A focus on the Southwest Michigan Service Region: Recent trends and a vision for the future

The role of demographic trends, training, education, automation, and Al

Michael Horrigan, President February 20, 2025



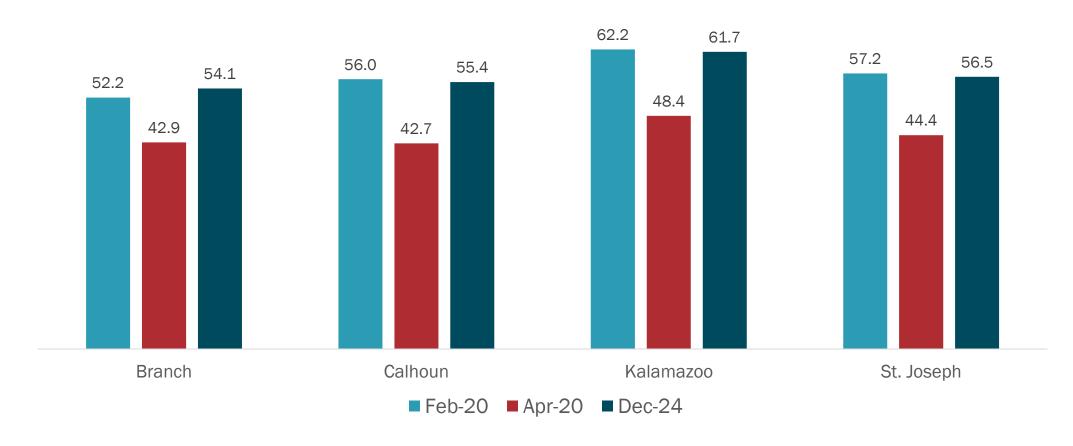
Agenda

- Southwest Michigan Service Region (the Region) economy is fairly robust
- Long-term demographic changes will be dramatic
- Resulting in fundamental changes in the labor market
- There will be significant increases in the use of automation and Al



Employment-to-population ratios in the Michigan Works Southwest Service Region (the Region) have largely recovered pre-pandemic levels

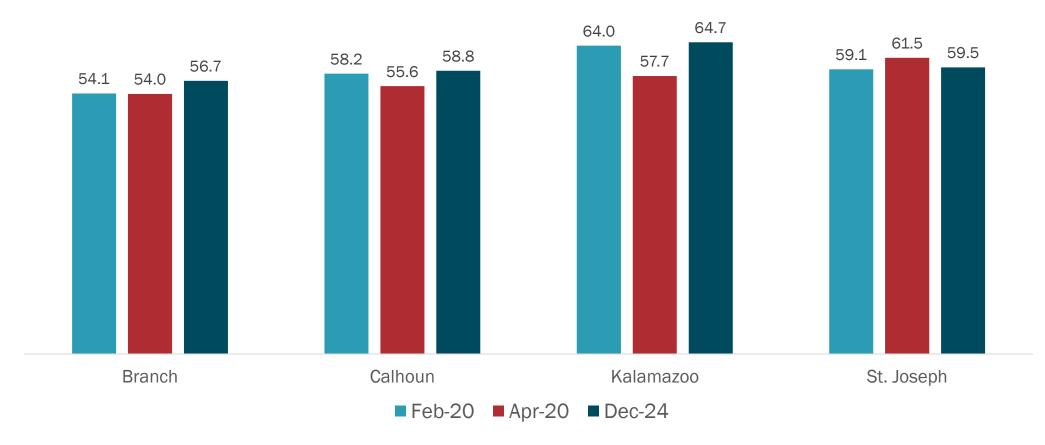
Employment to Population Ratios, Regional Counties





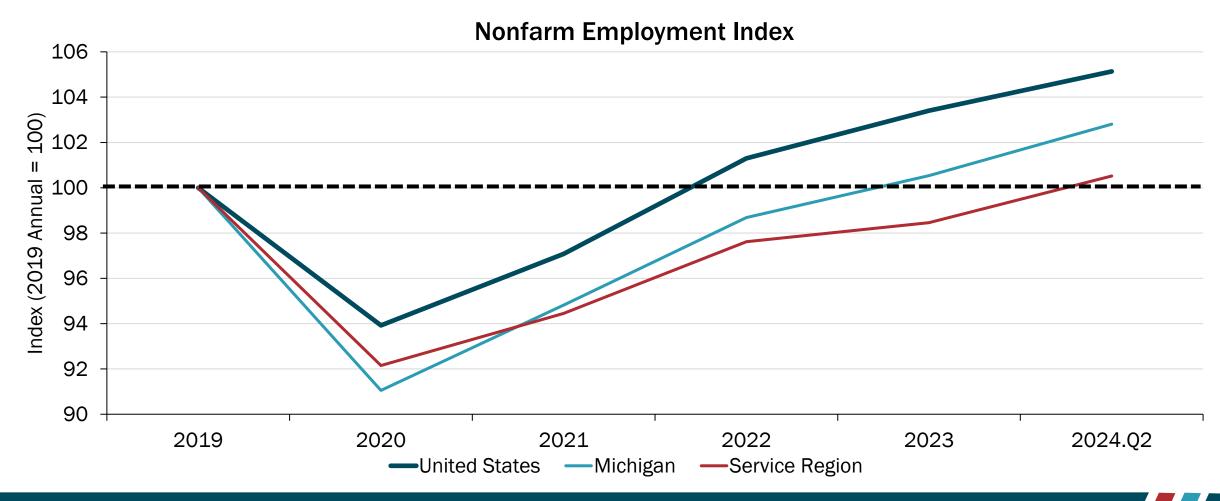
Regional labor force participation rates have largely recovered pre-pandemic levels

Labor Force Participation Rates, Regional Counties



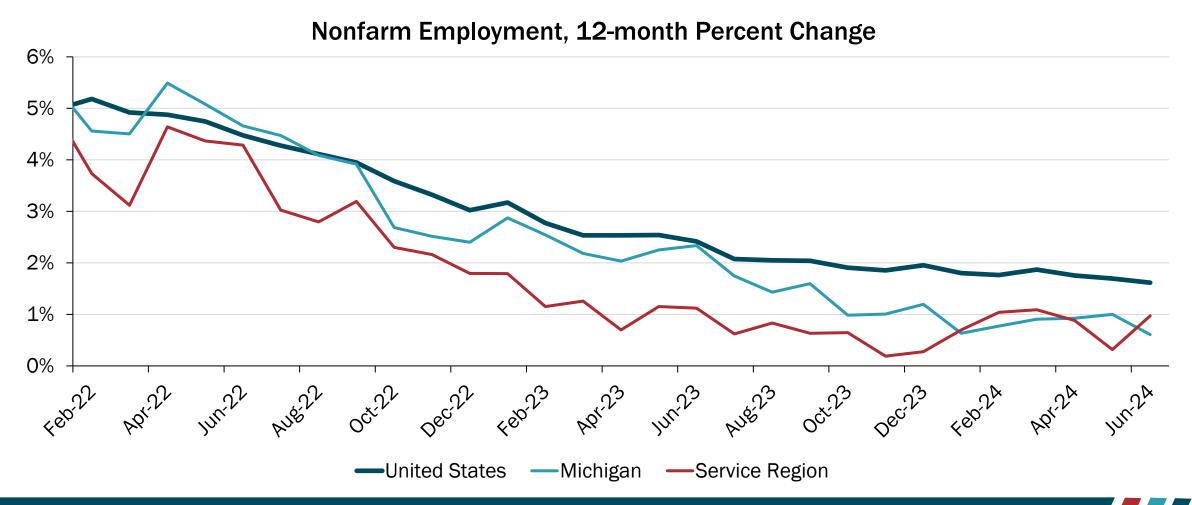


Compared to the U.S., Michigan and the Region experienced steeper declines in payroll employment during the pandemic and took longer to recover



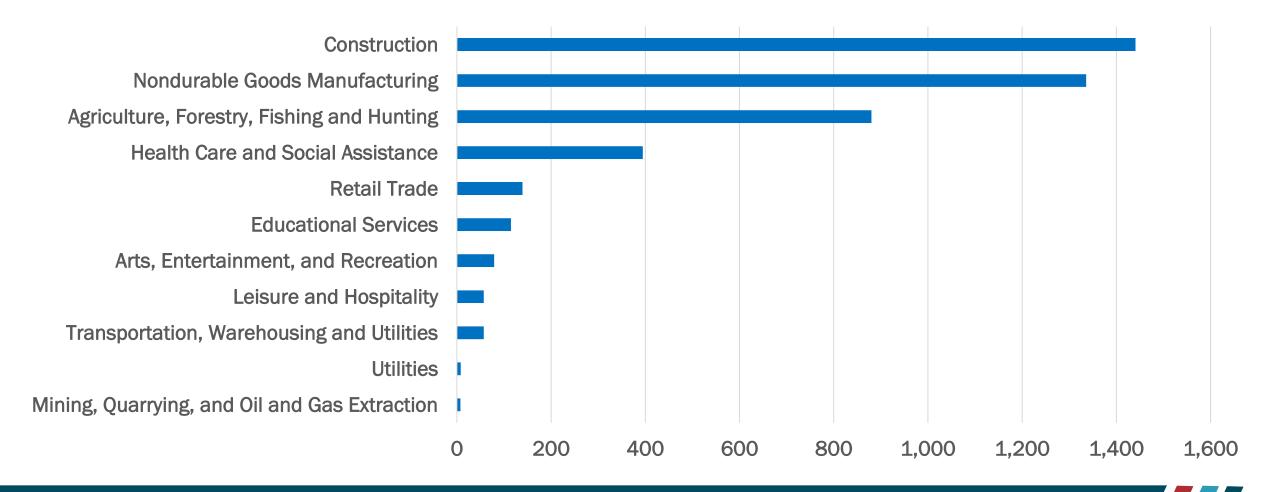


The pace of payroll employment growth has been decelerating in the United States, Michigan, and the Region since 2022



