# Northwest Minnesota – Manufacturing Overview



According to DEED's Quarterly Census of Employment and Wages (QCEW) data, the 26-county Northwest Minnesota region was home to 830 manufacturing establishments providing 29,812 jobs through the third quarter of 2019. Manufacturing accounted for 13.1 percent of total employment in the region, making it the second largest industry behind health care and social assistance (38,958 jobs) and having slightly more jobs than retail trade (28,189 jobs).

These manufacturers provided about \$370 million in total payroll in the third quarter of 2019, making it the second largest industry in terms of payroll as well. Average annual wages in manufacturing were \$49,504 in 2019, which was over \$8,000 and 20.4 percent higher than the total of all industries (see Table 1).

Table 1	Table 1. Northwest Minnesota Manufacturing Industry Employment Statistics, Quarter 3 2019								
NAICS	NAICS Industry Title	Number	Number	Quarterly Payroll,	Avg. Annual				
Code		of Firms,	of Jobs,	Q3 2019	Wages,				
		Q3 2019	Q3 2019		Q3 2019				
0	Total, All Industries	17,277	227,095	\$2,337,305,374	\$41,132				
31	Manufacturing	830	29,812	\$369,145,034	\$49,504				
311	Food Manufacturing	88	5,956	\$75,949,960	\$50,960				
336	Transportation Equipment Manufacturing	33	4,414	\$57,519,181	\$52,104				
332	Fabricated Metal Product Manufacturing	162	4,166	\$49,633,510	\$47,632				
333	Machinery Manufacturing	98	3,977	\$54,623,903	\$54,912				
321	Wood Product Manufacturing	72	3,467	\$42,646,778	\$49,192				
323	Printing & Related Support Activities	52	1,297	\$11,039,749	\$34,008				
327	Nonmetallic Mineral Product Manufacturing	54	1,082	\$16,402,154	\$60,632				
334	Computer & Electronic Product Manufacturing	19	948	\$13,433,389	\$56,680				
326	Plastics & Rubber Products Manufacturing	29	931	\$9,959,819	\$42,744				
339	Miscellaneous Manufacturing	88	838	\$8,566,940	\$40,872				
331	Primary Metal Manufacturing	6	641	\$8,239,111	\$51,376				
337	Furniture & Related Product Manufacturing	60	642	\$7,020,487	\$43,732				
314	Textile Product Mills	18	374	\$2,990,497	\$31,980				
325	Chemical Manufacturing	12	394	\$5,333,834	\$54,132				
312	Beverage & Tobacco Product Manufacturing	20	299	\$1,747,181	\$23,348				
335	Electrical Equipment, Appliance Manufacturing	5	137	\$1,564,966	\$45,656				
324	Petroleum and Coal Products Manufacturing	3	14	\$193,951	\$55,380				
	Source: DEED Que	arterly Censu	s of Employr	ment & Wages (QCE	W) program				

Food Manufacturing was easily the largest sector in Northwest Minnesota, with 5,956 jobs at 88 establishments, and just under \$76 million in quarterly payroll. The largest subsectors in Food Manufacturing include Animal Slaughtering and Processing (2,210 jobs), Sugar and Confectionary Product Manufacturing (1,080 jobs), and Other Food Manufacturing (783 jobs). The Northwest region also had notable employment in Fruit and Vegetable Preserving and Specialty Food Manufacturing, Animal Food Manufacturing, and Dairy Product Manufacturing.



The second largest – but most well-known – manufacturing sector in the region is Transportation Equipment Manufacturing, which had 4,414 jobs at 33 establishments through the third quarter of 2019. Jobs in the sector were five times more concentrated in Northwest Minnesota than the rest of the state, with the region providing nearly 40 percent of statewide employment in the sector.

