Minutes

Committee Name: IWV IT/Cyber Security Advisory Committee

Date: March 23, 2023

Time: 11:30 – 1:00

Location: Casey's Restaurant – Ridgecrest, CA

Attendees	
Karnes, Valeries	Professor, Cerro Coso Community College
Hack, Terri	Counselor, CTE, Cerro Cosomn0 Community College
Ama, Suzanne	Chair, Professor, Cerro Coso Community College
Kuttig, Paul	Professor, Cerro Coso Community College
Klamt, Kyle	Booz Allen Hamilton
Wainscott, Stephen	Booz Allen Hamilton
Cota, Joe	NDTI
Gorduyn, Julianna	Student, Cerro Coso Community College
Mosehkin, Ken	NAWCWD
McGowan, David	SSUSD
Cortez, Sergio	SSUSD
Leonard, Andrea	NAWCWD
Allen, Denise	Administrative Secretary, Cerro Coso Community College

1. **Call to Order** – 11:35

2. **Introductions** - all those in attendance introduced themselves.

3. **Approval of Minutes** –Minutes unanimously approved.

4. **IT/Cyber Security Programs/Curriculum** – Professor Karnes presented an overview of the following, see attachments. ==No opposition from those in attendance in reference to the new certificates/degrees, removals and additions made below and attached in the meeting packet.==

- ==Computer Application Specialist Certificate/Associate of Science Degree==

    1   Cloud computing course are a direct result of participation in the AWS grant.

    2   C248 is direct result of gap analysis that was conducted.

- IT and Cyber Security Certificates

    i   Removal of math component (still in AS degree)

    ii Addition of:

        1   IT C257 – Introduction of Forensics

        2   IT C260X – IT Professional (this course was a direct result of feedback from the advisory groups) This course is currently on its way to the state for approval.

    iii Cyber Security Defense & Operations bachelor's degree

        1   Desktop Review – March 1, 2023

        2   Program Structure – all courses can be completed online.

        3   Letters of support are needed from industry partners and employers to demonstrate need. A template will be emailed out, letters must be on company letterhead. Please return by April 1, 2023.

5. **Employer Meet and Greet –** Professor Karnes reminded all those in attendance about the Employer Meet and Greet, Wednesday, April 12, 4-7 p.m. It will take place in the lobby of the LRC. Vendors must sign up in order to participate. The link will be shared out again to the advisory group, and a flyer is attached to advisory packet.

6. **Computer Technology Exploration Club (C-TEC) –** Professor Paul Kuttig informed the advisory group the C-TEC club is being revitalized from pausing due to the COVID 19 pandemic. The club has two active officers, and the goal moving forward is to meet three times per semester. The next meeting is tentatively schedule for 4/22/23. The club is open to the public and any age. Professor Kuttig is also open to community members and employers presenting to the club.

7. **Employer Needs**

- Booz Allen Hamilton needs IT/Cyber employees, they currently are short 50 employees locally. The company is also interested in partnering with Cerro Coso Community college for internships. Model based engineering is becoming a need within the industry, no current training avenues available.

- NAWCWD – In need of SA/Cyber employees, short upwards of 1500 employees in their service areas. Angela shared some programs she works with, Gencyber, and CYSP grants, she will email Valerie the information.

- NDTI – To date has hired five interns that have gone through the internship program, has one intern starting soon. Suggested we look at Microsoft certificates with the amount of office-based components in courses.

- SSUSD – in need of networking/security employees. They would like to see more Microsoft, Cisco networks, VM, server imaging. CCCC may look into a non-credit option if a need is shown.

8. Additional Items

- The flyer for the Defense and Aerospace summit, April 11, 2023, was shared with those in attendance, and they were encouraged to sign up to attend.

9. Meeting adjourned - 1:00

Meeting Chair: Valerie Karnes
Recorder: Denise Allen

Minutes

Committee Name: IWV IT/Cyber Security Advisory Committee
Date: November 9, 2022
Time: 11:30 – 1:00
Location: Cyber Lab – Cerro Coso Community College

Attendees	
Karnes, Valeries	Professor, Cerro Coso Community College
Hack, Terri	Counselor, CTE, Cerro Cosomn0 Community College
Ama, Suzanne	Chair, Professor, Cerro Coso Community College
Kuttig, Paul	Professor, Cerro Coso Community College
Griffin, Nicole	Dean, CTE, Cerro Coso Community College
Hancock, Sean	President, Cerro Coso Community College
Cota, Joe	NDTI
Gorduyn, Julianna	Student, Cerro Coso Community College
Camarilio, Jr. Alfred	Student, Cerro Coso Community College
Hartfiel, Stacy	Bellevue University
Zamarron, Angel	NAWCWD
Hennebury, Nicole	NAWCWD
Marshall, Jennifer	Career Center, Cerro Coso Community College
Vigneault, Kyla	NAWCWD
Slone, KC	NAWCWD
Zissos, Chad	DCS Corp
Huffman, Tyson	Professor, Cerro Coso Community College
Leonard, Andrea	NAWCWD
Boggs, Matt	NAWCWD
Cooper, Jaclyn	Grand Canyon University
Chen, Samantha	Opportunities for Learning

1. **Call to Order** – 11:31

2. **Introductions** - all those in attendance introduced themselves.

3. **Approval of Minutes** – Stacy Hartfiel made a motion to approve the minutes as written. Paul Kuttig seconded the motion. Minutes unanimously approved.

4. **College Update** – Nicole Griffin, Dean CTE provided a college update. Dean Griffin shared that the AWS grant implementation has been successful. We have been able to award several scholarships to students with these funds, with the goal of increasing the number of scholarships awarded in the spring semester as funds allow. We are excited

the cyber lab is up and running, and happy to be able to host this new group in the new space.

Dr. Hancock, CCCC President, shared that enrollment is up over last year, with another increase expected for the spring 2023 semester. Cerro Coso has a large online program, with 60% of enrollments being in online courses. Cerro Coso was approved in August to push one baccalaureate degree forward. Cyber Security has been the degree decided upon.

5. New IT/Cyber Security Classroom

- Professor Karnes welcomed all those in attendance to the new cyber lab. Two classes are being conducted on campus in the lab. More on ground classes are projected to be added in the spring.

- A soft opening of the lab will be held November 16, 2022, at 5:30, following the open registration event on campus. *Reach out to SSUSD to invite to opening/C-TEC club. (Done 11/14 via email).

6. **IT/Cyber Security Programs/Curriculum**

- AWS Pilot Cloud Skills Certificate Changes – Professor Karnes reported that Cerro Coso is included in the first cohort in California to participate in the AWS pilot program. We have been able to award seven scholarships of $500/scholarship. We will also be offering TestOut scholarships. These scholarships are not income dependent.

- Computer Application Specialist Certificate – Professor Karnes shared the pathway for new certificates and requested feedback from the committee. The consensus was the IT C190 course needs to be incorporated into the IT and Cyber certificates. The course will fill a gap seen industry wide.

- Math Components in certificates – in past advisory meetings discussions have taken place around removing the math components for the certificates, they will still be required for an associate degree. Professor Karnes requested feedback. No outward opposition was expressed.

