JULY 2023

UPPER PENINSULA LABOR MARKET STUDY SUPPLEMENTAL COUNTY MATERIALS



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ABOUT THIS WORK

In fall 2022, the Upper Peninsula Collaborative Development Council launched a study to better understand the regional workforce in order to more closely align the labor pool supply with employer demand. Completed in May 2023, the *Upper Peninsula Labor Market Study* draws on an extensive quantitative analysis that resulted in a robust dataset providing a county-by-county illustration of current conditions in the Upper Peninsula (UP). The data and recommendations provided in the study give leaders the information they need to target workforce and business development efforts intentionally and strategically to yield the most significant results.

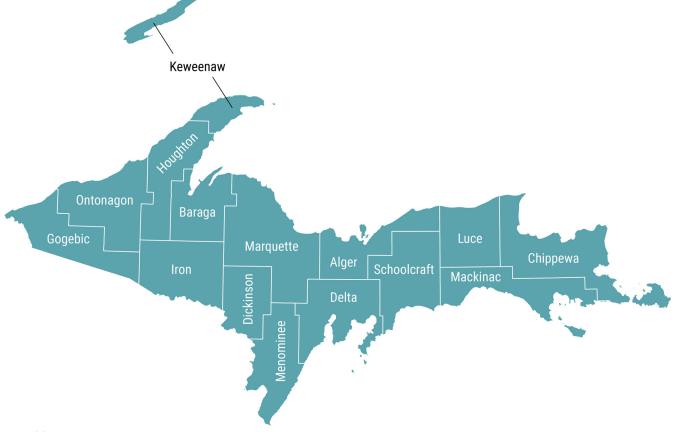
This supplemental report highlights significant findings for each of the 15 counties and crosswalks those findings to the six recommendations outlined in the full report. The full text of the recommendations is provided for reference in Figure 1. Each has been assigned a color for easy identification throughout the county crosswalk.

Figure 2. The Upper Peninsula Region

Figure 1. Labor Market Study Recommendations

1	Utilize data findings (by county) to allocate resources toward workforce development needs that align with existing strategic priorities.
2	Leverage the region's engineering and technical expertise.
3	Reinforce the relationships between the private sector and education/training providers to understand talent needs and develop clear career pathways.
4	Develop career exposure programs focused on K–12 students that also engage parents.
5	Expand the region's diverse workforce by attracting new talent in high demand occupations, as well as remote workers, to the region.
6	Cultivate an entrepreneurship ecosystem and support small business development.

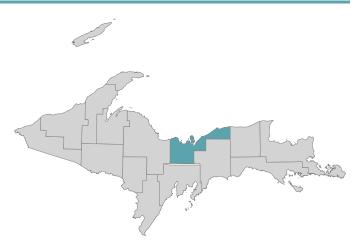
Source(s): TIP Strategies, Inc



Source(s): InvestUP; TIP Strategies, Inc.

ALGER COUNTY

Alger County is located in the central part of the Upper Peninsula. The county seat is Munising, which is also the largest city in the county. Alger County is known for its natural beauty and outdoor recreation opportunities, especially in the Pictured Rocks National Lakeshore along Lake Superior. The economy of Alger County is mainly based on tourism, forestry, agriculture, and health care. The county has a diverse range of attractions and amenities for visitors, such as waterfalls, hiking trails, lighthouses, museums, and historic sites. The county also has a rich forest resource base that supports timber production and wood products manufacturing. Agriculture is another important sector in the county,

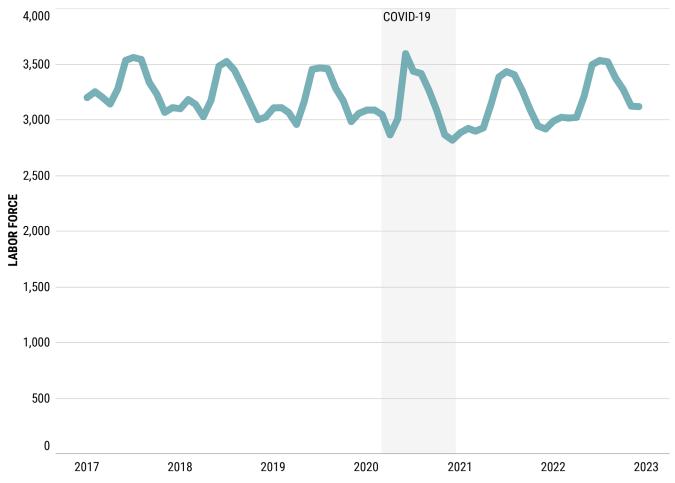


with dairy farming, maple syrup production, and specialty crops being some of the main products. Health care is also a significant employer in the county, with Munising Memorial Hospital being the largest health care facility in the area. The labor market of Alger County reflects the seasonal nature of its economy. The unemployment rate tends to be higher in the winter months and lower in the summer months due to the influx of tourists and seasonal workers. The three largest occupation sectors in the county are food preparation and serving related occupations, office and administrative occupations, and production occupations.

Figure 3. Alger County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Alger County.	1.1 1.2
Alger County's seasonal labor force leads to a predictable spike in unemployment rates during winter. Economic developers can support employers with seasonal labor demands and invest in cross-training to balance labor demands throughout the year and bring consistent employment to workers.	3.2
Participation in apprenticeship programs in Alger County has been inconsistent over the past 10 years, although participation has generally increased over the past two years. Continuing to build on this momentum will help support not only growth of the trades, but also may spur entrepreneurship and small business development.	4.1 4.3 4.4 6.3
Continue to invest in infrastructure to support a high quality of life, ranging from downtowns to broadband to housing, which must be addressed to viably increase the population and attract higher paying jobs.	5.15.25.35.4

Figure 4. Labor Force Trends for Alger County, Michigan Not seasonally adjusted

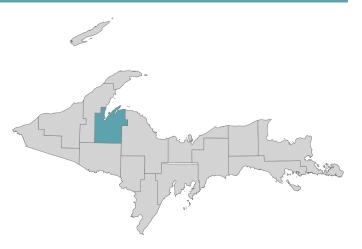


Source(s): US Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS); Lightcast 2023.1–QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

Note(s): The labor force includes all employed and unemployed persons seeking work.

BARAGA COUNTY

Similar to other counties in the Western UP, Baraga County's economy was historically anchored in mining and forestry. Today, Baraga County's economy is more diverse; however, it still has aboveaverage concentrations of production and farming, fishing, and forestry jobs. Although tourism and natural resources are an important part of the local economy, there are a smaller percentage of occupations in retail and hospitality than neighboring counties in the UP. This is evident in the relatively high numbers of outbound commuters in retail and hospitality occupations. However, the county imports workers in higher paid sectors, such as production, healthcare, and other professional services.