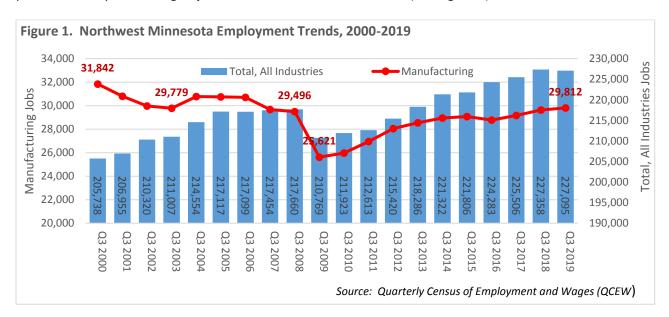
Combined, those two sectors accounted for over one-third (34.7%) of the region's manufacturing jobs. Northwest Minnesota also had notable numbers of jobs in Fabricated Metal Product Manufacturing (4,166 jobs); Machinery Manufacturing (3,977 jobs), and Wood Product Manufacturing (3,467 jobs), which was also more than three times more concentrated in the region than the rest of the state. Those three sectors also combined for more than one-third (38.9%) of total manufacturing employment in the region.

Northwest Minnesota also has smaller employment numbers in the Printing and Related Support Activities (1,297 jobs), Nonmetallic Mineral Product Manufacturing (1,082 jobs), Computer and Electronic Product Manufacturing (948 jobs), Plastics and Rubber Product Manufacturing (931 jobs), Miscellaneous Manufacturing (838 jobs), Furniture and Related Product Manufacturing (642 jobs), and Primary Metal Manufacturing (641 jobs) sectors. The region also has a small number, but a relatively high concentration, of employment in the Textile Product Mills sector (374 jobs).

Average annual wages in manufacturing (\$49,504) were 20.4 percent higher than the total of all industries (\$41,132), led by high average annual wages in Nonmetallic Mineral Product Manufacturing (\$60,632), Computer and Electronic Product Manufacturing (\$56,680), Machinery Manufacturing (\$54,912), Chemical Manufacturing (\$54,132), and Transportation Equipment Manufacturing (\$52,104).

### **Industry Trends**

Manufacturers in Northwest Minnesota cut about 2,000 jobs during the 2001 recession, then enjoyed a slight recovery and mostly held steady from 2003 to 2008. The region's manufacturers suffered even more significant job losses during the recession from 2008 to 2010, dropping nearly 4,000 jobs in one year, to a low of 25,621 jobs through the third quarter of 2009. However, manufacturers in the region have again enjoyed a slow but steady recovery, regaining about 4,200 net new jobs over that time period, recently recovering all jobs that were lost in the recession (see Figure 1).





Since the end of the recession, manufacturers in Northwest Minnesota now have about 4,200 more jobs than ten years ago, in 2009. Manufacturing employment was up 16.4 percent from 2009 to 2019, while the total of all industries surpassed its pre-recession peak in 2013 and is now up about 16,300 jobs since 2009, a 7.7 percent increase in jobs.

In sum, 13 of the 16 manufacturing sectors had more jobs in 2019 than in 2009, including ten that increased more than 20 percent of their employment. The largest job gains occurred in Machinery Manufacturing, which added 1,249 jobs, based on expansions in Material Handling Equipment Manufacturing and Packaging Machinery Manufacturing. The other large growth was in Fabricated Metal Product Manufacturing, which expanded by 947 jobs. Northwest Minnesota also saw important job gains in Food Manufacturing, Transportation Equipment Manufacturing, Nonmetallic Mineral Product Manufacturing, Plastics and Rubber Products Manufacturing, and Computer and Electronic Product Manufacturing.

The biggest job declines in the past decade occurred in Wood Product Manufacturing, which sliced 475 jobs from 2009 to 2019, 12 percent of its previous employment level. The losses were heaviest in Other Wood Product Manufacturing, which cut over 450 jobs from 2009 to 2019. The other large decline in the region occurred in the Furniture and Related Product Manufacturing sector, which eliminated 287 jobs over the last 10 years.

