



3 RIVERS WIB
THREE RIVERS WORKFORCE INVESTMENT BOARD

Construction and Extraction Occupations in Allegheny County 2015-2025



Construction and Extraction Occupations

Regions

Code	Description
42003	Allegheny County, PA

Timeframe

2015 - 2025

Datarun

2016.1 – QCEW Employees



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Occupation Summary for Construction and Extraction Occupations

26,398 Jobs (2015) 2% below National average	10.7% % Change (2015-2025) Nation: 16.7%	\$23.51/hr Median Hourly Earnings Nation: \$21.67/hr
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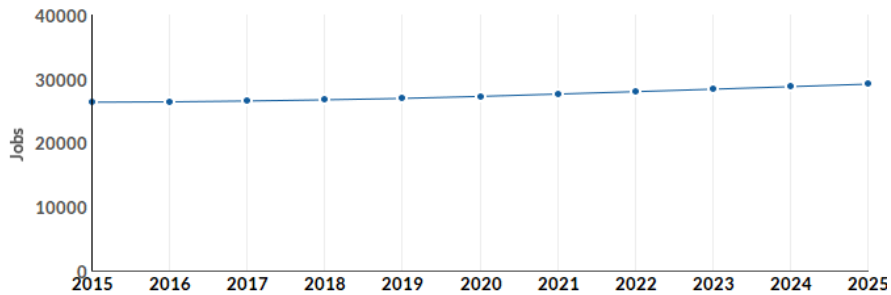


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Growth

26,398 2015 Jobs	29,232 2025 Jobs	2,834 Change (2015-2025)	10.7% % Change (2015-2025)
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Occupation	2015 Jobs	2025 Jobs	Change	% Change
First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)	1,985	2,260	275	14%
Boilermakers (47-2011)	126	121	-5	-4%
Brickmasons and Blockmasons (47-2021)	557	797	240	43%
Stonemasons (47-2022)	31	50	19	61%
Carpenters (47-2031)	4,579	5,007	428	9%
Carpet Installers (47-2041)	392	406	14	4%
Floor Layers, Except Carpet, Wood, and Hard Tiles (47-2042)	47	53	6	13%
Floor Sanders and Finishers (47-2043)	12	14	2	17%
Tile and Marble Setters (47-2044)	111	133	22	20%
Cement Masons and Concrete Finishers (47-2051)	597	733	136	23%
Terrazzo Workers and Finishers (47-2053)	9	11	2	22%
Construction Laborers (47-2061)	4,346	5,007	661	15%



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Occupation	2015 Jobs	2025 Jobs	Change	% Change
Paving, Surfacing, and Tamping Equipment Operators (47-2071)	302	354	52	17%
Pile-Driver Operators (47-2072)	4	6	2	50%
Operating Engineers and Other Construction Equipment Operators (47-2073)	1,896	2,124	228	12%
Drywall and Ceiling Tile Installers (47-2081)	257	310	53	21%
Tapers (47-2082)	82	94	12	15%
Electricians (47-2111)	2,340	2,214	-126	-5%
Glaziers (47-2121)	107	92	-15	-14%
Insulation Workers, Floor, Ceiling, and Wall (47-2131)	82	103	21	26%
Insulation Workers, Mechanical (47-2132)	154	197	43	28%
Painters, Construction and Maintenance (47-2141)	1,003	1,058	55	5%
Paperhangers (47-2142)	26	23	-3	-12%
Pipelayers (47-2151)	132	150	18	14%
Plumbers, Pipefitters, and Steamfitters (47-2152)	2,053	2,306	253	12%
Plasterers and Stucco Masons (47-2161)	52	69	17	33%
Reinforcing Iron and Rebar Workers (47-2171)	27	29	2	7%
Roofers (47-2181)	517	460	-57	-11%
Sheet Metal Workers (47-2211)	444	484	40	9%
Structural Iron and Steel Workers (47-2221)	248	241	-7	-3%
Solar Photovoltaic Installers (47-2231)	8	9	1	13%
Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and	141	216	75	53%



