

Labor Market Analysis for Program Recommendation: 2105.00/Administration of Justice (Modern Policing)

Orange County Center of Excellence, July 2024



Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input checked="" type="checkbox"/>	Endorsed: Some LMI Criteria Met <input type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
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Program LMI Endorsement Criteria

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Supply Gap:	<i>Comments:</i> There are projected to be 3,185 middle-skill annual job openings throughout Los Angeles and Orange counties for these policing occupations, which is less than the 5,065 awards conferred by educational institutions . However, these educational programs also prepare students for 20 other related occupations, which account for 18,312 additional annual job openings . Because these programs train for a variety of occupations with high demand, there is most likely an undersupply of labor for these policing occupations.	
CA Insight Living Wage: (Entry-Level, 25 th) ¹	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> All annual job openings for these policing occupations have entry-level hourly wages significantly above the OC living wage of \$20.63.	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> All annual openings for these mechatronics occupations typically require a high school diploma or equivalent. However, between 41% and 49% of workers in the field have completed some college or an associate degree as their highest level of education.	

Emerging Occupation(s)	
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<i>Comments:</i> N/A	

The Orange County Center of Excellence for Labor Market Research (OC COE) prepared this report to determine whether there is a supply gap in the Los Angeles/Orange County regional labor market related to three middle-skill occupations:

- *First-Line Supervisors of Police and Detectives (33-1012)*
- *Correctional Officers and Jailers (33-3012)*
- *Police and Sheriff's Patrol Officers (33-3051)*

¹ The living wage endorsement criteria in this report uses the California Insight Center's living wage of \$20.63 for Orange County, last updated in September 2021, as currently employed by the Chancellor's Office for the *Students Who Attained the Living Wage Strong Workforce Program* metric. However, this figure is outdated and does not reflect recent increases in the cost of living. The MIT Living Wage, updated on February 14, 2024, better accounts for existing economic conditions, with the current MIT Living Wage in Orange County being \$30.48, which is mentioned as a reference only throughout this labor market analysis brief.

These three occupations are most closely related to policing. However, the related TOP and CIP codes for these occupations train for 20 other related occupations, including public safety occupations such as *Detectives and Criminal Investigators (33-9021)* and *Private Detectives and Investigators (33-9021)*, as well as occupations that may be involved in investigating financial and cybersecurity crimes such as *Financial Examiners (13-2061)* and *Information Security Analysts (15-1212)*. For these reasons, supply is overstated for the three policing occupations analyzed in this report.

As a response to public interest in decreasing the use of force by law enforcement officials, California Assembly Bill 89 (AB 89), otherwise known as the Peace Officers Education and Age Conditions for Employment (PEACE) Act, was signed into law in 2022. AB 89 raised the minimum age for peace officers employed by an agency participating in the Peace Officers Standards and Training (POST) program from 18 to 21.² Currently, more than 600 agencies participate in the POST program.³ Additionally, AB 89 directed the California Community College Chancellor's Office (CCCCO), with the advice of the POST Commission and other stakeholders, to develop a modern policing degree that included courses in psychology, communications, history, and other subject areas. The AB 89 task force met throughout 2022 and 2023 and submitted the California Assembly Bill 89 Modern Policing Degree Task Force Report and Recommendations to the legislature in October 2023.⁴ However, AB 89 was unclear on the adoption of new minimum education requirements for peace officers.⁵

Senate Bill 1122 (SB 1122) was introduced in February 2024 to add additional specificity to the education requirements for peace officers in California. According to the bill's author, "SB 1122 adds clarity to education requirements for [peace officer candidates] including the timeline for completion of upcoming degree requirements under the PEACE Act." SB 1122 states "that a bachelor's degree or an associate's degree required for employment as a peace officer under these provisions may be obtained after completion of the POST program and within 36 months of employment as a peace officer."⁶ As of June 2024, SB 1122 was passed by both the Senate and Assembly but has not been enacted.⁷ For these reasons, community colleges throughout the state are updating their criminal justice programs to accommodate the new legislation. It is yet unclear whether or not the new Modern Policing programs will replace existing programs or be additions to them.

Based on the available data, there appears to be a supply gap for these policing occupations. Though the number of awards for these occupations exceeds demand, supply is overstated because the related educational programs train for an additional 20 occupations. When considering the high demand for these occupations, there is most likely an undersupply of labor for the three policing occupations. In addition, typical education requirements for these occupations align with a community college education and typical entry-level wages are significantly above the California Insight living wage. **Therefore, due to all regional labor market criteria being met, the COE endorses this proposed program.**

² https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB89

³ "About Us," Commission on Peace Officers Standards and Training, accessed June 25, 2024, <https://post.ca.gov/About-Us>.

⁴ "California Assembly Bill 89 Modern Policing Degree Task Force Report and Recommendations," California Community College Chancellor's Office, accessed June 25, 2024, https://www.cccco.edu/-/media/CCCCO-Website/docs/report/2023-AB-89-Task-Force-Report-to-Legislature---FINAL.pdf?_ga=en&hash=734BC84521A88B49A0ADAD91AE1E289D031937C9

⁵ "AB 89 – Raises Minimum Age For Peace Officers; Launches Development Of A Community College Degree In Modern Policing," Liebert Cassidy Whitmore, last modified November 3, 2021, <https://www.lcwlegal.com/news/ab-89-raises-minimum-age-for-peace-officers-launches-development-of-a-community-college-degree-in-modern-policing/>.