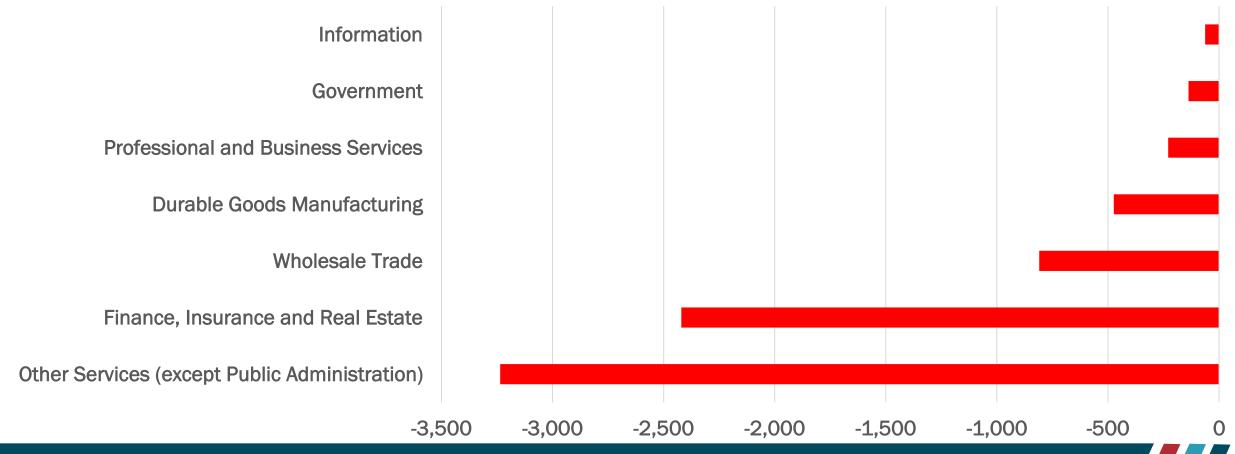


Regional industry employment change, 2019 - 2024





Regional industry employment change, 2019 - 2024





Industries in the Southwest Service Region with the greatest employment change, 2019-2024

NAICS	Description	2019	2024	Change	Average annual earnings
624	Social Assistance	3,489	4,623	1,134	\$36,696
238	Specialty Trade Contractors	5,789	6,827	1,039	\$87,605
541	Professional, Scientific, and Technical Services	7,791	8,731	941	\$107,898
339	Miscellaneous Manufacturing	4,434	5,335	901	\$174,387
111	Crop Production	1,551	2,261	710	\$56,235
325	Chemical Manufacturing	3,656	4,317	661	\$128,787
903	Local Government	19,811	20,303	492	\$73,064
455	General Merchandise Retailers	6,385	6,833	448	\$36,003
492	Couriers and Messengers	723	1,167	444	\$48,609
337	Furniture and Related Product Manufacturing	817	1,159	342	\$81,204
236	Construction of Buildings	1,986	2,255	269	\$91,553
322	Paper Manufacturing	2,159	2,387	228	\$102,435
327	Nonmetallic Mineral Product Manufacturing	532	746	214	\$87,764
721	Accommodation	1,932	2,144	212	\$35,739
115	Support Activities for Agriculture and Forestry	415	618	203	\$59,190
311	Food Manufacturing	3,623	3,817	194	\$101,299
457	Gasoline Stations and Fuel Dealers	1,378	1,551	174	\$38,725
493	Warehousing and Storage	1,902	2,071	169	\$69,697
488	Support Activities for Transportation	865	1,026	162	\$84,361
441	Motor Vehicle and Parts Dealers	3,059	3,203	144	\$73,505
326	Plastics and Rubber Products Manufacturing	2,520	2,661	141	\$69,852



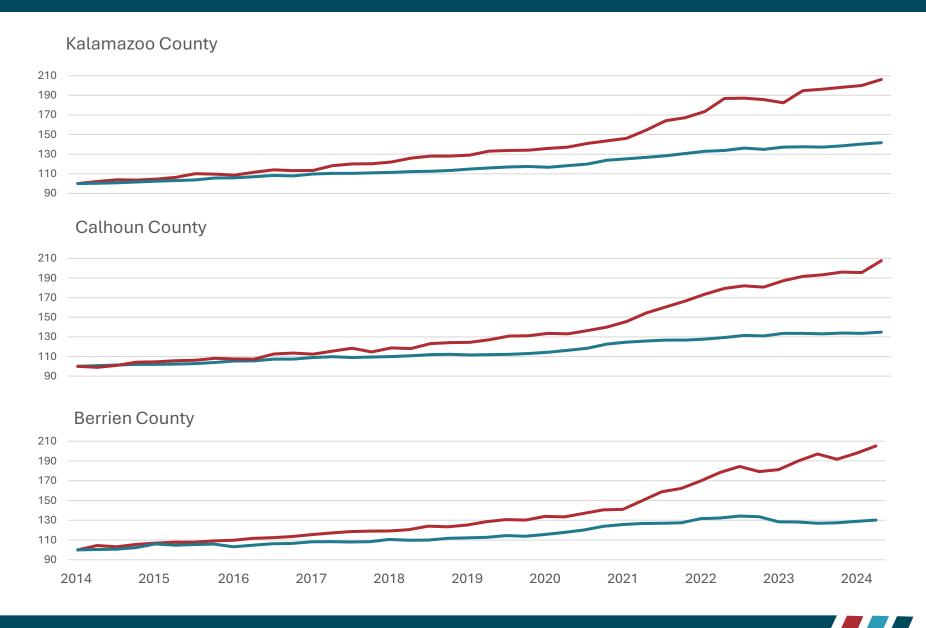
Areas of concern

Housing and Childcare

Wages fail to keep up with home prices

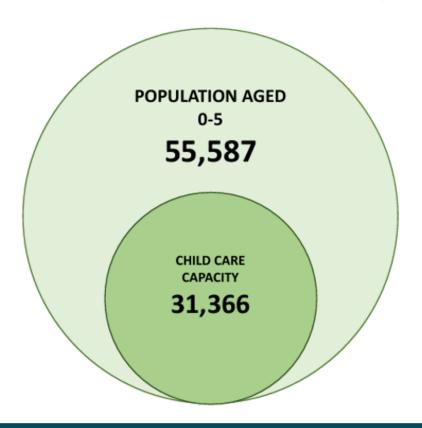
Price Index

Average Weekly Wage

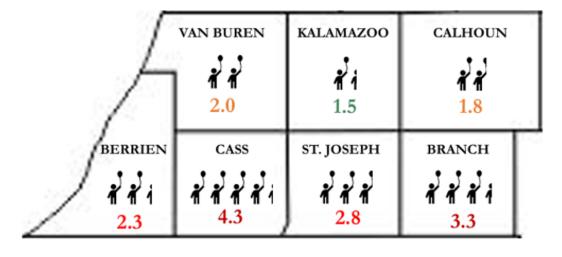




Regionally, there is child care capacity for only 56% of the population aged 0-5. The gap in capacity is far more persistent in Southwest Michigan's rural counties.



CHILDREN PER SEAT, BY COUNTY





Long-term demographic changes

Total Population Change

Between 2013 and 2023, Michigan's population grew by 1.4%

For the US, over the same period, the population grew by 5.9%

Population Change, 2013 to 2023

Population Increasing, Metro

Population Increasing, Non-Metro

Ontonagon_

Gogebic

Kéweenaw

Dickinsor

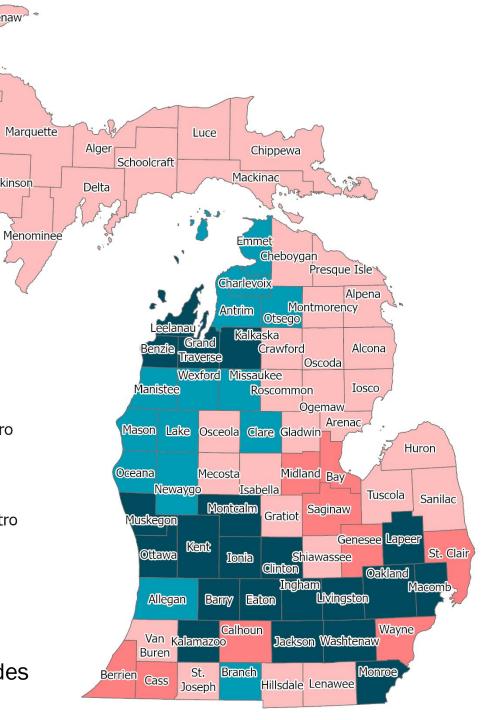
Baraga

Iron

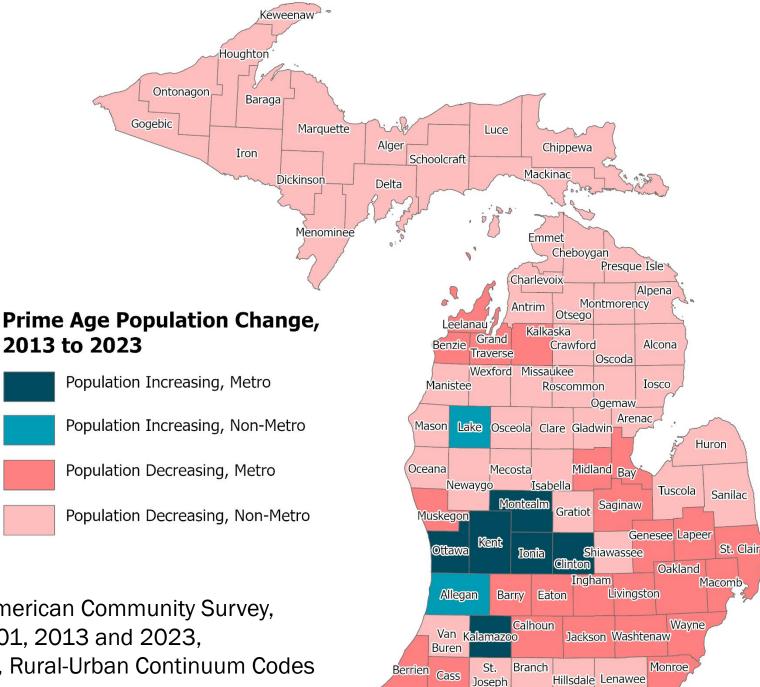
Population Decreasing, Metro

Population Decreasing, Non-Metro

Source: Census Bureau, American Community Survey, 5-year tables DP05, 2013 and 2023, U.S. Department of Agriculture, Rural-Urban Continuum Codes

