



3 RIVERS WIB
THREE RIVERS WORKFORCE INVESTMENT BOARD

**Life, Physical, and Social Science
Occupations
in Allegheny County
2015-2025**



Life, Physical, and Social Science Occupations

Regions

Code	Description
42003	Allegheny County, PA

Timeframe

2015 - 2025

Datarun

2016.1 – QCEW Employees



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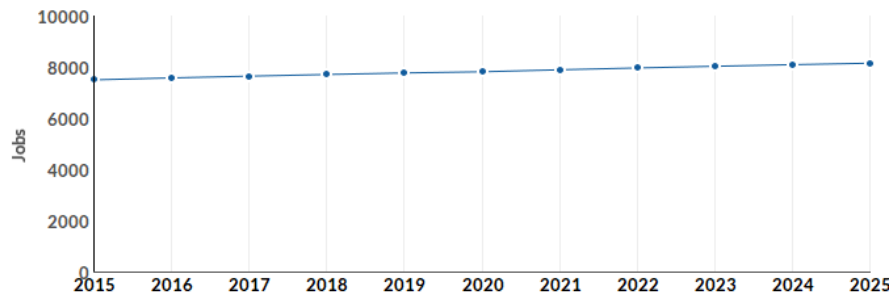
Occupation Summary for Life, Physical, and Social Science Occupations

7,513 Jobs (2015) 27% above National average	8.7% % Change (2015-2025) Nation: 12.2%	\$29.36/hr Median Hourly Earnings Nation: \$31.80/hr
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Growth

7,513 2015 Jobs	8,164 2025 Jobs	651 Change (2015-2025)	8.7% % Change (2015-2025)
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Occupation	2015 Jobs	2025 Jobs	Change	% Change
Animal Scientists (19-1011)	4	5	1	25%
Food Scientists and Technologists (19-1012)	30	41	11	37%
Soil and Plant Scientists (19-1013)	44	52	8	18%
Biochemists and Biophysicists (19-1021)	151	199	48	32%
Microbiologists (19-1022)	194	211	17	9%
Zoologists and Wildlife Biologists (19-1023)	18	23	5	28%
Biological Scientists, All Other (19-1029)	78	89	11	14%
Conservation Scientists (19-1031)	54	56	2	4%
Foresters (19-1032)	36	37	1	3%
Epidemiologists (19-1041)	18	19	1	6%
Medical Scientists, Except Epidemiologists (19-1042)	1,298	1,468	170	13%
Life Scientists, All Other (19-1099)	25	29	4	16%
Astronomers (19-2011)	7	8	1	14%
Physicists (19-2012)	37	49	12	32%



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Occupation	2015 Jobs	2025 Jobs	Change	% Change
Atmospheric and Space Scientists (19-2021)	31	37	6	19%
Chemists (19-2031)	765	783	18	2%
Materials Scientists (19-2032)	75	80	5	7%
Environmental Scientists and Specialists, Including Health (19-2041)	504	538	34	7%
Geoscientists, Except Hydrologists and Geographers (19-2042)	221	266	45	20%
Hydrologists (19-2043)	24	27	3	13%
Physical Scientists, All Other (19-2099)	88	98	10	11%
Economists (19-3011)	60	62	2	3%
Survey Researchers (19-3022)	152	136	-16	-11%
Clinical, Counseling, and School Psychologists (19-3031)	424	454	30	7%
Industrial-Organizational Psychologists (19-3032)	10	10	0	0%
Psychologists, All Other (19-3039)	80	87	7	9%
Sociologists (19-3041)	34	23	-11	-32%
Urban and Regional Planners (19-3051)	183	188	5	3%
Anthropologists and Archeologists (19-3091)	7	11	4	57%
Geographers (19-3092)	3	4	1	33%
Historians (19-3093)	10	10	0	0%
Political Scientists (19-3094)	5	7	2	40%
Social Scientists and Related Workers, All Other (19-3099)	54	57	3	6%
Agricultural and Food Science Technicians (19-4011)	55	60	5	9%



