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Labor Market Analysis

Public Safety



Prepared by Central Valley/Mother Lode Center of Excellence



POWERED BY



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COVID-19 Statement: This report includes employment projection data by Lightcast. Lightcast’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.

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Summary

The Central Valley/Mother Lode Center of Excellence developed this report for Porterville 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 *Public Safety*, which includes:

- First-Line Supervisors of Correctional Officers (SOC 33-1011)
- First-Line Supervisors of Police and Detectives (SOC 33-1012)
- Detectives and Criminal Investigators (SOC 33-3021)
- Police and Sheriff's Patrol Officers (SOC 33-3051)
- Private Detectives and Investigators (SOC 33-9021)

Key Findings

- **Occupational Demand** — Occupations related to *Public Safety* have a labor market demand of 733 annual job openings in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. Between 2021 and 2026, police and sheriff's patrol officers are projected to have the most demand with 515 annual job openings and are projected to grow by 11%.
- **Wages** — Average entry-level earnings of \$38.61/hour for *Public Safety* occupations are higher than the living wage in the SCV/SML subregion, which is \$11.91/hour for a single adult.¹ First-line supervisors of correctional officers earn the highest entry-level wage, \$49.50/hour.
- **Employers and Occupational Titles** — Employers in the SCV/SML subregion include U.S. Customs and Border Protection, Allied Universal, and Table Mountain Rancheria. The most common occupational title in job postings in the subregion is customs and border protection officers. The most common job title is border patrol agents.
- **Skills and Certifications** — The top baseline skill is investigation, the top specialized skill is law enforcement, and the top software skill is IBM WebSphere MQ. The most in-demand certification is a Federal Aviation Administration (FAA) Instrument Rating Certification.
- **Education** — High school diploma or equivalent is typically required for occupations related to *Public Safety*.
- **Supply and Demand Analysis** — Based on 733 annual openings (i.e., demand) and 76 postsecondary degrees awarded (i.e., supply), an analysis of supply and demand suggests there is an undersupply of 657 workers in the SCV/SML subregion. In the CVML region, 131 awards were conferred suggesting an undersupply of 926 workers.

Recommendation

Based on a comparison of demand and supply in this report, there is an oversupply of trained workers in the SCV/SML subregion and the CVML region. However, Administration of Justice programs serve to prepare students for a variety of community college level occupations not included in this report. These programs are also a conduit for transfer students intending to pursue higher-level occupations in the legal professions. Finally, entrance into all of the listed occupations requires successful completion of an academy, and the gap analysis of the academy programs show an undersupply of these workers. The

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://insightccd.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

Center of Excellence recommends that Porterville College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Public Safety workers.

Introduction

The Central Valley/Mother Lode Center of Excellence developed this report to provide Porterville College with labor market information for *Public Safety*. 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 *Public Safety* is included in the report. The Standard Occupational Classification (SOC) System codes and occupational titles used in this report from the Bureau of Labor Statistics and O*NET Online are shown below. There was no O*Net data available for private detectives and investigators.

First-Line Supervisors of Correctional Officers (SOC 33-1011)

- **Job Description:** Directly supervise and coordinate activities of correctional officers and jailers.
- **Knowledge:** Public Safety and Security, Law and Government, Administration and Management, Psychology, English Language
- **Skills:** Active Listening, Coordination, Critical Thinking, Monitoring, Social Perceptiveness

First-Line Supervisors of Police and Detectives (SOC 33-1012)

- **Job Description:** Directly supervise and coordinate activities of members of police force.
- **Knowledge:** Law and Government, Public Safety and Security, Administration and Management, English Language, Psychology
- **Skills:** Active Listening, Coordination, Critical Thinking, Management of Personnel Resources, Monitoring

Detectives and Criminal Investigators (SOC 33-3021)

