Labor Market Analysis for Program Recommendation: TOP Code: 0708.10/Computer Networking CIP Code: 11.1003/Computer and Information Systems Security/Auditing/Information Assurance *(Cybersecurity)*

South Central Coast Center of Excellence, October 2026

FOR LABOR MARKET RESEARCH
SOUTH CENTRAL COAST

Summary

Program LMI Endorsement		
Endorsed: All LMI Criteria Met	**Endorsed: Some LMI Criteria Met**	**Not LMI Endorsed**
☐	☒	☐

Program LMI Endorsement Criteria		
Criterion	**Finding**	**Comments**
Supply Gap	☑ Met	There is projected to be **124 annual job openings** in the South Central Coast (SCC) Region for these middle-skill cyber security occupations, which **is less than the 270 awards conferred by educational institutions.** However, the educational programs that train for these three middle-skill occupations also train for 13 other occupations that account for 1,100 annual openings. **Therefore, supply is overstated and there is likely a supply gap for these cybersecurity occupations.**
Self-Sufficiency Standard Living Wage[1]	☑ Met	**The majority (85%) of annual job openings** for these middle-skill cybersecurity occupations **have entry-level hourly wages above the San Luis Obispo County living wage of $22.15**
Education	☑ Met	Though **the majority (72%) of annual job openings** for these cybersecurity occupations typically require a bachelor's degree, **between 37% and 39% of workers in the field have completed some college or an associate degree as their highest level of education**.

Additional Considerations	
Emerging Occupation(s)	There currently is no single occupation within the Federal Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) for cybersecurity. As a result, the skills required for cybersecurity have been absorbed into existing computer networking occupations. Additionally, there are three emerging cybersecurity occupations that are found under the broader *Computer Occupations, All Other (15-1299)* SOC Code: *Penetration Testers (15-1299.04)*, *Information Security Engineers (15-1299.05)*, and *Digital Forensics Analysts (15-1299.06)*. This report includes an analysis of online job postings for these emerging occupations to further understand real-time demand from employers.

[1] The living wage endorsement criteria in this report uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard, which the COE refers to as a living wage; the living wage for Los Angeles, San Luis Obispo, Santa Barbara, and Ventura counties, last updated in March 2024.

The South Central Coast Center of Excellence for Labor Market Research (SCC COE) prepared this report to determine whether there is a supply gap in the SCC regional labor market related to three middle-skill occupations and two above middle-skill occupations:

- Middle-Skill
  - Computer Network Support Specialists (15-1231)
  - Computer Network Architects (15-1241)
  - Network and Computer Systems Administrators (15-1244)
- Above Middle-Skill – denoted with an asterisk (*) throughout this report
  - Information Security Analysts (15-1299)*
  - Computer Occupations, All Other (15-1299)*
    - Penetration Testers (15-1299.04)
    - Information Security Engineers (15-1299.05)
    - Digital Forensic Analysts (15-1299.06)

The labor market endorsement in this report considers the data only for middle-skill occupations. Additionally, *Penetration Testers (15-1299.04), Information Security Engineers (15-1299.05), and Digital Forensic Testers (15-1299.06)* are considered emerging occupations. For this reason, data is collected and reported under the broader *Computer Occupations, All Other (15-1299)*.

Based on the available data there is likely a supply gap for these middle-skill cybersecurity occupations. While the supply figures are greater than demand, the educational programs that train for these occupations also train for an additional 13 occupations that account for over 1,100 annual job openings. Therefore, supply is overstated and there is likely a supply gap for these cybersecurity occupations. Additionally, typical education requirements for these occupations align with a community college education and the majority of annual job openings have entry-level wages above the Self-Sufficiency Standard living wage. **Therefore, due to all the regional labor market criteria being met, the COE endorses this proposed program.**

Exhibit 1, on the following page, lists the occupational demand, supply, typical entry-level education, and educational attainment for the occupations included in this report.

Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Computer Network Support Specialists (15-1231)	35	32	$20.28	Associate degree	39%
Computer Network Architects (15-1241)	28	Accounted for Below	$47.11	Bachelor's degree	37%
Network and Computer Systems Administrators (15-1244)	61	238	$37.59	Bachelor's degree	38%

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Middle-Skill Subtotal	**124**	**270**	**N/A**	**N/A**	**N/A**
Information Security Analysts (15-1212)	48	20	$37.46	Bachelor's degree	24%
Computer Occupations, All Other (15-1299)	209	722	$37.82	Bachelor's degree	34%
Above Middle-Skill Subtotal	**257**	**742**	**N/A**	**N/A**	**N/A**
Total	**381**	**1,012**	**N/A**	**N/A**	**N/A**

Demand:

- The number of jobs related to these middle-skill cybersecurity occupations is projected to decline 2% through 2030 in the SCC region. There is projected to be 124 annual job openings due to retirements and replacements.
- Hourly entry-level wages for these middle-skill cybersecurity occupations in San Luis Obispo County range from $20.28 and $37.59; the majority (85%) of annual job openings have entry-level wages above the Self-Sufficiency Standard living wage ($22.15 in San Luis Obispo County).
- There were 1,068 online job postings for these cybersecurity occupations over the past 12 months. The highest number of postings were for systems administrators, network engineers, and information systems security officers.
- The typical entry-level education for these middle-skill cybersecurity occupations ranges from an associate degree to a bachelor's degree.
- Between 37% and 39% of workers in the field have completed some college or an associate degree as their highest level of education.

Supply:

- There was an average of 503 awards conferred by seven community colleges in the SCC Region from 2022 to 2025.
- Non-community college institutions conferred 510 related awards from 2021 to 2024.
- SCC community college students that exited Computer Networking (0708.10) programs in the 2023-24 academic year had a median annual wage of $47,060 (or $22.63 per hour) after exiting the program and 42% attained the regional living wage (Self-Sufficiency Standard).
- Throughout the SCC Region, 76% of Computer Networking (0708.10) students that exited their program in 2022-23 reported that they are working in a job closely related to their field of study.

Demand

Occupational Projections:

Exhibit 2 compares historical and projected changes in employment for these occupations compared to the number of jobs in 2020. Notably, employment for these cybersecurity

occupations throughout San Luis Obispo County grew 3% from 2020 to 2025, which is higher when compared to employment for these occupations in the SCC Region, but lower when compared to employment for these occupations throughout the state. From 2025 to 2030, employment for these cybersecurity occupations in all SCC Region counties is projected to grow in all areas, except San Luis Obispo County where employment is projected to decline 1%.