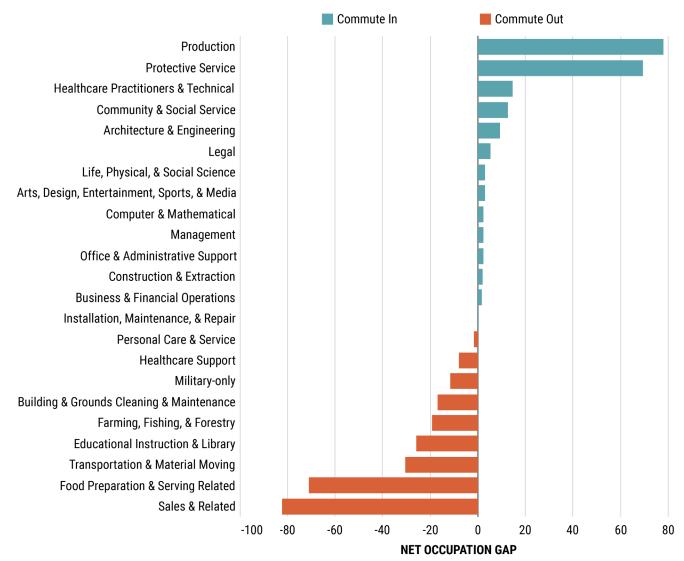
Continued efforts to further strengthen the workforce to diversify the economy, especially through business attraction and support in sectors like manufacturing, technology, and renewable energy, will require new investments. Additionally, supporting local entrepreneurship and small business growth will spur new industries and workforce opportunities. This support can involve providing resources, training, and financial assistance to aspiring entrepreneurs and existing small businesses. By nurturing the local business ecosystem, these efforts contribute to job creation and economic vitality. In addition to business development, infrastructure investments and workforce development efforts will be required to continue to build economic momentum.

Figure 5. Baraga County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Baraga County.	1.1 1.2
Baraga County has the lowest cost of living among the UP counties; however, lower-wage workers in retail and food service occupations are commuting out of the county for work. This may suggest that they are commuting to counties where they cannot afford to live. Upskilling these workers to higher paid jobs in production, healthcare, and professional services may help offset the imbalance of inbound commuters.	2.3 3.1 3.4
More than 38 percent of Baraga County's population is over the age of 55, indicating that talent retention and attraction efforts will be important to support and grow the county's economy.	4.24.35.15.25.3
Baraga County has seen consistent growth in apprenticeship programs since 2015. Regional leaders can leverage this growth to grow the trades, as well as to support entrepreneurship and small business development.	4.4 6.2 6.3

Figure 6. 2022 Net Job Surplus/Deficit by Occupational Group for Baraga County, Michigan

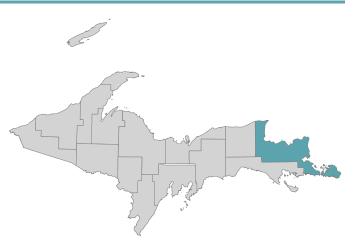
A comparison of employment (number of jobs) with the number of employed residents suggests commuting flows.



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1–QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc. Note(s): This metric represents the difference in each occupational group between the **number of jobs** in Baraga County, Michigan, and the **number of employed residents**. A positive number (**surplus**) indicates Baraga County is effectively a net importer of workers for that occupational group (i.e., there are *more* jobs available than there are residents in that occupational group suggesting an inflow of commuters). A negative number (**deficit**) indicates the county is effectively a net exporter of workers for that group (i.e., there are *fewer* jobs available than there are residents in outflow of commuters).

CHIPPEWA COUNTY

Chippewa County's economic development is driven by its strategic location, natural resources, transportation infrastructure, and diverse industries. The county's economy is based on a mix of sectors, including manufacturing, aerospace, tourism, agriculture, forestry, and services. In 2021, the Michigan Launch Initiative announced Chippewa County had been identified as a potential site for a command-and-control center. Although this project has not been finalized, it has the potential to create high wage and high skilled jobs. The county's natural beauty and cultural heritage attract visitors from around the world, who enjoy the Soo Locks, the International Bridge, and countless outdoor

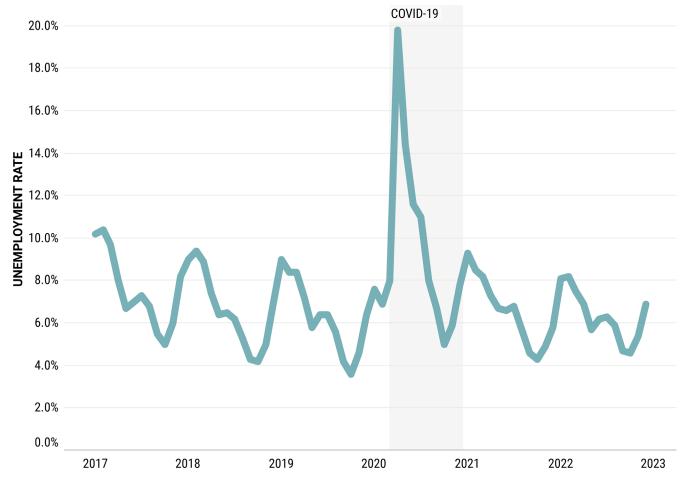


recreational amenities. Strengths of Chippewa County's workforce and economy include an educated workforce (23.4 percent of the population holds a bachelor's degree or higher), a higher-than-average concentration of science-based jobs, a diverse mix of industries, and a scenic location that attracts talent, as well as visitors. Although Chippewa County has a solid base of educated workers, the county also has school districts with high drop-out rates (Sault Ste. Marie Area Schools, 11.2 percent), which may contribute to the county's lower-than-average labor force participation rate (55.9 percent). Other weaknesses include an aging population (a characteristic that can also factor into labor force participation levels), a lack of skilled workers, and a dependence on seasonal employment, which will need to be addressed in order to bolster the pipeline of skilled workers.

Figure 7. Chippewa County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Chippewa County.	1.1 1.2
Data show Chippewa County has a lower-than-average concentration of engineering jobs. Leverage major infrastructure assets, including the Soo Locks, to attract engineering and high-tech talent and companies to the region.	2.1 2.2 2.3
Chippewa County's seasonal labor force leads to a predictable spike in unemployment rates during the winter. Economic developers can support employers with seasonal labor demands and invest in cross-training to balance labor demands throughout the year and bring consistent employment to workers.	3.2
Increase labor force participation rates by investing and promoting career awareness programs in high demand industries.	4.1 4.2 4.3 4.4

Figure 8. Unemployment Trends for Chippewa County, Michigan Not seasonally adjusted

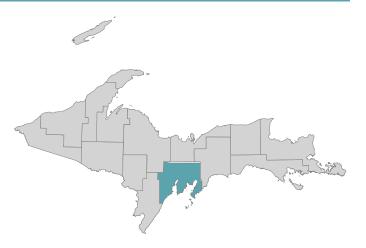


Source(s): US Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS); Lightcast 2023.1–QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

Note(s): The unemployment rate is calculated as the percentage of the labor force that is unemployed.

DELTA COUNTY

Delta County is one of the larger UP counties, both in terms of population and land area. The county's workforce is distributed across a number of occupations, including office and administration, production, transportation, health care, and food service. The county has a relatively low unemployment rate of 5 percent (compared to other UP counties), but also a low labor force participation rate of 52.3 percent, which indicates that many working-age residents are not actively looking for work or are discouraged by the lack of opportunities. However, the county benefits from strong recreational and natural resource assets that contribute to a high quality of life for residents and

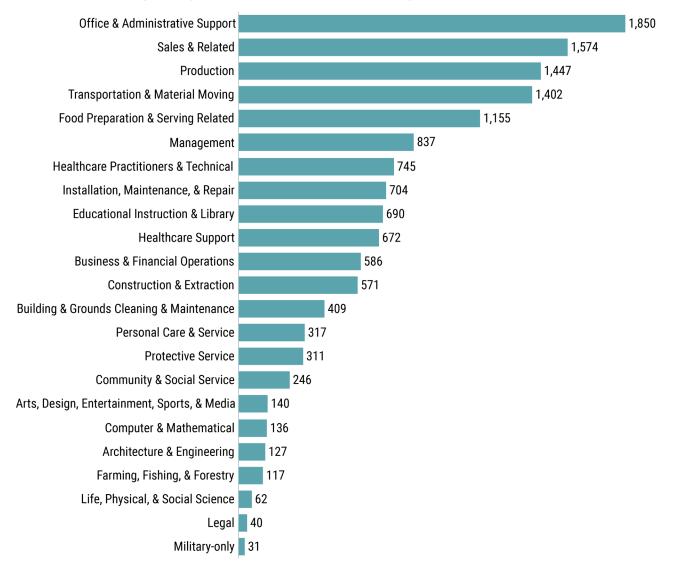


visitors. Delta County leaders face several challenges in building its workforce, such as an aging population, a low educational attainment level, a lack of skilled workers, and limited access to broadband infrastructure. To address these challenges, there are numerous strategies regional partners can deploy to strengthen the county's economy, including investing in education and training programs, attract and retain young and diverse talent, promoting entrepreneurship and innovation, and improving infrastructure and connectivity.

