GENESEE COUNTY & SHIAWASSEE COUNTY

WIN Labor Market Report

Report Contents

About This Report

The Workforce Intelligence Network for Southeast Michigan (WIN) partnership is a collaboration of Michigan Works! Agencies (MWAs) and community colleges across a 16-county region in Michigan. The counties in the WIN partnership include: Genesee, Hillsdale, Huron, Jackson, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, Saint Clair, Sanilac, Shiawassee, Tuscola, Washtenaw, and Wayne, along with the City of Detroit.

This report highlights labor market information and real-time job posting data for Genesee and Shiawassee Counties. A workforce overview is provided within, identifying key components of the area's labor market including labor force status, demographic, and commuting data. WIN's analysis of online job postings, a proxy for employer demand, is a pioneering method for tracking the health of the labor market. This data is used to provide a real-time demand overview, detailing posting related findings for both employers and job seekers. WIN's data and research team analyzes job posting data at the occupation level within eleven customized occupation groups built using specific Standard Occupational Classification (SOC) codes to provide more contextualized information. Occupation groups combine data for jobs with similar skillsets, educational attainment, and experience requirements, which provides a more in-depth snapshot of the current labor market when compared to traditional industry data based upon North American Industry Classification System (NAICS) codes. Occupation outlook sections utilize these metrics to identify and display the top in-demand jobs, their entry requirements, and their earning potential.

WIN produces a 16-county region report quarterly using data from all eleven occupation groups. A report focused on the city of Detroit is also produced quarterly, focusing on five occupation groups related to Detroit's labor market. County reports are produced annually and focus on five occupation groups chosen to reflect the labor market specific to the county.

This report analyzes data from the full year 2019 in Genesee and Shiawassee Counties and includes summative data for January through December of 2019. For Genesee and Shiawassee Counties, business and finance, engineers and designers, health care, information technology, and skilled trades and technicians groups are analyzed.

For more information pertaining to the labor market in southeast Michigan, the custom occupation groups within this report, or any other workforce-related data projects, please visit www.WINintelligence.org or contact the data and research team directly at research@WINintelligence.org. For more information about jobseeker resources and our partners, please visit www.micareertraining.org.

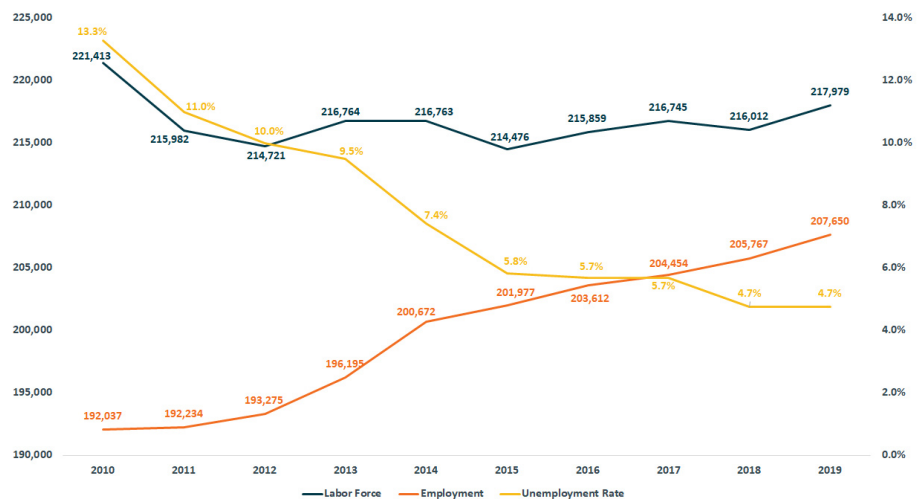**WIN** WORKFORCE INTELLIGENCE NETWORK

State of the Labor Market in Genesee and Shiawassee Counties

During 2019, the annual labor force and employment figures in Genesee and Shiawassee Counties have each increased by 0.9 percent, up since 2018 annual levels. During Q4 2019 in Genesee and Shiawassee Counties, the labor force increased by 0.6 percent, a 1,262-worker increase from Q3 2019. Comparatively, employment increased by 0.8 percent, equaling to a 1,630 worker increase in employment through Q4. The Q3 2019 unemployment rate of 4.2 percent decreased by 0.2 percentage points, with Q4 2019 reporting an unemployment rate of 4.0 percent. Employer demand for health care workers is on the rise among the five key groups analyzed for these counties, with 10,820 job postings during 2019. Heavy and Tractor-Trailer Truck Drivers is the top demanded occupation this year, accounting for 8,918 postings in 2019.

Annual Labor Market Information

The labor force in Genesee and Shiawassee Counties has grown, increasing by 1,966 individuals, between 2018 and 2019 annual figures. Employment also increased by 1,883 workers between 2018 and 2019. As the increase in employment accounted for most, but not all, of the sustained increase in labor force, unemployment increased by 0.8 percent or 83 workers. The annual unemployment rate held steady at 4.7 percent between 2018 and 2019.

Annual Labor Force, Employment, Unemployment Rate
2010–2019

Data: BLS | Analysis: Workforce Intelligence Network

Quarterly Employer Demand Overview

Genesee and Shiawassee counties followed similar demand patterns to the rest of the region in 2019. Quarter by quarter, online job postings hit record high levels during Q2 and Q3 2019. After hitting a peak of 12,732 ads during July 2019, postings steadily declined throughout the rest of the year. Demand in December ultimately reported about 1,200 fewer postings than in January 2019.

Monthly Posting Analysis, Genesee and Shiawassee Counties
Annual 2019
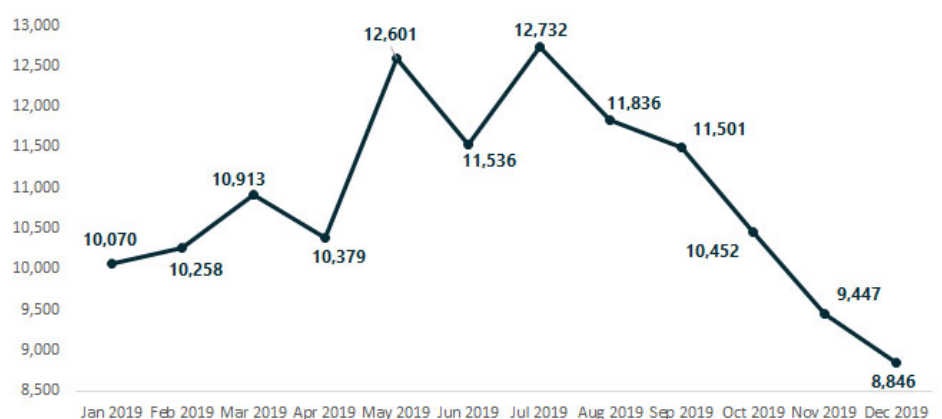
Data: Emsi | Analysis: Workforce Intelligence Network

Record high employer demand in Q2 and Q3 2019, especially in Health Care, drives 21.5 percent posting growth between 2018 and 2019.

During 2019, there were 61,467 job postings in Genesee and Shiawassee Counties, 10,893 more than during 2018. With a total of 10,820 postings in 2019, Health care occupation group garnered the greatest demand. The top posted job titles in 2019 include Truck Drivers, Commercial Driver's License (CDL) Drivers, Registered Nurses, Retail Sales Associates, and Customer Service Representatives (Office and Administrative Support). For more information about in-demand occupations and their entry requirements, see page 9.

Top 5 Posting Occupation Groups
Annual 2019

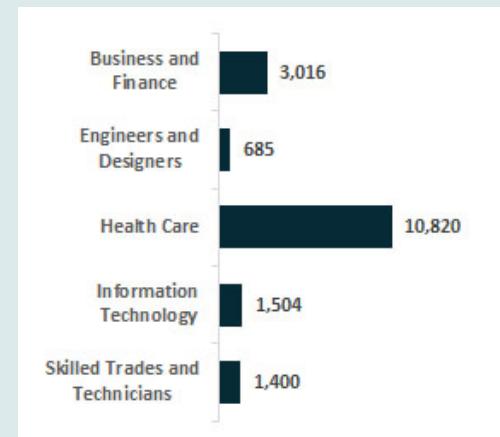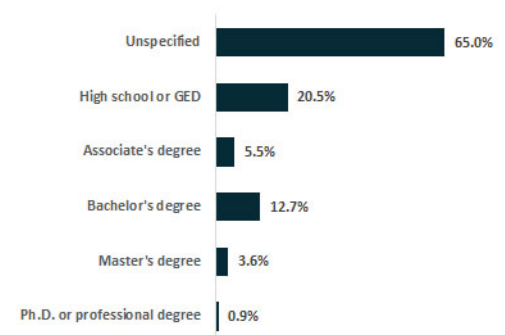| Occupation Group	Postings
Business and Finance	3,016
Engineers and Designers	685
Health Care	10,820
Information Technology	1,504
Skilled Trades and Technicians	1,400

Job postings made by employers in Genesee and Shiawassee Counties indicate a high school diploma or equivalent remains the most in-demand minimum education level during 2019.

Of the 61,467 unique postings in Genesee and Shiawassee Counties during 2019, 12,575 (20.5 percent of those stating education requirements) required a high school diploma or equivalent, while 11,194 postings (18.2 percent) required a college degree. An additional 9,982 postings (16.3 percent) required an advanced degree. The high demand for health care roles within the counties drives this high demand for workers with at all education levels.

Education Levels In-Demand
Annual 2019

Education Level	Percent
Unspecified	65.0%
High school or GED	20.5%
Associate's degree	5.5%
Bachelor's degree	12.7%
Master's degree	3.6%
Ph.D. or professional degree	0.9%

Quarterly Labor Market Data

	4th Quarter 2018	1st Quarter 2019	2nd Quarter 2019	3rd Quarter 2019	4th Quarter 2019	Change from 3rd Quarter 2019	Percent Change from 3rd Quarter 2019	Change from 4th Quarter 2018	Percent Change from 4th Quarter 2018
Labor Force	215,522	217,848	220,030	216,223	217,485	1,262	0.6%	1,963	0.9%
Employment	204,845	207,143	208,212	207,200	208,830	1,630	0.8%	3,985	1.9%
Unemployment	10,678	10,705	11,818	9,022	8,655	-367	-4.1%	-2,023	-18.9%
Unemployment Rate	5.0%	4.9%	5.4%	4.2%	4.0%	-0.2%	na	-1.0%	na

Note: Monthly data averaged by quarter Data: Bureau of Labor Statistics

Employment in Genesee and Shiawassee Counties is 207,650, an increase of 1,883 workers since 2018.

Following small growth fluctuations in the labor force through 2019, during the fourth quarter, participation increased slightly. During Q4 2019, the labor force figure was 217,485 individuals, up 1,262 individuals from 216,223 individuals recorded in Q3, a 0.6 percent increase. Following the trend of the labor force, employment grew by 1,630 workers, an increase of 0.8 percent. Unemployment for the county decreased by 367 workers, a 4.1 percent decrease since Q3 2019. Similarly, the unemployment rate also fell by 0.2 percentage points, for a Q4 unemployment rate of 4.0 percent. For more information about this year's unemployment rate and other labor market indicators, see page 4.

Data: Emsi | Analysis: Workforce Intelligence Network

Labor Force, Employment, and Unemployment

The annual labor force in Genesee and Shiawassee Counties has fluctuated around 215,000 individuals yearly since 2015, while employment has shown steady growth. The labor force change from annual 2018 to annual 2019 is an increase of 1,966 individuals, or 0.9 percent. Employment in the county also rose by 1,883 workers since 2018. Unemployment for Genesee and Shiawassee Counties, recorded with 10,246 unemployed workers in annual 2018, rose 0.8 percent, an increase of 83 workers, bringing 2019 annual unemployment up to 10,329 workers. The unemployment rate decreased by 5.7 percentage points, leading to an annual 2019 unemployment rate of -0.9 percent.