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Occupation	2015 Jobs	2025 Jobs	Change	% Change
Marble Setters (47-3011)				
Helpers--Carpenters (47-3012)	146	159	13	9%
Helpers--Electricians (47-3013)	256	254	-2	-1%
Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons (47-3014)	10	13	3	30%
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters (47-3015)	154	182	28	18%
Helpers--Roofers (47-3016)	31	29	-2	-6%
Helpers, Construction Trades, All Other (47-3019)	29	36	7	24%
Construction and Building Inspectors (47-4011)	957	1,016	59	6%
Elevator Installers and Repairers (47-4021)	74	82	8	11%
Fence Erectors (47-4031)	57	78	21	37%
Hazardous Materials Removal Workers (47-4041)	257	270	13	5%
Highway Maintenance Workers (47-4051)	1,117	1,082	-35	-3%
Rail-Track Laying and Maintenance Equipment Operators (47-4061)	5	4	-1	-20%
Septic Tank Servicers and Sewer Pipe Cleaners (47-4071)	81	95	14	17%
Segmental Pavers (47-4091)	3	4	1	33%
Construction and Related Workers, All Other (47-4099)	39	47	8	21%
Derrick Operators, Oil and Gas (47-5011)	20	39	19	95%
Rotary Drill Operators, Oil and Gas (47-5012)	89	127	38	43%



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Occupation	2015 Jobs	2025 Jobs	Change	% Change
Service Unit Operators, Oil, Gas, and Mining (47-5013)	106	168	62	58%
Earth Drillers, Except Oil and Gas (47-5021)	51	65	14	27%
Explosives Workers, Ordnance Handling Experts, and Blasters (47-5031)	15	17	2	13%
Continuous Mining Machine Operators (47-5041)	15	16	1	7%
Mine Cutting and Channeling Machine Operators (47-5042)	14	15	1	7%
Mining Machine Operators, All Other (47-5049)	4	5	1	25%
Rock Splitters, Quarry (47-5051)	17	19	2	12%
Roof Bolters, Mining (47-5061)	2	1	-1	-50%
Roustabouts, Oil and Gas (47-5071)	121	191	70	58%
Helpers--Extraction Workers (47-5081)	53	74	21	40%
Extraction Workers, All Other (47-5099)	10	13	3	30%

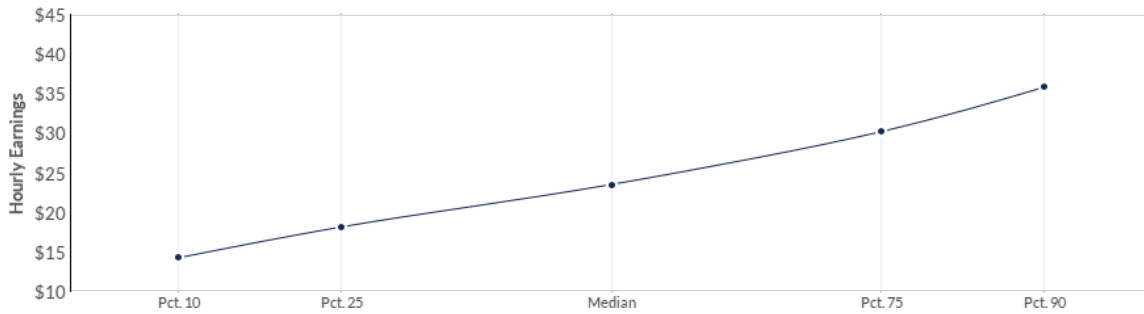


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THREE RIVERS WORKFORCE INVESTMENT BOARD

Percentile Earnings

\$18.14/hr 25th Percentile Earnings	\$23.51/hr Median Earnings	\$30.20/hr 75th Percentile Earnings
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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)	\$26.73	\$32.96	\$39.58
Boilermakers (47-2011)	\$25.57	\$31.50	\$36.87
Brickmasons and Blockmasons (47-2021)	\$21.80	\$26.15	\$30.66
Stonemasons (47-2022)	\$15.06	\$19.51	\$24.10
Carpenters (47-2031)	\$17.22	\$22.62	\$31.66
Carpet Installers (47-2041)	\$14.75	\$21.22	\$32.80
Floor Layers, Except Carpet, Wood, and Hard Tiles (47-2042)	\$13.46	\$15.83	\$17.36
Floor Sanders and Finishers (47-2043)	\$13.92	\$17.32	\$19.96
Tile and Marble Setters (47-2044)	\$17.36	\$21.83	\$26.63
Cement Masons and Concrete Finishers (47-2051)	\$21.64	\$26.59	\$29.47
Terrazzo Workers and Finishers (47-2053)	\$21.32	\$29.46	\$38.04
Construction Laborers (47-2061)	\$13.77	\$18.43	\$23.59
Paving, Surfacing, and Tamping Equipment Operators (47-2071)	\$23.51	\$26.88	\$29.50
Pile-Driver Operators (47-2072)	\$24.76	\$31.39	\$40.08
Operating Engineers and Other	\$18.23	\$23.42	\$28.52



