The Welding Industry: A National Perspective on Workforce Trends and Challenges

(Updated in February 2010)

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Table 1: National Employment Projections (2009-2019) and Wage Data (4th Quarter 2009)

Occupations	2009	2019	Change	Percent Change	2009 Median Wage	
					Hourly	Annual
Welders, Cutters, Solderers, and Brazers (51-4121)	372,197	416,932	44,735	12%	$16.56	$34,445
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)	67,029	74,781	7,752	12%	$17.66	$36,733
Engineering Technicians, Except Drafters, All Other (17-3029)	70,840	76,514	5,674	8%	$27.08	$56,326
Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061)	434,626	430,912	-3,714	-1%	$15.13	$31,470
Materials Engineers (17-2131)	23,397	25,839	2,442	10%	$39.15	$81,432

Source: EMSI Complete Employment - 4th Quarter 2009

Table 2: Top Ten States with Highest Positive Percent Change

51-4121: Welders, Cutters, Solderers, and Brazers (Welders)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Nevada	2,032	2,849	817	40.2%	1,247	$18.48	$38,438
Wyoming	2,667	3,437	770	28.9%	1,153	$21.90	$45,552
South Dakota	2,310	2,974	664	28.7%	1,335	$14.07	$29,266
Montana	1,289	1,625	336	26.1%	609	$17.51	$36,421
Utah	4,310	5,308	998	23.2%	22,624	$15.94	$33,155
Texas	51,123	62,924	11,801	23.1%	1,911	$16.24	$33,779
Alaska	994	1,217	223	22.4%	434	$25.56	$53,165
Mississippi	5,584	6,713	1,129	20.2%	2,311	$15.69	$32,635
Alabama	8,587	10,247	1,660	19.3%	3,478	$15.31	$31,845
Nebraska	4,244	5,014	770	18.1%	1,669	$15.07	$31,346

51-4122: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (Welders)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Nevada	229	298	69	30.1%	117	$20.58	$42,806
South Dakota	410	528	118	28.8%	205	$15.87	$33,010
Montana	239	307	68	28.5%	119	$17.69	$36,795
Alabama	2,660	3,382	722	27.1%	1,285	$15.64	$32,531
Wyoming	116	145	29	25.0%	53	$20.17	$41,954
Texas	4,685	5,847	1,162	24.8%	2,154	$18.45	$38,376
Utah	605	754	149	24.6%	277	$15.41	$32,053
Delaware	80	97	17	21.3%	34	$24.22	$50,378
North Dakota	199	241	42	21.1%	84	$15.75	$32,760
Mississippi	555	671	116	20.9%	233	$15.01	$31,221

Source: EMSI Complete Employment - 4th Quarter 2009

Table 3: Top Ten States with Highest Positive Percent Change for Welding Inspectors

51-9061: Inspectors, Testers, Sorters, Samplers, and Weighers (Welding Inspectors)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Nevada	1,966	2,457	491	25.0%	921	$13.32	$27,706
Wyoming	777	939	162	20.8%	332	$16.49	$34,299
Utah	3,675	4,436	761	20.7%	1,564	$15.33	$31,886
North Dakota	602	702	100	16.6%	232	$14.93	$31,054
South Dakota	723	822	99	13.7%	257	$14.01	$29,141
Montana	510	578	68	13.3%	179	$14.10	$29,328
Kansas	5,260	5,907	647	12.3%	1,796	$18.10	$37,648
Mississippi	4,004	4,458	454	11.3%	1,329	$13.02	$27,082
Alaska	290	321	31	10.7%	94	$17.06	$35,485
Texas	30,262	33,437	3,175	10.5%	9,788	$14.75	$30,680

Source: EMSI Complete Employment - 4th Quarter 2009

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

51-4121: Welders, Cutters, Solderers, and Brazers (Welders)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Texas	51,123	62,924	11,801	23.1%	22,624	$16.24	$33,779
California	28,123	31,528	3,405	12.1%	9,359	$17.52	$36,442
Louisiana	15,497	18,195	2,698	17.4%	5,979	$18.76	$39,021
Wisconsin	13,127	15,049	1,922	14.6%	4,701	$17.27	$35,922
Florida	13,297	14,929	1,632	12.3%	4,447	$16.25	$33,800
Pennsylvania	16,142	17,170	1,028	6.4%	4,445	$16.81	$34,965
Illinois	15,186	16,111	925	6.1%	4,140	$16.19	$33,675
Tennessee	9,225	10,878	1,653	17.9%	3,606	$15.87	$33,010
Georgia	10,348	11,693	1,345	13.0%	3,536	$15.13	$31,470
Alabama	8,587	10,247	1,660	19.3%	3,478	$15.31	$31,845

51-4122: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (Welders)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Texas	4,685	5,847	1,162	24.8%	2,154	$18.45	$38,376
Ohio	6,701	6,353	-348	-5.2%	1,419	$15.76	$32,781
California	4,225	4,734	509	12.0%	1,403	$21.96	$45,677
Alabama	2,660	3,382	722	27.1%	1,285	$15.64	$32,531
Michigan	3,676	4,022	346	9.4%	1,124	$19.02	$39,562
Wisconsin	2,668	3,138	470	17.6%	1,035	$17.03	$35,422
Florida	2,307	2,703	396	17.2%	884	$16.92	$35,194
Indiana	2,954	3,086	132	4.5%	757	$15.43	$32,094
North Carolina	2,039	2,361	322	15.8%	754	$15.65	$32,552
Tennessee	1,860	2,194	334	18.0%	728	$16.00	$33,280

Source: EMSI Complete Employment - 4th Quarter 2009

Table 5: Welding Openings by Occupation

Occupation	Jobs Listed on Average Day	New Jobs Listed Per Week
Welders	5500	950
Welding Technicians	440	70
Welding Inspectors	150	20-25
Welding Engineers	365	60