Labor Force, Employment, Unemployment Rate
1990-2019
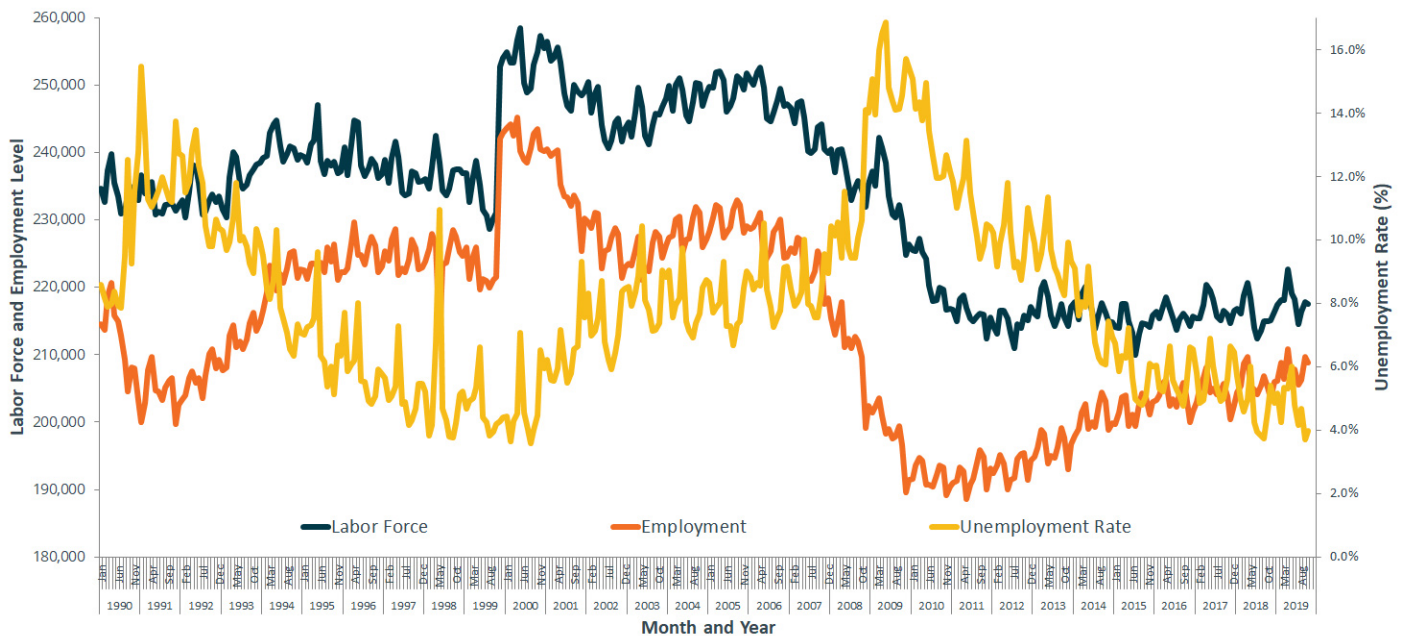
Data: BLS | Analysis: Workforce Intelligence Network

Annual Labor Market Data
2010 - 2019

	2010 Annual	2011 Annual	2012 Annual	2013 Annual	2014 Annual	2015 Annual	2016 Annual	2017 Annual	2018 Annual	2019 Annual	Change from 2018	Percent Change from 2018
Labor Force	221,413	215,982	214,721	216,764	216,763	214,476	215,859	216,745	216,012	217,979	1,966	0.9%
Employment	192,037	192,234	193,275	196,195	200,672	201,977	203,612	204,454	205,767	207,650	1,883	0.9%
Unemployment	29,376	23,748	21,446	20,569	16,091	12,499	12,248	12,291	10,246	10,329	83	0.8%
Unemployment Rate	13.3%	11.0%	10.0%	9.5%	7.4%	5.8%	5.7%	5.7%	4.7%	4.7%	0.0%	na

Data: Bureau of Labor Statistics

Population Demographics

According to the data from the Census Bureaus' most recent 2018 ACS Five Year estimates, during 2018, 477,854 people were living in Genesee and Shiawassee Counties. The sex of the populace was split almost evenly, with 50.6 percent of the population identifying as female, and the other 49.4 percent identifying as male. Much of the population identified as white (94.4 percent) with the second largest number of individuals identifying as black or African American (2.4 percent). The county skews more toward the middle to older-aged population than the surrounding region; 68.3 percent of population was over the age of 24, compared to 31.7 percent under the age of 25.

477,854
People in Genesee and Shiawassee Counties
0.3% Decrease from 2017

Population Race Demographics

- White, 94.4%
- Black or African American, 2.4%
- American Indian or Alaska Native, 0.3%
- Asian, 0.6%
- Native Hawaiian or Other Pacific Islander, 0.0%
- Other Race, 0.5%
- Two or More Races, 1.8%
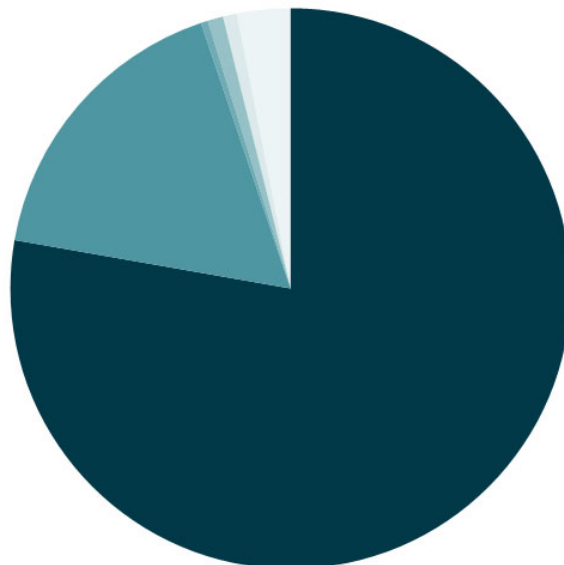
Population Gender Demographics

51% Females

49% Males

0   10   20   30   40   50   60   70   80   90   100

Population Age Demographics

| Age 14 and Under 18.6% | Age 15-24 13.1% | Age 25-54 37.4% | Age 55+ 30.9% |

Data: American Community Survey 5-Year Es mates | Analysis: Workforce Intelligence Network
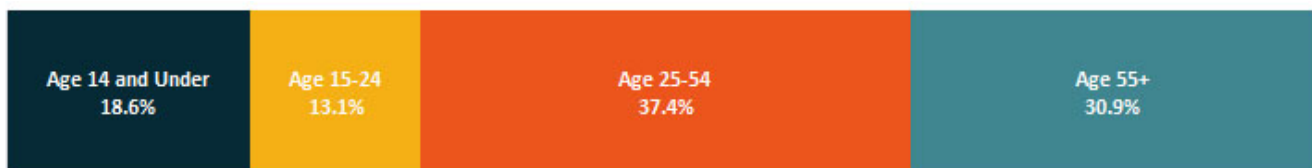
Labor Market Demographics

During 2018, the most recent census year, there were about 221,762 people in the labor force, either working or looking for work in Genesee and Shiawassee Counties. Resident employment totals 201,622 workers or just under half, 42.2 percent, of the total population in Genesee and Shiawassee Counties. The highest unemployment rates in 2018 were seen in those aged 24 years old or younger, accounting for an unemployment rate of 44.2 percent for males and 36.8 percent for females. Overall, males in the county have a higher unemployment rate than females, with 9.7 percent and 8.4 percent respectively, for 2018. Black or African American job seekers have a difficult time finding employment, facing an unemployment rate of 21.6 percent, while Native American job seekers report an unemployment rate of 12.6 percent.

Civilian Labor Force by Demographic Group			
Demographic Group	**Civilian Labor Force**	**Total Employment**	**Total Unemployment**	**Unemployment Rate**
Total Population 16 +	221,762	201,622	20,140	9.1%
Sex				
Male 16+	113,405	102,379	11,026	9.7%
16-19	5,231	3,918	1,313	25.1%
20-24	12,008	9,714	2,294	19.1%
25-54	73,160	66,853	6,307	8.6%
55-64	17,872	16,956	916	5.1%
65 Plus	5,134	4,938	196	3.8%
Female 16+	108,357	99,243	9,114	8.4%
16-19	5,317	4,181	1,136	21.4%
20-24	11,779	9,967	1,812	15.4%
25-54	69,397	64,274	5,123	7.4%
55-64	17,664	16,724	940	5.3%
65 Plus	4,200	4,097	103	2.5%
Race				
White	179,305	167,448	11,999	6.7%
Black / African	34,328	26,883	7,398	21.6%
Native American	605	530	76	12.6%
Asian	2,118	2,043	77	3.6%
Native Hawaiian / Pacific Islander	72	72	0	0.0%
Some Other Race	1,083	993	90	8.4%
Two or More Races	4,346	3,750	599	13.8%
Ethnicity				
Hispanic	7,269	6,600	628	8.6%

Data: American Community Survey 5-Year Es mates | Analysis: Workforce Intelligence Network

Current Workforce Demographics

In 2019, the workforce had a total of 155,456 individuals working in Genesee and Shiawassee Counties. A slight majority (53.1 percent or 82,579 workers) were female, while 46.9 percent (72,877 workers) of the workforce was male. Most workers in the county identified as white, accounting for 77.8 percent of the workforce, while black or African American workers accounted for 14.6 percent of the workforce. Those identifying as having a Hispanic or Latino ethnicity accounted for 3.7 percent. Much of the workforce in Genesee and Shiawassee Counties (63.0 percent) are between the ages of 25 through 54, while 22.1 percent of workers are 55 and older.

Workforce Race and Ethnicity Demographics

- White, 77.8%
- Black or African American, 14.6%
- Hispanic or Latino, 3.7%
- Asian, 1.9%
- Two or More Races, 1.6%
- American Indian or Alaska Native, 0.4%
- Native Hawaiian or Other Pacific Islander, 0.0%
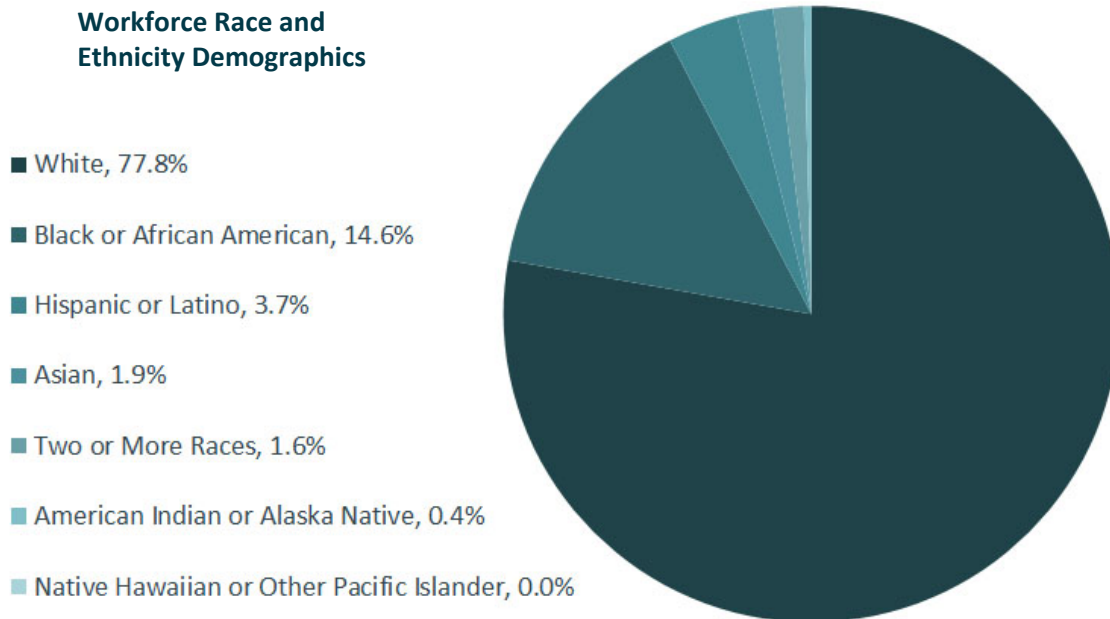
Workforce Gender Demographics

47% Males

53% Females

| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
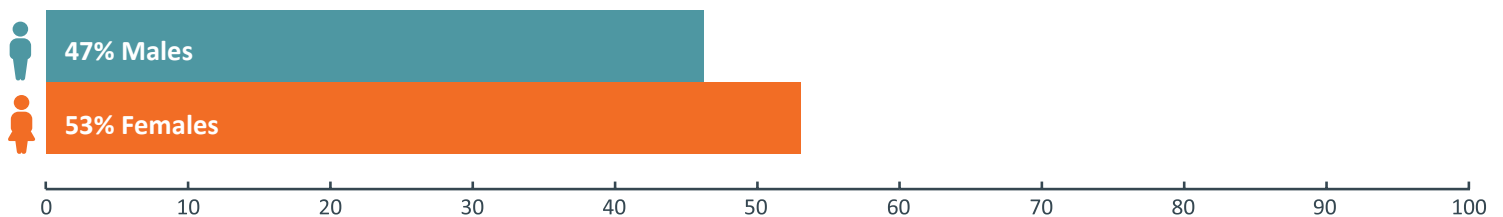
Workforce Age Demographics

Age 14-24	Age 25-54	Age 55+
15.0%	63.0%	22.1%

Data: Emsi | Analysis: Workforce Intelligence Network

Regional Commuting Patterns

According to the most recent OnTheMap data set available from the Census Bureau, during 2015, the region's workforce consisted of 171,301 residents. 86,267 (50.4 percent) of the residents lived and worked within the two-county region, while the remaining 85,040 residents (49.6 percent) traveled outside of the region for work. There were 141,771 workers employed in the region during 2015. Of those, 55,504 workers (39.2 percent) lived outside of the region's borders and commuted in. From this information, we can see that Genesee and Shiawassee Counties are a net exporter of jobs, with more workers leaving the area for employment than inwardly commuting.

