Network Technology/Cisco and Linux Networking Occupation Report

CIP 11.0901

Cochise, Pima, SC

Computer Systems Networking and Telecommunications

CIP 2010: A program that focuses on the design, implementation, and management of linked systems of computers, peripherals, and associated software to maximize efficiency and productivity, and that prepares individuals to function as network specialists and managers at various levels. Includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting.
Program Description - Settings

Occupation Gender Breakdown 2016

	Gender	Jobs	Percent	
●	Males	4,148	71.7%	
●	Females	1,636	28.3%	

Occupation Age Breakdown 2016

	Age	Jobs	Percent	
●	14-18	22	0.4%	
●	19-24	400	6.9%	
●	25-34	1,484	25.7%	
●	35-44	1,563	27.0%	
●	45-54	1,271	22.0%	
●	55-64	883	15.3%	
●	65+	160	2.8%	

Occupation Summary for 11.0901

5,784	6.7%	$27.33/hr
Jobs (2016)	**% Change (2018-2023)**	**Median Hourly Earnings**
1% above National average	Nation: 8.2%	Nation: $32.02/hr

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Occupation Change Summary
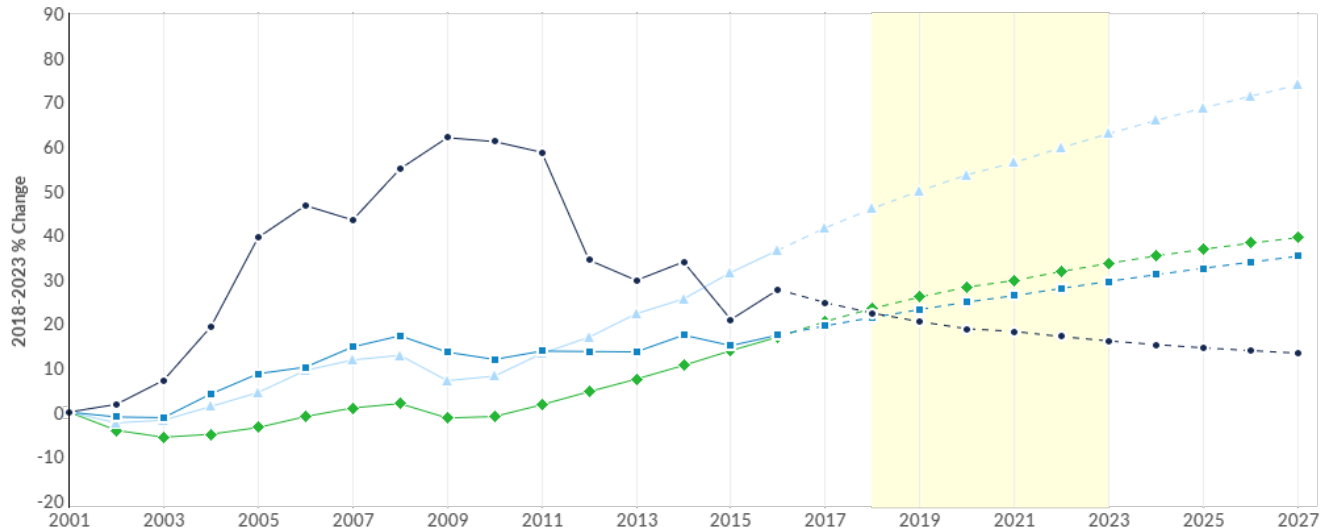
	Region	2018 Jobs	2023 Jobs	Change	% Change	Median Hourly Earnings
●	Cochise County, AZ	754	716	-38	-5%	$31.98
●	Cochise, Pima, SC	5,981	6,381	400	7%	$27.33
●	Arizona (AZ)	49,328	55,033	5,705	12%	$30.65
●	United States	2,017,259	2,183,590	166,331	8%	$32.02

SOC	Description	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
15-1121	Computer Systems Analysts	Bachelor's degree	None	None
15-1122	Information Security Analysts	Bachelor's degree	Less than 5 years	None
15-1134	Web Developers	Associate's degree	None	None
15-1143	Computer Network Architects	Bachelor's degree	5 years or more	None
15-1151	Computer User Support Specialists	Some college, no degree	None	None
15-1152	Computer Network Support Specialists	Associate's degree	None	None

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Occupation Breakdown - 2018 Jobs

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
15-1121	Computer Systems Analysts	330	1,849	16,639	631,931
15-1151	Computer User Support Specialists	167	2,473	16,158	716,167
15-1152	Computer Network Support Specialists	90	695	6,157	217,041
15-1122	Information Security Analysts	78	274	2,825	104,218
15-1143	Computer Network Architects	57	208	3,447	167,827
15-1134	Web Developers	33	482	4,102	180,076
	Total	754	5,981	49,328	2,017,259