Encouragingly, 12 of the 16 sectors added jobs since the third quarter of 2014, while only 7 of the 16 sectors gained jobs in the past year. Similar to the ten-year trends, the most notable recoveries in the past five years occurred in Machinery Manufacturing, Food Manufacturing and Miscellaneous Manufacturing. The Beverage & Tobacco Product Manufacturing sector saw notable growth as well, adding nearly 200 jobs in the past 5 years, a nearly 200 percent increase (see Table 2).

Table 2. Northwest Minnesota Manufacturing Industry Trends, 2009-2019							
		1-Year	Trend,	5-Year	Trend,	10-Yea	r Trend,
NAICS Industry Title	Number	Number Q3 2018-Q3 2019		Q3 2014	-Q3 2019	Q3 2009-Q3 2019	
	of Jobs,	Numeric	Percent	Numeric	Percent	Numeric	Percent
	Q3 2019	Change	Change	Change	Change	Change	Change
Total, All Industries	227,095	-26 <b>3</b>	-0.1%	+5,773	+2.6%	+16,326	+7.7%
Manufacturing	29,812	+186	+0.6%	+863	+3.0%	+4,191	+16.4%
Food Manufacturing	5,956	-26	-0.4%	+252	+4.4%	+769	+14.8%
Transportation Equipment Mfg.	4,414	+275	+6.6%	-530	-10.7%	+497	+12.7%
Fabricated Metal Product Mfg.	4,166	+69	+1.7%	+28	+0.7%	+947	+29.4%
Machinery Manufacturing	3,977	+65	+1.7%	+605	+17.9%	+1,249	+45.8%
Wood Product Manufacturing	3,467	-114	-3.2%	-135	-3.7%	-475	-12.0%
Printing & Related Support Activities	1,297	-30	-2.3%	-92	-6.6%	<i>-75</i>	-5.5%
Nonmetallic Mineral Product Mfg.	1,082	-33	-3.0%	+82	+8.2%	+287	+36.1%
Computer & Electronic Product Mfg.	948	-9	-0.9%	+11	+1.2%	+263	+38.4%
Plastics & Rubber Products Mfg.	931	-3	-0.3%	+45	+5.1%	+266	+40.0%
Miscellaneous Manufacturing	838	+19	+2.3%	+264	+46.0%	+235	+39.0%
Primary Metal Manufacturing	641	-14	-2.1%	-46	-6.7%	+140	+27.9%
Furniture & Related Product Mfg.	642	-17	-2.6%	+32	+5.2%	-287	-30.9%
Chemical Manufacturing	394	-15	-3.7%	+131	+49.8%	+171	+76.7%
Beverage & Tobacco Product Mfg.	299	+42	+16.3%	+197	+193.1%	+225	+304.1%
Electric Equipment Manufacturing	137	+11	+8.7%	NA	NA	+98	+251.3%
	Source.	: DEED <mark>Quar</mark>	terly Censu	s of Employ	ment & Wo	iges (QCEW	) program



#### **Industry Demand**

The steady recovery in manufacturing employment in recent years has led to a steadily increasing number of job vacancies across the Northwest Minnesota region as well, with demand reaching levels not seen since the early 2000s. The 895 job vacancies reported by manufacturing employers in the second quarter of 2019 was the eighth highest number posted since 2001, and was more than five times more openings than the 168 vacancies posted in 2008, at the start of the recession (see Figure 2).



The median wage offer for these vacancies held steady at about \$16.73 per hour in the second quarter of 2019 and 40 percent of the manufacturing vacancies required at least 1 year of experience or postsecondary education, which was similar to past years. Only 1 percent of posted manufacturing openings were part-time, as compared to 45 percent of vacancies across all industries (see Table 3).

