# Northeast Minnesota – Manufacturing Overview



According to DEED's Quarterly Census of Employment and Wages (QCEW) data, the 7-county Northeast Minnesota region was home to 330 manufacturing establishments providing 9,092 jobs in 2023. That was just 2.8% of total manufacturing employment in the state, easily the smallest concentration of the 6 regions in the state. Manufacturing accounted for 6.6% of total employment within the region, making it the sixth largest industry behind health care and social assistance (32,638 jobs), retail trade (17,034 jobs), accommodation and food services (14,221 jobs), educational services (11,485), and public administration (10,943)

Manufacturing firms provided about \$638.1 million in wages in 2023, about 8.0% of total payroll, making it the third largest industry payroll in the region. Average annual wages in manufacturing were \$70,200 in 2023, which was 25% higher than the average wage for all industries.

Table 1. Northeast Minnesota Manufacturing Industry Employment Statistics, 2023								
NAICS Code	NAICS Industry Title	Number of Jobs	Number of Firms	Total Payroll	Avg. Annual Wages			
0	Total, All Industries	138,333	9,278	\$7,770,655,354	\$56,160			
31	Manufacturing	9,092	330	\$638,085,336	\$70,200			
322	Paper Manufacturing	1,576	8	\$148,726,358	\$94,380			
333	Machinery Manufacturing	1,459	21	\$103,139,794	\$70,616			
336	Transportation Equipment Manufacturing	1,405	13	\$109,013,922	\$77,688			
332	Fabricated Metal Product Manufacturing	785	54	\$50,438,740	\$64,272			
321	Wood Product Manufacturing	599	31	\$40,010,958	\$66,872			
327	Nonmetallic Mineral Product Manufacturing	507	22	\$41,126,840	\$81,276			
334	Computer & Electronic Product Manufacturing	416	10	\$29,091,687	\$70,044			
312	Beverage & Tobacco Product Manufacturing	340	16	\$11,407,898	\$33,592			
331	Primary Metal Manufacturing	306	7	\$22,311,207	\$72,956			
326	Plastics & Rubber Products Manufacturing	276	13	\$14,242,865	\$51,584			
311	Food Manufacturing	261	23	\$13,283,798	\$50,960			
339	Miscellaneous Manufacturing	256	37	\$11,490,889	\$44,720			
314	Textile Product Mills	216	14	\$8,299,186	\$38,324			
325	Chemical Manufacturing	179	8	\$14,020,232	\$78,416			
323	Printing & Related Support Activities	165	25	\$6,606,517	\$40,092			
337	Furniture & Related Product Manufacturing	112	17	\$6,327,035	\$56,732			
315	Apparel Manufacturing	95	6	\$3,334,277	\$35,360			
		Source:	Quarterly Cen	sus of Employment	& Wages			

In 2023, Paper Manufacturing was the largest sector in Northeast Minnesota, with 1,576 jobs at 8 establishments, an average of nearly 200 employees per site, suggesting these are large employers. That was followed by Machinery Manufacturing, which had 1,459 jobs at 21 firms. Combined, those two sectors accounted for one-third (33.4%) of the region's manufacturing employment.



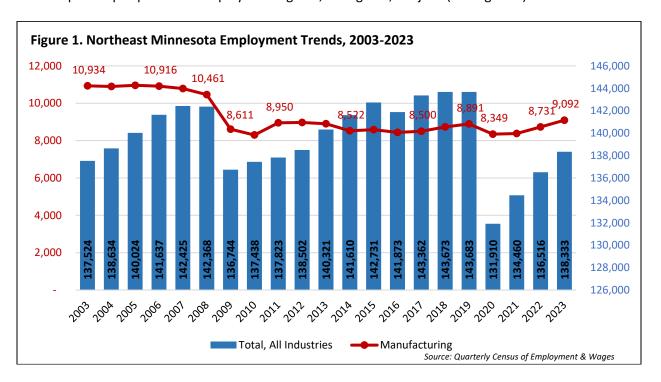
The region also had notable numbers of jobs in Transportation Equipment Manufacturing (1,405 jobs), which includes Motor Vehicle Parts Manufacturing and Ship & Boat Building; Fabricated Metal Product Manufacturing (785 jobs), Wood Product Manufacturing (599 jobs), and Nonmetallic Mineral Product Manufacturing (507 jobs). Those four sectors combined for another one-third (36.3%) of manufacturing employment in the region.

Northeast Minnesota has smaller employment in the Computer & Electronic Product Manufacturing (416 jobs), Beverage & Tobacco Product (340 jobs), Primary Metal (306 jobs), Plastics & Rubber Product (276 jobs), Food Manufacturing (261 jobs), Miscellaneous Manufacturing (256 jobs), Textile Product Mills (216 jobs), and Chemical Manufacturing (179 jobs).