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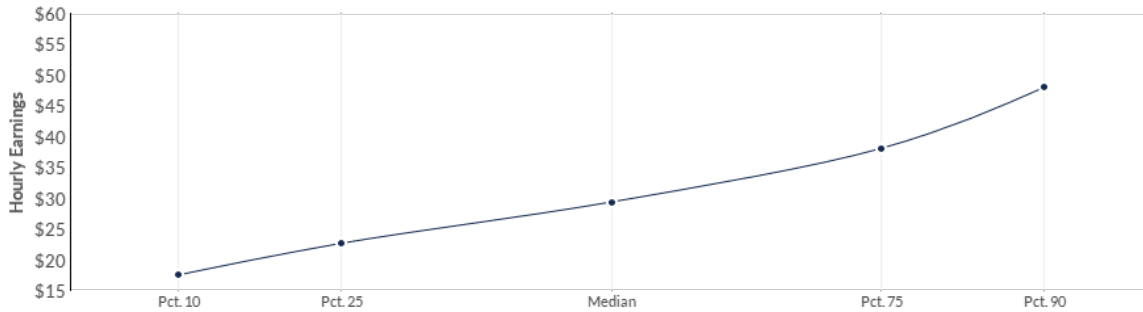
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Occupation	2015 Jobs	2025 Jobs	Change	% Change
Biological Technicians (19-4021)	902	995	93	10%
Chemical Technicians (19-4031)	568	570	2	0%
Geological and Petroleum Technicians (19-4041)	153	177	24	16%
Nuclear Technicians (19-4051)	111	131	20	18%
Social Science Research Assistants (19-4061)	104	106	2	2%
Environmental Science and Protection Technicians, Including Health (19-4091)	296	316	20	7%
Forensic Science Technicians (19-4092)	14	15	1	7%
Forest and Conservation Technicians (19-4093)	31	33	2	6%
Life, Physical, and Social Science Technicians, All Other (19-4099)	557	598	41	7%



Percentile Earnings

\$22.64/hr 25th Percentile Earnings	\$29.36/hr Median Earnings	\$38.09/hr 75th Percentile Earnings
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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Animal Scientists (19-1011)	\$28.40	\$28.40	\$28.40
Food Scientists and Technologists (19-1012)	\$19.55	\$27.50	\$36.87
Soil and Plant Scientists (19-1013)	\$18.48	\$24.85	\$30.37
Biochemists and Biophysicists (19-1021)	\$31.16	\$37.83	\$45.59
Microbiologists (19-1022)	\$22.31	\$28.87	\$47.11
Zoologists and Wildlife Biologists (19-1023)	\$18.99	\$23.51	\$27.76
Biological Scientists, All Other (19-1029)	\$27.69	\$32.70	\$38.09
Conservation Scientists (19-1031)	\$29.24	\$36.78	\$66.08
Foresters (19-1032)	\$26.06	\$31.30	\$35.62
Epidemiologists (19-1041)	\$28.97	\$36.85	\$45.75
Medical Scientists, Except Epidemiologists (19-1042)	\$27.66	\$34.43	\$43.45
Life Scientists, All Other (19-1099)	\$22.90	\$27.95	\$34.69
Astronomers (19-2011)	\$27.51	\$43.18	\$56.29
Physicists (19-2012)	\$45.22	\$60.15	\$76.05
Atmospheric and Space Scientists (19-2021)	\$34.49	\$45.33	\$51.73



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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Chemists (19-2031)	\$24.47	\$31.07	\$42.40
Materials Scientists (19-2032)	\$34.06	\$46.36	\$64.21
Environmental Scientists and Specialists, Including Health (19-2041)	\$26.91	\$37.82	\$47.92
Geoscientists, Except Hydrologists and Geographers (19-2042)	\$26.31	\$39.78	\$54.53
Hydrologists (19-2043)	\$35.47	\$49.96	\$55.28
Physical Scientists, All Other (19-2099)	\$39.04	\$47.81	\$54.86
Economists (19-3011)	\$25.55	\$42.25	\$62.73
Survey Researchers (19-3022)	\$14.58	\$20.03	\$30.39
Clinical, Counseling, and School Psychologists (19-3031)	\$21.95	\$29.00	\$37.26
Industrial-Organizational Psychologists (19-3032)	\$32.62	\$40.18	\$60.80
Psychologists, All Other (19-3039)	\$29.49	\$42.89	\$46.88
Sociologists (19-3041)	\$40.82	\$53.24	\$66.73
Urban and Regional Planners (19-3051)	\$21.78	\$28.42	\$39.67
Anthropologists and Archeologists (19-3091)	\$25.18	\$32.70	\$39.61
Geographers (19-3092)	\$30.17	\$38.94	\$43.39
Historians (19-3093)	\$21.12	\$28.44	\$35.28
Political Scientists (19-3094)	\$38.33	\$53.09	\$65.56
Social Scientists and Related Workers, All Other (19-3099)	\$28.94	\$35.20	\$40.47
Agricultural and Food Science Technicians (19-4011)	\$15.20	\$18.93	\$22.01
Biological Technicians (19-4021)	\$15.06	\$18.49	\$22.86
Chemical Technicians (19-4031)	\$16.90	\$21.35	\$26.80
Geological and Petroleum Technicians (19-4041)	\$21.35	\$32.09	\$37.98