⁶ California Legislature. Senate. *SB-1122 Peace officers: educational requirements*. 2023-2024 Regular Session, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240SB1122

⁷ "SB 1122: Peace Officers: Educational Requirements," Digital Democracy, accessed June 27, 2024, https://digitaldemocracy.calmatters.org/bills/ca_202320240sb1122.

Exhibit 1 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 (25 th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
First-Line Supervisors of Police and Detectives (33-1012)	LA: 241	LA: 1,322		High school diploma or equivalent	41%
	OC: 58	OC: 443	OC: \$59.98		
	TTL: 298	TTL: 1,765			
Correctional Officers and Jailers (33-3012)	LA: 392	LA: 90		High school diploma or equivalent	49%
	OC: 90	OC: 13	OC: \$28.37		
	TTL: 482	TTL: 104			
Police and Sheriff's Patrol Officers (33-3051)	LA: 1,941	LA: 2,540		High school diploma or equivalent	47%
	OC: 464	OC: 656	OC: \$38.53		
	TTL: 2,404	TTL: 3,196			
Total	3,851	5,065	N/A	N/A	N/A

Demand:

- The number of jobs related to these policing occupations is projected to increase 6% through 2027, equating to 3,185 annual job openings.
- Hourly entry-level wages for these policing occupations range from \$28.37 to \$59.98 in Orange County; all annual job openings have entry-level wages significantly above the California Insight living wage.
- There were 2,056 online job postings for these policing occupations over the past 12 months. The highest number of postings were for border patrol agents, police officers, and law enforcement interns.
- The typical entry-level education for these policing occupations is a high school diploma or equivalent.
- Between 41% and 49% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

Supply:

- There was an average of 3,319 awards conferred by 26 community colleges in Los Angeles and Orange Counties from 2019 to 2022.
- Non-community college institutions conferred an average of 1,746 awards from 2019 to 2021.
- Orange County community college students that exited administration of justice programs in the 2020-21 academic year had a median annual wage of \$46,656 (\$22.43 per hour) after exiting the program and 52% attained the regional living wage (California Insight).
- Throughout Orange County, 44% of administration of justice students that exited their program in 2019-20 reported that they are working in a job closely related to their field of study.

Demand

Occupational Projections:

Exhibit 2 shows the annual percent change in jobs for these policing occupations from 2017 through 2027. Though employment for all occupations declined 7% in Los Angeles and Orange counties due to the COVID-19 pandemic, employment for these policing occupations declined only 1% during the same period in Orange County. Employment for these policing occupations continued to decrease at varying degrees through 2022.

In the years preceding the pandemic, employment for these occupations fluctuated, with a decline in 2017, followed by an increase through 2019. However, employment for these policing occupations is projected to increase 1% in Orange County and through 2027, similarly to all occupations across Los Angeles and Orange counties.

Exhibit 2: Annual Percent Change in Jobs for Policing Occupations, 2017-2027

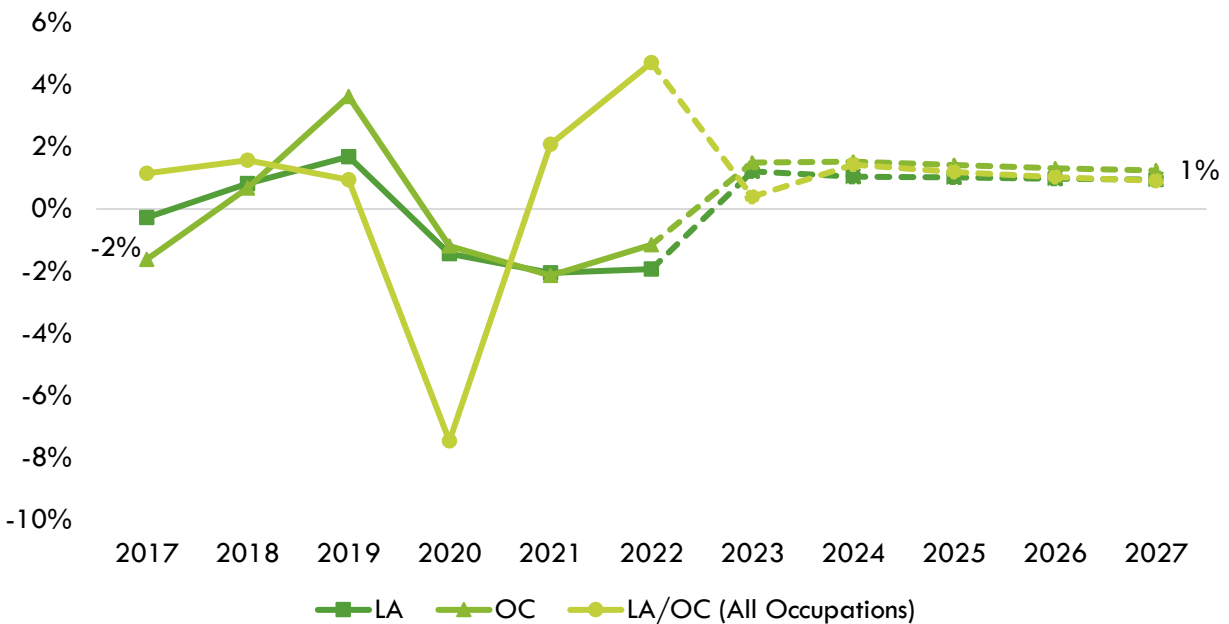


Exhibit 3 shows the five-year occupational demand projections for these policing occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 6% through 2027. There is projected to be 3,185 jobs available annually.