Average annual wages in manufacturing (\$1,153) were 25% higher than the total of all industries, led by very high average annual wages in Paper Manufacturing (\$94,380), Nonmetallic Mineral Product (\$81,276), Chemical (\$78,416), Transportation Equipment (\$77,688), Primary Metal (\$72,956), Machinery (\$70,200), Computer & Electronic Product (\$70,044), Wood Product (\$66,872), and Fabricated Metal Product Manufacturing (\$64,272).

## **Industry Trends**

Manufacturers in Northeast Minnesota cut huge numbers of jobs during the 2001 recession, losing about 2,000 jobs over the first three years of the decade, then mostly held steady from 2003 to 2008. The region's manufacturers suffered even more significant job losses during the Great Recession from 2008 to 2010, dropping over 2,000 jobs in one year, to a low of 8,299 jobs in 2010. Between 2010 to 2019 there was a stabilization of Manufacturing employment in the region, until the pandemic in 2020. From 2019 to 2020, Northeast Minnesota experienced a loss of 542 Manufacturing jobs. Since 2020, jobs have increased and have even surpassed pre-pandemic employment figures, sitting at 9,092 jobs (see Figure 1).



Despite the recent stability, manufacturers in Northeast Minnesota still have 1,988 fewer jobs now than in 2013. The biggest job declines in the past decade occurred in Paper Manufacturing, which lost 745 jobs from 2013 to 2023, nearly one third of the sector's previous employment level. The losses were heaviest in Pulp, Paper, and Paperboard Mills, which cut 704 jobs from 2013 to 2023.



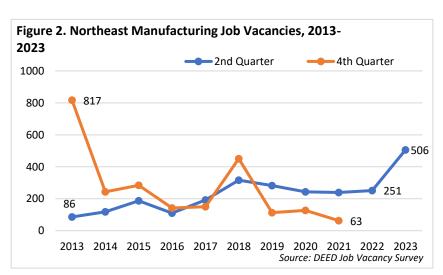
Primary Metal Manufacturing also experienced a significant decline in employment, cutting 194 jobs in the past decade. Chemical Manufacturing, Wood Product Manufacturing, Plastics & Rubber Product Manufacturing, Apparel Manufacturing, Food Manufacturing, Computer & Electronic Product Manufacturing, and Miscellaneous Manufacturing all experienced a loss of jobs within the past decade.

Of those sectors in which employment expanded over the past decade, Transportation Equipment Manufacturing added the most by gaining 941 jobs. Machinery Manufacturing also added 319 jobs. Miscellaneous Manufacturing saw rapid growth, expanding more than 90% from 2013 to 2023. These three sectors continued their long-term trends of increases in employment with recent growth as well, but in sum, only 3 of the 10 manufacturing sectors had more jobs in 2013 than 2023 (see Table 2).

NAICS	In decador, Tital a	Number	1-Year 2022-		5-Year Trend 2018-2022		10-Year Trend 2013-2023	
Code	Industry Title	of Jobs	Numeric Change	Percent Change	Numeric Change	Percent Change	Numeric Change	Percent Change
0	Total, All Industries	138,333	+1,817	+1.3%	-5,340	-3.7%	-1,988	-1.4%
31	Manufacturing	9,092	+361	+4.1%	+362	+4.1%	+194	+2.2%
322	Paper Manufacturing	1,576	+36	+2.3%	-209	-11.7%	-745	-32.1%
333	Machinery Manufacturing	1,459	-65	-4.3%	+65	+4.7%	+319	+28.0%
336	Transportation Equipment Mfg.	1,405	+111	+8.6%	+454	+47.7%	+941	+202.8%
332	Fabricated Metal Product Mfg.	785	+36	+4.8%	-15	-1.9%	-12	-1.5%
321	Wood Product Manufacturing	599	+16	+2.7%	-20	-3.2%	-104	-14.8%
327	Nonmetallic Mineral Product Mfg.	507	+21	+4.3%	-32	-5.9%	N/A	N/A
334	Computer & Electronic Product Mfg.	416	+90	+27.6%	+1	+0.2%	-25	-5.7%
312	Beverage & Tobacco Product Mfg.	340	+32	+10.4%	+84	+32.8%	N/A	N/A
331	Primary Metal Manufacturing	306	+7	+2.3%	N/A	N/A	-194	-38.8%
326	Plastics and Rubber Products Mfg.	276	-4	-1.4%	+15	+5.7%	-88	-24.2%
311	Food Manufacturing	261	-2	-0.8%	-48	-15.5%	-52	-16.6%
339	Miscellaneous Manufacturing	256	+103	+67.3%	+77	+43.0%	+123	+92.5%
314	Textile Product Mills	216	-7	-3.1%	-13	-5.7%	-22	-9.2%
325	Chemical Manufacturing	179	-16	-8.2%	-50	-21.8%	-133	-42.6%
323	Printing & Related Support Activities	165	-15	-8.3%	-32	-16.2%	N/A	N/A
337	Furniture & Related Product Mfg.	112	+2	+1.8%	N/A	N/A	N/A	N/A
315	Apparel Manufacturing	95	-18	-15.9%	-49	-34.0%	-55	-36.7%

#### **Industry Demand**

The recent increase in manufacturing employment led to a corresponding increase in the number of job vacancies in the Northeast region. After a spike in 2013, vacancies declined through 2016 before beginning a rebound in the second quarter of 2018. In the second quarter of 2019, the number of job vacancies continued to rise, reaching 282, and despite a dip in 2020 to 243, the trend remained generally upward, peaking in 2023 with 506 vacancies, the highest number since 2013 (Figure 2).