- **Job Description:** Conduct investigations related to suspected violations of federal, state, or local laws to prevent or solve crimes.
- **Knowledge:** Law and Government, Public Safety and Security, English Language, Customer and Personal Service, Psychology
- **Skills:** Active Listening, Speaking, Critical Thinking, Complex Problem Solving, Reading Comprehension

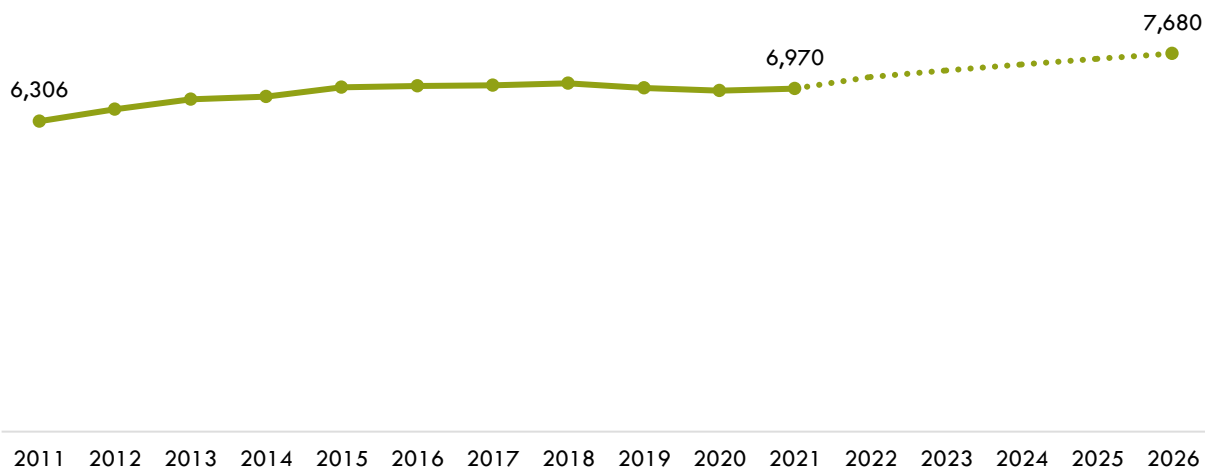
Police and Sheriff's Patrol Officers (SOC 33-3051)

- **Job Description:** Maintain order and protect life and property by enforcing local, tribal, state, or federal laws and ordinances. Perform a combination of the following duties: patrol a specific area; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts. Includes police officers working at educational institutions.
- **Knowledge:** Law and Government, Public Safety and Security, English Language, Psychology, Customer and Personal Services
- **Skills:** Active Listening, Social Perceptiveness, Speaking, Active Listening, Critical Thinking

Employment

Exhibit 1a shows trends for *Public Safety* in the SCV/SML subregion. Between 2011 to 2026, the number of jobs for occupations related to *Public Safety* is projected to increase by 710, growing by 10%.

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



Occupations related to *Public Safety* in the SCV/SML subregion employed 6,970 workers in 2021 (Exhibit 1b). Police and sheriff's patrol officers are projected to increase by 11% over the next five years and have projected annual openings of 515.

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

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Police and Sheriff's Patrol Officers	4,751	5,293	542	11%	515
First-Line Supervisors of Correctional Officers	766	796	30	4%	74
Detectives and Criminal Investigators	663	700	37	6%	61
First-Line Supervisors of Police and Detectives	527	604	77	15%	53
Private Detectives and Investigators	263	287	24	9%	30
TOTAL	6,970	7,680	710	10%	733

