

## Central Minnesota – Manufacturing Overview



According to DEED’s [Quarterly Census of Employment and Wages](#) (QCEW) data, the 13-county Central Minnesota region was home to 1,160 manufacturing establishments providing 41,829 jobs through the third quarter of 2016. That was 13 percent of total manufacturing employment in the state, the second largest concentration of the 6 regions in the state. Manufacturing accounted for 15.3 percent of total employment in the region, making it the second largest industry behind health care and social assistance (49,616 jobs) and ahead of retail trade (35,989 jobs).

These manufacturers provided about \$541 million in total payroll in the third quarter of 2016, making it the second largest industry in terms of payroll. Average weekly wages in manufacturing were \$995 in 2016, which was 22.2 percent higher than the total of all industries.

**Table 1. Central Minnesota Manufacturing Industry Employment Statistics, Quarter 3 2016**

NAICS Code	NAICS Industry Title	Number of Firms, Q3 2016	Number of Jobs, Q3 2016	Quarterly Payroll, Q3 2016	Avg. Weekly Wages, Q3 2016
<b>0</b>	<b>Total, All Industries</b>	<b>16,615</b>	<b>272,771</b>	<b>\$2,887,640,605</b>	<b>\$814</b>
<b>31</b>	<b>Manufacturing</b>	<b>1,160</b>	<b>41,829</b>	<b>\$541,381,573</b>	<b>\$995</b>
311	Food Manufacturing	111	7,928	\$96,207,927	\$933
332	Fabricated Metal Product Manufacturing	298	7,005	\$97,448,183	\$1,070
333	Machinery Manufacturing	128	3,751	\$52,265,489	\$1,071
326	Plastics & Rubber Products Manufacturing	62	2,869	\$35,945,764	\$963
337	Furniture & Related Product Manufacturing	99	2,766	\$32,410,147	\$901
336	Transportation Equipment Manufacturing	34	2,728	\$33,474,534	\$943
327	Nonmetallic Mineral Product Manufacturing	70	2,281	\$30,385,826	\$1,024
322	Paper Manufacturing	13	2,235	\$36,400,304	\$1,252
339	Miscellaneous Manufacturing	94	2,038	\$23,614,306	\$891
323	Printing & Related Support Activities	72	1,885	\$21,763,395	\$888
334	Computer & Electronic Product Manufacturing	30	1,530	\$22,715,515	\$1,142
335	Electrical Equip., Appliance, & Component Mfg.	10	1,286	\$14,466,957	\$865
321	Wood Product Manufacturing	58	915	\$10,036,350	\$843
331	Primary Metal Manufacturing	8	691	\$10,582,799	\$1,178
312	Beverage & Tobacco Product Manufacturing	19	688	\$7,753,023	\$866
325	Chemical Manufacturing	23	637	\$10,185,478	\$1,229
314	Textile Product Mills	24	525	\$5,285,536	\$774

Source: DEED [Quarterly Census of Employment & Wages \(QCEW\)](#) program

Food Manufacturing was the largest sector in Central Minnesota, with 7,928 jobs at 111 establishments, and just over \$96 million in quarterly payroll. The largest subsectors in Food Manufacturing include Animal Slaughtering and Processing (4,038 jobs), Fruit and Vegetable Preserving and Specialty Food Manufacturing (722 jobs), Bakeries and Tortilla Manufacturing (707 jobs), Animal Food Manufacturing (656 jobs), Dairy Product Manufacturing (565 jobs), and Other Food Manufacturing (863 jobs).

The second largest manufacturing sector in the region is Fabricated Metal Product Manufacturing, which had 7,005 jobs at 298 establishments through the third quarter of 2016. The largest subsectors include Machine Shops (2,647 jobs), Architectural and Structural Metals (1,679 jobs), Forging and Stamping (500 jobs), Boiler, Tank, and Shipping Container Manufacturing (494 jobs), Coating, Engraving, and Heat Treating (389 jobs), and Other Fabricated Metal Product Manufacturing (941 jobs).

