

The Welding Industry:

A National Perspective on Workforce Trends and Challenges- updated tables

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Table 1: National Employment Projections (2014-2023) and Wage Data (4th Quarter 2013)

Description	National 2014 Jobs	National 2024 Jobs	National Change	National % Change	Median Wage 2013	
					Hourly	Annual
Welders, Cutters, Solderers, and Brazers	341,490	370,786	29,296	9%	\$17.45	\$36,296.00
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	54,038	63,032	8,994	17%	\$16.69	34,715.20
Engineering Technicians, Except Drafters, All Other	67,581	72,054	4,473	7%	\$28.58	\$59,446.40
Inspectors, Testers, Sorters, Samplers, and Weighers	471,211	507,985	36,774	8%	\$16.57	\$34,465.60
Materials Engineers	23,083	24,498	1,415	6%	\$40.94	\$85,155.20

Source: EMSI 2014

Table 2: Top Ten States with Highest Positive Percentage Change

51-4121 Welders, Cutters, Solderers, and Brazers (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
North Dakota	2,857	3,519	662	23%	1,468	\$19.96	\$41,516.80
Arizona	3,487	4,238	751	22%	1,687	\$18.34	\$38,147.20
Washington	6,212	7,435	1,223	20%	2,905	\$20.89	\$43,451.20
Utah	3,849	1,582	240	18%	597	\$17.44	\$36,275.20
Montana	1,003	4,529	680	18%	1,716	\$17.44	\$36,275.20
Nevada	1,342	1,166	163	16%	434	\$20.08	\$41,766.40
Texas	46,618	53,971	7,353	16%	19,914	\$17.01	\$35,380.80
Alaska	666	768	102	15%	282	\$34.32	\$71,385.60
Wyoming	1,918	4,469	590	15%	1,606	\$21.97	\$45,697.60
Oregon	3,879	2,191	273	14%	796	\$17.75	\$36,920.00
51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
Utah	200	290	90	45%	151	\$15.72	\$32,697.60
Washington	625	880	255	41%	443	\$18.19	\$37,835.20
Montana	64	88	24	38%	44	\$15.92	\$33,115.68
Texas	3,681	4,980	1,299	35%	2,395	\$15.33	\$31,886.40
Arizona	312	421	109	35%	199	\$19.30	\$40,144.00
Idaho	170	228	58	34%	108	\$16.38	\$34,070.40
Louisiana	692	923	231	33%	434	\$19.49	\$40,539.20
Florida	617	818	201	33%	373	\$15.39	\$32,011.20

Alaska	96	126	30	31%	59	\$22.71	\$47,236.80
Oklahoma	816	1,062	246	30%	482	\$16.60	\$34,528.00

Source: EMSI 2014

Table 3: Top Ten States with the Highest Positive Percentage Change of Welding Inspectors

51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
North Dakota	779	1,121	342	44%	559	\$17.59	\$36,587.20
Montana	422	546	124	29%	233	\$16.60	\$34,528.00
South Dakota	758	941	183	24%	373	\$15.25	\$31,720.00
Idaho	1,254	1,533	279	22%	586	\$16.62	\$34,569.60
Utah	4,683	5,710	1,027	22%	2,186	\$17.30	\$35,984.00
Washington	10,682	12,961	2,279	21%	4,919	\$22.27	\$46,321.60
Nevada	2,284	2,727	443	19%	997	\$16.92	\$35,193.60
Oregon	5,411	6,451	1,040	19%	2,339	\$16.63	\$34,590.40
Arizona	6,456	7,594	1,138	18%	2,679	\$17.42	\$36,233.60
Colorado	5,120	5,904	784	15%	1,995	\$18.88	\$39,270.40

Source: EMSI 2014

Table 4: Top Ten States with Highest Number of Job Openings for Welders

51-4121 Welders, Cutters, Solderers, and Brazers (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
Texas	46,618	53,971	7,353	16%	19,914	\$17.01	\$35,380.80
California	23,875	26,014	2,139	9%	8,396	\$18.19	\$37,835.20
Pennsylvania	14,934	16,269	1,335	9%	5,137	\$17.49	\$36,379.20
Louisiana	13,250	14,524	1,274	10%	4,702	\$19.83	\$41,246.40
Ohio	13,942	14,835	893	6%	4,530	\$16.97	\$35,297.60
Florida	12,326	13,321	995	8%	4,318	\$16.72	\$34,777.60
Wisconsin	11,749	12,961	1,212	10%	4,242	\$18.37	\$38,209.60
Indiana	12,072	12,861	789	7%	4,003	\$16.50	\$34,320.00
Illinois	12,319	12,754	435	4%	3,541	\$17.41	\$36,212.80
Oklahoma	9,429	10,490	1,061	11%	3,540	\$17.04	\$35,443.20
51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
Texas	3,681	4,980	1,299	35%	2,395	\$15.33	\$31,886.40
Ohio	5,214	5,923	709	14%	2,071	\$15.92	\$33,113.60
Indiana	4,188	4,701	513	12%	1,598	\$15.57	\$32,385.60
California	3,506	4,033	527	15%	1,444	\$16.34	\$33,987.20
Michigan	3,289	3,508	219	7%	1,206	\$17.06	\$35,484.80
Pennsylvania	2,215	2,670	455	21%	1,052	\$16.69	\$34,715.20

Wisconsin	2,544	2,921	377	15%	1,046	\$17.83	\$37,086.40
Illinois	2,916	3,208	292	10%	1,038	\$16.02	\$33,321.60
North Carolina	1,969	2,391	422	21%	953	\$17.39	\$36,171.20
Alabama	1,554	2,000	446	29%	885	\$16.07	\$33,425.60

Source: EMSI 2014

Table 5: Welding Openings by Occupation

Occupation	Jobs Listed on Average Day	New Jobs Listed Per Week
Welder	61	734
Welding Technician	166	1018
Welding Inspector	55	202
Welding Engineer	50	545