Exhibit 2: Historical and Projected Employment for Cybersecurity Occupations in the SCC Region, 2020-2030

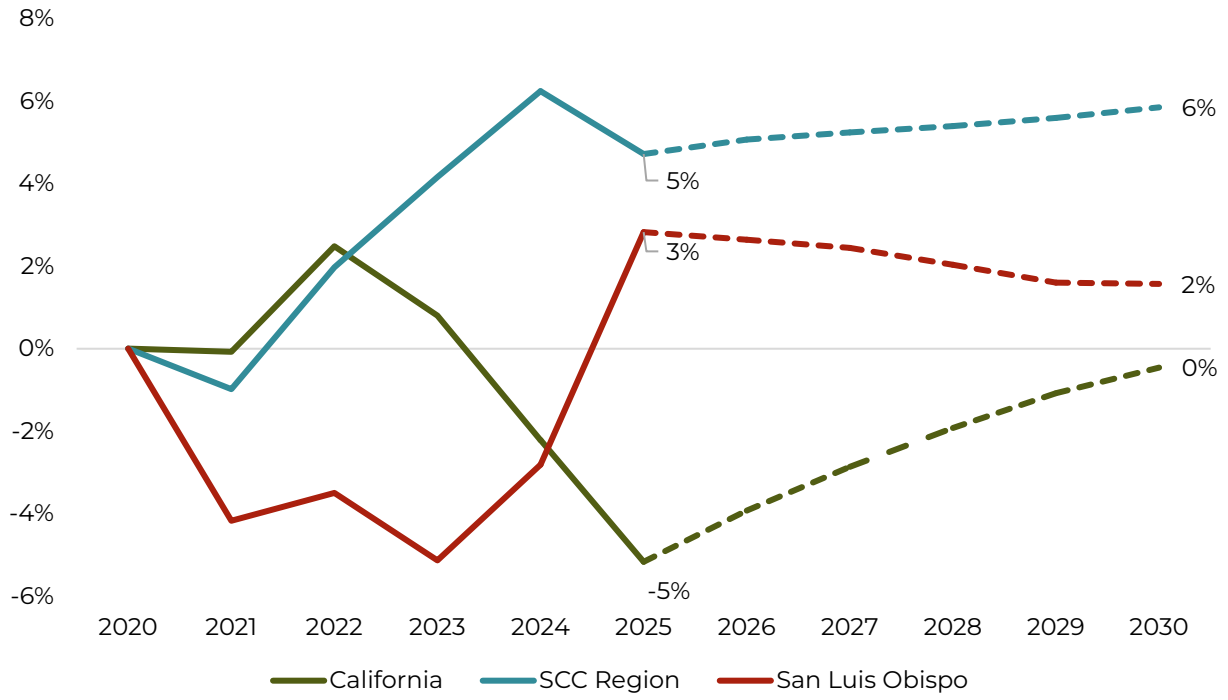


Exhibit 3 shows the five-year occupational demand projections for these cybersecurity occupations. In the SCC Region, the number of jobs related to these middle-skill occupations is projected to decline 2% by 2030. There is projected to be 124 middle-skill jobs available annually due to retirements and replacements. Ventura County has the highest number of middle-skill jobs and annual openings.

Exhibit 3: Occupational Demand in the SCC Region[2]

Skill-Level	Geography	2025 Jobs	2030 Jobs	2025-2030 Change	2025-2030 % Change	Annual Openings
Middle-Skill	Northern Los Angeles	491	477	(14)	(3%)	26
	San Luis Obispo	299	286	(13)	(5%)	15
	Santa Barbara	615	612	(3)	(1%)	33
	Ventura	868	864	(4)	(0%)	46
Middle-Skill Subtotal		**2,272**	**2,237**	**(35)**	**(2%)**	**124**
	Northern Los Angeles	790	808	18	2%	51

[2] Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Skill-Level	Geography	2025 Jobs	2030 Jobs	2025-2030 Change	2025-2030 % Change	Annual Openings
Above Middle-Skill	San Luis Obispo	270	277	7	2%	17
	Santa Barbara	922	952	30	3%	58
	Ventura	2,070	2,119	49	2%	126
Above Middle-Skill Subtotal		**4,048**	**4,151**	**103**	**3%**	**257**
	SCC Region	**6,320**	**6,388**	**68**	**1%**	**381**

Wages:

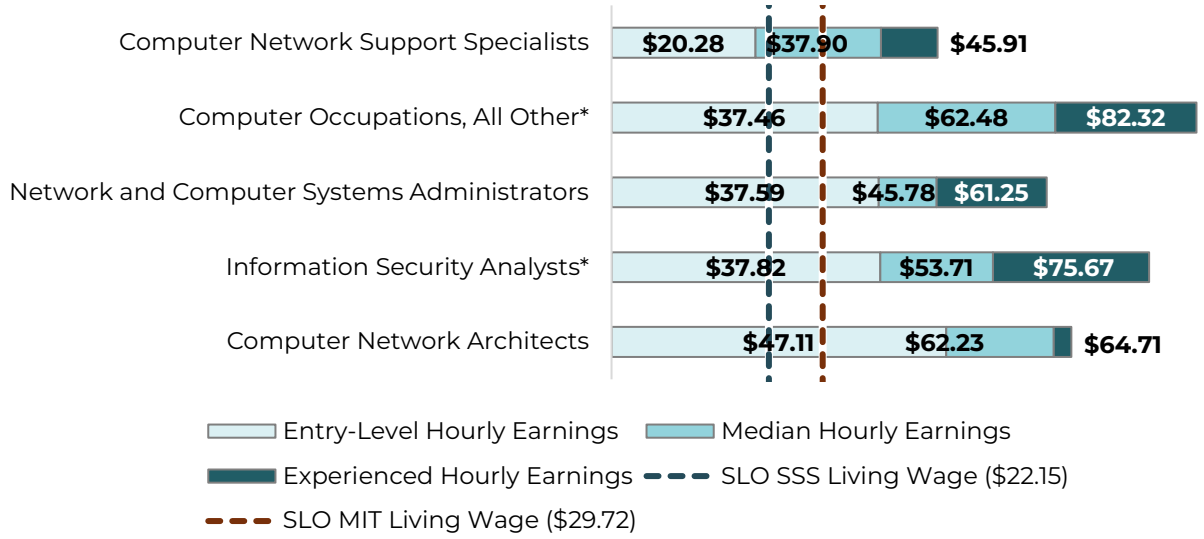
The labor market endorsement in this report considers the entry-level hourly wages for these cybersecurity occupations in relation to the living wage of the county where the requesting community college is located. This report was requested by Cuesta College, which is in San Luis Obispo County. Wages for other counties are included below to provide a complete analysis of the SCC Region.

In addition to the Self Sufficiency Standard living wage, data for the MIT Living Wage, updated on February 15, 2026, is provided as a reference. Currently, the MIT Living Wage in San Luis Obispo County is $29.72. Both figures account for geographic-specific costs of necessities such as housing, food, health care, and transportation to assess the cost of living, and are notated in the exhibits below.