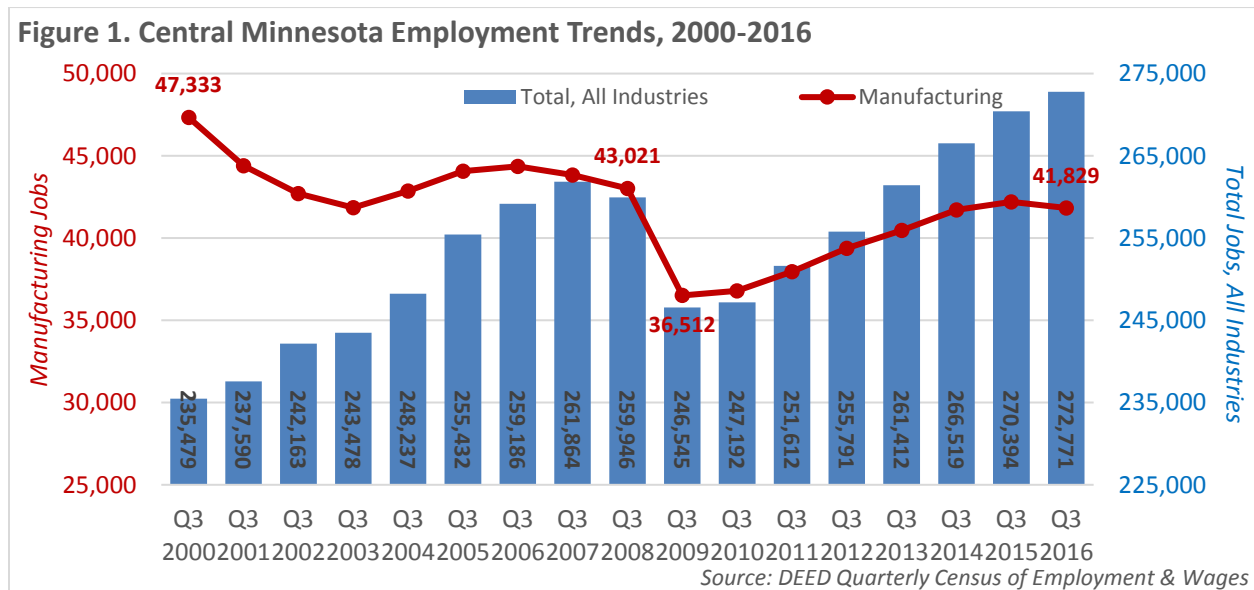
Central Minnesota also had notable numbers of jobs in Machinery Manufacturing (3,751 jobs); Plastics and Rubber Product Manufacturing (2,869 jobs), Furniture and Related Product Manufacturing (2,766 jobs), Transportation Equipment Manufacturing (2,728 jobs), Nonmetallic Mineral Product Manufacturing (2,281 jobs), Paper Manufacturing (2,235 jobs), and Miscellaneous Manufacturing (2,038 jobs). The region has a specialty in kitchen cabinets and granite countertops, with both of those sectors much more concentrated in Central Minnesota than the rest of the state.

Central Minnesota also has smaller employment numbers in the Printing and Related Support Activities (1,885 jobs), Computer and Electronic Product Manufacturing (1,530 jobs), Electrical Equipment, Appliance, and Component Manufacturing (1,286 jobs), Wood Product Manufacturing (915 jobs), Primary Metal Manufacturing (691 jobs), Beverage and Tobacco Product manufacturing (688 jobs), and Chemical Manufacturing (598 jobs) sectors. The region also has a small number, but a relatively high concentration, of employment in the Textile Product Mills sector (525 jobs).

Average weekly wages in manufacturing (\$995) were 22.2 percent higher than the total of all industries (\$814), led by high average weekly wages in Paper Manufacturing (\$1,252), Chemical Manufacturing (\$1,229), Primary Metal Manufacturing (\$1,178), Computer and Electronic Product Manufacturing (\$1,142), Machinery Manufacturing (\$1,071), and Fabricated Metal Manufacturing (\$1,070).

**Industry Trends**

Manufacturers in Central Minnesota cut about 5,500 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 over 6,500 jobs in one year, to a low of 36,512 jobs through the third quarter of 2009. However, manufacturers in the region have again enjoyed a slow but steady recovery, regaining about 5,300 net new jobs over that time period (see Figure 1).



Despite the recent recovery, manufacturers in Central Minnesota still have about 2,500 fewer jobs now than ten years ago, in 2006. Manufacturing employment was down about 5.7 percent from 2006 to 2016, while the total of all industries surpassed its pre-recession peak in 2014 and is now up 13,585 jobs since 2006, a 5.2 percent increase in jobs.