Exhibit 3: Occupational Demand in Los Angeles and Orange Counties⁸

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	29,027	30,565	1,538	5%	2,574
Orange	6,578	7,051	473	7%	611
Total	35,605	37,616	2,011	6%	3,185

⁸ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

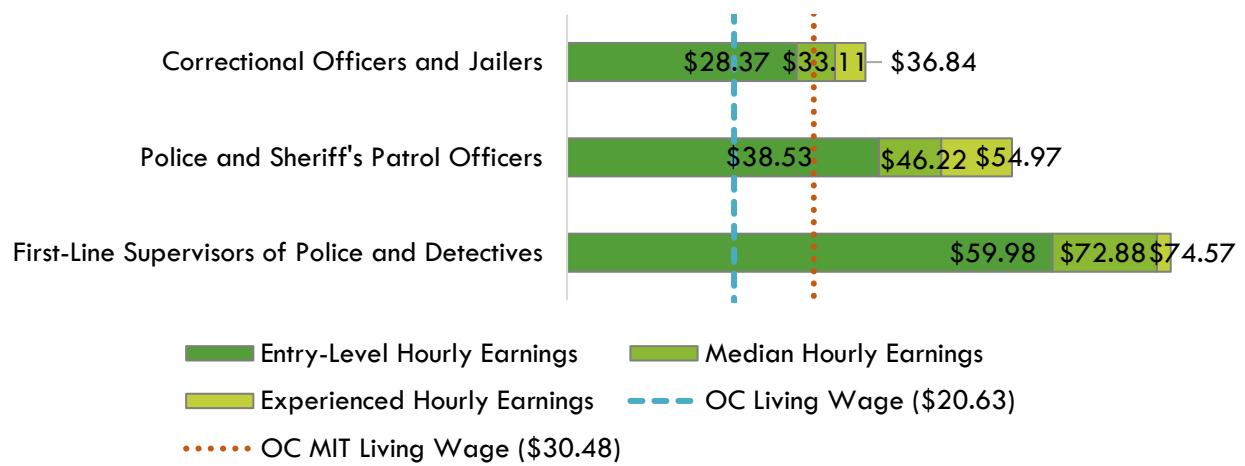
Wages:

The labor market endorsement in this report considers the entry-level hourly wages for these policing occupations in Orange County as they relate to the county's living wage. Los Angeles County wages are included below to provide a complete analysis of the LA/OC region.

It is important to note that the living wage endorsement criteria in this report uses the California Insight Center's living wage of \$20.63 for Orange County, last updated in September 2021, as currently employed by the Chancellor's Office for the *Students Who Attained the Living Wage Strong Workforce Program* metric. However, this figure is outdated and does not reflect recent increases in the cost of living. The MIT Living Wage, updated on February 14, 2024, better accounts for existing economic conditions, with the current MIT Living Wage in Orange County being \$30.48. Both figures are notated in the exhibits below.

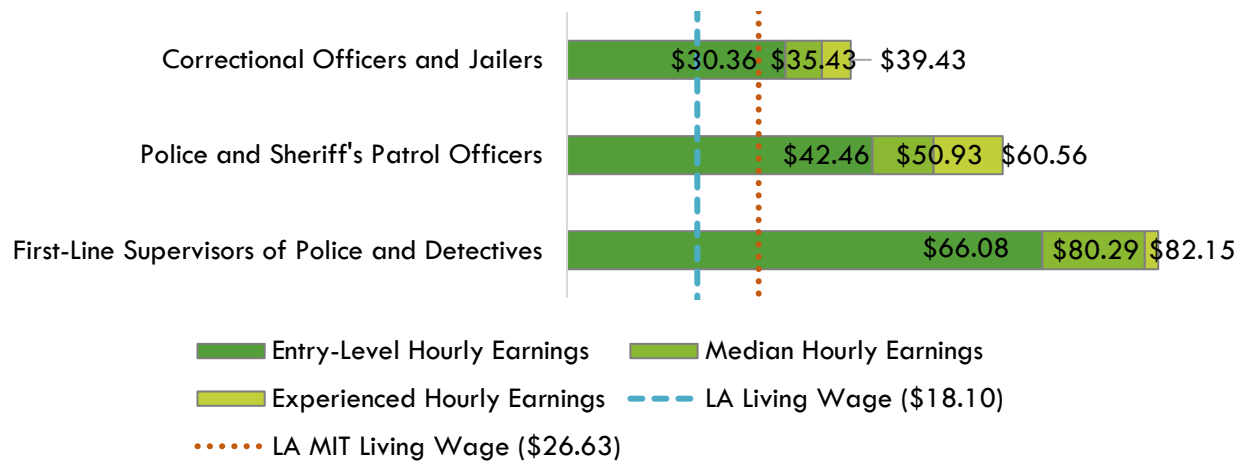
All annual openings for these policing occupations have entry-level wages significantly above the California Insight living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages range between \$28.37 and \$59.98. Orange County's average wages of \$46.99 are below the average statewide wage of \$48.93 for these occupations. Exhibit 4 shows the wage range for each of these policing occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 4: Wages by Occupation in Orange County



All annual openings for these policing occupations have entry-level wages significantly above the California Insight living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages range between \$30.36 and \$66.08. Los Angeles County's average wages of \$51.61 are above the average statewide wage of \$48.93 for these occupations. Exhibit 5 shows the wage range for each of these policing occupations in Los Angeles County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 5: Wages by Occupation in Los Angeles County



Job Postings:

Important Online Job Postings Data Note: 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. 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 or phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors.⁹ For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast's database.