San Luis Obispo

The majority (85%) of annual openings for these cybersecurity occupations have entry-level wages above the Self-Sufficiency Standard living wage for one adult ($22.15 in San Luis Obispo County). Typical entry-level hourly wages range between $20.28 and $47.11. Median hourly earnings for these cybersecurity occupations in San Luis Obispo County are above the living wage. Exhibit 4, on the next page, shows the wage range for each of these cybersecurity occupations in San Luis Obispo County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 4: Wages by Occupation in San Luis Obispo County

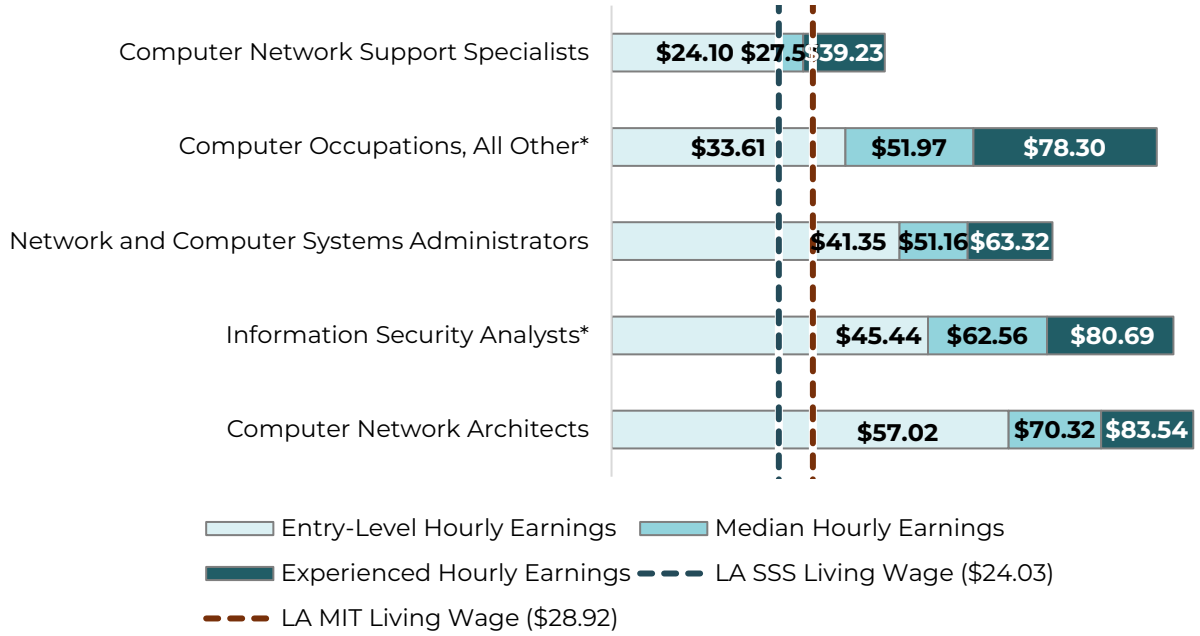


Northern Los Angeles

All (100%) annual openings for these cybersecurity occupations have entry-level wages above the Self-Sufficiency Standard living wage for one adult ($24.03 in Los Angeles County). Typical

entry-level hourly wages range between $24.10 and $57.02. Exhibit 5, shows the wage range for each of these cybersecurity occupations in Northern Los Angeles and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

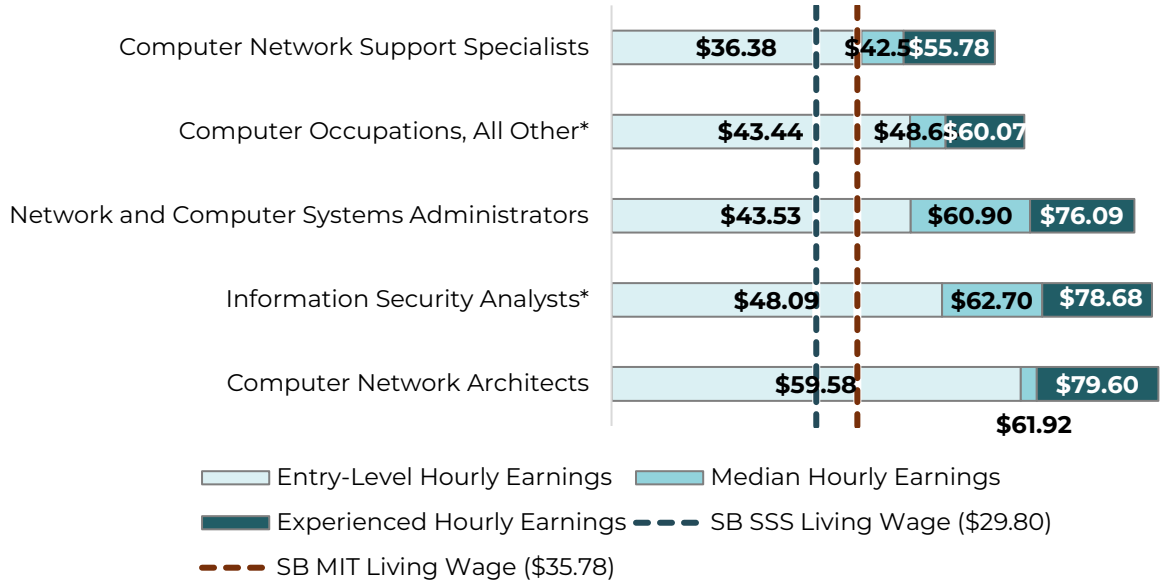
Exhibit 5: Wages by Occupation in Northern Los Angeles County



Santa Barbara

All (100%) annual openings for these cybersecurity occupations have entry-level wages above the Self-Sufficiency Standard living wage for one adult ($29.80 in Santa Barbara County). Typical entry-level hourly wages range between $36.38 and $59.58. Exhibit 6 shows the wage range for each of these cybersecurity occupations in Santa Barbara County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

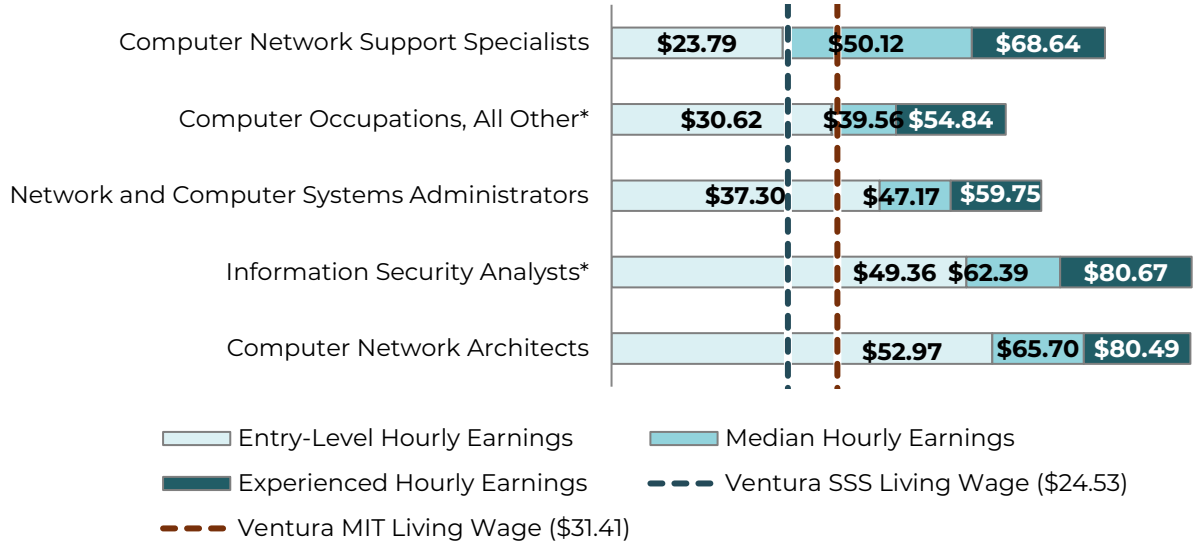
Exhibit 6: Wages by Occupation in Santa Barbara County