Table 3. Northwest Minnesota Manufacturing Job Vacancy Survey, 2 <sup>nd</sup> Quarter 2019									
NAICS Industry Title Number of Median Percent Percent Requiring Percent Requi									
	Job	Wage	Part-time	Postsecondary	1+ Years Work				
	Vacancies	Offer		Education	Experience				
Total, All Industries	13,020	\$14.28	42%	21%	30%				
Manufacturing	895	\$16.73	1%	19%	40%				
Source: DEED <u>Job Vacancy Surve</u>									

The largest number of manufacturing vacancies were for transportation and material moving occupations with 998 vacancies with a median wage offer of \$15.84. Next was production occupations, including metal and plastic workers, food processing workers, assemblers and fabricators, supervisors of production workers, textile and furnishing workers, and other production occupations. The median wage offer for these positions was \$14.17, but ranged between \$11 and \$24 per hour. Manufacturers in Northwest Minnesota were also looking to hire sales and office, installation, maintenance, and repair workers, management, and engineering occupations (see Table 4).



Table 4. Northwest Minnesota Production Occupations Job Vacancy Survey, 2 <sup>nd</sup> Quarter 2019								
	Number of	Median	Percent	<b>Percent Requiring</b>	<b>Percent Requiring</b>			
	Job	Wage	Part-time	Postsecondary	1+ Years Work			
SOC Occupational Title	Vacancies	Offer		Education	Experience			
Total, All Occupations	13,020	\$14.28	42%	21%	30%			
<b>Production Occupations</b>	642	\$14.17	5%	9%	25%			
Supervisors of Production Workers	14	\$24.06	18%	8%	73%			
Assemblers & Fabricators	39	\$13.57	0%	8%	32%			
Food Processing Workers	111	\$13.35	17%	0%	14%			
Metal Workers & Plastics Workers	231	\$15.22	0%	18%	25%			
Textile, Apparel, & Furnishing Workers	19	\$11.71	N/A	N/A	N/A			
Other Production Occupations	135	\$14.26	2%	4%	37%			
Office & Administrative Support	533	\$14.22	53%	20%	38%			
Transportation & Material Moving	998	\$15.84	24%	3%	30%			
Architecture & Engineering	155	\$23.99	1%	90%	66%			
Management	197	\$28.69	1%	71%	78%			
Installation, Maintenance, & Repair	289	\$19.44	8%	28%	62%			
Sales & Related	1,831	\$12.85	55%	3%	18%			
				Source: DEED Job Vacancy Survey				

## **Industry Occupational Employment**

DEED's Occupational Employment Statistics (OES) program provides detailed employment and wage data for a wide range of occupations involved in manufacturing. In sum, there were an estimated 25,080 people working in production occupations in Northwest Minnesota, accounting for about 11.2 percent of total employment in the region. Median hourly wages for production occupations were \$17.85 in 2019, but ranged from \$12.17 at the low end to \$28.03 at the high end.

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. Not surprisingly, wages were higher for the higher level positions (see Table 5).

Table 5. Northwest Minnesota Occupational Employment & Wage Statistics, 2019							
	Estimated	Estimated Regional		Statewide			
	Regional	Median	Statewide	Median			
SOC Occupational Title	Employment	<b>Hourly Wage</b>	Employment	<b>Hourly Wage</b>			
Total, All Occupations	223,830	\$18.09	2,867,700	\$20.95			
<b>Production Occupations</b>	25,080	\$17.85	214,230	\$18.68			
Office & Administrative Support	30,320	\$17.29	405,970	\$19.10			
Transportation & Material Moving	12,960	\$18.04	177,580	\$18.48			
Architecture & Engineering	3,810	\$30.39	56,070	\$37.53			
Management	10,210	\$40.67	171,250	\$51.26			
Installation, Maintenance, & Repair	8,340	\$21.28	100,030	\$23.13			
Sales & Related	19,880	\$13.12	277,070	\$14.97			
Business & Financial Operations	7,620	\$27.77	164,510	\$33.03			
Computer & Mathematical	3,250	\$31.64	96,020	\$40.96			
	Source: DEED <u>O</u>	ccupational Emp	loyment Statistics	<u>s (OES)</u> program			



