

Summary

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

	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Supply Gap:	<i>Comments:</i> there is projected to be 3,046 annual job openings throughout Los Angeles and Orange counties for these criminal justice occupations, which is less than the 3,290 awards conferred by educational institutions . However, the oversupply is within the COE's margin (25% over or under the number of annual job openings) to be considered "supply met" rather than a "supply gap".	
Living Wage: (Entry-Level, 25 th)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> all annual job openings for these administration of justice 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> These administration of justice occupations typically require a high school diploma and more than one-third 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:

- Bailiffs (33-3011)
- Correctional Officers and Jailers (33-3012)
- Police and Sheriff's Patrol Officers (33-3051)

Based on the available data there does not appear to be a supply gap for these criminal justice occupations. However, the oversupply is within the COE's margin (25% over or under the number of annual job openings) to be considered "supply met" rather than a "supply gap". Additionally, all annual job openings have entry-level wages above the living wage and typical education requirements for these occupations align with a community college education. **Therefore, due to some of the regional labor market criteria being met, the COE endorses this proposed program.**

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
Bailiffs (33-3011)	LA: 52 OC: 12 TTL: 64	Accounted for Below	OC: \$32.21	High school diploma or equivalent	41%
Correctional Officers and Jailers (33-3012)	LA: 410 OC: 88 TTL: 497	LA: 62 OC: 13 TTL: 75	OC: \$28.36	High school diploma or equivalent	49%
Police and Sheriff's Patrol Officers (33-3051)	LA: 2,002 OC: 482 TTL: 2,484	LA: 2,568 OC: 657 TTL: 3,225	OC: \$38.59	High school diploma or equivalent	47%
Total	3,046	3,300	N/A	N/A	N/A

Demand:

- The number of jobs related to these criminal justice occupations are projected to increase 4% through 2027, equating to 3,046 annual job openings.
- Hourly entry-level wages for these administration of justice occupations range from \$28.36 to \$38.59 in Orange County; all annual job openings have entry-level wages above the living wage.
- There were 2,563 online job postings for these criminal justice occupations over the past 12 months. The highest number of postings were for border patrol agents, marine interdiction agents, and public safety officers.
- The typical entry-level education for these criminal justice 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 3,290 awards conferred by 26 community colleges in Los Angeles and Orange Counties from 2019 to 2022.
- Non-community college institutions conferred an average of 10 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 \$91,884 after exiting the program and 70% attained the regional living wage.
 - Additionally, Rancho Santiago Community College District (RSCCD) students had even higher median earnings (\$133,568) and a higher percentage attained the living wage (81%).
- 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 percentage change in jobs for these criminal justice occupations from 2017 through 2027. Though there was a 7% decline across all occupations from 2019 to 2020 due to the COVID-19 pandemic, employment in these criminal justice occupations declined only 2% in Orange County during the same period. However, employment for these occupations continued to decline through 2022. Employment for these criminal justice occupations are projected to grow at a similar rate for all occupations through 2027.

