

Labor Market Analysis for Program Review: 1 221.00/Pharmacy Technology (Pharmacy Technology)

Orange County Center of Excellence, January 2025



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 checked="" type="checkbox"/>	No <input type="checkbox"/>
Supply Gap:	<i>Comments:</i> there is projected to be 1,571 annual job openings throughout Los Angeles and Orange counties for <i>pharmacy technicians</i> , which is more than the 685 awards conferred by educational institutions.	
Self-Sufficiency Standard Living Wage ¹ :	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	<i>Comments:</i> Entry-level hourly wages for <i>pharmacy technicians</i> are \$21.60 , which is significantly below the OC living wage of \$27.13.	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> Though the typical entry-level education for <i>pharmacy technicians</i> is a high school diploma or equivalent, 52% of workers in the field have completed some college or an associate degree as their highest level of education.	

Additional Considerations

Emerging Occupation(s):	Yes <input type="checkbox"/>	Some <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	<i>Comments:</i> N/A		
OC Resilient Job(s):	Yes <input type="checkbox"/>	Some <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	<i>Comments:</i> See Resilient Jobs and US News & World Report Best Jobs		
U.S. News & World Report 2024 Best Jobs List ² :	Yes <input checked="" type="checkbox"/>	Some <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> See Resilient Jobs and US News & World Report Best Jobs		

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 one middle-skill occupation:

- *Pharmacy Technicians (29-2052)*

Based on the available data, there appears to be a supply gap for *pharmacy technicians* and typical education requirements for this occupation align with a high school diploma or equivalent with a community

¹ At the direction of the California Community College Chancellor's Office, the living wage endorsement criteria in this report uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard, which the COE refers to as a living wage, to determine Orange County's living wage of \$27.13, last updated in March 2024.

² "100 Best Jobs of 2024," U.S. News & World Report, accessed May 7, 2024,

<https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs>.

college education. However, typical entry-level wages are significantly below the living wage. **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
Pharmacy Technicians (29-2052)	LA: 1,171 OC: 400	LA: 586 OC: 98	OC: \$21.60	High school diploma or equivalent	52%
Total	1,571	685	N/A	N/A	N/A

Demand:

- The number of jobs related to *pharmacy technicians* is projected to increase 6% through 2027, equating to 1,571 annual job openings.
- Hourly entry-level wages for *pharmacy technicians* are \$21.60 in Orange County, which is significantly below the living wage of \$27.13.
- There were 4,726 online job postings for *pharmacy technicians* over the past 12 months. The highest number of postings were for pharmacy technicians, pharmacy interns, and certified pharmacy technicians.
- The typical entry-level education for *pharmacy technicians* is a high school diploma or equivalent.
- Approximately 52% 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 135 awards conferred by 7 community colleges in Los Angeles and Orange counties from 2020 to 2023.
- Non-community college institutions conferred an average of 550 awards in Los Angeles and Orange counties from 2019 to 2022.
- Orange County community college students that exited pharmacy technology programs in the 2020-21 academic year had a median annual wage of \$37,164 (\$17.87 per hour) after exiting the program and 36% attained the regional living wage.
- Throughout Orange County, 71% of pharmacy technology 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 *pharmacy technicians* from 2018 through 2028. Though there was a 7% decline across all occupations from 2019 to 2020 in Los Angeles and Orange counties due to the COVID-19 pandemic, employment for *pharmacy technicians* in Orange County

decreased by 5% during the same period but experienced significant spikes in 2021 and 2022, followed by a 3% decline in 2023.

In the two years preceding the pandemic, employment for this occupation was steadily increasing. Employment for *pharmacy technicians* in Orange County is projected to increase at a slightly higher rate relative to all occupations in Los Angeles and Orange counties through 2028.