Source: JOBcentral, May 2008

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

51-4121: Welders, Cutters, Solderers, and Brazers (Welders)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Alaska	994	1,217	223	22.4%	434	$25.56	$53,165
Hawaii	727	803	76	10.5%	230	$24.85	$51,688
Wyoming	2,667	3,437	770	28.9%	1,335	$21.90	$45,552
Delaware	461	465	4	0.9%	102	$20.59	$42,827
Connecticut	2,062	2,235	173	8.4%	610	$20.21	$42,037
Massachusetts	3,235	3,248	13	0.4%	698	$20.10	$41,808
Washington	6,965	7,436	471	6.8%	1,945	$20.01	$41,621
New Jersey	3,873	3,976	103	2.7%	923	$19.34	$40,227
Rhode Island	1,255	1,355	100	8.0%	366	$19.14	$39,811
Louisiana	15,497	18,195	2,698	17.4%	5,979	$18.76	$39,021

51-4122: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (Welders)							
State	2009	2019	Change	Percent Change	New & Repl. Jobs	2009 Median Wage	
						Hourly	Annual
Delaware	80	97	17	21.3%	34	$24.22	$50,378
Connecticut	593	655	62	10.5%	187	$24.01	$49,941
Washington	810	876	66	8.1%	237	$22.42	$46,634
New Jersey	863	932	69	8.0%	252	$22.31	$46,405
California	4,225	4,734	509	12.0%	1,403	$21.96	$45,677
Arizona	621	725	104	16.7%	235	$21.54	$44,803
Nevada	229	298	69	30.1%	117	$20.58	$42,806
Alaska	153	181	28	18.3%	60	$20.41	$42,453
Pennsylvania	2,244	2,479	235	10.5%	710	$20.35	$42,328
Hawaii	160	186	26	16.3%	60	$20.25	$42,120

Source: EMSI Complete Employment - 4th Quarter 2009

Table 7: Industry Distribution of Welding Occupations

51-4121: Welders, Cutters, Solderers, and Brazers

(Employment in thousands)

Industry	2008			2018			Percent Change	Numeric Change
	Number	Percent of Industry	Percent of Occupation	Number	Percent of Industry	Percent of Occupation		
Total Employment	412.3	0.27	100.00	405.6	0.24	100.00	-1.63	-6.7
Specialty trade contractors	25.5	0.56	6.18	29.1	0.53	7.18	14.36	3.7
Fabricated metal product manufacturing	96.5	6.31	23.39	94.7	6.77	23.34	-1.88	-1.8
Machinery Manufacturing	67.9	5.73	16.46	63.4	5.79	15.63	-6.57	-4.5
Transportation equipment Manufacturing	52.0	3.24	12.61	45.7	3.18	11.26	-12.19	-6.3
Repair and maintenance	20.1	1.63	4.86	20.6	1.59	5.07	2.59	0.5

51-4122: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

(Employment in thousands)

Industry	2008			2018			Percent Change	Numeric Change
	Number	Percent of Industry	Percent of Occupation	Number	Percent of Industry	Percent of Occupation		
Total Employment	54.1	0.04	100.00	50.3	0.03	100.00	-7.05	-3.8
Specialty trade contractors	0.9	0.02	1.59	1.0	0.02	1.95	13.84	0.1
Fabricated metal product manufacturing	14.1	0.92	26.10	13.4	0.96	26.63	-5.16	-0.7
Machinery Manufacturing	11.1	0.94	20.58	10.3	0.94	20.57	-7.09	-0.8
Transportation equipment Manufacturing	14.2	0.88	26.26	12.1	0.84	24.07	-14.78	-2.1
Repair and maintenance	1.0	0.08	1.81	1.0	0.08	1.97	0.76	0.0

Source: Bureau of Labor Statistics, 2008-2018 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 Trade Contractors – 238000				
	2009 National Location Quotients	**2009 Employment**	**2008 Establishments**	**Current Earnings Per Workers (EPW)**
United States		6,544,493	561,360	$49,384
Nevada	1.36	78,644	5,227	$61,888
Idaho	1.31	44,011	5,833	$38,688
Maine	1.29	39,290	4,002	$41,166
Maryland	1.29	163,626	11,320	$53,275
Colorado	1.28	151,313	14,434	$48,338
Wyoming	1.24	18,319	2,359	$47,927
Montana	1.23	29,385	3,647	$39,794
Louisiana	1.22	115,984	7,083	$43,794
Vermont	1.19	18,582	1,990	$40,916
Tennessee	1.17	157,307	8,261	$45,184

Fabricated Metal Product Manufacturing – 332000				
	2009 National Location Quotients	**2009 Employment**	**2008 Establishments**	**Current Earnings Per Workers (EPW)**
United States		1,388,941	62,519	$58,232
Wisconsin	2.51	69,323	2,050	$56,373
Ohio	1.91	98,873	3,990	$60,145
Connecticut	1.86	32,309	1,343	$70,275
Indiana	1.63	45,851	1,844	$53,203
Michigan	1.61	64,059	3,365	$58,520
Illinois	1.59	92,083	3,765	$59,245
New Hampshire	1.59	10,632	421	$59,681
Pennsylvania	1.46	83,416	3,142	$57,843
Minnesota	1.44	39,214	1,718	$61,606
Oklahoma	1.40	24,087	1,048	$55,914

Machinery Manufacturing – 333000				
	2009 National Location Quotients	**2009 Employment**	**2008 Establishments**	**Current Earnings Per Workers (EPW)**
United States		1,081,810	31,366	$70,426
Iowa	2.96	36,076	515	$70,903
Wisconsin	2.85	61,456	1,254	$68,858
Oklahoma	2.29	30,592	568	$61,869
Indiana	1.87	41,055	986	$70,133
North Dakota	1.86	5,762	100	$61,158
Michigan	1.82	56,520	2,728	$72,585
Illinois	1.79	81,029	2,494	$84,777
Ohio	1.77	71,008	2,138	$65,177
Kansas	1.59	17,881	368	$56,701
South Dakota	1.54	5,292	117	$49,266

Transportation Equipment Manufacturing – 336000				
	2009 National Location Quotients	**2009 Employment**	**2008 Establishments**	**Current Earnings Per Workers (EPW)**
United States		1,374,622	16,759	$81,359
Kansas	3.35	47,953	256	$80,642
Indiana	3.09	86,094	690	$73,853
Michigan	3.03	119,387	1,687	$98,183
Washington	2.91	88,324	505	$103,825
Connecticut	2.36	40,579	259	$106,432
Alabama	2.35	46,472	333	$72,164
Kentucky	2.11	38,931	301	$67,288
Mississippi	1.96	23,280	147	$67,173
Ohio	1.78	90,747	867	$79,727
South Carolina	1.57	30,663	254	$69,402