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

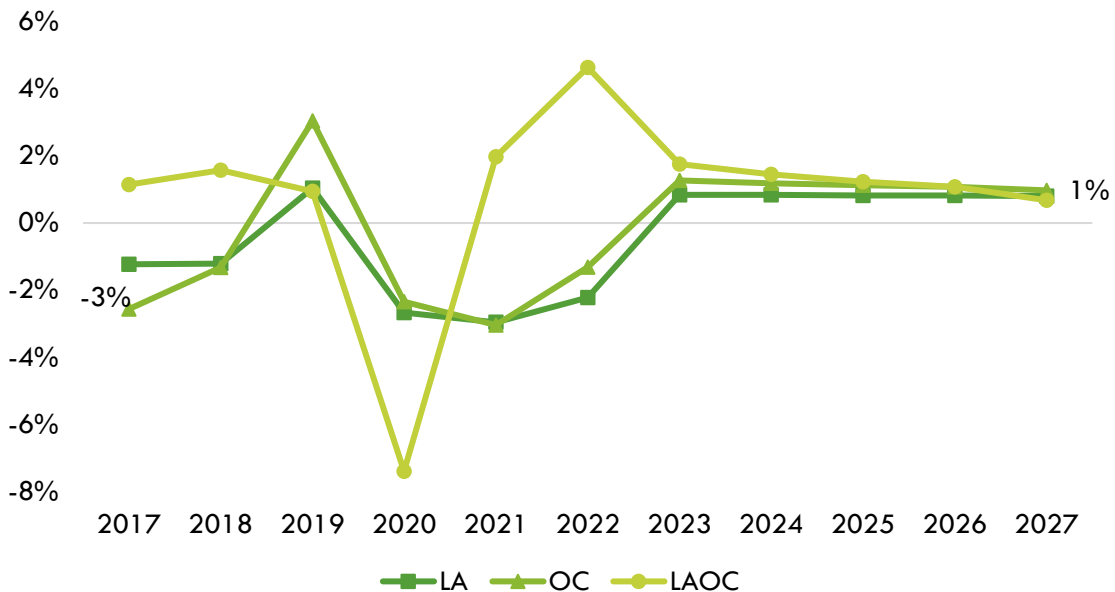


Exhibit 3 shows the five-year occupational demand projections for these criminal justice occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 4% through 2027. There is projected to be 3,046 jobs available annually. If those, 81% (2,464) are in Los Angeles County.

Exhibit 3: Occupational Demand in Los Angeles and Orange Counties¹

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	26,403	27,508	1,105	4%	2,464
Orange	5,999	6,345	346	6%	582
Total	32,402	33,853	1,451	4%	3,046

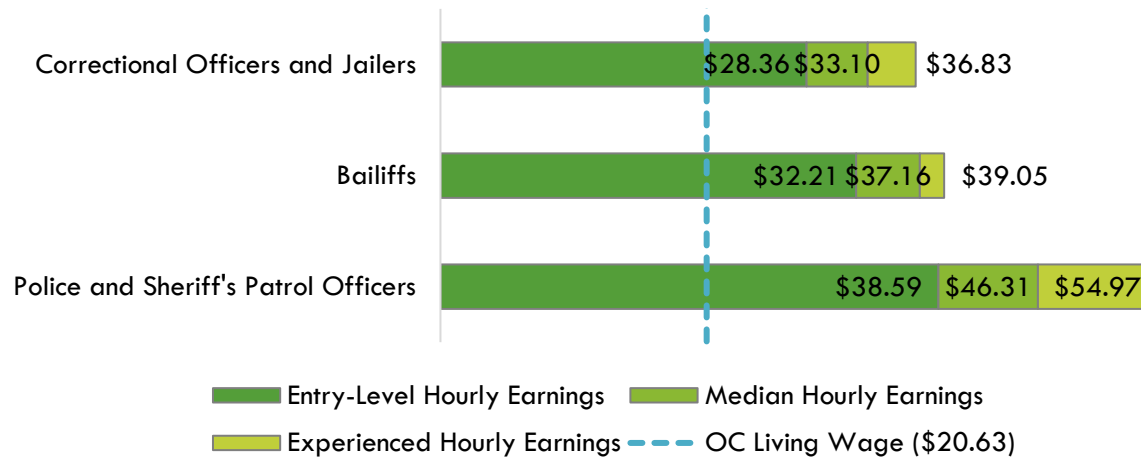
¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Wages:

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

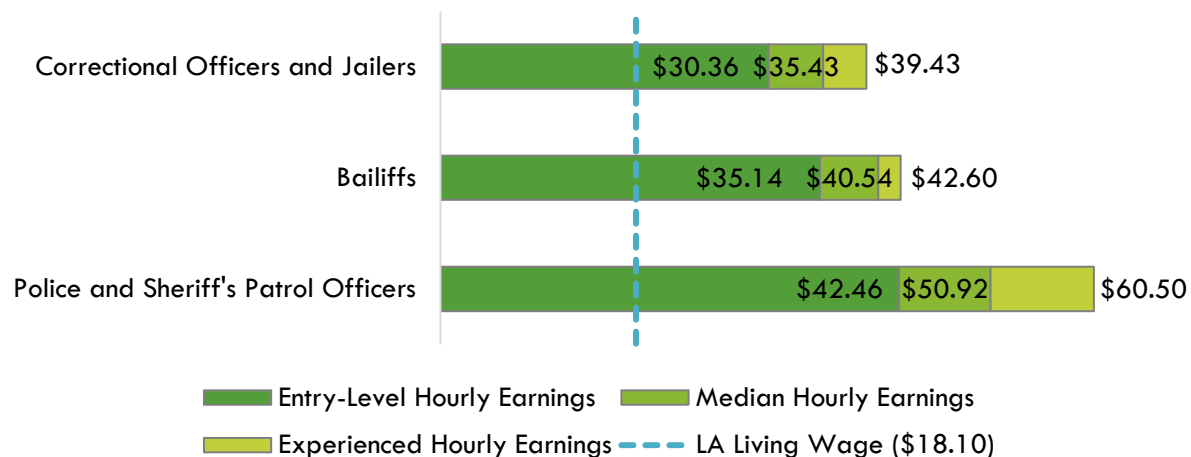
All annual openings for these administration of justice occupations have entry-level wages significantly above the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages range between \$28.36 and \$38.59. Orange County's average wages (\$44.36) are below the average statewide wage of \$46.94 for these occupations. Exhibit 4 shows the wage range for each of these criminal justice 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 criminal justice occupations have entry-level wages significantly above the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$30.36 and \$42.46. Los Angeles County's average wages (\$48.63) are above the average statewide wage of \$46.94 for these occupations. Exhibit 5 shows the wage range for each of these criminal justice 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 of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors.² 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 2,563 online job postings related to these criminal justice occupations listed in the past 12 months. Exhibit 6 shows the number of job postings by occupation. Over 90% of job postings were for police and sheriff's patrol officers.

Exhibit 6: Number of Job Postings by Occupation (n=2,563)

Occupation	Job Postings	Percentage of Job Postings
Police and Sheriff's Patrol Officers	2,358	92%
Correctional Officers and Jailers	196	7.6%
Bailiffs	9	0.4%
Total Postings	2,563	100%

The top employers in the region, by number of job postings, are shown in Exhibit 7. Nearly half (44%) of the postings were from the United States Department of Homeland Security. These postings are primarily for border patrol agents.

Exhibit 7: Top Employers by Number of Job Postings (n=2,563)

Employer	Job Postings	Percentage of Job Postings
United States Department of Homeland Security	1,136	44%
Seattle Colleges Foundation	72	3%
Prime Healthcare Services	44	2%
United States Secret Service	33	1%
City Of Glendale	24	1%
City Of Glendale, Ca	24	1%
City Of Santa Monica	24	1%
Santa Ana Police Department	24	1%
GardaWorld	21	1%
Allied Universal	19	1%

² 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 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=2,563)