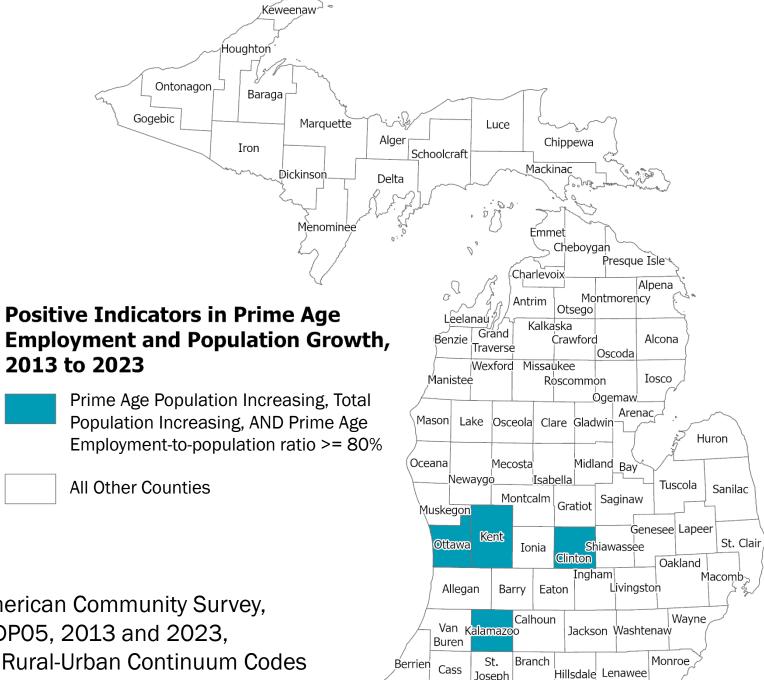


Prime Age **Population** Change



Source: Census Bureau, American Community Survey, 5-year tables B23001, 2013 and 2023, U.S. Department of Agriculture, Rural-Urban Continuum Codes

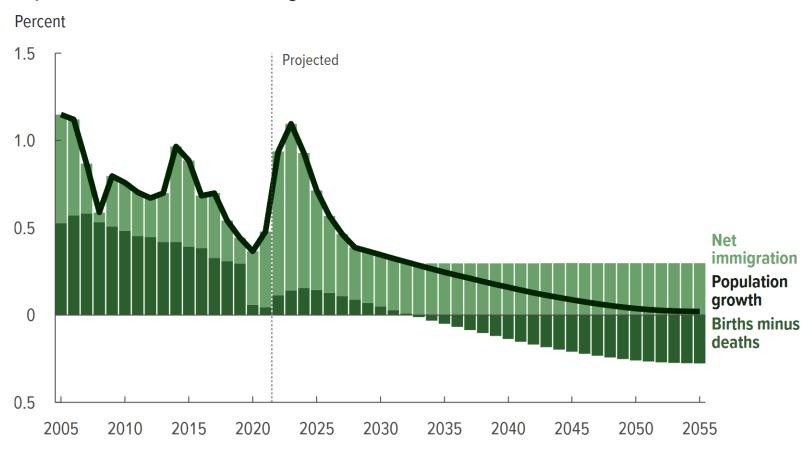
Putting it all together; four Michigan counties



Source: Census Bureau, American Community Survey, 5-year tables B23001, DP05, 2013 and 2023, U.S. Department of Agriculture, Rural-Urban Continuum Codes

Congressional Budget Office: Demographic Outlook 2025 to 2055

Population Growth and Contributing Factors



By 2033, annual deaths exceed annual births in CBO's projections. After that, net immigration more than accounts for the projected population growth; without immigration, the U.S. population would shrink after 2033.



Average monthly changes in employment will slow down significantly over the next ten years, especially in Michigan

Congressional Budget Office U.S. Employment Projections

Year	CBO Baseline Projections Civilian Employment Current Population Survey concept	Average Monthly Employment Change
2014	146,319,000	
2024	161,469,000	126,249
2034	171,045,000	68,958

Published January 2025

Michigan Occupational Employment Projections, 2022-2032

Year	Michigan Projections	Average Monthly Employment Change
2012	4,285,470	-
2022	4,524,550	1,992
2032	4,549,560	208

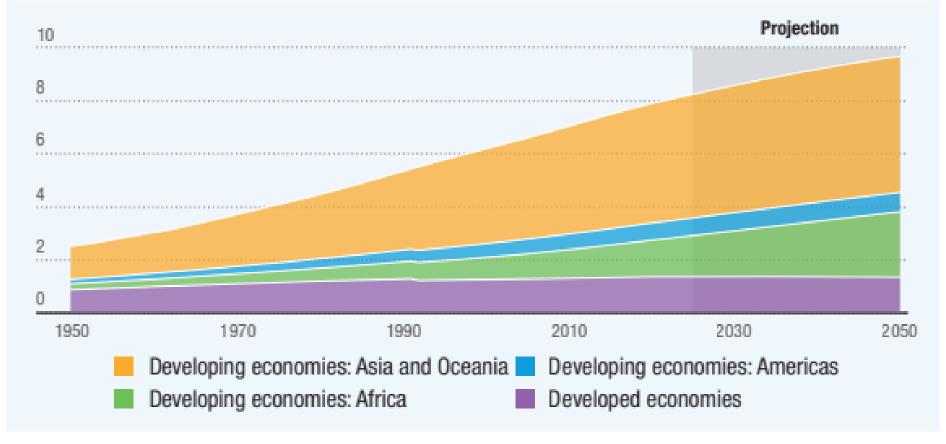
Published 2014, 2024





Developing economies experience fastest population growth

World population by group of economies, billions



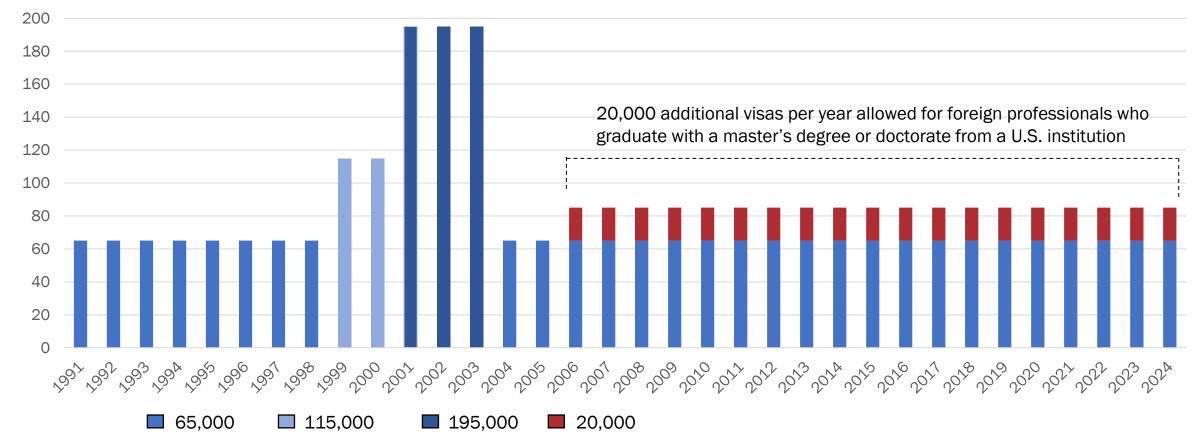
Source: UNCTAD, UNCTADstat.

Published January 2025



H1-B Visa allocations for foreign professional workers have remained largely unchanged since the program's creation in 1990



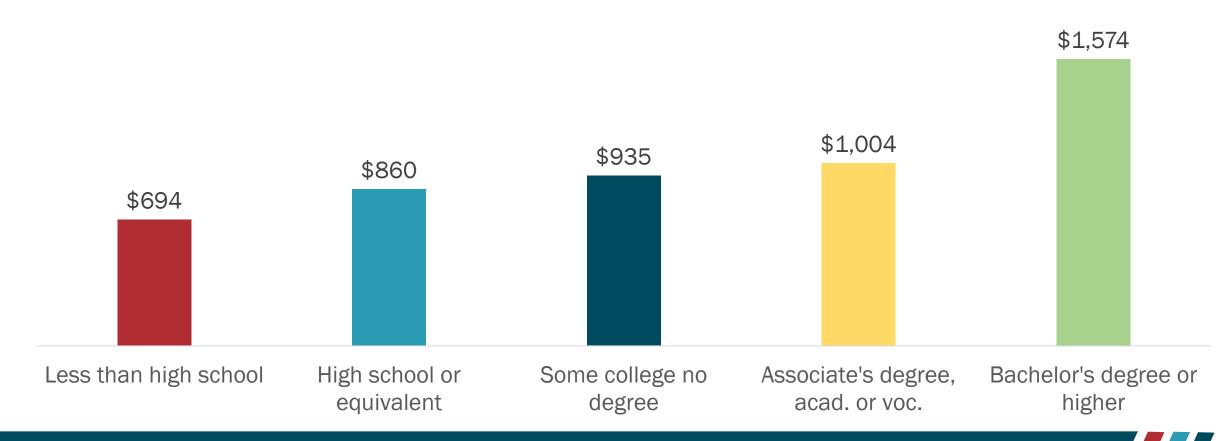




Earnings by education and training

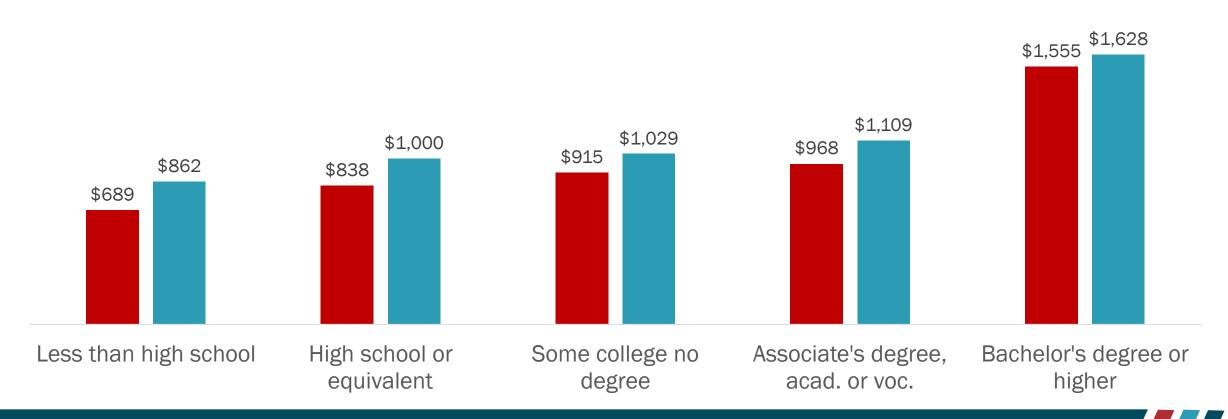
Certifications and licenses and employer-sponsored training for in-demand occupations provide a pathway for higher earnings for those with less than a college degree