Repair and Maintenance – 811000				
	2009 National Location Quotients	**2009 Employment**	**2008 Establishments**	**Current Earnings Per Workers (EPW)**
United States		2,112,445	227,867	$41,914
Wyoming	1.38	6,583	743	$44,307
Montana	1.19	9,181	1,120	$41,245
South Dakota	1.18	7,914	918	$38,671
New Hampshire	1.16	11,867	1,369	$53,125
Louisiana	1.15	35,390	3,451	$41,621
West Virginia	1.15	12,598	1,332	$37,496
Iowa	1.12	26,583	2,965	$36,493
Nebraska	1.12	16,658	1,910	$36,138
Texas	1.12	191,062	15,327	$42,054
Vermont	1.12	5,625	669	$39,798

Source: EMSI Complete Employment - 4th Quarter 2009

Table 9: Metropolitan Statistical Areas (MSA) with Highest Concentrations of Welders, Cutters, Solderers, and Brazers, May 2008

MSA	Employment	Hourly mean wage	Annual mean wage	Percent of MSA employment
Houma-Bayou Cane-Thibodaux, LA	2,670	$18.31	$38,080	2.826%
Peoria, IL	3,080	$15.87	$33,020	1.693%
Odessa, TX	1,010	$18.80	$39,110	1.692%
Casper, WY	640	$19.41	$40,370	1.588%
Beaumont-Port Arthur, TX	2,370	$18.92	$39,350	1.478%

Source: Bureau of Labor Statistics, Occupational Employment and Wages, May 2008.
(http://www.bls.gov/oes/current/oes514121.htm)

Table 10: Metropolitan Statistical Areas (MSA) with Highest Wages for Welders, Cutters, Solderers, and Brazers, May 2008

MSA	Employment	Hourly mean wage	Annual mean wage	Percent of MSA employment
Anchorage, AK	270	$25.93	$53,930	0.164%
Fairbanks, AK	130	$25.43	$52,890	0.356%
Bakersfield, CA	1,010	$24.83	$51,640	0.373%
Honolulu, HI	590	$24.81	$51,600	0.133%
Bremerton-Silverdale, WA	600	$23.64	$49,170	0.726%

Source: Bureau of Labor Statistics, Occupational Employment and Wages, May 2008.
(http://www.bls.gov/oes/current/oes514121.htm)

Table 11: Program of Study and Training: 48.0508 Welding Technology/Welder

Men and Women Program Completers						
State	2006-07			2007-08		
	M	W	Total	M	W	Total
Alabama	166	11	177	224	18	242
Alaska	21	4	25	36	3	39
Arizona	121	18	139	106	2	108
Arkansas	214	9	223	357	15	372
California	634	135	769	385	29	414
Colorado	152	16	168	244	12	256
Connecticut	38		38	54	2	56
Delaware	NA	NA	NA	NA	NA	NA
Florida	401	11	412	522	12	534
Georgia	1,078	83	1,161	1,270	93	1,363
Hawaii	21	4	25	24	3	27
Idaho	57	6	63	67	1	68
Illinois	631	47	678	833	43	876
Indiana	16	1	17	17		17
Iowa	145	7	152	160	13	173
Kansas	143	7	150	169	8	177
Kentucky	763	10	773	900	23	923
Louisiana	634	35	669	696	18	714
Maine	21		21	23	1	24
Maryland	NA	NA	NA	NA	NA	NA
Massachusetts	NA	NA	NA	NA	NA	NA
Michigan	101	8	109	179	14	193
Minnesota	244	3	247	218	9	227
Mississippi	200	14	214	209	25	234
Missouri	90	10	100	112	3	115
Montana	19		19	29		29
Nebraska	70	5	75	96	3	99
Nevada	16	5	21	22		22
New Hampshire	13	1	14	17		17
New Jersey	38		38	58	1	59
New Mexico	51	2	53	51	6	57
New York	239	2	241	273	5	278
North Carolina	426	44	470	507	14	521
North Dakota	93	2	95	50	2	52
Ohio	298	12	310	572	12	584
Oklahoma	753	25	778	827	19	846
Oregon	55	5	60	43	8	51
Pennsylvania	240	3	243	324	10	334
Rhode Island	NA	NA	NA	NA	NA	NA
South Carolina	149	7	156	211	20	231
South Dakota	42		42	59		59
Tennessee	218	9	227	235	5	240
Texas	846	35	881	1,180	50	1,230

Men and Women Program Completers						
State	**2006-07**			**2007-08**		
	M	**W**	**Total**	**M**	**W**	**Total**
Utah	61	4	65	60	10	70
Vermont	NA	NA	NA	NA	NA	NA
Virginia	28	1	29	90	6	96
Washington	505	48	553	518	48	566
West Virginia	61	2	63	32	4	36
Wisconsin	327	18	345	415	18	433
Wyoming	67	4	71	68	6	74

Source: Occupational Supply Demand System.
(http://www.occsupplydemand.org/OSD_SupplyState.aspx?CLUSCODE=074A-13&ST=ZZ&PathNo=1&sst=0)

Table 12: Openings and Completers Comparison by State

Ten States with the Largest Projected Openings for Welders, Cutters, Solderers, and Brazers			
State	**Openings[1]**	**Completers[2]**	**Difference**
Texas	2,262	1,230	-1,032
California	935	414	-521
Louisiana	597	714	117
Wisconsin	470	433	-37
Florida	444	534	90
Pennsylvania	444	334	-110
Illinois	414	876	462
Tennessee	360	240	-120
Georgia	353	1,363	1,010
Alabama	347	242	-105

Sources: **1)** EMSI, Total *Annual* Job Openings between 2009 and 2019 for *Welders, Cutters, Solderers, and Brazers* (51-4121); **2)** Occupational Supply Demand System, Welding Technology/Welder (48.0508) Program Completers for 2007-08