Due to increased demand, the median wage offer for Manufacturing vacancies increased to \$23.59 per hour in 2023, up from \$17.91 in the second quarter of 2022. The median wage offer for all industries in the Northeast region was \$5.10 lower than the Manufacturing wage in 2023. About 75% of the Northeast manufacturing vacancies required at least 1 year of experience, 35% required postsecondary education, and 37% required some form of certificate or license. Just 4% of the manufacturing openings were part-time, an increase from the last year but less than the 30% of vacancies across all industries (see Table 3).

Table 3. Northeast Minnesota Manufacturing Job Vacancy Survey, 2023							
	Number	Median	Percent	Percent Requiring	Percent Requiring 1+		
NAICS Industry Title	of Job	Wage	Part-	Postsecondary	Years Work		
	Vacancies	Offer	time	Education	Experience		
Total, All Industries	8,963	\$18.49	30%	37%	41%		
Manufacturing	506	\$23.59	4%	35%	75%		
Source: DEED Job Vacancy Survey							

The largest number of manufacturing vacancies were in production occupations, such as assemblers and fabricators, food processing workers, metal and plastic workers, textile, apparel, and furnishing workers, and other production occupations. The median wage offer for these positions was \$21.97, but ranged between \$13.50 and \$28 per hour. Manufacturers in Northeast Minnesota were also looking to hire sales and office, transportation and material moving, engineering, management, and installation, maintenance, and repair workers (see Table 4).

Table 4. Northeast Minnesota Production Occupations Job Vacancy Survey, 2023								
SOC Occupational Title	Number of Job Vacancies	Median Wage Offer	Percent Part- time	Percent Requiring Postsecondary Education	Percent Requiring 1+ Years Work Experience			
Total, All Occupations	8,963	\$18.49	30%	37%	41%			
Production Occupations	420	\$21.97	7%	26%	72%			
Supervisors of Production Workers	24	\$28.20	0%	4%	100%			
Assemblers & Fabricators	10	\$20.21	10%	20%	20%			
Food Processing Workers	14	\$13.87	78%	0%	0%			
Metal Workers & Plastic Workers	155	\$21.75	0%	12%	95%			
Textile, Apparel, & Furnishings Workers	29	\$15.78	24%	0%	0%			
Plant & System Operators	14	\$25.43	0%	22%	100%			
Other Production Occupations	101	\$19.50	11%	26%	55%			
Office & Administrative Support Occupations	594	\$16.61	36%	11%	45%			
Transportation & Material Moving Occupations	499	\$17.36	59%	1%	9%			
Architecture & Engineering Occupations	195	\$36.71	1%	85%	77%			
Management Occupations	144	\$39.89	3%	82%	88%			
Installation, Maintenance, & Repair Occupations	760	\$20.03	4%	37%	47%			
Sales & Related Occupations	826	\$16.06	41%	5%	31%			
Source: DEED Job Vacancy Survey								

## **Industry Occupational Employment**

DEED's Occupational Employment and Wage Statistics (OEWS) program provides detailed employment and wage data for a wide range of occupations involved in manufacturing. In sum, there were an estimated 6,550 people working in production occupations in Northeast Minnesota, accounting for about 4.7% of total employment in the region. Median hourly wages for production occupations were \$24.87 in the first quarter of 2024, but ranged from \$16.96 in sales and related to \$45.28 at the high end in management occupations.

As noted above, in addition to production occupations, manufacturers also require the services of workers in several other occupational groups, such as office and administrative support, transportation and material moving, architecture and engineering, management, and installation, maintenance and repair. Wages tended to be higher for the occupational groups with more management or technical focus (see Table 5).

Table 5. Northeast Minnesota Occupational Employment & Wage Statistics, 2024								
SOC Occupational Title	Estimated Regional Employment	Regional Median Hourly Wage	Estimated Statewide Employment	Statewide Median Hourly Wage				
Total, All Occupations	138,010	\$23.41	2,881,100	\$25.22				
<b>Production Occupations</b>	6,550	\$24.87	203,810	\$23.05				
Office & Administrative Support	16,760	\$22.44	352,250	\$23.86				
Transportation & Material Moving	8,810	\$21.66	225,820	\$22.86				
Architecture & Engineering	2,180	\$40.12	58,320	\$42.97				
Management	7,740	\$45.28	201,710	\$57.75				
Installation, Maintenance, & Repair	6,760	\$29.94	104,530	\$29.54				
Sales & Related	11,740	\$16.96	242,440	\$18.82				
Business & Financial Operations	5,970	\$34.89	202,700	\$39.26				
Computer & Mathematical	2,090	\$42.37	98,240	\$50.83				
Source: DEED Occupational Employment & Wage Statistics (OEWS) program								