Wages

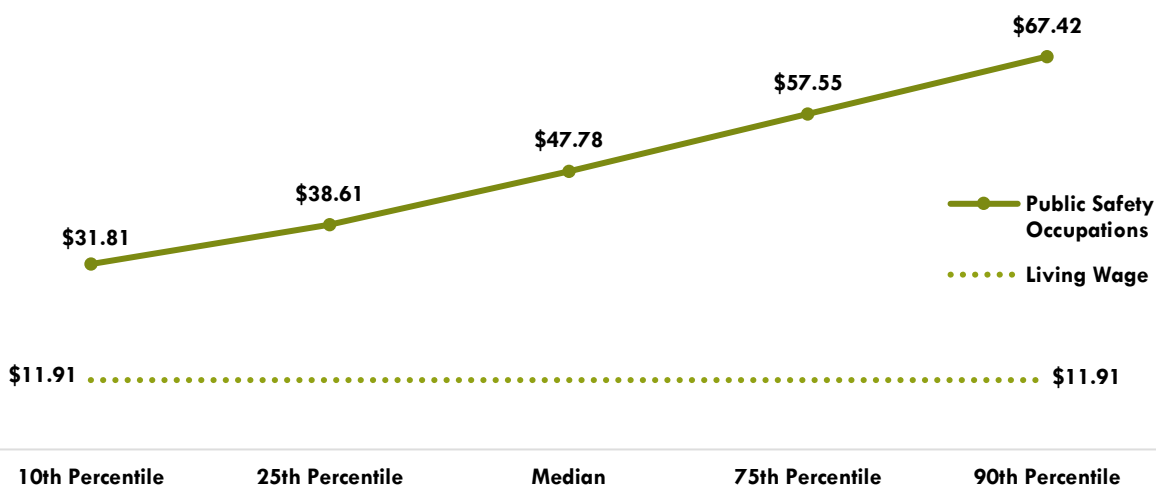
The average living wage for a single adult in the SCV/SML subregion is \$11.91/hour.² Exhibit 2a shows that entry-hourly wages for first-line supervisors of correctional officers, an occupation related to *Public Safety*, has the highest entry-level wage of \$49.50/hour.³

Exhibit 2a. Hourly wages for occupations related to *Public Safety* in the SCV/SML subregion

Occupation	25 th Percentile Hourly Earnings	Median Hourly Earnings	75 th Percentile Hourly Earnings
First-Line Supervisors of Correctional Officers	\$49.50	\$51.09	\$55.57
First-Line Supervisors of Police and Detectives	\$47.76	\$60.44	\$78.03
Detectives and Criminal Investigators	\$35.75	\$46.17	\$51.23
Police and Sheriff's Patrol Officers	\$33.04	\$36.97	\$47.33
Private Detectives and Investigators	\$27.01	\$44.24	\$55.57

Exhibit 2b shows the average hourly wages for *Public Safety* occupations; the average entry-level wage is more than the living wage for the SCV/SML subregion.

Exhibit 2b. Average hourly wages for occupations related to *Public Safety* in the SCV/SML subregion



² 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://insightccd.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

³ Note: 10th and 25th percentiles are considered entry-level wages while 75th and 90th are considered experienced wages, which may be obtained through long-term employment or extra training, etc.

Job Postings

There were 703 job postings for occupations related to *Public Safety* in the SCV/SML subregion from January 2023 to June 2023.⁴

Top Employers

The top employers with the most job postings are listed in Exhibit 3. The top employers in online job postings were U.S. Customs and Border Protection, Allied Universal, and Table Mountain Rancheria.

Exhibit 3. Top employers of *Public Safety* in job postings

Employer
U.S. Customs And Border Protection
Allied Universal
Table Mountain Rancheria
Digistream Investigations
Fresno County Sheriff's Office
Commander
Command Investigations
United States Secret Service
Amtrak
Marshall Investigative Group

Top Occupational Titles

Exhibit 4 shows the O*NET OnLine occupational titles for *Public Safety* in the SCV/SML subregion. Common job titles in postings include: Border Patrol Agents, Marine Interdiction Agents, and Air Interdiction Agents.