Team assemblers, first-line supervisors, machinists, and more 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 \$11 per hour for food processing workers to a high of \$28 per hour for first-line supervisors of production and operating workers. Almost all of the production-related manufacturing occupations can be gained 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	Table 6. Northwest Minnesota Top 30 Production-related Manufacturing Occupations, 2019 Wage Data						
		Estimated	Median	Minnesota			
SOC		Regional	Hourly	<b>Educational Requirements</b>			
Code	SOC Occupational Title	Employment	Wage	for Occupations			
512092	Team & All Other Assemblers	5,200	\$17.24	High School or equiv.			
511011	First-Line Supervisors of Production & Operating Workers	1,590	\$28.03	High School or equiv.			
514041	Machinists	1,440	\$20.18	Vocational training			
513023	Slaughterers & Meat Packers	510	\$13.97	High School or equiv.			
519111	Packaging & Filling Machine Operators & Tenders	1,240	\$16.71	High School or equiv.			
514121	Welders, Cutters, Solderers, & Brazers	1,860	\$20.05	High School or equiv.			
519061	Inspectors, Testers, Sorters, Samplers, & Weighers	1,140	\$19.67	High School or equiv.			
537062	Laborers & Freight, Stock, & Material Movers, Hand	3,100	\$15.36	High School or equiv.			
514031	Cutting, Punching, & Press Machine Setters, Metal/Plastic	820	\$18.60	High School or equiv.			
515112	Printing Press Operators	390	\$18.43	High School or equiv.			
499041	Industrial Machinery Mechanics	660	\$22.44	Vocational training			
512028	Electrical & Electronic Equipment Assemblers	520	\$17.14	High School or equiv.			
519198	HelpersProduction Workers	490	\$15.21	High School or equiv.			
514011	Computer-Controlled Machine Tool Operators, Metal/Plastic	630	\$17.90	High School or equiv.			
537051	Industrial Truck & Tractor Operators	580	\$19.05	High School or equiv.			
519199	Production Workers, All Other	160	\$17.68	High School or equiv.			
499071	Maintenance & Repair Workers, General	2,350	\$19.02	High School or equiv.			
537064	Packers & Packagers, Hand	530	\$12.73	High School or equiv.			
513099	All other food processing workers	240	\$14.37	High School or equiv.			
514072	Molding, Coremaking & Casting Machine Setters & Operators	380	\$16.54	High School or equiv.			
533032	Truck Drivers, Heavy & Tractor-Trailer	3,130	\$20.87	High School or equiv.			
512028	Electromechanical Equipment Assemblers	520	\$17.14	High School or equiv.			
519121	Coating, Painting, & Spraying Machine Setters & Operators	430	\$18.60	High School or equiv.			
513092	Food Batchmakers	370	\$15.13	High School or equiv.			
519196	Paper Goods Machine Setters, Operators, & Tenders	#N/A	\$20.79	High School or equiv.			
515113	Print Binding & Finishing Workers	130	\$16.36	High School or equiv.			
517011	Cabinetmakers & Bench Carpenters	310	\$18.10	High School or equiv.			
519032	Cutting & Slicing Machine Setters, Operators, & Tenders	340	\$18.84	High School or equiv.			
514111	Tool & Die Makers	210	\$27.79	Vocational training			
	Source: DEED Occupational Employment Statistics (OES) program,	Minnesota Edu	cational Re	quirements 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 packers 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 \$34 per hour in Northwest Minnesota, with median wages topping \$55 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 well over \$30 per hour, and all require bachelor's degrees. In contrast, sales representatives required just a high school diploma, but also offered relatively high wages (see Table 7).

