

Wisconsin Statewide Projections, 2006-2008
 Skilled Manufacturing Occupations (see notes below)

SOC Code	Occupational Title	Estimated Employment ⁽¹⁾				Annual Openings			Typical Education and Training Path ⁽⁴⁾	Estimated Salary and Wages		
		2006	2008	Change	% Change	New Jobs	Replacements ⁽²⁾	Total ⁽³⁾		Avg Ann Salary ⁽⁵⁾	Entry Level Wage ⁽⁶⁾	Experienced Wage ⁽⁷⁾
00-0000	Total, All Occupations	3,082,030	3,127,760	45,730	1.5%	22,870	75,320	98,190		\$36,671	\$8.62	\$22.14
	Total, All Occupations Listed Below	289,440	290,770	1,330	0.5%	670	6,800	7,470				
49-9041	Industrial Machinery Mechanics	7,800	7,890	90	1.2%	50	140	190	Long-term on-the-job training	\$43,525	\$15.40	\$23.69
49-9044	Millwrights	1,800	1,790	-10	-0.6%	<5	40	40	Long-term on-the-job training	\$51,692	\$19.03	\$27.77
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	*	*	*	*	<5	<5	<5	Long-term on-the-job training	\$36,159	\$12.18	\$19.99
51-2041	Structural Metal Fabricators and Fitters	3,420	3,500	80	2.3%	40	80	120	Moderate-term on-the-job training	\$34,196	\$13.33	\$17.99
51-2091	Fiberglass Laminators and Fabricators	1,030	1,050	20	1.9%	10	30	40	Moderate-term on-the-job training	\$27,593	\$10.01	\$14.89
51-2092	Team Assemblers	40,750	41,460	710	1.7%	360	1,040	1,400	Moderate-term on-the-job training	\$26,414	\$8.84	\$14.63
51-2093	Timing Device Assemblers, Adjusters, and Calibrators	*	*	*	*	<5	<5	<5	Moderate-term on-the-job training	\$35,013	\$14.10	\$18.20
51-2099	Assemblers and Fabricators, All Other	11,730	11,710	-20	-0.2%	<5	300	300	Moderate-term on-the-job training	\$32,780	\$9.95	\$18.66
51-3011	Bakers	3,960	4,010	50	1.3%	30	90	120	Long-term on-the-job training	\$22,670	\$8.03	\$12.33
51-3021	Butchers and Meat Cutters	3,010	3,000	-10	-0.3%	<5	70	70	Long-term on-the-job training	\$30,298	\$9.92	\$16.89
51-3023	Slaughtering and Meat Packers	3,370	3,430	60	1.8%	30	80	110	Moderate-term on-the-job training	\$22,751	\$8.98	\$11.92
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	8,850	9,010	160	1.8%	80	130	210	Moderate-term on-the-job training	\$34,962	\$12.20	\$19.11
51-4012	Numerical Tool and Process Control Programmers	760	780	20	2.6%	10	10	20	Long-term on-the-job training	\$44,005	\$16.43	\$23.52
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	2,300	2,260	-40	-1.7%	<5	80	80	Moderate-term on-the-job training	\$29,482	\$10.10	\$16.21
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	1,650	1,670	20	1.2%	10	20	30	Moderate-term on-the-job training	\$32,069	\$11.27	\$17.49
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	620	640	20	3.2%	10	10	20	Moderate-term on-the-job training	\$33,751	\$13.76	\$17.46
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	11,090	10,830	-260	-2.3%	<5	250	250	Moderate-term on-the-job training	\$29,377	\$10.20	\$16.08
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	2,160	2,180	20	0.9%	10	60	70	Moderate-term on-the-job training	\$32,269	\$11.17	\$17.69
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	5,420	5,420	0	0.0%	<5	100	100	Moderate-term on-the-job training	\$31,639	\$11.25	\$17.19
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	2,880	2,880	0	0.0%	<5	50	50	Moderate-term on-the-job training	\$32,592	\$11.63	\$17.69
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	1,290	1,290	0	0.0%	<5	20	20	Moderate-term on-the-job training	\$32,864	\$12.05	\$17.67
51-4041	Machinists	13,970	14,340	370	2.6%	190	310	500	Long-term on-the-job training	\$36,697	\$12.81	\$20.06
51-4051	Metal-Refining Furnace Operators and Tenders	660	670	10	1.5%	10	10	20	Moderate-term on-the-job training	\$33,980	\$12.41	\$18.30
51-4052	Pourers and Casters, Metal	770	780	10	1.3%	10	20	30	Moderate-term on-the-job training	\$30,549	\$11.24	\$16.41
51-4061	Model Makers, Metal and Plastic	410	410	0	0.0%	<5	10	10	Moderate-term on-the-job training	\$45,587	\$16.19	\$24.78
51-4062	Patternmakers, Metal and Plastic	510	520	10	2.0%	10	20	30	Moderate-term on-the-job training	\$38,221	\$13.31	\$20.91
51-4071	Foundry Mold and Coremakers	1,660	1,680	20	1.2%	10	40	50	Moderate-term on-the-job training	\$30,269	\$10.46	\$16.60
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	9,020	8,960	-60	-0.7%	<5	210	210	Moderate-term on-the-job training	\$29,078	\$10.19	\$15.87
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	5,350	5,410	60	1.1%	30	150	180	Moderate-term on-the-job training	\$34,923	\$12.34	\$19.02
51-4111	Tool and Die Makers	4,240	4,280	40	0.9%	20	90	110	Long-term on-the-job training	\$45,844	\$17.05	\$24.54
51-4121	Welders, Cutters, Solderers, and Brazers	11,900	12,180	280	2.4%	140	330	470	Postsecondary vocational training	\$33,933	\$12.56	\$18.19
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	2,480	2,520	40	1.6%	20	70	90	Moderate-term on-the-job training	\$32,165	\$11.10	\$17.65
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	880	910	30	3.4%	20	40	60	Moderate-term on-the-job training	\$31,045	\$11.06	\$16.86
51-4192	Lay-Out Workers, Metal and Plastic	270	280	10	3.7%	10	<5	10	Moderate-term on-the-job training	\$36,330	\$13.53	\$19.43