Figure 9. Delta County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Delta County.	1.1 1.2
Leverage higher education assets at Bay College to develop and support entrepreneurs and small businesses to grow and diversify the county's workforce.	6.2 6.3 6.4
In order to support and attract a dynamic workforce and broad range of businesses, community leaders must invest in the physical infrastructure, including broadband.	5.2
Healthcare facilities have a symbiotic relationship with a local economy—not only is OSF St. Francis Hospital a significant employer in Delta County, but it also ensures residents have access to quality healthcare necessary for maintaining a high quality of life. Developing and promoting strong career pathways programs to support the healthcare industry will be vital to supporting this industry.	3.1 4.2 5.3

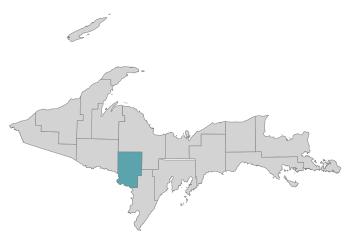
Figure 10. 2022 Employment by Occupational Group for Delta County, Michigan



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1-QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

DICKINSON COUNTY

Geographically, Dickinson County is one of the smaller counties in the UP; however, it falls near the middle in terms population size. Dickinson County also has the lowest rate of vacant housing units (18.2 percent) in the UP, which may impact its ability to attract and retain talent. Production, construction and extraction, and office and administrative occupations comprise the three largest occupational groups in the county. Furthermore, professional architecture and engineering, as well as life, physical, and social science jobs are projected to increase in Dickinson County over the next five years. Compared to other UP counties on the border with Wisconsin, Dickinson County has not only retained their workers, but has

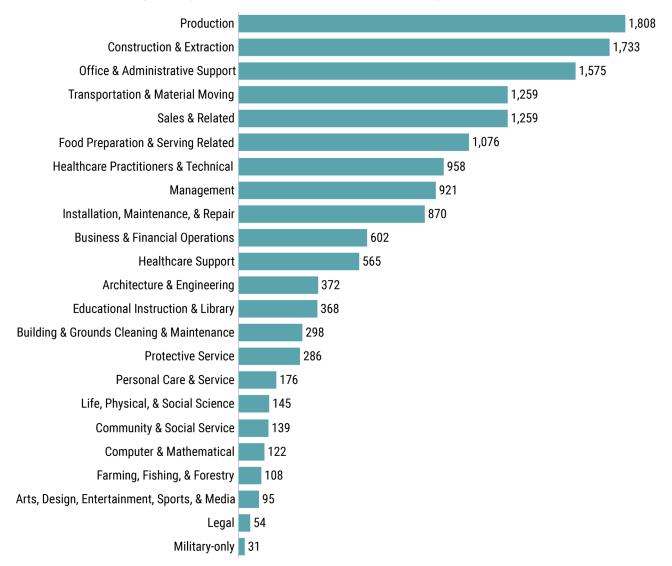


also attracted workers that live in Florence and Marinette Counties, to high paying jobs in Dickinson County. This skilled workforce can be leveraged to expand into higher tech occupations, as well as industries that align with the region's strengths. The county's unemployment rate was 4.9 percent in January 2023, slightly higher than the state average of 4.0 percent. The county's labor force participation rate was 56.4 percent, lower than the state average of 60.8 percent. Dickinson County has incredible outdoor recreational assets, which contribute to a high quality of life for residents and are a strong draw for tourists.

Figure 11. Dickinson County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Dickinson County.	1.1 1.2
Dickinson County has world class recreational assets, including the Pine Mountain Ski Jump. These assets should be leveraged not only to attract talent, but also companies in the outdoor recreational industry.	2.3 5.1
The county's low housing vacancy rates mean that in order to attract and retain talent, Dickinson County must maintain a high quality of life, which includes investments in housing and infrastructure development.	5.2 5.3
Professional jobs in various industries, including STEM fields, are projected to increase in Dickinson County over the next five years. Workforce and economic development leaders can leverage this growth to further entrepreneurship development to support economic growth.	2.1 6.3 6.4

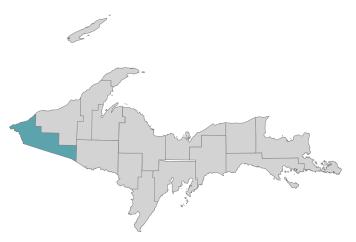
Figure 12. 2022 Employment by Occupational Group for Dickinson County, Michigan



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1–QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

GOGEBIC COUNTY

Gogebic County is a rural county located in the western Upper Peninsula of Michigan. The largest occupational category in Gogebic County is office and administration, followed by food preparation and serving related occupations, sales and related occupations, and production occupations. Despite office and administration being the largest occupational category, jobs within this sector are expected to flatten and even decline slowly over the next five years. While jobs in office and administration are expected to decline, occupations in architecture and engineering are projected to steadily increase over the next five years. Although increases are projected



to be modest, job growth is also expected in other STEM occupations, including computer and mathematical occupations. The county's labor market faces some challenges and opportunities in the coming years. The county has experienced a decline in population and labor force participation in the past decade, due to aging, outmigration, and lack of economic diversification. The county also has a lower level of educational attainment than the state average, with only 21.7 percent of adults having a bachelor's degree or higher, compared to 30.4 percent for Michigan. Furthermore, over 22 percent of Gogebic County households do not have any type of internet access and over 16 percent do not have access to a computer. These factors may limit the county's ability to attract and retain skilled workers and businesses in the future. On the other hand, the county has some strengths and assets that can support its workforce development efforts. The county has a strong tradition of manufacturing and natural resource industries, such as forestry, fishing, and mining. The county also offers a high quality of life, driven by its scenic natural beauty, outdoor recreation opportunities, and cultural heritage.