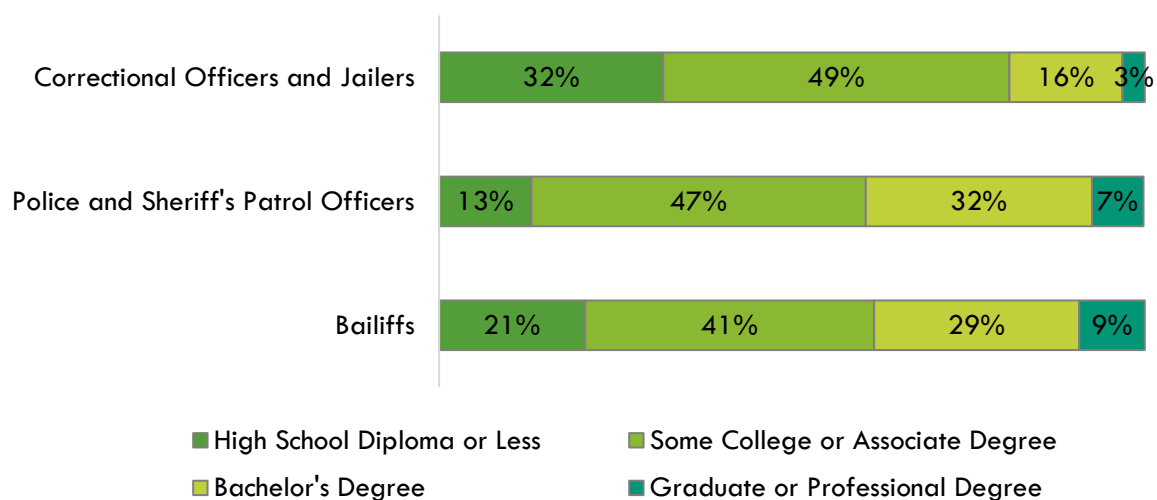
Top Specialized Skills	Top Soft Skills	Top Computer Skills
Law Enforcement (1,256)	Operations (978)	IBM WebSphere MQ (127)
International Laws (714)	Investigation (902)	Microsoft Excel (45)
Rehabilitation (713)	Tactfulness (744)	Microsoft Office (28)
Patrolling (584)	Spanish Language (644)	Microsoft Outlook (27)
All Terrain Vehicles (548)	Management (613)	Microsoft PowerPoint (19)
Motorcycles (532)	Communications (535)	Microsoft Word (17)
Code Enforcement (523)	Persuasive Communication (530)	Spreadsheets (17)
Forensic Psychology (513)	Resourcefulness (514)	Communications Protocols (11)
Contraband Detection And Control (388)	Report Writing (440)	Expo (Application Development Framework) (11)
Economics (385)	Writing (425)	JavaScript (Programming Language) (8)

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for these criminal justice 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.

Of the 68% of the cumulative job postings for these administration of justice occupations that listed a minimum education requirement in Los Angeles/Orange County, 55% (958) requested a high school diploma or an associate degree and 45% (788) requested a bachelor's degree.

Exhibit 9: National-level Educational Attainment for Occupations



Educational Supply

Community College Supply:

Exhibit 10 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Administration of Justice (2105.00), Corrections (2105.10), Probation and Parole (2105.20), Forensics, Evidence, and Investigation (2105.40), and Police Academy (2105.50).

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

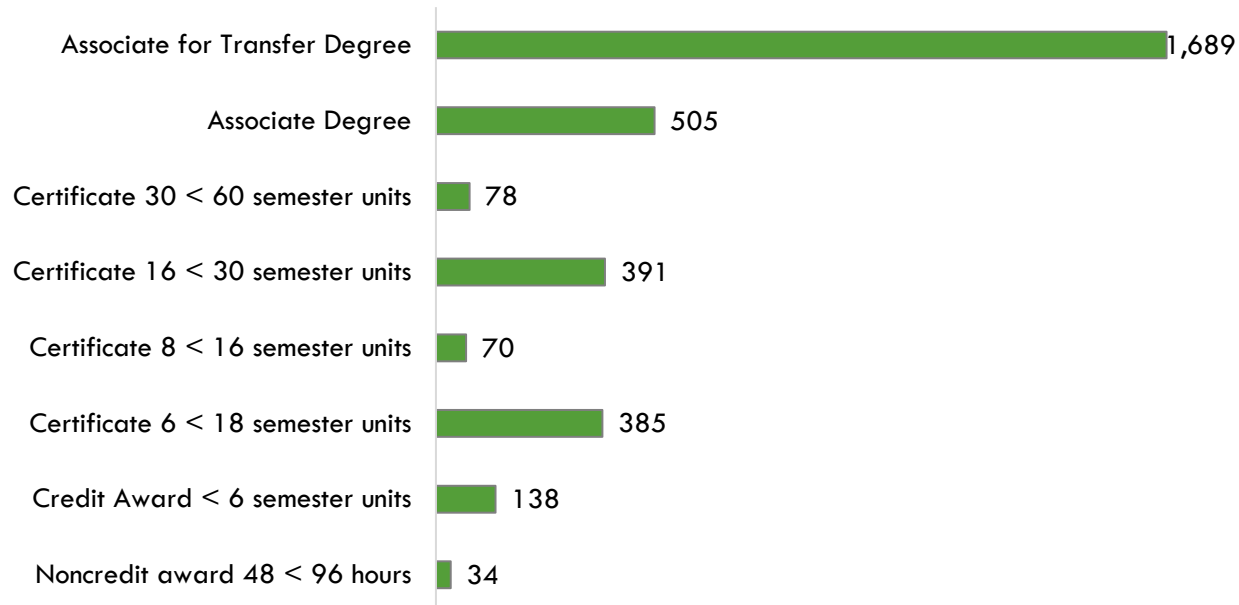
Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2019-2022