Source: Indeed.com 4/28/14

Table 6: Top Ten State with Highest Median Wages for Welders

51-4121 Welders, Cutters, Solderers, and Brazers (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
Alaska	666	768	102	15%	282	\$34.32	\$71,385.60
Hawaii	491	556	65	13%	194	\$30.35	\$63,128.00
Wyoming	1,918	2,191	273	14%	796	\$21.97	\$45,697.60
Massachusetts	2,972	3,356	384	13%	1,152	\$21.08	\$43,846.40
Washington	6,212	7,435	1,223	20%	2,905	\$20.89	\$43,451.20
Maine	1,956	1,893	(63)	(3%)	476	\$20.78	\$43,222.40
Maryland	2,533	2,734	201	8%	847	\$20.51	\$42,660.80
Nevada	1,342	1,582	240	18%	597	\$20.08	\$41,766.40
Connecticut	2,602	2,693	91	3%	760	\$19.97	\$41,537.60
North Dakota	2,857	3,519	662	23%	1,468	\$19.96	\$41,516.80
51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
Maine	93	104	11	12%	35	\$25.61	\$53,268.80
Hawaii	53	63	10	19%	24	\$23.75	\$49,400.00
Alaska	96	126	30	31%	59	\$22.71	\$47,236.80
Louisiana	692	923	231	33%	434	\$19.49	\$40,539.20
Arizona	312	421	109	35%	199	\$19.30	\$40,144.00
Wyoming	213	254	41	19%	101	\$19.27	\$40,081.60
Nebraska	654	812	158	24%	340	\$19.13	\$39,790.40
Maryland	313	337	24	8%	107	\$19.03	\$39,582.40
Virginia	1,413	1,687	274	19%	654	\$18.88	\$39,270.40
Minnesota	1,642	2,007	365	22%	813	\$18.65	\$38,792.00

Source: EMSI 2014

Table 7: Industry Distribution of Welding Occupations

51-4121 Welders, Cutters, Solderers, and Brazers								
Industry	2012			2022			Employment in Thousands	
Title	Number	Percent of industry	Percent of occupation	Number	Percent of industry	Percent of occupation	Percent Change	Numeric Change
Total employment	357.4	0.2	100.0	378.2	0.2	100.0	5.8	20.8
Specialty trade contractors	19.5	0.6	5.5	24.4	0.5	6.4	25.0	4.9
Fabricated metal product manufacturing	82.8	5.9	23.2	91.9	6.2	24.3	11.0	9.1
Machinery manufacturing	54.1	4.9	15.1	49.8	4.9	13.2	-7.9	-4.3
Transportation equipment manufacturing	48.1	3.3	13.4	47.4	3.3	12.5	-1.3	-0.6
Repair and maintenance	17.4	1.5	4.9	19.4	1.4	5.1	11.1	1.9
51-4122 Welding, soldering, and brazing machine setters, operators, and tenders								
Industry	2012			2022			Employment in Thousands	
Title	Number	Percent of industry	Percent of occupation	Number	Percent of industry	Percent of occupation	Percent Change	Numeric Change
Total employment	53.5	0.0	100.0	64.1	0.0	100.0	19.8	10.6
Specialty trade contractors	0.5	0.0	0.9	0.7	0.0	1.1	48.6	0.2
Fabricated metal product manufacturing	14.4	1.0	26.9	18.6	1.2	29.1	29.3	4.2
Machinery manufacturing	11.7	1.1	21.8	12.8	1.3	20.0	10.0	1.2
Transportation equipment manufacturing	14.3	1.0	26.7	17.3	1.2	27.0	21.0	3.0
Repair and maintenance	0.7	0.1	1.3	0.9	0.1	1.4	32.5	0.2

Source: Bureau of Labor Statistics, 2012-2022 National Employment Matrix, Industry Employment by Occupation. (http://www.bls.gov/emp/ep_table_108.htm)

Table 8: Top Ten States with Highest Location Quotients by Industry

Specialty Trades Contractors- 238000				
State Name	2014 Location Quotient	2013 Establishments	2014 Total Earnings	2014 Wages, Salaries, & Proprietor Earnings
United States		277,844	39,068	\$45,289
Louisiana	2.19	8,603	631	\$48,355
Wyoming	1.98	1,150	198	\$45,199
Idaho	1.76	2,311	524	\$36,380
Texas	1.57	36,472	2,287	\$46,516
Minnesota	1.41	7,897	2,060	\$45,788
Colorado	1.37	6,732	918	\$41,471
Virginia	1.36	10,190	1,588	\$40,361
Utah	1.33	3,487	609	\$37,729
Montana	1.32	1,193	313	\$36,807
Mississippi	1.23	2,798	197	\$44,351
Fabricated Metal Product Manufacturing- 332000				
State Name	2014 Location Quotient	2013 Establishments	2014 Total Earnings	2014 Wages, Salaries, & Proprietor Earnings
United States		1,393,492	57,350	\$51,161
Wisconsin	2.54	72,066	1,933	\$48,544
Indiana	1.93	57,417	1,744	\$45,409
Michigan	1.90	79,414	3,000	\$51,279
Ohio	1.90	100,347	3,649	\$51,645
Connecticut	1.70	28,913	1,209	\$64,705
New Hampshire	1.58	10,147	399	\$53,945
Illinois	1.51	88,843	3,538	\$52,851
Oklahoma	1.48	24,050	1,032	\$50,476
Minnesota	1.43	40,228	1,619	\$52,573
Pennsylvania	1.37	79,564	2,970	\$50,865
Machinery Manufacturing- 333000				
State Name	2014 Location Quotient	2013 Establishments	2014 Total Earnings	2014 Wages, Salaries, & Proprietor Earnings
United States		1,108,242	29,070	\$64,349
Iowa	3.38	41,835	469	\$61,402

Wisconsin	2.98	67,032	1,168	\$59,471
Oklahoma	2.33	30,037	604	\$60,051
Michigan	2.10	69,567	2,456	\$64,791
South Dakota	1.88	6,220	108	\$45,095
Ohio	1.81	76,316	1,888	\$59,088
North Dakota	1.73	6,213	100	\$51,442
Indiana	1.73	40,713	897	\$61,969
Kansas	1.69	18,649	375	\$49,970
Illinois	1.67	77,950	2,308	\$74,973
Transportation Equipment Manufacturing- 336000				
State Name	2014 Location Quotient	2013 Establishments	2014 Total Earnings	2014 Wages, Salaries, & Proprietor Earnings
United States		1,529,624	14,241	\$69,037
Michigan	3.86	176,699	1,130	\$76,678
Indiana	3.65	118,724	644	\$57,929
Washington	2.99	101,106	460	\$94,322
Alabama	2.74	57,610	314	\$59,081
Kentucky	2.73	54,902	264	\$57,829
Kansas	2.54	38,776	255	\$68,301
Connecticut	2.19	40,732	255	\$95,973
Mississippi	2.07	25,906	125	\$58,884
Tennessee	2.05	63,040	366	\$54,329
Ohio	1.98	115,056	788	\$63,307

Source: EMSI 2014 Repair and Maintenance- 811000 Unavailable

Table 9: Metropolitan Statistical Areas (MSA) with Highest Concentrations of Welders, Cutters, Solderers, and Brazers, April 2014

MSA	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
Pascagoula, MS	2,280	42.57	16.03	\$22.61	\$47,030
Houma-Bayou Cane-Thibodaux, LA	2,520	26.05	9.81	\$20.69	\$43,040
Casper, WY	840	20.04	7.54	\$20.61	\$42,860
Elkhart-Goshen, IN	1,930	16.85	6.34	\$15.29	\$31,810
Odessa, TX	1,150	16.27	6.12	\$23.23	\$48,310