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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Construction Equipment Operators (47-2073)			
Drywall and Ceiling Tile Installers (47-2081)	\$14.19	\$19.30	\$30.01
Tapers (47-2082)	\$24.66	\$27.16	\$29.75
Electricians (47-2111)	\$19.71	\$25.50	\$35.10
Glaziers (47-2121)	\$16.92	\$21.22	\$33.10
Insulation Workers, Floor, Ceiling, and Wall (47-2131)	\$15.84	\$19.59	\$24.57
Insulation Workers, Mechanical (47-2132)	\$30.11	\$34.46	\$37.83
Painters, Construction and Maintenance (47-2141)	\$15.47	\$19.26	\$27.30
Paperhangers (47-2142)	\$17.00	\$21.07	\$25.38
Pipelayers (47-2151)	\$19.91	\$23.55	\$31.90
Plumbers, Pipefitters, and Steamfitters (47-2152)	\$21.86	\$29.88	\$36.48
Plasterers and Stucco Masons (47-2161)	\$11.00	\$15.74	\$23.21
Reinforcing Iron and Rebar Workers (47-2171)	\$21.31	\$30.17	\$33.98
Roofers (47-2181)	\$14.07	\$17.93	\$24.51
Sheet Metal Workers (47-2211)	\$18.94	\$31.41	\$35.99
Structural Iron and Steel Workers (47-2221)	\$16.89	\$24.83	\$33.09
Solar Photovoltaic Installers (47-2231)	\$18.75	\$22.57	\$25.74
Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters (47-3011)	\$13.42	\$15.45	\$18.58
Helpers--Carpenters (47-3012)	\$11.15	\$12.35	\$17.85
Helpers--Electricians (47-3013)	\$10.81	\$13.01	\$15.23
Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons (47-3014)	\$12.68	\$14.75	\$15.96



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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters (47-3015)	\$13.85	\$16.61	\$20.74
Helpers--Roofers (47-3016)	\$11.29	\$13.89	\$16.06
Helpers, Construction Trades, All Other (47-3019)	\$10.36	\$13.38	\$17.22
Construction and Building Inspectors (47-4011)	\$20.74	\$25.66	\$31.38
Elevator Installers and Repairers (47-4021)	\$21.71	\$27.39	\$38.95
Fence Erectors (47-4031)	\$15.19	\$19.03	\$22.24
Hazardous Materials Removal Workers (47-4041)	\$16.34	\$20.97	\$24.78
Highway Maintenance Workers (47-4051)	\$14.99	\$19.89	\$25.61
Rail-Track Laying and Maintenance Equipment Operators (47-4061)	\$21.38	\$27.94	\$30.51
Septic Tank Servicers and Sewer Pipe Cleaners (47-4071)	\$16.23	\$19.88	\$24.17
Segmental Pavers (47-4091)	\$13.66	\$18.32	\$20.54
Construction and Related Workers, All Other (47-4099)	\$11.37	\$15.56	\$21.77
Derrick Operators, Oil and Gas (47-5011)	\$21.01	\$23.27	\$25.51
Rotary Drill Operators, Oil and Gas (47-5012)	\$19.24	\$23.44	\$30.54
Service Unit Operators, Oil, Gas, and Mining (47-5013)	\$18.49	\$22.47	\$28.86
Earth Drillers, Except Oil and Gas (47-5021)	\$18.77	\$21.32	\$23.66
Explosives Workers, Ordnance Handling Experts, and Blasters (47-5031)	\$22.05	\$26.50	\$31.67
Continuous Mining Machine Operators (47-5041)	\$13.18	\$15.20	\$18.45
Mine Cutting and Channeling	\$20.88	\$25.18	\$27.28