Where Genesee and Shiawassee Residents Work

Where Genesee and Shiawassee Workers Live

Data: U.S. Census OnTheMap, 2015 | Analysis: Workforce Intelligence Network

Top Posted Jobs
2019

Occupation	Postings
Heavy and Tractor-Trailer Truck Drivers	8,918
Registered Nurses	3,437
First-Line Supervisors of Retail Sales Workers	2,207
Retail Salespersons	2,207
Light Truck or Delivery Services Drivers	1,455
Customer Service Representatives	1,132
First-Line Supervisors of Food Preparation and Serving Workers	1,025
Combined Food Preparation and Serving Workers, Including Fast Food	936
Speech-Language Pathologists	929
Taxi Drivers and Chauffeurs	879
Maintenance and Repair Workers, General	730
Postsecondary Teachers	674
Childcare Workers	656
Cashiers	630
Stock Clerks and Order Fillers	619
Insurance Sales Agents	611
First-Line Supervisors of Office and Administrative Support Workers	576
Personal Care Aides	535
Physicians and Surgeons, All Other	520
General and Operations Managers	498

Typical Entry Education
- No formal educational credential
- High school diploma or equivalent
- Postsecondary nondegree award
- Bachelor's degree
- Master's or doctoral degree

Top Posted Jobs: Annual 2019

Heavy and Tractor-Trailer Truck Drivers is the top posted occupation for 2019, with 8,918 unique online job postings. The high-demand occupation only requires a postsecondary nondegree award for entry. Registered Nurses, which typically require a bachelor's degree, and First-Line Supervisors of Retail Sales Workers, which require only a high school diploma or equivalent, round out the top three demanded occupations with 3,437 unique postings and 2,207 postings respectively. Other in-demand jobs that also require no formal education or a high school diploma or equivalent coupled with short-term on-the-job training include Retail Salespersons and Light Truck or Delivery Services Drivers.

Data: Emsi | Analysis: Workforce Intelligence Network

Top Posted Entry-Level Jobs
2019

Occupation	Postings
Heavy and Tractor-Trailer Truck Drivers	2,217
Registered Nurses	1,683
Taxi Drivers and Chauffeurs	787
First-Line Supervisors of Retail Sales Workers	747
Light Truck or Delivery Services Drivers	355
Customer Service Representatives	266
Retail Salespersons	254
First-Line Supervisors of Food Preparation and Serving Workers	224
Licensed Practical and Licensed Vocational Nurses	214
Postsecondary Teachers	211
Insurance Sales Agents	195
Social and Human Service Assistants	173
Medical and Health Services Managers	171
First-Line Supervisors of Office and Administrative Support Workers	147
Speech-Language Pathologists	147
Physical Therapists	146
Occupational Therapists	139
Medical Assistants	137
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	135
Automotive Service Technicians and Mechanics	120

Typical Entry Education
- No formal educational credential
- High school diploma or equivalent
- Postsecondary nondegree award
- Bachelor's degree
- Master's or doctoral degree

Top Posted Entry-Level Jobs: Annual 2019

Entry-level jobs, accounting for 24.5 percent of postings in Genesee and Shiawassee Counties for 2019, require zero to two years of previous experience. About half of the top 10 entry level occupations, which are dominated by customer service and TDL positions, require no formal education or a high school diploma or equivalent. Those who enter the workforce with a high school diploma or equivalent are heavily demanded among entry level occupations, accounting for 26.0 percent of entry level postings. Heavy and Tractor-Trailer Truck Drivers were the top posted entry-level occupation with 2,217 postings requiring zero to two years of experience.

Data: Emsi | Analysis: Workforce Intelligence Network

Employer Demand by City

Top In-Demand Qualifications

- Commercial Driver's License (CDL)
- Licensed Practical Nurse
- Certified Nursing Assistant
- Bachelor of Science in Nursing (BSN)
- Critical Care Registered Nurse (CCRN)
- Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP)
- Nurse Practitioner
- Automotive Service Excellence (ASE) Certification
- Associates Degree in Nursing
- Transportation Worker Identification Credential (TWIC) Card

Top In-Demand Skills

- Merchandising
- Restaurant Operation
- Selling Techniques
- Nursing
- Cash Register
- Customer Service
- Sales
- Management
- Communications
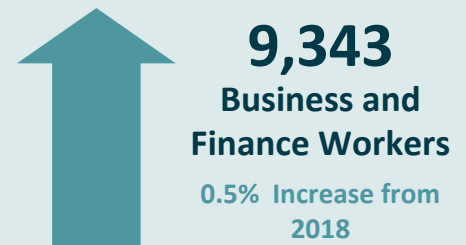- Leadership

Top Posting Employers*

- CRST International, Inc.
- HealthCare Employment Network
- McDonald's Corporation
- Uber Technologies, Inc.
- Dollar General Corporation
- Sunbelt Staffing, LLC
- Care.com, Inc.
- Merrill Area Public Schools Inc
- McLaren, Inc.
- Teach For America, Inc.

*Employer names are listed as they appear in online job postings.*

Introduction

Jobs in the business and finance occupation group can be found in nearly every type of establishment throughout the region. These workers need strong mathematical and accounting abilities along with project management and planning skills. Workers in this occupation group are in high demand in southeast Michigan, with about 21,000 job openings annually.

9,343
Business and Finance Workers

0.5% Increase from 2018

Employment Over Time
2001–2019

Worker Gender Demographics

49.2% Female | 50.8% Male
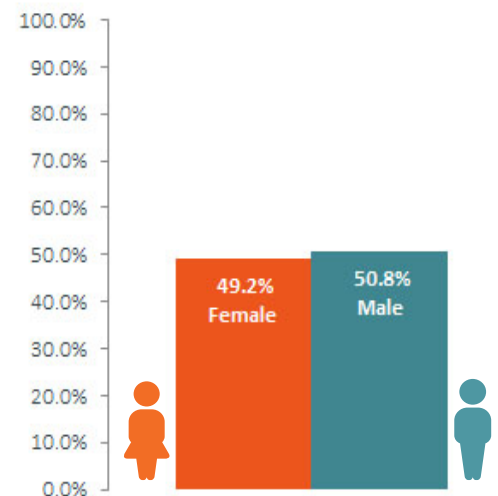
Business and Finance Worker Demographics

According to the most recent Emsi data set available (2019), the business and finance occupation group has increased by 43 workers since 2018, resulting in 9,343 workers in 2019. Half or 50.8 percent of the working population identify as male, while 85.7 percent of workers identified as white, indicating very little diversity regarding race. Only 4.9 percent of the working population in business and finance is under the age of 25, compared to the 25-54 age group, which accounts for 67.4 percent of the workforce.

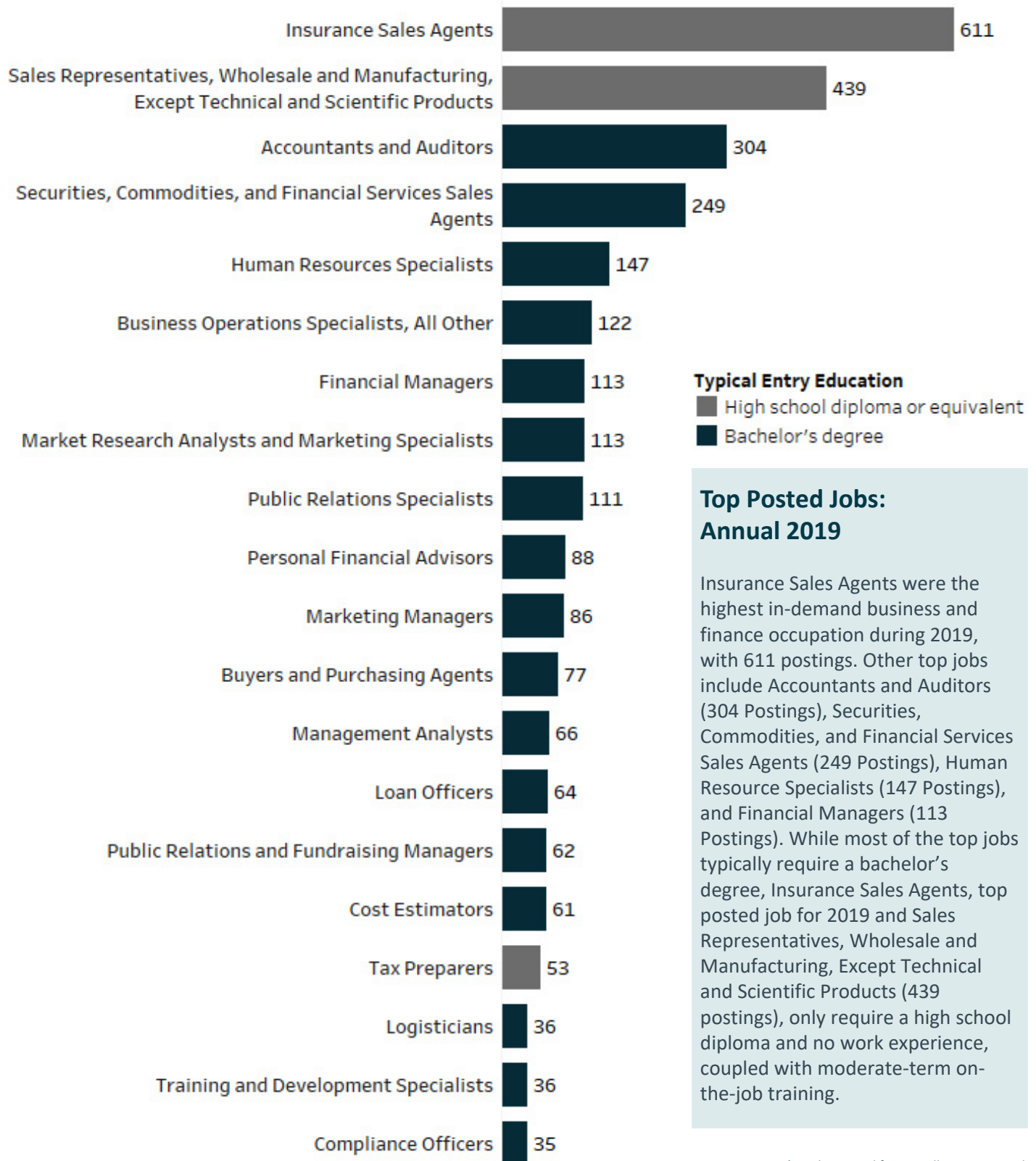### Race and Ethnicity Demographics

85.7% White | 9.1% Black or African American | 2.3% Hispanic or Latino

Worker Age Demographics

Age 14-24 4.9% | Age 25-54 67.4% | Age 55+ 27.7%

Data: Emsi | Analysis: Workforce Intelligence Network

**Business and Finance
Top Posted Jobs**
2019

Occupation	Postings
Insurance Sales Agents	611
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	439
Accountants and Auditors	304
Securities, Commodities, and Financial Services Sales Agents	249
Human Resources Specialists	147
Business Operations Specialists, All Other	122
Financial Managers	113
Market Research Analysts and Marketing Specialists	113
Public Relations Specialists	111
Personal Financial Advisors	88
Marketing Managers	86
Buyers and Purchasing Agents	77
Management Analysts	66
Loan Officers	64
Public Relations and Fundraising Managers	62
Cost Estimators	61
Tax Preparers	53
Logisticians	36
Training and Development Specialists	36
Compliance Officers	35

Typical Entry Education
- High school diploma or equivalent
- Bachelor's degree

Top Posted Jobs: Annual 2019

Insurance Sales Agents were the highest in-demand business and finance occupation during 2019, with 611 postings. Other top jobs include Accountants and Auditors (304 Postings), Securities, Commodities, and Financial Services Sales Agents (249 Postings), Human Resource Specialists (147 Postings), and Financial Managers (113 Postings). While most of the top jobs typically require a bachelor's degree, Insurance Sales Agents, top posted job for 2019 and Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (439 postings), only require a high school diploma and no work experience, coupled with moderate-term on-the-job training.

Data: Emsi | Analysis: Workforce Intelligence Network

Business and Finance Wage Overview

Most business and finance related jobs offer high wages, making for a lucrative opportunity for job seekers willing to attain the necessary education. The top posted business and finance job, Insurance Sales Agents, offers median hourly wages of $26.92, translating to annual earnings of approximately $53,840. Additional experience may lead to a role as a Marketing or Financial Manager, opening the door to median wages around $45.11 hourly, or about $90,220 annually. Entry level occupations also see high median wages of $28.13, earning about $56,260 annually.