Education Pays: Median weekly earnings in 2024 by education for all wage and salary workers 25 and older



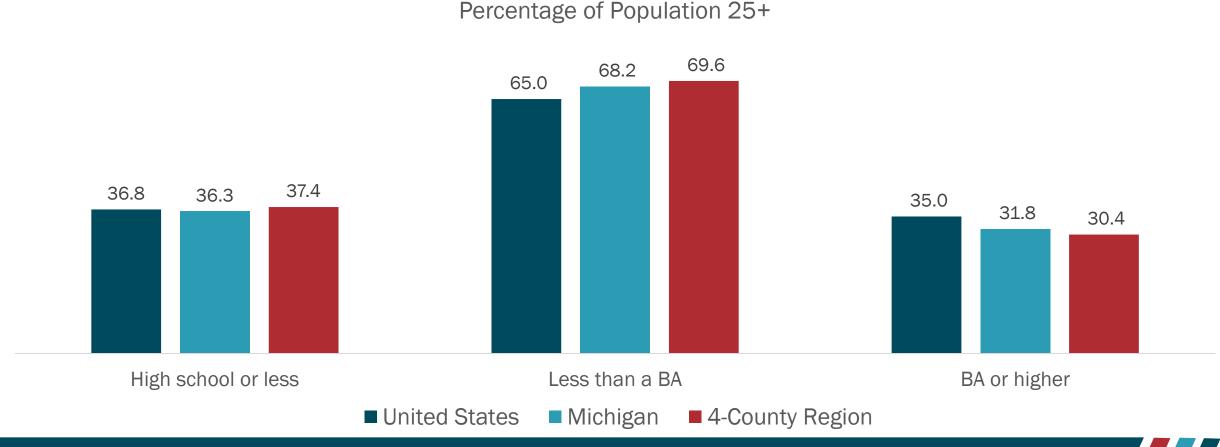


Median weekly earnings in 2024 by education for all wage and salary workers ages 25 and older – comparing groups with and without a license or certification



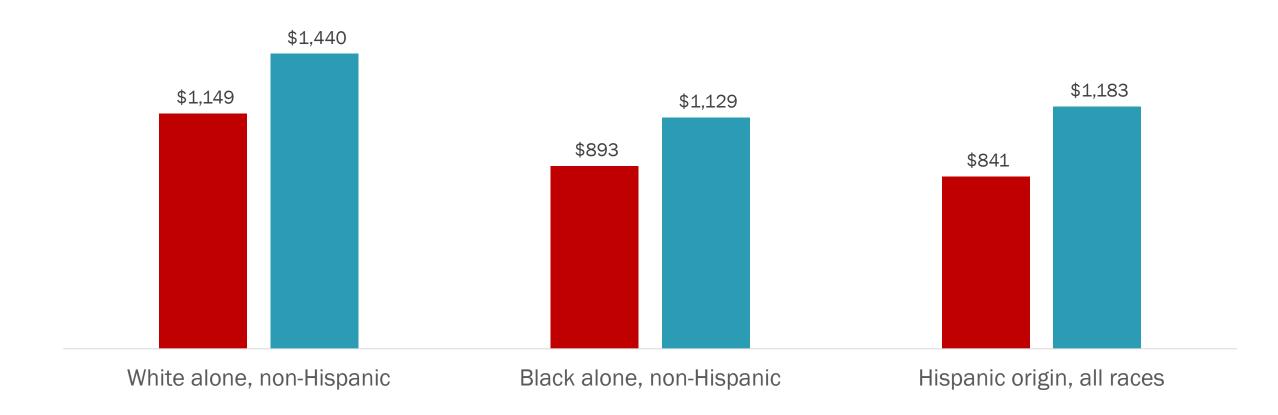


Regionally in 2023, nearly 70 percent of adults ages 25 and older had less than a Bachelor's degree, and nearly 40 percent had a high school degree or less





Median weekly earnings in 2024 by race and ethnicity for all wage and salary workers ages 25 and older – comparing groups with and without a license or certification





Attainment of certification and licensure varies by race and educational attainment

Percent of Employees with Certification or Licensure, by Race/Ethnicity and Educational Attainment, 2024

Race and Ethnicity
White alone, non-Hispanic
Black alone, non-Hispanic
Hispanic origin, all races
Asian alone, non-Hispanic

High school or less
14.5%
13.7%
7.2%
12.9%

Some college or
Associate's
26.8%
24.8%
21.5%
21.1%

Bachelor's degree or					
higher					
36.9%					
32.9%					
28.1%					
23.9%					



Wage premiums to certification and licensure also vary by race and educational attainment

Median Weekly Earnings by Certification/Licensure, Race/Ethnicity and Educational Attainment, 2024

Race and Ethnicity		High school or less				Some college or Associate's			Bachelor's degree or higher				
		Without ertificate or License	With Certificate or License			С	Without ertificate or License		th Certificate or License		Without Certificate or License		ith Certificate or License
White alone, non-Hispanic	\$	884	\$	1,103		\$	981	\$	1,127		1,621	\$	1,649
Black alone, non-Hispanic	\$	731	\$	795		\$	845	\$	944	,	1,272	\$	1,380
Hispanic origin, all races	\$	745	\$	911		\$	910	\$	1,022	ζ,	1,287	\$	1,507
Asian alone, non-Hispanic	\$	769	\$	819		\$	886	\$	1,083	Ç	1,873	\$	1,900



Attainment of certification and licensure by sex and educational attainment

Percent of Employees with Certification or Licensure, by Sex and Educational Attainment, 2024											
Sex	High school or less	Some college or Associate's	Bachelor's degree or higher								
Male	12.2%	23.5%	28.0%								
Female	11.4%	27.3%	39.6%								



Wage premiums to certification and licensure also vary by sex and educational attainment

Median Weekly Earnings by Certification/Licensure, Sex and Educational Attainment, 2024											
	High	High school or less Some college or Associate's				Bachelor's degree or higher					
Race and Ethnicity	Withou Certificate License	or	With Certificate or License		Cert	ithout ificate or icense		n Certificate or License		Without Certificate or License	With Certificate or License
Male	\$	896	\$ 1,190		\$	1,105	\$	1,318		5 1,863	\$ 1,907
Female	\$	698	\$ 754		\$	804	\$	920	,	5 1,309	\$ 1,463



New estimates from Upjohn Institute

Good-paying / in-demand occupations in Kalamazoo 2023-2028

Occupation code	Occupation Title	Typical education needed to enter the occupation	Typical on-the-job training received after hire	Median hourly earnings 2023	Annual job openings 2023- 2028
29-1292	Dental Hygienists	Associate's degree	None	\$ 37.41	22
17-3026	Industrial Engineering Technologists and Technicians	Associate's degree	None	\$ 27.50	21
29-2061	Licensed Practical and Licensed Vocational Nurses	Postsecondary nondegree award	None	\$ 29.39	28
31-9091	Dental Assistants	Postsecondary nondegree award	None	\$ 22.02	56
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Postsecondary nondegree award	Long-term	\$ 26.47	37
15-1232	Computer User Support Specialists	Some college, no degree	Moderate-term	\$ 27.31	34
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	Moderate-term	\$ 21.50	117