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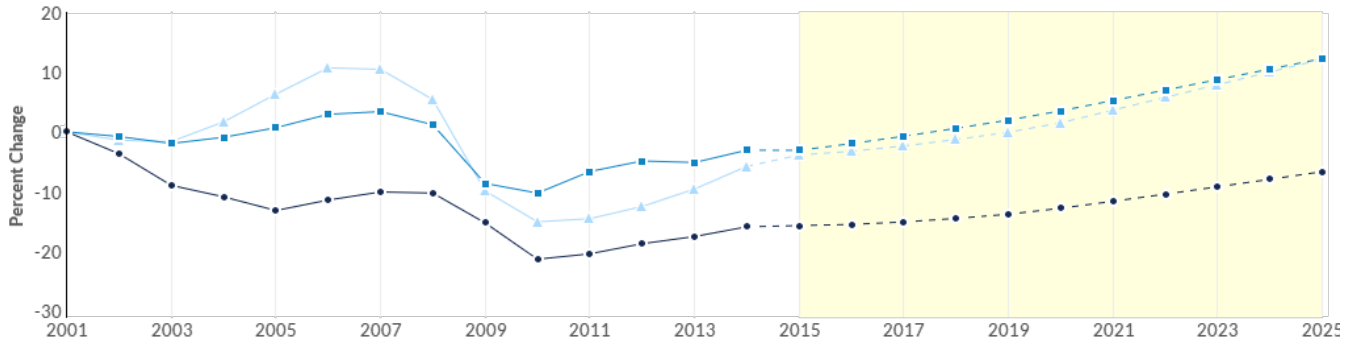
Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
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Machine Operators (47-5042)			
Mining Machine Operators, All Other (47-5049)	\$14.83	\$18.55	\$23.52
Rock Splitters, Quarry (47-5051)	\$12.09	\$14.91	\$16.89
Roof Bolters, Mining (47-5061)	\$21.96	\$24.68	\$26.11
Roustabouts, Oil and Gas (47-5071)	\$16.68	\$20.70	\$25.07
Helpers--Extraction Workers (47-5081)	\$11.88	\$15.45	\$19.35
Extraction Workers, All Other (47-5099)	\$15.68	\$21.33	\$25.71



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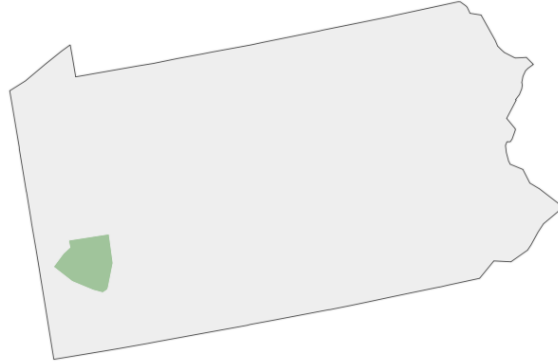
Regional Trends



	Region	2015 Jobs	2025 Jobs	Change	% Change
●	Region	26,398	29,232	2,834	10.7%
●	State	218,698	253,433	34,735	15.9%
●	Nation	5,405,146	6,308,556	903,410	16.7%



Regional Breakdown



* Highlighted areas show counties that contain the selected zip codes


ZIP	2025 Jobs
Pittsburgh, PA 15219 (in Allegheny county)	1,627
Pittsburgh, PA 15222 (in Allegheny county)	1,452
Coraopolis, PA 15108 (in Allegheny county)	1,291
Pittsburgh, PA 15205 (in Allegheny county)	1,234
Mc Kees Rocks, PA 15136 (in Allegheny county)	1,198



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Job Postings Summary

<p>248</p> <p>Unique Postings (Mar 2016)</p> <p>925 Total Postings</p>	<p>4 : 1</p> <p>Posting Intensity (Mar 2016)</p> <p>Regional Average: 7 : 1</p> 
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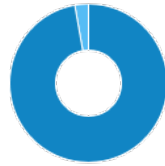
There were **925** total job postings for 60 Occupations in March 2016, of which **248** were unique. These numbers give us a Posting Intensity of **4-to-1**, meaning that for every 4 postings there is 1 unique job posting. This is lower than the Posting Intensity for all other occupations and companies in the region (7-to-1), indicating that companies may not be trying as hard to hire this position.