Occupation Breakdown - 2023 Jobs

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
15-1121	Computer Systems Analysts	309	1,971	18,787	695,351
15-1151	Computer User Support Specialists	167	2,643	17,877	768,760
15-1152	Computer Network Support Specialists	84	736	6,671	228,105
15-1122	Information Security Analysts	69	281	3,159	113,286
15-1143	Computer Network Architects	53	228	3,807	176,397
15-1134	Web Developers	33	523	4,733	201,690
	Total	716	6,381	55,033	2,183,590

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Occupation Breakdown - Change

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
15-1151	Computer User Support Specialists	0	170	1,719	52,593
15-1134	Web Developers	0	41	631	21,614
15-1143	Computer Network Architects	-4	20	360	8,570
15-1152	Computer Network Support Specialists	-6	41	514	11,064
15-1122	Information Security Analysts	-9	7	334	9,068
15-1121	Computer Systems Analysts	-21	122	2,148	63,420
	Total	-38	400	5,705	166,331

Occupation Breakdown - Median Hourly Earnings

Occupation	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
15-1143	Computer Network Architects	$40.83	$37.25	$44.85	$48.29
15-1122	Information Security Analysts	$36.77	$35.83	$37.04	$44.52
15-1121	Computer Systems Analysts	$36.70	$35.21	$42.13	$41.93
15-1134	Web Developers	$34.16	$22.36	$25.70	$31.79
15-1152	Computer Network Support Specialists	$32.06	$25.99	$28.50	$30.13
15-1151	Computer User Support Specialists	$21.21	$22.58	$22.27	$23.74
	Total	$33.08	$28.00	$32.42	$33.93

Top Industries – Change from 2018 - 2023

NAICS Code	Description	Cochise County, AZ	Cochise, Pima, SC	Arizona (AZ)	United States
524127	Direct Title Insurance Carriers	7	9	9	-40
902999	State Government, Excluding Education and Hospitals	3	17	29	1,415
541513	Computer Facilities Management Services	-3	-3	301	2,444
541512	Computer Systems Design Services	-12	75	711	34,807
541511	Custom Computer Programming Services	-48	-31	683	29,794
	Total	-52	67	1,732	68,419

Source: QCEW Employees, Non-QCEW Employees & Self-Employed - Emsi 2017.3 Class of Worker

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National Educational Attainment
Computer User Support Specialists (15-1151)

	Education Level	2016 Percent	
●	Less than high school diploma	0.7%	
●	High school diploma or equivalent	11.1%	
●	Some college, no degree	28.0%	
●	Associate's degree	17.2%	
●	Bachelor's degree	34.2%	
●	Master's degree	8.0%	
●	Doctoral or professional degree	0.8%	

* National Educational Attainment – Settings

National Educational Attainment
Computer Systems Analysts (15-1121)

	Education Level	2016 Percent	
●	Less than high school diploma	0.5%	
●	High school diploma or equivalent	4.1%	
●	Some college, no degree	14.5%	
●	Associate's degree	8.2%	
●	Bachelor's degree	48.1%	
●	Master's degree	22.1%	
●	Doctoral or professional degree	2.5%	

* National Educational Attainment – Settings

National Educational Attainment
Computer Network Support Specialists (15-1152)

	Education Level	2016 Percent	
●	Less than high school diploma	0.7%	
●	High school diploma or equivalent	11.1%	
●	Some college, no degree	28.0%	
●	Associate's degree	17.2%	
●	Bachelor's degree	34.2%	
●	Master's degree	8.0%	
●	Doctoral or professional degree	0.8%	

* National Educational Attainment – Settings

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National Educational Attainment
Web Developers (15-1134)

	Education Level	2016 Percent	
●	Less than high school diploma	0.5%	
●	High school diploma or equivalent	4.3%	
●	Some college, no degree	17.3%	
●	Associate's degree	9.9%	
●	Bachelor's degree	52.2%	
●	Master's degree	14.6%	
●	Doctoral or professional degree	1.2%	

* National Educational Attainment – Settings

National Educational Attainment
Computer Network Architects (15-1143)

	Education Level	2016 Percent	
●	Less than high school diploma	0.2%	
●	High school diploma or equivalent	5.4%	
●	Some college, no degree	23.3%	
●	Associate's degree	13.7%	
●	Bachelor's degree	40.4%	
●	Master's degree	15.8%	
●	Doctoral or professional degree	1.2%	

* National Educational Attainment – Settings

National Educational Attainment
Information Security Analysts (15-1122)

	Education Level	2016 Percent	
●	Less than high school diploma	0.8%	
●	High school diploma or equivalent	5.5%	
●	Some college, no degree	18.7%	
●	Associate's degree	8.9%	
●	Bachelor's degree	44.6%	
●	Master's degree	20.2%	
●	Doctoral or professional degree	1.4%	

* National Educational Attainment – Settings

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Appendix A - 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-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: Arizona Department of Administration, Office of Employment and Population Statistics

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