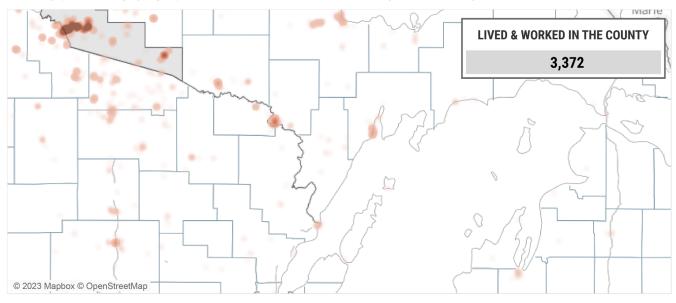
Figure 13. Gogebic County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Gogebic County.	1.1 1.2
Apprenticeships in Gogebic County have been stagnant for the last five years and over 85 percent are in the construction industry. Increasing the number of apprentices and the industry sectors can better support economic growth, the development of infrastructure, and encourage entrepreneurship.	4.1 5.2
Gogebic County, as with many UP counties, has an aging population and therefore talent retention will be essential to meeting economic growth goals. Furthermore, workforce development efforts must include career exposure and career training to ensure residents are aware of the opportunities in the county, resulting in an increased labor force participation rate.	4.3 4.4 6.4
Although Gogebic County benefits from Gogebic Community College, parts of the county are some of the furthest communities away from a four-year university in the UP. Ensuring residents have access to entrepreneurial resources will support continued economic diversification.	2.1 6.3

Figure 14. 2019 Commute Patterns by Residents of Gogebic County, Michigan

WHERE GOGEBIC COUNTY, MI, RESIDENTS WORKED IN 2019

The map shows where residents work by census block group. Darker areas indicate more residents work in the census area. The boundary (the shaded gray region) shows the total number of residents with jobs in the county.



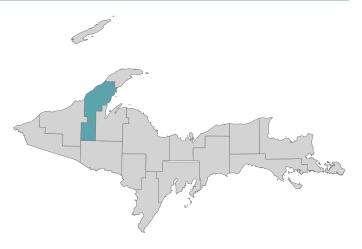
CITIES WHERE GOGEBIC COUNTY, MI, RESIDENTS WORKED IN 2019

1,402 Ironwood city, MI	596 Bessemer city, MI		346 Hurley o	sity, WI	N	70 Vakefie ity, MI	ld
1,050	136 Iron Mountain city, MI	106 Other location in	53 Other	50 Iron River	44	35	34
Other location in Gogebic County, MI	131	64	33	28	25	24	23
	Other location in Iron County, WI	63	31	21			
	110	61	31	21			
	Ashland city,	54	28				
	WI	54	28				

Source(s): Longitudinal Employer-Household Dynamics (LEHD), Origin-Destination Employment Statistics (LODES); TIP Strategies, Inc. Note(s): Analysis only includes residents and workers in Michigan and Wisconsin.

HOUGHTON COUNTY

Houghton County, located in the Western UP, is one of the few UP counties that has seen population growth over the past decade. The county benefits from the presence of Michigan Technological University (MTU), which is a major employer and economic driver for the county. The county is a net importer of jobs in science, technology, engineering, and mathematical (STEM) occupations. Furthermore, the county is expected to see significant growth in these occupations over the next five years. Houghton County has a high rate of educational attainment (33.6 percent of adult residents hold a bachelor's degree or higher) and high labor force participation rates (LFPRs), especially in census tracts near the

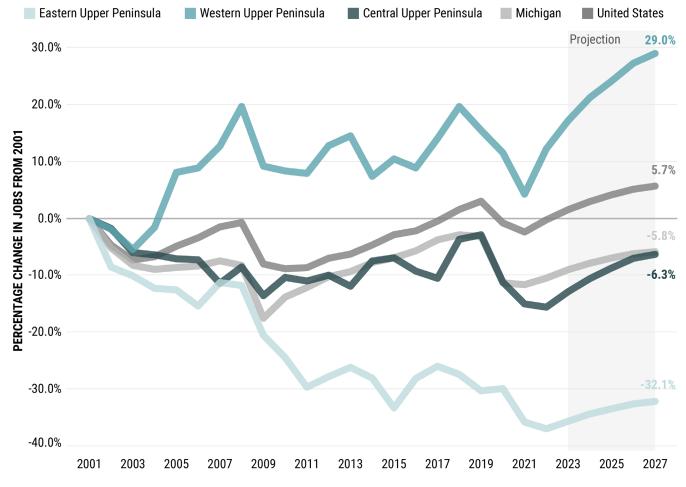


city of Houghton. (Houghton's census tract 9 has a LFPR of 70.7 percent.) However, the labor market faces challenges with rising cost of living and wage growth that is not keeping pace, as well as slow growth of high-tech companies, which hinders the county's ability to retain its recent graduates.

Figure 15. Houghton County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Houghton County.	1.1 1.2
In 2021, nearly 1,000 students completed an engineering degree at MTU and job growth in STEM occupations is expected to increase significantly over the next five years. There are opportunities to absorb this talent and bolster tech-based businesses to further diversify the economy.	2.2 4.1 5.1 5.4
Apprenticeships have been growing in Houghton County over the past 4 years. In addition to attracting recent graduates, efforts need to be made to retain high school graduates as well, by emphasizing career exposure and boosting apprenticeship programs.	2.3 3.4 4.3 4.4
With the presence of MTU, the county has the opportunity to deepen partnerships between economic development leaders and higher education to encourage and support technology commercialization, technology transfer, and entrepreneurial development.	6.1 6.3

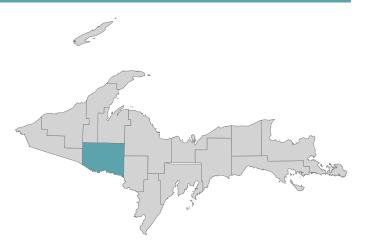
Figure 16. Architecture and Engineering Occupation Employment Trends by Upper Peninsula Region Employment change by region since 2021 with comparisons to Michigan and the US



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1-QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

IRON COUNTY

Iron County is located on the border with Wisconsin and has a population of approximately 11,580. The county's largest employment sectors include sales, office and administration, transportation, and food preparation. Although the majority of Iron County workers live and work in Iron County, the county is a net exporter of jobs, especially in production occupations. Analysis of commuting patterns show that neighboring Dickinson County imports a sizable number of goods-producing workers that reside in Iron County. The county has a low labor force participation rate (47.3 percent), and the unemployment rate is 4.6 percent, which is higher than the state average of 3.8 percent. The county's



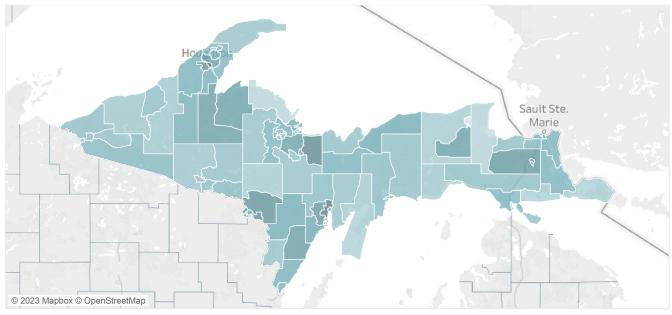
educational attainment level is lower than the state average, as well, with 92.3 percent of adults having a high school diploma or higher, and only 19.2 percent having a bachelor's degree or higher. Enrollment and participation in apprenticeship programs in Iron County has also been relatively stagnant over the past 10 years, whereas elsewhere in the UP this trend line generally shows growth in apprenticeship numbers. The county faces several challenges in its workforce development, such as an aging population (nearly one-half [48.8 percent] of the population is over 55 years old), a lack of skilled workers, a low wage structure, and limited access to broadband and transportation.