Ventura

The majority (62%) of annual openings for these cybersecurity occupations have entry-level wages below the Self-Sufficiency Standard living wage for one adult ($24.53 in Ventura County). Typical entry-level hourly wages range between $23.79 and $52.97. Median hourly earnings for these cybersecurity occupations in Ventura County are above the living wage. Exhibit 7 shows the wage range for each of these cybersecurity occupations in Ventura County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 7: Wages by Occupation in Ventura County



Job Quality

Based on the SCC COE's analysis of traditional labor market and job quality indicators[3], the occupations analyzed in this report are considered High-Quality across the SCC Region, as shown in Exhibit 8.

Exhibit 8: Job Quality Level by County

Occupation	Northern LA	San Luis Obispo	Santa Barbara	Ventura	SCC Region
Information Security Analysts	High	High	High	High	High
Computer Network Support Specialists	Medium	Medium	High	High	High
Computer Network Architects	High	High	High	High	High
Network and Computer Systems Administrators	High	High	High	High	High
Computer Occupations, All Other	High	High	High	Medium	High

To better understand measures of job quality for these occupations in San Luis Obispo County, Exhibit 9 shows which job quality criteria were met for each occupation. Notably, all five occupations met the criteria for the living wage (SSS) and (MIT), percentage of workers with employer sponsored health insurance, number of hours worked per week, and all have low automation risk. Additionally, two occupations *Information Security Analysts (15-1212),* and *Computer Network Architects (15-1241)* were considered "Best Jobs" by U.S News & World Report in 2025.

Exhibit 9: Job Quality Indicators for Cybersecurity Occupations in San Luis Obispo County

Job Quality Measure	Information Security Analysts	Computer Network Support Specialists	Computer Network Architects	Network and Computer Systems Administrators	Computer Occupations, All Other
# of Jobs	**Not Met**	**Met**	**Met**	**Met**	**Met**
Positive Projected Change	**Met**	**Not Met**	**Not Met**	**Not Met**	**Met**
Demand (Annual Openings)	**Not Met**	**Not Met**	**Not Met**	**Met**	**Met**
Living Wage (SSS)	**Met**	**Met**	**Met**	**Met**	**Met**
Living Wage (MIT)	**Met**	**Met**	**Met**	**Met**	**Met**
Employer Sponsored Health Insurance	**Met**	**Met**	**Met**	**Met**	**Met**
# of Hours Worked Per Week	**Met**	**Met**	**Met**	**Met**	**Met**
Automation Risk	**Met**	**Met**	**Met**	**Met**	**Met**
U.S. News & World Report Best Job	**Met**	**Not Met**	**Met**	**Not Met**	**Not Met**

[3] "South Central Coast Labor Market Landscape: Assessing Job Quality in the South Central Coast Region," South Central Coast Center of Excellence for Labor Market Research, last modified October 2025, https://coeccc.net/south-central-coast/2025/09/south-central-coast-labor-market-landscape-assessing-job-quality-in-the-scc-region/.

Job Postings:

Currently, there is no single Standard Occupational Classification (SOC) code for cybersecurity roles. However, there are several cybersecurity job titles that are categorized under the *Computer Occupations, All Other (15-1299)** SOC Code. These emerging occupations include *Penetration Testers (15-1299.04)**, *Information Security Engineers (15 1299.05)**, and *Digital Forensics Analysts (15-1299.06)**. The job postings analyzed in this section consider postings for these emerging occupations to better understand local employers' need for cybersecurity roles.

There were 1,068 online job postings related to these cybersecurity occupations listed in the past 12 months in the SCC Region. Exhibit 10 shows the number of job postings by county. Approximately 38% of job postings were in Ventura County.

Exhibit 10: Number of Job Postings by County (n=1,068)

County	Job Postings	Percentage of Job Postings
Ventura	404	38%
Santa Barbara	346	32%
Northern Los Angeles	228	21%
San Luis Obispo	90	8%
Total Postings	**1,068**	**100%**

Of the 1,068 postings, 36% were for *Network and Computer Systems Administrators (15-1212),* followed by *Computer Network Architects (15-1241)*, as shown in Exhibit 11.

Exhibit 11: Number of Job Postings by Occupation (n=1,068)

Occupation	Job Postings	Percentage of Job Postings
Network and Computer Systems Administrators	389	36%
Computer Network Architects	289	27%
Information Security Engineers	148	14%
Computer Network Support Specialists	75	7%
Computer Occupations, All Other	71	7%
Information Security Analysts	65	6%
Penetration Testers	26	2%
Digital Forensics Analysts	5	0%
Total Postings	**1,068**	**100%**

The top employers in the region, by number of job postings, are shown in Exhibit 12.

Exhibit 12: Top Employers by Number of Job Postings (n=1,068)

Employer	Job Postings	Percentage of Job Postings
Northrop Grumman	45	4%
Lockheed Martin	37	3%
Amentum	35	3%
RTX	23	2%
Saalex Solutions	16	1%
Toyon Research Corporation	14	1%

Employer	Job Postings	Percentage of Job Postings
By Light Professional It Services	14	1%
GovCIO	13	1%
Aerovironment	12	1%
CACI International	12	1%

The top specialized, soft, and computer skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 13.

