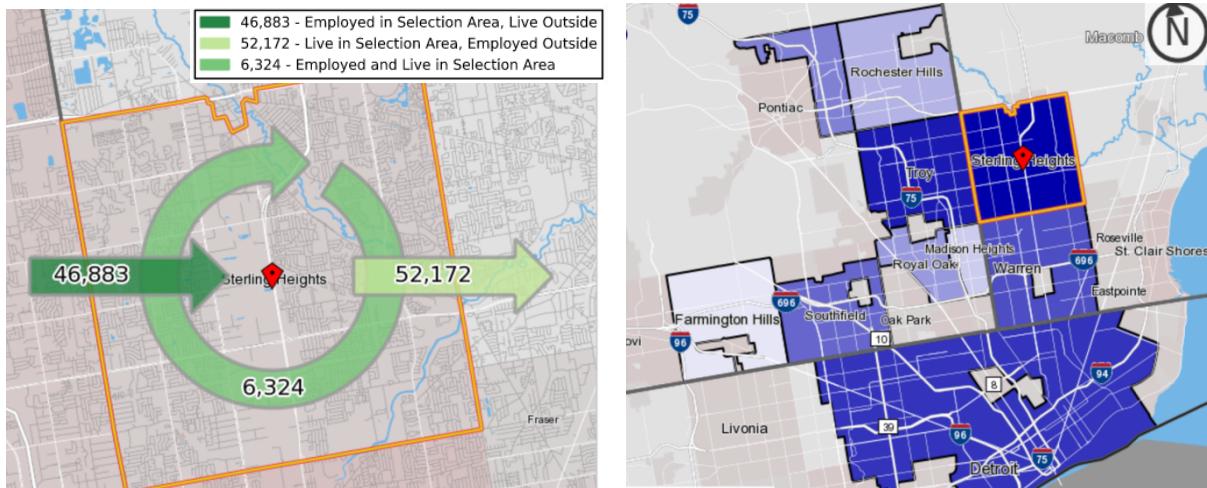
Light Truck and Utility Vehicle Manufacturing	Limited-Service Restaurants	Other Building Equipment Contractors
Motor Vehicle Metal Stamping	Electrical Contractors and Other Wiring Installation Contractors	Machine Shops
Engineering Services	Temporary Help Services	New Car Dealers
Motor Vehicle Transmission and Power Train Parts Manufacturing	Local Government, Excluding Education and Hospitals	General Freight Trucking, Local
Elementary and Secondary Schools (Local Government)	Federal Government, Civilian, Excluding Postal Service	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
Full-Service Restaurants	Nursing Care Facilities (Skilled Nursing Facilities)	Offices of Physicians (except Mental Health Specialists)
Automobile Manufacturing	Department Stores	Corporate, Subsidiary, and Regional Managing Offices

Source: Emsi Dataset 2020.3

Labor Shed Analysis

Commuting data show a powerful view of the workforce and where people in the workforce live and work. More than 89% of Sterling Heights residents commute outside the city for work according to Census' LEHD on the Map program. The map below shows the cities where Sterling Heights residents work and are listed in the table.

Figure 11. Commuting Patterns, Sterling Heights



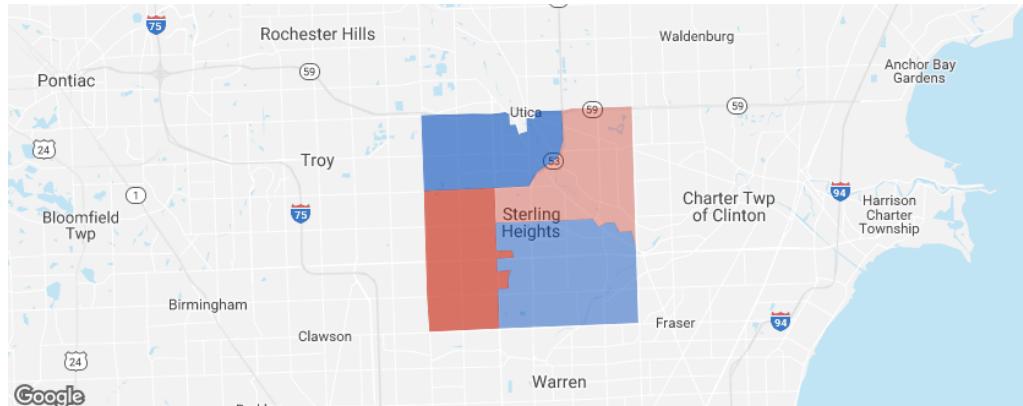
ALL JOBS (2014)	COUNT	SHARE	ALL JOBS (2014)	COUNT	SHARE
Sterling Heights, MI	6,953	11.5%	Madison Heights, MI	1,615	2.7%
Troy, MI	6,449	10.6%	Rochester Hills, MI	1,607	2.6%
Warren, MI	5,341	8.8%	Royal Oak, MI	1,597	2.6%
Detroit, MI	5,325	8.8%	Farmington Hills, MI	975	1.6%
Southfield, MI	2,419	4%	All Other Locations	26,260	43.3%
Auburn Hills, MI	2,101	3.5%			