Figure 17. Iron County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Iron County.	1.1 1.2
Iron County has an aging population and therefore leaders will need to focus on talent retention, development, and attraction to meet the demands of future employers to ensure a strong workforce pipeline.	4.1 4.3 4.4 5.1
As a border county, Iron County competes with not only surrounding UP counties, but also with Wisconsin communities that have a different tax and investment structure. Investing in infrastructure, downtown vitality, and quality of life amenities will be critical to support business and talent.	5.2 5.3
Iron County is a net exporter of jobs, which indicates that the county has a surplus of skilled talent that is required to travel outside of the county to find work. Economic and workforce development leaders should focus on small business and entrepreneur development to grow new businesses and diversify Iron County's economy.	6.3 6.4

Figure 18. Population Demographics for Iron County, Michigan

Map shows population distribution across the Upper Peninsula by census tract; **darker** areas indicate higher values. Tables compare the distribution of selected characteristics in a single census tract with their distribution across all Iron County residents.



CENSUS TRACT 1, IRON COUNTY, MICHIGAN

RACIAL-ETHNIC DISTRIBUTION

American Indian and Alaska Native

Black or African American

Hispanic or Latino

Other Race or Ethnicity

Multiracial

Female Male

White

Population 2,193 AGE DISTRIBUTION Under 15 12.7% 15 to 24 5.3% 25 to 34 6.6% 35 to 44 8.4% 45 to 54 9.7% 55 to 64 21.7% Over 64 35.6%

IRON COUNTY, MICHIGAN

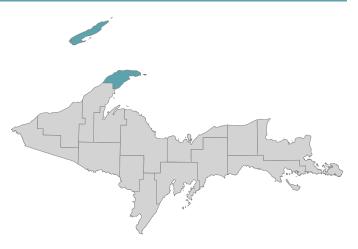
2,193	Population	11,580
	AGE DISTRIBUTION	
12.7%	Under 15	14.2%
5.3%	15 to 24	8.7%
6.6%	25 to 34	7.9%
8.4%	35 to 44	9.6%
9.7%	45 to 54	10.8%
21.7%	55 to 64	18.6%
35.6%	Over 64	30.2%
	RACIAL-ETHNIC DISTRIBUTION	
92.8%	White	93.9%
0.0%	Black or African American	1.2%
4.7%	Hispanic or Latino	2.0%
0.3%	American Indian and Alaska Native	0.7%
1.2%	Multiracial	1.3%
0.9%	Other Race or Ethnicity	0.7%
	GENDER DISTRIBUTION	
48.7%	Female	49.9%
51.3%	Male	50.1%

Source(s): US Census Bureau, American Community Survey 2021 5-year aggregate sample; TIP Strategies, Inc.

Note(s): Data value estimates include a margin of error for a 90 percent confidence interval. Due to small sample sizes for some metrics in some areas, the error may be larger than the estimated value. Estimates by demographic characteristics should be interpreted with caution. Racial/ethnic groups reflect a social interpretation of race or ethnicity based on self-identification. The "Other Race or Ethnicity" group includes Asians, Native Hawaiians, Pacific Islanders, and other races/ethnicities not listed.

KEWEENAW COUNTY

Keweenaw County is known for its rich history in copper mining and beautiful natural surroundings, including Lake Superior and Fort Wilkins State Park. Historically, copper mining was the primary economic driver in Keweenaw County. However, by the early 20th century, copper mining declined, and the last active copper mine in the county closed in 1968. In recent years, the economy of Keweenaw County has diversified, with an emphasis on tourism and outdoor recreation. The county's natural beauty, including its forests, lakes, and rugged coastline, attracts visitors who engage in activities such as mountain biking, hiking, camping, fishing, boating, and birdwatching. The county also benefits from the

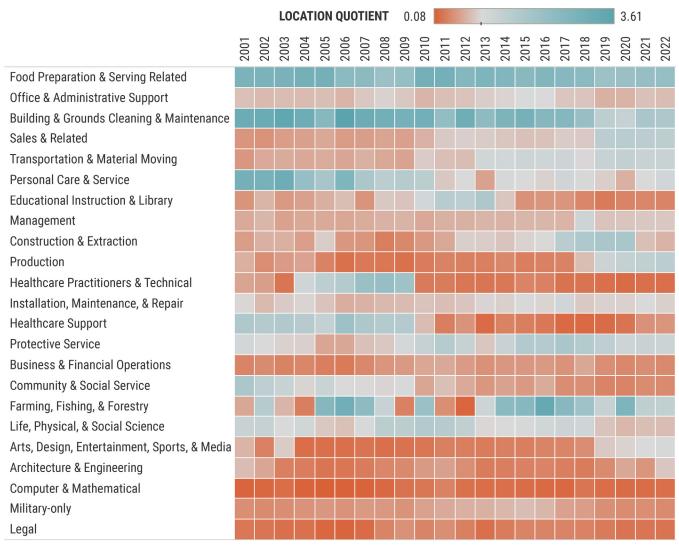


presence of Michigan Technological University (MTU), located in the neighboring Houghton County. The university contributes to the local economy by providing employment opportunities and fostering innovation through research and development activities. Additionally, Keweenaw County has a small agricultural sector, with some farms producing crops like hay, potatoes, and small grains. However, the agricultural industry is relatively modest compared to other sectors. It is important to note that Keweenaw County is sparsely populated and has a small tax base. Consequently, economic development efforts are often focused on preserving and promoting the area's natural resources, supporting tourism, and attracting visitors to bolster the local economy.

Figure 19. Keweenaw County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Keweenaw County.	1.1 1.2
Keweenaw County's proximity to MTU and high quality of life make it a prime location to develop high-tech businesses, the outdoor economy, and foster entrepreneurship. However, data show that these occupations have lower than expected concentrations compared to national averages.	2.1 2.2 3.4 6.1 6.3
As a tourism destination, leaders must be cognizant of seasonal labor demands and high concentrations of service workers and invest in cross-training to bring consistent work.	3.2
Due to the rural nature of the county, exposure to career opportunities in not only Keweenaw County, but also in adjacent counties, is critical to retaining talent, as well as ensuring talent is prepared for the workforce.	4.1 4.2 4.3 4.4
Keweenaw County's high quality of life and access to the outdoors makes it an ideal location. However, infrastructure barriers, ranging from broadband to housing, must be addressed to viably increase the population.	5.1 5.2 5.3

Figure 20. Employment Concentration (Share of Total Employment) by Occupational Group, Keweenaw County Redder cells indicate lower concentrations; bluer cells indicate higher concentrations.



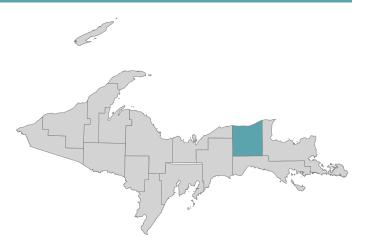
Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1-QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

About Location Quotients (LQs)

LQs are measures of relative economic concentration compared to national employment levels. An LQ<1 indicates the region has a lower concentration of workers in that occupational group than the nation, an LQ>1 indicates the region has a higher concentration of workers than the national average, and an LQ=1 indicates the same level of concentration in the region as the nation.