Exhibit 4. Top occupational titles in job postings for *Public Safety*

Occupational Title
Customs and Border Protection Officers
Police and Sheriff's Patrol Officers
Private Detectives and Investigators
First-Line Supervisors of Police and Detectives
Detectives and Criminal Investigators
Intelligence Analysts
Police Identification and Records Officers
First-Line Supervisors of Correctional Officers

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 *Public Safety*. 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 *Public Safety*

Market Salary	Job Postings
\$63,000-\$69,999	97
\$70,000-\$76,999	60
\$91,000-\$97,999	56
\$42,000-\$48,999	42
\$84,000-\$90,999	38

Education

Of the 703 unique job postings, 639 listed a preferred or minimum educational requirement for the position being filled. Among those, 52% requested a bachelor’s degree, 20% requested a high school diploma or GED, and 12% requested a master’s degree (Exhibit 6).

Exhibit 6. Education levels requested in job postings for *Public Safety*

Education Level	Job Postings	% of Job Postings
Bachelor's degree	334	52%
High school diploma or GED	125	20%
Master's degree	79	12%
Ph.D. or professional degree	64	10%
Associate degree	37	6%

Baseline, Specialized, and Software Skills

Exhibit 7 depicts the top baseline, specialized, and software skills in job postings. The most important baseline skill is investigation. The most important specialized skill is law enforcement. The most important software skill is IBM WebSphere MQ.

Exhibit 7. In-demand baseline, specialized, and software skills for *Public Safety* in job postings

Baseline Skills	Specialized Skills	Software Skills
Investigation	Law Enforcement	IBM WebSphere MQ
Operations	International Laws	Spreadsheets
Tactfulness	Rehabilitation	Operating Systems
Spanish Language	Patrolling	Linux
Resourcefulness	Code Enforcement	SAP Applications

Certifications

Of the 703 job postings, there were 562 with certifications listed. Among those, 14% indicated a need for a Federal Aviation Administration (FAA) Instrument Rating Certification. The next top certification is Cardiopulmonary Resuscitation (CPR) (Exhibit 8).

Exhibit 8. Top Public Safety certifications requested in job postings

Certifications	% of Job Postings
FAA Instrument Rating	14%
Cardiopulmonary Resuscitation (CPR) Certification	10%
Operator of Uninspected Passenger Vessels (OUPV) License	9%
Basic POST Certificate	4%
Peace Officer Standards and Training (POST) Certificate	2%

Education, Work Experience, & Training

High school diploma or equivalent is typically required for occupations related to *Public Safety* (Exhibit 9).

Exhibit 9. Education, work experience, training, and Current Population Survey results for occupations related to *Public Safety*⁵

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Police and Sheriff's Patrol Officers	High school diploma or equivalent	None	Moderate-term	46.4%
First-Line Supervisors of Correctional Officers	High school diploma or equivalent	Less than 5 years	None	42.4%
Detectives and Criminal Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term	32.0%
First-Line Supervisors of Police and Detectives	High school diploma or equivalent	Less than 5 years	Moderate-term	41.0%
Private Detectives and Investigators	High school diploma or equivalent	Less than 5 years	Moderate-term	32.7%

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, 921 awards were conferred in the SCV/SML subregion (Exhibits 10 and 11).

Exhibit 10. TOP and CIP codes for *Public Safety*

TOP Titles	CIP Titles
210550 - Police Academy	43.0119 - Critical Incident Response/Special Police Operations
	43.0107 - Criminal Justice/Police Science
	43.0103 - Criminal Justice/Law Enforcement Administration
210500 - Administration of Justice	43.0104 - Criminal Justice/Safety Studies
	43.0107 - Criminal Justice/Police Science