Note that Emsi jobs and commuting data do not match the Census on the Map data (Figure 2.1). Emsi uses county-level data while the Census uses drive-time radii. Emsi also uses the place of residence data derived from the Census LODES data, specifically from Origin and Destination data, Regional Area Characteristics, and Workforce Area Characteristics data which Emsi applies to the occupation job figures for context. This data is referred to here as "Resident Workers."

Resident workers are defined as where workers live in comparison to where they work. Net commuters are the minimum number of workers who commute in or out of the region to satisfy the regional numbers of jobs held. A positive number (shown in BLUE in the figure below) describes commuters entering a region, while a negative number (shown in RED) describes commuters leaving a region.

	Jobs	Resident Workers	Net Commuters
Sterling Heights	64,635	63,455	1,175

Figure 12. Net Commuting Patterns of Sterling Heights Residents (2016)



Source: Emsi Dataset 2017.3

Table 11. Net Commuting Patterns of Sterling Heights Residents (2016)

ZIP	ZIP NAME	2014 JOBS	2019 JOBS	2014-2019 CHANGE	2014-2019 % CHANGE	2014 NET COMMUTERS	2019 NET COMMUTERS
	Total	69,483	64,635	(4,848)	(7%)	8,760	1,180
48314	Sterling Heights, MI (in Macomb county)	14,311	15,218	907	6%	4,216	5,062
48312	Sterling Heights, MI (in Macomb county)	28,760	22,368	(6,392)	(22%)	13,080	5,890
48311	Sterling Heights, MI (in Macomb county)	106	118	12	11%	10	20
48313	Sterling Heights, MI (in Macomb county)	13,429	13,459	30	0%	(2,961)	(3,766)
48310	Sterling Heights, MI (in Macomb county)	12,876	13,473	597	5%	(5,585)	(6,026)