Source: Bureau of Labor Statistics, Occupational Employment and Wages, April 2014. (<http://www.bls.gov/oes/current/oes514121.htm>)

Table 10: Metropolitan Statistical Areas (MSA) with Highest Wages for Welders, Cutters, Solderers, and Brazers, April 2014

MSA	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
Anchorage, AK	210	1.22	0.46	\$33.09	\$68,830
Honolulu, HI	340	0.76	0.29	\$31.53	\$65,580
Peabody, MA NECTA Division	110	1.09	0.41	\$30.13	\$62,670
Lima, OH	<u>-8</u>	<u>-8</u>	<u>-8</u>	\$29.77	\$61,910
Charleston, WV	470	3.24	1.22	\$29.24	\$60,810

Source: Bureau of Labor Statistics, Occupational Employment and Wages, April 2014. (<http://www.bls.gov/oes/current/oes514121.htm>)

Table 11: Program of Study and Training: 480508 Welding Technology/Welder

Men and Women Program Completers						
State	2010-2011			2011-2012		
	M	W	T	M	W	T
Alabama	386	37	423	366	30	396
Alaska	52	1	53	42	7	49
Arizona	439	42	481	351	29	380
Arkansas	647	40	687	599	48	647
California	690	30	720	796	40	836
Colorado	343	15	358	420	24	444
Connecticut	90	1	91	178	6	184
Delaware	0	0	0	0	0	0
Florida	768	32	800	883	30	913
Georgia	2360	117	2477	1709	100	1809
Hawaii	36	2	38	35	4	39
Idaho	67	1	68	91	6	97
Illinois	1035	50	1085	1127	44	1171
Indiana	17	0	17	122	8	130
Iowa	396	38	434	413	20	433
Kansas	225	11	236	247	18	265
Kentucky	1634	52	1686	1088	28	1116
Louisiana	2888	121	3009	3042	172	3214

Maine	60	2	62	51	4	55
Maryland	0	0	0	0	0	0
Massachusetts	0	0	0	0	0	0
Michigan	283	14	297	314	22	336
Minnesota	341	19	360	320	10	330
Mississippi	386	26	412	395	17	412
Missouri	198	16	214	196	11	207
Montana	72	6	78	101	2	103
Nebraska	169	8	177	202	9	211
Nevada	19	2	21	18	4	22
New Hampshire	50	3	53	43	0	43
New Jersey	34	0	34	63	1	64
New Mexico	75	6	81	157	13	170
New York	262	2	264	250	8	258
North Carolina	850	46	896	582	21	603
North Dakota	58	4	62	55	3	58
Ohio	786	34	820	614	28	642
Oklahoma	1230	44	1274	1349	58	1407
Oregon	138	9	147	169	13	182
Pennsylvania	635	23	658	513	21	534
Rhode Island	0	0	0	0	0	0
South Carolina	516	29	545	472	20	492
South Dakota	56	1	57	40	2	42
Tennessee	490	12	502	454	21	475
Texas	2177	121	2298	2274	86	2360
Utah	224	20	244	215	8	223
Vermont	20	0	20	27	1	28
Virginia	345	20	365	400	31	431
Washington	988	85	1073	988	92	1080
West Virginia	126	4	130	123	4	127
Wisconsin	591	30	621	544	23	567
Wyoming	104	7	111	128	12	140

Source: Economic Development and Employment System- <http://www.edeps.org/ProgramCompleters.aspx>

Table 12 Openings and Completers Comparison by State

Ten States with the Largest Projected Openings for Welders, Cutters, Solderers, and Brazers			
State Name	Openings	Completers	Difference
Texas	2,376	2,360	(16)
California	581	836	255
Louisiana	484	3,214	2,730
Oklahoma	432	1,407	975
Pennsylvania	373	534	161
Wisconsin	370	567	197
Ohio	339	642	303

Illinois	301	1,171	870
Florida	298	913	615
Alabama	294	396	102

Sources: 1) EMSI, Total Annual Job Openings for 2014 for *Welders, Cutters, Solderers, and Brazers* (51-4121); Source 2 Economic Development and Employment System-

<http://www.edeps.org/ProgramCompleters.aspx>

Table 13: State and National Employment Trends and Wage Data for Welders, Cutters, Solderers, and Brazers

51-4121 Welders, Cutters, Solderers, and Brazers (Welders)							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
United States	340,906	374,670	33,764	10%	123,463	\$17.59	\$36,595.55
Alabama	8,270	9,351	1,081	13%	3,247	\$16.69	\$34,715.20
Alaska	666	768	102	15%	282	\$34.32	\$71,385.60
Arizona	3,487	4,238	751	22%	1,687	\$18.34	\$38,147.20
Arkansas	4,800	4,954	154	3%	1,439	\$16.06	\$33,404.80
California	23,875	26,014	2,139	9%	8,396	\$18.19	\$37,835.20
Colorado	4,057	4,632	575	14%	1,637	\$18.20	\$37,856.00
Connecticut	2,602	2,693	91	3%	760	\$19.97	\$41,537.60
Florida	12,326	13,321	995	8%	4,318	\$16.72	\$34,777.60
Georgia	7,900	8,326	426	5%	2,476	\$16.05	\$33,384.00
Hawaii	491	556	65	13%	194	\$30.35	\$63,128.00
Idaho	2,048	2,328	280	14%	816	\$15.74	\$32,739.20
Illinois	12,319	12,754	435	4%	3,541	\$17.41	\$36,212.80
Indiana	12,072	12,861	789	7%	4,003	\$16.50	\$34,320.00
Iowa	7,508	8,414	906	12%	2,861	\$16.49	\$34,299.20
Kansas	5,307	5,872	565	11%	1,942	\$15.96	\$33,196.80
Kentucky	6,423	6,716	293	5%	1,912	\$16.56	\$34,444.80
Louisiana	13,250	14,524	1,274	10%	4,702	\$19.83	\$41,246.40
Maine	1,956	1,893	(63)	(3%)	476	\$20.78	\$43,222.40
Maryland	2,533	2,734	201	8%	847	\$20.51	\$42,660.80
Massachusetts	2,972	3,356	384	13%	1,152	\$21.08	\$43,846.40
Michigan	12,129	12,155	26	0%	3,535	\$16.53	\$34,382.40
Minnesota	8,285	9,333	1,048	13%	3,199	\$18.25	\$37,960.00
Mississippi	5,996	6,059	63	1%	1,660	\$18.56	\$38,604.80
Missouri	7,778	8,303	525	7%	2,528	\$16.39	\$34,091.20
Montana	1,003	1,166	163	16%	434	\$17.44	\$36,275.20
Nebraska	3,495	3,863	368	11%	1,276	\$16.03	\$33,342.40
Nevada	1,342	1,582	240	18%	597	\$20.08	\$41,766.40
New Hampshire	1,033	1,111	78	8%	339	\$19.86	\$41,308.80
New Jersey	3,169	3,551	382	12%	1,210	\$19.60	\$40,768.00
New Mexico	2,165	2,384	219	10%	782	\$18.51	\$38,500.80
New York	8,341	8,813	472	6%	2,616	\$17.73	\$36,878.40
North Carolina	7,620	8,304	684	9%	2,656	\$17.12	\$35,609.60
North Dakota	2,857	3,519	662	23%	1,468	\$19.96	\$41,516.80