The biggest job declines in the past decade occurred in Computer and Electronic Product Manufacturing, which sliced 2,230 jobs from 2006 to 2016, nearly 60 percent of its previous employment level. The region also suffered large declines in the Printing and Related Support Activities sector, which eliminated 1,311 jobs over the last 10 years, and Furniture and Related Product Manufacturing, which cut 1,249 jobs in reaction to the housing bubble burst.

In sum, less than half of the 17 manufacturing sectors had fewer jobs in 2016 than in 2006, but five of them cut 25 percent or more of their employment. In contrast, eight sectors saw employment growth since 2006, with the largest job gains occurring in Fabricated Metal Product Manufacturing, which added 815 jobs, Miscellaneous Manufacturing, Plastics and Rubber Product Manufacturing, and Transportation Equipment Manufacturing, which all gained more than 650 jobs. Central Minnesota also saw important job gains in Chemical Manufacturing, Food Manufacturing, Beverage and Tobacco Product Manufacturing, and Machinery Manufacturing.

Encouragingly, 10 of the 17 sectors added jobs since the third quarter of 2011. The most notable recoveries in the past five years occurred in Machinery Manufacturing, Furniture and Related Product Manufacturing, Miscellaneous Manufacturing, Fabricated Metal Product Manufacturing, and Transportation Equipment Manufacturing, which all added more than 575 net new jobs (see Table 2).

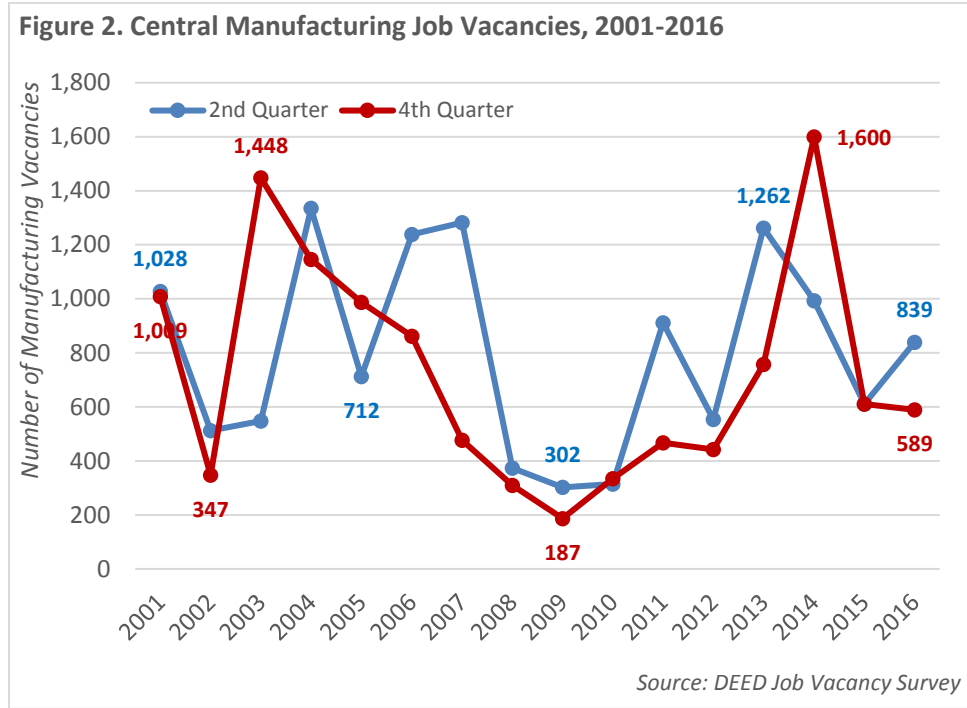
**Table 2. Central Minnesota Manufacturing Industry Trends, 2006-2016**