- IT and Cyber Security Certificates – Professor Karnes shared the digital forensics is one course looking to be developed and added to the certificates, requested feedback. No specific feedback regarding that course. It was noted that English skills are lacking, and one member suggested server plus be moved to IT. It was also expressed that with the current roadmap, upon completion, individuals will be more skilled than those currently being hired. Professor Karnes shared that a certificate of achievement for business introduction will be available, those courses are being removed from current IT/Cyber certifications and will be moved to business advisory.

- <mark>Data Analyst certificate</mark> – Professor Karnes shared the data analyst I certificate, explaining that when working with counseling, there were hidden prerequisites found, that have allowed us to add courses to the certificate. The proposed certificate will be 16 units. When a certificate is a minimum of 16 units, and that certificate is part of a student's goal, it will allow them to apply for financial aid. <mark>No expressed feedback in favor or in opposition of the certificate.</mark>

- Cyber Security Bachelor's Degree – Professor Karnes asked the committee for their thoughts on the cyber security degree. Those in attendance wanted to know what kind of degree, B.A., B.S, or B.T. B.S. is preferred over a B.A. for our local employers. Angel Zamarron reported, she has been working closely with CC, and the discussions have been that the degree will be a B.S. and those being hired directly to NAWS China Lake will be hired on at a DP status.

7. **Computer Technology Exploration Club (C-TEC)**

- C-TEC club is back up and running. The first meeting of the semester will be, Saturday November 19, 2022, at 10:00 a.m., the college community is invited to attend. Professor Karnes will send an email out to the advisory committee with the details.

8. **Job Placement updates** – Jennifer Marshall shared how the career center supports CC students and employers. We have internships, externships, student workers, work with community on business employment needs and prepare students for interviews and entering the workplace. Please feel free to reach out to Jennifer, Jennifer.marshall@cerrocoso.edu.

9. **Employer Needs – Open Forum**

- Bellevue University – Stacy shared that Bellevue is bringing on a data science degree and a cyber B.S. and master's degree.

- Grand Canyon – Jaclyn shared that GCU has a lot of scholarships opportunities, and they have services that can help with clubs, like our C-TEC club. They are willing and able to support!

- NAWCWD – Angel shared the Naval Horizons scholarship opportunity, flyers were distributed.

- NAWCWD – Matt expressed an idea of the benefits of a cyber consortium, and the support and opportunities a consortium could bring to all stakeholders.

- Curriculum feedback – Suggestions from the committee involving curriculum included having courses related to applying controls, COMPTIA certs, scripting (powershell, command line), and a general understanding that processes can vary, students must be able to adapt to individual program needs.

10. **Additional Items –**

- Professor Karnes expressed an interest in exploring an employer meet and greet in spring, well supported within the committee.

- The next advisory meeting will be in March/April 2023

11. Meeting adjourned at 12:57

Meeting Chair: Valerie Karnes
Recorder: Denise Allen

September 2023

Labor Market Analysis

Computer Application Specialist

Prepared by Central Valley/Mother Lode Center of Excellence

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Summary

The Central Valley/Mother Lode Center of Excellence developed this report for Cerro Coso College to determine whether there is demand in the local labor market that is not being met by the supply from postsecondary programs. This report summarizes labor market demand, wages, skills, and postsecondary supply for the following two occupations:

- Executive Secretaries and Executive Administrative Assistants (SOC 43-6011)
- Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (SOC 43-6014)

Key Findings

- **Occupational Demand —** Occupations related to *Computer Application Specialist* have a labor market demand of 1,600 annual job openings in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. Between 2021 and 2026, *secretaries and administrative assistants, except legal, medical, and executive* are projected to have the most demand with 1,349 annual job openings (growth of 5%).

- **Wages —** The collective average entry-level wage for the occupations of interest is $22.41/hour, which is above the living wage in the SCV/SML subregion – $11.91/hour for a single adult.[1] *Executive secretaries and executive administrative assistants* earn the highest entry-level wage, $27.01/hour.

- **Employers and Job Titles —** Employers in the SCV/SML subregion include Robert Half, Aston Carter, and AppleOne. The most common job title is administrative assistant.

- **Skills and Certifications —** The top baseline skill is communication; the top specialized skill is administrative support; and the top software skill is Microsoft Office. The most in-demand certification is a typing certification.

- **Education —** A high school diploma or equivalent is typically required for the two occupations studied in this report.

- **Supply and Demand Analysis —** Based on 1,600 annual openings (i.e., demand) and 127 postsecondary degrees awarded (i.e., supply), an analysis of supply and demand suggests there is an undersupply of 1,473 workers in the SCV/SML subregion. In the CVML region, 289 awards were conferred suggesting an undersupply of 2,302 workers (based on 2,591 annual openings in the CVML region).

Recommendation

Based on a comparison of demand and supply, there is an undersupply of trained workers in the SCV/SML subregion and the CVML region. The Center of Excellence recommends that Cerro Coso College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of *Computer Application Specialist* workers.

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[1] The term "living wage" in Center of Excellence reports is calculated by averaging the self-sufficiency wages from the Insight Center's California Family Needs Calculator for each county in the subregion: https://insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california/.

Introduction

The Central Valley/Mother Lode Center of Excellence developed this report to provide Cerro Coso College with labor market information for *Computer Application Specialist*. The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) subregion, but regional demand and supply data has been included for broader applicability and use. Analysis of the program and occupational data related to *Computer Application Specialist* is included in the report. The Standard Occupational Classification (SOC) System codes and occupational titles used in this report are from the Bureau of Labor Statistics and O*NET OnLine:

Executive Secretaries and Executive Administrative Assistants (SOC 43-6011)

- **Job Description:** Provide high-level administrative support by conducting research, preparing statistical reports, and handling information requests, as well as performing routine administrative functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.
- **Knowledge:** Administrative, English Language, Customer and Personal Service, Computers and Electronics, Administration and Management
- **Skills:** Active Listening, Reading Comprehension, Speaking, Service Orientation, Writing
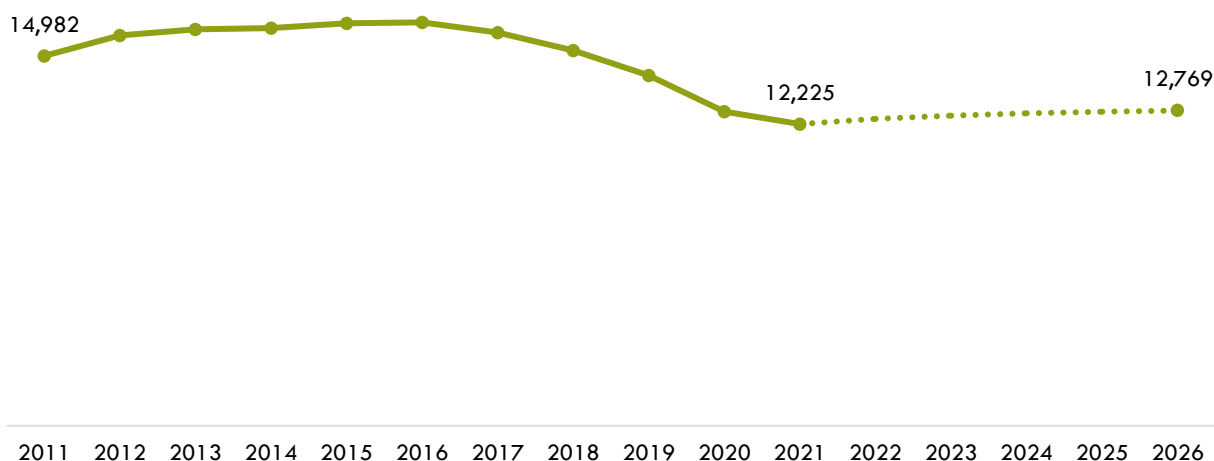
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (SOC 43-6014)

- **Job Description:** Perform routine administrative functions such as drafting correspondence, scheduling appointments, organizing, and maintaining paper and electronic files, or providing information to callers.
- **Knowledge:** Administrative, English Language, Computers and Electronics, Customer and Personal Service, Administration and Management
- **Skills:** Active Listening, Speaking, Reading Comprehension, Writing, Service Orientation

Employment

Exhibit 1a shows employment trends for *Computer Application Specialist* in the SCV/SML subregion. Between 2021 to 2026, the number of jobs for occupations related to *Computer Application Specialist* is projected to increase by 544, growing by 4%.