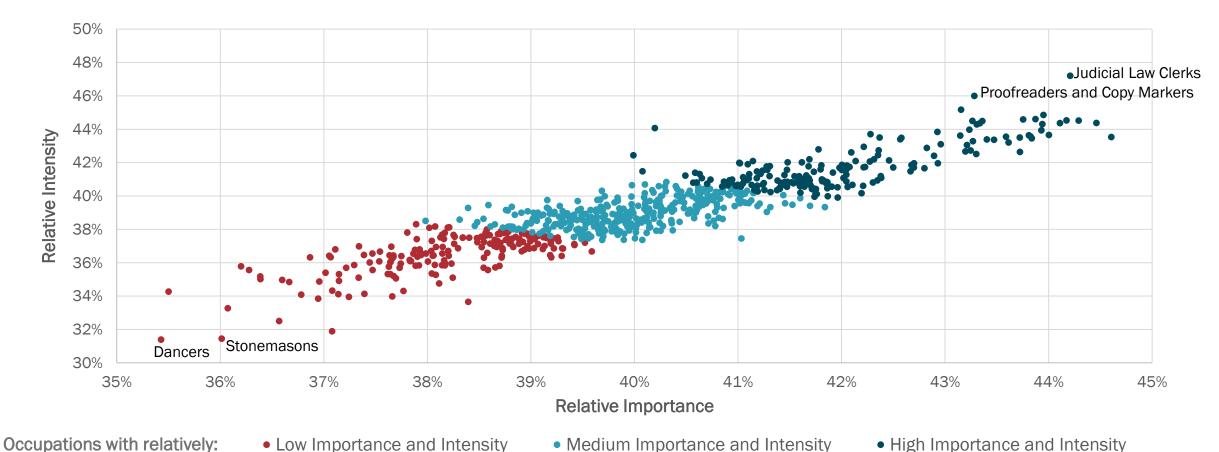


Occupation code	Occupation Title	Typical education needed to enter the occupation	Typical on-the-job training received after hire	Median hourly earnings 2023	Annual job openings 2023- 2028
		High school diploma			
47-2152	Plumbers, Pipefitters, and Steamfitters	or equivalent	Apprenticeship	\$ 40.14	38
		High school diploma			
47-2111	Electricians	or equivalent	Apprenticeship	\$ 29.25	77
		High school diploma			
47-2031	Carpenters	or equivalent	Apprenticeship	\$ 24.54	60
		High school diploma			
49-9041	Industrial Machinery Mechanics	or equivalent	Long-term	\$ 29.36	67
		High school diploma			
51-4041	Machinists	or equivalent	Long-term	\$ 23.76	78
	Sales Representatives of Services, Except Advertising,	High school diploma			
41-3091	Insurance, Financial Services, and Travel	or equivalent	Moderate-term	\$ 31.56	53
		High school diploma			
43-5061	Production, Planning, and Expediting Clerks	or equivalent	Moderate-term	\$ 29.97	30
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	High school diploma or equivalent	Moderate-term	\$ 29.85	123
F1 0011	Charainal Faurings out On a vators and Tandars	High school diploma	Madayata tayya	¢ 20.22	20
51-9011	Chemical Equipment Operators and Tenders	or equivalent	Moderate-term	\$ 29.23	36
51-4121	Wolders Cuttors Solderors and Brazers	High school diploma or equivalent	 Moderate-term	\$ 22.84	34
31-4121	Welders, Cutters, Solderers, and Brazers	High school diploma	Moderate-term	<i>ې</i> 22.04	34
51-9196	Paper Goods Machine Setters, Operators, and Tenders	or equivalent	 Moderate-term	\$ 22.47	57
31-9190	raper doods Machine Setters, Operators, and Tenders	High school diploma	Woderate-term	۶ 22.47	37
51-9081	Dental Laboratory Technicians	or equivalent	 Moderate-term	\$ 22.35	22
31-9081	Dental Laboratory Technicians	High school diploma	Moderate-term	۶ <u>۲۲</u> .۵۵	22
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	or equivalent	 Moderate-term	\$ 22.05	105
31-9001	Inspectors, resters, sorters, samplers, and weighers	High school diploma	Moderate-term	\$ 22.05	105
49-9071	Maintenance and Repair Workers, General		Moderate term	¢ 21 11	111
43-30/1	iviantienance and nepair workers, deficial	or equivalent High school diploma	Moderate-term	\$ 21.14	111
13-2021	Billing and Posting Clerks	or equivalent	Moderate-term	\$ 20.60	40
43-3021	pining and rusting cierks	joi equivalent	Moderate-term	\$ 20.60	40

Source: *Upjohn Institute* 32

The use of AI and the demand for occupations

Cluster Assignments, Occupations sorted by relative importance and intensity of high exposure Al work activities





Occupations with Greatest Relative Intensity and Importance of High AI Exposure Work Activities, Typically Requiring a Bachelor's or Professional Degree

soc				1	Median
Code	Title	Typical Education	Typical OJT	Annual	
Code				Wá	age, 2023
53-2011	Airline Pilots, Copilots, and Flight Engineers	Bachelor's degree	Moderate-term	\$	219,140
23-1023	Judges, Magistrate Judges, and Magistrates	Doctoral or professional degree	Short-term	\$	148,910
15-1221	Computer and Information Research Scientists	Master's degree	None	\$	145,080
17-2011	Aerospace Engineers	Bachelor's degree	None	\$	130,720
17-2072	Electronics Engineers, Except Computer	Bachelor's degree	None	\$	119,200
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	Doctoral or professional degree	Short-term	\$	111,090
17-2071	Electrical Engineers	Bachelor's degree	None	\$	106,950
17-2141	Mechanical Engineers	Bachelor's degree	None	\$	99,510
13-2031	Budget Analysts	Bachelor's degree	None	\$	84,940
13-2041	Credit Analysts	Bachelor's degree	None	\$	79,420
27-1021	Commercial and Industrial Designers	Bachelor's degree	None	\$	76,250
17-1021	Cartographers and Photogrammetrists	Bachelor's degree	None	\$	76,210
13-1041	Compliance Officers	Bachelor's degree	Moderate-term	\$	75,670
23-1022	Arbitrators, Mediators, and Conciliators	Bachelor's degree	Moderate-term	\$	71,540
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	Bachelor's degree	Long-term	\$	59,300
23-1012	Judicial Law Clerks	Doctoral or professional degree	None	\$	57,490
19-4021	Biological Technicians	Bachelor's degree	None	\$	51,430
43-9081	Proofreaders and Copy Markers	Bachelor's degree	None	\$	48,790



Occupations with Greatest Relative Intensity and Importance of High AI Exposure Work Activities, Typically Requiring an Associate's, Some college, or Postsecondary nondegree award

SOC Code	Title	Typical Education	Typical OJT		1edian Annual
Code				Wage, 2023	
53-2021	Air Traffic Controllers	Associate's degree	Long-term	\$	137,380
	Aerospace Engineering and Operations Technologists and				
17-3021	Technicians	Associate's degree	None	\$	77,830
13-1032	Insurance Appraisers, Auto Damage	Postsecondary nondegree award	Moderate-term	\$	74,520
17-3012	Electrical and Electronics Drafters	Associate's degree	None	\$	69,260
17-3013	Mechanical Drafters	Associate's degree	None	\$	64,060
27-3092	Court Reporters and Simultaneous Captioners	Postsecondary nondegree award	Short-term	\$	63,940
51-9162	Computer Numerically Controlled Tool Programmers	Postsecondary nondegree award	Moderate-term	\$	63,440
17-3011	Architectural and Civil Drafters	Associate's degree	None	\$	61,820
23-2011	Paralegals and Legal Assistants	Associate's degree	None	\$	60,970
17-3022	Civil Engineering Technologists and Technicians	Associate's degree	None	\$	60,700
19-4031	Chemical Technicians	Associate's degree	Moderate-term	\$	56,750
17-3025	Environmental Engineering Technologists and Technicians	Associate's degree	None	\$	54,000
19-4043	Geological Technicians, Except Hydrologic Technicians	Associate's degree	Moderate-term	\$	52,440
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	Associate's degree	None	\$	47,710
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	Moderate-term	\$	47,440
49-2011	Computer, Automated Teller, and Office Machine Repairers	Some college, no degree	Short-term	\$	45,760
43-4151	Order Clerks	Some college, no degree	Short-term	\$	41,600
31-9094	Medical Transcriptionists	Postsecondary nondegree award	None	\$	37,060



Occupations with Greatest Relative Intensity and Importance of High AI Exposure Work Activities, Typically Requiring a High school diploma or no formal education credential

soc	Title	Typical Education	Typical OJT	_	1edian Innual
Code		,,		Wage, 2023	
43-5061	Production, Planning, and Expediting Clerks	High school diploma or equivalent	Moderate-term	\$	53,900
23-2093	Title Examiners, Abstractors, and Searchers	High school diploma or equivalent	Moderate-term	\$	53,550
43-3051	Payroll and Timekeeping Clerks	High school diploma or equivalent	Moderate-term	\$	52,240
53-6041	Traffic Technicians	High school diploma or equivalent	Moderate-term	\$	52,240
43-4061	Eligibility Interviewers, Government Programs	High school diploma or equivalent	Moderate-term	\$	50,270
33-9021	Private Detectives and Investigators	High school diploma or equivalent	Moderate-term	\$	49,540
13-2082	Tax Preparers	High school diploma or equivalent	Moderate-term	\$	49,010
17-3031	Surveying and Mapping Technicians	High school diploma or equivalent	Moderate-term	\$	48,940
43-4131	Loan Interviewers and Clerks	High school diploma or equivalent	Short-term	\$	47,380
43-9041	Insurance Claims and Policy Processing Clerks	High school diploma or equivalent	Moderate-term	\$	46,900
43-9022	Word Processors and Typists	High school diploma or equivalent	Short-term	\$	46,450
43-4031	Court, Municipal, and License Clerks	High school diploma or equivalent	Long-term	\$	46,110
43-3021	Billing and Posting Clerks	High school diploma or equivalent	Moderate-term	\$	45,590
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	High school diploma or equivalent	Short-term	\$	44,980
	Secretaries and Administrative Assistants, Except Legal, Medical,				
43-6014	and Executive	High school diploma or equivalent	Short-term	\$	44,280
43-2011	Switchboard Operators, Including Answering Service	High school diploma or equivalent	Short-term	\$	36,750
43-5021	Couriers and Messengers	High school diploma or equivalent	Short-term	\$	36,710
27-1012	Craft Artists	No formal educational credential	Long-term	\$	36,600



Most jobs with high AI exposure require high school or less while projected job growth requires a BA or higher

Michigan Employment Projections by Typical Education needed to enter an occupation Focus on occupations having the greatest relative importance and intensity of High AI exposure work activities

Typical Educational Attainment Required to	Employment 2022		Employment 2032		Projected Employment Change 2022-2032	
Enter an Occupation	Level	Share of total	Level	Share of total	Level	Percent
Bachelors or higher	247,810	27.0%	261,230	28.7%	13,420	5.4 %
Some College or Associate	213,650	23.3%	212,580	23.4%	(1,070)	-0.5%
High School or Less	455,880	49.7%	436,200	47.9%	(19,680)	-4.3%
Total	917,340	100.0%	910,010	100.0%	(7,330)	-0.8%



CWIS Dashboard

CWIS Dashboard Economic Indicators for Southwest Michigan: Branch, Calhoun, Kalamazoo, and St. Joseph Counties

Labor Force Participation Rate

- 63.0%, Overall
 - 67.2%, Male
 - 59.0%, Female

Unemployment Rate

• 4.0%

Median Household Incomes

(\$60,385 - \$70,525)