Wage Overview for Top Posted Business and Finance Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
41-3021	Insurance Sales Agents	$13.62	$18.66	$26.92	$38.03	$64.94
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$13.35	$18.67	$28.13	$47.70	$63.28
13-2011	Accountants and Auditors	$9.44	$19.98	$26.70	$36.36	$44.50
41-3031	Securities, Commodities, and Financial Services Sales Agents	$12.66	$15.88	$20.78	$31.20	$71.47
13-1071	Human Resources Specialists	$12.33	$15.40	$23.06	$30.07	$39.03
13-1199	Business Operations Specialists, All Other	$17.99	$22.80	$28.94	$36.99	$46.67
11-3031	Financial Managers	$23.25	$32.95	$45.11	$61.81	$79.79
13-1161	Market Research Analysts and Marketing Specialists	$12.73	$18.15	$23.51	$32.51	$44.31
27-3031	Public Relations Specialists	$15.91	$18.33	$25.32	$30.06	$43.20
13-2052	Personal Financial Advisors	$11.37	$16.93	$26.54	$37.23	$85.39

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills
- Selling Techniques
- Accounting
- Auditing
- Insurance Sales
- Mortgage Loans

In-Demand Foundational Skills
- Sales
- Customer Service
- Management
- Communications
- Presentations

In-Demand Education Level*
- High School Diploma: 20.2%
- Associate Degree: 7.2%
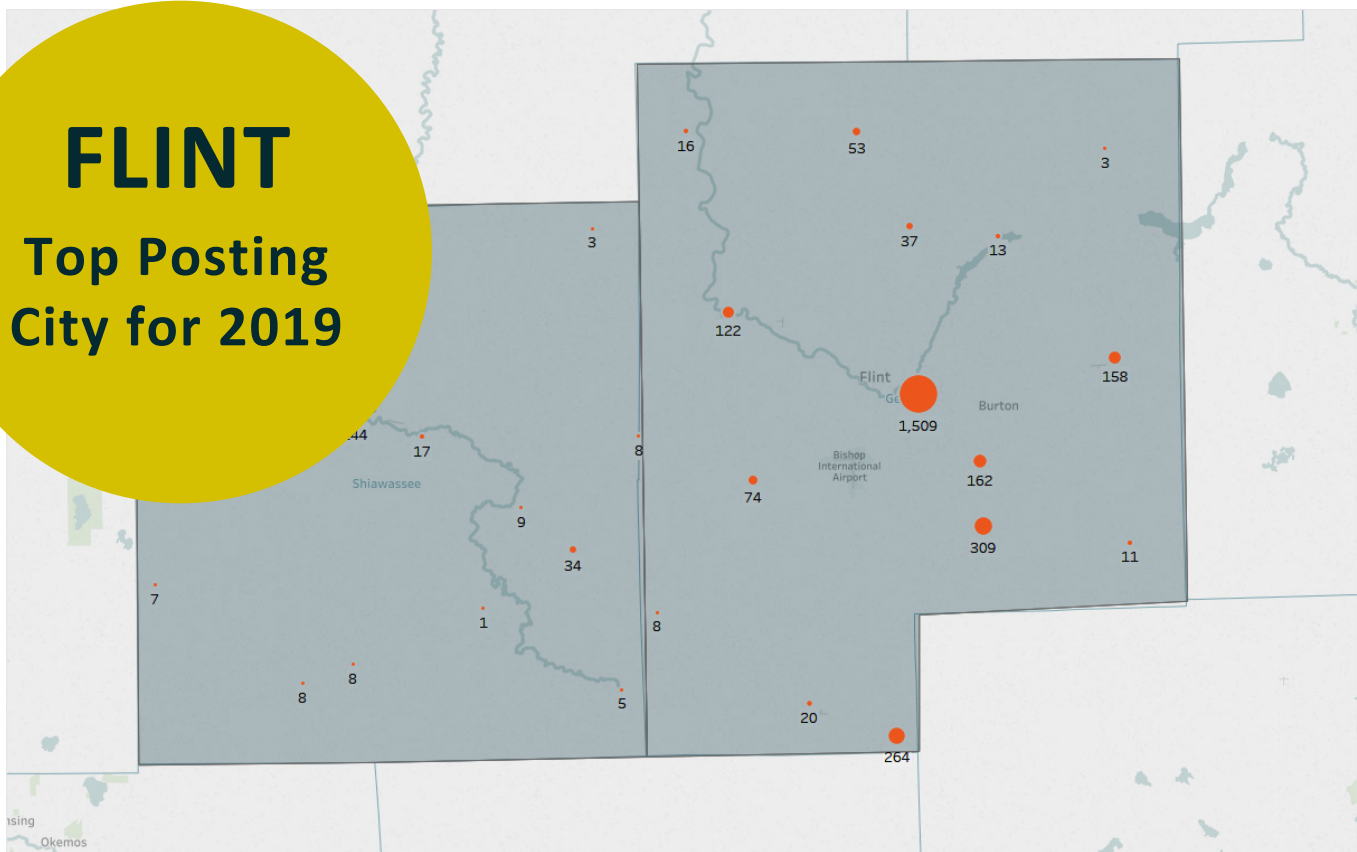- Bachelor's Degree: 31.7%
- Master's Degree: 3.6%

Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications
- Series 7 General Securities Representative License (Stockbroker)
- Certified Public Accountant
- Series 6 Investment Company and Variable Contracts License (Mutual Funds/Variable Annuities)
- Series 63 Uniform Securities Agent State Law License
- Certified Financial Planner

Employer Demand by City

FLINT
Top Posting City for 2019

16
53
3
3
37
13
122
Flint
158
Burton
1,509
Bishop International Airport
162
74
309
9
34
11
7
1
8
8
8
5
20
264

Top Posting Employers*

- Assurance
- H&R Block, Inc.
- National Agents Alliance
- Huntington Bancshares Incorporated
- McLaren, Inc.
- JPMorgan Chase & Co.
- Bankers Life & Casualty Company
- Allstate Corporation
- Robert Half International Inc.
- The Besl Transfer Co

Employer names are listed as they appear in online job postings.

Job Postings by City

1. Flint: 1,509 Postings
2. Grand Blanc: 309 Postings
3. Fenton: 264 Postings
4. Burton: 162 Postings
5. Davison: 158 Postings
6. Owosso: 144 Postings
7. Flushing: 122 Postings
8. Swartz Creek: 74 Postings
9. Clio: 53 Postings
10. Mount Morris: 37 Postings
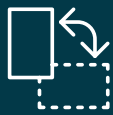
Introduction

Jobs in the manufacturing industry can range from assembly and production, to skilled trades and technicians, designers and engineers, and even computer-related occupations such as software development. Demand for engineers in the region has been consistent, and employment has been growing quickly. There are about 8,500 openings annually for engineers in southeast Michigan.
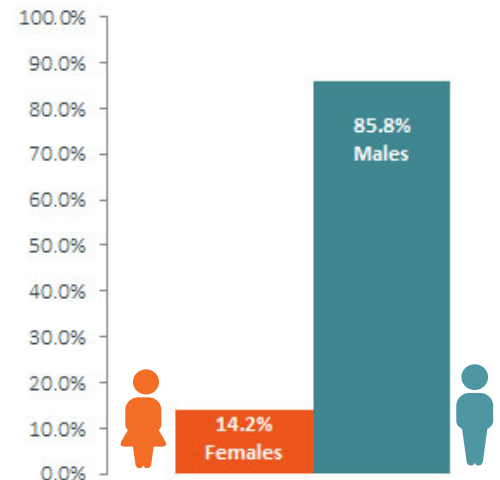
2,150
Engineering Workers
1.7% Increase
from 2018

Employment Over Time
2001–2019

Worker Gender Demographics

85.8% Males

14.2% Females

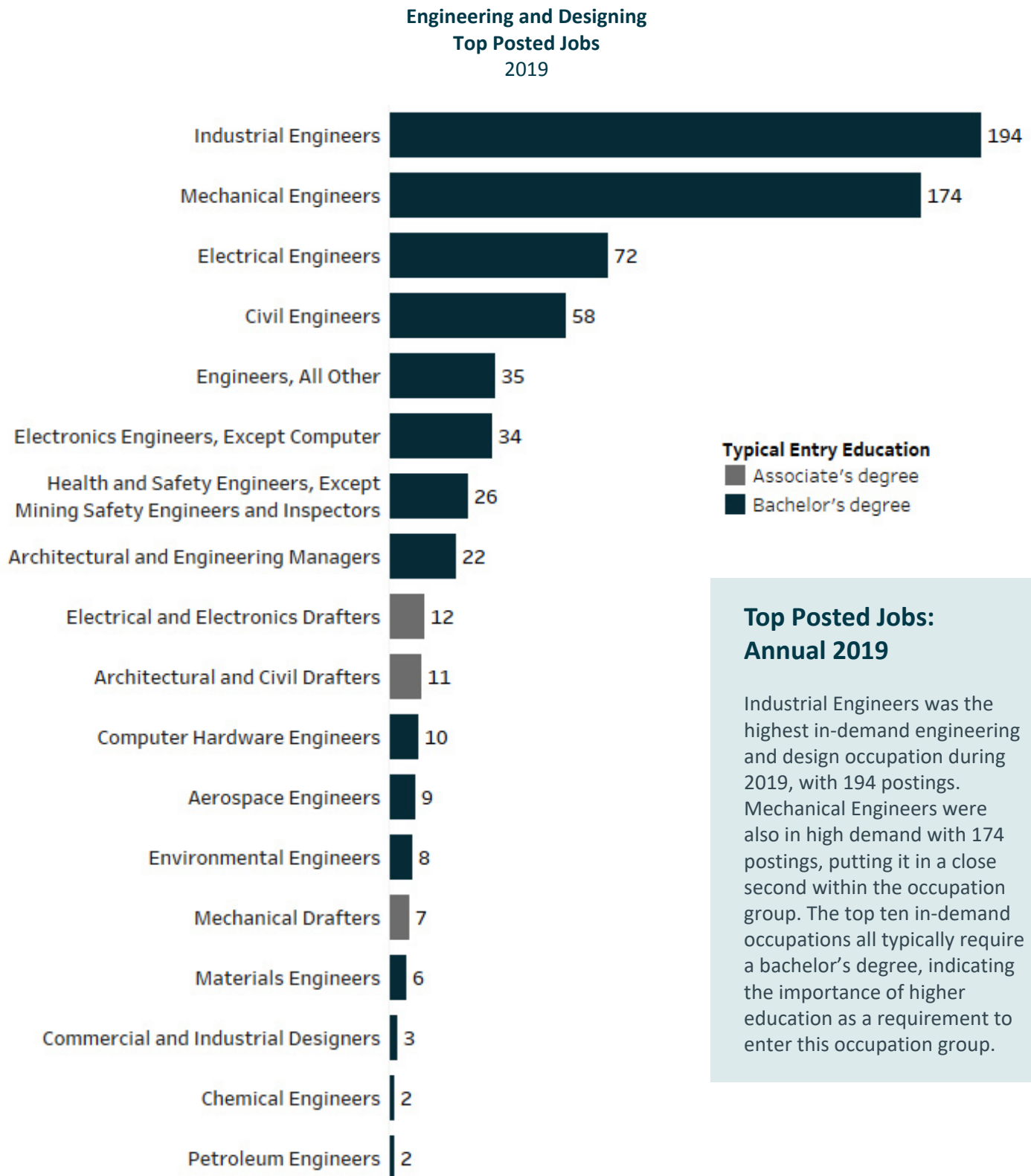## Engineering and Design Worker Demographics

According to the most recent Emsi data set available (2019), the 2,150 workers in the engineering and design group are not particularly diverse. Just 5.6 percent of the related workforce is under 25, likely due to the consistently high educational requirements. 14.2 percent of current workers are female, and only 14.2 percent identify as a race other than white; as the labor force overall continues to change, this is one field that could benefit from seeking more diverse talent.

Race and Ethnicity Demographics

84.8% White | 4.9% Asian | 6.7% Black or African-American

Worker Age Demographics

Age 14-24 5.6%

Age 25-54 70.2%

Age 55+ 24.0%

Data: Emsi | Analysis: Workforce Intelligence Network

**Engineering and Designing
Top Posted Jobs
2019**

Occupation	Postings
Industrial Engineers	194
Mechanical Engineers	174
Electrical Engineers	72
Civil Engineers	58
Engineers, All Other	35
Electronics Engineers, Except Computer	34
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	26
Architectural and Engineering Managers	22
Electrical and Electronics Drafters	12
Architectural and Civil Drafters	11
Computer Hardware Engineers	10
Aerospace Engineers	9
Environmental Engineers	8
Mechanical Drafters	7
Materials Engineers	6
Commercial and Industrial Designers	3
Chemical Engineers	2
Petroleum Engineers	2

Typical Entry Education
▪ Associate's degree
▪ Bachelor's degree

Top Posted Jobs: Annual 2019

Industrial Engineers was the highest in-demand engineering and design occupation during 2019, with 194 postings. Mechanical Engineers were also in high demand with 174 postings, putting it in a close second within the occupation group. The top ten in-demand occupations all typically require a bachelor's degree, indicating the importance of higher education as a requirement to enter this occupation group.