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	233		
		Compton	18	22	22	21		
		East LA	786	491	405	561		
		El Camino	117	112	104	111		
		Glendale	33	47	42	41		
		LA City	39	52	34	41		
		LA Harbor	39	56	33	43		
		LA Mission	51	54	70	59		
		LA Pierce	117	86	90	98		
		LA Southwest	39	36	31	36		
		LA Trade	21	19	30	23		
		LA Valley	54	51	39	47		
		Long Beach	152	150	135	146		
		Mt San Antonio	87	112	108	103		
		Pasadena	145	127	77	116		
		Rio Hondo	159	186	217	187		
		Santa Monica	22	46	49	39		
		West LA	108	141	77	109		
		LA Subtotal		2,322	2,162	1,881	2,124	
				Coastline	23	25	15	21
				Cypress	40	47	33	40
				Fullerton	111	152	119	127
				Golden West	182	159	189	176
				Irvine	59	74	75	70
				Santa Ana	97	80	85	88
				OC Subtotal	512	537	516	522
		Supply Subtotal/Average			56	82	65	67
2105.10	Corrections	Citrus	18	14	14	15		
		East LA	31	6	46	28		

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		LA Trade	6	1	0	2
		Rio Hondo	6	4	12	7
		LA Subtotal	61	25	72	52
		Saddleback	1	6	11	6
		Santa Ana	0	7	15	7
		OC Subtotal	1	13	26	13
Supply Subtotal/Average			62	38	98	65
2105.20	Probation and Parole	East LA	9	14	48	24
		LA Mission	0	1	2	1
		Rio Hondo	0	0	6	2
		LA Subtotal	9	15	56	27
		-	-	-	-	-
		OC Subtotal	-	-	-	-
Supply Subtotal/Average			9	15	56	27
2105.40	Forensics, Evidence, and Investigation	East LA	31	28	63	40
		El Camino	4	6	10	6
		Long Beach	23	22	19	21
		Rio Hondo	0	0	13	4
		LA Subtotal	58	56	105	71
		-	-	-	-	-
OC Subtotal	-	-	-	-		
Supply Subtotal/Average			58	56	105	71
2105.50	Police Academy	East LA	354	234	116	235
		LA Mission	3	0	1	1
		Rio Hondo	66	96	166	110
		LA Subtotal	423	330	283	346
		Golden West	23	11	14	16
		Santa Ana	0	0	356	119
		OC Subtotal	23	11	370	135
Supply Subtotal/Average			5	9	18	12
Supply Total/Average			3,409	3,149	3,309	3,290

Exhibit 11 shows the annual average community college awards by type from 2019-20 to 2021-22. The majority of the awards are for associate for transfer degrees, followed by associate degrees.

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 an RSCCD college.