Exhibit 13: Top Skills by Number of Job Postings (n=1,068)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Cyber Security (295)	Communication (579)	Operating Systems (207)
Computer Science (288)	Troubleshooting (Problem Solving) (494)	Firewall (193)
Automation (244)	Operations (418)	Linux (187)
Operating Systems (204)	Management (297)	Python (Programming Language) (158)
Firewall (193)	Problem Solving (276)	Microsoft Office (144)
Linux (185)	Leadership (244)	Active Directory (139)
Network Routing (177)	Information Technology (217)	Windows PowerShell (109)
Auditing (172)	Customer Service (212)	Microsoft Excel (108)
Technical Support (161)	Planning (184)	DHCP Protocol (105)
System Administration (154)	Coordinating (180)	Windows Servers (103)

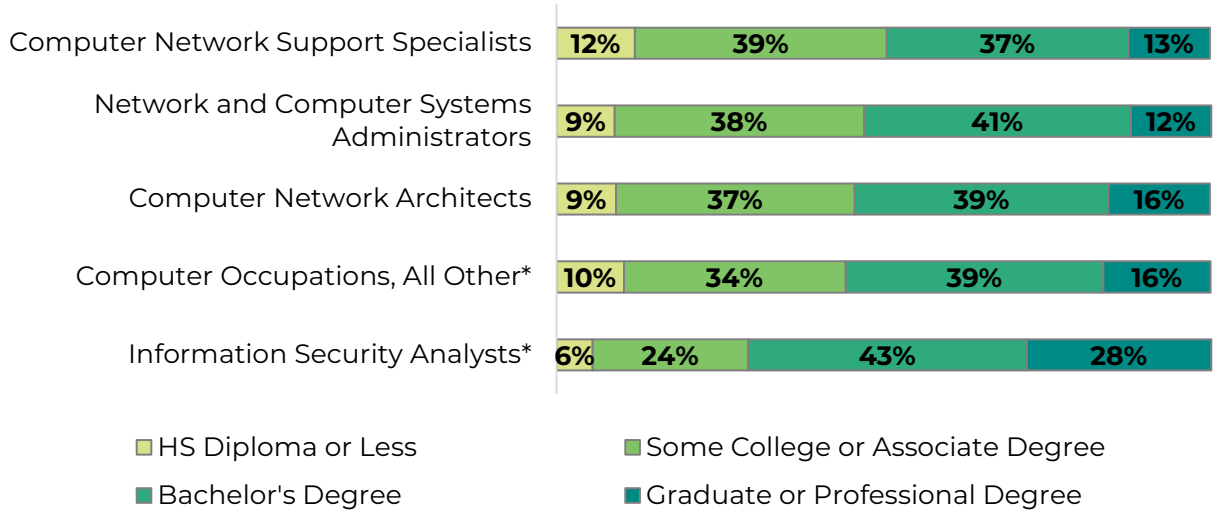
Educational Attainment:

The Bureau of Labor Statistics (BLS) lists the following as the typical entry-level education for these cybersecurity occupations:

- Associate Degree
  - Computer Network Support Specialists (15-1231)
- Bachelor's Degree
  - Information Security Analysts (15-1212)*
  - Computer Network Architects (15-1241)
  - Network and Computer Systems Administrators (15-1244)
  - Computer Occupations, All Other (15-1299)*

The national-level educational attainment data indicates between 24% and 39% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 14 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 14: National-level Educational Attainment for Occupations



Of the 71% of the cumulative job postings for these cybersecurity occupations that listed a minimum education requirement in the SCC Region, 25% (190) requested a high school diploma or GED, 12% (93) requested an associate degree, 60% (455) requested a bachelor's degree, and 3% (19) requested a master's degree.

Educational Supply

Community College Supply:

Exhibit 15 shows the three-year average number of awards conferred by community colleges in the related TOP codes:

- Information Technology, General (0701.00)
- Computer Information Systems (0702.00)
- Software Applications (0702.10)
- Computer Software Development (0707.00)
- Computer Programming (0707.10)
- Computer Infrastructure and Support (0708.00)
- Computer Networking (0708.10)
- Computer Support (0708.20)

No awards were conferred for the following TOP codes:

- Computer Systems Analysis (0707.30)World Wide Web Administration (0709.00)

The college with the most completions in the region is Allan Hancock College (202), followed by Moorpark College (107), and Antelope Valley (59).

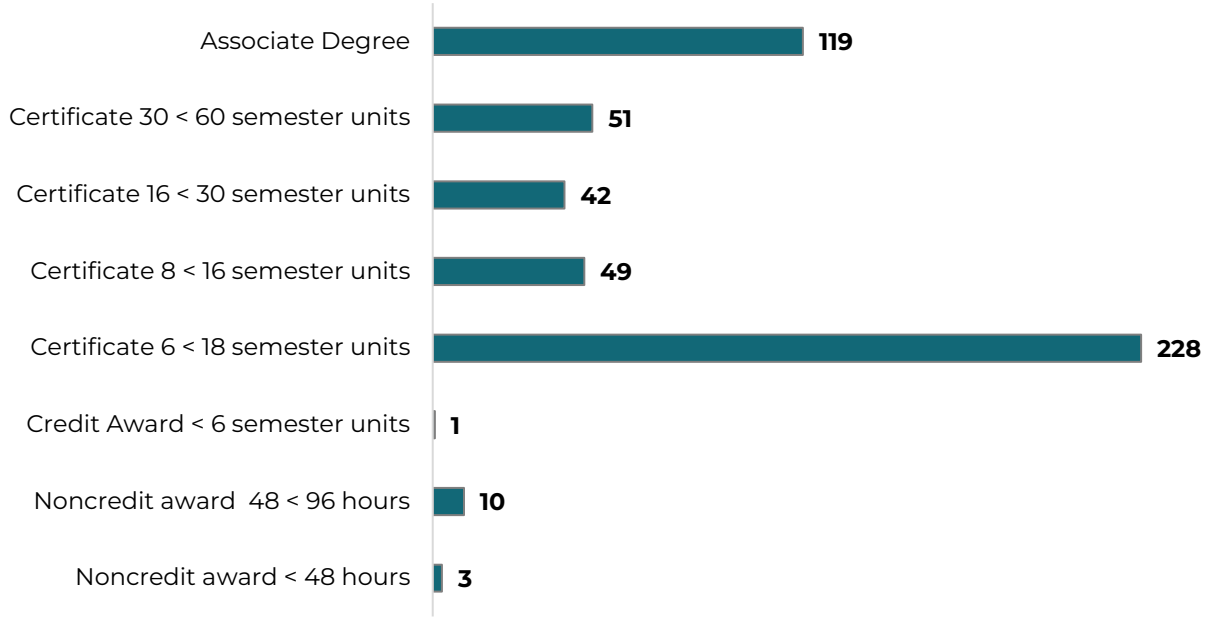
Exhibit 15: Regional Community College Awards (Certificates and Degrees), 2022-2025