NAICS Industry Title	Number of Jobs, Q3 2016	1-Year Trend, Q3 2015-Q3 2016		5-Year Trend, Q3 2011-Q3 2016		10-Year Trend, Q3 2006-Q3 2016	
		Numeric Change	Percent Change	Numeric Change	Percent Change	Numeric Change	Percent Change
<b>Total, All Industries</b>	<b>272,771</b>	<b>+2,377</b>	<b>+0.9%</b>	<b>+21,159</b>	<b>+8.4%</b>	<b>+13,585</b>	<b>+5.2%</b>
<b>Manufacturing</b>	<b>41,829</b>	<b>-379</b>	<b>-0.9%</b>	<b>+3,860</b>	<b>+10.2%</b>	<b>-2,527</b>	<b>-5.7%</b>
Food Manufacturing	7,928	-194	-2.4%	+351	+4.6%	+335	+4.4%
Fabricated Metal Product Mfg.	7,005	+11	+0.2%	+630	+9.9%	+815	+13.2%
Machinery Manufacturing	3,751	+259	+7.4%	+789	+26.6%	+322	+9.4%
Plastics & Rubber Products Mfg.	2,869	+28	+1.0%	+300	+11.7%	+674	+30.7%
Furniture & Related Product Mfg.	2,766	+56	+2.1%	+782	+39.4%	-1,249	-31.1%
Transportation Equipment Mfg.	2,728	-650	-19.2%	+576	+26.8%	+652	+31.4%
Nonmetallic Mineral Product Mfg.	2,281	+202	+9.7%	-27	-1.2%	-217	-8.7%
Paper Manufacturing	2,235	-5	-0.2%	-343	-13.3%	-482	-17.7%
Miscellaneous Manufacturing	2,038	+32	+1.6%	+666	+48.5%	+735	+56.4%
Printing & Related Support Activities	1,885	-35	-1.8%	-140	-6.9%	-1,311	-41.0%
Computer & Electronic Product Mfg.	1,530	-155	-9.2%	-207	-11.9%	-2,230	-59.3%
Electrical Equip., Appl. & Comp. Mfg.	1,286	+12	+0.9%	-390	-23.3%	-413	-24.3%
Wood Product Manufacturing	915	-11	-1.2%	-170	-15.7%	-565	-38.2%
Primary Metal Manufacturing	691	-51	-6.9%				
Beverage & Tobacco Product Mfg.	688	+48	+7.5%	+207	+43.0%	+326	+90.1%
Chemical Manufacturing	637	+15	+2.4%	+296	+86.8%	+432	+210.7%
Textile Product Mills	525	+79	+17.7%	+216	+69.9%	-101	-16.1%

Source: DEED [Quarterly Census of Employment & Wages \(QCEW\)](#) program

### Industry Demand

The steady recovery in manufacturing employment in recent years has led to a rising number of [job vacancies](#) across the Central Minnesota region. The 589 job vacancies reported by manufacturing employers in the fourth quarter of 2016 was down compared to the record-high 1,600 vacancies posted in 2014, but was still three times more openings than the 187 vacancies posted in 2009, at the bottom of the recession (see Figure 2).



The median wage offer for these vacancies dropped to \$15.00 per hour in the fourth quarter of 2016, about \$1 less than openings reported in the fourth quarter of 2015, and down almost \$5 per hour compared to the fourth quarter of 2009. Just over one-third of the manufacturing vacancies required postsecondary education and 42 percent required at least a year of prior work experience, which was in line with past years. Just 7 percent of the posted manufacturing openings were part-time, as compared to 50 percent of vacancies across all industries (see Table 3).

**Table 3. Central Minnesota Manufacturing Job Vacancy Survey, 4<sup>th</sup> Quarter 2016**

NAICS Industry Title	Number of Job Vacancies	Median Wage Offer	Percent Part-time	Percent Requiring Postsecondary Education	Percent Requiring 1+ Years Work Experience
Total, All Industries	9,977	\$12.38	50%	26%	30%
Manufacturing	589	\$15.00	7%	35%	42%

Source: DEED [Job Vacancy Survey](#)

The largest number of manufacturing vacancies were production occupations, including metal and plastic workers, food processing workers, assemblers and fabricators, and other production occupations. The median wage offer for these positions was \$14.70, but ranged between \$11 and \$25 per hour. Manufacturers in Central Minnesota were also looking to hire sales and office, transportation and material moving, management, and installation, maintenance, and repair workers (see Table 4).