Additionally, 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.

There were 2,056 online job postings related to these policing occupations listed in the past 12 months. Exhibit 6 shows the number of job postings by occupation. Over 76% of job postings were for police and sheriff's patrol officers and more than 12% were for correctional officers and jailers.

Exhibit 6: Number of Job Postings by Occupation (n=2,056)

Occupation	Job Postings	Percentage of Job Postings
Police and Sheriff's Patrol Officers	1,579	76.8%
Correctional Officers and Jailers	257	12.5%
First-Line Supervisors of Police and Detectives	220	10.7%
Total Postings	2,056	100.0%

⁹ K. R. Chowdhary, Fundamentals of Artificial Intelligence (Basingstoke: Springer Nature, 2020), <https://link.springer.com/book/10.1007/978-81-322-3972-7>.

The top employers in the region, by number of job postings, are shown in Exhibit 7.

Exhibit 7: Top Employers by Number of Job Postings (n=2,056)

Employer	Job Postings	Percentage of Job Postings
United States Department of Homeland Security	574	28%
Allied Universal	108	5%
Seattle Colleges Foundation	63	3%
City of Glendale	45	2%
United States Secret Service	36	2%
County Orange-Health Care Agency	30	1%
California State University	26	1%
Citizenship And Immigration Services	26	1%
South Orange County Community College District	21	1%
City Of Pasadena	19	1%

The top specialized, soft, and computer skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 8.

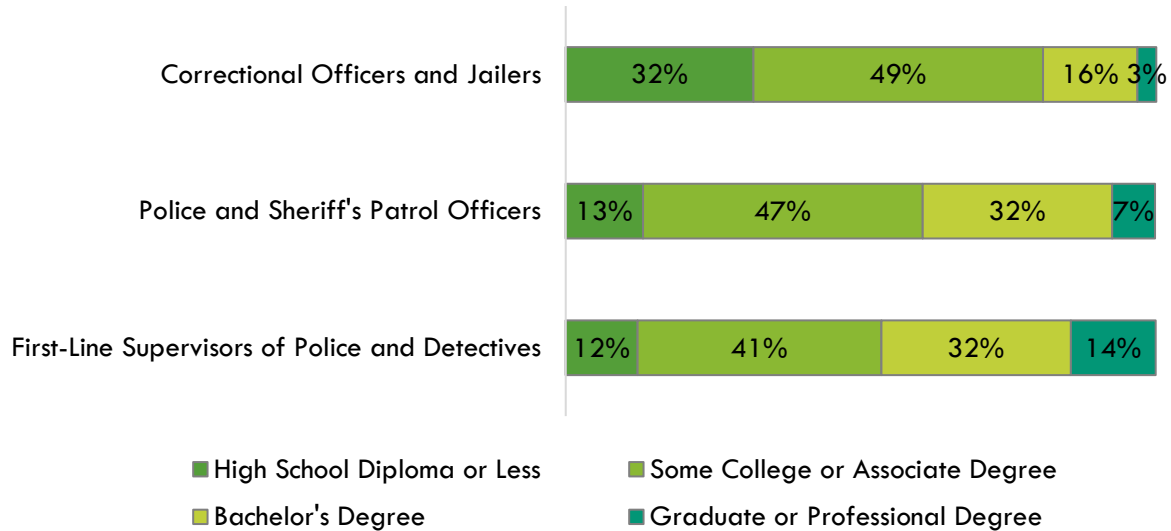
Exhibit 8: Top Skills by Number of Job Postings (n=2,056)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Law Enforcement (1,002)	Investigation (845)	Microsoft Outlook (45)
Patrolling (539)	Operations (789)	Microsoft Excel (37)
Rehabilitation (526)	Tactfulness (638)	Spreadsheets (31)
International Laws (477)	Communication (598)	Microsoft Office (26)
Motorcycles (475)	Spanish Language (546)	Microsoft Word (25)
Forensic Psychology (473)	Persuasive Communication (397)	Microsoft PowerPoint (23)
All Terrain Vehicles (465)	Customer Service (389)	Student Information Systems (14)
Code Enforcement (462)	Resourcefulness (379)	Expo (Application Development Framework) (12)
Economics (387)	English Language (358)	Business Software (10)
Criminal Justice (280)	Writing (349)	Autodesk Revit (8)

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent for each of the three policing occupations. However, the national-level educational attainment data indicates between 41% and 49% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 9 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 9: National-level Educational Attainment for Occupations



Of the 72% of the cumulative job postings for these policing occupations that listed a minimum education requirement in Los Angeles/Orange County, 54% (803) requested a high school diploma or an associate degree and 43% (639) requested a bachelor's degree.

Educational Supply

Community College Supply:

Exhibit 10 shows the three-year average number of awards conferred by community colleges in the related TOP codes¹⁰:

- Administration of Justice (2105.00)
- Corrections (2105.10)
- Probation and Parole (2105.20)
- Industrial and Transportation Security (2105.30)
- Forensics, Evidence, and Investigation (2105.40)
- Police Academy (2105.50)

The colleges with the most completions in the region are East LA, Rio Hondo, and Citrus. Over the past 12 months, there was one other related program recommendation request from regional community colleges.

Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2019-2022

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
2105.00	Administration of Justice	Cerritos	111	121	99	110
		Citrus	224	253	219	232
		East LA	786	491	405	561
		El Camino	117	112	104	111
		Glendale	33	47	42	41
		LA Pierce	117	86	90	98
		LA Trade	21	19	30	23
		LA Valley	54	51	39	48
		Long Beach	152	150	135	146
		Mt San Antonio	87	112	108	102
		Pasadena	145	127	77	116
		Rio Hondo	159	186	217	187
		Compton	18	22	22	21
		LA City	39	52	34	42
		LA Harbor	39	56	33	43
		LA Mission	51	54	70	58
		LA Southwest	39	36	31	35
		Santa Monica	22	46	49	39
West LA	108	141	77	109		

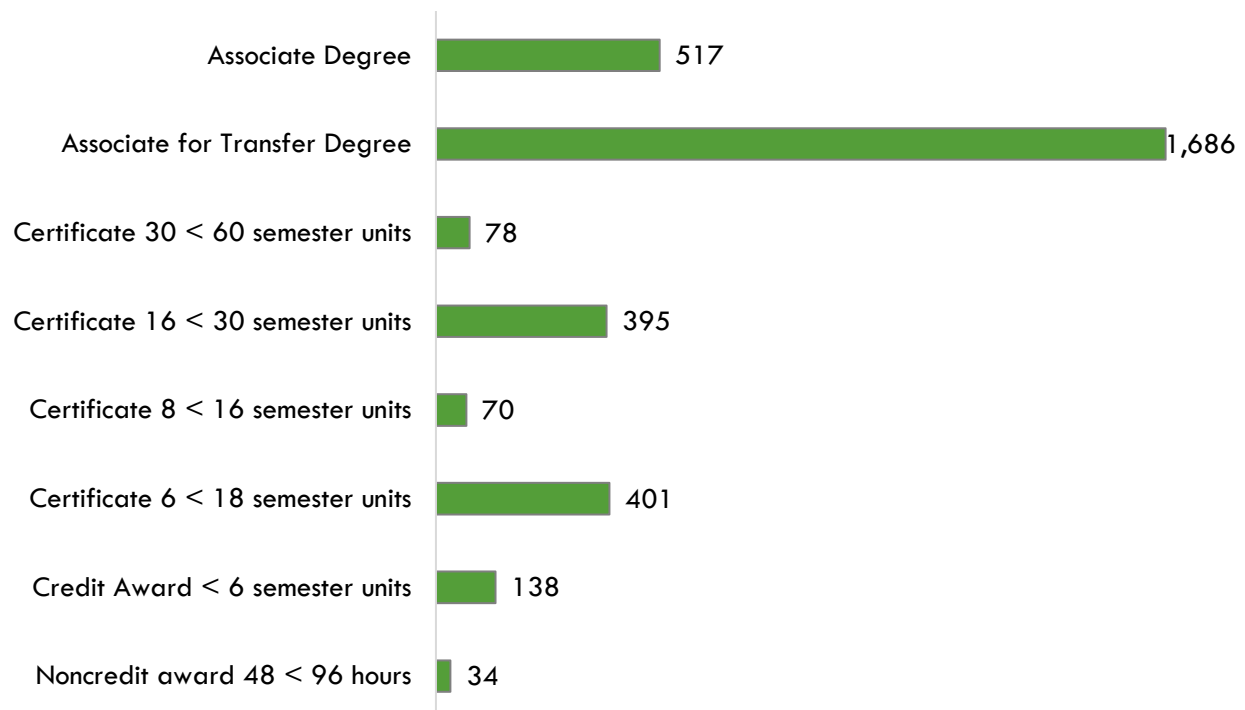
¹⁰ One TOP code – Geographic Information Systems (2206.10) – was removed from supply. A review of existing Geographic Information Systems programs and courses in Los Angeles and Orange counties showed that only one course (Crime Mapping and Analysis at Rio Hondo) was directly related to criminal justice. Because no other programs or courses directly prepare students for criminal justice occupations, this TOP code was removed from supply.

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		LA Subtotal	2,322	2,162	1,881	2,122
		Fullerton	111	152	119	127
		Golden West	182	159	189	177
		Irvine	59	74	75	69
		Santa Ana	97	80	85	87
		Coastline	23	25	15	21
		Cypress	40	47	33	40
		OC Subtotal	512	537	516	522
		Supply Subtotal/Average	2,834	2,699	2,397	2,643
2105.10	Corrections	Citrus	18	14	14	15
		East LA	31	6	46	28
		LA Trade	6	1	0	2
		Rio Hondo	6	4	12	7
		LA Subtotal	61	25	72	53
		Saddleback	1	6	11	6
		Santa Ana	0	7	15	7
		OC Subtotal	1	13	26	13
		Supply Subtotal/Average	62	38	98	66
2105.20	Probation and Parole	East LA	9	14	48	24
		Rio Hondo	0	0	6	2
		LA Mission	0	1	2	1
		LA Subtotal	9	15	56	27
		-	-	-	-	
		OC Subtotal	-	-	-	-
		Supply Subtotal/Average	9	15	56	27
2105.30	Industrial and Transportation Security	Citrus	6	12	4	7
		East LA	27	0	5	11
		LA Subtotal	33	12	9	18
		Coastline	7	10	10	9
		Cypress	3	4	1	3
		OC Subtotal	10	14	11	12
		Supply Subtotal/Average	43	26	20	30
2105.40	Forensics, Evidence, and Investigation	East LA	31	28	63	41
		El Camino	4	6	10	7
		Long Beach	23	22	19	21
		Rio Hondo	0	0	13	4
		LA Subtotal	58	56	105	73

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		-	-	-	-	-
		OC Subtotal	-	-	-	-
		Supply Subtotal/Average	58	56	105	73
2105.50	Police Academy	East LA	354	234	116	235
		Rio Hondo	66	96	166	109
		LA Mission	3	0	1	1
		LA Subtotal	434	330	283	345
		Golden West	23	11	14	16
		Santa Ana	0	0	356	119
		OC Subtotal	23	11	370	135
		Supply Subtotal/Average	446	341	653	480
		Supply Total/Average	3,452	3,175	3,329	3,319

Exhibit 11 shows the annual average community college awards by type from 2019-20 to 2021-22. The plurality of the awards are for associate for transfer degrees, followed by associate degrees and certificates between 6 and less than 18 semester units.