Machinists, first-line supervisors, welders, cutters, solderers, and brazers, and others are the most common jobs found at manufacturing firms in Minnesota, according to DEED's Occupational Staffing Matrix data. Median hourly wages for these manufacturing positions ranged from a low of less than \$17.88 per hour for Food Batch Workers to a high of \$38.56 per hour for Industrial Machinery Mechanics. Almost all of the production-related manufacturing occupations can be entered with a high school diploma and learned through on-the-job training, though some also benefit from vocational training or associate degrees (see Table 6).

Table 6. Northeast Minnesota Top 30 Production-related Manufacturing Occupations, 2024 Wage Data								
SOC Code	SOC Occupational Title	Estimated Regional Employment	Median Hourly Wage	Minnesota Educational Requirements for Occupations				
512090	Miscellaneous Assemblers and Fabricators	1,060	\$22.81	High School or equiv.				
511011	First-Line Supervisors of Production Workers	460	\$37.99	High School or equiv.				
514041	Machinists	290	\$29.87	Vocational training				
513023	Slaughterers & Meat Packers	N/A	N/A	High School or equiv.				
519111	Packaging & Filling Machine Operators & Tenders	70	\$21.80	High School or equiv.				
514121	Welders, Cutters, Solderers, & Brazers	480	\$26.19	High School or equiv.				
519061	Inspectors, Testers, Sorters, Samplers, & Weighers	250	\$28.20	High School or equiv.				
537062	Laborers & Freight, Stock, & Material Movers	1,540	\$19.45	High School or equiv.				
514031	Cutting, Punching, & Press Machine Setters	100	\$19.50	High School or equiv.				
515112	Printing Press Operators	60	\$20.03	High School or equiv.				
499041	Industrial Machinery Mechanics	770	\$38.56	Vocational training				
512028	Electrical & Electro-mechanical Assemblers	N/A	N/A	High School or equiv.				



519198	HelpersProduction Workers	70	\$22.37	High School or equiv.			
519161	Computer Numerically Controlled Tool Operators	80	\$22.63	High School or equiv.			
537051	Industrial Truck & Tractor Operators	160	\$22.96	High School or equiv.			
519199	Production Workers, All Other	100	\$22.98	High School or equiv.			
499071	Maintenance & Repair Workers, General	2,050	\$24.21	High School or equiv.			
537064	Packers & Packagers, Hand	140	\$13.43	High School or equiv.			
513099	All other food processing workers	10	\$18.56	High School or equiv.			
514072	Molding, Coremaking & Casting Machine Setters	N/A	N/A	High School or equiv.			
533032	Truck Drivers, Heavy & Tractor-Trailer	1,750	\$29.79	High School or equiv.			
519124	Coating, Painting, and Spraying Machine Operators, and Tenders	100	\$27.71	High School or equiv.			
513092	Food Batchmakers	70	\$17.88	High School or equiv.			
519196	Paper Goods Machine Setters, Operators	580	\$33.28	High School or equiv.			
515113	Print Binding & Finishing Workers	N/A	N/A	High School or equiv.			
517011	Cabinetmakers & Bench Carpenters	30	\$20.12	High School or equiv.			
519032	Cutting & Slicing Machine Setters, Operators	N/A	N/A	High School or equiv.			
514111	Tool & Die Makers	N/A	N/A	Vocational training			
514033	Grinding, Lapping, Buffing Machine Tool Setters	N/A	N/A	High School or equiv.			
514021	Extruding and Drawing Machine Setters,	20	\$19.93	High School or equiv.			
Soui	Source: DEED Occupational Employment & Wage Statistics (OEWS) program, Minnesota Educational Requirements for Occupations						

In addition to the production-related occupations, manufacturers also rely heavily on sales and office workers including manufacturing sales representatives, customer service representatives, and production, planning, shipping, and traffic clerks; transportation and material moving workers such as truck drivers and packagers; engineering occupations like industrial, mechanical, and electrical engineers; management positions such as industrial production and general managers; and business and financial operations occupations like accountants and auditors.

Many of these occupations require higher education, but also offer higher wages. For example, all of the engineering positions have median wages above \$40 per hour in Northeast Minnesota, with median wages topping \$75 per hour for engineering managers, but also require bachelor's degrees at the minimum. Likewise, software developers, industrial production managers, and general and operations managers all earn over \$36 per hour, and all require bachelor's degrees. In contrast, sales representatives required just a high school diploma, but also offered relatively high wages. Some of the largest occupational groups, such as customer service representatives and office clerks, generally pay much lower median wages (see Table 7).