Ohio	13,942	14,835	893	6%	4,530	\$16.97	\$35,297.60
Oklahoma	9,429	10,490	1,061	11%	3,540	\$17.04	\$35,443.20
Oregon	3,879	4,469	590	15%	1,606	\$17.75	\$36,920.00
Pennsylvania	14,934	16,269	1,335	9%	5,137	\$17.49	\$36,379.20
Rhode Island	734	764	30	4%	226	\$19.85	\$41,288.00
South Carolina	5,747	6,213	466	8%	1,929	\$17.03	\$35,422.40
South Dakota	2,607	2,954	347	13%	1,045	\$14.78	\$30,742.40
Tennessee	7,864	8,585	721	9%	2,747	\$16.03	\$33,342.40
Texas	46,618	53,971	7,353	16%	19,914	\$17.01	\$35,380.80
Utah	3,849	4,529	680	18%	1,716	\$17.44	\$36,275.20
Vermont	366	388	22	6%	115	\$16.30	\$33,904.00
Virginia	8,550	9,686	1,136	13%	3,374	\$18.51	\$38,500.80
Washington	6,212	7,435	1,223	20%	2,905	\$20.89	\$43,451.20
West Virginia	2,433	2,480	47	2%	653	\$17.22	\$35,817.60
Wisconsin	11,749	12,961	1,212	10%	4,242	\$18.37	\$38,209.60
Wyoming	1,918	2,191	273	14%	796	\$21.97	\$45,697.60

Source: EMSI 2014

Table 14: State and National Employment Trends and Wage Data for Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
United States	53,967	64,240	10,273	19%	24,953	\$16.68	\$34,703.59
Alabama	1,554	2,000	446	29%	885	\$16.07	\$33,425.60
Alaska	96	126	30	31%	59	\$22.71	\$47,236.80
Arizona	312	421	109	35%	199	\$19.30	\$40,144.00
Arkansas	489	582	93	19%	223	\$16.67	\$34,673.60
California	3,506	4,033	527	15%	1,444	\$16.34	\$33,987.20
Colorado	421	505	84	20%	197	\$16.90	\$35,152.00
Connecticut	557	615	58	10%	201	\$18.17	\$37,793.60
Florida	617	818	201	33%	373	\$15.39	\$32,011.20
Georgia	1,246	1,423	177	14%	501	\$16.34	\$33,987.20
Hawaii	53	63	10	19%	24	\$23.75	\$49,400.00
Idaho	170	228	58	34%	108	\$16.38	\$34,070.40
Illinois	2,916	3,208	292	10%	1,038	\$16.02	\$33,321.60
Indiana	4,188	4,701	513	12%	1,598	\$15.57	\$32,385.60
Iowa	1,484	1,843	359	24%	770	\$17.05	\$35,464.00
Kansas	640	797	157	25%	334	\$16.33	\$33,966.40
Kentucky	1,252	1,519	267	21%	605	\$16.24	\$33,779.20
Louisiana	692	923	231	33%	434	\$19.49	\$40,539.20
Maine	93	104	11	12%	35	\$25.61	\$53,268.80
Maryland	313	337	24	8%	107	\$19.03	\$39,582.40
Massachusetts	545	664	119	22%	266	\$17.73	\$36,878.40
Michigan	3,289	3,508	219	7%	1,206	\$17.06	\$35,484.80
Minnesota	1,642	2,007	365	22%	813	\$18.65	\$38,792.00

Mississippi	655	777	122	19%	296	\$16.29	\$33,883.20
Missouri	831	1,003	172	21%	393	\$15.30	\$31,824.00
Montana	64	88	24	38%	44	\$15.92	\$33,115.68
Nebraska	654	812	158	24%	340	\$19.13	\$39,790.40
Nevada	188	235	47	25%	98	\$18.48	\$38,438.40
New Hampshire	271	314	43	16%	114	\$15.27	\$31,761.60
New Jersey	656	738	82	13%	253	\$16.85	\$35,048.00
New Mexico	91	107	16	18%	41	\$12.56	\$26,124.80
New York	1,432	1,587	155	11%	530	\$18.19	\$37,835.20
North Carolina	1,969	2,391	422	21%	953	\$17.39	\$36,171.20
North Dakota	254	329	75	30%	147	\$17.66	\$36,732.80
Ohio	5,214	5,923	709	14%	2,071	\$15.92	\$33,113.60
Oklahoma	816	1,062	246	30%	482	\$16.60	\$34,528.00
Oregon	358	465	107	30%	208	\$18.55	\$38,584.00
Pennsylvania	2,215	2,670	455	21%	1,052	\$16.69	\$34,715.20
Rhode Island	178	185	7	4%	58	\$14.05	\$29,224.00
South Carolina	897	1,127	230	26%	477	\$17.06	\$35,484.80
South Dakota	517	656	139	27%	287	\$16.36	\$34,028.80
Tennessee	1,793	2,141	348	19%	823	\$14.61	\$30,388.80
Texas	3,681	4,980	1,299	35%	2,395	\$15.33	\$31,886.40
Utah	200	290	90	45%	151	\$15.72	\$32,697.60
Vermont	63	74	11	17%	27	\$14.01	\$29,140.80
Virginia	1,413	1,687	274	19%	654	\$18.88	\$39,270.40
Washington	625	880	255	41%	443	\$18.19	\$37,835.20
West Virginia	102	123	21	21%	48	\$16.37	\$34,049.60
Wisconsin	2,544	2,921	377	15%	1,046	\$17.83	\$37,086.40
Wyoming	213	254	41	19%	101	\$19.27	\$40,081.60

Source: EMSI 2014

Table 15: State and National Employment Trends and Wage Data for Engineering Technicians, Except Drafters, All Other

17-3029: Engineering Technicians, Except Drafters, All Other							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
United States	66,928	71,816	4,888	7%	19,507	\$28.89	\$60,090.42
Alabama	785	854	69	9%	240	\$26.85	\$55,848.00
Alaska	346	353	7	2%	85	\$31.76	\$66,060.80
Arizona	1,095	1,195	100	9%	340	\$22.94	\$47,715.20
Arkansas	253	285	32	13%	88	\$26.84	\$55,827.20
California	8,418	9,027	609	7%	2,414	\$31.34	\$65,187.20
Colorado	1,605	1,821	216	13%	573	\$30.05	\$62,504.00
Connecticut	486	497	11	2%	112	\$30.46	\$63,356.80
Florida	2,177	2,309	132	6%	594	\$28.37	\$59,009.60
Georgia	1,187	1,247	60	5%	311	\$30.30	\$63,024.00
Hawaii	435	424	(11)	(3%)	93	\$33.77	\$70,241.60
Idaho	272	290	18	7%	77	\$27.48	\$57,163.18