Exhibit 1a. Historical employment and projected occupational demand for occupations related to *Computer Application Specialist* in the SCV/SML subregion, 2011-2026

Occupations related to *Computer Application Specialist* in the SCV/SML subregion employed 12,225 workers in 2021 (Exhibit 1b). Of the two occupations, *secretaries and administrative assistants, except legal, medical, and executive* are projected to have the most annual openings, 1,349 (5% growth).

Exhibit 1b. Current employment and projected occupational demand for occupations related to *Computer Application Specialist* in the SCV/SML subregion, 2021-2026

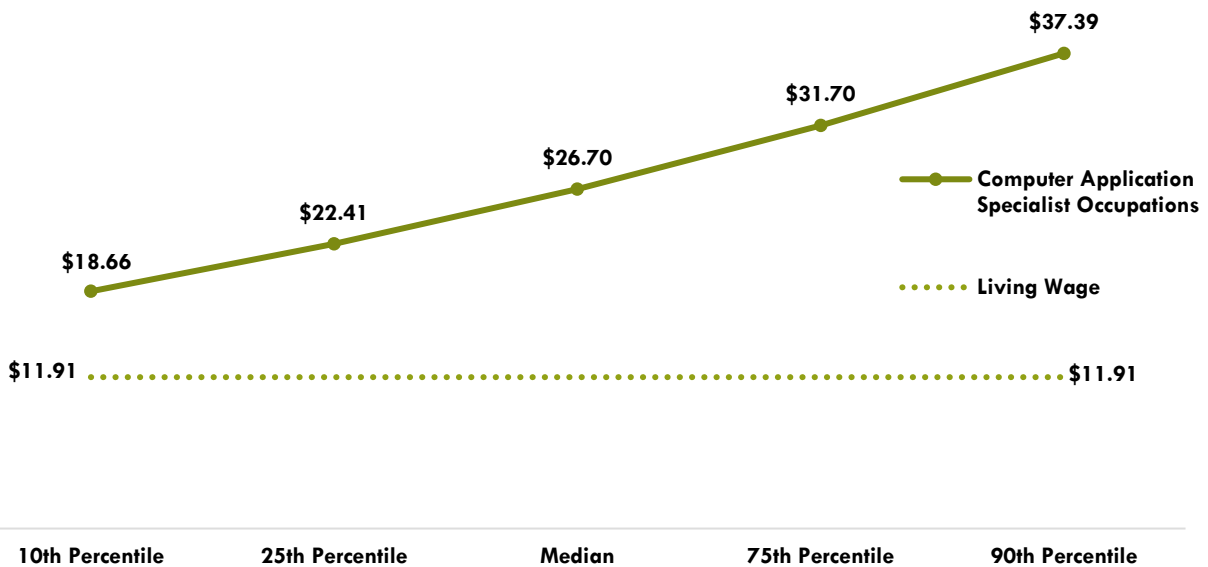| Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	10,279	10,762	483	5%	1,349
Executive Secretaries and Executive Administrative Assistants	1,946	2,007	61	3%	251
TOTAL	**12,225**	**12,769**	**544**	**4%**	**1,600**

Wages

The average living wage for a single adult in the SCV/SML subregion is $11.91/hour.[2] Exhibit 2a shows the hourly wages for both occupations studied in this report. Of the two occupations, *executive secretaries and executive administrative assistants* pays the highest entry-level wage, $27.01/hour.[3]

Exhibit 2a. Hourly wages for occupations related to *Computer Application Specialist* in the SCV/SML subregion

Occupation	25th Percentile Hourly Earnings	Median Hourly Earnings	75th Percentile Hourly Earnings
Executive Secretaries and Executive Administrative Assistants	$27.01	$31.71	$38.12
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$17.80	$21.69	$25.29

Exhibit 2b shows the average hourly wages for both *Computer Application Specialist* occupations; each of the five average wages are higher than the living wage for the SCV/SML subregion.

Exhibit 2b. Average hourly wages for occupations related to *Computer Application Specialist* in the SCV/SML subregion

10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile

Data points: $18.66, $22.41, $26.70, $31.70, $37.39

Computer Application Specialist Occupations

Living Wage

$11.91 .... $11.91

Job Postings

There were 1,588 unique job postings for occupations related to *Computer Application Specialist* in the SCV/SML subregion from March 2023 to August 2023.[4]

Top Employers

The employers with the most job postings are listed in Exhibit 3. The top employers in online job postings were Robert Half, Aston Carter, and AppleOne.

Exhibit 3. Top employers of *Computer Application Specialist*

Employer
Robert Half
Aston Carter
AppleOne
Mid-Cal Labor Solutions
Randstad
Stardom Accounting Services
Highlands Energy
Clovis Unified School District
Spherion Staffing
PrideStaff

Top Job Titles

Exhibit 4 shows the most common job titles for *Computer Application Specialist* in the SCV/SML subregion.

Exhibit 4. Top job titles in job postings for *Computer Application Specialist*

Job Title
Administrative Assistant
Executive Assistant
Secretary
Office Assistant
Administrative Secretary

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[4] Other than occupational titles and job titles, the categories below can be counted one or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted in two different skill types, and an employer can indicate more than one education level.

Salaries

Exhibit 5 shows the "Market Salaries" for *Computer Application Specialist*. These are calculated by Lightcast using a machine learning model built from millions of job postings every year. This accounts for adjustments based on location, industry, skills, experience, education, among other variables.

Exhibit 5. Market salaries for *Computer Application Specialist*

Market Salary	Job Postings
$35,000-$39,999	304
$40,000-$44,999	255
$45,000-$49,999	164
$50,000-$54,999	141
$30,000-$34,999	107

Education

Of the 1,588 unique job postings, 1,221 listed a preferred or minimum educational requirement for the position being filled. Among those, 62% requested a high school diploma or GED, 19% requested a bachelor's degree, and 17% requested an associate degree (Exhibit 6).

Exhibit 6. Education levels requested in job postings for *Computer Application Specialist*

Education Level	Job Postings	% of Job Postings
High school or GED	753	62%
Bachelor's degree	236	19%
Associate degree	205	17%
Master's degree	23	2%
Ph.D. or professional degree	4	0%

Baseline, Specialized, and Software Skills

Exhibit 7 depicts the top baseline, specialized, and software skills in job postings. The most requested baseline skill is communication. The most requested specialized skill is administrative support. The most requested software skill is Microsoft Office.