Table 7. Northeast Minnesota Top 20 Office-related Manufacturing Occupations, 2024 Wage Data							
SOC Code	SOC Occupational Title	Estimated Regional Employment	Median Hourly Wage	MN Educational Requirements for Occupations			
414012	Sales Representatives, Manufacturing	800	\$30.05	High School or equiv.			
434051	Customer Service Representatives	2,220	\$21.01	High School or equiv.			
172112	Industrial Engineers	420	\$44.46	Bachelor's degree			
111021	General & Operations Managers	3,420	\$36.66	Bachelor's degree			
435071	Shipping, Receiving, & Traffic Clerks	470	\$20.24	High School or equiv.			
113051	Industrial Production Managers	170	\$53.43	Bachelor's degree			
172141	Mechanical Engineers	180	\$40.50	Bachelor's degree			
433031	Bookkeeping, Accounting, & Auditing Clerks	1,340	\$22.89	High School or equiv.			
173026	Industrial Engineering Technicians	90	\$32.38	Associate degree			
131020	Buyers and Purchasing Agents	370	\$32.91	Bachelor's degree			
439061	Office Clerks, General	2,880	\$21.76	High School or equiv.			
414011	Sales Representatives, Manufacturing, Technical	30	\$37.88	Bachelor's degree			
435061	Production, Planning, & Expediting Clerks	290	\$32.72	High School or equiv.			
132011	Accountants & Auditors	1,040	\$34.33	Bachelor's degree			



537065	Stockers and Order Fillers	1,900	\$17.39	High School or equiv.		
119041	Engineering Managers	90	\$75.02	Bachelor's degree		
172071	Electrical Engineers	160	\$53.49	Bachelor's degree		
151252	Software Developers	590	\$52.66	Bachelor's degree		
173023	173023 Electrical & Electronic Engineering Technicians 90 \$30.34 Associate degree					
Source:	Source: DEED Occupational Employment & Wage Statistics (OEWS) program, Minnesota Educational Requirements for Occupations					

## **Industry Outlook**

According to DEED's 2020 to 2030 Employment Outlook data, the Northeast Minnesota manufacturing industry is projected to lose another 163 jobs over the next decade, a -2.0% decline. That is in contrast to overall growth of 5.5% across the total of all industries in Northeast Minnesota. The state of Minnesota is projected to gain 3,990 manufacturing jobs from 2020 to 2030, a 1.3% increase.

Seven of the 19 sectors are expected to see job declines in the next decade, with the most severe losses projected in Paper Manufacturing, Plastics & Rubber Product Manufacturing, and Printing & Related Support Activities. Those three sectors are expected to lose 311 jobs combined. Four of the 7 job-cutting sectors are projected to decline more than 10% through 2030, with Printing and Related Support Activities (-37.6%) and Plastics and Rubber Products Manufacturing (-19.2%) showing the greatest relative losses.

In contrast, twelve of the 19 manufacturing sectors are expected to add jobs, led by an uptick in Wood Product Manufacturing, which is projected to gain 57 net new jobs, a 9.9% expansion. Employment in Transportation Equipment Manufacturing is projected to have the next largest positive numeric change with an increase of 40 jobs. The region may also see job growth in Machinery Manufacturing, Chemical Manufacturing, Beverage and Tobacco Product Manufacturing, and Leather and Allied Product Manufacturing (see Table 8).

NAICS Code	Title	Estimated Employment 2020	Projected Employment 2030	Percent Change 2020-2030	Numeric Change 2020-2030
0	Total, All Industries	148,527	156,642	+5.5%	+8,115
31	Manufacturing	8,329	8,166	-2.0%	-16 <b>3</b>
321	Wood Product Manufacturing	574	631	+9.9%	+57
336	Transportation Equipment Manufacturing	955	995	+4.2%	+40
333	Machinery Manufacturing	1,367	1,405	+2.8%	+38
325	Chemical Manufacturing	197	216	+9.6%	+19
312	Beverage & Tobacco Product Manufacturing	251	269	+7.2%	+18
316	Leather & Allied Product Manufacturing	21	30	+42.9%	+9
311	Food Manufacturing	272	280	+2.9%	+8
339	Miscellaneous Manufacturing	192	200	+4.2%	+8
327	Nonmetallic Mineral Product Mfg.	495	497	+0.4%	+2
332	Fabricated Metal Product Manufacturing	784	786	+0.3%	+2
335	Electrical Equipment & Appliances	53	55	+3.8%	+2
331	Primary Metal Manufacturing	219	220	+0.5%	+1
334	Computer & Electronic Product Mfg.	335	331	-1.2%	-4
337	Furniture & Related Product Mfg.	96	90	-6.3%	-6
315	Apparel Manufacturing	131	111	-15.3%	-20
314	Textile Product Mills	193	167	-13.5%	-26
323	Printing & Related Support Activities	173	108	-37.6%	-65
326	Plastics & Rubber Products Manufacturing	360	291	-19.2%	-69
322	Paper Manufacturing	1,661	1,484	-10.7%	-177



### **Occupational Outlook**

The projected job losses in the manufacturing industry are expected to be seen in production occupations as well, leading to a projected 3.4% decline from 2020 to 2030 in Northeast Minnesota. However, the region is still expected to have significant demand for production workers over the next ten years due to many openings from labor market exits. There are also projected to be over 2,588 additional openings from 2020-2030 from labor market exits, which are primarily attributable to retirements.