Exhibit 11: Annual Average Community College Awards by Type, 2019-2022



Community College Student Outcomes:

Exhibit 12 shows the Strong Workforce Program (SWP) metrics for administration of justice programs in Rancho Santiago Community College District (RSCCD), the Orange County Region, and California. Of the 6,406 administration of justice students in the 2020-21 academic year, 53% (3,401) attended a RSCCD college.

RSCCD students that exited administration of justice programs in the 2020-21 academic year had significantly higher median annual earnings (\$81,238 or \$39.06 per hour) compared to all administration of justice students in Orange County (\$46,656 or \$22.43 per hour). A higher percentage of RSCCD administration of justice students attained the California Insight living wage (63%) when compared to all administration of justice students in Orange County (52%).

Exhibit 12: Administration of Justice (2105.00) Strong Workforce Program Metrics, 2020-21¹¹

SWP Metric	RSCCD	OC Region	California
SWP Students	3,401	6,406	75,749
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	5%	12%	20%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	Insufficient Data	55%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	80	446	7,062
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2019-20)	81	401	5,573
SWP Students with a Job Closely Related to Their Field of Study (2019-20)	50%	44%	53%
Median Annual Earnings for SWP Exiting Students	\$81,238 (\$39.06)	\$46,656 (\$22.43)	\$40,498 (\$19.47)
Median Change in Earnings for SWP Exiting Students	15%	19%	28%
SWP Exiting Students Who Attained the Living Wage	63%	52%	59%

Non-Community College Supply:

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering policing programs. Exhibit 13 displays the annual and two-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) codes:

- Corrections (43.0102)
- Criminal Justice/Law Enforcement Administration (43.0103)
- Criminal Justice/Safety Studies (43.0104)
- Geospatial Intelligence (43.0407)

No awards were conferred under the following related CIP codes:

- Criminal Justice and Corrections, General (43.0100)
- Criminal Justice/Police Science (43.0107)
- Juvenile Corrections (43.0110)
- Law Enforcement Investigation and Interviewing (43.0114)

¹¹ All SWP metrics are for 2020-21 unless otherwise noted.

- Law Enforcement Record-Keeping and Evidence Management (43.0115)
- Critical Incident Response/Special Police Operations (43.0119)
- Corrections and Criminal Justice, Other (43.0199)
- Homeland Security (43.0301)
- Security Science and Technology, General (43.0401)
- Criminalistics and Criminal Science (43.0402)

The available data covers 2019 to 2021. During this period, non-community college institutions in the region conferred an average of 1,746 awards annually in related programs.

Exhibit 13: Regional Non-Community College Awards, 2019-2021

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2-Year Award Average
43.0102	Corrections	San Joaquin Valley College-Lancaster	14	8	11
Supply Subtotal/Average			14	8	11
43.0103	Criminal Justice/Law Enforcement Administration	Abraham Lincoln University	3	3	3
		Azusa Pacific University	37	49	43
		Los Angeles Pacific University	12	14	13
		University of Antelope Valley	19	18	19
Supply Subtotal/Average			71	84	78
43.0104	Criminal Justice/Safety Studies	California State University-Dominguez Hills	203	295	249
		California State University-Fullerton	334	365	350
		California State University-Long Beach	227	321	274
		California State University-Los Angeles	307	330	319
		California State University-Northridge	315	333	324
		Hope International University	0	2	1
		Marymount California University	24	25	25
		Platt College-Anaheim	16	7	12

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2-Year Award Average
		Platt College-Los Angeles	24	9	17
		University of Massachusetts Global	79	60	70
		University of Southern California	4	31	18
		Woodbury University	0	0	0
Supply Subtotal/Average			1,533	1,778	1,656
43.0407	Geospatial Intelligence	Mount Saint Mary's University	2	2	2
Supply Subtotal/Average			2	2	2
Supply Total/Average			1,620	1,872	1,746

Regional Demographics

This section examines demographic data for Orange County community college students in administration of justice programs compared to the OC population, along with occupational data, to identify potential diversity and equity issues addressable by community college programs.