Exhibit 7. In-demand baseline, specialized, and software skills for *Computer Application Specialist*

Baseline Skills	Specialized Skills	Software Skills
Communication	Administrative Support	Microsoft Office
Clerical Works	Data Entry	Spreadsheets
Filing	Office Equipment	QuickBooks (Accounting Software)
Customer Service	Office Supply Management	Google Workspace
Management	Punctuation and Capitalization	Presentation Software

Certifications

Of the job postings that listed a certification, 10% indicated a need for a typing certification, followed by a Cardiopulmonary Resuscitation (CPR) Certification (Exhibit 8).

Exhibit 8. Top *Computer Application Specialist* certifications requested in job postings

Certifications	% of Job Postings
Typing Certification	10%
Cardiopulmonary Resuscitation (CPR) Certification	5%
First Aid Certification	3%
Professional in Human Resources	1%

Education, Work Experience, & Training

A high school diploma or equivalent is typically required for the two occupations studied in this report (Exhibit 9).

Exhibit 9. Education, work experience, training, and Current Population Survey results for occupations related to *Computer Application Specialist*[5]

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	None	Short-term	46%
Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	Less than 5 years	None	42%

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[5] "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, https://www.bls.gov/cps/.

Supply

An analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) for the last three program years shows that, on average, 127 awards were conferred in the SCV/SML subregion (Exhibits 10 and 11).

Exhibit 10. TOP and CIP codes related to *Computer Application Specialist*

| TOP Titles	CIP Titles
0514.00 - Office Technology/Office Computer Applications	52.0401 - Administrative Assistant and Secretarial Science, General 52.0407 - Business/Office Automation/Technology/Data Entry 52.0408 - General Office Occupations and Clerical Services

Exhibit 11. Postsecondary supply for Office Technology/Office Computer Applications, Program Years 2019-20 through 2021-22

TOP/CIP Code- Title	College	Associate Degree	Noncredit Award < 48 Hours	Certificate 30 < 60 Semester Units	Certificate 16 < 30 Semester Units	Certificate 8 < 16 Semester Units	Certificate 6 < 18 Semester Units	Noncredit Award 480 < 960 Hours	Total
0514.00 - Office Technology/Office Computer Applications	Bakersfield		1	3			2		6*
	Cerro Coso	4		11	13				28*
	Columbia	1					1		2
	Fresno City	9		4	8			1	22*
	Merced	30		46			39		115
	Modesto Junior	8		2	4	15			29
	Reedley College	9			30	20			59*
	San Joaquin Delta			13	3				16
	Sequoias								0*
	Taft	5				1			6*
	West Hills Coalinga	3			2				5*
	West Hills Lemoore	1							1*
SCV/SML TOTAL		**31**	**1**	**18**	**53**	**21**	**2**	**1**	**127**
CVML TOTAL		**70**	**1**	**79**	**60**	**36**	**42**	**1**	**289**

*SCV/SML awards

There is an undersupply of 1,473 *Computer Application Specialist* workers in the SCV/SML subregion and an undersupply of 2,302 workers in the region (Exhibit 12).

Exhibit 12. *Computer Application Specialist* **workforce demand (annual job openings), postsecondary awards (supply), and additional students needed to fill gap in the SCV/SML subregion and the CVML region**
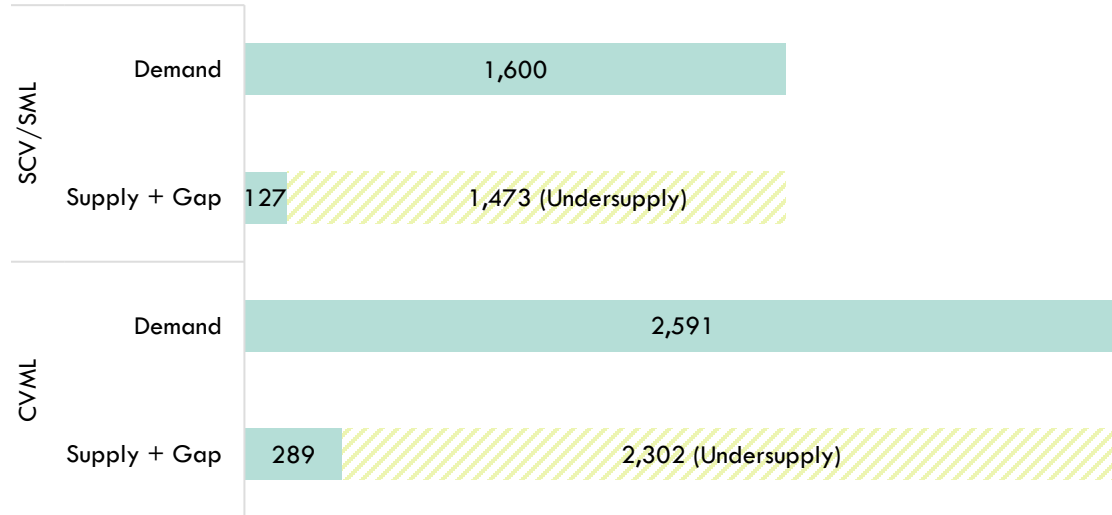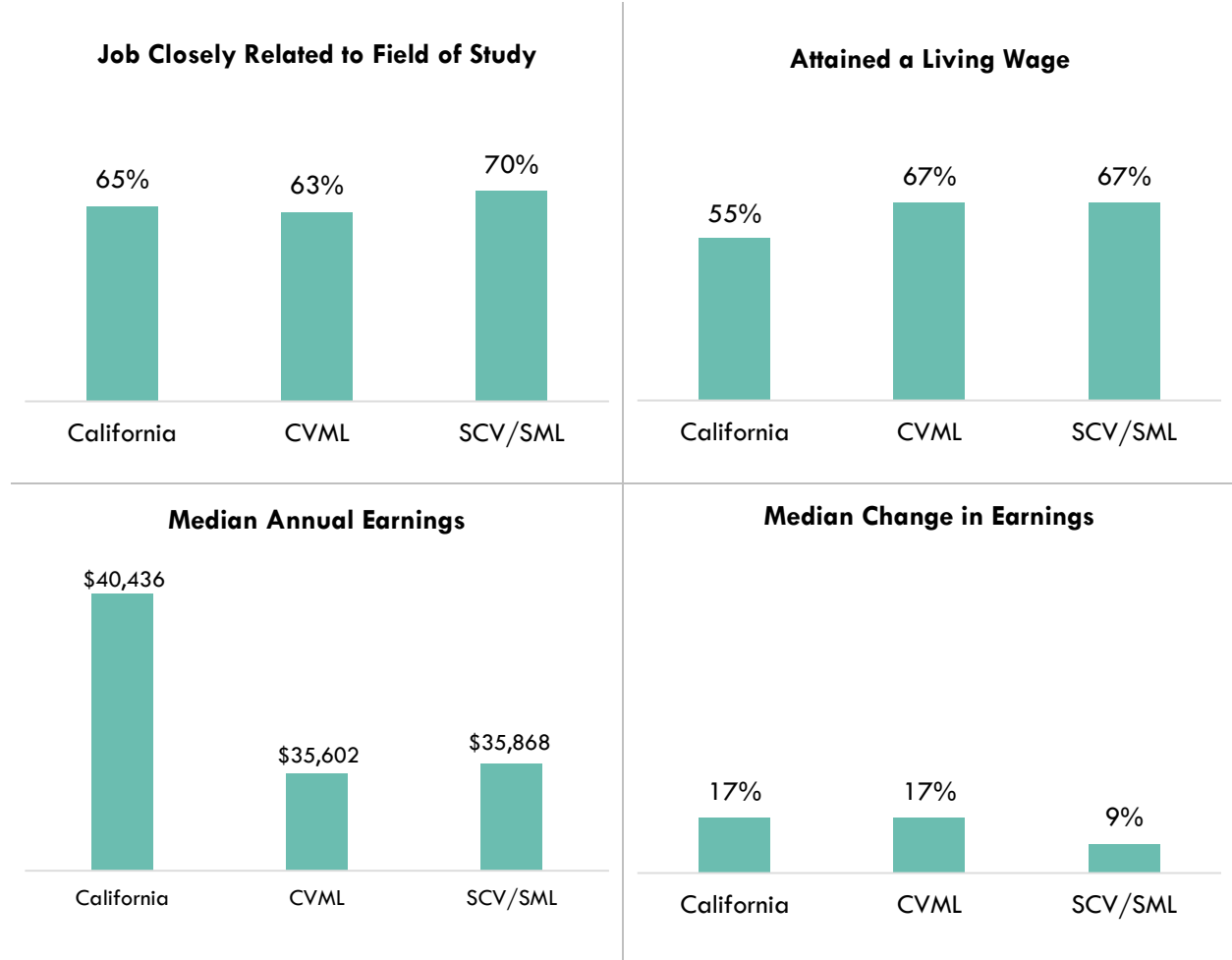