**Table 4. Central Minnesota Production Occupations Job Vacancy Survey, 4<sup>th</sup> Quarter 2016**

SOC Occupational Title	Number of Job Vacancies	Median Wage Offer	Percent Part-time	Percent Requiring Postsecondary Education	Percent Requiring 1+ Years Work Experience
<b>Total, All Occupations</b>	<b>9,977</b>	<b>\$12.38</b>	<b>50%</b>	<b>26%</b>	<b>30%</b>
<b>Production Occupations</b>	<b>511</b>	<b>\$14.70</b>	<b>10%</b>	<b>31%</b>	<b>30%</b>
Supervisors of Production Workers	16	\$24.83	0%	78%	62%
Assemblers & Fabricators	44	\$13.91	13%	0%	3%
Food Processing Workers	41	\$14.35	8%	0%	0%
Metal Workers & Plastics Workers	188	\$16.99	0%	72%	60%
Textile, Apparel, & Furnishing Workers	17	\$13.35	36%	33%	35%
Other Production Occupations	168	\$11.57	18%	2%	10%
Office & Administrative Support	820	\$11.49	50%	13%	24%
Transportation & Material Moving	685	\$13.65	50%	6%	30%
Architecture & Engineering	31	\$24.95	8%	75%	78%
Management	90	\$21.43	12%	54%	75%
Installation, Maintenance, & Repair	500	\$14.97	6%	70%	44%
Sales & Related	2,103	\$11.52	57%	8%	34%

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 32,850 people working in production occupations in Central Minnesota, accounting for about 11.5 percent of total employment in the region. Median hourly wages for production occupations were \$16.77 in 2016, but ranged from \$10.85 at the low end to \$26.79 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. Central Minnesota Occupational Employment & Wage Statistics, 2016**

SOC Occupational Title	Estimated Regional Employment	Regional Median Hourly Wage	Estimated Statewide Employment	Statewide Median Hourly Wage
<b>Total, All Occupations</b>	<b>285,870</b>	<b>\$16.90</b>	<b>2,772,240</b>	<b>\$18.88</b>
<b>Production Occupations</b>	<b>32,850</b>	<b>\$16.77</b>	<b>219,390</b>	<b>\$16.80</b>
Office & Administrative Support	41,190	\$16.32	403,870	\$17.65
Transportation & Material Moving	17,958	\$14.64	174,150	\$16.35
Architecture & Engineering	3,860	\$30.34	52,680	\$35.14
Management	13,130	\$38.55	167,820	\$48.47
Installation, Maintenance, & Repair	11,910	\$20.96	94,280	\$21.96
Sales & Related	28,780	\$11.53	274,960	\$13.03
Business & Financial Operations	9,770	\$27.31	162,610	\$31.06
Computer & Mathematical	4,120	\$29.55	94,470	\$38.93

Source: DEED [Occupational Employment Statistics \(OES\) 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 \$10 per hour for packers and packagers to a high of nearly \$27.50 per hour for tool and die makers and 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. Central Minnesota Top 30 Production-related Manufacturing Occupations, 2016 Wage Data**