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51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	1,220	1,240	20	1.6%	10	30	40	Moderate-term on-the-job training	\$28,606	\$9.85	\$15.70
51-4194	Tool Grinders, Filers, and Sharpeners	1,220	1,220	0	0.0%	<5	40	40	Moderate-term on-the-job training	\$34,996	\$12.81	\$18.83
51-4199	Metal Workers and Plastic Workers, All Other	2,470	2,410	-60	-2.4%	<5	60	60	Moderate-term on-the-job training	\$46,388	\$12.71	\$27.10
51-5011	Bindery Workers	5,310	5,350	40	0.8%	20	140	160	Moderate-term on-the-job training	\$28,117	\$9.61	\$15.47
51-5012	Bookbinders	410	410	0	0.0%	<5	10	10	Moderate-term on-the-job training	\$33,680	\$10.01	\$19.29
51-5021	Job Printers	2,180	2,210	30	1.4%	20	50	70	Long-term on-the-job training	\$34,515	\$11.88	\$18.95
51-5022	Prepress Technicians and Workers	2,850	2,780	-70	-2.5%	<5	60	60	Postsecondary vocational training	\$36,571	\$12.11	\$20.32
51-5023	Printing Machine Operators	8,000	8,010	10	0.1%	10	180	190	Moderate-term on-the-job training	\$34,711	\$10.87	\$19.59
51-6011	Laundry and Dry-Cleaning Workers	4,430	4,450	20	0.5%	10	130	140	Moderate-term on-the-job training	\$20,095	\$7.30	\$10.84
51-6031	Sewing Machine Operators	3,120	3,030	-90	-2.9%	<5	40	40	Moderate-term on-the-job training	\$23,084	\$8.39	\$12.45
51-6041	Shoe and Leather Workers and Repairers	280	270	-10	-3.6%	<5	10	10	Long-term on-the-job training	\$23,472	\$8.52	\$12.67
51-6042	Shoe Machine Operators and Tenders	*	*	*	*	<5	<5	<5	Moderate-term on-the-job training	\$25,009	\$8.81	\$13.63
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	110	100	-10	-9.1%	<5	<5	<5	Moderate-term on-the-job training	\$27,315	\$9.48	\$14.96
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	350	350	0	0.0%	<5	10	10	Moderate-term on-the-job training	\$23,679	\$9.17	\$12.49
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	190	160	-30	-15.8%	<5	<5	<5	Long-term on-the-job training	*	*	*
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	130	120	-10	-7.7%	<5	<5	<5	Moderate-term on-the-job training	\$23,649	\$9.71	\$12.20
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	730	720	-10	-1.4%	<5	10	10	Moderate-term on-the-job training	\$33,115	\$11.89	\$17.94
51-6092	Fabric and Apparel Patternmakers	40	40	0	0.0%	<5	<5	<5	Long-term on-the-job training	\$33,504	\$10.83	\$18.75
51-6093	Upholsterers	720	700	-20	-2.8%	<5	20	20	Long-term on-the-job training	\$28,221	\$9.68	\$15.51
51-7011	Cabinetmakers and Bench Carpenters	3,770	3,800	30	0.8%	20	100	120	Long-term on-the-job training	\$29,636	\$10.16	\$16.29
51-7021	Furniture Finishers	510	500	-10	-2.0%	<5	10	10	Long-term on-the-job training	\$27,186	\$9.23	\$14.99
51-7031	Model Makers, Wood	*	*	*	*	<5	<5	<5	Long-term on-the-job training	\$30,171	\$10.30	\$16.61
51-7032	Patternmakers, Wood	*	*	*	*	<5	<5	<5	Long-term on-the-job training	\$38,742	\$13.04	\$21.42
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	2,470	2,390	-80	-3.2%	<5	80	80	Moderate-term on-the-job training	\$26,634	\$9.51	\$14.45
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	4,140	3,990	-150	-3.6%	<5	110	110	Moderate-term on-the-job training	\$27,091	\$9.59	\$14.74
51-7099	Woodworkers, All Other	740	710	-30	-4.1%	<5	20	20	Moderate-term on-the-job training	\$22,390	\$7.86	\$12.22
51-8011	Nuclear Power Reactor Operators	*	*	*	*	<5	<5	<5	Long-term on-the-job training	\$70,331	\$30.83	\$35.30
51-8012	Power Distributors and Dispatchers	170	170	0	0.0%	<5	<5	<5	Long-term on-the-job training	\$61,711	\$25.75	\$31.63
51-8013	Power Plant Operators	*	*	*	*	<5	20	20	Long-term on-the-job training	\$51,751	\$16.17	\$29.23
51-8021	Stationary Engineers and Boiler Operators	830	830	0	0.0%	<5	10	10	Long-term on-the-job training	\$43,029	\$16.55	\$22.76
51-8031	Water and Liquid Waste Treatment Plant and System Operators	2,240	2,260	20	0.9%	10	80	90	Long-term on-the-job training	\$36,084	\$11.03	\$20.50
51-8091	Chemical Plant and System Operators	300	310	10	3.3%	10	10	20	Long-term on-the-job training	\$42,449	\$15.10	\$23.06
51-8092	Gas Plant Operators	60	60	0	0.0%	<5	<5	<5	Long-term on-the-job training	\$60,760	\$23.63	\$32.00
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	120	140	20	16.7%	10	<5	10	Long-term on-the-job training	\$43,118	\$17.76	\$22.21
51-8099	Plant and System Operators, All Other	220	220	0	0.0%	<5	10	10	Long-term on-the-job training	\$51,108	\$19.66	\$27.03
51-9011	Chemical Equipment Operators and Tenders	930	950	20	2.2%	10	30	40	Moderate-term on-the-job training	\$36,375	\$12.27	\$20.10
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	1,780	1,800	20	1.1%	10	50	60	Moderate-term on-the-job training	\$33,666	\$11.33	\$18.61
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	1,380	1,410	30	2.2%	20	40	60	Moderate-term on-the-job training	\$30,219	\$9.97	\$16.81
51-9022	Grinding and Polishing Workers, Hand	1,640	1,630	-10	-0.6%	<5	40	40	Moderate-term on-the-job training	\$29,592	\$10.26	\$16.21
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	4,500	4,520	20	0.4%	10	110	120	Moderate-term on-the-job training	\$33,307	\$11.41	\$18.31
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	4,480	4,430	-50	-1.1%	<5	90	90	Moderate-term on-the-job training	\$32,512	\$11.28	\$17.81
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	1,870	1,880	10	0.5%	10	50	60	Moderate-term on-the-job training	\$28,486	\$9.48	\$15.80