		Estimated Median		Minnesota
SOC		Regional	Hourly	<b>Educational Requirements</b>
Code	SOC Occupational Title	Employment	Wage	for Occupations
414012	Sales Representatives, Manufacturing, exc. Technical Products	2,050	\$25.48	High School or equiv.
434051	Customer Service Representatives	2,980	\$16.77	High School or equiv.
172112	Industrial Engineers	520	\$37.52	Bachelor's degree
111021	General & Operations Managers	2,390	\$35.96	Bachelor's degree
435071	Shipping, Receiving, & Traffic Clerks	1,100	\$18.15	High School or equiv.
113051	Industrial Production Managers	370	\$42.59	Bachelor's degree
172141	Mechanical Engineers	650	\$34.47	Bachelor's degree
433031	Bookkeeping, Accounting, & Auditing Clerks	2,720	\$19.05	High School or equiv.
173026	Industrial Engineering Technicians	300	\$24.52	Associate degree
131023	Purchasing Agents, exc. Wholesale, Retail & Farm Products	750	\$29.11	Bachelor's degree
439061	Office Clerks, General	4,200	\$16.98	High School or equiv.
414011	Sales Representatives, Manufacturing, Technical Products	#N/A	\$55.36	Bachelor's degree
435061	Production, Planning, & Expediting Clerks	400	\$21.93	High School or equiv.
132011	Accountants & Auditors	1,260	\$28.03	Bachelor's degree
435081	Stock Clerks & Order Fillers	2,870	\$12.41	High School or equiv.
119041	Engineering Managers	210	\$55.28	Bachelor's degree
172071	Electrical Engineers	190	\$38.21	Bachelor's degree
151133	Software Developers, Systems Software	120	\$44.86	Bachelor's degree
151132	Software Developers, Applications	330	\$39.42	Bachelor's degree
173023	Electrical & Electronic Engineering Technicians	190	\$24.46	Associate degree

Industry Outlook

According to DEED's 2016 to 2026 Employment Outlook data, the Northwest Minnesota manufacturing industry is projected to gain 1,885 jobs over the next decade, a 6.6 percent increase. This is greater than the overall growth of 4.2 percent across the total of all industries in Northwest Minnesota, and contrasts with the state of Minnesota as a whole, which is projected to lose about 5,400 manufacturing jobs from 2016 to 2026, a 1.7 percent decline.

Thirteen of the 17 manufacturing sectors are expected to add jobs, led by continued strong growth in Machinery Manufacturing, which is projected to gain 1,221 net new jobs, a 33.2 percent expansion. The region may also see job growth in Fabricated Metal Manufacturing, Miscellaneous Manufacturing, Food Manufacturing, and Plastics and Rubber Products Manufacturing.

In contrast, four of the 17 sectors are expected to see job declines in the next decade, with the most severe losses projected in Transportation Equipment Manufacturing, Wood Product Manufacturing, Furniture and Related Product Manufacturing, and Apparel Manufacturing. Those four sectors are expected to lose almost 600 jobs combined (see Table 8).



	8. Northwest Minnesota Manufactur				A4
NAICS	Industry	Estimated	Projected	Percent	Numeric
Code		• •	Employment	Change	Change
		2016	2026	2016-2026	2016-2026
0	Total, All Industries	262,786	273,747	+4.2%	+10,961
31	Manufacturing	28,471	30,356	+6.6%	+1,885
311	Food Manufacturing	5,752	5,932	+3.1%	+180
332	Fabricated Metal Product Mfg.	3,902	4,270	+9.4%	+368
336	Transportation Equipment Mfg.	4,250	3,992	-6.1%	-258
333	Machinery Manufacturing	3,682	4,903	+33.2%	+1,221
321	Wood Product Manufacturing	3,445	3,245	-5.8%	-200
323	Printing & Related Support Activities	1,359	1,379	+1.5%	+20
326	Plastics & Rubber Products Mfg.	875	1,043	+19.2%	+168
327	Nonmetallic Mineral Product Mfg.	983	963	-2.0%	-20
334	Computer & Electronic Product Mfg.	884	888	+0.5%	+4
331	Primary Metal Manufacturing	719	872	+21.3%	+153
337	Furniture & Related Product Mfg.	585	491	-16.1%	-94
339	Miscellaneous Manufacturing	860	1,128	+31.2%	+268
314	Textile Product Mills	435	448	+3.0%	+13
325	Chemical Manufacturing	341	389	+14.1%	+48
322	Paper Manufacturing	131	140	+6.9%	+9
312	Beverage & Tobacco Product Mfg.	125	159	+27.2%	+34
315	Apparel Manufacturing	18	7	-61.1%	-11
			Source: Di	EED <mark>Employm</mark>	ent Outlook