Exhibit 2: Annual Percent Change in Jobs for Pharmacy Technicians, 2018-2028

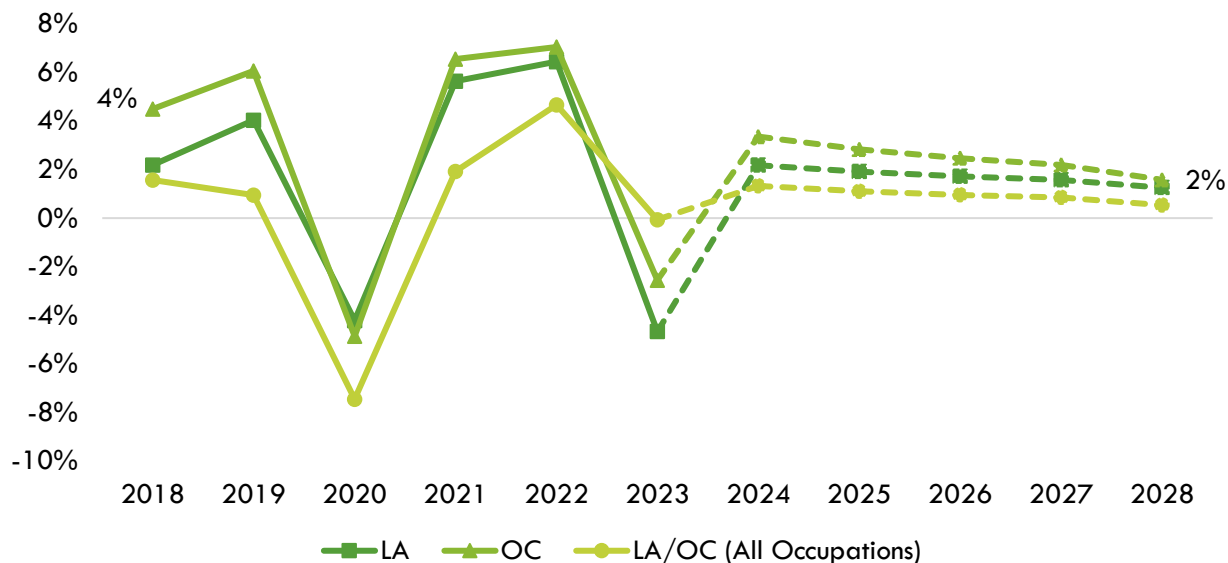


Exhibit 3 shows the five-year occupational demand projections for *pharmacy technicians*. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to increase 6% through 2028. There is projected to be 1,571 jobs available annually.

Exhibit 3: Occupational Demand in Los Angeles and Orange Counties³

Geography	2023 Jobs	2028 Jobs	2023 - 2028 Change	2023 - 2028 % Change	Annual Openings
Los Angeles	11,232	11,957	725	6%	1,171
Orange	3,826	4,076	251	7%	400
Total	15,058	16,033	976	6%	1,571

Wages:

The labor market endorsement in this report considers the entry-level hourly wages *pharmacy technicians* 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.

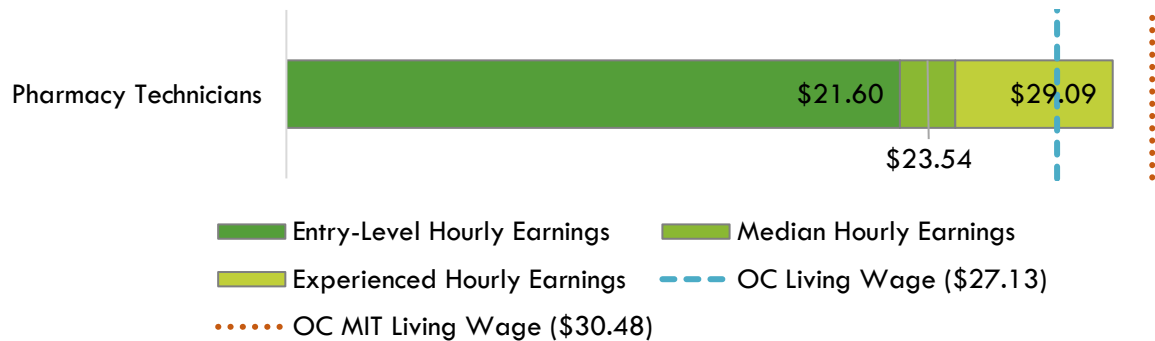
At the direction of the California Community College Chancellor’s Office, the living wage endorsement criteria in this report uses the University of Washington’s Center for Women’s Welfare Self-Sufficiency Standard, which the COE refers to as a living wage, to determine Orange County’s living wage of \$27.13, last updated in March 2024. Additionally, data for the MIT Living Wage, updated on February 14, 2024, is provided as a reference. Currently, the MIT Living Wage in Orange County is \$30.48. Both figures,

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

which account for geographic-specific costs of necessities such as housing, food, health care, and transportation to assess the cost of living, are notated in the exhibits below.