Engineering and Design Wage Overview

Most engineering and design related jobs offer high wages, providing a lucrative opportunity to job seekers willing to meet the minimum education requirements related to these jobs. The top posted engineering and design job, Industrial Engineers, offers a median hourly wage of $44.12. This reflects an annual salary of approximately $92,000 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Engineering and Design Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
17-2112	Industrial Engineers	$30.04	$35.83	$44.12	$52.94	$60.14
17-2141	Mechanical Engineers	$21.51	$27.90	$39.58	$49.87	$58.80
17-2071	Electrical Engineers	$32.79	$40.28	$49.19	$57.82	$63.47
17-2051	Civil Engineers	$21.58	$25.11	$31.79	$37.90	$47.42
17-2199	Engineers, All Other	$21.68	$30.48	$38.21	$50.21	$59.75
17-2072	Electronics Engineers, Except Computer	$13.67	$23.62	$32.61	$38.18	$44.74
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	Insf. Data	Insf. Data	Insf. Data	Insf. Data	Insf. Data
11-9041	Architectural and Engineering Managers	$40.74	$47.32	$64.98	$77.31	$93.41
17-3012	Electrical and Electronics Drafters	$10.26	$13.41	$19.47	$24.77	$28.14
17-3011	Architectural and Civil Drafters	$13.84	$17.47	$21.18	$26.33	$32.62

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- AutoCAD
- Mechanical Engineering
- Manufacturing Processes
- Computer-Aided Design
- Electrical Engineering

In-Demand Foundational Skills

- Management
- Communications
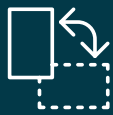- Operations
- Problem Solving
- Research

In-Demand Education Level*

- High School Diploma: 5.2%
- Associate Degree: 8.6%
- Bachelor's Degree: 57.0%
- Master's Degree: 7.4%

Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications

- Professional Engineer
- Six Sigma Green Belt Certification
- Licensed Professional Engineer
- Certified Quality Engineer
- Certified Safety Professional

Employer Demand by City

All top 10 occupations pay median wages nearly twice the statewide median wage of $18.08
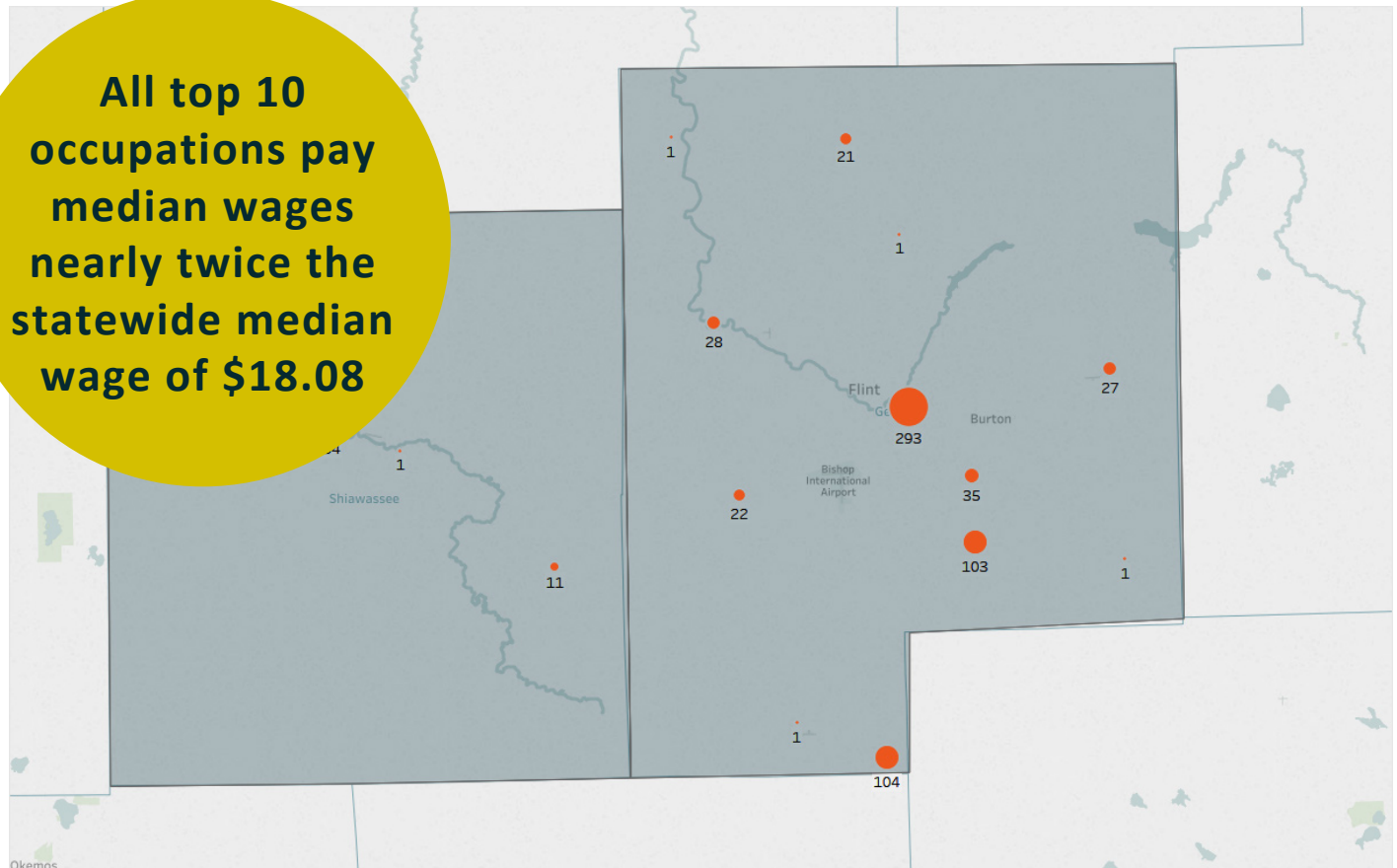
Top Posting Employers*

- ALTAIR ENGINEERING, INC.
- Molex Incorporated
- CMS Energy Corporation
- Wade Trim Group, Inc.
- Aerotek, Inc.
- TEC Group Inc
- Cornerstone Staffing Solutions, Inc.
- Macarthur Co.
- AMI Contracting Inc.
- Kelly Services, Inc.

Employer names are listed as they appear in online job postings.

Job Postings by City

1. Flint: 293 Postings
2. Fenton: 104 Postings
3. Grand Blanc: 103 Postings
4. Burton: 35 Postings
5. Owosso: 34 Postings
6. Flushing: 28 Postings
7. Davison: 27 Postings
8. Swartz Creek: 22 Postings
9. Clio: 21 Postings
10. Durand: 11 Postings

Introduction

WIN's health care occupation group includes jobs related to health care support and practitioners. Employment in this group has been consistently growing, more health care workers needed to care for Michigan's aging population and in response to regulatory and other changes. Registered nurses are routinely the most in-demand job in this group. Annually, there are about 23,600 job openings for these positions across southeast Michigan, and this is projected to continue increasing.

20,859
Health Care Workers
75-Worker Decrease from 2018

Employment Over Time
2001–2019

Worker Gender Demographics

- 81.8% Female
- 18.2% Male
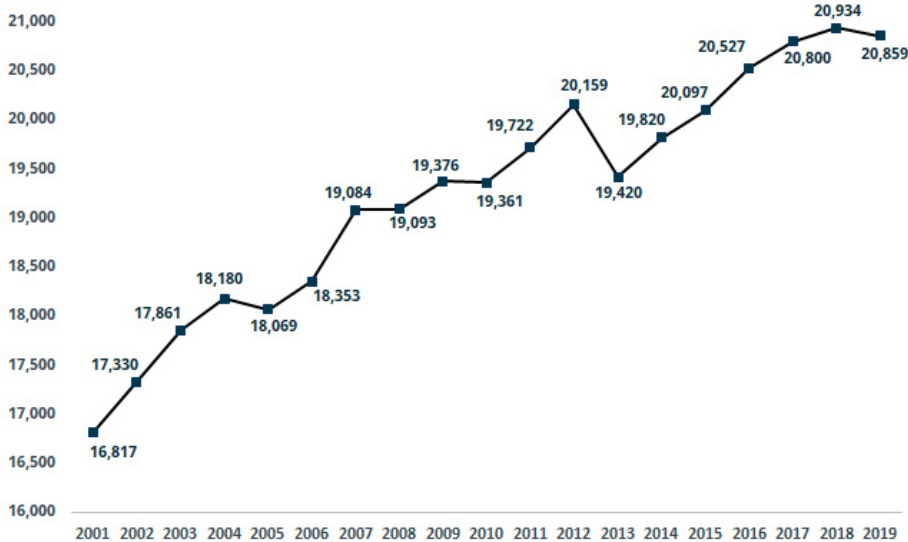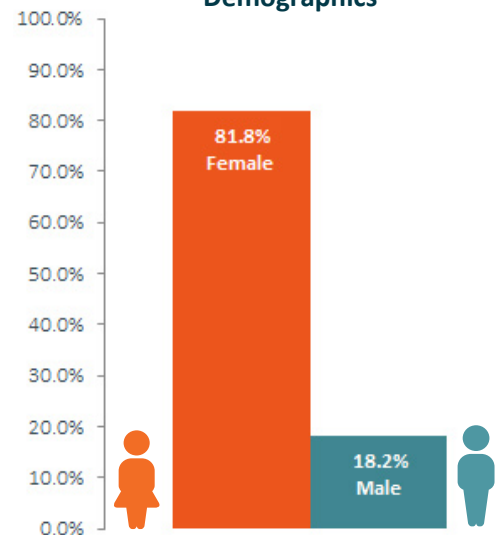
Health Care Worker Demographics

According to the most recent Emsi data set available (2019), the health care occupation group employs around 21,000 workers in Genesee and Shiawassee counties, who are overwhelmingly female (81.8 percent) and between the ages of 25 and 54 (70.2 percent), although 22.7 percent of workers are over 55. The group has a similar proportion of racial minorities as the workforce as a whole, with 76.6 percent of workers identifying as white, 16.2 percent identifying as Black or African American, and 7.2 percent identifying otherwise.

Race and Ethnicity Demographics

76.6% White | 16.2% Black or African American | 2.7% Asian

Worker Age Demographics

Age 14-24 7.1%	Age 25-54 70.2%	Age 55+ 22.7%

Data: Emsi | Analysis: Workforce Intelligence Network

Health Care
Top Posted Jobs
2019

Occupation	Postings
Registered Nurses	3,437
Speech-Language Pathologists	929
Physicians and Surgeons, All Other	520
Licensed Practical and Licensed Vocational Nurses	390
Home Health Aides	384
Nursing Assistants	378
Medical and Health Services Managers	375
Family and General Practitioners	370
Physical Therapists	338
Pharmacy Technicians	324
Medical Assistants	301
Occupational Therapists	209
Internists, General	190
Psychiatrists	175
Radiologic Technologists	168
Clinical Laboratory Technologists and Technicians	152
Surgeons	137
Surgical Technologists	136
Obstetricians and Gynecologists	112
Physician Assistants	112

Typical Entry Education
- High school diploma or equivalent
- Postsecondary nondegree award
- Associate's degree
- Bachelor's degree
- Master's or doctoral degree

Top Posted Jobs: Annual 2019

Registered Nurses were by far the highest in-demand health care occupation throughout 2019, both in these counties and across the region. Other top posted jobs include Speech-Language Pathologists (929 postings), Physicians and Surgeons, All Other (520 postings), Licensed Practical and Licensed Vocational Nurses (390 postings) and Home Health Aides (384 postings). Top occupations in health care are available at many education levels, and employment for some roles, such as Pharmacy Technicians and Medical and Health Services Managers, have shown greater than 10 percent growth over the last five years.

Data: Emsi | Analysis: Workforce Intelligence Network

Health Care Wage Overview

Wages in the high-demand health care field tend to scale with both education and experience. The health care occupation group offers a relatively broad array of entry requirements and a high volume of jobs are open to candidates with less than a bachelor's degree. However, most of the top-posted jobs that require less than a bachelor's degree pay under than the state's median wage of $18.08 per hour. Registered Nurses, the top posted health care job, offers a median hourly wage of $35.89 per hour or annual salary of about $74,700 according to the Bureau of Labor Statistics (BLS).