LUCE COUNTY

Luce County is a small rural county with a population of approximately 5,500 residents. The county's economy is mainly based on natural resources, such as forestry, agriculture, and tourism. The county's unemployment rate of 7.6 percent is high, even when compared to other UP counties, and is well above the state average of 3.8 percent. The county's labor market faces several challenges, such as an aging workforce (27.8 percent of the workforce is between the ages of 45 and 64), a lack of skilled workers and low educational attainment (only 17.9 percent of the adult population holds a bachelor's degree or higher), a limited infrastructure network, and a



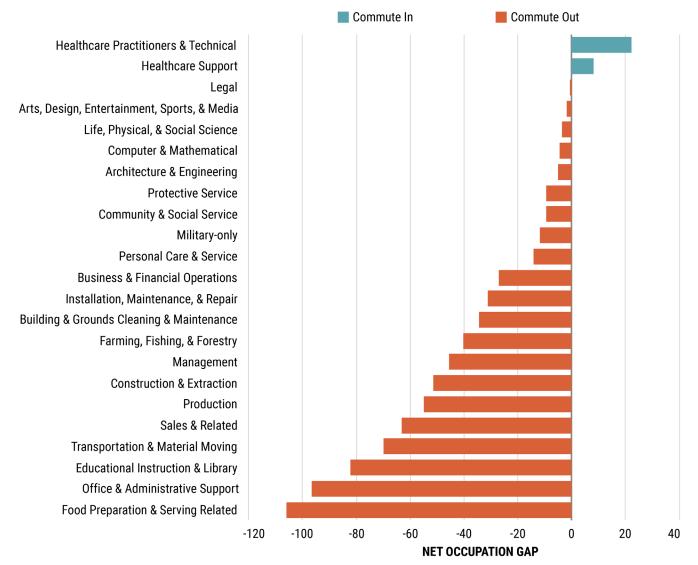
dependence on seasonal industries. Occupations in the healthcare sector are expected to rise dramatically over the next five years; however, most other occupational groups are expected to remain stagnant or decline. Furthermore, healthcare and related services are the only occupations that draw workers to Luce County. To address these challenges, the county needs a workforce development plan that can enhance the skills and employability of its residents, diversify its economic base by attracting new companies, improve its infrastructure and connectivity, and retain and grow existing businesses and workers.

Figure 21. Luce County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Luce County.	1.1 1.2
Occupations within the healthcare sector are expected to increase dramatically over the next five years. Luce County must be intentional about talent retention and attraction, as well as workforce development efforts, to ensure a long-term and skilled workforce.	4.1 4.2 5.1 5.4
Luce County is a net exporter of talent to neighboring communities. In order to ensure businesses and residents are positioned for future growth opportunities, the county must invest in infrastructure, including broadband, that supports business growth and development.	2.2 5.2
As the county's population continues to age, ensure strong succession plans are in place to retain businesses and support the development of entrepreneurs.	6.2 6.3

Figure 22. 2022 Net Job Surplus/Deficit by Occupational Group for Luce County, Michigan

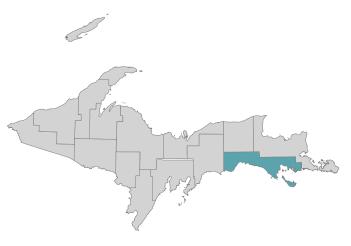
A comparison of employment (number of jobs) with the number of employed residents suggests commuting flows.



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1–QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc. Note(s): This metric represents the difference in each occupational group between the **number of jobs** in Luce County, Michigan, and the **number of employed residents**. A positive number (**surplus**) indicates Luce County is effectively a net importer of workers for that occupational group (i.e., there are *more* jobs available than there are residents in that occupational group suggesting an inflow of commuters). A negative number (**deficit**) indicates the county is effectively a net exporter of workers for that group (i.e., there are *fewer* jobs available than there are residents in the occupational group suggesting an outflow of commuters).

MACKINAC COUNTY

Mackinac County's economy is largely dependent on tourism, especially on Mackinac Island, which attracts visitors with its historic charm and natural beauty. The county's labor force participation rate was 52.5 percent in 2022, lower than the national average of 61.6 percent. The unemployment rate was 10.2 percent in December 2022, much higher than the national average. This finding is not surprising, however, given the seasonal nature of the economy. The county's main occupation groups are food preparation, office and administrative support, building and grounds cleaning and maintenance, and sales. Some of the strengths of the workforce include a high level of education among the population (91.4



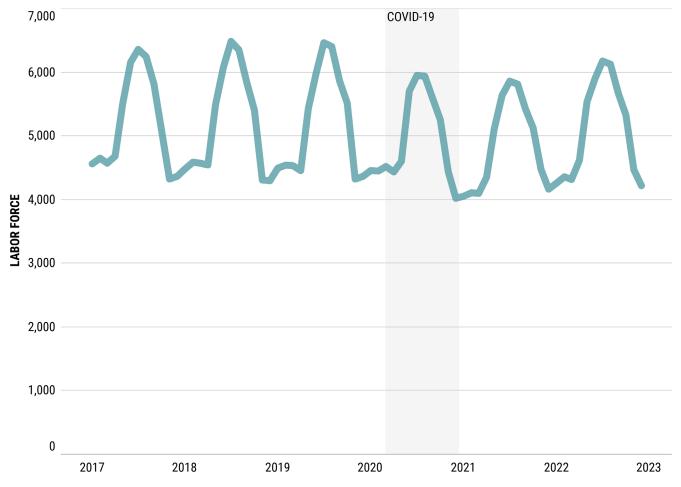
percent of adults have a high school diploma or higher, 24.7 percent have a bachelor's degree or higher, and 9.9 percent hold a graduate or professional degree) and projected growth in the business and financial operations sector. Some of the weaknesses are a high dependency on seasonal tourism, which creates fluctuations in income and employment; a high rate of poverty (31.2 percent of the population is below the poverty threshold); and lack of health insurance among the population (10.7 percent of residents report having no coverage).

Figure 23. Mackinac County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Mackinac County.	1.1 1.2
Enrollment and participation in apprenticeship programs have been inconsistent in the county. Economic and workforce development leaders can build awareness of career and training opportunities in the county that lead to well-paying jobs.	3.1 4.1 4.2 4.3
Mackinac County's seasonal labor force leads to a predictable spike in unemployment rates during winter. Economic developers can support employers with seasonal labor demands and invest in cross-training to balance labor demands throughout the year and bring consistent employment to workers.	3.2
The county should continue to diversify its economy to build resilience through the growth and development of new businesses and workforce.	2.2 4.4 5.1 5.4

Figure 24. Labor Force Trends, Mackinac County Not seasonally adjusted



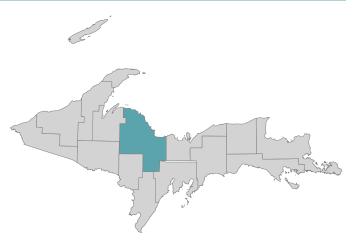


Source(s): US Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS); Lightcast 2023.1-QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

Note(s): The labor force includes all employed persons seeking work.