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

51-4121: Welders, Cutters, Solderers, and Brazers							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
U.S.	372,197	416,932	44,735	12%	-	$16.56	$34,445
Alabama	8,587	10,247	1,660	19%	3,478	$15.31	$31,845
Alaska	994	1,217	223	22%	434	$25.56	$53,165
Arizona	4,982	5,385	403	8%	1,458	$16.13	$33,550
Arkansas	5,356	6,195	839	16%	1,973	$13.93	$28,974
California	28,123	31,528	3,405	12%	9,359	$17.52	$36,442
Colorado	4,301	4,284	-17	0%	911	$17.70	$36,816
Connecticut	2,062	2,235	173	8%	610	$20.21	$42,037
Delaware	461	465	4	1%	102	$20.59	$42,827
Florida	13,297	14,929	1,632	12%	4,447	$16.25	$33,800
Georgia	10,348	11,693	1,345	13%	3,536	$15.13	$31,470
Hawaii	727	803	76	10%	230	$24.85	$51,688
Idaho	2,090	2,454	364	17%	807	$14.23	$29,598
Illinois	15,186	16,111	925	6%	4,140	$16.19	$33,675
Indiana	9,905	10,550	645	7%	2,742	$15.55	$32,344
Iowa	8,028	8,256	228	3%	1,928	$15.50	$32,240
Kansas	5,237	5,810	573	11%	1,682	$14.85	$30,888
Kentucky	7,237	7,703	466	6%	1,998	$15.73	$32,718
Louisiana	15,497	18,195	2,698	17%	5,979	$18.76	$39,021
Maine	1,801	1,982	181	10%	562	$18.59	$38,667
Maryland	3,128	3,312	184	6%	846	$17.39	$36,171
Massachusetts	3,235	3,248	13	0%	698	$20.10	$41,808
Michigan	8,246	9,069	823	10%	2,569	$17.61	$36,629
Minnesota	8,901	8,941	40	0%	1,924	$17.89	$37,211
Mississippi	5,584	6,713	1,129	20%	2,311	$15.69	$32,635
Missouri	9,065	9,967	902	10%	2,821	$14.88	$30,950
Montana	1,289	1,625	336	26%	609	$17.51	$36,421
Nebraska	4,244	5,014	770	18%	1,669	$15.07	$31,346
Nevada	2,032	2,849	817	40%	1,247	$18.48	$38,438
New Hampshire	966	1,071	105	11%	309	$18.34	$38,147
New Jersey	3,873	3,976	103	3%	923	$19.34	$40,227
New Mexico	2,111	2,398	287	14%	734	$17.57	$36,546
New York	9,837	10,051	214	2%	2,297	$17.39	$36,171
North Carolina	8,513	9,357	844	10%	2,646	$16.26	$33,821
North Dakota	2,333	2,604	271	12%	765	$17.15	$35,672
Ohio	13,716	13,315	-401	-3%	2,904	$16.14	$33,571
Oklahoma	11,187	12,202	1,015	9%	3,383	$14.85	$30,888
Oregon	5,275	5,848	573	11%	1,690	$17.31	$36,005

51-4121: Welders, Cutters, Solderers, and Brazers							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
Pennsylvania	16,142	17,170	1,028	6%	4,445	$16.81	$34,965
Rhode Island	1,255	1,355	100	8%	366	$19.14	$39,811
South Carolina	6,193	6,934	741	12%	2,052	$15.97	$33,218
South Dakota	2,310	2,974	664	29%	1,153	$14.07	$29,266
Tennessee	9,225	10,878	1,653	18%	3,606	$15.87	$33,010
Texas	51,123	62,924	11,801	23%	22,624	$16.24	$33,779
Utah	4,310	5,308	998	23%	1,911	$15.94	$33,155
Vermont	350	369	19	5%	93	$15.39	$32,011
Virginia	7,357	7,959	602	8%	2,160	$17.75	$36,920
Washington	6,965	7,436	471	7%	1,945	$20.01	$41,621
West Virginia	3,106	3,238	132	4%	790	$15.32	$31,866
Wisconsin	13,127	15,049	1,922	15%	4,701	$17.27	$35,922
Wyoming	2,667	3,437	770	29%	1,335	$21.90	$45,552

Source: EMSI Complete Employment - 4th Quarter 2009

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 and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
U.S.	67,029	74,781	7,752	12%	-	$17.66	$36,733
Alabama	2,660	3,382	722	27%	1,285	$15.64	$32,531
Alaska	153	181	28	18%	60	$20.41	$42,453
Arizona	621	725	104	17%	235	$21.54	$44,803
Arkansas	869	1,029	160	18%	344	$14.28	$29,702
California	4,225	4,734	509	12%	1,403	$21.96	$45,677
Colorado	635	678	43	7%	177	$18.53	$38,542
Connecticut	593	655	62	10%	187	$24.01	$49,941
Delaware	80	97	17	21%	34	$24.22	$50,378
Florida	2,307	2,703	396	17%	884	$16.92	$35,194
Georgia	1,794	2,077	283	16%	663	$14.98	$31,158
Hawaii	160	186	26	16%	60	$20.25	$42,120
Idaho	264	317	53	20%	109	$15.92	$33,114
Illinois	2,728	2,846	118	4%	696	$16.54	$34,403
Indiana	2,954	3,086	132	4%	757	$15.43	$32,094
Iowa	1,692	1,818	126	7%	484	$15.54	$32,323
Kansas	827	966	139	17%	314	$17.56	$36,525
Kentucky	1,626	1,706	80	5%	424	$14.28	$29,702
Louisiana	1,177	1,418	241	20%	490	$16.89	$35,131
Maine	305	348	43	14%	108	$16.10	$33,488
Maryland	690	728	38	6%	184	$18.04	$37,523
Massachusetts	954	997	43	5%	245	$19.98	$41,558
Michigan	3,676	4,022	346	9%	1,124	$19.02	$39,562
Minnesota	1,082	1,120	38	4%	267	$16.82	$34,986
Mississippi	555	671	116	21%	233	$15.01	$31,221
Missouri	1,620	1,817	197	12%	540	$15.21	$31,637
Montana	239	307	68	28%	119	$17.69	$36,795
Nebraska	491	580	89	18%	193	$15.46	$32,157
Nevada	229	298	69	30%	117	$20.58	$42,806
New Hampshire	550	638	88	16%	204	$16.63	$34,590
New Jersey	863	932	69	8%	252	$22.31	$46,405
New Mexico	232	276	44	19%	93	$18.92	$39,354
New York	2,150	2,179	29	1%	484	$18.92	$39,354
North Carolina	2,039	2,361	322	16%	754	$15.65	$32,552
North Dakota	199	241	42	21%	84	$15.75	$32,760
Ohio	6,701	6,353	-348	-5%	1,419	$15.76	$32,781
Oklahoma	1,040	1,164	124	12%	344	$16.39	$34,091
Oregon	618	706	88	14%	219	$19.00	$39,520