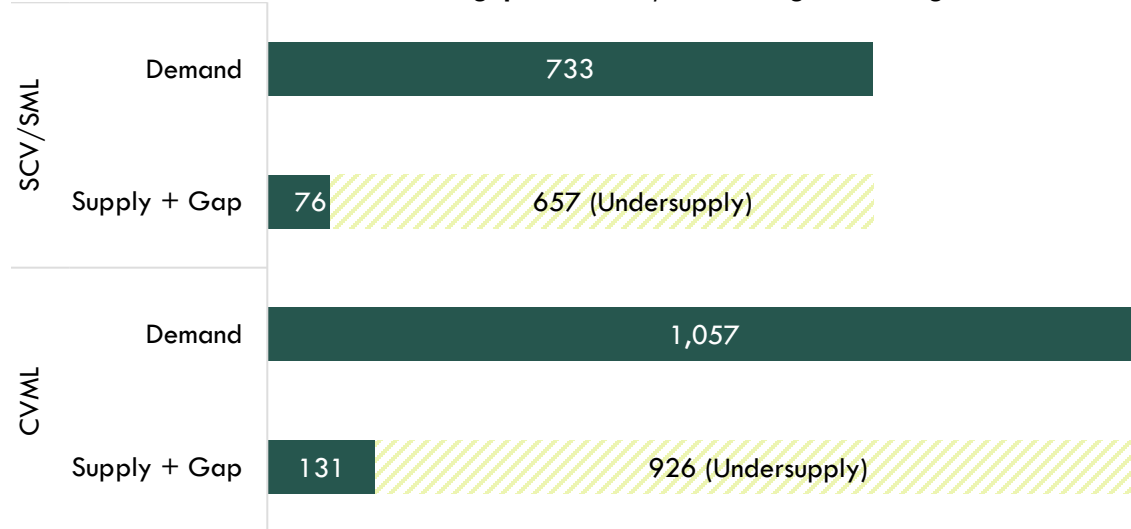
Exhibit 11. Postsecondary supply for *Public Safety*

TOP/ CIP Code- Title	College	2019-20	2020-21	2021-22	3- Year Average
210550 - Police Academy	Fresno City	1	2	13	5*
	San Joaquin Delta	48	63	53	55
	Sequoias	85	71	56	71*
210500 - Administration of Justice	Bakersfield	213	218	234	222*
	Cerro Coso	12	33	34	26*
	Clovis	46	43	46	45*
	Fresno City	210	151	152	171*
	Merced	104	104	83	97
	Modesto	117	104	117	113
	Porterville	55	50	43	49*
	Reedley College	98	76	55	76*
	San Joaquin Delta	89	115	100	101
	San Joaquin Valley College-Madera	-	18	32	17*
	Sequoias	107	123	116	115*
	Taft	45	40	27	37*
	West Hills Coalinga	23	25	28	25*
	West Hills Lemoore	78	56	53	62*
	SCV/SML TOTAL		973	906	889
CVML TOTAL		1,331	1,292	1,242	1,287

*SCV/SML awards

There is an undersupply of 657 *Public Safety* workers in the SCV/SML subregion and an undersupply of 926 workers in the region (Exhibit 12).