The typical entry-level hourly wage for *pharmacy technicians* is \$21.60, which is significantly below the living wage for one adult (\$27.13 in Orange County). Median wages (\$23.54) are significantly below the living wage, while experienced wages (\$29.09) exceed the living wage. Orange County’s average wage of \$25.78 is lower relative to the average statewide wage of \$26.79 for this occupation. Exhibit 4 shows the wage range for *pharmacy technicians* in Orange County and how it compares to the regional living wage.

Exhibit 4: Wages by Occupation in Orange County



In Los Angeles County, the typical entry-level hourly wage for *pharmacy technicians* is \$21.68, which is below the living wage for one adult (\$23.54). Median wages (\$23.63) are below the living wage, while experienced wages (\$29.20) are significantly higher than the living wage. Los Angeles County’s average wage of \$25.87 is above the average statewide wage of \$26.79 for this occupation. Exhibit 5 shows the wage range for *pharmacy technicians* in Los Angeles County and how it compares to the regional living 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.⁴ 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 4,726 online job postings related to pharmacy technicians listed in the past 12 months, as shown in Exhibit 6.

Exhibit 6: Number of Job Postings by Occupation (n=4,726)

Occupation	Job Postings	Percentage of Job Postings
Pharmacy Technicians	4,726	100%

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=4,726)

Employer	Job Postings	Percentage of Job Postings
CVS Health	683	6%
Walgreens Boots Alliance	390	4%
University of California	175	2%
Walmart	131	1%
RPh on the Go	126	1%
Rite Aid	126	1%
Cedars-Sinai	100	1%
Kroger	92	1%
Rx Relief	79	1%
Albertsons	69	1%

⁴ 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.

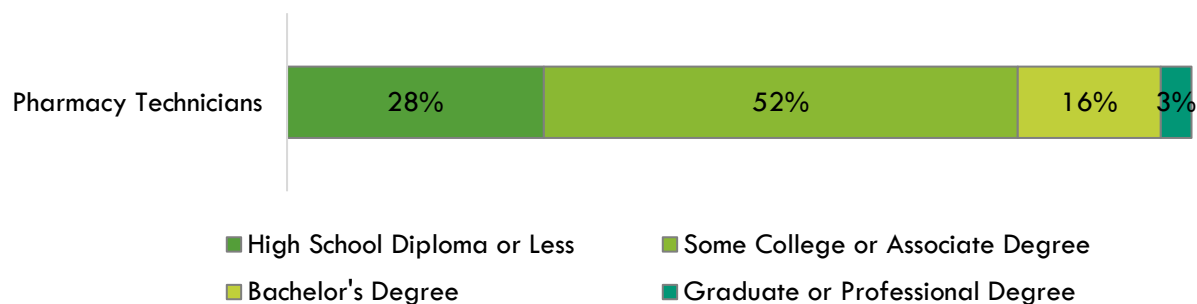
Exhibit 8: Top Skills by Number of Job Postings (n=4,726)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Medical Prescription (2,512)	Customer Service (2,366)	Microsoft Excel (284)
Pharmacy Experience (1,291)	Communication (1,662)	Microsoft Office (282)
Inventory Management (1,217)	Packaging And Labeling (964)	Microsoft PowerPoint (227)
Pharmaceuticals (1,172)	Mathematics (940)	Microsoft Outlook (223)
Pharmacist Assistance (1,086)	English Language (901)	Pyxis MedStation (Medication Dispensing Software) (199)
Medication Dispensation (910)	Writing (856)	Microsoft Word (73)
Workflow Management (744)	Typing (845)	Software Systems (50)
Cash Register (616)	Compassion (781)	Spreadsheets (36)
Inventory Control (566)	Transcribing (698)	QS/1 (Pharmacy Management Software) (30)
Medical Privacy (566)	Detail Oriented (676)	Microsoft Access (29)

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent for *pharmacy technicians*. However, the national-level educational attainment data indicates 52% 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 *pharmacy technicians*.