Student Outcomes

Exhibits 13a-13b summarize outcomes from California Community College Chancellor's LaunchBoard for TOP 0514.00 – Office Technology/Office Computer Applications.

Exhibit 13a. LaunchBoard Metrics for TOP: 0514.00 - Office Technology/Office Computer Applications in the SCV/SML subregion

Metric	
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	55

Exhibit 13b. LaunchBoard Metrics for TOP Code: 0514.00 - Office Technology/Office Computer Applications in California, CVML region, and SCV/SML subregion

Job Closely Related to Field of Study

California	CVML	SCV/SML
65%	63%	70%

Attained a Living Wage

California	CVML	SCV/SML
55%	67%	67%

Median Annual Earnings

California	CVML	SCV/SML
$40,436	$35,602	$35,868

Median Change in Earnings

California	CVML	SCV/SML
17%	17%	9%

Recommendation

This report suggests there is a shortage of 1,473 workers in the SCV/SML subregion and a shortage of 2,302 workers in the CVML region for *Computer Application Specialist*. Based on these findings, it is recommended that Cerro Coso College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of *Computer Application Specialist* workers in the region.

Appendix: Methodology & Data Sources

Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor's Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

Data Type	Source
Labor Market Information/Population Estimates and Projections/Educational Attainment	Economic Modeling Specialists, Intl. (Lightcast). Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast 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 Lightcast earnings by industry: economicmodeling.com.
Typical Education Level and On-the-job Training	Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: https://www.bls.gov/emp/tables/educational-attainment.htm.
LaunchBoard	Chancellor's LaunchBoard. https://www.calpassplus.org/LaunchBoard/SWP.aspx
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov.
Job Posting and Skills Data	Lightcast: https://lightcast.io/.
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: onetonline.org.

Key Terms and Concepts

Annual Job Openings: Annual openings are calculated by dividing the number of years in the projection period by total job openings.

Education Attainment Level: The highest education attainment level of workers age 25 years or older.

Employment Estimate: The total number of workers currently employed.

Employment Projections: Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (LIGHTCAST) formula that includes historical employment and economic indicators along with national, state and local trends.

LaunchBoard (Attained the Living Wage): Among SWP students who exited college and did not transfer to any postsecondary institution, the proportion who attained the district county living wage for a single adult measured immediately following academic year of exit.

LaunchBoard (Median Annual Earnings): Among SWP students who exited the community college system and who did not transfer to any postsecondary institution, median earnings following the academic year of exit.

LaunchBoard (Median Change in Earnings): Among SWP students who exited and who did not transfer to any postsecondary institution, median change in earnings between the second quarter prior to the beginning of the academic year of entry and the second quarter after the end of the academic year of exit from the last college attended.

LaunchBoard (Job Closely Related to Field of Study): Among SWP students who responded to the CTE Outcomes Survey and did not transfer to any postsecondary institution, the proportion who reported that they are working in a job very closely or closely related to their field of study.

Living Wage: The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

Occupation: An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

Percent Change: Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

Replacements: Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

Total Job Openings (New + Replacements): Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

Typical Education Requirement: represents the typical education level most workers need to enter an occupation.

Typical On-The-Job Training: indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.

MINUTES

Committee Name: Addiction Studies Advisory Board Meeting
Date: January 11, 2021
Location: Virtual (due to COVID-19 restrictions)

Present: Karin Stone, Kerri Graves, Shante Taylor, Heather Dobbs, Jamie Howard

Absent: Carol Beecroft, Kandi Smith, Matthew Wanta

1. Call to Order

Time: 11:30 by Melissa Bowen, Human Services professor

2. Approval of agenda

3. Agenda Items

3.1 Introductions
3.2 Potential Addiction Studies program at Cerro Coso (survey attached)
3.6 Internships

4. Future Meeting Dates

4.1 TBD

5. Adjournment at 12:00 pm

Recorder: Melissa Bowen

Committee Name: Addiction Studies Advisory Board

CERRO COSO COMMUNITY COLLEGE **MINUTES**

Date: January 11, 2021

We value your input and appreciate your feedback about our programs. Your answers to the questions below will aid in our decision-making process about existing and newly created programs. Please return this form via email to Melissa.bowen@cerrocoso.edu, or mail to: Melissa Bowen, 3000 College Heights Blvd., Ridgecrest, CA 93555. Thank you.

1. As a hiring manager and/or field-work supervisor, do you feel the human services program prepares students to become employed at your agency?
    a. Yes
    b. No
    c. If you answered no, please explain.

2. Do you approve of CCCC offering an addiction studies associate degree?
    a. Yes
    b. No
    c. If you answered no, please explain.

3. If you were helping a young person with a career decision, would you recommend the CCCC human services and/or addiction studies program?
    a. Yes
    b. No
    c. If you answered no, please explain.

4. The state of California has changed the program title to Social Work and Human Services. Do you think CCCC should also change the name of the human services program?
    a. Yes
    b. No
    c. If you answered no, please explain.

5. What date(s) and time(s) would work best for you and/or someone from your agency to meet in the fall sometime between September and December?

Agenda Item 3.2

3.2 Potential Addiction Studies program at Cerro Coso (survey attached)

Results: The advisory board verbally approved of the program. It was unanimous among members present. The college will pursue a certificate initially, that will then lead to an associate degree.