Illinois	3,381	3,362	(19)	(1%)	725	\$26.78	\$55,702.40
Indiana	1,338	1,393	55	4%	336	\$28.62	\$59,529.60
Iowa	460	524	64	14%	167	\$24.85	\$51,688.00
Kansas	470	519	49	10%	153	\$25.68	\$53,414.40
Kentucky	654	686	32	5%	170	\$25.10	\$52,208.00
Louisiana	809	914	105	13%	285	\$27.51	\$57,220.80
Maine	728	712	(16)	(2%)	149	\$34.20	\$71,136.00
Maryland	3,142	3,327	185	6%	861	\$31.89	\$66,331.20
Massachusetts	1,293	1,425	132	10%	414	\$27.73	\$57,678.40
Michigan	3,277	3,383	106	3%	834	\$22.99	\$47,819.20
Minnesota	1,190	1,256	66	6%	319	\$27.02	\$56,201.60
Mississippi	609	654	45	7%	177	\$27.38	\$56,948.74
Missouri	441	502	61	14%	159	\$26.63	\$55,390.40
Montana	301	288	(13)	(4%)	63	\$28.14	\$58,531.20
Nebraska	183	210	27	15%	69	\$27.37	\$56,929.60
Nevada	371	423	52	14%	135	\$27.36	\$56,908.80
New Hampshire	710	734	24	3%	173	\$24.08	\$50,086.40
New Jersey	1,138	1,202	64	6%	305	\$32.16	\$66,892.80
New Mexico	828	846	18	2%	199	\$27.35	\$56,888.00
New York	1,989	2,078	89	4%	509	\$25.63	\$53,310.40
North Carolina	907	1,084	177	20%	384	\$25.09	\$52,187.20
North Dakota	224	291	67	30%	122	\$21.25	\$44,200.00
Ohio	3,235	3,231	(4)	(0%)	704	\$27.15	\$56,472.00
Oklahoma	1,067	1,154	87	8%	320	\$26.94	\$56,035.20
Oregon	987	1,077	90	9%	304	\$26.48	\$55,078.40
Pennsylvania	1,678	1,869	191	11%	561	\$29.07	\$60,465.60
Rhode Island	267	274	7	3%	63	\$33.09	\$68,827.20
South Carolina	443	529	86	19%	187	\$26.61	\$55,348.80
South Dakota	64	76	12	19%	26	\$23.46	\$48,788.27
Tennessee	692	764	72	10%	222	\$26.73	\$55,598.40
Texas	8,965	10,185	1,220	14%	3,229	\$28.98	\$60,278.40
Utah	538	621	83	15%	205	\$31.27	\$65,041.60
Vermont	54	60	6	11%	18	\$24.86	\$51,708.80
Virginia	3,325	3,585	260	8%	984	\$34.96	\$72,716.80
Washington	2,472	2,549	77	3%	608	\$34.93	\$72,654.40
West Virginia	243	257	14	6%	66	\$27.34	\$56,867.20
Wisconsin	1,130	1,189	59	5%	299	\$24.29	\$50,523.20
Wyoming	264	282	18	7%	76	\$27.63	\$57,470.40

Source: EMSI 2014

Table 16: State and National Employment Trends and Wage Data for Inspectors, Testers, Sorters, Samplers, and Weighers

51-9061: Inspectors, Testers, Sorters, Samplers, and Weighers							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
United States	469,244	512,527	43,283	9%	154,359	\$16.66	\$34,659.22
Alabama	7,489	8,609	1,120	15%	2,880	\$14.46	\$30,076.80

Alaska	609	691	82	13%	227	\$31.57	\$65,665.60
Arizona	6,456	7,594	1,138	18%	2,679	\$17.42	\$36,233.60
Arkansas	5,797	6,187	390	7%	1,731	\$14.08	\$29,286.40
California	50,585	56,387	5,802	11%	17,452	\$17.13	\$35,630.40
Colorado	5,120	5,904	784	15%	1,995	\$18.88	\$39,270.40
Connecticut	7,490	7,575	85	1%	1,860	\$20.22	\$42,057.60
Florida	14,817	16,351	1,534	10%	4,956	\$15.58	\$32,406.40
Georgia	13,974	14,632	658	5%	3,965	\$14.26	\$29,660.80
Hawaii	491	539	48	10%	161	\$13.67	\$28,433.60
Idaho	1,254	1,533	279	22%	586	\$16.62	\$34,569.60
Illinois	20,273	20,994	721	4%	5,449	\$16.36	\$34,028.80
Indiana	20,028	21,297	1,269	6%	5,872	\$15.31	\$31,844.80
Iowa	6,585	7,575	990	15%	2,548	\$16.41	\$34,132.80
Kansas	5,453	6,265	812	15%	2,105	\$18.10	\$37,648.00
Kentucky	8,962	9,617	655	7%	2,684	\$15.65	\$32,552.00
Louisiana	7,639	8,616	977	13%	2,768	\$18.35	\$38,168.00
Maine	1,237	1,230	(7)	(1%)	294	\$18.13	\$37,710.40
Maryland	4,625	4,923	298	6%	1,343	\$19.13	\$39,790.40
Massachusetts	8,713	9,644	931	11%	2,947	\$18.75	\$39,000.00
Michigan	24,388	25,023	635	3%	6,826	\$16.60	\$34,528.00
Minnesota	8,530	9,578	1,048	12%	3,032	\$17.34	\$36,067.20
Mississippi	4,488	4,871	383	9%	1,421	\$13.62	\$28,329.60
Missouri	8,843	9,731	888	10%	2,919	\$16.74	\$34,819.20
Montana	422	546	124	29%	233	\$16.60	\$34,528.00
Nebraska	3,861	4,424	563	15%	1,479	\$15.88	\$33,030.40
Nevada	2,284	2,727	443	19%	997	\$16.92	\$35,193.60
New Hampshire	3,611	3,740	129	4%	972	\$17.31	\$36,004.80
New Jersey	9,801	10,083	282	3%	2,703	\$17.58	\$36,566.40
New Mexico	1,365	1,473	108	8%	419	\$21.92	\$45,593.60
New York	20,265	20,356	91	0%	5,155	\$16.77	\$34,881.60
North Carolina	18,178	19,505	1,327	7%	5,813	\$14.53	\$30,222.40
North Dakota	779	1,121	342	44%	559	\$17.59	\$36,587.20
Ohio	23,663	24,704	1,041	4%	6,820	\$16.49	\$34,299.20
Oklahoma	7,237	7,990	753	10%	2,435	\$18.30	\$38,064.00
Oregon	5,411	6,451	1,040	19%	2,339	\$16.63	\$34,590.40
Pennsylvania	21,550	23,071	1,521	7%	6,431	\$17.84	\$37,107.20
Rhode Island	1,340	1,418	78	6%	407	\$15.41	\$32,052.80
South Carolina	10,019	11,245	1,226	12%	3,534	\$15.03	\$31,262.40
South Dakota	758	941	183	24%	373	\$15.25	\$31,720.00
Tennessee	11,645	12,211	566	5%	3,334	\$15.14	\$31,491.20
Texas	42,551	48,908	6,357	15%	16,484	\$16.08	\$33,446.40
Utah	4,683	5,710	1,027	22%	2,186	\$17.30	\$35,984.00
Vermont	969	994	25	3%	246	\$15.17	\$31,553.60
Virginia	8,200	9,077	877	11%	2,768	\$15.89	\$33,051.20
Washington	10,682	12,961	2,279	21%	4,919	\$22.27	\$46,321.60
West Virginia	2,081	2,184	103	5%	570	\$17.19	\$35,755.20
Wisconsin	13,306	14,493	1,187	9%	4,220	\$16.24	\$33,779.20
Wyoming	738	830	92	12%	267	\$21.37	\$44,449.60