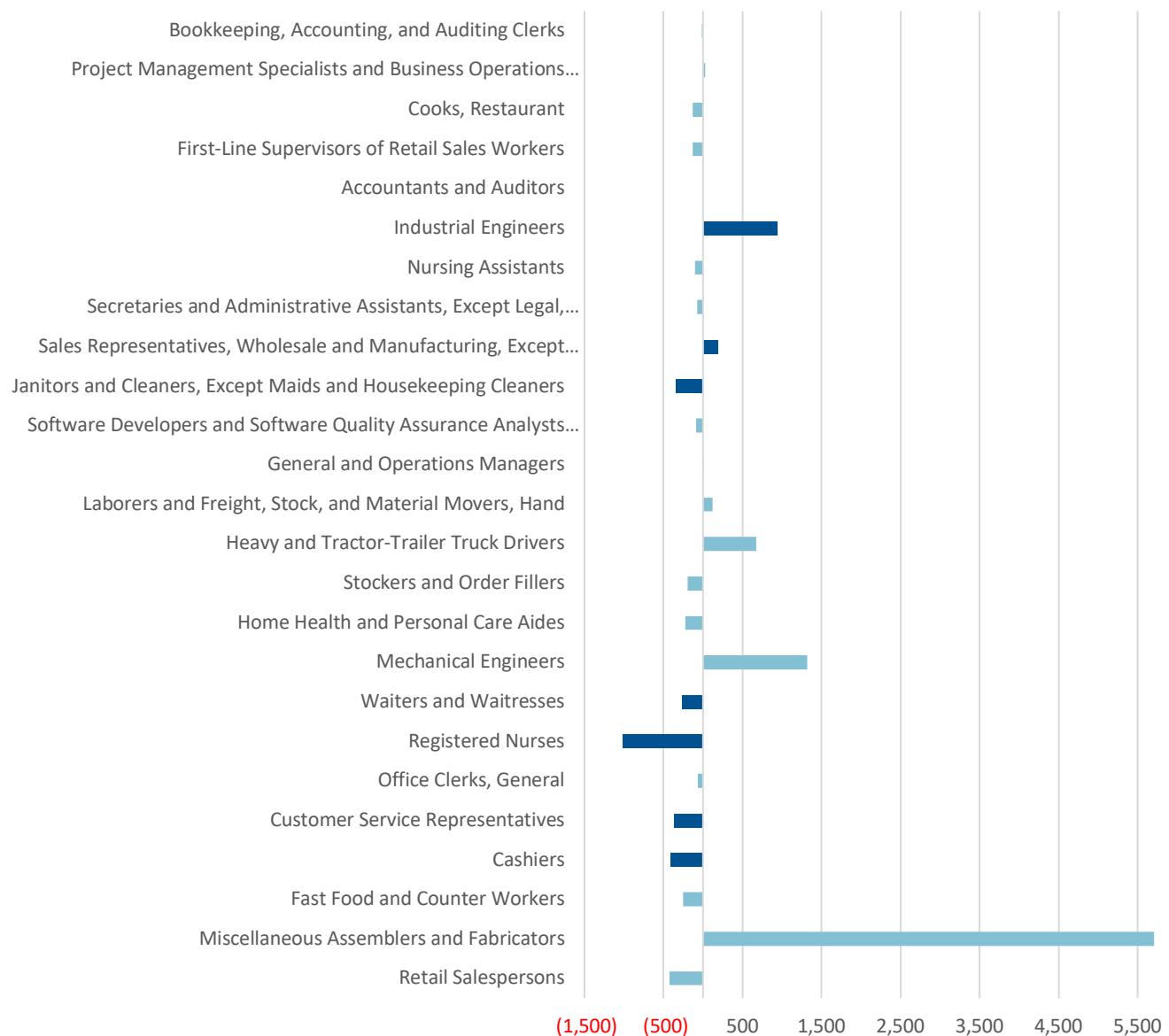
Source: Emsi Dataset 2020.3

Net commuter data allow economic development professionals to understand which occupations and skills are leaving the area or vice versa. The top 25 largest occupations in Sterling Heights are still gaining about 4,857 workers to businesses inside the area.

The top occupations leaving the area for work elsewhere are waiters and waitresses, retail salespersons, and cashiers. Businesses in the area may have difficulty recruiting the more highly skilled workers amongst these groups.

The jobs most people are commuting into the area for are Miscellaneous Assemblers and Fabricators, Mechanical Engineers, Industrial Engineers, and Heavy and Tractor-Trailer Truck Drivers.

Figure 13. Net Commuters of the Top 25 Largest Occupations in Sterling Heights (2019)



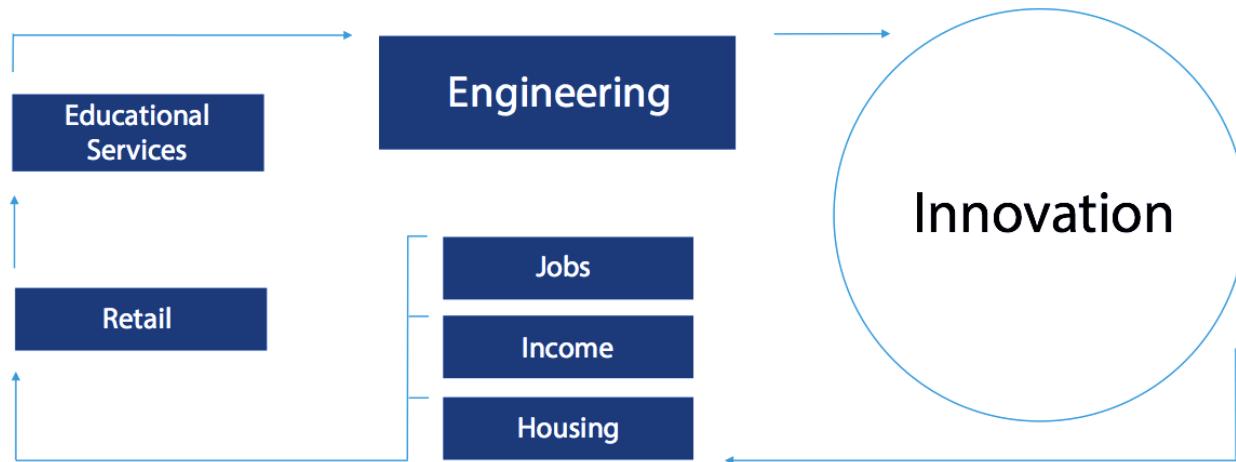
Source: Emsi Dataset 2020.3

Table 12. Net Commuters by Occupation, Sterling Heights (2019)