SOC Code	SOC Occupational Title	Estimated Regional Employment	Median Hourly Wage	Minnesota Educational Requirements for Occupations
512092	Team Assemblers	2,200	\$15.95	High School or equiv.
511011	First-Line Supervisors of Production & Operating Workers	1,840	\$27.24	High School or equiv.
512099	Assemblers & Fabricators, All Other	1,340	\$16.47	High School or equiv.
514041	Machinists	1,720	\$22.95	Vocational training
513023	Slaughterers & Meat Packers	2,470	\$13.21	High School or equiv.
519111	Packaging & Filling Machine Operators & Tenders	1,450	\$15.13	High School or equiv.
514121	Welders, Cutters, Solderers, & Brazers	2,200	\$18.91	High School or equiv.
519061	Inspectors, Testers, Sorters, Samplers, & Weighers	1,200	\$17.75	High School or equiv.
537062	Laborers & Freight, Stock, & Material Movers, Hand	3,630	\$13.55	High School or equiv.
514031	Cutting, Punching, & Press Machine Setters, Metal/Plastic	1,100	\$14.78	High School or equiv.
515112	Printing Press Operators	420	\$19.34	High School or equiv.
499041	Industrial Machinery Mechanics	760	\$23.28	Vocational training
512022	Electrical & Electronic Equipment Assemblers	400	\$13.37	High School or equiv.
519198	Helpers--Production Workers	1,040	\$11.57	High School or equiv.
514011	Computer-Controlled Machine Tool Operators, Metal/Plastic	760	\$18.36	High School or equiv.
537051	Industrial Truck & Tractor Operators	1,140	\$17.64	High School or equiv.
519199	Production Workers, All Other	770	\$14.30	High School or equiv.
499071	Maintenance & Repair Workers, General	2,430	\$20.26	High School or equiv.
537064	Packers & Packagers, Hand	1,860	\$9.55	High School or equiv.
513099	All other food processing workers	390	\$12.72	High School or equiv.
514072	Molding, Coremaking & Casting Machine Setters & Operators	510	\$16.81	High School or equiv.
533032	Truck Drivers, Heavy & Tractor-Trailer	5,130	\$20.76	High School or equiv.
512023	Electromechanical Equipment Assemblers	100	\$18.53	High School or equiv.
519121	Coating, Painting, & Spraying Machine Setters & Operators	620	\$20.14	High School or equiv.
513092	Food Batchmakers	450	\$14.65	High School or equiv.
519196	Paper Goods Machine Setters, Operators, & Tenders	100	\$13.99	High School or equiv.
515113	Print Binding & Finishing Workers	260	\$17.93	High School or equiv.
517011	Cabinetmakers & Bench Carpenters	590	\$16.62	High School or equiv.
519032	Cutting & Slicing Machine Setters, Operators, & Tenders	530	\$21.20	High School or equiv.
514111	Tool & Die Makers	220	\$27.46	Vocational training

Source: DEED [Occupational Employment Statistics \(OES\)](#) 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 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 \$30 per hour in Central Minnesota, with median wages topping \$56.50 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).

**Table 7. Central Minnesota Top 20 Office-related Manufacturing Occupations, 2016 Wage Data**

SOC Code	SOC Occupational Title	Estimated Regional Employment	Median Hourly Wage	Minnesota Educational Requirements for Occupations
414012	Sales Representatives, Manufacturing, exc. Technical Products	3,090	\$27.95	High School or equiv.
434051	Customer Service Representatives	4,440	\$15.17	High School or equiv.
172112	Industrial Engineers	700	\$38.15	Bachelor's degree
111021	General & Operations Managers	3,610	\$33.52	Bachelor's degree
435071	Shipping, Receiving, & Traffic Clerks	1,710	\$15.54	High School or equiv.
113051	Industrial Production Managers	570	\$40.45	Bachelor's degree
172141	Mechanical Engineers	440	\$33.46	Bachelor's degree
433031	Bookkeeping, Accounting, & Auditing Clerks	3,300	\$17.80	High School or equiv.
173026	Industrial Engineering Technicians	260	\$23.19	Associate degree
131023	Purchasing Agents, exc. Wholesale, Retail & Farm Products	530	\$27.63	Bachelor's degree
439061	Office Clerks, General	4,880	\$15.04	High School or equiv.
414011	Sales Representatives, Manufacturing, Technical Products	200	\$33.56	Bachelor's degree
435061	Production, Planning, & Expediting Clerks	530	\$21.90	High School or equiv.
132011	Accountants & Auditors	1,740	\$28.13	Bachelor's degree
435081	Stock Clerks & Order Fillers	5,910	\$10.95	High School or equiv.
119041	Engineering Managers	220	\$56.52	Bachelor's degree
172071	Electrical Engineers	210	\$43.59	Bachelor's degree
151133	Software Developers, Systems Software	390	\$41.57	Bachelor's degree
151132	Software Developers, Applications	520	\$34.67	Bachelor's degree
173023	Electrical & Electronic Engineering Technicians	230	\$24.77	Associate degree

Source: DEED [Occupational Employment Statistics \(OES\)](#) program, [Minnesota Educational Requirements for Occupations](#)

### Industry Outlook

According to DEED’s 2014 to 2024 Employment Outlook data, the Central Minnesota manufacturing industry is projected to lose just 328 jobs over the next decade, a slight 0.8 percent decline, which is the smallest of any region in the state. The state of Minnesota as a whole is projected to lose about 14,500 manufacturing jobs from 2014 to 2024, a 4.6 percent decline, which makes Central Minnesota’s projected stability more unique. Still, the small decline in Manufacturing is in contrast to overall growth of 7.7 percent across the total of all industries in Central Minnesota.