Wage Overview for Top Posted Health Care Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
29-1141	Registered Nurses	$29.42	$32.62	$35.89	$39.18	$45.43
29-1127	Speech-Language Pathologists	$25.43	$31.78	$35.66	$40.70	$47.34
29-1069	Physicians and Surgeons, All Other	$29.05	$66.95	$108.57	$121.24	$205.14
29-2061	Licensed Practical and Licensed Vocational Nurses	$18.76	$21.31	$24.71	$27.87	$29.81
31-1011	Home Health Aides	$9.45	$9.74	$10.68	$11.72	$13.40
31-1014	Nursing Assistants	$10.78	$12.52	$14.49	$16.81	$18.48
11-9111	Medical and Health Services Managers	$22.55	$34.18	$46.51	$62.58	$95.96
29-1062	Family and General Practitioners	$40.84	$55.95	$86.72	$101.06	$167.78
29-1123	Physical Therapists	$29.92	$34.77	$41.32	$48.25	$59.43
29-2052	Pharmacy Technicians	$9.88	$10.83	$13.18	$16.62	$18.70

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- Nursing
- Basic Life Support
- Advanced Cardiovascular Life Support (ACLS)
- Cardiopulmonary Resuscitation (CPR)
- Intensive Care Unit

In-Demand Foundational Skills

- Management
- Customer Service
- Communications
- Leadership
- Coordinating

In-Demand Education Level*

- High School Diploma: 14.2%
- Associate Degree: 11.9%
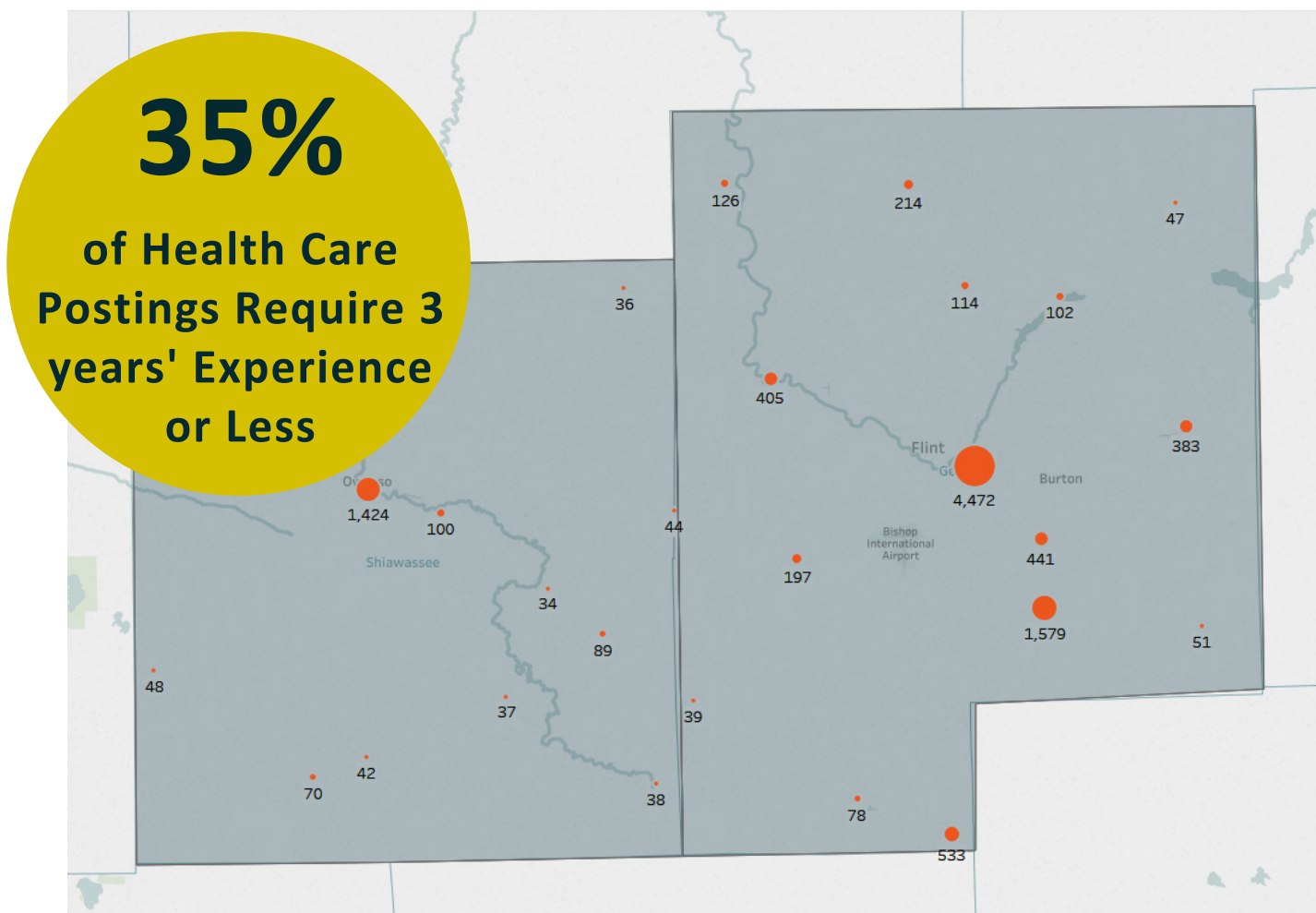- Bachelor's Degree: 13.5%
- Master's Degree: 6.5%

Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications

- Licensed Practical Nurse
- Certified Nursing Assistant
- Critical Care Registered Nurse (CCRN)
- Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP)
- Nurse Practitioner

Employer Demand by City

35% of Health Care Postings Require 3 years' Experience or Less

Map labels: 126, 214, 47, 36, 114, 102, 405, 383, Flint 4,472, Burton, Owosso 1,424, 100, 44, Shiawassee, 197, Bishop International Airport, 441, 34, 89, 1,579, 51, 48, 37, 39, 42, 70, 38, 78, 533

Top Posting Employers*

- HealthCare Employment Network
- Ascension Health
- McLaren, Inc.
- Sunbelt Staffing, LLC
- Soliant Health, Inc
- Memorial Healthcare Center
- Manor Care, Inc.
- Memorial Healthcare
- Davita Inc.
- Locumtenens.com, LLC

Employer names are listed as they appear in online job postings.

Job Postings by City

1. Flint: 4,472 Postings
2. Grand Blanc: 1,579 Postings
3. Owosso: 1,424 Postings
4. Fenton: 533 Postings
5. Burton: 441 Postings
6. Flushing: 405 Postings
7. Davison: 383 Postings
8. Clio: 214 Postings
9. Swartz Creek: 197 Postings
10. Montrose: 126 Postings

Introduction

Information technology (IT) jobs include occupations that are associated with entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services. While the information technology group does not currently employ as many individuals as the other groups here, it is quickly growing, and about 7,000 job openings are reported annually.
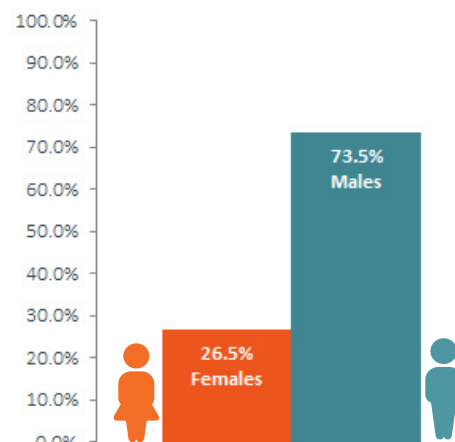
2,352
IT Workers

122-Worker Decrease from 2018

Employment Over Time
2001–2019
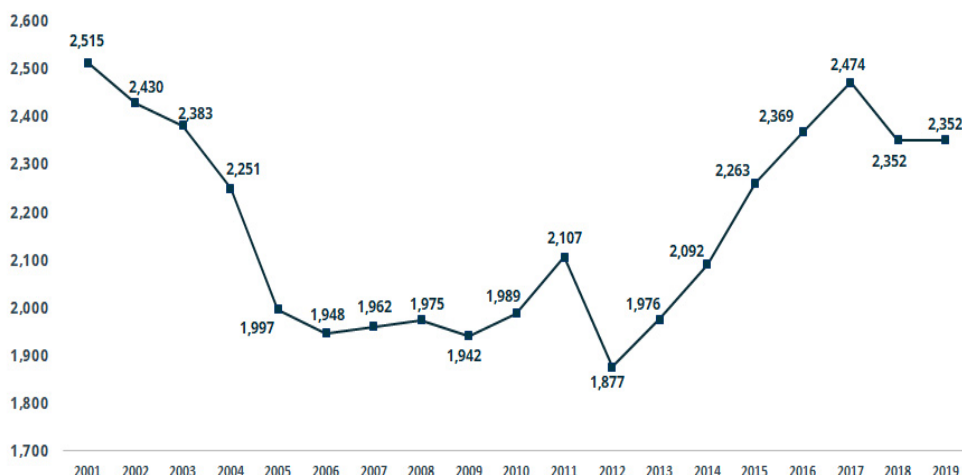
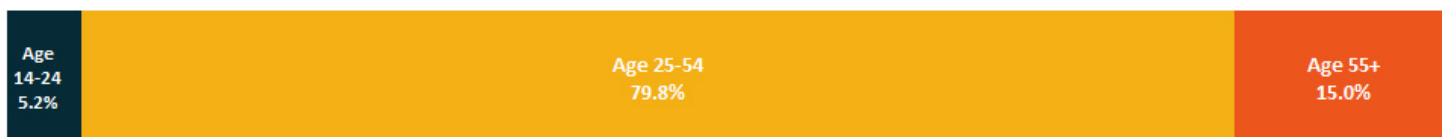
Worker Gender Demographics

Information Technology Worker Demographics

According to the most recent Emsi data set available (2019), Genesee and Shiawassee county have over 2,352 IT workers and the demographic differences mimic surrounding counties throughout southeast Michigan. Most workers are white males between the ages of 25 and 54. Roughly 79 percent are between the ages of 25 and 54. More than 15 percent are above the age of 55 and only 5 percent under 24 years old are employed in IT occupations. Roughly 73 percent of the workers in IT in Genesee and Shiawassee County identify as male, and nearly 79 percent identify as white. Fewer than 12 percent are Black or African American and approximately 5 percent are Asian.

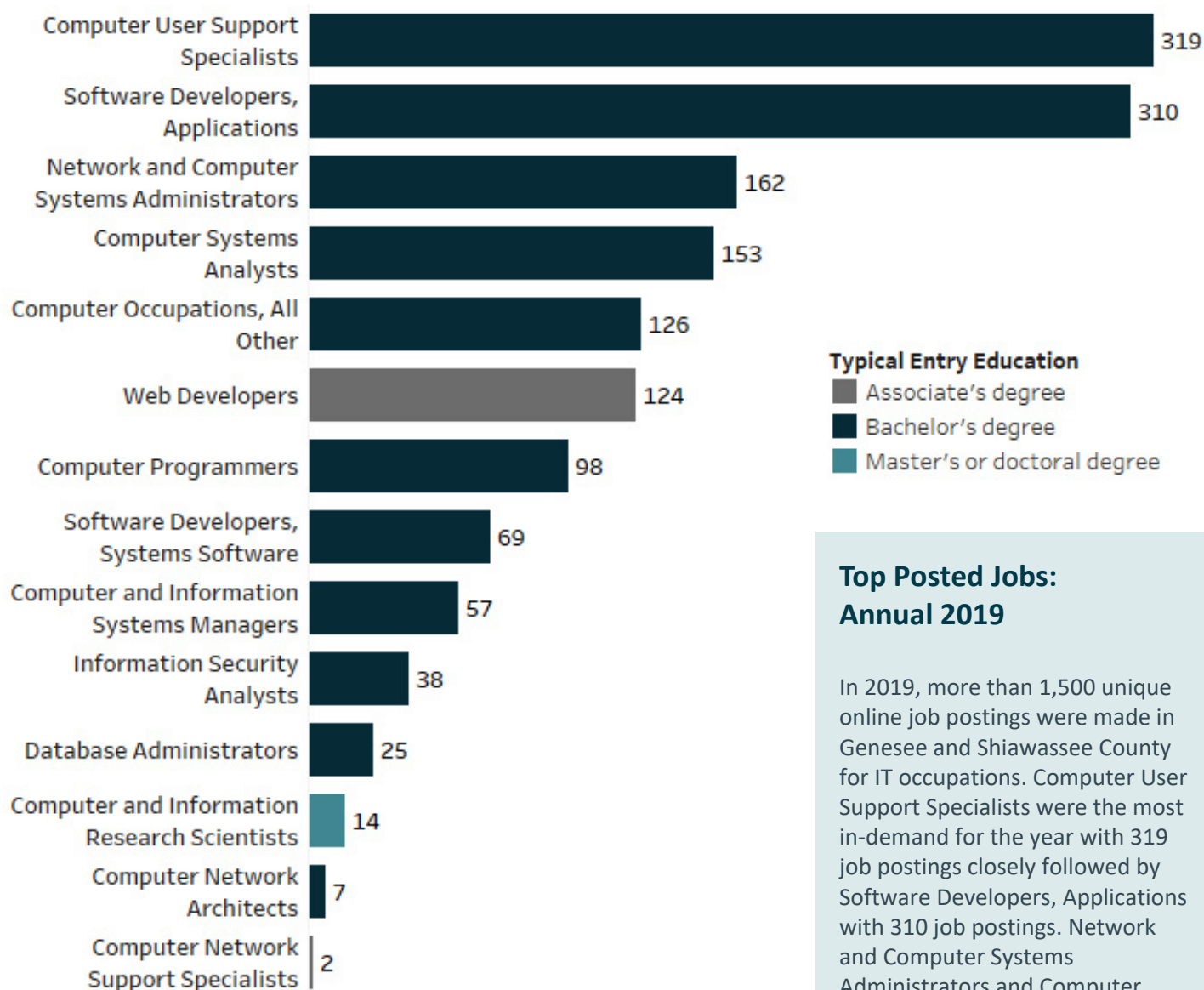### Race and Ethnicity Demographics

78.9% White | 11.8% Black or African American | 2.1% Hispanic or Latino

Worker Age Demographics

Age 14-24
5.2%

Age 25-54
79.8%

Age 55+
15.0%

Data: Emsi | Analysis: Workforce Intelligence Network

**Information Technology
Top Posted Jobs
2019**

Typical Entry Education
- Associate's degree
- Bachelor's degree
- Master's or doctoral degree