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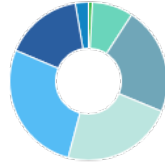
Occupation Gender Breakdown



	Gender	2015 Jobs	2015 Percent
•	Males	25,660	97.2% 
•	Females	738	2.8% 



Occupation Age Breakdown



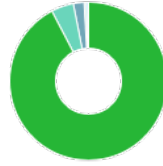
	Age	2015 Jobs	2015 Percent
●	14-18	210	0.8%
●	19-24	2,220	8.4% ■
●	25-34	5,813	22.0% ■■
●	35-44	6,053	22.9% ■■■
●	45-54	7,175	27.2% ■■■■
●	55-64	4,212	16.0% ■■■
●	65+	715	2.7%






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Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2015 Jobs	2015 Percent
●	White	24,365	92.3% 
●	Black or African American	1,212	4.6% 
●	Hispanic or Latino	582	2.2% 
●	Two or More Races	114	0.4%
●	Asian	84	0.3%
●	American Indian or Alaska Native	30	0.1%
●	Native Hawaiian or Other Pacific Islander	13	0.0%



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Occupational Programs

14 Programs (2014)	479 Completions (2014)	847 Openings (2014)
CIP Code	Program	Completions (2014)
46.0302	Electrician	194
46.0201	Carpentry/Carpenter	122
49.0202	Construction/Heavy Equipment/Earthmoving Equipment Operation	84
48.0506	Sheet Metal Technology/Sheetworking	34
46.0503	Plumbing Technology/Plumber	19



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Industries Employing Construction and Extraction Occupations

Industry	Occupation Group Jobs in Industry (2015)	% of Occupation Group in Industry (2015)	% of Total Jobs in Industry (2015)
Plumbing, Heating, and Air-Conditioning Contractors	2,239	8.5%	48.7%
Commercial and Institutional Building Construction	2,209	8.4%	68.8%
Electrical Contractors and Other Wiring Installation Contractors	1,998	7.6%	69.3%
Local Government, Excluding Education and Hospitals	1,994	7.6%	9.3%
Highway, Street, and Bridge Construction	1,584	6.0%	74.2%



Appendix A - Occupations

Code	Description
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons
47-2031	Carpenters
47-2041	Carpet Installers
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles
47-2043	Floor Sanders and Finishers
47-2044	Tile and Marble Setters
47-2051	Cement Masons and Concrete Finishers
47-2053	Terrazzo Workers and Finishers
47-2061	Construction Laborers
47-2071	Paving, Surfacing, and Tamping Equipment Operators
47-2072	Pile-Driver Operators
47-2073	Operating Engineers and Other Construction Equipment Operators
47-2081	Drywall and Ceiling Tile Installers
47-2082	Tapers
47-2111	Electricians
47-2121	Glaziers
47-2131	Insulation Workers, Floor, Ceiling, and Wall
47-2132	Insulation Workers, Mechanical
47-2141	Painters, Construction and Maintenance
47-2142	Paperhangers
47-2151	Pipelayers
47-2152	Plumbers, Pipefitters, and Steamfitters
47-2161	Plasterers and Stucco Masons
47-2171	Reinforcing Iron and Rebar Workers
47-2181	Roofers



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Code	Description
47-2211	Sheet Metal Workers
47-2221	Structural Iron and Steel Workers
47-2231	Solar Photovoltaic Installers
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters
47-3012	Helpers--Carpenters
47-3013	Helpers--Electricians
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters
47-3016	Helpers--Roofers
47-3019	Helpers, Construction Trades, All Other
47-4011	Construction and Building Inspectors
47-4021	Elevator Installers and Repairers
47-4031	Fence Erectors
47-4041	Hazardous Materials Removal Workers
47-4051	Highway Maintenance Workers
47-4061	Rail-Track Laying and Maintenance Equipment Operators
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners
47-4091	Segmental Pavers
47-4099	Construction and Related Workers, All Other
47-5011	Derrick Operators, Oil and Gas
47-5012	Rotary Drill Operators, Oil and Gas
47-5013	Service Unit Operators, Oil, Gas, and Mining
47-5021	Earth Drillers, Except Oil and Gas
47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters
47-5041	Continuous Mining Machine Operators
47-5042	Mine Cutting and Channeling Machine Operators
47-5049	Mining Machine Operators, All Other
47-5051	Rock Splitters, Quarry
47-5061	Roof Bolters, Mining
47-5071	Roustabouts, Oil and Gas



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Code	Description
47-5081	Helpers--Extraction Workers
47-5099	Extraction Workers, All Other



Appendix B - Data Sources and Calculations

Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.

Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the

National
Industry-



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Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

State Data Sources

This report uses state data from the following agencies: Pennsylvania Department of Labor and Industry, Center for Workforce Information and Analysis