Exhibit 9: National-level Educational Attainment for Occupations



Of the 51% of the cumulative job postings for *pharmacy technicians* that listed a minimum education requirement in Los Angeles/Orange County, 87% (2,092) requested a high school diploma or an associate degree and 9% (209) requested a bachelor's degree.

Educational Supply

Community College Supply:

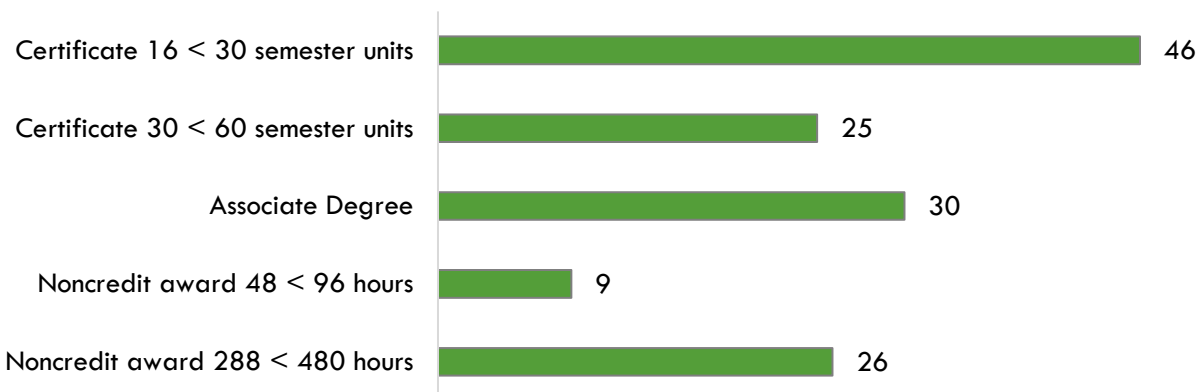
Exhibit 11 shows the three-year average number of awards conferred by community colleges in the TOP code: Pharmacy Technology (1221.00). The colleges with the most completions in the region are Cerritos, Santa Ana, and LA Mission. Over the past 12 months, there was one other related request from a regional community college.

Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2020-2023

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
1221.00	Pharmacy Technology	Cerritos	27	33	32	31
		East LA	8	20	1	10
		LA Mission	24	24	13	20
		Mt San Antonio	0	0	38	13
		LA Subtotal	68	91	132	97
		North Orange Adult	0	16	20	12
		Santa Ana	22	31	25	26
		OC Subtotal	22	47	45	38
Supply Total/Average			90	138	177	135

Exhibit 12 shows the annual average community college awards by type from academic years 2020-2021 to 2022-2023. The plurality of the awards are for certificates between 16 and less than 30 semester units, directly followed by associate degrees and noncredit awards between 288 and less than 480 hours.

Exhibit 11: Annual Average Community College Awards by Type, 2020-2023



Community College Student Outcomes:

Exhibit 13 shows the Strong Workforce Program (SWP) metrics for pharmacy technology programs in Rancho Santiago Community College District (RSCCD), the Orange County Region, and California. Of the 255 Orange County pharmacy technology students in the 2021-22 academic year, 86% (220) attended an RSCCD college.

According to Chancellor's Office Curriculum Inventory (COCI) data, nine (9) Orange County colleges have active pharmacy technology community college programs. Notably, more than half (5) of these programs are currently offered by RSCCD, all of which are housed at Santa Ana College.

RSCCD students that exited Pharmacy technology programs in the 2021-22 academic year had higher median annual earnings (\$37,852 or \$18.20 per hour) compared to all pharmacy technology students in Orange County (\$37,164 or \$17.87 per hour). Additionally, a slightly higher percentage of RSCCD pharmacy technology students attained the living wage (38%) when compared to all pharmacy technology students in Orange County (36%).