Occupation	Postings
Computer User Support Specialists	319
Software Developers, Applications	310
Network and Computer Systems Administrators	162
Computer Systems Analysts	153
Computer Occupations, All Other	126
Web Developers	124
Computer Programmers	98
Software Developers, Systems Software	69
Computer and Information Systems Managers	57
Information Security Analysts	38
Database Administrators	25
Computer and Information Research Scientists	14
Computer Network Architects	7
Computer Network Support Specialists	2

Top Posted Jobs: Annual 2019

In 2019, more than 1,500 unique online job postings were made in Genesee and Shiawassee County for IT occupations. Computer User Support Specialists were the most in-demand for the year with 319 job postings closely followed by Software Developers, Applications with 310 job postings. Network and Computer Systems Administrators and Computer Systems were also high in-demand occupations. Although the top IT jobs generally require a bachelor's degree, Computer User Support Specialists, typically require only an associate degree.

Data: Emsi | Analysis: Workforce Intelligence Network

Information Technology Wage Overview

In-demand IT occupations provide high wages even for those at the entry-level and with fewer credentials. Software Developers, Applications, the second most in-demand top posted IT job in 2019, offers a median hourly wage of $39.24 per hour or almost $82,000 per year according to the Bureau of Labor Statistics (BLS). This figure is slightly lower than workers may earn in Washtenaw or Oakland County. Information Security Analysts earn the highest median wage at $49.02 per hour, or nearly $102,000 per year. Computer and Information Systems Manages is a close second among the top ten posted IT occupations at $46.76 per hour or more than $97,000 annually.

Wage Overview for Top Posted IT Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
15-1151	Computer User Support Specialists	$11.28	$14.76	$20.94	$27.99	$34.33
15-1132	Software Developers, Applications	$25.65	$32.37	$39.24	$50.50	$59.89
15-1142	Network and Computer Systems Administrators	$21.77	$26.43	$31.77	$38.73	$46.08
15-1121	Computer Systems Analysts	$23.71	$29.17	$36.36	$44.87	$51.85
15-1199	Computer Occupations, All Other	$18.91	$21.54	$26.49	$34.06	$41.05
15-1134	Web Developers	$15.55	$17.34	$23.53	$29.68	$39.16
15-1131	Computer Programmers	$13.19	$15.93	$19.36	$24.83	$31.57
15-1133	Software Developers, Systems Software	$29.26	$32.57	$36.29	$40.94	$47.51
11-3021	Computer and Information Systems Managers	$34.07	$38.93	$46.76	$60.64	$78.10
15-1122	Information Security Analysts	$32.49	$36.66	$49.02	$58.99	$70.73

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills

- SQL
- Software Engineering
- Java
- JavaScript
- C++

In-Demand Foundational Skills

- Problem Solving
- Communications
- Management
- Operations
- Customer Service

In-Demand Education Level*

- High School Diploma: 8.9%
- Associate Degree: 7.5%
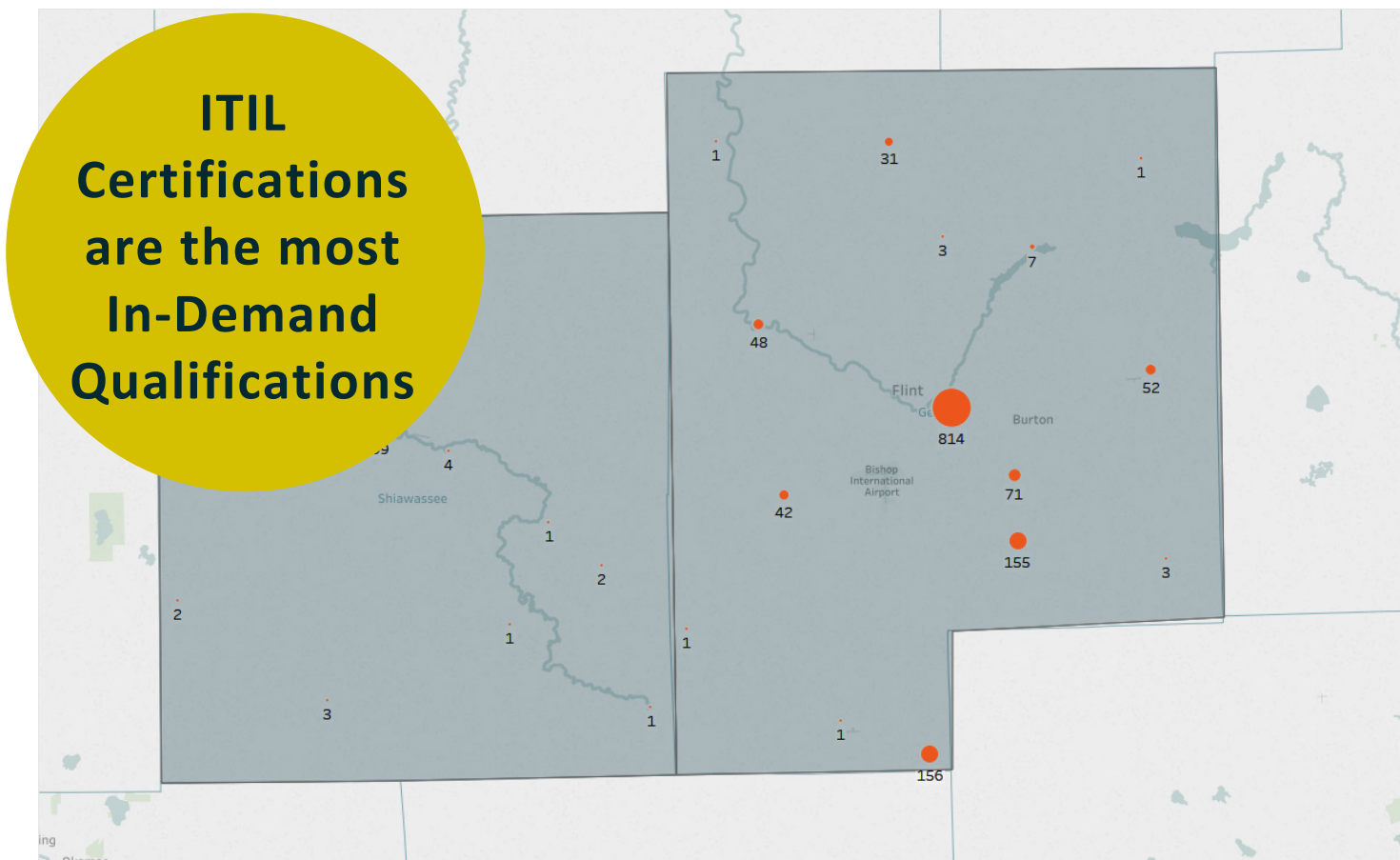- Bachelor's Degree: 46.6%
- Master's Degree: 11.5%

Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications

- ITIL Certifications
- Certified Information Systems Security Professional (CISSP)
- GIAC Certifications
- Certified Information System Auditor (CISA)
- Certified Ethical Hacker

Employer Demand by City

ITIL Certifications are the most In-Demand Qualifications

1

31

1

3

7

48

52

Flint

Burton

814

Bishop International Airport

71

42

155

3

1

2

1

2

1

1

3

1

1

156

Shiawassee

4

9

Okemos

ing

Top Posting Employers*

- Petsmart, Inc.
- The Besl Transfer Co
- The Davey Tree Expert Company
- Oracle Corporation
- Care.com, Inc.
- Petco Inc
- Homeadvisor, Inc.
- University of Michigan
- Kelly Services, Inc.
- VCA Inc.

Employer names are listed as they appear in online job postings.

Job Postings by City

1. Flint: 814 Postings
2. Fenton: 156 Postings
3. Grand Blanc : 155 Postings
4. Owosso: 99 Postings
5. Burton: 71 Postings
6. Davison: 52 Postings
7. Flushing: 48 Postings
8. Swartz Creek: 42 Postings
9. Clio: 31 Postings
10. Genesee: 7 Postings

Introduction

WIN's technicians/skilled trades category includes jobs related to advanced manufacturing. Southeast Michigan has more demand for skilled- trades labor, such as CNC machinists and welders, than almost anywhere else in the country. There are about 21,000 openings for these workers annually.

NOTE: Skilled trades related to construction and assembly are not included in this cluster, as the focus is on advanced manufacturing only.
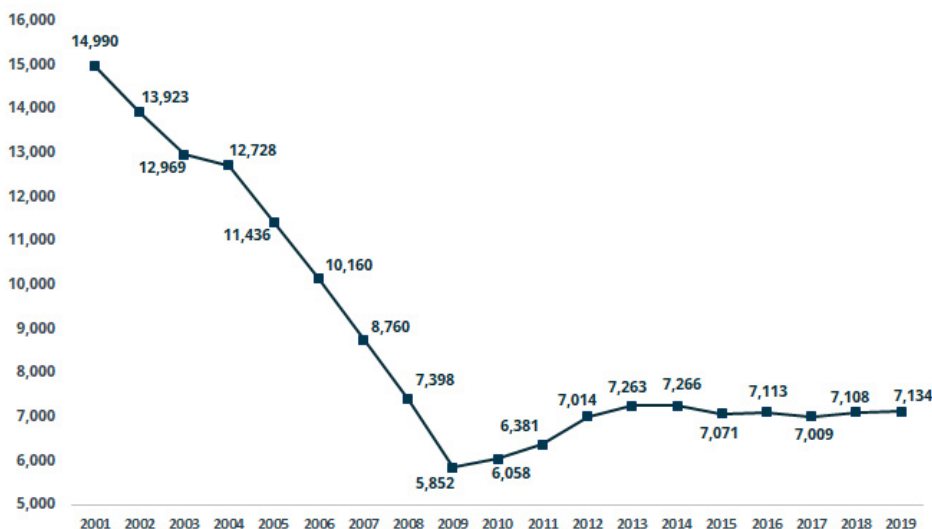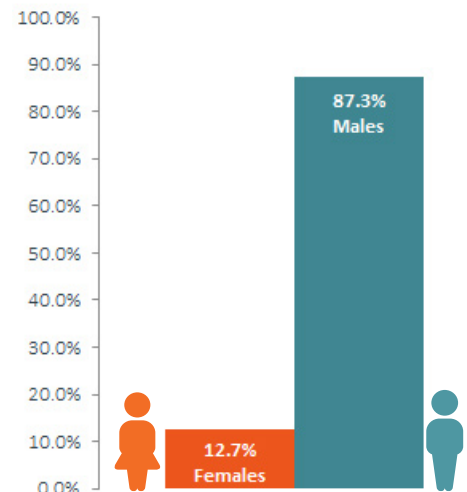
7,134
Skilled Trades Workers
0.4% Increase from 2018

Employment Over Time
2001–2019

Year	Employment
2001	14,990
2002	13,923
2003	12,969
2004	12,728
2005	11,436
2006	10,160
2007	8,760
2008	7,398
2009	5,852
2010	6,058
2011	6,381
2012	7,014
2013	7,263
2014	7,266
2015	7,071
2016	7,113
2017	7,009
2018	7,108
2019	7,134

Worker Gender Demographics

87.3% Males

12.7% Females

Skilled Trades Worker Demographics

According to the most recent Emsi data set available (2019), the skilled trades occupation group employs about 7,100 workers in Genesee and Shiawassee Counties. A majority of skilled trades workers are white males between the ages of 25 and 54. Additional outreach may be necessary in the near future, as at 26.6 percent, the group has a somewhat higher proportion than average of workers over age 55.