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51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	550	560	10	1.8%	10	10	20	Moderate-term on-the-job training	\$33,527	\$10.45	\$18.95
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	21,940	22,220	280	1.3%	140	480	620	Moderate-term on-the-job training	\$30,181	\$9.53	\$17.00
51-9071	Jewelers and Precious Stone and Metal Workers	660	660	0	0.0%	<5	10	10	Postsecondary vocational training	\$37,140	\$12.33	\$20.62
51-9081	Dental Laboratory Technicians	1,880	1,920	40	2.1%	20	40	60	Long-term on-the-job training	\$36,636	\$11.27	\$20.79
51-9082	Medical Appliance Technicians	*	*	*	*	10	<5	10	Long-term on-the-job training	\$39,067	\$11.96	\$22.19
51-9083	Ophthalmic Laboratory Technicians	770	780	10	1.3%	10	20	30	Moderate-term on-the-job training	\$28,004	\$9.51	\$15.44
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	4,930	4,980	50	1.0%	30	130	160	Moderate-term on-the-job training	\$31,133	\$10.95	\$16.98
51-9122	Painters, Transportation Equipment	1,280	1,300	20	1.6%	10	30	40	Long-term on-the-job training	\$40,445	\$13.68	\$22.33
51-9131	Photographic Process Workers	400	380	-20	-5.0%	<5	10	10	Moderate-term on-the-job training	\$25,968	\$8.46	\$14.50
51-9141	Semiconductor Processors	*	*	*	*	<5	<5	<5	Associate degree	\$33,484	\$11.02	\$18.64
51-9191	Cementing and Gluing Machine Operators and Tenders	460	450	-10	-2.2%	<5	10	10	Moderate-term on-the-job training	\$30,504	\$10.59	\$16.70
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	400	400	0	0.0%	<5	10	10	Moderate-term on-the-job training	\$30,460	\$10.55	\$16.69
51-9193	Cooling and Freezing Equipment Operators and Tenders	180	180	0	0.0%	<5	10	10	Moderate-term on-the-job training	\$26,023	\$8.43	\$14.55
51-9194	Etchers and Engravers	360	350	-10	-2.8%	<5	10	10	Long-term on-the-job training	\$37,737	\$9.81	\$22.31
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	1,690	1,700	10	0.6%	10	40	50	Moderate-term on-the-job training	\$30,080	\$10.36	\$16.51
51-9196	Paper Goods Machine Setters, Operators, and Tenders	8,530	8,290	-240	-2.8%	<5	170	170	Moderate-term on-the-job training	\$35,133	\$11.65	\$19.51
51-9197	Tire Builders	*	*	*	*	<5	10	10	Moderate-term on-the-job training	\$40,595	\$15.32	\$21.62
51-9199	Production Workers, All Other	11,520	11,390	-130	-1.1%	<5	270	270	Moderate-term on-the-job training	\$30,663	\$9.53	\$17.35