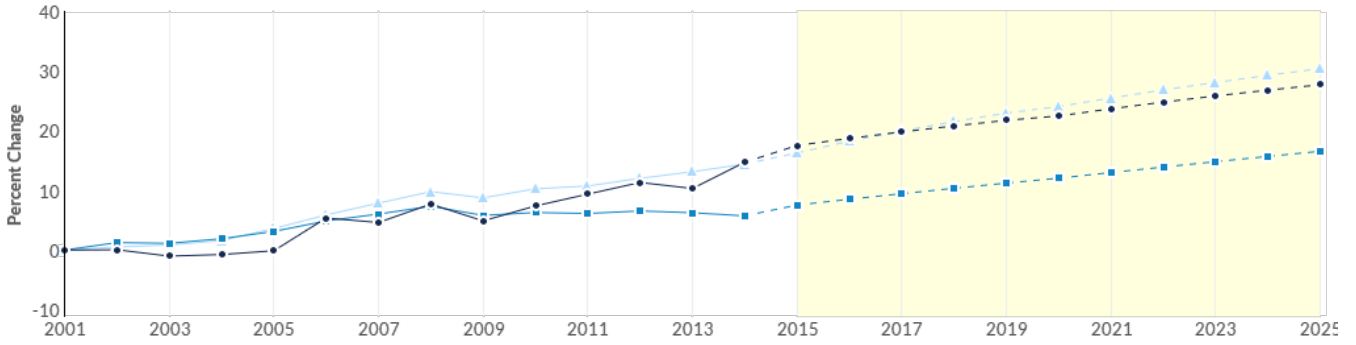
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Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Nuclear Technicians (19-4051)	\$31.24	\$35.58	\$41.38
Social Science Research Assistants (19-4061)	\$13.99	\$20.20	\$28.66
Environmental Science and Protection Technicians, Including Health (19-4091)	\$16.96	\$21.40	\$28.58
Forensic Science Technicians (19-4092)	\$21.52	\$26.20	\$31.14
Forest and Conservation Technicians (19-4093)	\$17.52	\$23.13	\$29.28
Life, Physical, and Social Science Technicians, All Other (19-4099)	\$15.37	\$20.72	\$28.62



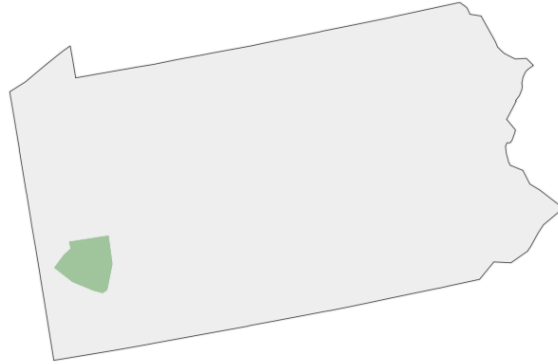
Regional Trends



	Region	2015 Jobs	2025 Jobs	Change	% Change
●	Region	7,513	8,164	651	8.7%
●	State	50,003	54,198	4,195	8.4%
●	Nation	1,191,031	1,336,001	144,970	12.2%



Regional Breakdown




* Highlighted areas show counties that contain the selected zip codes

ZIP	2025 Jobs
West Mifflin, PA 15122 (in Allegheny county)	1,071
Pittsburgh, PA 15222 (in Allegheny county)	750
Pittsburgh, PA 15219 (in Allegheny county)	617
Pittsburgh, PA 15213 (in Allegheny county)	471
Pittsburgh, PA 15238 (in Allegheny county)	377