Source: EMSI 2014

Table 17: State and National Employment Trends and Wage Data for Materials Engineers

17-2131: Materials Engineers							
State Name	2014 Jobs	2024 Jobs	Change	%Change	New & Repl. Jobs	Median Wage 2013	
						Hourly	Annual
United States	22,962	24,585	1,623	7%	9,305	\$40.68	\$84,616.79
Alabama	449	503	54	12%	205	\$43.71	\$90,916.80
Alaska	33	38	5	15%	17	\$43.36	\$90,188.80
Arizona	612	675	63	10%	266	\$41.97	\$87,297.60
Arkansas	116	131	15	13%	54	\$36.84	\$76,627.20
California	2,855	3,055	200	7%	1,136	\$46.06	\$95,804.80
Colorado	361	401	40	11%	160	\$40.14	\$83,491.20
Connecticut	669	653	(16)	(2%)	208	\$43.19	\$89,835.20
Florida	539	620	81	15%	264	\$40.84	\$84,947.20
Georgia	364	400	36	10%	157	\$40.42	\$84,073.60
Hawaii	22	25	3	14%	<10	\$77.60	\$161,406.12
Idaho	121	134	13	11%	53	\$43.99	\$91,499.20
Illinois	902	873	(29)	(3%)	288	\$38.94	\$80,995.20
Indiana	999	1,016	17	2%	348	\$40.33	\$83,886.40
Iowa	128	155	27	21%	73	\$34.77	\$72,321.60
Kansas	147	173	26	18%	77	\$43.68	\$90,854.40
Kentucky	235	243	8	3%	83	\$34.28	\$71,302.40
Louisiana	90	119	29	32%	63	\$40.81	\$84,884.80
Maine	36	37	1	3%	13	\$35.99	\$74,859.20
Maryland	529	554	25	5%	197	\$49.14	\$102,211.20
Massachusetts	1,189	1,277	88	7%	475	\$41.28	\$85,862.40
Michigan	1,324	1,340	16	1%	469	\$36.65	\$76,232.00
Minnesota	244	272	28	11%	109	\$40.88	\$85,030.40
Mississippi	172	182	10	6%	66	\$35.21	\$73,236.80
Missouri	360	407	47	13%	168	\$39.49	\$82,140.45
Montana	38	42	4	11%	17	\$24.74	\$51,459.20
Nebraska	88	100	12	14%	42	\$34.78	\$72,342.40
Nevada	114	154	40	35%	83	\$42.37	\$88,129.60
New Hampshire	108	108	0	0%	35	\$41.68	\$86,694.40
New Jersey	463	462	(1)	(0%)	160	\$41.24	\$85,779.20
New Mexico	117	128	11	9%	51	\$43.12	\$89,689.60
New York	953	992	39	4%	346	\$40.62	\$84,489.60
North Carolina	336	404	68	20%	185	\$41.15	\$85,592.00
North Dakota	31	40	9	29%	21	\$32.12	\$66,809.60
Ohio	1,356	1,351	(5)	(0%)	458	\$42.93	\$89,294.40
Oklahoma	518	563	45	9%	218	\$23.30	\$48,464.00
Oregon	339	401	62	18%	179	\$40.75	\$84,760.00

Pennsylvania	954	1,016	62	6%	372	\$39.90	\$82,992.00
Rhode Island	52	55	3	6%	20	\$41.32	\$85,945.60
South Carolina	345	404	59	17%	177	\$35.83	\$74,526.40
South Dakota	20	24	4	20%	12	\$23.52	\$48,928.67
Tennessee	289	312	23	8%	117	\$39.37	\$81,889.60
Texas	1,596	1,817	221	14%	761	\$37.03	\$77,022.40
Utah	350	372	22	6%	136	\$37.50	\$78,000.00
Vermont	38	38	0	0%	12	\$35.70	\$74,256.00
Virginia	430	470	40	9%	181	\$42.15	\$87,672.00
Washington	1,248	1,353	105	8%	523	\$45.55	\$94,750.45
West Virginia	114	104	(10)	(9%)	34	\$39.75	\$82,680.00
Wisconsin	543	566	23	4%	198	\$31.52	\$65,561.60
Wyoming	25	27	2	8%	11	\$28.42	\$59,113.60