Additionally, RSCCD students that exited administration of justice programs in the 2020-21 academic year had significantly higher median annual earnings (\$133,568) compared to all administration of justice students in Orange County (\$91,884). Median annual earnings for RSCCD students that exited administration of justice programs are over three-times higher than statewide (\$43,004). A higher percentage of RSCCD administration of justice students attained the living wage (81%) when compared to all administration of justice students in Orange County (70%).

Exhibit 12: Administration of Justice (2105.00) Strong Workforce Program Metrics, 2020-21³

SWP Metric	RSCCD	OC Region	California
SWP Students	3,401	6,406	78,586
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	5%	12%	19%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	Insufficient Data	56%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	80	446	7,062

³ All SWP metrics are for 2020-21 unless otherwise noted.

SWP Metric	RSCCD	OC Region	California
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%	0%
Median Annual Earnings for SWP Exiting Students	\$133,568 (\$64.22)	\$91,884 (\$44.18)	\$43,004 (\$20.68)
Median Change in Earnings for SWP Exiting Students	13%	16%	21%
SWP Exiting Students Who Attained the Living Wage	81%	70%	59%

Non-Community College Supply:

For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for these administration of justice occupations. Exhibit 13 shows the annual and two-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Code: Corrections (43.0102). Due to different data collection periods, the most recent two-year period of available data is from 2019 to 2021. Between 2019 and 2021, non-community college institutions in the region conferred an average of 10 awards annually in related training programs.

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

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	3-Year Award Average
43.0102	Corrections	San Joaquin Valley College-Lancaster	14	8	10
Supply Total/Average			14	8	10

Regional Demographics

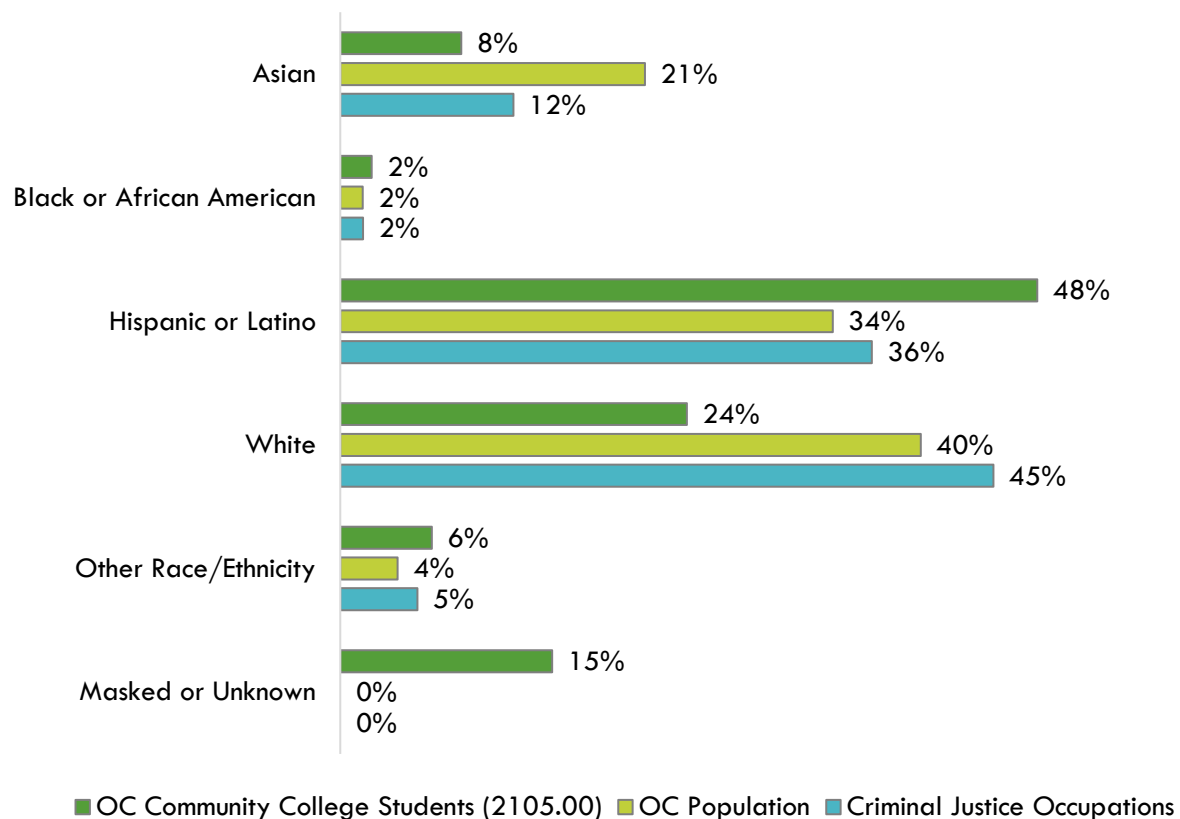
This section analyzes demographic data for Orange County community college students enrolled in administration of justice programs compared to the OC population, as well occupational data, for the purpose of identifying potential diversity and equity issues that can be addressed by community college programs.