Growth is led by Production Workers, All Other which is projected to grow by slightly more than 14%. Welders, Cutters, Solderers, and Brazers, Laundry and Dry-Cleaning Workers, Bakers, Electrical Electronic, and Electromechanical Assemblers, and Helpers-Production workers are project to grow, but all have low employment estimates meaning projected numerical gains are small. In contrast, the biggest declines are projected for Paper Foods Machine Setters and Operators, and Inspectors, Testers, Sorters, Samplers, and Weighers. Seven of the 29 production occupations are expected to lose more than 10% of their jobs, with Power Distributors and Dispatatchers seeing the most rapid drop-off.

Regardless of projected employment growth or decline, every occupation is expected to have labor market exit openings from 2020 to 2030. The largest number of total openings are projected for Welders, Cutters, Solderers, and Brazers, Paper Goods Machine Setters, Operators, and Tenders, and First-Line Supervisors of Production and Operating Workers, which are all expected to have hundreds of openings in the region (see Table 9).

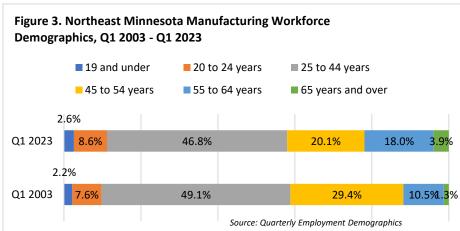
SOC Code   SOC Occupational Title   Estimated Employment 2020   2020-2030	Table 9.	Table 9. Top 25 Northeast Minnesota Production Occupation Projections, 2020-2030								
Code         SOC Occupational Title         Employment 2020         Change 2020-2030         Change 2020-2030         Skit Openings 2020-2030           0         Total, All Occupations         148,527         156,642         +5.5%         +8,115         +67,147           510000         Production Occupations         7,052         6,811         -3.4%         -241         +2,588           514121         Welders, Cutters, Solderers, and Brazers         594         612         +3.0%         +18         +159           519196         Paper Goods Machine Setters, Operators, & Tenders         647         576         -11.0%         -71         +276           511011         First-Line Supervisors of Production & Operating Workers         543         534         -1.7%         -9         +162           519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Bakers         186         201         +8.1%         +15         +108           519198         Helpers-Production Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110 </th <th>SOC</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th><sup>t</sup> Labor Market</th>	SOC						<sup>t</sup> Labor Market			
0         Total, All Occupations         148,527         156,642         +5.5%         +8,115         +67,147           510000         Production Occupations         7,052         6,811         -3.4%         -241         +2,588           514121         Welders, Cutters, Solderers, and Brazers         594         612         +3.0%         +18         +159           519196         Paper Goods Machine Setters, Operators, & Tenders         647         576         -11.0%         -71         +276           511011         First-Line Supervisors of Production & Operators         543         534         -1.7%         -9         +162           519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513018         Bakers         186         201         +8.1%         +155         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sawing Machine Operators         187         176         -5.9%         -11         +110      <		SOC Occupational Title			_	_				
510000         Production Occupations         7,052         6,811         -3.4%         -241         +2,588           514121         Welders, Cutters, Solderers, and Brazers         594         612         +3.0%         +18         +159           519196         Paper Goods Machine Setters, Operators, & Tenders         647         576         -11.0%         -71         +276           511011         Firist-Line Supervisors of Production & Operating Workers         543         534         -1.7%         -9         +162           519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107     <										
514121         Welders, Cutters, Solderers, and Brazers         594         612         +3.0%         +18         +159           519196         Paper Goods Machine Setters, Operators, & Tenders         647         576         -11.0%         -71         +226           511011         First-Line Supervisors of Production & Operating Workers         543         534         -1.7%         -9         +162           519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           519031         Sewing Machine Operators         187         176         -5.9%         -11         +110           519011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16			,	•						
519196         Paper Goods Machine Setters, Operators, & Tenders         647         576         -11.0%         -71         +276           511011         First-Line Supervisors of Production & Operating Workers         543         534         -1.7%         -9         +162           519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519021         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32 </th <th></th> <th>•</th> <th>•</th> <th>· ·</th> <th></th> <th></th> <th></th>		•	•	· ·						
511011         First-Line Supervisors of Production & Operating Workers         543         534         -1.7%         -9         +162           519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49 </td <td></td> <td>. , ,</td> <td></td> <td></td> <td></td> <td></td> <td></td>		. , ,								
519161         Computer Numerically Controlled Tool Operators         285         268         -6.0%         -17         +95           518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515122										
518031         Water & Wastewater Treatment Plant & System Operators         230         226         -1.7%         -4         +64           513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516031         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515112         Printing Press Operators         171         151         -11.7%         -20         +58           512028         Electrici	511011		543	534	-1.7%		+162			
513011         Bakers         186         201         +8.1%         +15         +108           519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515112         Printing Press Operators         171         151         -11.7%         -20         +58           512028         Electrical, electronic, and electromechanical assemblers         121         133         +9.9%         +12         +51           518021         Stati	519161	Computer Numerically Controlled Tool Operators	285	268	-6.0%	-17	+95			
519198         HelpersProduction Workers         190         197         +3.7%         +7         +91           516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515112         Printing Press Operators         171         151         -11.7%         -20         +58           512028         Electrical, electronic, and electromechanical assemblers         121         133         +9.9%         +12         +51           518021         Stationary Engineers and Boiler Operators         92         93         +1.1%         +1         +45 <t< td=""><td>518031</td><td>Water &amp; Wastewater Treatment Plant &amp; System Operators</td><td>230</td><td>226</td><td>-1.7%</td><td>-4</td><td>+64</td></t<>	518031	Water & Wastewater Treatment Plant & System Operators	230	226	-1.7%	-4	+64			