Eleven of the 17 sectors are expected to see job declines in the next decade, with the most severe losses projected in Computer and Electronic Product Manufacturing, Paper Manufacturing, and Printing and Related Support Activities. Those three sectors are expected to lose just over 1,000 jobs combined.

In contrast, six of the 17 manufacturing sectors are expected to add jobs, led by a strong resurgence in Fabricated Metal Product Manufacturing, which is projected to gain 345 net new jobs, a 4.7 percent expansion. The region may also see job growth in Miscellaneous Manufacturing, Beverage and Tobacco Product Manufacturing, which is projected to expand nearly 40 percent, and Furniture and Related Product Manufacturing, which is expected to regain over 150 jobs (see Table 8).

**Table 8. Central Minnesota Manufacturing Industry Projections, 2014-2024**

NAICS Code	Industry	Estimated Employment 2014	Projected Employment 2024	Percent Change 2014-2024	Numeric Change 2014-2024
<b>0</b>	<b>Total, All Industries</b>	<b>302,055</b>	<b>325,393</b>	<b>+7.7%</b>	<b>+23,338</b>
<b>31</b>	<b>Manufacturing</b>	<b>40,606</b>	<b>40,278</b>	<b>-0.8%</b>	<b>-328</b>
332	Fabricated Metal Product Mfg.	7,253	7,598	+4.7%	+345
311	Food Manufacturing	7,639	7,544	-1.2%	-95
333	Machinery Manufacturing	3,291	3,263	-0.8%	-28
336	Transportation Equipment Mfg.	2,861	2,958	+3.3%	+97
337	Furniture & Related Product Mfg.	2,581	2,733	+5.8%	+152
326	Plastics & Rubber Products Mfg.	2,682	2,616	-2.4%	-66
339	Miscellaneous Manufacturing	1,912	2,344	+22.5%	+432
323	Printing & Related Support Activities	2,261	1,998	-11.6%	-263
327	Nonmetallic Mineral Product Mfg.	1,920	1,929	+0.4%	+9
322	Paper Manufacturing	2,050	1,782	-13.0%	-268
335	Electrical Equipment & Appliances	1,430	1,268	-11.3%	-162
334	Computer & Electronic Product Mfg.	1,647	1,164	-29.3%	-483
321	Wood Product Manufacturing	1,106	1,097	-0.8%	-9
312	Beverage & Tobacco Product Mfg.	593	823	+38.7%	+230
325	Chemical Manufacturing	458	411	-10.2%	-47
314	Textile Product Mills	454	368	-18.9%	-86
331	Primary Metal Manufacturing	389	340	-12.5%	-49

*Source: DEED [Employment Outlook](#)*

### Occupational Outlook

The growth in some Central Minnesota manufacturing sectors is expected to carry over into production occupations as well, leading to a projected 1.4 percent job rise from 2014 to 2024. In addition, the region is also expected to have significant demand for production workers over the next ten years due to a large number of replacement openings – jobs that become available because the existing worker retires out of the labor force or changes careers. There may be as many as 8,100 total openings for production occupations in the region, primarily from replacement openings.

Overall, 32 of the 59 production occupations are expected to see new job growth from 2014 to 2024, led by Ophthalmic Laboratory Technicians, and Welders, Cutters, Solderers, and Brazers, which are all projected to add more than 115 net new jobs. Assemblers and Fabricators, Cabinetmakers and Bench Carpenters, and First-Line Supervisors of Production Workers are also projected to have notable employment growth in the next decade.

In contrast, the biggest declines are projected for Cutting, Punching, and Press Machine Setters; Molding, Coremaking, and Casting Machine Setters; Grinding, Lapping, Polishing, and Buffing Machine Setters; and Meat, Poultry, and Fish Cutters. Just four of the 49 production occupations are expected to lose more than 20 percent of their jobs, with Prepress Technicians seeing the most rapid drop-off.

Regardless of growth or decline, every occupation is expected to at least have some replacement openings from 2014 to 2024. The largest number of total openings are projected for Welders, Cutters, Solderers, and Brazers; Machinists, Assemblers and Fabricators, and Packaging and Filling Machine Operators, which are all expected to have at least 460 total openings in the region. Production Worker Helpers, Team Assemblers, and Inspectors, Testers, Sorters, Samplers, and Weighers will also remain in demand due to new hires and replacement openings (see Table 9).