Ethnicity:

Exhibit 14 shows the ethnicity of Orange County community college students enrolled in administration of justice programs compared to the overall Orange County population, as well as the three criminal justice occupations included in this report. Notably, 45% of workers employed in these criminal justice occupations are white, which is slightly higher than the population (40%) and significantly higher than community college administration of justice students (24%). Conversely, 48% of administration of justice students are Hispanic or Latino, which is higher than these criminal justice occupations (36%) and the population (34%). Notably, the ethnicity for 15% of administration of justice students is masked or unknown.

There are no significant differences when examining disaggregated data for each occupation (not shown).

Exhibit 14: Program and County Demographics by Ethnicity

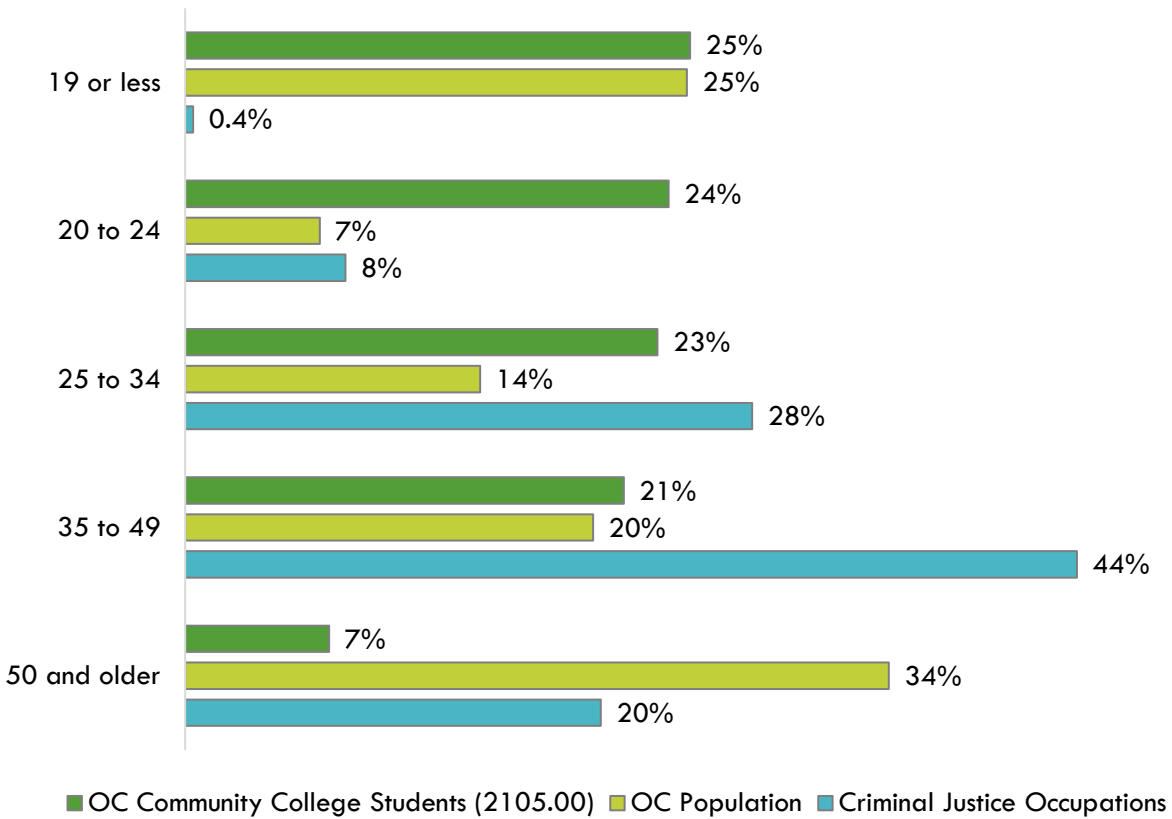


Age:

Exhibit 15 shows the age of Orange County community college students enrolled in administration of justice programs compared to the overall Orange County population, as well as the three criminal justice occupations included in this report. Nearly 45% of workers in these criminal justice occupations are 35 to 49, which