# **Occupational Outlook**

The projected job gains in the manufacturing industry are expected to carry over into production occupations as well, leading to a projected 6.1 percent increase from 2016 to 2026 in Northwest Minnesota. Also, the region is expected to have significant demand for production workers over the next ten years due to a large number of labor force exit openings – jobs that become available because the existing worker retires out of the labor force. There may be as many as 9,000 total openings for production occupations in the region due to these retirements and exit openings.

Overall, 38 of the 57 production occupations are expected to see new job growth from 2016 to 2026, led by Machinists; Welders, Cutters, Solderers, and Brazers; Helpers – Production Workers, and Butchers and Meat Cutters, which are all expected to grow by about 15 percent. In addition to those occupations, Team Assemblers and First-line Supervisors of Production Workers are expected to gain more than 100 net new jobs during the time frame as well.

In contrast, the biggest declines are projected for Cabinetmakers and Bench Carpenters, Inspectors, Testers, Sorters, Samplers, and Weighers, Bakers, and Cutting and Slicing Machine Setters and Operators. Sixteen of the 57 production occupations are expected to lose jobs.

Regardless of growth or decline, every occupation is expected to at least have some openings from 2016 to 2026. The largest number of total openings are projected for Team Assemblers, Machinists, and Welders, Cutters, Solderers, and Brazers. First Line Supervisors of Production Workers; Cutting, Punching, and Press Machine Setters; and Packaging and Filling Machine Operators will also remain in high demand over the next decade due to new hires and labor force exit openings (see Table 9).



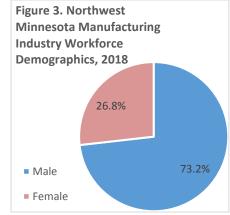
Table 9	. Top 25 Northwest Minnesota Production C	Occupation Pr	ojections, 20	16-2026		
soc		Estimated	Projected	Percent	Numeric	* Labor Force
Code	SOC Occupational Title	<b>Employment</b>	<b>Employment</b>	Change	Change	Exit Openings
Code		2016	2026	2016-2026	2016-2026	2016-2026
0	Total, All Occupations	262,786	273,747	+4.2%	+10,961	+130,759
510000	Production Occupations	21,624	22,952	+6.1%	+1,328	+8,926
512092	Team Assemblers	3,807	3,949	+3.7%	+142	+1,656
514041	Machinists	1,419	1,647	+16.1%	+228	+532
514121	Welders, Cutters, Solderers, & Brazers	1,272	1,472	+15.7%	+200	+365
512099	Assemblers & Fabricators, All Other	381	373	-2.1%	-8	+161
511011	First-Line Supervisors of Production Workers	1,113	1,213	+9.0%	+100	+371
514031	Cutting, Punching, & Press Machine Setters	899	958	+6.6%	+59	+336
519111	Packaging & Filling Machine Operators	1,031	1,119	+8.5%	+88	+508
514011	Computer-Controlled Machine Tool Operators	349	394	+12.9%	+45	+103
519198	HelpersProduction Workers	842	966	+14.7%	+124	+485
518031	Water/Wastewater Treatment Plant & System	453	450	-0.7%	-3	+129
519061	Inspectors, Testers, Sorters & Weighers	776	753	-3.0%	-23	+318
519199	Production Workers, All Other	335	373	+11.3%	+38	+139
512022	Electrical & Electronic Equipment Assemblers	110	98	-10.9%	-12	+53
516011	Laundry & Dry-Cleaning Workers	327	319	-2.4%	-8	+216
513099	Food Processing Workers, All Other	197	209	+6.1%	+12	+87
513021	Butchers & Meat Cutters	199	232	+16.6%	+33	+97
513011	Bakers	210	187	-11.0%	-23	+127
517011	Cabinetmakers & Bench Carpenters	209	172	-17.7%	-37	+89
515112	Printing Press Operators	374	381	+1.9%	+7	+147
519121	Coating, Painting, & Spraying Machine Setters	333	379	+13.8%	+46	+102
516031	Sewing Machine Operators	362	377	+4.1%	+15	+210
514072	Molding, Coremaking & Casting Machine Setters	289	304	+5.2%	+15	+109
519023	Mixing & Blending Machine Setters & Operators	124	126	+1.6%	+2	+45
517041	Sawing Machine Setters & Operators	260	244	-6.2%	-16	+102
514111	Tool and Die Makers	193	211	+9.3%	+18	+79