Race and Ethnicity Demographics

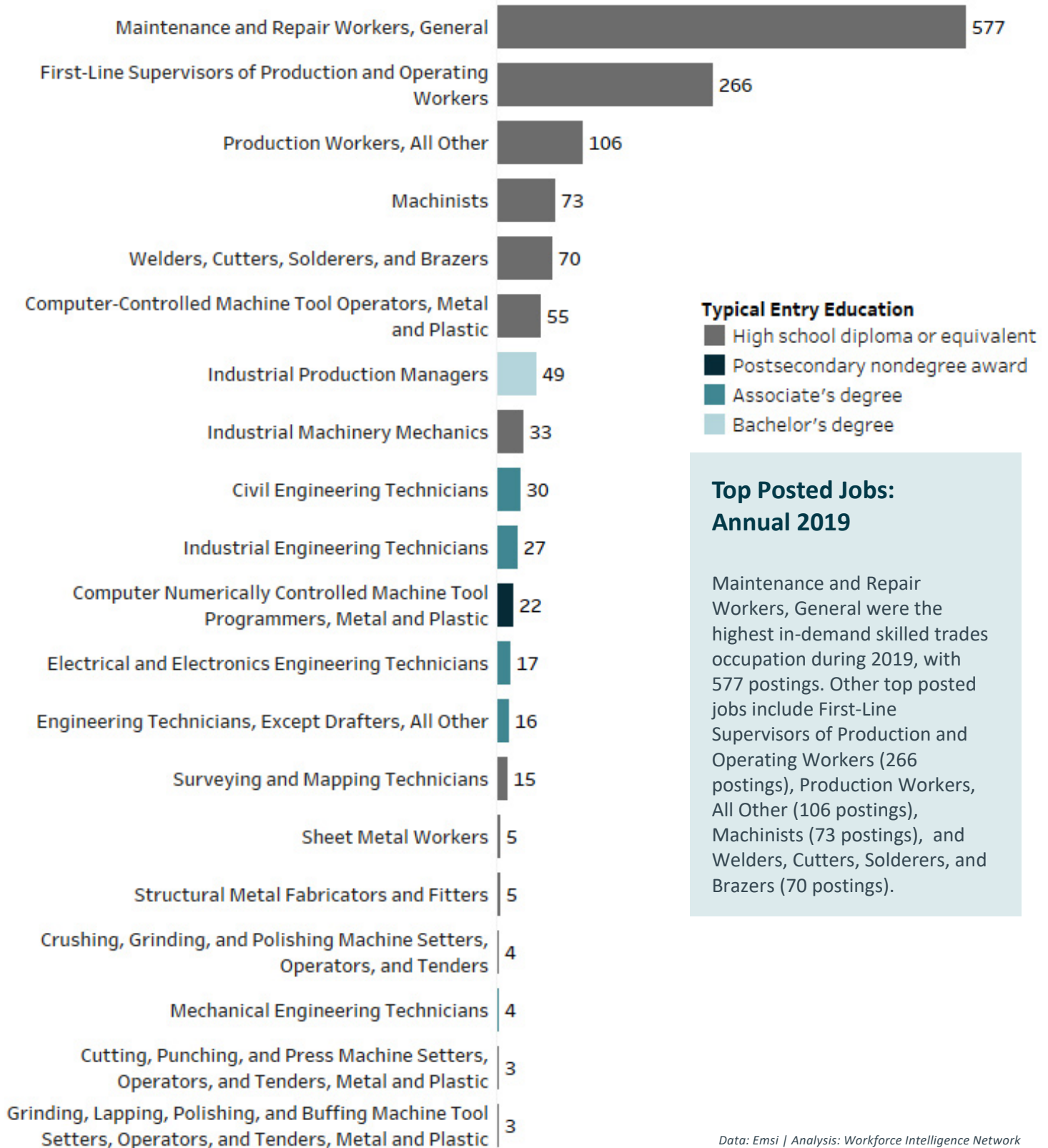**81.5% White | 12.4% Black or African American | 3.4% Hispanic or Latino**

Worker Age Demographics

Age 14-24	Age 25-54	Age 55+
7.4%	66.1%	26.6%

Data: Emsi | Analysis: Workforce Intelligence Network

**Skilled Trades
Top Posted Jobs**
2019

Occupation	Postings
Maintenance and Repair Workers, General	577
First-Line Supervisors of Production and Operating Workers	266
Production Workers, All Other	106
Machinists	73
Welders, Cutters, Solderers, and Brazers	70
Computer-Controlled Machine Tool Operators, Metal and Plastic	55
Industrial Production Managers	49
Industrial Machinery Mechanics	33
Civil Engineering Technicians	30
Industrial Engineering Technicians	27
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	22
Electrical and Electronics Engineering Technicians	17
Engineering Technicians, Except Drafters, All Other	16
Surveying and Mapping Technicians	15
Sheet Metal Workers	5
Structural Metal Fabricators and Fitters	5
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	4
Mechanical Engineering Technicians	4
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	3
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	3

Typical Entry Education
- High school diploma or equivalent
- Postsecondary nondegree award
- Associate's degree
- Bachelor's degree

Top Posted Jobs: Annual 2019

Maintenance and Repair Workers, General were the highest in-demand skilled trades occupation during 2019, with 577 postings. Other top posted jobs include First-Line Supervisors of Production and Operating Workers (266 postings), Production Workers, All Other (106 postings), Machinists (73 postings), and Welders, Cutters, Solderers, and Brazers (70 postings).

Data: Emsi | Analysis: Workforce Intelligence Network

Skilled Trades Wage Overview

Four of the top ten in-demand skilled trades occupations have median wages above $20 per hour according to the Bureau of Labor Statistics (BLS), and three more above the state's median wage of $18.08. Maintenance and Repair Workers, General, the top posted skilled trades job in 2019, offers a median hourly wage of $15.86. This translates to an annual salary of about $33,000.

Wage Overview for Top Posted Skilled Trades Jobs in 2019

Occupation Code	Occupation Name	10th Percentile Wages	25th Percentile Wages	Median Wages	75th Percentile Wages	90th Percentile Wages
49-9071	Maintenance and Repair Workers, General	$9.60	$11.89	$15.86	$21.26	$26.01
51-1011	First-Line Supervisors of Production and Operating Workers	$15.89	$20.82	$29.11	$39.19	$47.68
51-9199	Production Workers, All Other	$10.49	$12.65	$33.44	$37.56	$39.81
51-4041	Machinists	$13.05	$15.62	$18.73	$23.35	$30.24
51-4121	Welders, Cutters, Solderers, and Brazers	$11.01	$13.77	$16.87	$19.75	$24.37
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	$12.47	$15.60	$18.85	$22.90	$26.60
11-3051	Industrial Production Managers	$33.59	$43.74	$56.35	$74.73	$91.17
49-9041	Industrial Machinery Mechanics	$17.09	$22.19	$27.02	$30.24	$32.61
17-3022	Civil Engineering Technicians	$9.55	$13.10	$14.06	$15.07	$16.07
17-3026	Industrial Engineering Technicians	$10.29	$12.94	$19.96	$25.29	$29.97

Data: Emsi, BLS | Analysis: Workforce Intelligence Network

In-Demand Technical Skills
- Plumbing
- HVAC
- Painting
- Welding
- Machining

In-Demand Foundational Skills
- Operations
- Communications
- Management
- Troubleshooting
- Valid Driver's License

In-Demand Education Level*
- High School Diploma: 37.3%
- Associate Degree: 7.7%
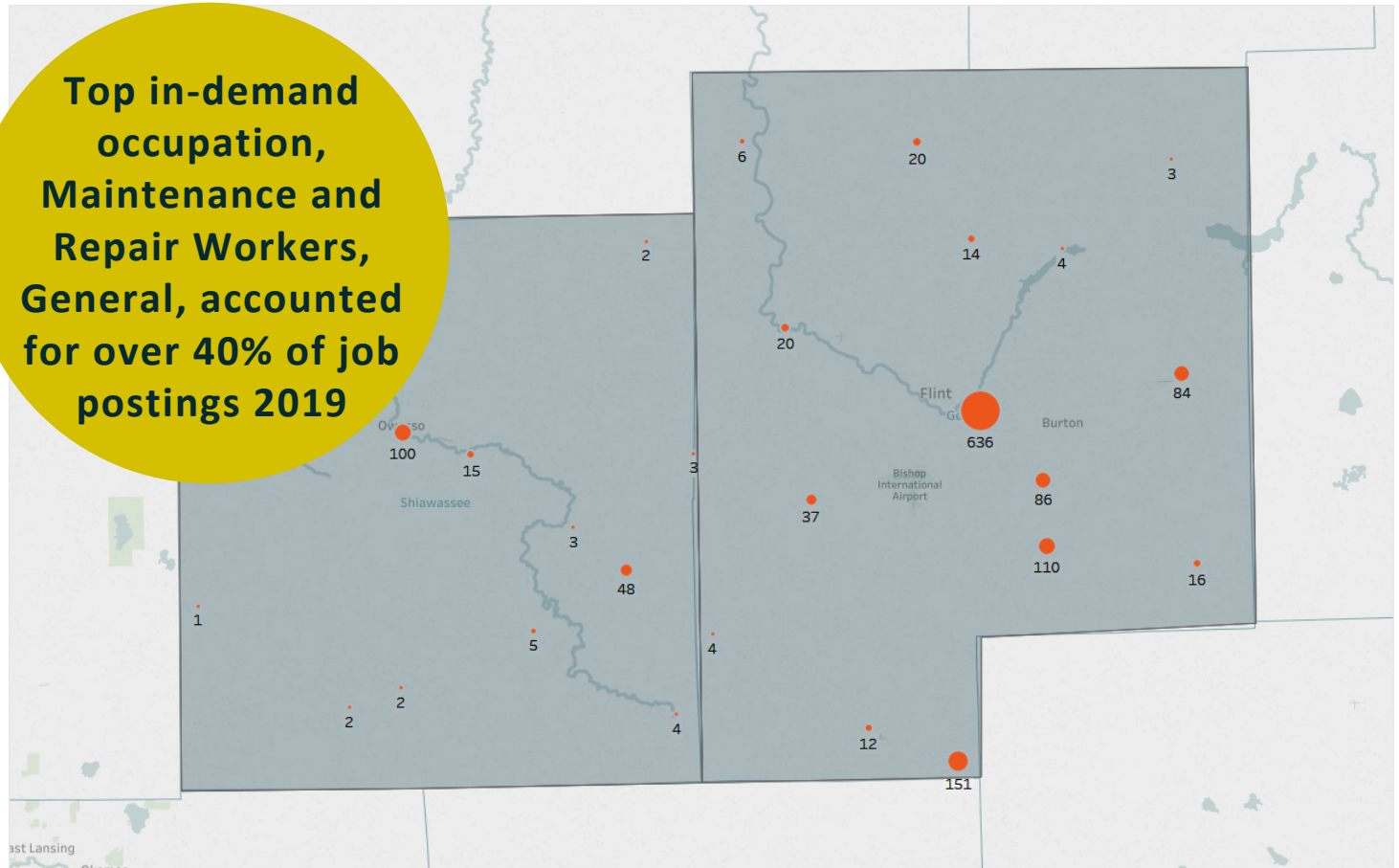- Bachelor's Degree: 9.8%
- Master's Degree: 0.6%

Not all job postings indicate the required educational attainment level, therefore the percentages found here may not add up to 100 percent

In-Demand Certifications
- HVAC Certification
- Commercial Driver's License (CDL)
- EPA 608 Technician Certification
- CFC Refrigeration Certification
- Certified Quality Auditor

Employer Demand by City

> **Top in-demand occupation, Maintenance and Repair Workers, General, accounted for over 40% of job postings 2019**

Top Posting Employers*

- HomeAdvisor, Inc.
- Cornerstone Staffing Solutions, Inc.
- Kelly Services, Inc.
- Terex Corporation
- AMI Contracting Inc.
- The Home Depot
- Aramark Corporation
- Gst Michigan Works
- Miller Industries, Inc.
- Qualified Staffing Inc.

Employer names are listed as they appear in online job postings.

Job Postings by City

1. Flint: 636 Postings
2. Fenton: 151 Postings
3. Grand Blanc: 110 Postings
4. Owosso: 100 Postings
5. Burton: 86 Postings
6. Davison: 84 Postings
7. Durand: 48 Postings
8. Swartz Creek: 37 Postings
9. Clio: 20 Postings
10. Flushing: 20 Postings

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