Source: EMSI 2014

Table 18: National and State 2013 Median Wages for All Selected SOC Occupations

State/US	Materials Engineers		Engineering Technicians		Welders, Cutters, Solderers, & Brazers		Welding, Soldering & Brazing Machine Setters, Operators, & Testers		Inspectors, Testers, Sorters, Samplers, & Weighers	
	Hourly	Annual	Hourly	Annual	Hourly	Annual	Hourly	Annual	Hourly	Annual
Alabama	\$43.71	\$90,916.80	\$26.85	\$55,848.00	\$16.69	\$34,715.20	\$16.07	\$33,425.60	\$14.46	\$30,076.80
Alaska	\$43.36	\$90,188.80	\$31.76	\$66,060.80	\$34.32	\$71,385.60	\$22.71	\$47,236.80	\$31.57	\$65,665.60
Arizona	\$41.97	\$87,297.60	\$22.94	\$47,715.20	\$18.34	\$38,147.20	\$19.30	\$40,144.00	\$17.42	\$36,233.60
Arkansas	\$36.84	\$76,627.20	\$26.84	\$55,827.20	\$16.06	\$33,404.80	\$16.67	\$34,673.60	\$14.08	\$29,286.40
California	\$46.06	\$95,804.80	\$31.34	\$65,187.20	\$18.19	\$37,835.20	\$16.34	\$33,987.20	\$17.13	\$35,630.40
Colorado	\$40.14	\$83,491.20	\$30.05	\$62,504.00	\$18.20	\$37,856.00	\$16.90	\$35,152.00	\$18.88	\$39,270.40
Connecticut	\$43.19	\$89,835.20	\$30.46	\$63,356.80	\$19.97	\$41,537.60	\$18.17	\$37,793.60	\$20.22	\$42,057.60
Florida	\$40.84	\$84,947.20	\$28.37	\$59,009.60	\$16.72	\$34,777.60	\$15.39	\$32,011.20	\$15.58	\$32,406.40
Georgia	\$40.42	\$84,073.60	\$30.30	\$63,024.00	\$16.05	\$33,384.00	\$16.34	\$33,987.20	\$14.26	\$29,660.80
Hawaii	\$77.60	\$161,406.12	\$33.77	\$70,241.60	\$30.35	\$63,128.00	\$23.75	\$49,400.00	\$13.67	\$28,433.60
Idaho	\$43.99	\$91,499.20	\$27.48	\$57,163.18	\$15.74	\$32,739.20	\$16.38	\$34,070.40	\$16.62	\$34,569.60
Illinois	\$38.94	\$80,995.20	\$26.78	\$55,702.40	\$17.41	\$36,212.80	\$16.02	\$33,321.60	\$16.36	\$34,028.80
Indiana	\$40.33	\$83,886.40	\$28.62	\$59,529.60	\$16.50	\$34,320.00	\$15.57	\$32,385.60	\$15.31	\$31,844.80
Iowa	\$34.77	\$72,321.60	\$24.85	\$51,688.00	\$16.49	\$34,299.20	\$17.05	\$35,464.00	\$16.41	\$34,132.80
Kansas	\$43.68	\$90,854.40	\$25.68	\$53,414.40	\$15.96	\$33,196.80	\$16.33	\$33,966.40	\$18.10	\$37,648.00
Kentucky	\$34.28	\$71,302.40	\$25.10	\$52,208.00	\$16.56	\$34,444.80	\$16.24	\$33,779.20	\$15.65	\$32,552.00
Louisiana	\$40.81	\$84,884.80	\$27.51	\$57,220.80	\$19.83	\$41,246.40	\$19.49	\$40,539.20	\$18.35	\$38,168.00
Maine	\$35.99	\$74,859.20	\$34.20	\$71,136.00	\$20.78	\$43,222.40	\$25.61	\$53,268.80	\$18.13	\$37,710.40
Maryland	\$49.14	\$102,211.20	\$31.89	\$66,331.20	\$20.51	\$42,660.80	\$19.03	\$39,582.40	\$19.13	\$39,790.40
Massachusetts	\$41.28	\$85,862.40	\$27.73	\$57,678.40	\$21.08	\$43,846.40	\$17.73	\$36,878.40	\$18.75	\$39,000.00
Michigan	\$36.65	\$76,232.00	\$22.99	\$47,819.20	\$16.53	\$34,382.40	\$17.06	\$35,484.80	\$16.60	\$34,528.00
Minnesota	\$40.88	\$85,030.40	\$27.02	\$56,201.60	\$18.25	\$37,960.00	\$18.65	\$38,792.00	\$17.34	\$36,067.20

Mississippi	\$35.21	\$73,236.80	\$27.38	\$56,948.74	\$18.56	\$38,604.80	\$16.29	\$33,883.20	\$13.62	\$28,329.60
Missouri	\$39.49	\$82,140.45	\$26.63	\$55,390.40	\$16.39	\$34,091.20	\$15.30	\$31,824.00	\$16.74	\$34,819.20
Montana	\$24.74	\$51,459.20	\$28.14	\$58,531.20	\$17.44	\$36,275.20	\$15.92	\$33,115.68	\$16.60	\$34,528.00
Nebraska	\$34.78	\$72,342.40	\$27.37	\$56,929.60	\$16.03	\$33,342.40	\$19.13	\$39,790.40	\$15.88	\$33,030.40
Nevada	\$42.37	\$88,129.60	\$27.36	\$56,908.80	\$20.08	\$41,766.40	\$18.48	\$38,438.40	\$16.92	\$35,193.60
New Hampshire	\$41.68	\$86,694.40	\$24.08	\$50,086.40	\$19.86	\$41,308.80	\$15.27	\$31,761.60	\$17.31	\$36,004.80
New Jersey	\$41.24	\$85,779.20	\$32.16	\$66,892.80	\$19.60	\$40,768.00	\$16.85	\$35,048.00	\$17.58	\$36,566.40
New Mexico	\$43.12	\$89,689.60	\$27.35	\$56,888.00	\$18.51	\$38,500.80	\$12.56	\$26,124.80	\$21.92	\$45,593.60
New York	\$40.62	\$84,489.60	\$25.63	\$53,310.40	\$17.73	\$36,878.40	\$18.19	\$37,835.20	\$16.77	\$34,881.60
North Carolina	\$41.15	\$85,592.00	\$25.09	\$52,187.20	\$17.12	\$35,609.60	\$17.39	\$36,171.20	\$14.53	\$30,222.40
North Dakota	\$32.12	\$66,809.60	\$21.25	\$44,200.00	\$19.96	\$41,516.80	\$17.66	\$36,732.80	\$17.59	\$36,587.20
Ohio	\$42.93	\$89,294.40	\$27.15	\$56,472.00	\$16.97	\$35,297.60	\$15.92	\$33,113.60	\$16.49	\$34,299.20
Oklahoma	\$23.30	\$48,464.00	\$26.94	\$56,035.20	\$17.04	\$35,443.20	\$16.60	\$34,528.00	\$18.30	\$38,064.00
Oregon	\$40.75	\$84,760.00	\$26.48	\$55,078.40	\$17.75	\$36,920.00	\$18.55	\$38,584.00	\$16.63	\$34,590.40
Pennsylvania	\$39.90	\$82,992.00	\$29.07	\$60,465.60	\$17.49	\$36,379.20	\$16.69	\$34,715.20	\$17.84	\$37,107.20
Rhode Island	\$41.32	\$85,945.60	\$33.09	\$68,827.20	\$19.85	\$41,288.00	\$14.05	\$29,224.00	\$15.41	\$32,052.80
South Carolina	\$35.83	\$74,526.40	\$26.61	\$55,348.80	\$17.03	\$35,422.40	\$17.06	\$35,484.80	\$15.03	\$31,262.40
South Dakota	\$23.52	\$48,928.67	\$23.46	\$48,788.27	\$14.78	\$30,742.40	\$16.36	\$34,028.80	\$15.25	\$31,720.00
Tennessee	\$39.37	\$81,889.60	\$26.73	\$55,598.40	\$16.03	\$33,342.40	\$14.61	\$30,388.80	\$15.14	\$31,491.20
Texas	\$37.03	\$77,022.40	\$28.98	\$60,278.40	\$17.01	\$35,380.80	\$15.33	\$31,886.40	\$16.08	\$33,446.40
Utah	\$37.50	\$78,000.00	\$31.27	\$65,041.60	\$17.44	\$36,275.20	\$15.72	\$32,697.60	\$17.30	\$35,984.00
Vermont	\$35.70	\$74,256.00	\$24.86	\$51,708.80	\$16.30	\$33,904.00	\$14.01	\$29,140.80	\$15.17	\$31,553.60
Virginia	\$42.15	\$87,672.00	\$34.96	\$72,716.80	\$18.51	\$38,500.80	\$18.88	\$39,270.40	\$15.89	\$33,051.20
Washington	\$45.55	\$94,750.45	\$34.93	\$72,654.40	\$20.89	\$43,451.20	\$18.19	\$37,835.20	\$22.27	\$46,321.60
West Virginia	\$39.75	\$82,680.00	\$27.34	\$56,867.20	\$17.22	\$35,817.60	\$16.37	\$34,049.60	\$17.19	\$35,755.20
Wisconsin	\$31.52	\$65,561.60	\$24.29	\$50,523.20	\$18.37	\$38,209.60	\$17.83	\$37,086.40	\$16.24	\$33,779.20
Wyoming	\$28.42	\$59,113.60	\$27.63	\$57,470.40	\$21.97	\$45,697.60	\$19.27	\$40,081.60	\$21.37	\$44,449.60
United States	\$40.42	\$84,073.60	\$27.36	\$56,908.80	\$17.49	\$36,379.20	\$16.69	\$34,715.20	\$16.63	\$34,590.40