Families Below Poverty Level

• 8.4%

Employment by Industry

• 21.5% of employment is in manufacturing

Educational Attainment

 40.1% have an Associate's or higher*

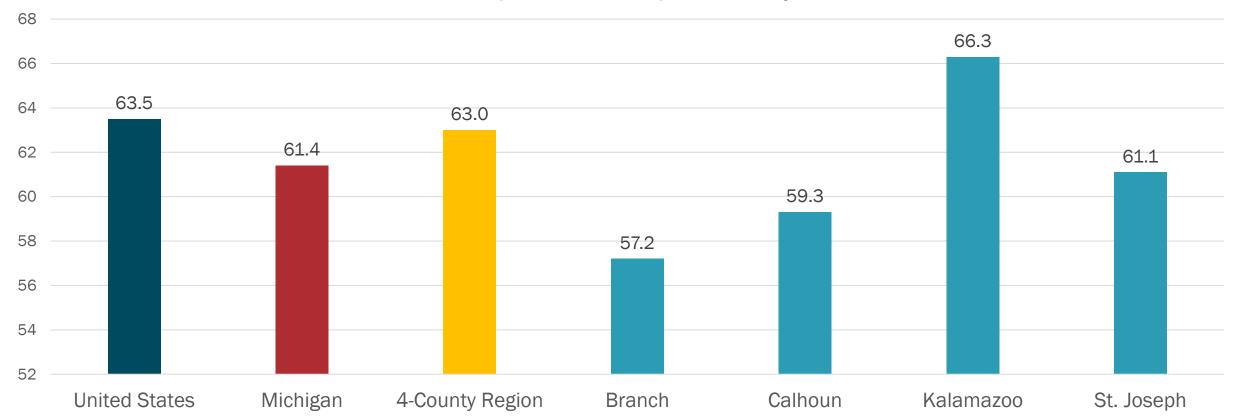
*Individuals 25 years and older



Labor Force Participation Rate, 2023



Labor Force Participation Rate, Population 16 years and older

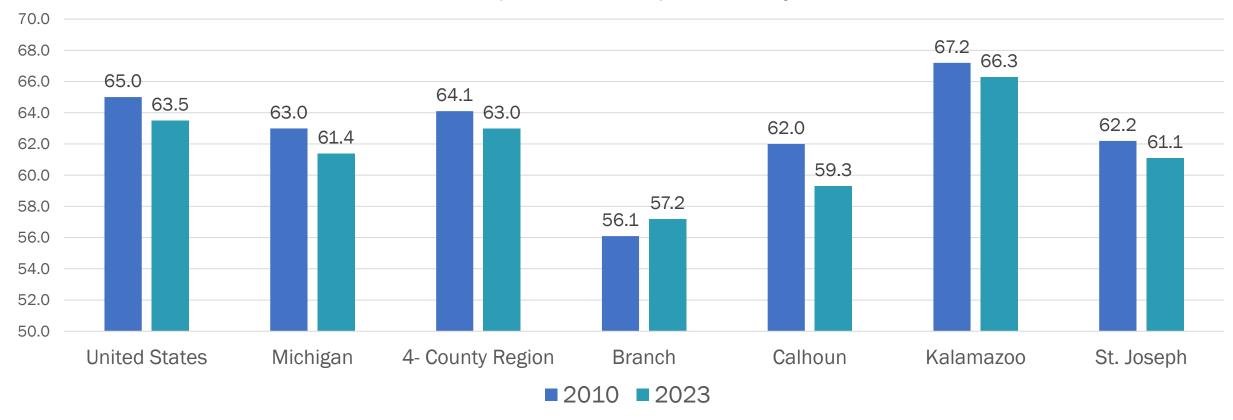




Labor Force Participation Rate, 2010 and 2023



Labor Force Participation Rate, Population 16 years and older

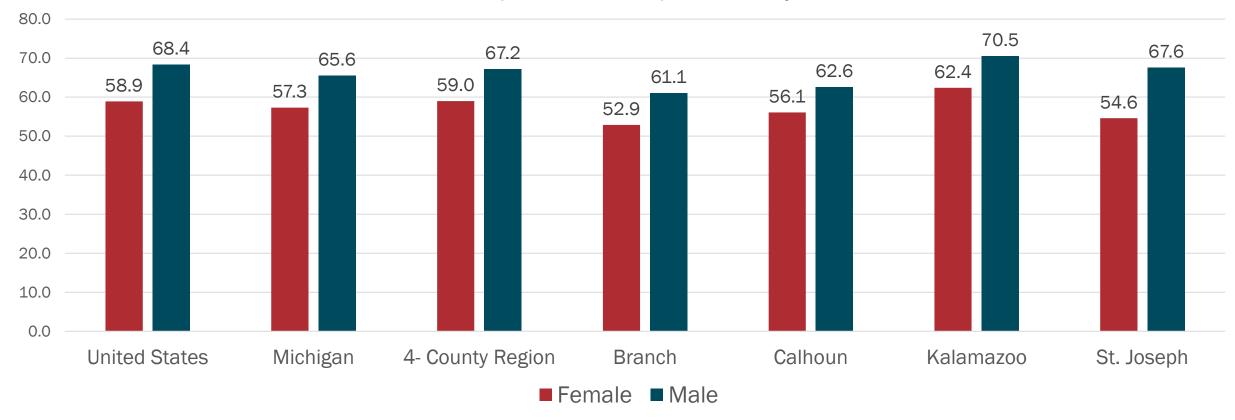




Labor Force Participation Rate by Sex, 2023



Labor Force Participation Rate, Population 16 years and older





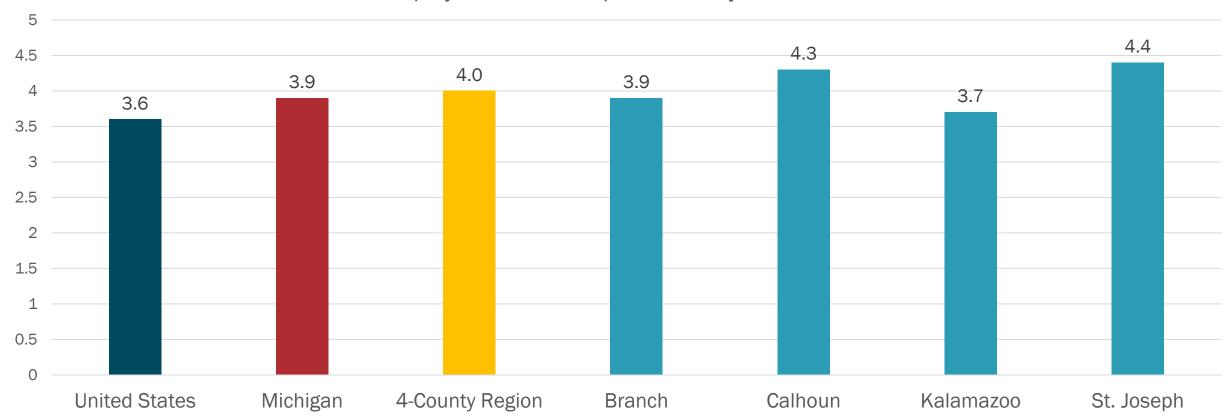
Contact

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Unemployment Rate, 2023



Unemployment Rate, Population 16 years and older

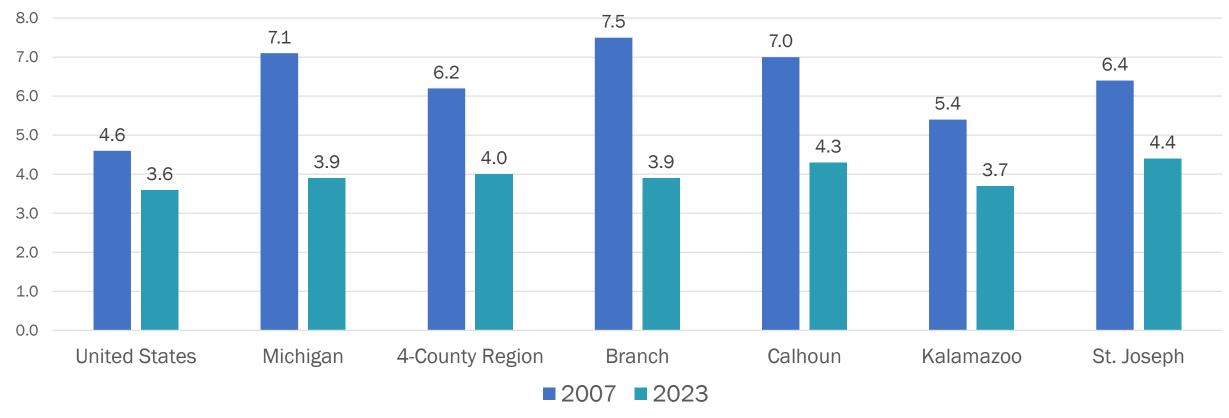




Unemployment Rate, 2007 and 2023





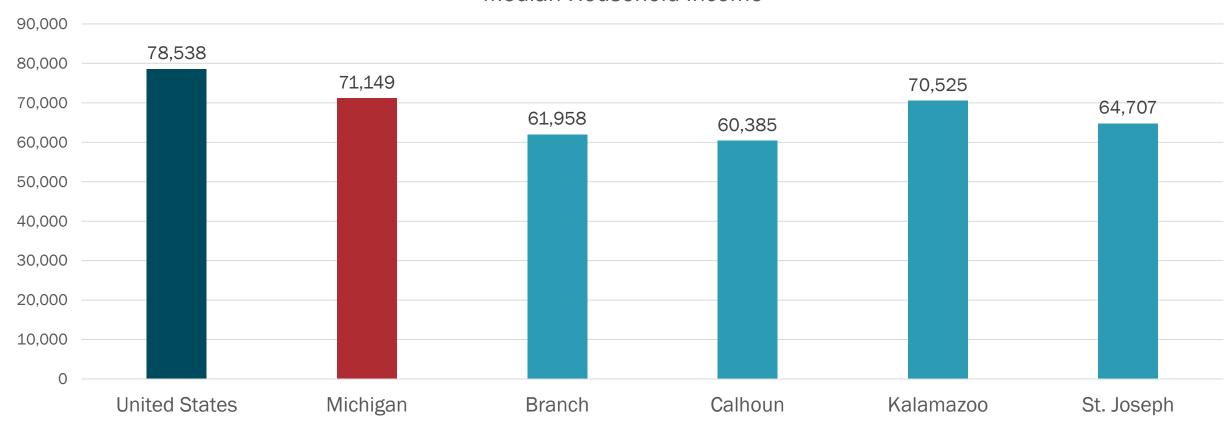




Median Household Incomes, 2023

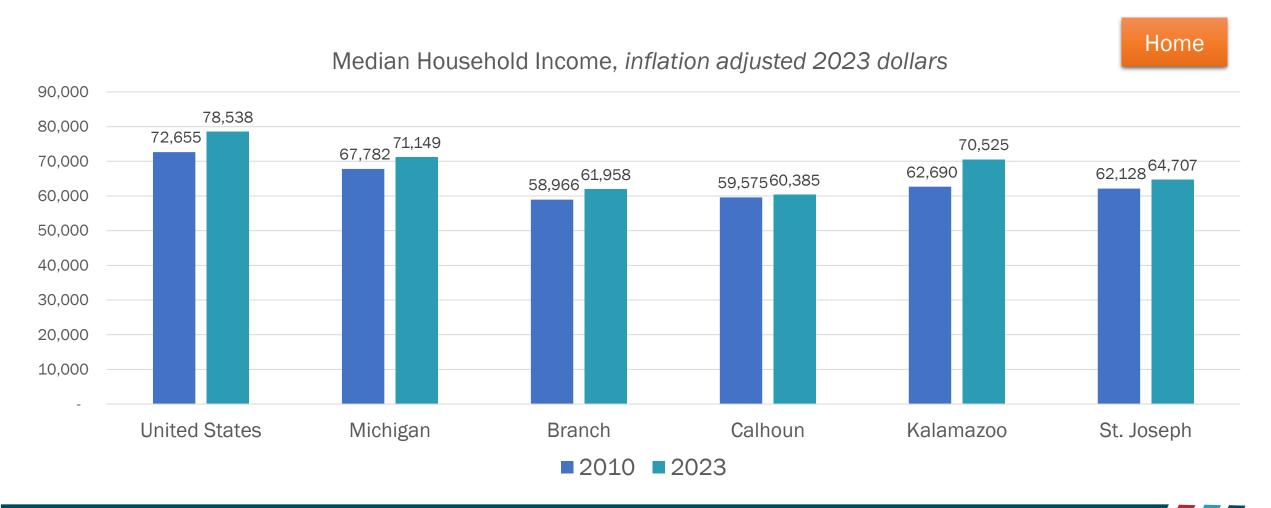