Exhibit 13: Pharmacy Technology (1221.00) Strong Workforce Program Metrics, 2020-21⁵

SWP Metric	RSCCD	OC Region	California
SWP Students	220	255	1,380
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	16%	14%	27%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	61%	81%	72%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	24	29	160
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2019-20)	Insufficient Data	Insufficient Data	55
SWP Students with a Job Closely Related to Their Field of Study (2019-20)	Insufficient Data	71%	69%
Median Annual Earnings for SWP Exiting Students	\$37,852	\$37,164	\$35,916
Median Change in Earnings for SWP Exiting Students	38%	39%	28%
SWP Exiting Students Who Attained the Living Wage	38%	36%	42%

⁵ All SWP metrics are for 2020-21 unless otherwise noted.

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 *pharmacy technicians*.

Exhibit 14 shows the three-year average number of awards conferred by non-community colleges in the CIP code: Pharmacy Technician/Assistant (51.0805). The available data covers 2019 to 2022. During this period, non-community college institutions in the region conferred an average of 550 awards annually in related programs.

Exhibit 124: Regional Community College Awards (Certificates and Degrees), 2020-2023

CIP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
51.0805	Pharmacy Technician/Assistant	ABC Adult School	1	26	12	13
		American Career College-Los Angeles	67	62	80	70
		American College of Healthcare and Technology	6	9	13	9
		American University of Health Sciences	0	0	0	0
		Baldwin Park Adult & Community Education	14	13	19	15
		CBD College	22	14	12	16
		Downey Adult School	71	71	40	61
		Galaxy Medical College	12	8	2	7
		Hacienda La Puente Adult Education	16	29	18	21
		High Desert Medical College	22	49	31	34
		North-West College-Glendale	16	12	6	11
		North-West College-Long Beach	32	40	27	33
		North-West College-Pomona	9	10	11	10
		North-West College-Van Nuys	28	9	14	17

CIP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
		North-West College-West Covina	33	28	37	33
		San Joaquin Valley College-Lancaster	36	24	18	26
		UEI College-Gardena	32	43	53	43
		UEI College-Reseda	36	26	42	35
		UEI College-West Covina	19	28	37	28
		University of Antelope Valley	6	5	3	5
		Valley College of Medical Careers	1	4	4	3
		American Career College-Anaheim	28	35	49	37
		Concorde Career College-Garden Grove	0	0	14	5
		North-West College-Anaheim	10	16	23	16
		Platt College-Anaheim	0	6	0	2
Supply Total/Average			517	567	565	550

Regional Demographics

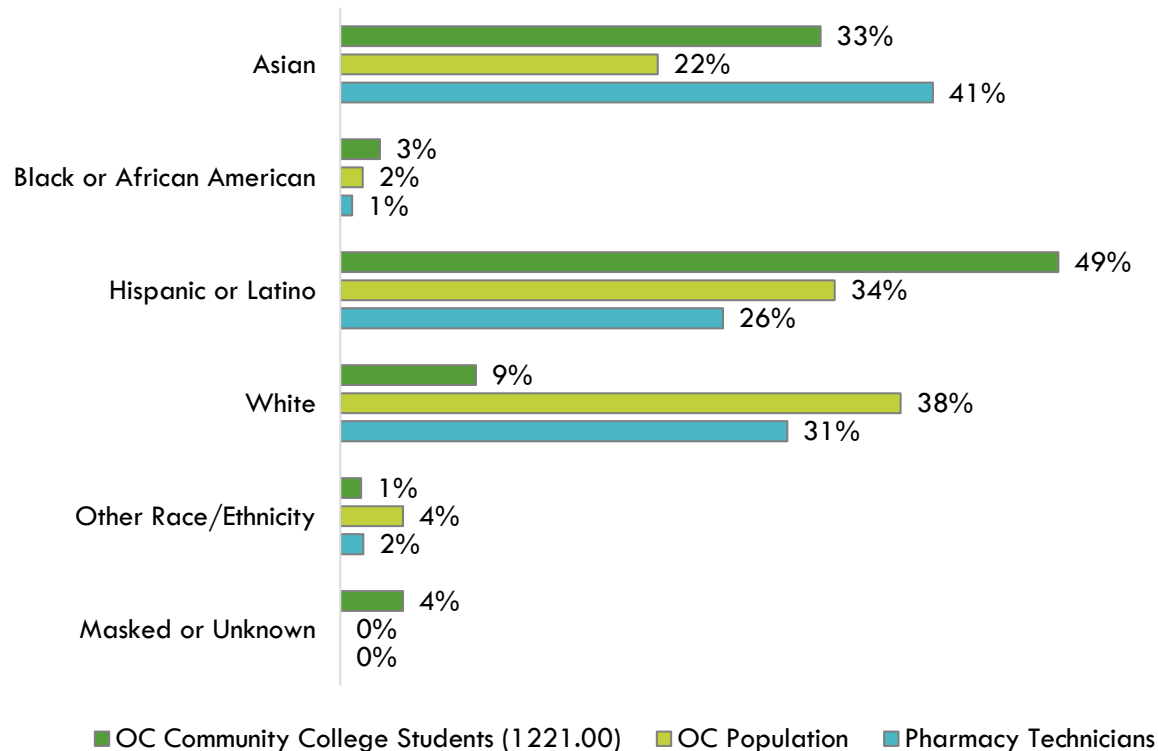
This section examines demographic data for the Orange County population to pharmacy technology occupational data to identify potential diversity and equity issues addressable by community college programs.