<sup>\*</sup> Labor Force 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)

Source: DEED Employment Outlook

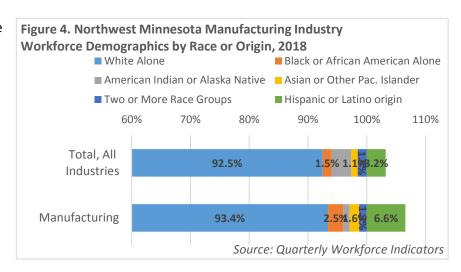
Data from DEED's Quarterly Employment Demographics (QED) program shows that the manufacturing workforce in the Northwest region is relatively non-diverse. Through 2018, nearly three-quarters (73.2%) of manufacturing workers are male, compared to 26.8 percent that are female (see Figure 3). In comparison, the workforce is much more evenly split between genders across the total of all industries, with about 52.5 percent of workers in the region being female, and the other 47.5 percent being male.

Additional demographic data from the U.S. Census Bureau's Quarterly Workforce Indicators (QWI) program show that the manufacturing workforce is also not very racially diverse. More than 93 percent of



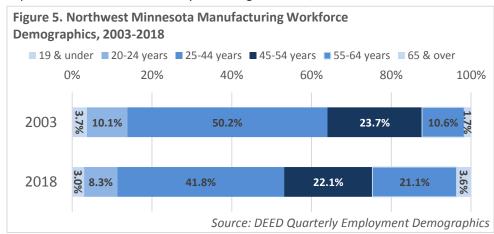
manufacturing workers in the region were white alone, while just 2.5 percent were Black or African American. In addition, 6.6 percent were Hispanic or Latino origin, making it the largest minority group of workers in the industry (see Figure 4 – please note that the numbers add up to more than 100% because Hispanic or Latino is an ethnicity rather than a race).

Despite the low numbers, the manufacturing workforce is becoming more diverse. The number of workers identifying as white alone declined by 5 percent from 2003 to 2018, compared to a 70 percent increase in the number of jobholders of other race groups. The number of Hispanic or Latino workers in manufacturing jumped by 165 percent from 2003 to 2018.



As the workforce in Northwest Minnesota ages, new graduates and other jobseekers will become increasingly important sources of workers, particularly for the manufacturing industry. The Manufacturing workforce is relatively old and continued to age over the past fifteen years. QED data shows that in 2018, 24.7 percent of workers were 55 years of age or older, more than double the share

in 2003. In contrast, the share of workers under the age of 25 fell from 13.8 percent in 2003 to 11.3 percent in 2018. The proportion of workers aged 25 to 44 years old also dropped, from 50.2 to 41.8 percent (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.

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