51-4122: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
Pennsylvania	2,244	2,479	235	10%	710	$20.35	$42,328
Rhode Island	168	183	15	9%	51	$15.43	$32,094
South Carolina	1,368	1,582	214	16%	504	$16.23	$33,758
South Dakota	410	528	118	29%	205	$15.87	$33,010
Tennessee	1,860	2,194	334	18%	728	$16.00	$33,280
Texas	4,685	5,847	1,162	25%	2,154	$18.45	$38,376
Utah	605	754	149	25%	277	$15.41	$32,053
Vermont	139	157	18	13%	47	$15.89	$33,051
Virginia	1,951	2,108	157	8%	570	$18.08	$37,606
Washington	810	876	66	8%	237	$22.42	$46,634
West Virginia	397	435	38	10%	122	$13.38	$27,830
Wisconsin	2,668	3,138	470	18%	1,035	$17.03	$35,422
Wyoming	116	145	29	25%	53	$20.17	$41,954

Source: EMSI Complete Employment - 4th Quarter 2009

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 and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
U.S.	70,840	76,514	5,674	8%	-	$27.08	$56,326
Alabama	1,168	1,332	164	14%	392	$24.56	$51,085
Alaska	424	464	40	9%	123	$29.00	$60,320
Arizona	1,498	1,672	174	12%	466	$23.13	$48,110
Arkansas	285	333	48	17%	104	$22.41	$46,613
California	11,496	12,476	980	9%	3,223	$28.38	$59,030
Colorado	1,425	1,545	120	8%	398	$25.49	$53,019
Connecticut	587	614	27	5%	141	$29.51	$61,381
Delaware	109	120	11	10%	32	$23.00	$47,840
Florida	3,071	3,323	252	8%	851	$23.03	$47,902
Georgia	1,051	1,118	67	6%	272	$24.24	$50,419
Hawaii	485	495	10	2%	105	$32.39	$67,371
Idaho	763	853	90	12%	239	$20.75	$43,160
Illinois	2,375	2,565	190	8%	653	$26.77	$55,682
Indiana	1,292	1,368	76	6%	328	$25.69	$53,435
Iowa	392	429	37	9%	114	$23.35	$48,568
Kansas	290	342	52	18%	109	$27.80	$57,824
Kentucky	714	718	4	1%	143	$21.55	$44,824
Louisiana	1,338	1,485	147	11%	408	$25.62	$53,290
Maine	625	597	-28	-4%	122	$34.72	$72,218
Maryland	3,090	3,277	187	6%	790	$29.30	$60,944
Massachusetts	910	942	32	4%	210	$26.60	$55,328
Michigan	5,240	5,881	641	12%	1,663	$25.74	$53,539
Minnesota	1,576	1,646	70	4%	377	$26.79	$55,723
Mississippi	846	970	124	15%	289	$32.48	$67,558
Missouri	694	694	0	0%	135	$27.67	$57,554
Montana	199	231	32	16%	71	$23.78	$49,462
Nebraska	181	226	45	25%	80	$24.93	$51,854
Nevada	424	512	88	21%	171	$23.52	$48,922
New Hampshire	595	643	48	8%	164	$21.80	$45,344
New Jersey	1,020	1,021	1	0%	200	$30.13	$62,670
New Mexico	943	953	10	1%	194	$25.78	$53,622
New York	2,504	2,523	19	1%	508	$22.13	$46,030
North Carolina	1,077	1,226	149	14%	359	$23.80	$49,504
North Dakota	97	109	12	12%	31	$19.62	$40,810
Ohio	3,162	3,102	-60	-2%	617	$23.29	$48,443
Oklahoma	740	790	50	7%	194	$27.74	$57,699
Oregon	1,510	1,514	4	0%	299	$25.54	$53,123

17-3029: Engineering Technicians, Except Drafters, All Other							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
Pennsylvania	1,759	1,791	32	2%	375	$29.64	$61,651
Rhode Island	311	323	12	4%	73	$22.61	$47,029
South Carolina	338	363	25	7%	91	$22.45	$46,696
South Dakota	105	108	3	3%	23	$21.06	$43,805
Tennessee	617	672	55	9%	175	$24.78	$51,542
Texas	5,168	6,020	852	16%	1,860	$21.88	$45,510
Utah	409	492	83	20%	163	$26.00	$54,080
Vermont	517	491	-26	-5%	101	$24.26	$50,461
Virginia	2,524	2,942	418	17%	910	$33.18	$69,014
Washington	2,986	3,166	180	6%	763	$30.31	$63,045
West Virginia	278	306	28	10%	82	$24.01	$49,941
Wisconsin	743	811	68	9%	213	$23.53	$48,942
Wyoming	191	217	26	14%	63	$24.06	$50,045