Ethnicity:

Exhibit 15 compares the ethnicity of Orange County community college students enrolled in pharmacy technology programs with occupation-specific data for pharmacy technicians and the overall Orange County population.

Notably, Hispanic or Latino individuals account for nearly half of community college pharmacy technology students (49%) yet comprise less than a quarter of workers in the field (24%). The plurality of workers in the field are Asian (41%), which is higher than the population (22%) and community college pharmacy technology students (33%). Conversely, the plurality of individuals in the population is white (38%), which is significantly higher than both community college pharmacy technology students (9%) and workers in the field (31%).

Exhibit 135: Program and County Demographics by Ethnicity

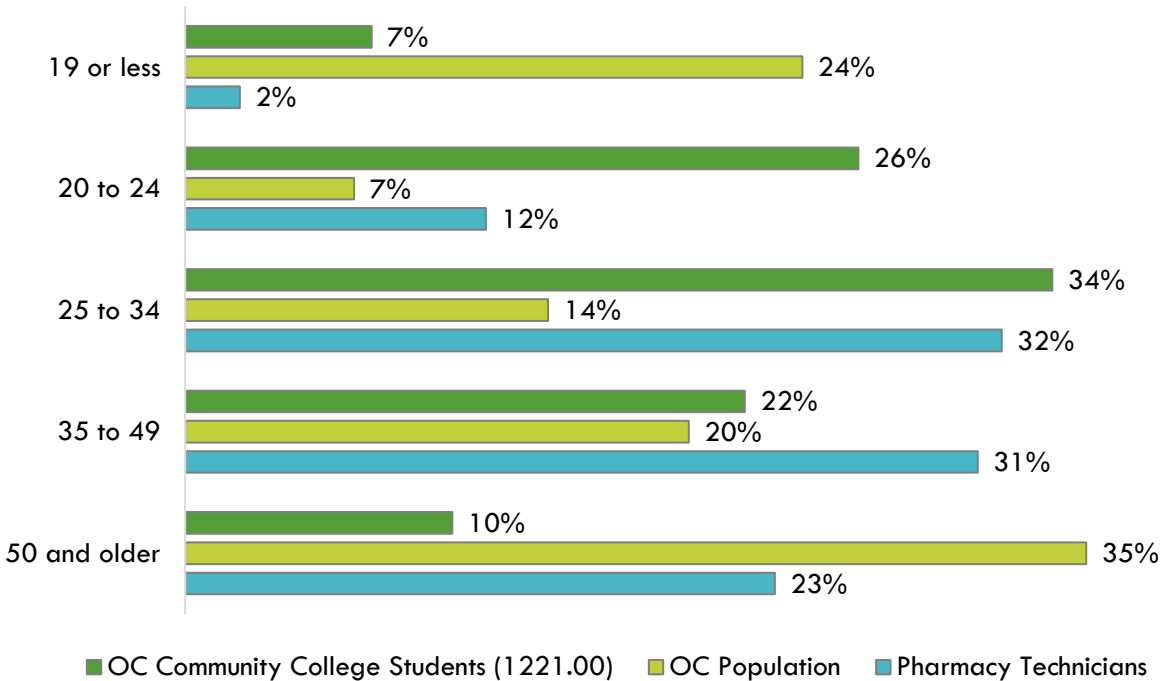


Age:

Exhibit 16 compares the age of Orange County community college students enrolled in pharmacy technology programs with occupation-specific data for *pharmacy technicians* and the overall Orange County population.