Median Household Income





Median Household Incomes, 2010 and 2023

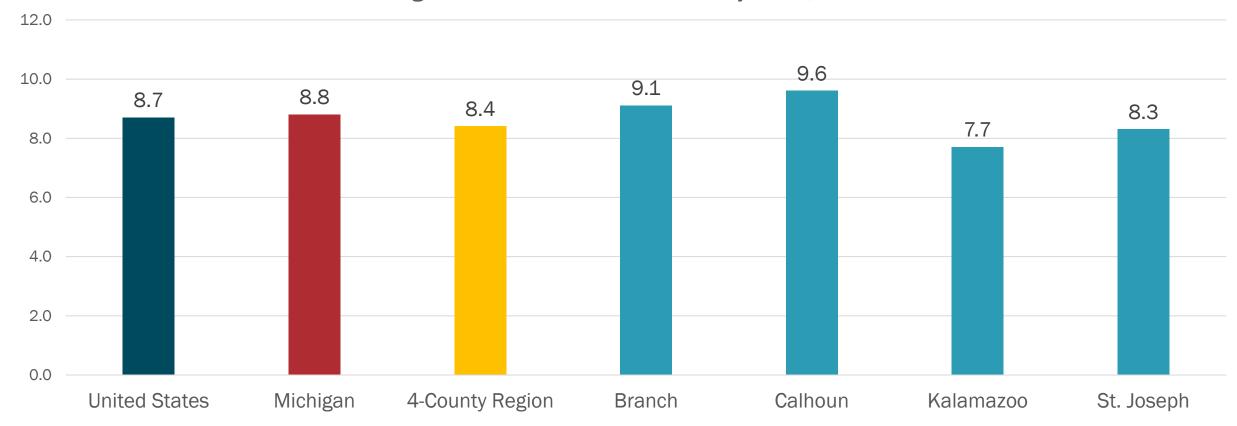




Percentage of families whose income in the past 12 months is below the poverty level, 2023

Home

Percentage of Families Below the Poverty Level, All families

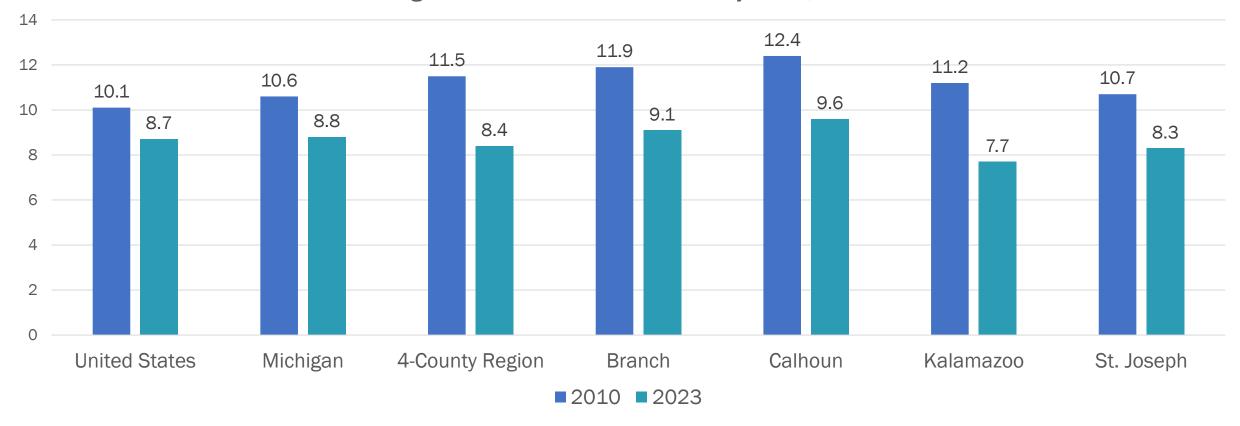




Percentage of families whose income in the past 12 months is below the poverty level, 2010 and 2023

Home

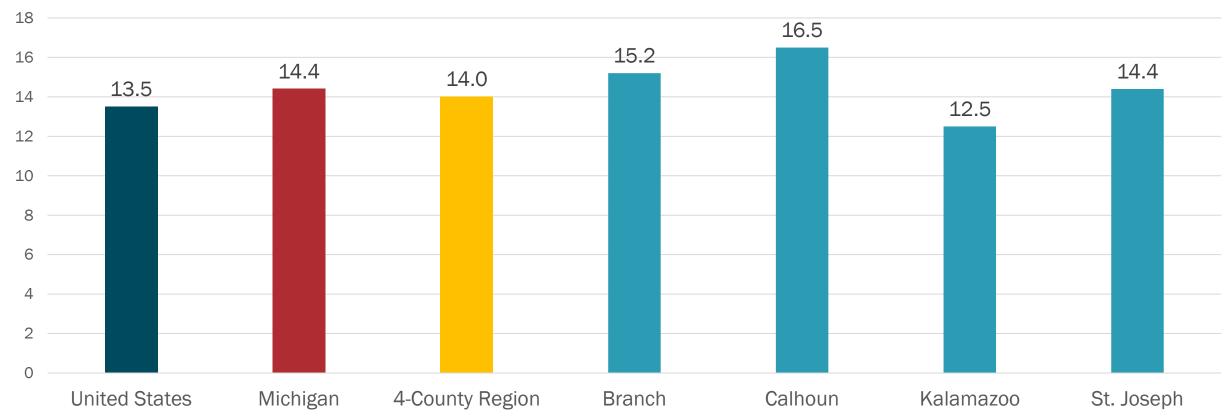
Percentage of Families Below the Poverty Level, All families





Percentage of families whose income in the past 12 months is below the poverty level, with related children, 2023

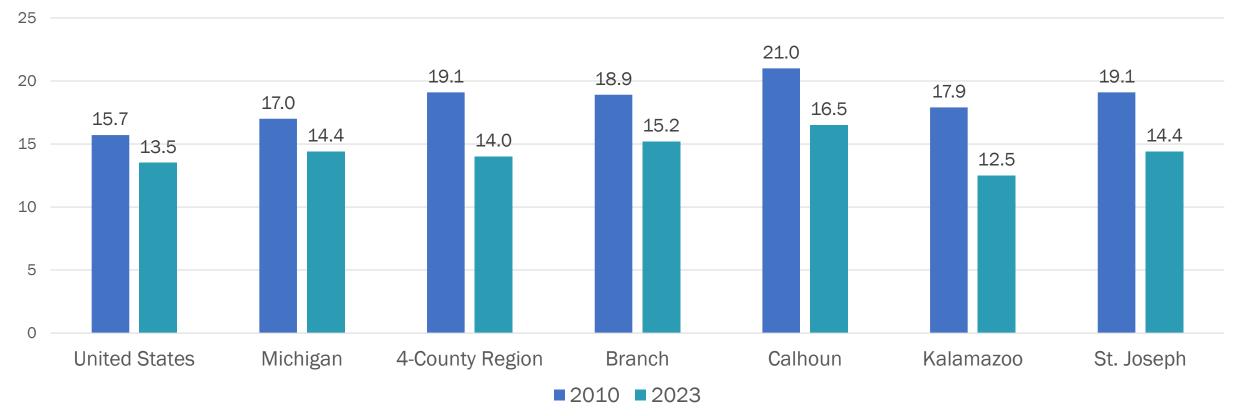
Percentage of Families Below the Poverty Level, with Related Children less than 18 years old





Percentage of families with related children whose income in the past 12 months is below the poverty level, 2010 and 2023

Percentage of Families Below the Poverty Level, with related children less than 18 years old