Source: EMSI Complete Employment - 4th Quarter 2009

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 and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
U.S.	434,626	430,912	-3,714	-1%	-	$15.13	$31,470
Alabama	8,030	8,309	279	3%	2,034	$12.78	$26,582
Alaska	290	321	31	11%	94	$17.06	$35,485
Arizona	5,935	5,889	-46	-1%	1,297	$15.25	$31,720
Arkansas	5,989	6,399	410	7%	1,719	$13.20	$27,456
California	48,074	49,809	1,735	4%	12,241	$15.25	$31,720
Colorado	4,054	3,748	-306	-8%	886	$16.82	$34,986
Connecticut	7,149	6,963	-186	-3%	1,562	$18.17	$37,794
Delaware	845	777	-68	-8%	185	$17.07	$35,506
Florida	11,891	12,055	164	1%	2,763	$14.17	$29,474
Georgia	12,565	12,600	35	0%	2,781	$13.45	$27,976
Hawaii	633	661	28	4%	166	$17.88	$37,190
Idaho	1,135	1,229	94	8%	342	$13.44	$27,955
Illinois	19,967	19,328	-639	-3%	4,363	$15.42	$32,074
Indiana	17,572	16,447	-1,125	-6%	3,840	$15.13	$31,470
Iowa	5,139	5,162	23	0%	1,146	$15.66	$32,573
Kansas	5,260	5,907	647	12%	1,796	$18.10	$37,648
Kentucky	8,908	8,518	-390	-4%	1,947	$14.37	$29,890
Louisiana	7,477	8,007	530	7%	2,164	$17.98	$37,398
Maine	1,870	1,750	-120	-6%	409	$14.48	$30,118
Maryland	4,707	4,691	-16	0%	1,029	$18.22	$37,898
Massachusetts	7,310	6,899	-411	-6%	1,597	$16.89	$35,131
Michigan	19,580	19,039	-541	-3%	4,279	$15.87	$33,010
Minnesota	6,853	6,530	-323	-5%	1,498	$16.17	$33,634
Mississippi	4,004	4,458	454	11%	1,329	$13.02	$27,082
Missouri	8,385	8,150	-235	-3%	1,832	$15.84	$32,947
Montana	510	578	68	13%	179	$14.10	$29,328
Nebraska	2,882	2,999	117	4%	747	$14.97	$31,138
Nevada	1,966	2,457	491	25%	921	$13.32	$27,706
New Hampshire	3,003	2,937	-66	-2%	656	$15.64	$32,531
New Jersey	10,288	9,311	-977	-9%	2,248	$15.52	$32,282
New Mexico	1,154	1,123	-31	-3%	252	$15.74	$32,739
New York	20,703	18,123	-2,580	-12%	4,524	$15.74	$32,739
North Carolina	17,503	16,950	-553	-3%	3,825	$13.36	$27,789
North Dakota	602	702	100	17%	232	$14.93	$31,054
Ohio	21,695	19,008	-2,687	-12%	4,741	$15.80	$32,864
Oklahoma	6,347	6,447	100	2%	1,487	$16.78	$34,902
Oregon	5,137	5,255	118	2%	1,241	$16.17	$33,634

51-9061: Inspectors, Testers, Sorters, Samplers, and Weighers							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
Pennsylvania	22,077	21,568	-509	-2%	4,824	$16.02	$33,322
Rhode Island	1,340	1,245	-95	-7%	293	$13.63	$28,350
South Carolina	9,958	9,476	-482	-5%	2,176	$14.25	$29,640
South Dakota	723	822	99	14%	257	$14.01	$29,141
Tennessee	10,979	10,773	-206	-2%	2,399	$14.39	$29,931
Texas	30,262	33,437	3,175	10%	9,788	$14.75	$30,680
Utah	3,675	4,436	761	21%	1,564	$15.33	$31,886
Vermont	929	819	-110	-12%	203	$14.50	$30,160
Virginia	9,602	9,753	151	2%	2,249	$16.46	$34,237
Washington	8,084	8,085	1	0%	1,768	$19.98	$41,558
West Virginia	2,268	2,245	-23	-1%	496	$15.86	$32,989
Wisconsin	17,755	16,973	-782	-4%	3,880	$14.29	$29,723
Wyoming	777	939	162	21%	332	$16.49	$34,299

Source: EMSI Complete Employment - 4th Quarter 2009

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

17-2131: Materials Engineers							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
U.S.	23,397	25,839	2,442	10%	-	$39.15	$81,432
Alabama	451	549	98	22%	203	$37.00	$76,960
Alaska	29	36	7	24%	14	$39.38	$81,910
Arizona	704	741	37	5%	201	$37.52	$78,042
Arkansas	116	138	22	19%	49	$30.26	$62,941
California	2,639	3,054	415	16%	1,030	$43.79	$91,083
Colorado	616	684	68	11%	212	$40.33	$83,886
Connecticut	775	862	87	11%	267	$41.22	$85,738
Delaware	42	37	-5	-12%	10	$41.96	$87,277
Florida	477	530	53	11%	164	$31.20	$64,896
Georgia	249	278	29	12%	87	$31.67	$65,874
Hawaii	22	26	4	18%	9	$39.27	$81,682
Idaho	156	170	14	9%	50	$39.07	$81,266
Illinois	662	687	25	4%	179	$37.17	$77,314
Indiana	699	682	-17	-2%	163	$29.78	$61,942
Iowa	268	303	35	13%	97	$31.49	$65,499
Kansas	137	173	36	26%	68	$36.40	$75,712
Kentucky	225	234	9	4%	61	$33.30	$69,264
Louisiana	148	172	24	16%	58	$41.63	$86,590
Maine	55	54	-1	-2%	13	$35.71	$74,277
Maryland	524	578	54	10%	176	$49.97	$103,938
Massachusetts	523	586	63	12%	185	$40.85	$84,968
Michigan	819	963	144	18%	335	$38.48	$80,038
Minnesota	240	257	17	7%	73	$36.38	$75,670
Mississippi	41	48	7	17%	17	$30.04	$62,483
Missouri	338	373	35	10%	114	$43.89	$91,291
Montana	29	38	9	31%	16	$25.24	$52,499
Nebraska	70	86	16	23%	32	$29.44	$61,235
Nevada	91	127	36	40%	57	$31.54	$65,603
New Hampshire	59	66	7	12%	21	$32.21	$66,997
New Jersey	402	412	10	2%	104	$39.46	$82,077
New Mexico	174	179	5	3%	46	$40.00	$83,200
New York	1,234	1,195	-39	-3%	287	$38.33	$79,726
North Carolina	511	616	105	21%	224	$35.17	$73,154
North Dakota	34	44	10	29%	18	$27.97	$58,178
Ohio	1,737	1,694	-43	-2%	404	$39.79	$82,763
Oklahoma	168	188	20	12%	59	$29.72	$61,818
Oregon	434	484	50	12%	151	$37.94	$78,915
Pennsylvania	1,445	1,506	61	4%	397	$37.14	$77,251