Notes:

Occupations were selected using these criteria: (1) The occupation has to be concentrated in the manufacturing sector and/or be a production occupation. The occupations may also be in industries other than manufacturing; and (2) the occupation has to typically require some post-secondary training.

- Employment** is a count of jobs rather than people, and includes all part- and full-time nonfarm jobs. Employment also includes jobs among self-employed and unpaid family workers.
- Replacements** are an estimate of the number of job openings expected because people have permanently left a given occupation. Permanent exits occur if someone dies, retires, or otherwise leaves the labor force. Permanent exits also include openings resulting from someone permanently changing occupations. For example, a person leaves their job as a cashier and becomes a truck driver. Openings resulting from people changing employers, but staying in the same occupation are not included.
- Total openings** are the sum of new jobs and replacements. Total openings are an indication of how many new people are needed to enter a given occupation.
- Typical Education and Training Path** gives a general indication of the education or training typically needed in the occupation. There may be other pathways into the occupation, as well as additional educational, training, or licensing requirements.
Moderate-Term On-the-Job Training: Training for these occupations usually occurs at the workplace and lasts from one to twelve months.
Long-Term On-the-Job Training: These occupations require more than one year of on-the-job training, or combined work experience and classroom instruction.
Postsecondary Vocational Training: These formal training programs last from a few weeks to more than a year, and are offered at vocational or technical schools.
Associate Degree: This degree requires two years of full-time academic work beyond high school.
- Average Annual Salary:** An occupation's average hourly wage is calculated by summing the wages of all employees in a given occupation and then dividing by the total number of employees in that occupation. In most cases, the annual average salary is equal to the average hourly wage multiplied by 2,080.
- Entry Level Wage** is the average of the lower third of wages.
- Experienced Wage** is the average of the upper two-thirds of wages.

*Data is suppressed to preserve the confidentiality of employers.

Information is derived using the 2006 OES Survey, 2006 QCEW and 2006 CES (3/06 Benchmark) data. Unpublished data from the US Bureau of Labor Statistics and US Census Bureau was also used.

To the extent possible, the projections take into account anticipated changes in Wisconsin's economy during 2007 and 2008. It is important to note that unanticipated events may affect the accuracy of these projections.

Source: Office of Economic Advisors, WI Department of Workforce Development
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