November 2021

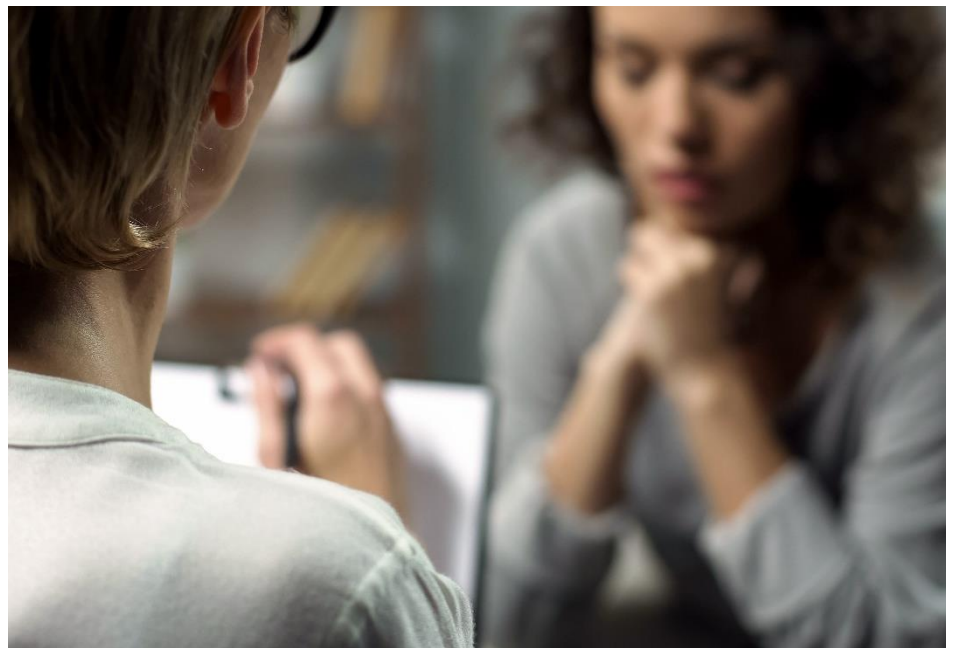# Labor Market Analysis

Addiction Counseling Studies

POWERED BY

California Community Colleges

C·O·E
CENTERS OF EXCELLENCE
Inform Connect Advance

Prepared by the Central Valley/Mother Lode Center of Excellence

Table of Contents

COVID-19 Statement: This report includes employment projection data by Emsi. Emsi's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

If for any reason this document is not accessible or if you have specific needs for readability, please contact us and we will do our utmost to accommodate you with a modified version. To make a request, contact Nora Seronello by phone at (209) 575-6894 or by email seronellon@mjc.edu.

Summary

Please note the COVID-19 statement on page 2 when considering this report's findings.

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for addiction counseling. Two occupations related to addiction counseling were identified for Cerro Coso College:
- 21-1093, Social and Human Service Assistants
- 21-1094, Community Health Workers

Key findings:
- **Occupational demand —** Nearly 4,500 workers were employed in jobs related to addiction counseling in 2020 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is social and human service assistants with 4,137 workers in 2020, a projected growth rate of 13% over the next five years, and 609 annual openings.

- **Wages —** Community health workers earn the highest entry-level wage, $17.70/hour in the subregion.

- **Employers —** Employers with the most job postings in the subregion are The Mentor Network, Centro La Familia Advocacy Services Inc., and Community Action Partnership Of Kern.

- **Occupational titles —** The most common occupational title in job postings in the subregion is social and human service assistants. The most common job title is outreach specialist.

- **Skills and certifications —** The top baseline skill is communication, the top specialized skill is case management, and the top software skill is Microsoft Excel. The most in-demand certification is a driver's license.

- **Education —** A high school diploma or equivalent is typically required for the two occupations.

- **Supply —** Analysis of postsecondary completions in the region shows that on average 65 awards were conferred in the Central Valley/Mother Lode region each year.

Based on a comparison of occupational demand and supply, there is an undersupply of 616 trained workers in the subregion and 941 workers in the region. The Center of Excellence recommends that Cerro Coso work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of addiction counseling workers in the region.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Cerro Coso to provide labor market information for addiction counseling. The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) subregion, but regional demand and supply data has been included for broader applicability and use. The average living wage for a single adult in the SCV/SML subregion is $11.91/hour.[1] Analysis of the program and occupational data related to addiction counseling resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 21-1093, Social and Human Service Assistants
- 21-1094, Community Health Workers

The occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown below.

Social and Human Service Assistants
Job Description: Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.
Knowledge: Customer and Personal Service, Psychology, Therapy and Counseling, English Language, Administrative
Skills: Active Listening, Social Perceptiveness, Speaking, Service Orientation, Coordination

Community Health Workers
Job Description: Promote health within a community by assisting individuals to adopt healthy behaviors. Serve as an advocate for the health needs of individuals by assisting community residents in effectively communicating with healthcare providers or social service agencies. Act as liaison or advocate and implement programs that promote, maintain, and improve individual and overall community health. May deliver health-related preventive services such as blood pressure, glaucoma, and hearing screenings. May collect data to help identify community health needs.
Knowledge: Customer and Personal Service, English Language, Education and Training, Administration and Management, Medicine and Dentistry
Skills: Active Listening, Social Perceptiveness, Speaking, Writing, Reading Comprehension

Occupational Demand

The South Central Valley/Southern Mother Lode subregion employed 4,467 workers in addiction counseling occupations in 2020 (Exhibit 1). The largest occupation is social and human service assistants with 4,137 workers in 2020. This occupation is projected to grow by 13% over the next five years and has the greatest number of projected annual openings, 609.

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[1] The term "living wage" in Center of Excellence reports is calculated by averaging the self-sufficiency wages from the Insight Center's California Family Needs Calculator for each county in the subregion: https://insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california/.
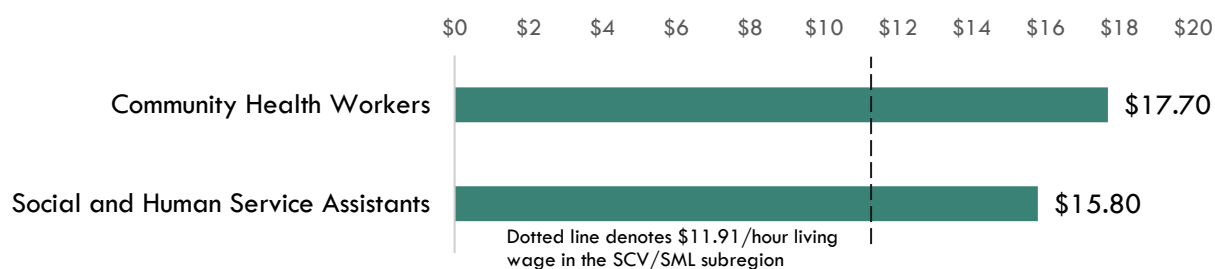
Exhibit 1. Addiction counseling employment and occupational projections in the SCV/SML subregion

Occupation	2020 Jobs	2025 Jobs	5-Year Change	5-Year % Change	Annual Openings
Social and Human Service Assistants	4,137	4,661	524	13%	609
Community Health Workers	330	393	63	19%	50
TOTAL	**4,467**	**5,054**	**587**	**13%**	**659**

Wages

Exhibit 2 shows the entry-level hourly wages of the addiction counseling occupations. Community health workers earn the highest entry-level wage, $17.70/hour in the subregion. Entry-level wages are derived from the 25th percentile.