17-2131: Materials Engineers							
State and National Employment Trends						2009 (4th Quarter) Median Wage	
State/U.S.	2009	2019	Change	Percent Change	New & Repl. Jobs	Hourly	Annual
Rhode Island	39	41	2	5%	11	$31.45	$65,416
South Carolina	362	381	19	5%	103	$31.41	$65,333
South Dakota	<10	<10	-	-	-	-	-
Tennessee	278	287	9	3%	74	$41.72	$86,778
Texas	2,469	2,956	487	20%	1,062	$40.91	$85,093
Utah	328	437	109	33%	185	$35.41	$73,653
Vermont	60	55	-5	-8%	14	$36.06	$75,005
Virginia	547	652	105	19%	232	$44.74	$93,059
Washington	1,345	1,505	160	12%	473	$43.01	$89,461
West Virginia	109	123	14	13%	39	$30.99	$64,459
Wisconsin	365	388	23	6%	108	$32.25	$67,080
Wyoming	<10	<10	-	-	-	-	-

Source: EMSI Complete Employment - 4th Quarter 2009

Table 18: National and State 2009 Median Wages for All Selected SOC Occupations

2009 Median Wages										
State/U.S.	Materials Engineers		Engineering Technicians		Welders, Cutters, Solderers, & Brazers		Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders		Inspectors, Testers, Sorters, Samplers, & Weighers	
	Hourly	Annual	Hourly	Annual	Hourly	Annual	Hourly	Annual	Hourly	Annual
U.S.	$39.15	$81,432	$27.08	$56,326	$16.56	$34,445	$17.66	$36,733	$15.13	$31,470
Alabama	$37.00	$76,960	$24.56	$51,085	$15.31	$31,845	$15.64	$32,531	$12.78	$26,582
Alaska	$39.38	$81,910	$29.00	$60,320	$25.56	$53,165	$20.41	$42,453	$17.06	$35,485
Arizona	$37.52	$78,042	$23.13	$48,110	$16.13	$33,550	$21.54	$44,803	$15.25	$31,720
Arkansas	$30.26	$62,941	$22.41	$46,613	$13.93	$28,974	$14.28	$29,702	$13.20	$27,456
California	$43.79	$91,083	$28.38	$59,030	$17.52	$36,442	$21.96	$45,677	$15.25	$31,720
Colorado	$40.33	$83,886	$25.49	$53,019	$17.70	$36,816	$18.53	$38,542	$16.82	$34,986
Connecticut	$41.22	$85,738	$29.51	$61,381	$20.21	$42,037	$24.01	$49,941	$18.17	$37,794
Delaware	$41.96	$87,277	$23.00	$47,840	$20.59	$42,827	$24.22	$50,378	$17.07	$35,506
Florida	$31.20	$64,896	$23.03	$47,902	$16.25	$33,800	$16.92	$35,194	$14.17	$29,474
Georgia	$31.67	$65,874	$24.24	$50,419	$15.13	$31,470	$14.98	$31,158	$13.45	$27,976
Hawaii	$39.27	$81,682	$32.39	$67,371	$24.85	$51,688	$20.25	$42,120	$17.88	$37,190
Idaho	$39.07	$81,266	$20.75	$43,160	$14.23	$29,598	$15.92	$33,114	$13.44	$27,955
Illinois	$37.17	$77,314	$26.77	$55,682	$16.19	$33,675	$16.54	$34,403	$15.42	$32,074
Indiana	$29.78	$61,942	$25.69	$53,435	$15.55	$32,344	$15.43	$32,094	$15.13	$31,470
Iowa	$31.49	$65,499	$23.35	$48,568	$15.50	$32,240	$15.54	$32,323	$15.66	$32,573
Kansas	$36.40	$75,712	$27.80	$57,824	$14.85	$30,888	$17.56	$36,525	$18.10	$37,648
Kentucky	$33.30	$69,264	$21.55	$44,824	$15.73	$32,718	$14.28	$29,702	$14.37	$29,890
Louisiana	$41.63	$86,590	$25.62	$53,290	$18.76	$39,021	$16.89	$35,131	$17.98	$37,398
Maine	$35.71	$74,277	$34.72	$72,218	$18.59	$38,667	$16.10	$33,488	$14.48	$30,118
Maryland	$49.97	$103,938	$29.30	$60,944	$17.39	$36,171	$18.04	$37,523	$18.22	$37,898
Massachusetts	$40.85	$84,968	$26.60	$55,328	$20.10	$41,808	$19.98	$41,558	$16.89	$35,131
Michigan	$38.48	$80,038	$25.74	$53,539	$17.61	$36,629	$19.02	$39,562	$15.87	$33,010
Minnesota	$36.38	$75,670	$26.79	$55,723	$17.89	$37,211	$16.82	$34,986	$16.17	$33,634
Mississippi	$30.04	$62,483	$32.48	$67,558	$15.69	$32,635	$15.01	$31,221	$13.02	$27,082
Missouri	$43.89	$91,291	$27.67	$57,554	$14.88	$30,950	$15.21	$31,637	$15.84	$32,947
Montana	$25.24	$52,499	$23.78	$49,462	$17.51	$36,421	$17.69	$36,795	$14.10	$29,328
Nebraska	$29.44	$61,235	$24.93	$51,854	$15.07	$31,346	$15.46	$32,157	$14.97	$31,138
Nevada	$31.54	$65,603	$23.52	$48,922	$18.48	$38,438	$20.58	$42,806	$13.32	$27,706
New Hampshire	$32.21	$66,997	$21.80	$45,344	$18.34	$38,147	$16.63	$34,590	$15.64	$32,531
New Jersey	$39.46	$82,077	$30.13	$62,670	$19.34	$40,227	$22.31	$46,405	$15.52	$32,282
New Mexico	$40.00	$83,200	$25.78	$53,622	$17.57	$36,546	$18.92	$39,354	$15.74	$32,739
New York	$38.33	$79,726	$22.13	$46,030	$17.39	$36,171	$18.92	$39,354	$15.74	$32,739
North Carolina	$35.17	$73,154	$23.80	$49,504	$16.26	$33,821	$15.65	$32,552	$13.36	$27,789
North Dakota	$27.97	$58,178	$19.62	$40,810	$17.15	$35,672	$15.75	$32,760	$14.93	$31,054
Ohio	$39.79	$82,763	$23.29	$48,443	$16.14	$33,571	$15.76	$32,781	$15.80	$32,864
Oklahoma	$29.72	$61,818	$27.74	$57,699	$14.85	$30,888	$16.39	$34,091	$16.78	$34,902
Oregon	$37.94	$78,915	$25.54	$53,123	$17.31	$36,005	$19.00	$39,520	$16.17	$33,634
Pennsylvania	$37.14	$77,251	$29.64	$61,651	$16.81	$34,965	$20.35	$42,328	$16.02	$33,322
Rhode Island	$31.45	$65,416	$22.61	$47,029	$19.14	$39,811	$15.43	$32,094	$13.63	$28,350
South Carolina	$31.41	$65,333	$22.45	$46,696	$15.97	$33,218	$16.23	$33,758	$14.25	$29,640
South Dakota	-	-	$21.06	$43,805	$14.07	$29,266	$15.87	$33,010	$14.01	$29,141
Tennessee	$41.72	$86,778	$24.78	$51,542	$15.87	$33,010	$16.00	$33,280	$14.39	$29,931
Texas	$40.91	$85,093	$21.88	$45,510	$16.24	$33,779	$18.45	$38,376	$14.75	$30,680
Utah	$35.41	$73,653	$26.00	$54,080	$15.94	$33,155	$15.41	$32,053	$15.33	$31,886
Vermont	$36.06	$75,005	$24.26	$50,461	$15.39	$32,011	$15.89	$33,051	$14.50	$30,160
Virginia	$44.74	$93,059	$33.18	$69,014	$17.75	$36,920	$18.08	$37,606	$16.46	$34,237
Washington	$43.01	$89,461	$30.31	$63,045	$20.01	$41,621	$22.42	$46,634	$19.98	$41,558