516031         Sewing Machine Operators         187         176         -5.9%         -11         +110           516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515112         Printing Press Operators         171         151         -11.7%         -20         +58           512028         Electrical, electronic, and electromechanical assemblers         121         133         +9.9%         +12         +51           518021         Stationary Engineers and Boiler Operators         92         93         +1.1%         +1         +45           519041         Extruding, Forming, Pressing, and Compacting Machinists         84         76         -9.5%         -8         +22	513011	Bakers	186	201	+8.1%	+15	+108			
516011         Laundry and Dry-Cleaning Workers         157         173         +10.2%         +16         +107           519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515112         Printing Press Operators         171         151         -11.7%         -20         +58           512028         Electrical, electronic, and electromechanical assemblers         121         133         +9.9%         +12         +51           518021         Stationary Engineers and Boiler Operators         92         93         +1.1%         +1         +45           519041         Extruding, Forming, Pressing, and Compacting Machinists         84         76         -9.5%         -8         +22           517011         Cabinetmakers and Bench Carpenters         73         73         0.0%         0         +27	519198	HelpersProduction Workers	190	197	+3.7%	+7	+91			
519021         Crushing, Grinding, and Polishing Machine Setters         179         163         -8.9%         -16         +58           519061         Inspectors, Testers, Sorters, Samplers, and Weighers         188         156         -17.0%         -32         +66           519199         Production Workers, All Other         133         152         +14.3%         +19         +49           514041         Machinists         153         152         -0.7%         -1         +51           515112         Printing Press Operators         171         151         -11.7%         -20         +58           512028         Electrical, electronic, and electromechanical assemblers         121         133         +9.9%         +12         +51           518021         Stationary Engineers and Boiler Operators         92         93         +1.1%         +1         +45           519041         Extruding, Forming, Pressing, and Compacting Machinists         84         76         -9.5%         -8         +22           517011         Cabinetmakers and Bench Carpenters         73         73         0.0%         0         +27           513021         Butchers and Meat Cutters         69         68         -1.4%         -1         +28	516031	Sewing Machine Operators	187	176	-5.9%	-11	+110			
519061       Inspectors, Testers, Sorters, Samplers, and Weighers       188       156       -17.0%       -32       +66         519199       Production Workers, All Other       133       152       +14.3%       +19       +49         514041       Machinists       153       152       -0.7%       -1       +51         515112       Printing Press Operators       171       151       -11.7%       -20       +58         512028       Electrical, electronic, and electromechanical assemblers       121       133       +9.9%       +12       +51         518021       Stationary Engineers and Boiler Operators       92       93       +1.1%       +1       +45         519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4 <td>516011</td> <td>Laundry and Dry-Cleaning Workers</td> <td>157</td> <td>173</td> <td>+10.2%</td> <td>+16</td> <td>+107</td>	516011	Laundry and Dry-Cleaning Workers	157	173	+10.2%	+16	+107			
519199       Production Workers, All Other       133       152       +14.3%       +19       +49         514041       Machinists       153       152       -0.7%       -1       +51         515112       Printing Press Operators       171       151       -11.7%       -20       +58         512028       Electrical, electronic, and electromechanical assemblers       121       133       +9.9%       +12       +51         518021       Stationary Engineers and Boiler Operators       92       93       +1.1%       +1       +45         519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9	519021	Crushing, Grinding, and Polishing Machine Setters	179	163	-8.9%	-16	+58			
514041       Machinists       153       152       -0.7%       -1       +51         515112       Printing Press Operators       171       151       -11.7%       -20       +58         512028       Electrical, electronic, and electromechanical assemblers       121       133       +9.9%       +12       +51         518021       Stationary Engineers and Boiler Operators       92       93       +1.1%       +1       +45         519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18	519061	Inspectors, Testers, Sorters, Samplers, and Weighers	188	156	-17.0%	-32	+66			
515112       Printing Press Operators       171       151       -11.7%       -20       +58         512028       Electrical, electronic, and electromechanical assemblers       121       133       +9.9%       +12       +51         518021       Stationary Engineers and Boiler Operators       92       93       +1.1%       +1       +45         519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9<	519199	Production Workers, All Other	133	152	+14.3%	+19	+49			
512028       Electrical, electronic, and electromechanical assemblers       121       133       +9.9%       +12       +51         518021       Stationary Engineers and Boiler Operators       92       93       +1.1%       +1       +45         519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	514041	Machinists	153	152	-0.7%	-1	+51			
518021       Stationary Engineers and Boiler Operators       92       93       +1.1%       +1       +45         519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	515112	Printing Press Operators	171	151	-11.7%	-20	+58			
519041       Extruding, Forming, Pressing, and Compacting Machinists       84       76       -9.5%       -8       +22         517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	512028	Electrical, electronic, and electromechanical assemblers	121	133	+9.9%	+12	+51			
517011       Cabinetmakers and Bench Carpenters       73       73       0.0%       0       +27         513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	518021	Stationary Engineers and Boiler Operators	92	93	+1.1%	+1	+45			
513021       Butchers and Meat Cutters       69       68       -1.4%       -1       +28         513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	519041	Extruding, Forming, Pressing, and Compacting Machinists	84	76	-9.5%	-8	+22			
513092       Food Batchmakers       55       61       +10.9%       +6       +27         514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	517011	Cabinetmakers and Bench Carpenters	73	73	0.0%	0	+27			
514031       Cutting, Punching, and Press Machine Operators       63       59       -6.3%       -4       +19         514021       Extruding and Drawing Machine Setters & Operators       63       54       -14.3%       -9       +20         514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	513021	Butchers and Meat Cutters	69	68	-1.4%	-1	+28			
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514111       Tool and Die Makers       48       49       +2.1%       +1       +18         518012       Power Distributors and Dispatchers       51       42       -17.6%       -9       +12	514021	Extruding and Drawing Machine Setters & Operators	63	54	-14.3%	-9	+20			
	514111		48	49	+2.1%	+1	+18			
517041 Sawing Machine Setters, Operators, and Tenders, Wood 32 32 0.0% 0 +11	518012	Power Distributors and Dispatchers	51	42	-17.6%	-9	+12			
	517041	Sawing Machine Setters, Operators, and Tenders, Wood	32	32	0.0%	0	+11			