Exhibit 2. Addiction counseling entry-level wages in the SCV/SML subregion

	$0	$2	$4	$6	$8	$10	$12	$14	$16	$18	$20

Community Health Workers — $17.70

Social and Human Service Assistants — $15.80

Dotted line denotes $11.91/hour living wage in the SCV/SML subregion

Job Postings

There were 217 job postings for the two occupations in the SCV/SML subregion from May 2021 to October 2021.[2] The employers with the most job postings are listed in Exhibit 3.

Exhibit 3. Top employers of addiction counseling workers by number of job postings

Employer	Job Postings	% Job Postings
The Mentor Network	15	7%
Centro La Familia Advocacy Services Inc	9	4%
Community Action Partnership Of Kern	8	4%
Anthem Blue Cross	6	3%
City Fresno	6	3%
Madera Community Hospital	5	2%
Westcare California Incorporated	5	2%
Kaweah Delta Health Care Dst	4	2%
Proteus Incorporated	4	2%
Welbehealth	4	2%

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[2] Other than occupation titles and job titles, the categories below can be counted one or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted in two different skill types, and an employer can indicate more than one education level.

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across two O*NET OnLine occupations. The occupational title social and human service assistants is listed in 194 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include Outreach Specialist in 20 job postings, Social Services Coordinator in 10 job postings, and Care Coordinator in nine job postings.

Exhibit 4. Top occupational titles in job postings for addiction counseling

Occupational Title	Job Postings	% of Job Postings
Social and Human Service Assistants	194	89%
Community Health Workers	23	11%

Salaries
Exhibit 5 shows the "Market Salaries" for addiction counseling occupations that are calculated by Burning Glass which uses a machine learning model built off of millions of job postings every year, and accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

Exhibit 5. Salaries for addiction counseling occupations

Market Salary Percentile	Salary Amount
10th Percentile	$25,430
25th Percentile	$29,824
50th Percentile	$33,900
75th Percentile	$43,293
90th Percentile	$56,709

Education
Of the 217 job postings, 176 listed an education level preferred for the positions being filled. Of those, 48% requested a bachelor's degree, 47% requested high school or vocational training, and 19% requested an associate degree (Exhibit 6). A job posting can indicate more than one education level. Hence, the percentages shown in the chart below may total more than 100%.
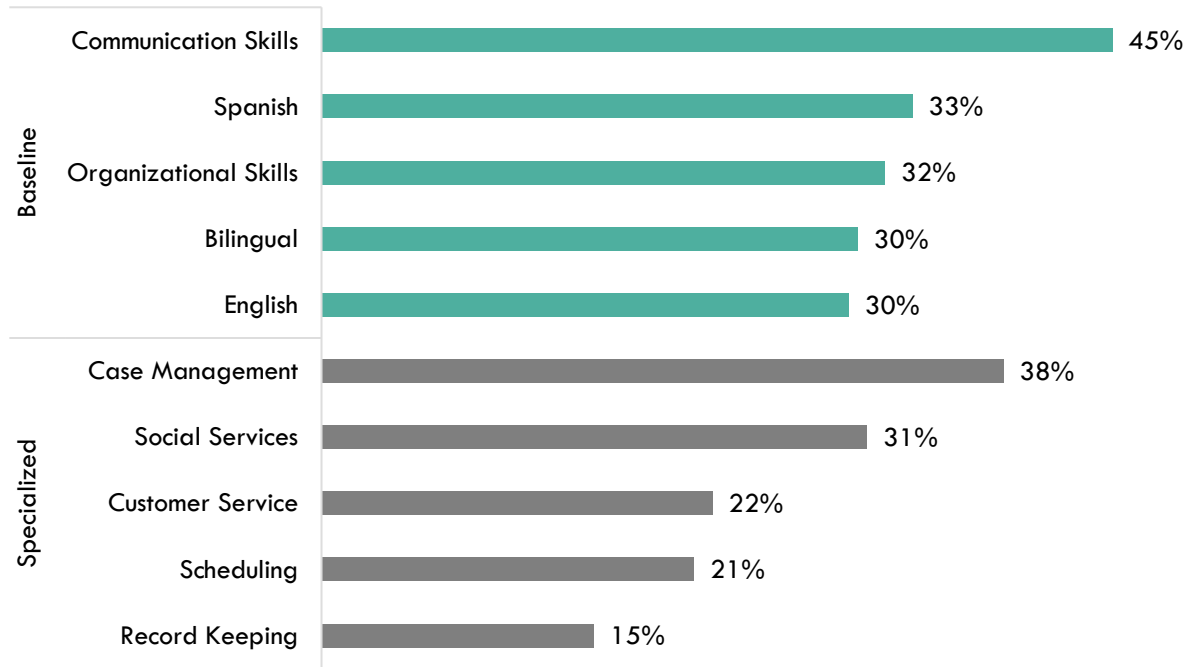
Exhibit 6. Education levels requested in job postings for addiction counseling

Education Level	Job Postings	% of Job Postings
Bachelor's degree	84	48%
High school or vocational training	83	47%
Associate degree	33	19%
Master's degree	13	7%

Baseline and Specialized Skills
Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are communication, 45% of job postings, Spanish, 33%, and organizational skills, 32%. The top three specialized skills are case management, 38% of job postings, social services, 31%, and customer service, 22%.
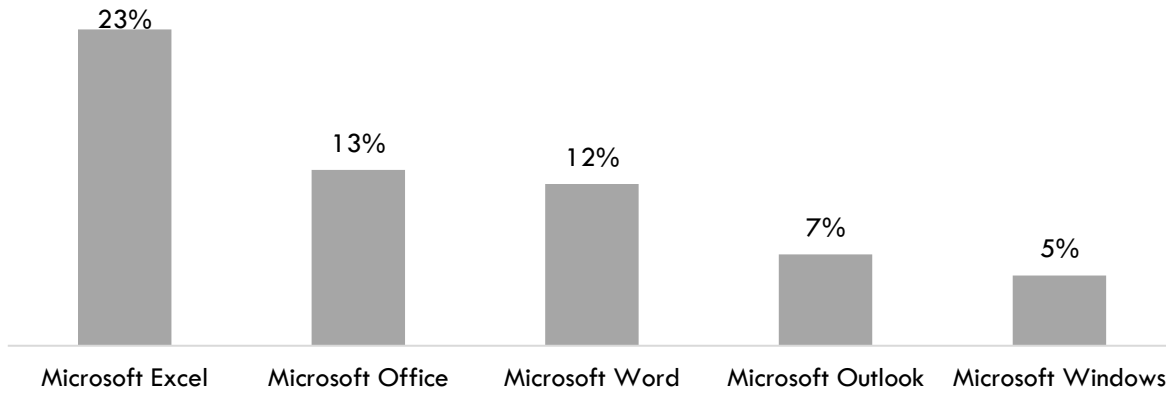
Exhibit 7. In-demand addiction counseling baseline and specialized skills

Baseline

Skill	Percentage
Communication Skills	45%
Spanish	33%
Organizational Skills	32%
Bilingual	30%
English	30%

Specialized

Skill	Percentage
Case Management	38%
Social Services	31%
Customer Service	22%
Scheduling	21%
Record Keeping	15%