2009 Median Wages										
State/U.S.	**Materials Engineers**		**Engineering Technicians**		**Welders, Cutters, Solderers, & Brazers**		**Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders**		**Inspectors, Testers, Sorters, Samplers, & Weighers**	
	Hourly	Annual	Hourly	Annual	Hourly	Annual	Hourly	Annual	Hourly	Annual
West Virginia	$30.99	$64,459	$24.01	$49,941	$15.32	$31,866	$13.38	$27,830	$15.86	$32,989
Wisconsin	$32.25	$67,080	$23.53	$48,942	$17.27	$35,922	$17.03	$35,422	$14.29	$29,723
Wyoming	-	-	$24.06	$50,045	$21.90	$45,552	$20.17	$41,954	$16.49	$34,299

Source: EMSI Complete Employment - 4th Quarter 2009

Table 19: Industry Distribution of Welding Occupations

Industry Distribution of Welding Occupations

17-2131: Materials Engineers

(Employment in thousands)

Industry	2008			2018			Percent Change	Numeric Change
	Number	Percent of Industry	Percent of Occupation	Number	Percent of Industry	Percent of Occupation		
Total Employment	24.4	0.02	100.00	26.6	0.02	100.00	9.33	2.3
Fabricated metal product manufacturing	0.9	0.06	3.54	0.9	0.06	3.24	0.03	0.0
Machinery Manufacturing	1.3	0.11	5.16	1.2	0.11	4.59	-2.76	0.0
Transportation equipment Manufacturing	3.8	0.24	15.77	4.4	0.30	16.44	13.97	0.5

17-3029: Engineering Technicians, Except Drafters, All Other

(Employment in thousands)

Industry	2008			2018			Percent Change	Numeric Change
	Number	Percent of Industry	Percent of Occupation	Number	Percent of Industry	Percent of Occupation		
Total Employment	76.6	0.05	100.00	80.6	0.05	100.00	5.24	4.0
Specialty trade contractors	0.1	0.00	0.14	0.1	0.00	0.16	20.99	0.0
Fabricated metal product manufacturing	0.7	0.05	0.91	0.6	0.05	0.79	-9.05	-0.1
Machinery Manufacturing	1.3	0.11	1.73	1.2	0.11	1.50	-8.48	-0.1
Transportation equipment Manufacturing	8.2	0.51	10.72	7.2	0.50	8.96	-12.07	-1.0
Repair and maintenance	0.1	0.01	0.12	0.1	0.01	0.12	4.21	0.0

51-9061: Inspectors, Testers, Sorters, Samplers, and Weighers

(Employment in thousands)

Industry	2008			2018			Percent Change	Numeric Change
	Number	Percent of Industry	Percent of Occupation	Number	Percent of Industry	Percent of Occupation		
Total Employment	464.7	0.31	100.00	447.8	0.27	100.00	-3.63	-16.9
Specialty trade contractors	1.0	0.02	0.22	1.2	0.02	0.28	20.09	0.2
Fabricated metal product manufacturing	37.2	2.44	8.01	33.2	2.37	7.40	-10.94	-4.1
Machinery Manufacturing	24.4	2.06	5.25	22.3	2.03	4.98	-8.63	-2.1
Transportation equipment Manufacturing	49.1	3.06	10.57	43.1	3.00	9.63	-12.21	-6.0
Repair and maintenance	5.6	0.46	1.21	5.7	0.44	1.27	1.29	0.1

Source: Bureau of Labor Statistics, 2008-2018 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				
MSA	**Employment**	**Hourly mean wage**	**Annual mean wage**	**Percent of MSA employment**
Oshkosh-Neenah, WI	360	$16.58	$34,490	0.400%
Monroe, MI	140	$29.21	$60,760	0.349%
Davenport-Moline-Rock Island, IA-IL	490	$15.53	$32,310	0.263%
Springfield, OH	130	$15.24	$31,710	0.260%
Muskegon-Norton Shores, MI	150	$16.82	$34,980	0.240%
Top Paying Metropolitan Areas				
MSA	**Employment**	**Hourly mean wage**	**Annual mean wage**	**Percent of MSA employment**
Monroe, MI	140	$29.21	$60,760	0.349%
Buffalo-Niagara Falls, NY	NA	$28.91	$60,140	NA
Detroit-Livonia-Dearborn, MI Metropolitan Division	NA	$26.85	$55,860	NA
Albany-Schenectady-Troy, NY	200	$25.38	$52,790	0.046%
York-Hanover, PA	210	$20.63	$42,920	0.117%

Source: Bureau of Labor Statistics, Occupational Employment and Wages, May 2008.
(http://www.bls.gov/oes/current/oes514122.htm)