College	2022-2023 Awards	2023-2024 Awards	2024-2025 Awards	3-Year Award Average
0701.00 (Information Technology, General)				
Cuesta	0	1	3	1
Supply Subtotal/Average	**0**	**1**	**3**	**1**
0702.00 (Computer Information Systems)				
Allan Hancock	4	363	225	197
Antelope Valley	11	27	30	23
Cuesta	10	12	15	12
Moorpark	1	1	0	1
Santa Barbara	3	3	6	4
Supply Subtotal/Average	**29**	**406**	**276**	**237**
0702.10 (Software Applications)				
Antelope Valley	5	8	10	8
Canyons	14	9	10	11
Santa Barbara	2	3	1	2
Supply Subtotal/Average	**21**	**20**	**21**	**21**
0707.00 (Computer Software Development)				
Santa Barbara	0	2	0	1
Supply Subtotal/Average	**0**	**2**	**0**	**1**
0707.10 (Computer Programming)				
Antelope Valley	14	16	5	12
Moorpark	4	2	3	3
Supply Subtotal/Average	**18**	**18**	**8**	**15**
0708.00 (Computer Infrastructure and Support)				
Canyons	0	0	6	2
Cuesta	14	20	7	14

College	2022-2023 Awards	2023-2024 Awards	2024-2025 Awards	3-Year Award Average
Moorpark	12	53	126	64
Oxnard	0	24	22	15
Santa Barbara	0	5	2	2
Supply Subtotal/Average	**26**	**102**	**163**	**97**
0708.10 (Computer Networking)				
Allan Hancock	5	3	5	4
Antelope Valley	12	21	19	17
Canyons	5	17	9	10
Moorpark	19	44	55	39
Oxnard	0	59	68	42
Santa Barbara	2	9	6	6
Supply Subtotal/Average	**43**	**153**	**162**	**119**
0708.20 (Computer Support)				
Cuesta	14	15	7	12
Supply Subtotal/Average	**14**	**15**	**7**	**12**
Supply Total/Average	**151**	**717**	**640**	**503**

Exhibit 16 shows the annual average community college awards by type from 2022-23 to 2024-25. The plurality of the awards are for certificates between 6 and less than 18 semester units, followed by associate degrees, and certificates between 8 and less than 16 semester units.

Exhibit 16: Annual Average Community College Awards by Type, 2022-2025



Community College Student Outcomes:

A review of Chancellor's Office Curriculum Inventory (COCI) data shows that there are currently no programs and only one course offered by Cuesta College under the Computer Networking (0708.10) TOP code. Therefore, several metrics are unavailable at the district level.

Exhibit 17, on the following page, shows the Strong Workforce Program (SWP) metrics for Computer Networking (0708.10) students at Cuesta College, the SCC Region, and California. Of the 10,751 Computer Networking (0708.10) students throughout California, 10% (1,091) attended a SCC Region community college.

SCC Region students that exited Computer Networking (0708.10) programs in the 2023-24 academic year had lower median annual earnings ($47,060 or $22.63 per hour) compared to statewide ($56,196 or $27.02 per hour). A lower percentage of SCC Region (42%) Computer Networking (0708.10) students attained the living wage when compared to all Computer Networking (0708.10) students in the state (56%).

Exhibit 17: Computer Networking (0708.10)
Strong Workforce Program Metrics, 2024-25[4][5]

SWP Metric	Cuesta	SCC Region	California
SWP Students	15	1,091	10,751
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	80%	45%	45%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	95%	66%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	Insufficient Data	9%	9%
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2023-24)	0%	3%	5%
SWP Students with a Job Closely Related to Their Field of Study (2022-23)	Insufficient Data	76%	68%
Median Annual Earnings for SWP Exiting Students (2023-24)	Insufficient Data	$47,060 ($22.63)	$56,196 ($27.02)
Median Change in Earnings for SWP Exiting Students (2023-24)	Insufficient Data	16%	18%
SWP Exiting Students Who Attained the Living Wage (2023-24)	Insufficient Data	42%	56%

[4] All SWP metrics are for 2024-25 unless otherwise noted. Metrics data is sourced from DataVista.
[5] Data that is not available in DataVista is denoted in Exhibit 15 as "data unavailable." Data may not be available for various reasons, including cases where data is masked to protect personally identifiable information.

Non-Community College Supply:

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering related training programs. Over the past three years (2021-2024), there were an average of 510 awards conferred by non-community college institutions under the related Classification of Instructional Programs (CIP) codes:

- Computer Science (11.0701)
- Computer and Information Sciences, General (11.0101)
- Information Technology (11.0103)
- Network and System Administration/Administrator (11.1001)
- Computer Support Specialist (11.1006)

No awards were conferred for the following CIP codes:

- Computer Programming/Programmer, General (11.0201)
- Data Processing and Data Processing Technology/Technician (11.0301)
- Computer Systems Analysis/Analyst (11.0501)
- Computer Systems Networking and Telecommunications (11.0901)
- Cloud Computing (11.0902)
- System, Networking, and LAN/WAN Management/Manager (11.1002)
- Computer and Information Systems Security/Auditing/Information Assurance (11.1003)
- Computer Support Specialist (11.1006)
- Cyber/Computer Forensics and Counterterrorism (43.0116)

Exhibit 18 shows the number of awards conferred by non-community college institutions from 2021 to 2024.

Exhibit 18: Regional Non-Community College Awards, 2021-2024

CIP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
11.0101	Computer and Information Sciences, General	Westmont College	9	17	11	12
		Supply Subtotal/Average	**9**	**17**	**11**	**12**
11.0103	Information Technology	California State University-Channel Islands	15	30	15	20
		Supply Subtotal/Average	**15**	**30**	**15**	**20**
11.0701	Computer Science	California Lutheran University	32	26	23	27
		California Polytechnic State University-San Luis Obispo	159	201	219	193
		University of California-Santa Barbara	159	160	168	162
		California State University-Channel Islands	65	52	45	54
		Supply Subtotal/Average	**415**	**439**	**455**	**436**
11.1001	Network and System Administration/ Administrator	Ventura Adult and Continuing Education	7	13	9	10
		Supply Subtotal/Average	**7**	**13**	**9**	**10**

CIP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
11.1006	Computer Support Specialist	Laurus College	40	28	26	31
		Supply Subtotal/Average	**40**	**28**	**26**	**31**
		Supply Total/Average	**486**	**527**	**516**	**510**