The majority of pharmacy technicians are 25 to 49 (63%), which is higher than community college pharmacy technology students (56%) and significantly higher than the population (34%). Conversely, the plurality of the OC population is 50 or older (35%) yet comprise of 23% of workers in the field and only 10% community college pharmacy technology students.

Exhibit 146: Program and County Demographics by Age

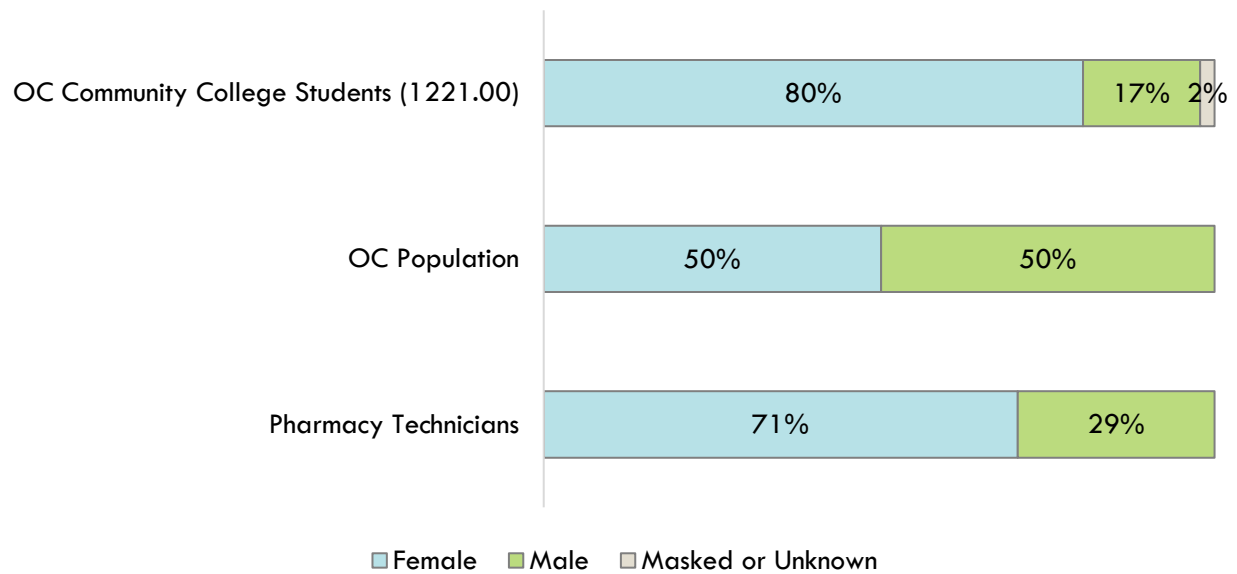


Sex:

Exhibit 17 compares the age of Orange County community college students enrolled in pharmacy technology programs with occupation-specific data for *pharmacy technicians* and the overall Orange County population.

Though the population is evenly split between women and men, women account for over three-quarters of Orange County community college pharmacy technology students (80%) while men comprise only 17%. This trend is consistent with *pharmacy technicians* as women account for over 71% of workers in the field while men comprise 29%.

Exhibit 17: 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>“Living Wage” measures the income necessary for an individual or family to afford basic expenses by assessing the costs such as housing, food, child care, health care, transportation, and taxes.</p> <p>Per the CCCCCO’s this report’s endorsement criteria uses the University of Washington’s Center for Women’s Welfare Self-Sufficiency Standard last updated in March 2024, which is \$27.13 per hour (\$56,451 annually) in Orange County. For more information, see: http://www.selfsufficiencystandard.org/California</p> <p>The MIT Living Wage, updated on February 14, 2024, is a nationally recognized living wage metric and is provided for reference. The current MIT Living Wage in Orange County is \$30.48. For more information, see: https://livingwage.mit.edu/counties/06059</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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January 2025