Source: EMSI 2014

Table 19: Industry Distribution of Welding Occupations

17-2131 Materials Engineer								
Industry	2012			2022			Employment in Thousands	
	Number	Percent of industry	Percent of occupation	Number	Percent of industry	Percent of occupation	Percent Change	Numeric Change
Total employment	23.2	0.0	100.0	23.4	0.0	100.0	0.9	0.2
Fabricated metal product manufacturing	0.9	0.1	3.7	0.9	0.1	3.8	4.3	0.0

Machinery manufacturing	1.0	0.1	4.3	0.9	0.1	3.9	-7.9	-0.1
Transportation equipment manufacturing	5.0	0.3	21.6	5.0	0.3	21.4	-0.1	0.0
17-3029: Engineering Technicians, Except Drafters, All Other								
Industry	2012			2022			Employment in Thousands	
Title	Number	Percent of industry	Percent of occupation	Number	Percent of industry	Percent of occupation	Percent Change	Numeric Change
Total employment	67.7	0.0	100.0	68.3	0.0	100.0	0.9	0.6
Specialty trade contractors	0.1	0.0	0.1	0.1	0.0	0.1	27.9	0.0
Fabricated metal product manufacturing	1.0	0.1	1.5	1.1	0.1	1.6	5.4	0.1
Machinery manufacturing	2.4	0.2	3.6	2.2	0.2	3.3	-8.0	-0.2
Transportation equipment manufacturing	3.4	0.2	5.0	3.2	0.2	4.6	-7.2	-0.2
Repair and maintenance	0.2	0.0	0.3	0.2	0.0	0.4	9.7	0.0
51-9061: Inspectors, Testers, Sorters, Samplers, and Weighers								
Industry	2012			2022			Employment in Thousands	
Title	Number	Percent of industry	Percent of occupation	Number	Percent of industry	Percent of occupation	Percent Change	Numeric Change
Total employment	464.3	0.3	100.0	490.0	0.3	100.0	5.5	25.7
Specialty trade contractors	0.9	0.0	0.2	1.1	0.0	0.2	28.3	0.2
Fabricated metal product manufacturing	42.4	3.0	9.1	43.5	2.9	8.9	2.7	1.2
Machinery manufacturing	25.3	2.3	5.4	23.2	2.3	4.7	-8.2	-2.1
Transportation equipment manufacturing	45.3	3.1	9.8	48.9	3.4	10.0	7.8	3.5
Repair and maintenance	3.0	0.2	0.6	3.4	0.2	0.7	13.2	0.4

Source: Bureau of Labor Statistics, 2012-2022 National Employment Matrix, Industry Employment by Occupation. (http://www.bls.gov/emp/ep_table_108.htm)

Table 20: Top Metropolitan Statistical Areas for Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

51-4122: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders					
Metropolitan Areas with the Highest Concentration of Workers					
Metropolitan area	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
Mansfield, OH	200	4.13	10.77	\$11.52	\$23,960
Clarksville, TN-KY	270	3.28	8.56	<u>-8</u>	<u>-8</u>
Wausau, WI	210	3.24	8.44	\$17.41	\$36,210
Longview, TX	190	1.88	4.9	\$13.87	\$28,840
Mobile, AL	310	1.83	4.78	\$19.76	\$41,100
Holland-Grand Haven, MI	190	1.82	4.74	\$16.28	\$33,870
Roanoke, VA	260	1.77	4.61	\$16.25	\$33,800
Waterloo-Cedar Falls, IA	140	1.57	4.09	\$16.45	\$34,220
Detroit-Livonia-Dearborn, MI Metropolitan Division	920	1.32	3.43	\$21.74	\$45,220
York-Hanover, PA	210	1.2	3.12	\$20.50	\$42,640
Top Paying Metropolitan Areas					
Metropolitan area	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
Norwich-New London, CT-RI	40	0.28	0.74	\$24.88	\$51,740
Tucson, AZ	60	0.18	0.46	\$23.47	\$48,810
Buffalo-Niagara Falls, NY	260	0.49	1.28	\$22.90	\$47,630
Charleston-North Charleston-Summerville, SC	40	0.13	0.35	\$22.83	\$47,490
Akron, OH	190	0.59	1.55	\$22.70	\$47,220
Honolulu, HI	70	0.15	0.4	\$22.40	\$46,600
New Haven, CT	60	0.23	0.61	\$22.31	\$46,410
Minneapolis-St. Paul-Bloomington, MN-WI	450	0.25	0.65	\$22.24	\$46,250
Detroit-Livonia-Dearborn, MI Metropolitan Division	920	1.32	3.43	\$21.74	\$45,220
San Diego-Carlsbad-San Marcos, CA	240	0.19	0.49	\$21.43	\$44,580

Source: Bureau of Labor Statistics, Occupational Employment and Wages, May 2012
 (http://www.bls.gov/oes/current/oes514122.htm)