Regional Demographics

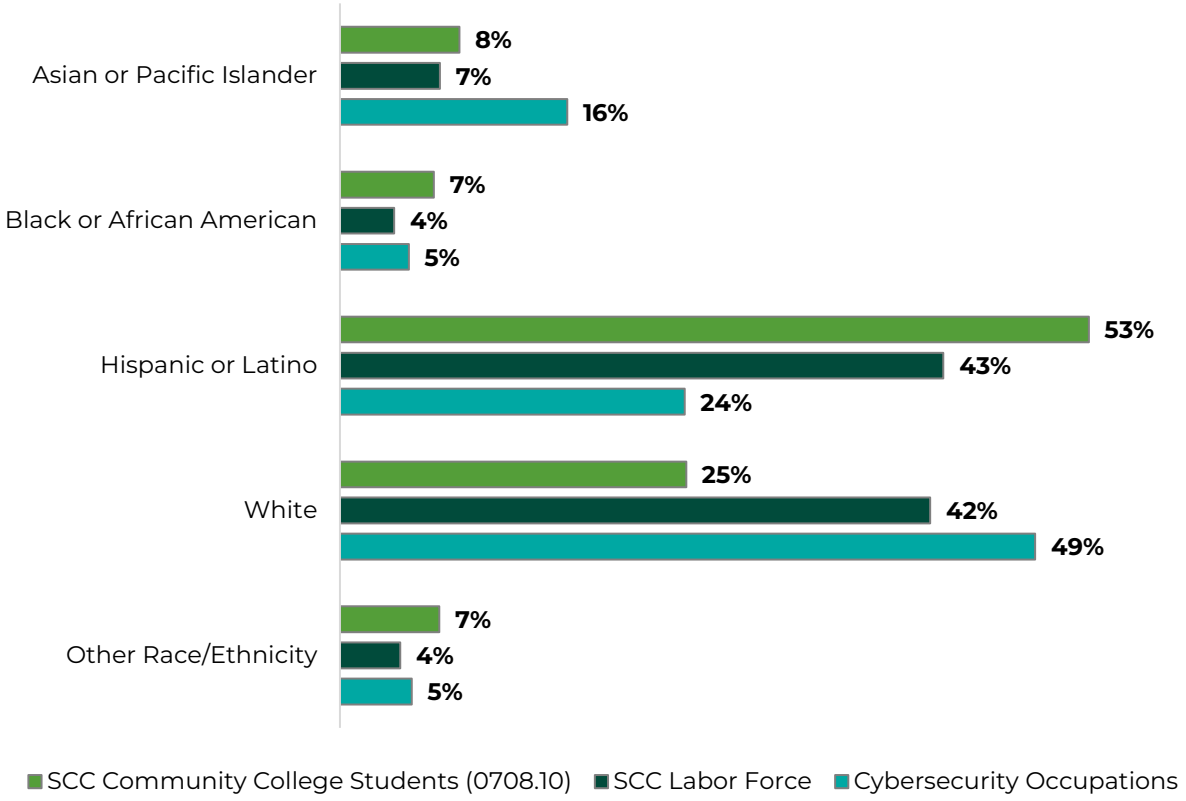
This section examines demographic data for SCC community college students in Computer Networking (0708.10) programs compared to the SCC labor force, along with occupational data, to identify potential diversity and equity issues addressable by community college programs.

Ethnicity:

Exhibit 19 compares the ethnicity of SCC community college students enrolled in Computer Networking (0708.10) programs, the overall SCC labor force, and occupation-specific data for the five cybersecurity occupations included in this report.

Notably, 49% of workers employed in these cybersecurity occupations are white, which is higher than the labor force (42%) and community college Computer Networking (0708.10) students (25%). Conversely, 53% of community college Computer Networking (0708.10) students are Hispanic or Latino, which is higher than the labor force (43%), and these cybersecurity occupations (24%).

Exhibit 19: Program and County Demographics by Ethnicity

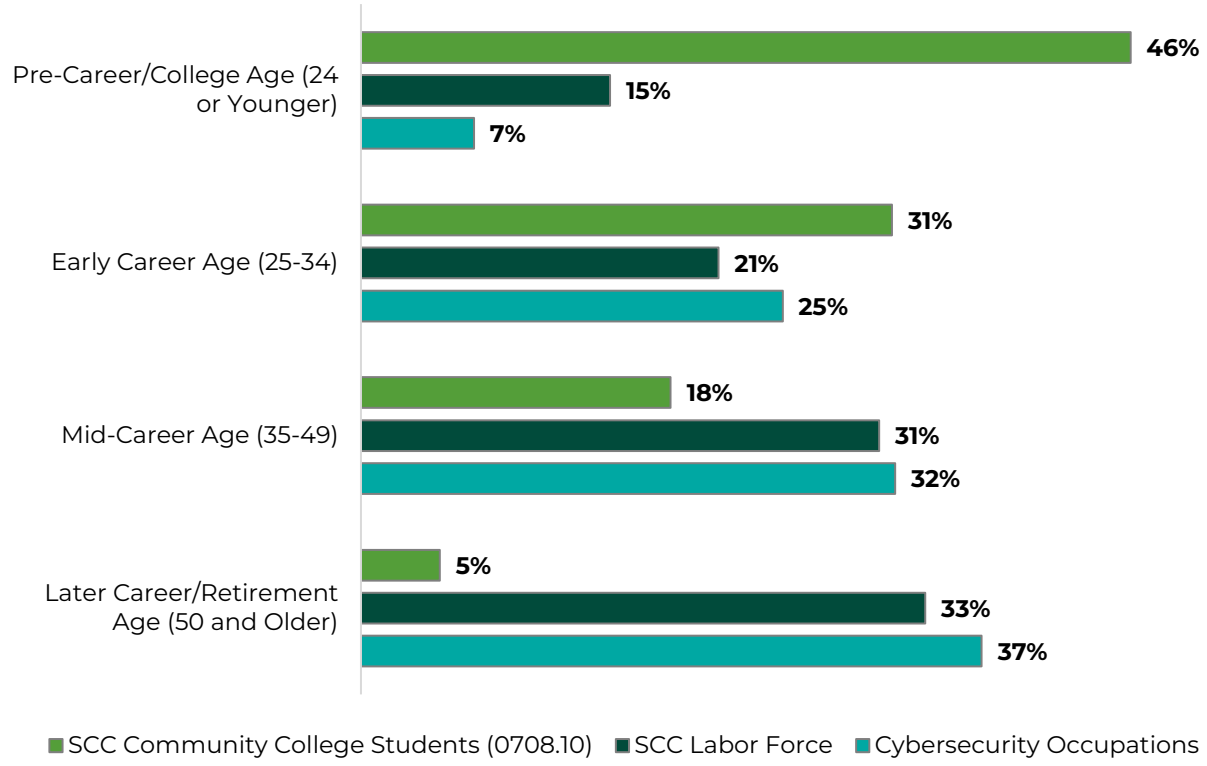


Age:

Exhibit 20 compares the age of SCC community college students enrolled in Computer Networking (0708.10) programs, the overall SCC labor force, and occupation-specific data for the five cybersecurity occupations included in this report.

Notably, 37% of workers in these cybersecurity occupations are Later Career/Retirement Age (50 and Older) age, which is higher than the labor force (33%) and community college Computer Networking (0708.10) students (5%). Conversely, 46% of Community Networking (0708.10) students are Pre-Career/College Age (24 or Younger), which is significantly higher than the labor force (15%) and workers in these cybersecurity occupations (7%).