Ethnicity:

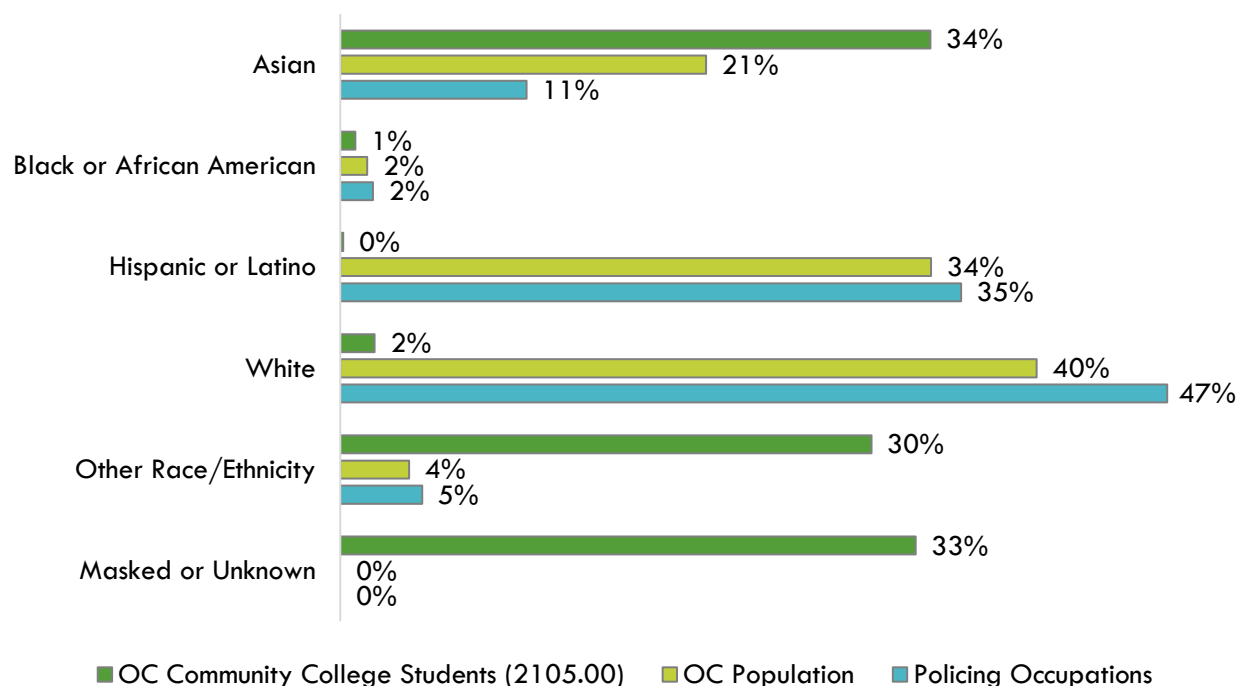
Exhibit 14 compares the ethnicity of Orange County community college students enrolled in administration of justice programs, the overall Orange County population, and occupation-specific data for the three policing occupations included in this report.

Notably, the ethnicity for 33% of community college administration of justice students is masked or unknown. This significant percentage of masked or unknown data likely contributes to the low percentage of white (2%) and Hispanic or Latino (0%) community college justice students. The plurality of workers (47%) employed in these policing occupations are white, which is higher than their share in the county population (40%). Additionally, 35% of workers in the field are Hispanic or Latino, which is nearly identical to the population (34%).

When solely considering available student demographic data, the plurality of community college administration of justice students is Asian (34%), which is significantly higher than the population (21%) and these policing occupations (11%). Approximately 30% of students are another race or ethnicity (30%), which is significantly higher than the population (4%) and workers in the field (5%).

Examining disaggregated data for each occupation (not shown), white workers account for the majority of *first-line supervisors of police and detectives* (67%) and *police and sheriff's patrol officers* (51%). These occupations offer the highest (\$59.98) and second highest (\$38.53) entry-level wages of three policing occupations, respectively. Among *first-line supervisors of police and detectives*, 0% are Asian. The occupation with the highest percentages of Asian (15%) and Hispanic or Latino (66%) workers is *correctional officers and jailers*. This occupation has the lowest entry-level wage (\$28.37) of the three policing occupations.

Exhibit 14: Program and County Demographics by Ethnicity



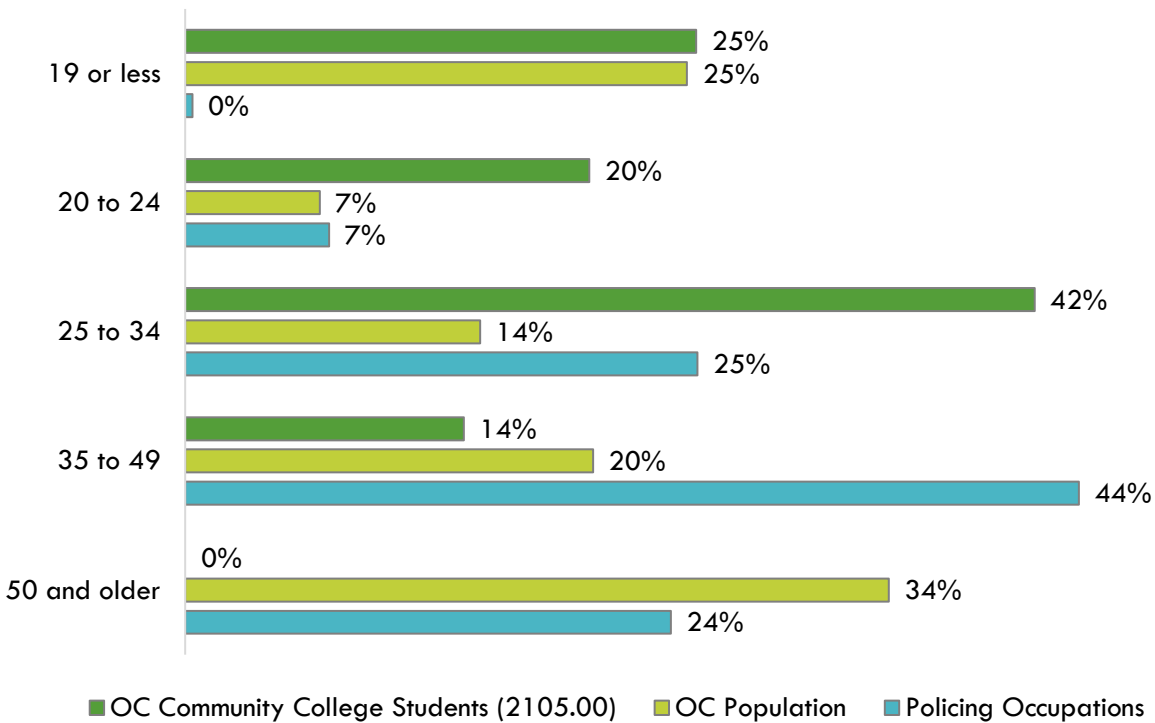
Age:

Exhibit 15 compares the age of Orange County community college students enrolled in administration of justice programs, the overall Orange County population, and occupation-specific data for the three policing occupations included in this report.

Nearly 68% of workers in these policing occupations are age 35 and older, which is higher than their representation in the population (54%) and significantly higher than their share amongst community college administration of justice students (14%). Age group 50 and older accounts for 0% of community college administration of justice students. Most community college administration of justice students are 19 to 34 (87%), which is significantly higher than the 32% of workers in the field and 46% of the county population in this age range.

Examining disaggregated data for each occupation (not shown), individuals 50 and older account for the majority of *first-line supervisors of police and detectives* (52%). In addition, the majority and/or plurality of *correctional officers and jailers* (54%) and *police and sheriff's patrol officers* (41%) are 35 to 49.

Exhibit 15: Program and County Demographics by Age



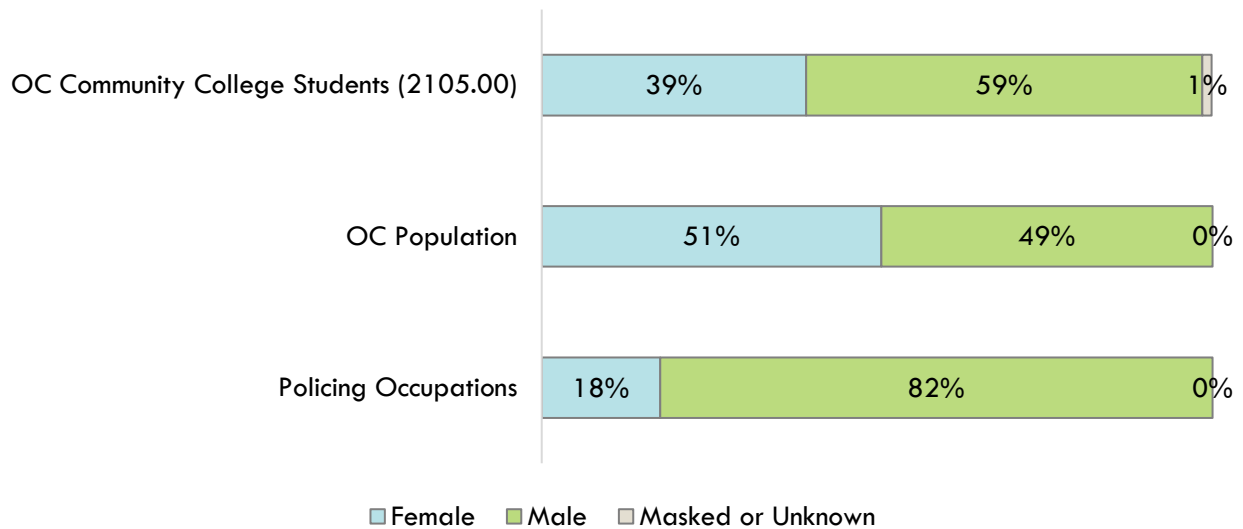
Sex:

Exhibit 16 compares the sex of Orange County community college students enrolled in administration of justice programs, the overall Orange County population, and occupation-specific data for these policing occupations.

Though the population is split nearly evenly between women and men, only 39% of community college administration of justice students and 18% of workers in the field are women.

Examining disaggregated data for each occupation (not shown), there are significantly larger percentages of men than women across all three occupations. Notably, 92% of *first-line supervisors of police and detectives* are men. The occupation with the largest percentage of women is *correctional officers and jailers* (32%). This occupation has the lowest entry-level wage (\$28.37) of the three policing occupations.

Exhibit 16: Program and County Demographics by Sex



Appendix A: Methodology

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

Using a TOP-SOC crosswalk, the OC 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 OC 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.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the OC 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. 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.

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.

Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see https://lightcast.io/</p>
Living Wage	<p>The living wage is derived from the Insight Center’s California Family Needs Calculator, which measures the income necessary for an individual of family to afford basic expenses. The data, last updated in September 2021, assesses the cost of housing, food, child care, health care, transportation, and taxes. For more information, see: https://insightccd.org/family-needs-calculator/</p> <p>The living wage for one adult in Orange County is \$20.63 per hour (\$42,910.40 annually). This figure is used by the CCCCCO to calculate the percentage of students that attained the regional living wage.</p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. 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. For more information, see https://www.bls.gov/emp/documentation/education/tech.htm</p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see https://www.onetonline.org/help/online/</p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu</p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</p>
Student Metrics and Demographics	<p>LaunchBoard, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: https://www.calpassplus.org/LaunchBoard/Home.aspx</p>

Data Type	Source
Population and Occupation Demographics	<p>The Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: https://www.census.gov/programs-surveys/acs</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: https://usa.ipums.org/usa/about.shtml</p>

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