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



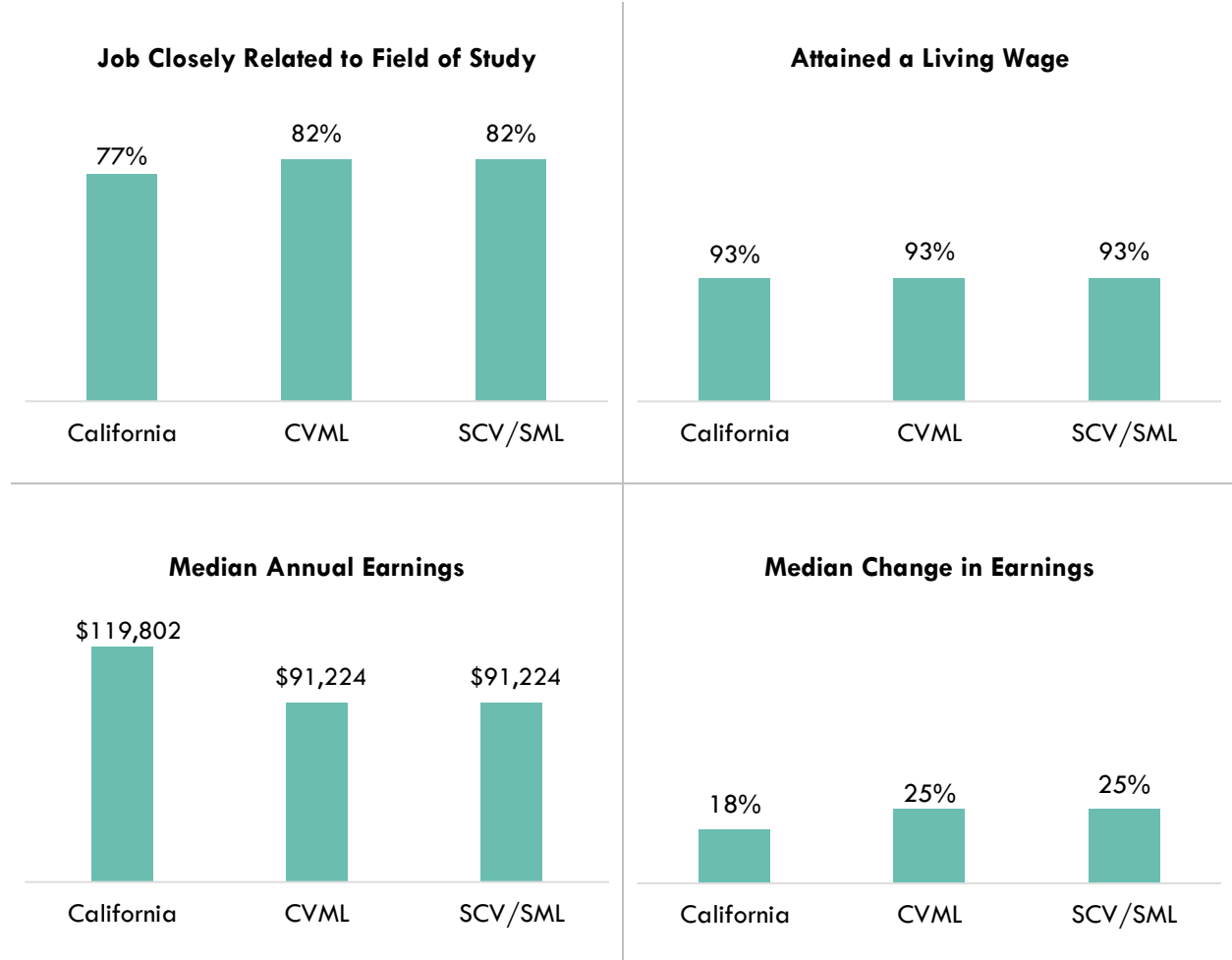
Student Outcomes

Exhibits 13a-13b summarize outcomes from California Community College Chancellor’s LaunchBoard for TOP codes related to *Public Safety*. Notably, 82% of students obtained a job closely related to their field of study and 93% of students attained a living wage in the subregion.

Exhibit 11a. LaunchBoard Metrics for TOP 210550 - Police Academy in the SCV/SML subregion

Metric	
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	53

Exhibit 11b. LaunchBoard Metrics for TOP 210550 - Police Academy in California, CVML region, and SCV/SML subregion



Recommendation

This report suggests there is an undersupply of 657 workers in the SCV/SML subregion and an undersupply of 926 workers in the CVML region for *Public Safety*. However, Administration of Justice programs serve to prepare students for a variety of community college level occupations not included in this report. These programs are also a conduit for transfer students intending to pursue higher-level occupations in the legal professions. Finally, entrance into all of the listed occupations requires successful completion of an academy, and the gap analysis of the academy programs show an undersupply of these workers. Based on these findings, it is recommended that Porterville College work with the regional directors, the college’s advisory board, and local industry in the expansion of programs to address the shortage of *Public Safety* 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	Burning Glass: burning-glass.com/ .
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.