Exhibit 20: Program and County Demographics by Age

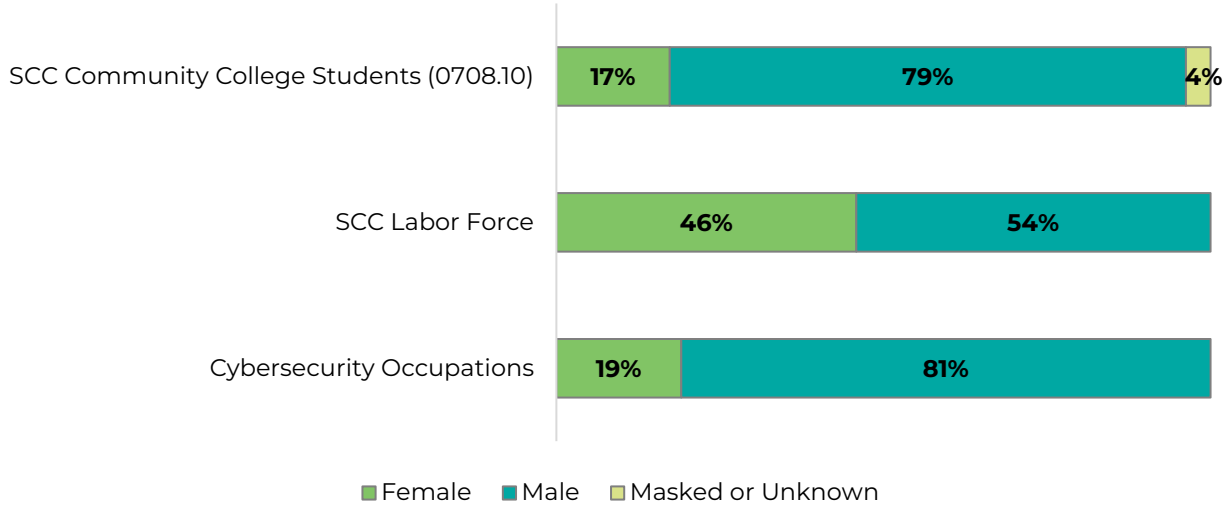


Sex:

Exhibit 21 compares the sex of SCC community college students enrolled in Computer Networking (0708.10) programs, the overall SCC labor force, and occupation-specific data for these cybersecurity occupations.

There is a majority of male Computer Networking (0708.10) students (79%) and workers in these cybersecurity occupations (81%), which is higher than the labor force (54% male).

Exhibit 21: Program and County Demographics by Sex



Appendix A: Methodology

Traditional Labor Market Data

The SCC COE prepared this report by analyzing data from occupations and education programs. Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies.

Data included in this analysis represents the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the SCC COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges.

Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

Using a TOP-SOC crosswalk, the SCC COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

The SCC COE determined labor market supply for an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a "supply table" with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP code data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data), also known as IPEDS.

TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Online Job Postings Data

Online job postings data, also known as real-time labor market information, captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees but is not a perfect measure of the quantity of open positions. Online job postings data is sourced from Lightcast, a labor market analytics firm that scrapes, collects, and organizes data from online job boards such as LinkedIn, Indeed, Glassdoor, Monster, GovernmentJobs.com, and thousands more.

There are several limitations when analyzing job postings. A single job posting may not represent a single job opening, as employers may be creating a pool of candidates for future openings or hiring for multiple positions with a single posting. Additionally, not all jobs are posted online, and jobs may be filled through other methods such as internal promotion, word-of-mouth advertising, physical job boards, or a variety of other channels.

Additionally, Lightcast uses natural language processing (NLP) to determine the related company, industry, occupation, and other information for each job posting. However, NLP has limitations that include understanding contextual words of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors.[6] For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast's database.

Geography

The South Central Coast region encompasses San Luis Obispo, Santa Barbara, and Ventura counties, as well as parts of Northern Los Angeles County. Exhibit 22 shows the 34 ZIP codes used to define Northern Los Angeles County.

Exhibit 22: Northern Los Angeles ZIP Codes

ZIP Code	Primary City
91310	Castaic
91321	Newhall
91322	Newhall
91350	Santa Clarita
91351	Canyon Country
91354	Valencia
91355	Valencia
91380	Santa Clarita
91381	Stevenson Ranch
91382	Santa Clarita
91383	Santa Clarita
91384	Castaic
91385	Valencia
91386	Canyon Country
91387	Canyon Country
91390	Santa Clarita
93510	Acton

ZIP Code	Primary City
93532	Lake Hughes
93534	Lancaster
93535	Lancaster
93536	Lancaster
93539	Lancaster
93543	Littlerock
93544	Llano
93550	Palmdale
93551	Palmdale
93552	Palmdale
93553	Pearblossom
93563	Valyermo
93584	Lancaster
93586	Lancaster
93590	Palmdale
93591	Palmdale
93599	Palmdale

Though traditional labor market information is available at the ZIP code level, it does not always add up to data reported at the county level for multiple reasons:

- ZIP codes are not official geographically bounded areas, unlike states and counties.
- ZIP codes may cross county lines, such as ZIP code 93461, which is primarily in San Luis Obispo County, but also crosses into Kern County.

For these reasons, the number of jobs and average annual openings for each county may not add up to the total for the SCC Region. However, considering jobseekers may cross county lines for opportunities, the traditional labor market data is reflective of opportunities available to jobseekers in the SCC Region.

Additionally, job postings data is available only at the city or county level. To analyze job postings for the entire SCC region, the SCC COE developed a list of cities available in Lightcast for analysis. Additionally, demographic data is not available at the ZIP code level but is available at the Census Bureau's Public `Use Microdata Area (PUMA) level. Demographic data was sourced via IPUMS and analyzed by the SCC COE.

[6] K. R. Chowdhary, Fundamentals of Artificial Intelligence (Basingstoke: Springer Nature, 2020), https://link.springer.com/book/10.1007/978-81-322-3972-7.

Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	Traditional and real-time labor market information are captured using data from Lightcast, a labor market analytics firm.
Living Wage	Per the CCCCO, this report's endorsement criteria uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard last updated in March 2024. The MIT Living Wage, updated on February 15, 2026, is a nationally recognized living wage metric and is provided for reference.
Typical Education and Training Requirements, and Educational Attainment	The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data.
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	The O*NET database includes information on skills, abilities, knowledge, work activities, and interests associated with occupations.
Educational Supply	The CCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions).
Job Quality	To classify each occupation as High, Medium, or Low Quality, the SCC COE identified nine criteria, five of which are considered traditional labor market information indicators (Traditional LMI Indicators) and four of which are considered Job Quality Indicators. These criteria were used to determine occupations that have significant employment and demand, pay at or above the living wage, typically provide employer-sponsored health insurance and full-time hours, have a lower risk of automation, and are considered a "Best Job" by U.S. News & World Report. For more information, see the SCC COE's *South Central Coast Labor Market Landscape* report.
Student Metrics and Demographics	Data Vista, a statewide data system supported by the California Community Colleges Chancellor's Office provides data on progress, success, employment, and earnings outcomes for California community college students.
Population and Occupation Demographics	The Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products.

All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

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