<u>Source: DEED Employment Outlook</u>; \* Labor Market Exit Openings are the projected number of workers leaving an occupation and exiting the labor market entirely (most labor force exits are related to workers retiring)



### **Workforce Demographics**

As the workforce in Northeast Minnesota ages, new graduates and other jobseekers will become increasingly important sources of workers, particularly for the manufacturing industry. The Manufacturing workforce is a relatively old one and continued to age over the past fifteen years. Data from DEED's Quarterly Employment Demographics (QED) tool shows that in 2023, 21.9% of workers

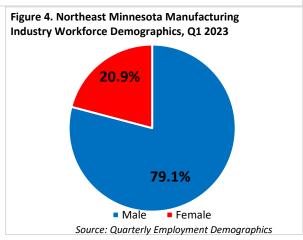


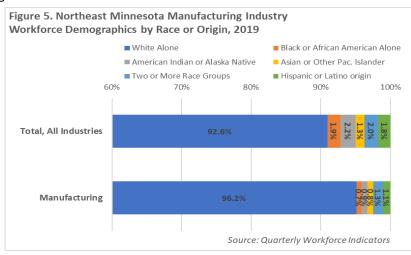
were 55 years of age or older, almost double the share in 2003. However, the share of workers under the age of 25 increased from 9.8% in 2003 to 11.2% in 2023. The proportion of workers aged 25 to 44 years old also dropped, from 49.1% to 46.8% (see Figure 3).

Additional information from the QED program shows that the manufacturing workforce in the Northeast region is relatively non-diverse. In quarter 1 of 2023, over three quarters of the workforce was male (see Figure 3). Demographic data from the U.S. Census' Quarterly Workforce Indicators (QWI) program show us that the non-white share of the Northeast manufacturing workforce was

3.8% in 2019, compared to 7.4% non-white workers for all industries combined. Despite this disparity, the manufacturing workforce is becoming more diverse. The share of non-white workers grew 6.0 percent and the share of Hispanic or Latino workers in manufacturing grew more than 40% from 2004 to 2019 (see Figure 5).

In the face of tight labor markets, manufacturers may need to tap into new labor pools in order to attract the talent they need to grow and replace existing workers in the future.





For more information about Manufacturing in Northeast Minnesota, contact:

Carson Gorecki | Northeast Minnesota Regional Analyst

218-302-8413 | carson.gorecki@state.mn.us

http://www.mn.gov/deed/data/regional-lmi/northeast-lmi.jsp

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