**Table 9. Top 25 Central Minnesota Production Occupation Projections, 2014-2024**

SOC Code	SOC Occupational Title	Estimated Employment 2014	Projected Employment 2024	Percent Change 2014-2024	Numeric Change 2014-2024	* Replacement Openings 2014-2024	** Total Openings 2014-2024
<b>0</b>	<b>Total, All Occupations</b>	<b>302,055</b>	<b>325,393</b>	<b>+7.7%</b>	<b>+23,338</b>	<b>+70,740</b>	<b>+97,320</b>
<b>510000</b>	<b>Production Occupations</b>	<b>30,062</b>	<b>30,510</b>	<b>+1.4%</b>	<b>+448</b>	<b>+6,720</b>	<b>+8,100</b>
514121	Welders, Cutters, Solderers, & Brazers	2,070	2,185	+5.5%	+115	+590	+700
512099	Assemblers & Fabricators, All Other	1,799	1,882	+4.6%	+83	+380	+460
511011	First-Line Supervisors of Production Workers	1,709	1,777	+3.9%	+68	+270	+330
512092	Team Assemblers	1,721	1,748	+1.5%	+27	+370	+390
514041	Machinists	1,195	1,330	+11.2%	+135	+340	+480
519111	Packaging & Filling Machine Operators	1,181	1,227	+3.8%	+46	+420	+460
519198	Helpers--Production Workers	1,152	1,204	+4.5%	+52	+370	+420
519061	Inspectors, Testers, Sorters, & Weighers	1,084	1,147	+5.8%	+63	+270	+330
514031	Cutting, Punching, & Press Machine Setters	1,133	978	-13.6%	-155	+140	+140
519083	Ophthalmic Laboratory Technicians	687	912	+32.7%	+225	+160	+390
519199	Production Workers, All Other	702	767	+9.2%	+65	+140	+200
513022	Meat, Poultry, & Fish Cutters & Trimmers	807	762	-5.5%	-45	+150	+150
517011	Cabinetmakers & Bench Carpenters	652	723	+10.8%	+71	+50	+120
513099	Food Processing Workers, All Other	591	620	+4.9%	+29	+120	+150
519121	Coating, Painting, & Spraying Machine Setters	534	542	+1.4%	+8	+100	+100
514072	Molding, Coremaking & Casting Machine Setters	643	531	-17.4%	-112	+90	+90
517042	Woodworking Machine Setters & Operators	455	471	+3.5%	+16	+70	+90
518031	Water/Wastewater Treatment Plant & System	444	455	+2.4%	+11	+110	+120
519032	Cutting & Slicing Machine Setters & Operators	455	419	-7.9%	-36	+90	+90
513011	Bakers	369	408	+10.5%	+39	+80	+120
512022	Electrical & Electronic Equipment Assemblers	432	405	-6.2%	-27	+50	+50
513092	Food Batchmakers	371	402	+8.3%	+31	+80	+110
513021	Butchers & Meat Cutters	359	380	+5.8%	+21	+70	+90
515112	Printing Press Operators	380	349	-8.1%	-31	+50	+50
516011	Laundry & Dry-Cleaning Workers	310	332	+7.0%	+22	+40	+60

**\* Replacement Openings:**

Net replacement openings is an estimate of the need for new work force entrants to replace workers who leave an occupation.

It estimates the net movement of:

- 1) experienced workers who leave an occupation and start working in another occupation, stop working altogether, or leave the geographic area, minus
- 2) experienced workers who move into such an opening. It thus does not represent the total number of jobs to be filled due to the need to replace workers.

**\*\* Total Openings:**

Total job openings represent the sum of employment increases and net replacements. If employment change is negative, job openings due to growth are zero and total job openings equals net replacements.

Source: DEED [Employment Outlook](#)

For more information about Manufacturing in Central Minnesota, contact:

**Luke Greiner | Central Minnesota Regional Analyst**

320-308-5378 | [luke.greiner@state.mn.us](mailto:luke.greiner@state.mn.us)

<http://www.mn.gov/deed/data/regional-lmi/central-lmi.jsp>

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