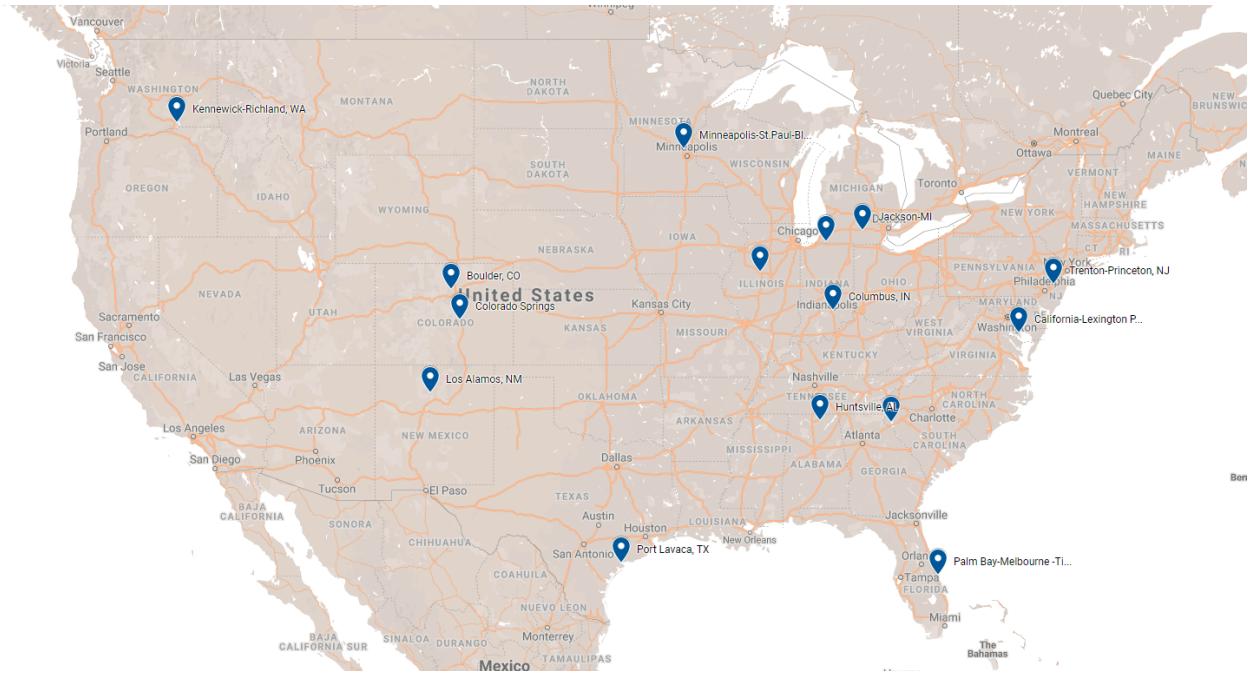
SOC	DESCRIPTION	2019 JOBS	2019 RESIDENT WORKERS	2016 NET COMMUTERS	ANNUAL OPENINGS	MEDIAN HOURLY EARNINGS
	All Occupations	34,941	30,083	4,857	4,869	
41-2031	Retail Salespersons	2,289	2,716	(427)	344	\$11.58
51-2098	Miscellaneous Assemblers and Fabricators	7,949	2,241	5,708	1,152	\$17.16
35-3023	Fast Food and Counter Workers	1,659	1,913	(254)	367	\$10.13
41-2011	Cashiers	1,291	1,698	(407)	247	\$11.09
43-4051	Customer Service Representatives	1,199	1,566	(367)	164	\$15.64
43-9061	Office Clerks, General	1,461	1,525	(64)	180	\$15.92
29-1141	Registered Nurses	432	1,443	(1,011)	33	\$32.91
35-3031	Waiters and Waitresses	1,108	1,371	(263)	217	\$9.88
17-2141	Mechanical Engineers	2,584	1,265	1,319	250	\$47.07
31-1128	Home Health and Personal Care Aides	949	1,173	(224)	176	\$10.91
53-7065	Stockers and Order Fillers	973	1,168	(195)	133	\$13.18
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,838	1,166	672	285	\$19.81
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,272	1,153	119	191	\$14.81
11-1021	General and Operations Managers	1,088	1,087	1	114	\$50.51
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	901	992	(91)	99	\$44.96
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	647	990	(343)	87	\$11.58
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,042	858	184	111	\$30.43
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	725	796	(71)	86	\$17.74
31-1131	Nursing Assistants	655	759	(104)	83	\$14.45

Source: Emsi Dataset 2020.3

Impact of Engineering Jobs



Peer Regions



2019 Location Quotient

Location quotient (LQ) is basically a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region “unique” in comparison to the national average. In more exact terms, a location quotient is a ratio that compares a region to a larger reference region according to some characteristic or asset.

LQ for Industries and Industry Clusters Industry LQ is a way of quantifying how “concentrated” an industry is in a region compared to a larger geographic area, such as the state or nation. The basic uses of industry LQs (and, by extension, for clusters and occupations as well) include these:

- A location quotient **greater** than one indicates that the regional market has a **higher** concentration of employment in a particular industry compared to the national average.
- To determine which industries make the regional economy unique.
- To identify the “export orientation” of an industry and identify the most export-oriented industries in the region.
- To identify emerging export industries beginning to bring money into the region.
- To identify endangered export industries that could erode the region’s economic base.