Software Skills

Analysis also included the software skills most in demand by employers. Microsoft Excel and Office were the top two software skills identified in job postings (Exhibit 8).
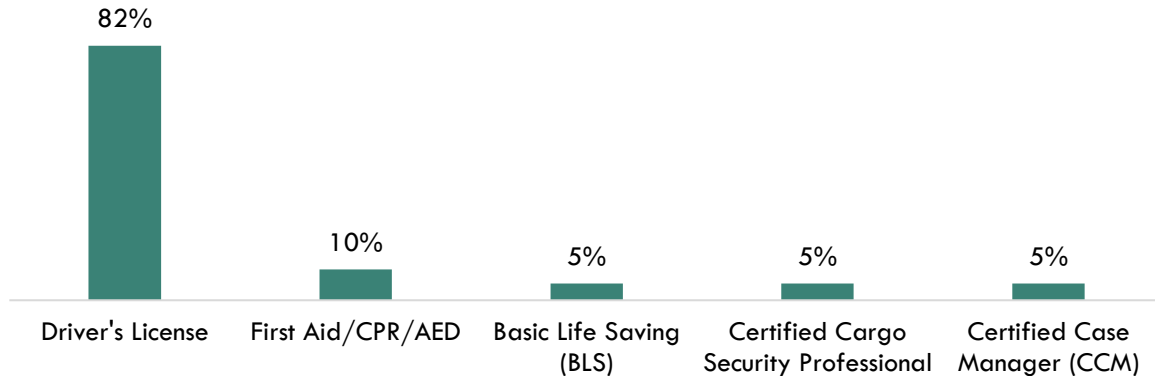
Exhibit 8. In-demand addiction counseling software skills

Software	Percentage
Microsoft Excel	23%
Microsoft Office	13%
Microsoft Word	12%
Microsoft Outlook	7%
Microsoft Windows	5%

Certifications

Of the 217 job postings, 111 contained certification data. Among those, 82% indicated a need for a driver's license. The next top certifications are a first aid/CPR/AED and basic life saving (Exhibit 9). (Due to the low number of job postings with certifications listed, the chart below may not be representative of the full sample.)

Exhibit 9. Top addiction counseling certifications requested in job postings

82% — Driver's License	
10% — First Aid/CPR/AED	
5% — Basic Life Saving (BLS)	
5% — Certified Cargo Security Professional	
5% — Certified Case Manager (CCM)	

Education, Work Experience & Training

A high school diploma or equivalent is typically required for the two occupations (Exhibit 10).

Exhibit 10. Education, work experience, training, and Current Population Survey results for addiction counseling occupations[3]

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Social and Human Service Assistants	High school diploma or equivalent	None	Short-term	34.4%
Community Health Workers	High school diploma or equivalent	None	Short-term	26.7%

Supply

Analysis of program data from the California Community Colleges Chancellor's Office Data Mart included the TOP code and title: 210440 - Alcohol and Controlled Substances. Analysis of the last three years of data shows that, on average, 65 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

**Exhibit 11. Postsecondary supply for addiction counseling occupations in the region**

TOP/CIP Code- Title	College	Associate Degree	Certificate 30 < 60 Semester Units	Subtotal
210440 - Alcohol and Controlled Substances	Fresno City	16	25	42
	Merced	1	1	2
	Modesto	5	4	9
	Porterville		2	2
	San Joaquin Delta		10	10
TOTAL		**23**	**42**	**65**

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[3] "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, https://www.bls.gov/cps/.

There is an undersupply of 616 addiction counseling workers in the SCV/SML subregion and 941 workers in the region (Exhibit 12).

Exhibit 12. Addiction counseling workforce demand (annual job openings), postsecondary supply of students (awards), and additional students needed to fill gap in the SCV/SML subregion and region

SCV/SML	Demand	659
	Supply + Gap	43 / 616
CVML	Demand	1006
	Supply + Gap	65 / 941
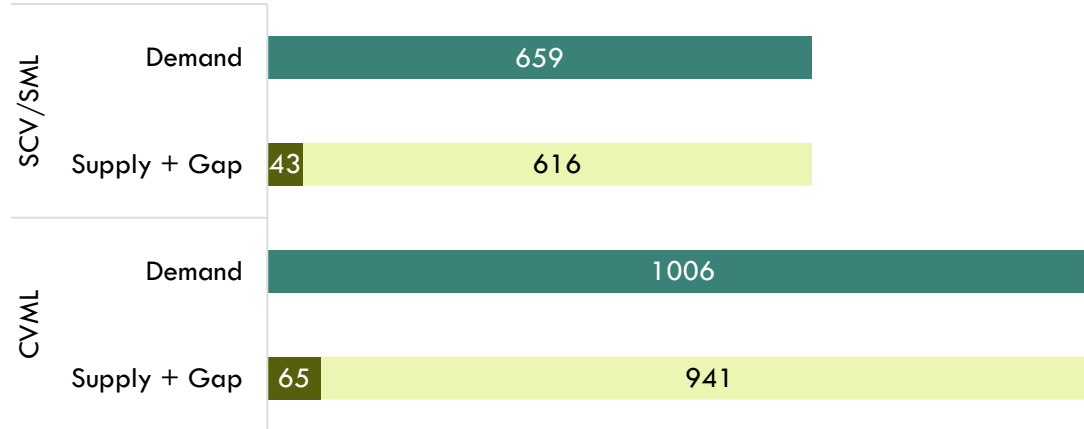
Student Outcomes

Exhibit 13 summarizes employment and wage outcomes from the California Community College Chancellor's Cal-PASS Plus LaunchBoard for the TOP code related to addiction counseling. Of note, 54 alcohol and controlled substances students received a degree or certificate or attained apprenticeship journey status; 12 students transferred; 67% of students obtained a job closely related to their field of study; a 60% median change in earnings was reported; and 64% attained a living wage.

Exhibit 13. Regional metrics for the TOP code related to addiction counseling

Metric	Alcohol and Controlled Substances 210440
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	54
Number of Students Who Transferred	12
Job Closely Related to Field of Study	67%
Median Change in Earnings	60%
Attained a Living Wage	64%
* denotes data not available.	

Conclusion

The entry-level wages of the two occupations exceed the SCV/SML subregion's average living wage. There were 217 job postings in the past six months for occupations related to addiction counseling in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication, and the top specialized skill is case management.
- The top software skill is Microsoft Excel.
- The top certification is a driver's license.

There is an undersupply of trained workers, a shortage of 616 in the SCV/SML subregion and 941 in the region.

Recommendation

Based on these findings, it is recommended that Cerro Coso work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of addiction counseling in the region.

Appendix A: Methodology & Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor's Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

Data Type	Source
Labor Market Information/Population Estimates and Projections/Educational Attainment	Economic Modeling Specialists, Intl. (EMSI). EMSI occupational 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: economicmodeling.com.
Typical Education Level and On-the-job Training	Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: https://www.bls.gov/emp/tables/educational-attainment.htm.
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov.
Job Posting and Skills Data	Burning Glass: burning-glass.com/.
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: onetonline.org.

Key Terms and Concepts

Annual Job Openings: Annual openings are calculated by dividing the number of years in the projection period by total job openings.

Education Attainment Level: The highest education attainment level of workers age 25 years or older.

Employment Estimate: The total number of workers currently employed.

Employment Projections: Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (EMSI) formula that includes historical employment and economic indicators along with national, state and local trends.

Living Wage: The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

Occupation: An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

Percent Change: Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

Replacements: Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

Total Job Openings (New + Replacements): Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

Typical Education Requirement: represents the typical education level most workers need to enter an occupation.

Typical On-The-Job Training: indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.