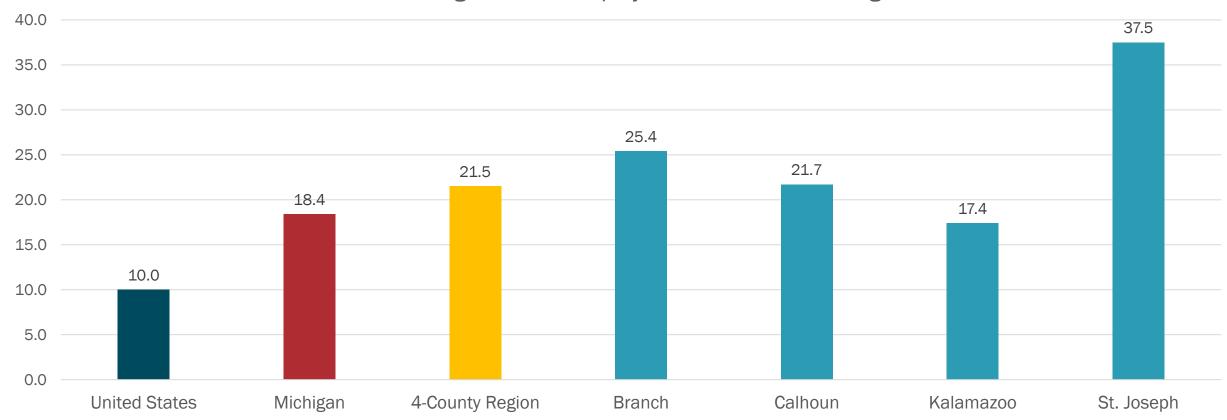




Manufacturing Employment, 2023



Percentage of Total Employment in Manufacturing

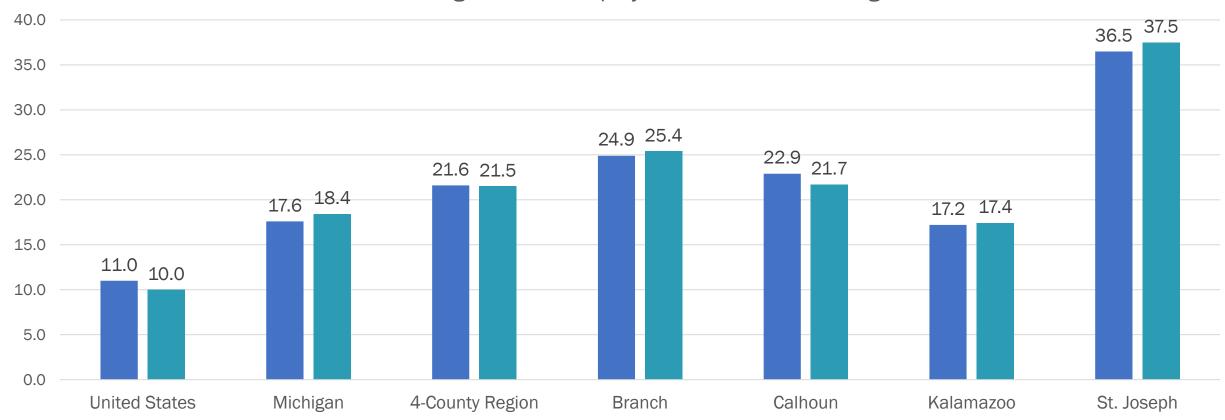




Manufacturing Employment, 2010 and 2023



Percentage of Total Employment in Manufacturing

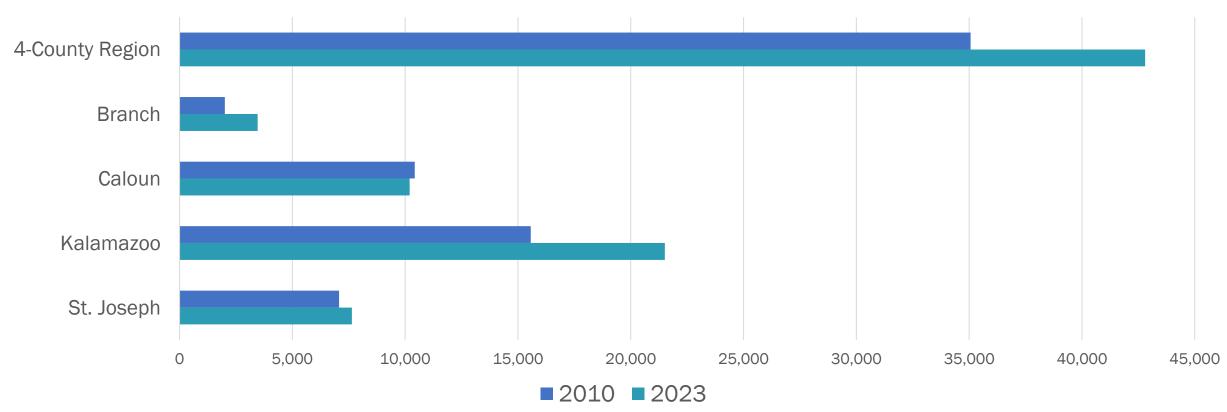




Manufacturing Employment, 2010-2023



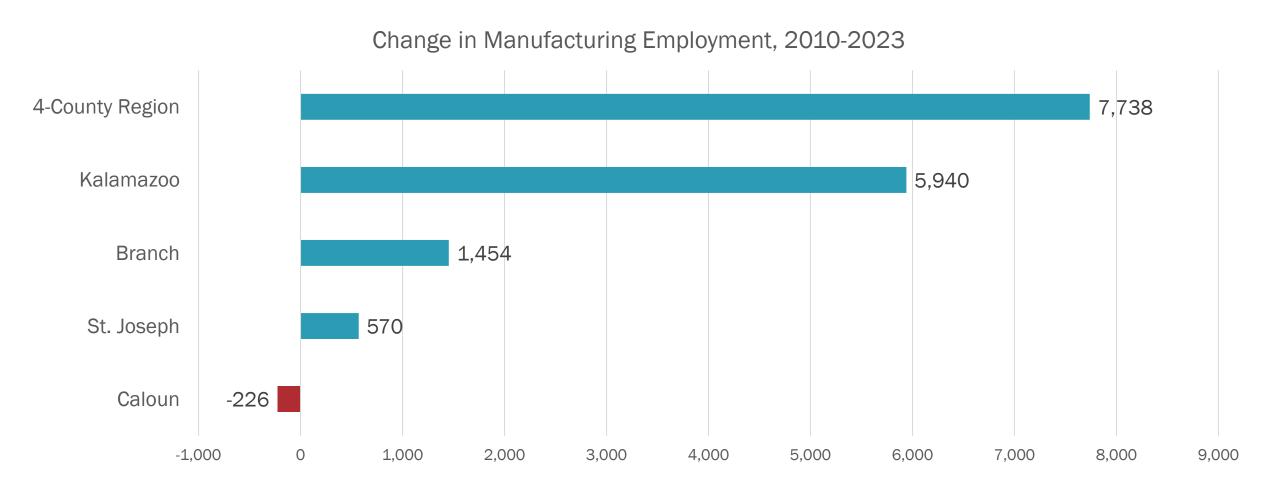






Manufacturing Employment Change, 2010-2023

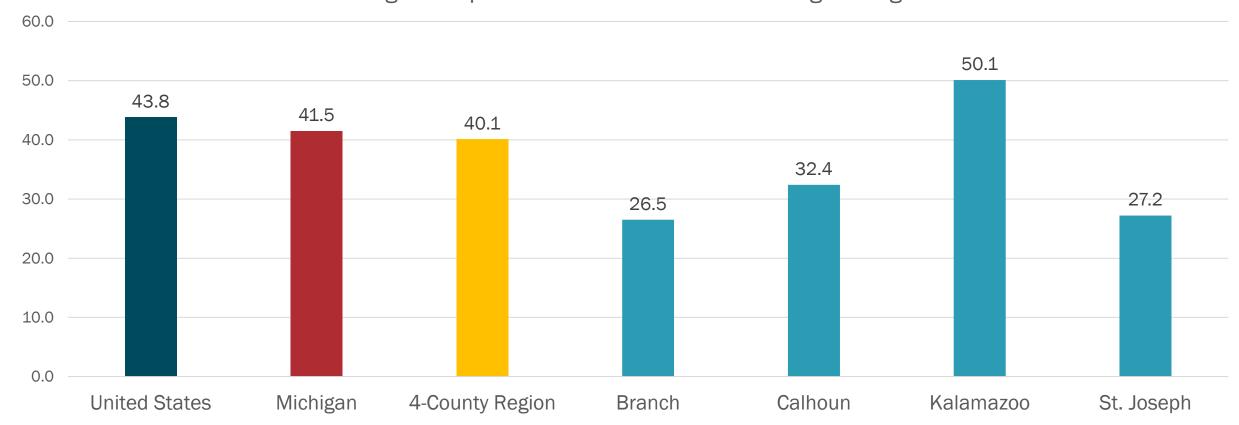




Educational Attainment, share of population with Associate's degree or greater, 2023



Percentage of Population 25+ with Associate's degree or greater

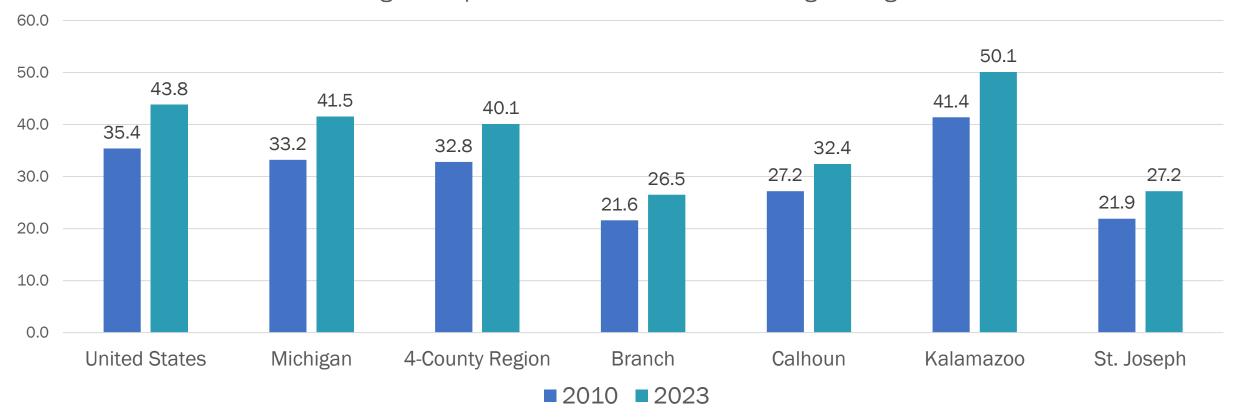




Educational Attainment, share of population with Associate's degree or greater, 2010 and 2023



Percentage of Population 25+ with Associate's degree or greater





Educational Attainment, 2023