is significantly higher than the population (20%) and community college administration of justice students (21%). Over 70% of administration of justice students are 34 or less, which is significantly higher than the population (46%) and these criminal justice occupations (36%).

There are no significant differences when examining disaggregated data for each occupation (not shown).

Exhibit 15: Program and County Demographics by Age

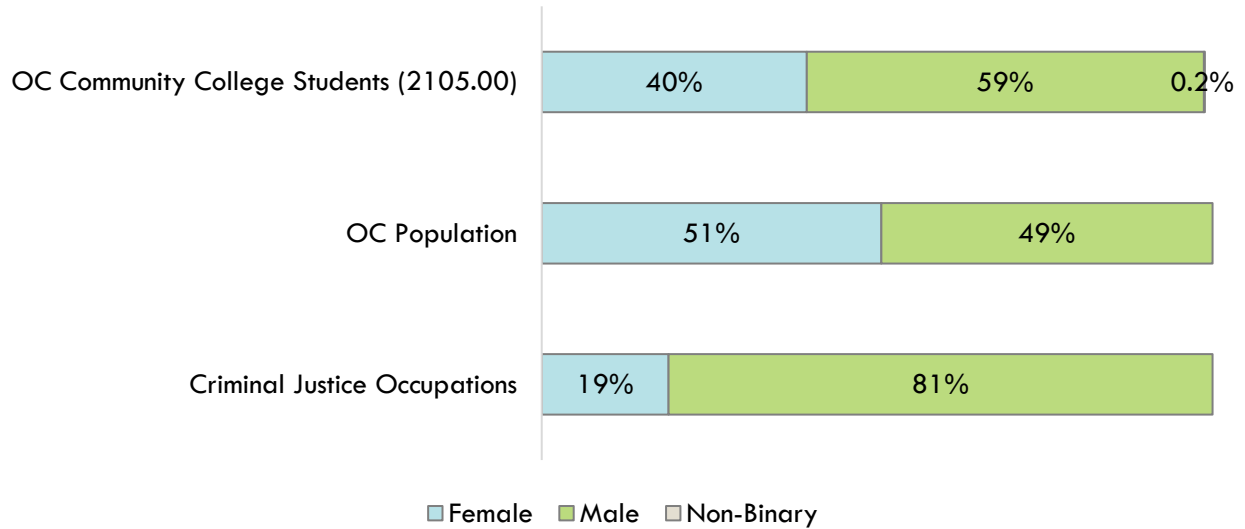


Sex:

Exhibit 16 shows the sex of Orange County community college students enrolled in administration of justice programs compared to the overall Orange County population as well as these criminal justice occupations.

Though the population is split nearly evenly between men and women, 81% of workers in these criminal justice occupations and 59% of administration of justice students are men. There are no significant differences when examining disaggregated data for each occupation (not shown).

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 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>

This labor market analysis was supported by Strong Workforce Program funds through the Orange County Regional Consortium.

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