MARQUETTE COUNTY

Marquette County is the most populous county in the UP. The county's major occupational groups include office and administration, food preparation and services, health care and healthcare support, and sales occupations. The county has experienced economic changes due to the closure of K.I. Sawyer Air Force Base in 1995, the fluctuations in the mining sector, the growth of Northern Michigan University, and the impacts of the Great Recession. However, in the face of these challenges, the county has shown economic resilience and diversification by developing its tourism, health care, and technology sectors. The county has also benefited from its natural resources, such as its forests, lakes, and minerals. Marquette

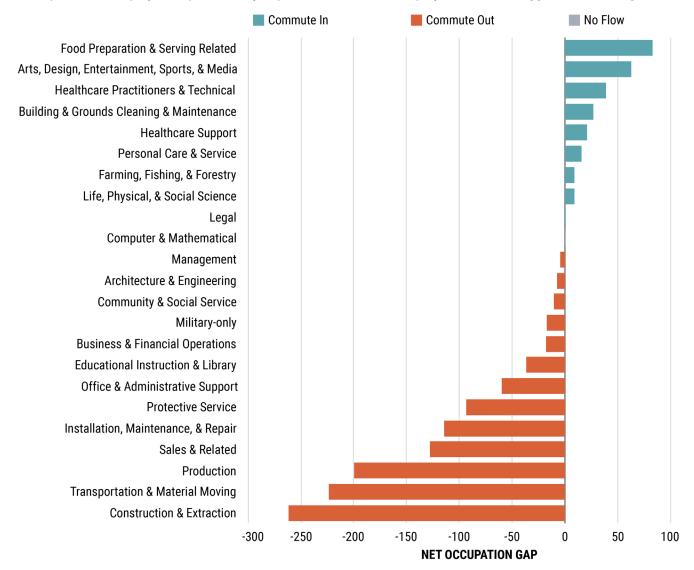


County has a skilled and educated workforce, a high quality of life, a rich cultural heritage, and a strategic location in the Upper Peninsula of Michigan. Although the majority of Marquette County residents live and work in the county, more workers leave the county for work than come into the county especially in construction, transportation, and production. The county has the opportunity to grow these sectors and to retain a higher percentage of its workforce.

Figure 25. Marquette County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Marquette County.	1.1 1.2
Marquette County should leverage Northern Michigan University for its technical expertise to support entrepreneurship and business development.	6.1 6.4
Promote the region's high quality of life to attract and retain talent, especially in high demand occupations and sectors.	5.1 5.3 5.4
Grow career exposure programs so students from k-12, as well as college graduates, are aware of career opportunities in Marquette County and address barriers that prevent students from obtaining credentials needed.	4.1 4.2 4.3

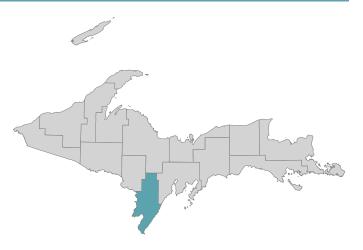
Figure 26. 2022 Net Job Surplus/Deficit by Occupational Group for Marquette County, Michigan A comparison of employment (number of jobs) with the number of employed residents suggests commuting flows



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1–QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc. Note(s): This metric represents the difference in each occupational group between the **number of jobs** in Marquette County, Michigan, and the **number of employed residents**. A positive number (**surplus**) indicates Marquette County is effectively a net importer of workers for that occupational group (i.e., there are *more* jobs available than there are residents in that occupational group suggesting an inflow of commuters). A negative number (**deficit**) indicates the county is effectively a net exporter of workers for that group (i.e., there are *fewer* jobs available than there are residents in the occupational group suggesting an outflow of commuters).

MENOMINEE COUNTY

Menominee County is one of four UP counties located along the border with Wisconsin. The county's economy is influenced by various sectors, including manufacturing, tourism, healthcare, and retail trade. Manufacturing plays a significant role in the economy of Menominee County. The region is known for its production of paper and related products, however, a significant fire in 2022 at a major paper mill impacted production and nearly 100 employees. Due to the county's geographic proximity to Wisconsin, there is a significant number of Menominee County residents that commute to Wisconsin for high paying jobs. Tourism is another important sector in Menominee County. The region is



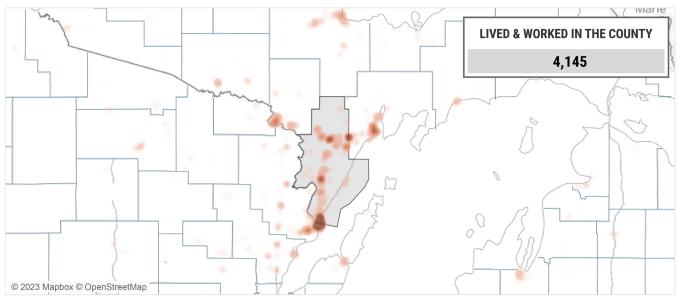
known for its natural beauty, including forests, lakes, and outdoor recreational opportunities. The county's location on the shores of Lake Michigan also attracts tourists who enjoy water-related activities. Healthcare is a growing sector in Menominee County, providing employment opportunities and serving the local community. The county has hospitals, clinics, and other healthcare facilities that offer a range of medical services. Retail trade contributes to the local economy and to the county's quality of life, with various shopping centers, small businesses, and restaurants serving the needs of residents and visitors alike.

Figure 27. Menominee County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Menominee County.	1.1 1.2
Menominee County's proximity to Wisconsin and Green Bay mean a high percentage of commuters leave the county daily; many of these commuters are high wage earners. Leaders must support business development and business attraction to retain these workers, as well as invest in career exposure programs to build awareness of the job opportunities locally.	3.4 4.1
As a tourism destination, leaders must be cognizant of seasonal labor demands and high concentrations of service workers and invest in cross-training to bring consistent work.	3.2
Continue to invest in infrastructure to support a high quality of life, ranging from downtowns to broadband to housing, which must be addressed to viably increase the population.	5.15.25.35.4

WHERE MENOMINEE COUNTY, MI, RESIDENTS WORKED IN 2019

The map shows where residents work by census block group. Darker areas indicate more residents work in the census area. The boundary (the shaded gray region) shows the total number of residents with jobs in the county.



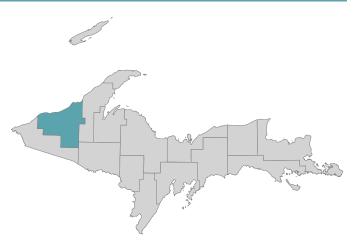
CITIES WHERE MENOMINEE COUNTY, MI, RESIDENTS WORKED IN 2019

2,346 Marinette city, WI	1,516 Other location in Menominee County, MI					492 Escanaba city, MI		
2,077 Stephenson city, MI 2,077 254 Iron Mountain city, MI 254 Iron Mountain city, MI 232 Powers village, MI MI	Stephenson city,	187 Peshtigo city, WI	81 76					
	150 Other location	42	39	36				
		146 Marquette						
	Powers village,	136 Other location						

Source(s): Longitudinal Employer-Household Dynamics (LEHD), Origin-Destination Employment Statistics (LODES); TIP Strategies, Inc. Note(s): Analysis only includes residents and workers in Michigan and Wisconsin.