Job Postings Summary

<p>438 Unique Postings (Mar 2016)</p> <p>1,373 Total Postings</p>	<p>3 : 1 Posting Intensity (Mar 2016)</p> <p>Regional Average: 7 : 1</p> 
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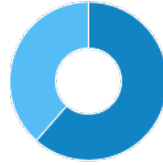
There were **1,373** total job postings for 43 Occupations in March 2016, of which **438** were unique. These numbers give us a Posting Intensity of **3-to-1**, meaning that for every 3 postings there is 1 unique job posting. This is lower than the Posting Intensity for all other occupations and companies 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	4,619	61.5%	
•	Females	2,894	38.5%	



Occupation Age Breakdown



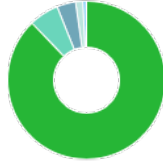
	Age	2015 Jobs	2015 Percent
●	14-18	24	0.3%
●	19-24	488	6.5% ■
●	25-34	1,972	26.2% ■■
●	35-44	1,604	21.4% ■■
●	45-54	1,693	22.5% ■■
●	55-64	1,452	19.3% ■■
●	65+	280	3.7% ■



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Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2015 Jobs	2015 Percent	
●	White	6,599	87.8%	
●	Asian	456	6.1%	
●	Black or African American	290	3.9%	
●	Hispanic or Latino	111	1.5%	
●	Two or More Races	48	0.6%	
●	American Indian or Alaska Native	6	0.1%	
●	Native Hawaiian or Other Pacific Islander	3	0.0%	



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Occupational Programs

90 Programs (2014)		4,351 Completions (2014)	402 Openings (2014)
CIP Code	Program	Completions (2014)	
42.0101	Psychology, General	746	
26.0101	Biology/Biological Sciences, General	478	
51.2314	Rehabilitation Science	289	
45.1001	Political Science and Government, General	236	
54.0101	History, General	233	



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Industries Employing Life, Physical, and Social Science Occupations

Industry	Occupation Group Jobs in Industry (2015)	% of Occupation Group in Industry (2015)	% of Total Jobs in Industry (2015)
Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)	1,970	26.2%	31.6%
Colleges, Universities, and Professional Schools	809	10.8%	3.5%
Federal Government, Civilian, Excluding Postal Service	504	6.7%	5.9%
Engineering Services	403	5.4%	3.9%
Testing Laboratories	376	5.0%	37.3%



Appendix A - Occupations

Code	Description
19-1011	Animal Scientists
19-1012	Food Scientists and Technologists
19-1013	Soil and Plant Scientists
19-1021	Biochemists and Biophysicists
19-1022	Microbiologists
19-1023	Zoologists and Wildlife Biologists
19-1029	Biological Scientists, All Other
19-1031	Conservation Scientists
19-1032	Foresters
19-1041	Epidemiologists
19-1042	Medical Scientists, Except Epidemiologists
19-1099	Life Scientists, All Other
19-2011	Astronomers
19-2012	Physicists
19-2021	Atmospheric and Space Scientists
19-2031	Chemists
19-2032	Materials Scientists
19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers
19-2043	Hydrologists
19-2099	Physical Scientists, All Other
19-3011	Economists
19-3022	Survey Researchers
19-3031	Clinical, Counseling, and School Psychologists
19-3032	Industrial-Organizational Psychologists
19-3039	Psychologists, All Other
19-3041	Sociologists
19-3051	Urban and Regional Planners



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Code	Description
19-3091	Anthropologists and Archeologists
19-3092	Geographers
19-3093	Historians
19-3094	Political Scientists
19-3099	Social Scientists and Related Workers, All Other
19-4011	Agricultural and Food Science Technicians
19-4021	Biological Technicians
19-4031	Chemical Technicians
19-4041	Geological and Petroleum Technicians
19-4051	Nuclear Technicians
19-4061	Social Science Research Assistants
19-4091	Environmental Science and Protection Technicians, Including Health
19-4092	Forensic Science Technicians
19-4093	Forest and Conservation Technicians
19-4099	Life, Physical, and Social Science Technicians, 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.



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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-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