ONTONAGON COUNTY

Similar to other counties in the Western UP and the Keweenaw Peninsula, Ontonagon County has a rich history in copper mining and is renowned for its scenic beauty. Historically, copper mining played a significant role in the economy of Ontonagon County, attracting settlers and generating employment opportunities. Like other mining areas in the region, copper mining declined in the 20th century, and the last copper mine in the county closed in the 1990s. Today, Ontonagon County's economy is more diverse and relies on various sectors. The tourism industry is a major driver, capitalizing on the county's natural attractions, including Lake Superior, Porcupine Mountains Wilderness State Park, and numerous

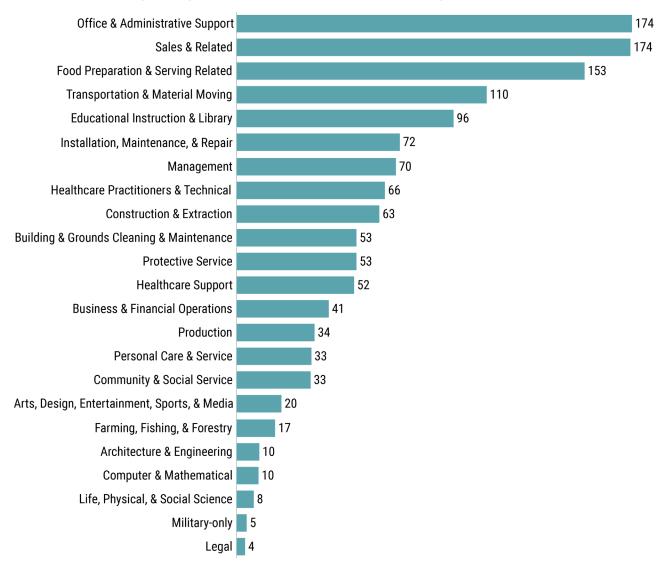


waterfalls. The scenic beauty and recreational opportunities contribute to the local economy through the provision of accommodations, dining establishments, outdoor outfitters, and other related services, which is evident in an analysis of the county's labor market. The presence of the Ottawa National Forest also contributes to the economy of Ontonagon County, as the forest provides opportunities for logging and timber-related industries. Agriculture also plays a role in the local economy, though a relatively modest one. Furthermore, the county benefits from Michigan Technological University's presence in neighboring Houghton County. The university's activities, including research, education, and employment, have a positive impact on the regional economy, indirectly benefiting Ontonagon County. As with any local economy, workforce development efforts in Ontonagon County aim to support the diversification of industries, attract investment, and grow entrepreneurship. These activities remain crucial for the county's economic growth and stability.

Figure 29. Ontonagon County Findings Cross-Walked to Related Regional Recommendations

COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Ontonagon County.	1.1 1.2
Ontonagon County's proximity to MTU and high quality of life make it a prime location to develop high-tech businesses, the outdoor economy, and foster entrepreneurship. However, data show that these occupations have lower than expected concentrations compared to national averages.	2.1 2.2 3.4 6.1 6.3
As a tourism destination, leaders must be cognizant of seasonal labor demands and high concentrations of service workers and invest in cross-training to bring consistent work.	3.2
Due to the rural nature of the county, exposure to career opportunities in not only Ontonagon County, but also in adjacent counties, is critical to retaining talent, as well as ensuring talent is prepared for the workforce.	4.1 4.2 4.3 4.4
Ontonagon County's high quality of life and access to the outdoors makes it an ideal location. However, infrastructure barriers, ranging from broadband to housing, must be addressed to viably increase the population.	5.1 5.2 5.3

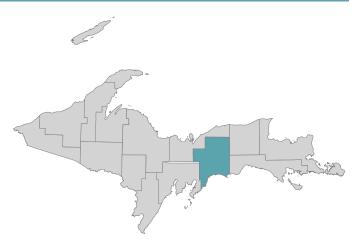
Figure 30. 2022 Employment by Occupational Group for Ontonagon County, Michigan



Source(s): US Bureau of Labor Statistics (BLS); Lightcast 2023.1-QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

SCHOOLCRAFT COUNTY

Schoolcraft County, located in the Central UP, has a rich economic history of lumbering and mining, however these industries have declined over time. Today, the county's workforce is mainly concentrated in the office and administrative support, followed by sales and related occupations and healthcare practitioners and technical occupations. The labor market of Schoolcraft County is characterized by a lower-than-average labor force participation rate (50.7 percent) and a relatively high unemployment rate (8.6 percent). Among those unemployed, occupations in the construction and extraction industries regularly appear at the top of the list. The county also has a low educational attainment level,



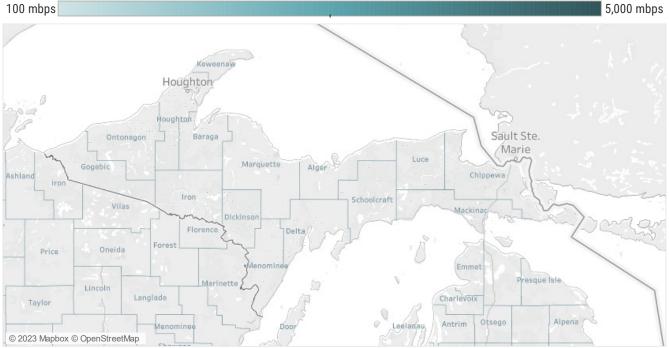
with only 18.7 percent of adults having a bachelor's degree or higher. The county has also experienced population loss and aging (more than 46 percent of the population is over 55 years old), which pose challenges for economic and workforce development. Furthermore, job projections through 2027 show a decline of nearly 10 percent from 2001 job counts. Also, broadband infrastructure is lacking, with some of the largest swaths of unserved and underserved areas in the UP. Data show that over 16 percent of Schoolcraft County households do not have any internet service at home and just over 11 percent of households do not have a computer. Despite these challenges, the county has several assets and opportunities for enhancing its economic potential, including leveraging its high quality of life and amenities such as natural resources, historic downtown Manistique, and the Schoolcraft County Airport.

Figure 31. Schoolcraft County Findings Cross-Walked to Related Regional Recommendations

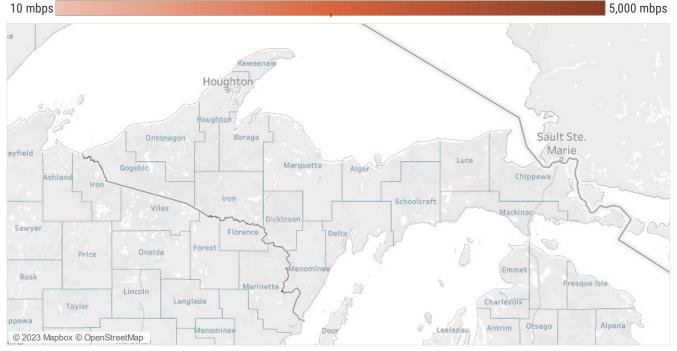
COUNTY-SPECIFIC FINDINGS	RELATED ACTIONS
County-level workforce data and analysis can be utilized to better understand the local talent pipeline to identify weaknesses and opportunities specific to Schoolcraft County.	1.1 1.2
Schoolcraft County's low labor force participation rate and low educational attainment rate make it challenging for the county to attract high-tech companies. The county must invest in workforce development and career expose to ensure that local talent is trained and retained to support the economy.	3.1 3.4
Due to the rural nature of the county, exposure to career opportunities in not only Schoolcraft County, but also in adjacent counties, is critical to retaining talent, as well as ensuring talent is prepared for the workforce.	4.1 4.2 4.3 4.4 4.4
Continue to invest in infrastructure to support a high quality of life, ranging from downtowns to broadband to housing, which must be addressed to viably increase the population and attract higher paying jobs.	5.15.25.35.4

Figure 32. Consumer Broadband Availability in the Upper Peninsula by Census Block Groups Based on internet service provider reporting

MAX DOWNLOAD SPEED (Typically Faster)



MAX UPLOAD SPEED (Typically Slower)



Source(s): Federal Communications Commission (FCC), Fixed Broadband Deployment Data, Form 477; TIP Strategies, Inc. Note(s): All data are reported as of June 30, 2022. Speeds are reported in megabits per second (mbps). Service is symmetric if download and upload speeds are approximately equal. The technologies indicate the portion of the Internet access connection that terminates at the end user's location (premises). The analysis includes cable; digital subscriber line (DSL); fiber; satellite; and other technologies, such as copper wirelines (e.g., ethernet over copper) and terrestrial fixed wireless.