

Labor Market Analysis for Program Recommendation: 1 220.00/Speech/Language Pathology and Audiology (Professional Advancement Certificate - Speech and Language Pathology Assistant)

Orange County Center of Excellence, March 2023



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 823 annual job openings throughout Los Angeles and Orange counties for <i>healthcare support workers, all other</i> , which is more than the 95 awards conferred by educational institutions . However, this occupations includes a variety of job titles and not solely <i>speech-language pathology assistants</i> ; therefore, demand is overstated.	
Living Wage: (Entry-Level, 25 th)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	<i>Comments:</i> Entry-level hourly wages for <i>healthcare support workers, all other</i> are \$17.92, which is significantly below the OC living wage of \$20.63 .	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> The typical entry-level education for <i>healthcare support workers, all other</i> is a high school diploma or equivalent . However, 42% of workers in the field have completed some college or an associate degree as their highest level of education and an associate is the minimum education required for speech-language pathology assistants in California .	

Emerging Occupation(s)

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> Currently there is no Standard Occupational Classification (SOC) code specifically for speech-language pathology assistants. However, there is one related emerging occupation: Speech-Language Pathology Assistants (31-9099.01). Data for this emerging occupation is collected and reported under the broader Healthcare Support Workers, All Other (31-9099) SOC code. To better understand the knowledge, skills, and abilities for Speech-Language Pathology Assistants, this report includes an analysis of online job postings specifically for that emerging occupation.	

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:

- Healthcare Support Workers, All Other (39-9031)
 - Includes the emerging occupation Speech-Language Pathology Assistants (31-9099.01)

Based on the available data there appears be a supply gap for this occupation and typical education requirements align with a community college education. However, 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
Healthcare Support Workers, All Other (39-9031)	823	95	OC: \$17.92	High school diploma or equivalent	42%

Demand:

- The number of jobs related to *healthcare support workers, all other* are projected to increase 11% through 2026, equating to 823 annual job openings. Demand is overstated because this occupation includes a variety of healthcare support roles and not solely *speech-language pathology assistants*.
- Hourly entry-level wages for *healthcare support workers, all other* are \$17.92 in Orange County, which is significantly below the living wage of \$20.63.
- There were 49 online job postings specifically related to the emerging occupations *speech-language pathology assistants* over the past 12 months. The highest number of postings were for *speech-language pathologist assistants* and *speech-language assistants*.
- The typical entry-level education for *healthcare support workers, all other* is a high school diploma or equivalent.
- Approximately 42% 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 95 awards conferred by 4 community colleges in Los Angeles and Orange Counties from 2018 to 2021.
- Non-community college institutions did not confer any related awards from 2017 to 2020.
- Orange County community college students that exited *speech/language pathology* and *audiology* programs in the 2019-20 academic year had a median annual wage of \$32,288 and 34% attained the living wage.
- Throughout Orange County, 86% of *speech/language pathology* and *audiology* students that exited their program in 2018-19 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 *healthcare support workers, all other* from 2016 through 2026. Employment for *healthcare support workers, all other* increased 6% in Orange County from 2019 to 2020, which is significantly higher than the 6% decline across all occupations due to the COVID-19 pandemic. Employment for *healthcare support workers, all other* in Orange County is projected to grow at slightly higher rate than all occupations through 2026.

Exhibit 2: Annual Percent Change in Jobs for Healthcare Support Workers, All Other, 2016-2026

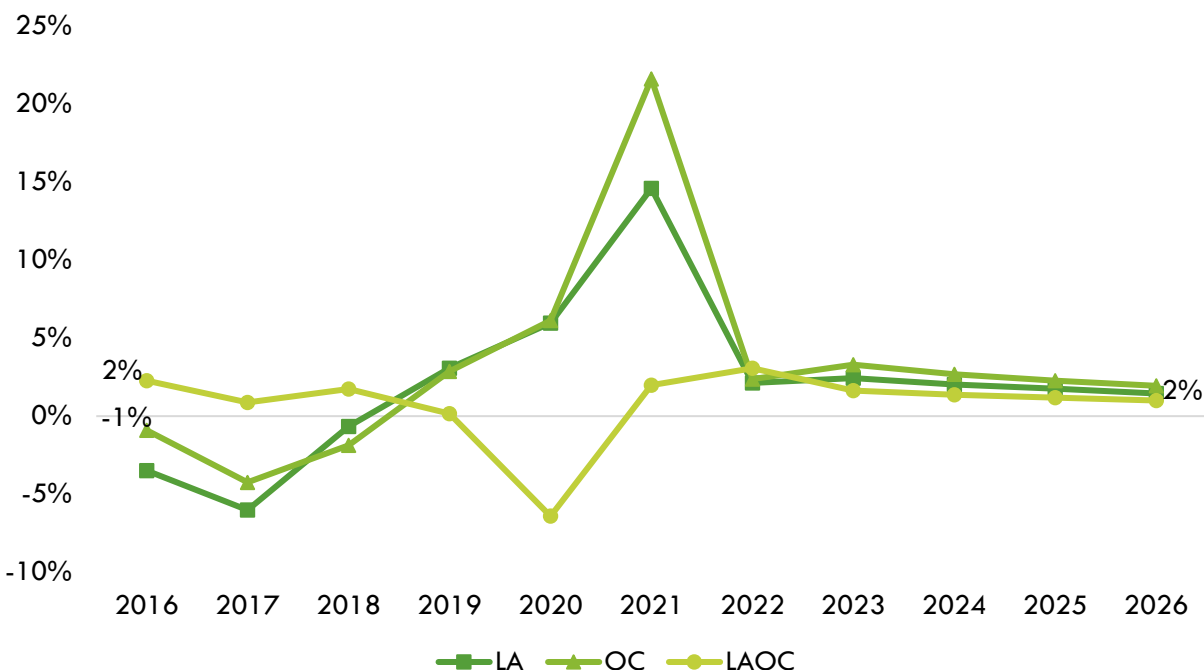


Exhibit 3 shows the five-year occupational demand projections for *healthcare support workers, all other*. In Los Angeles/Orange County, the number of jobs for this occupation is projected to increase 11% through 2026. There is projected to be 823 jobs available annually. It is important to note that *healthcare support workers, all other* includes a variety of job titles and not solely *speech-language pathology assistants*. Therefore, the data in Exhibit 3 is overstated for *speech-language pathology assistants*.

Exhibit 3: Occupational Demand in Los Angeles and Orange Counties¹

Geography	2021 Jobs	2026 Jobs	2021-2026 Change	2021-2026 % Change	Annual Openings
Los Angeles	3,650	4,023	373	10%	612
Orange	1,207	1,366	159	13%	211
Total	4,857	5,389	532	11%	823

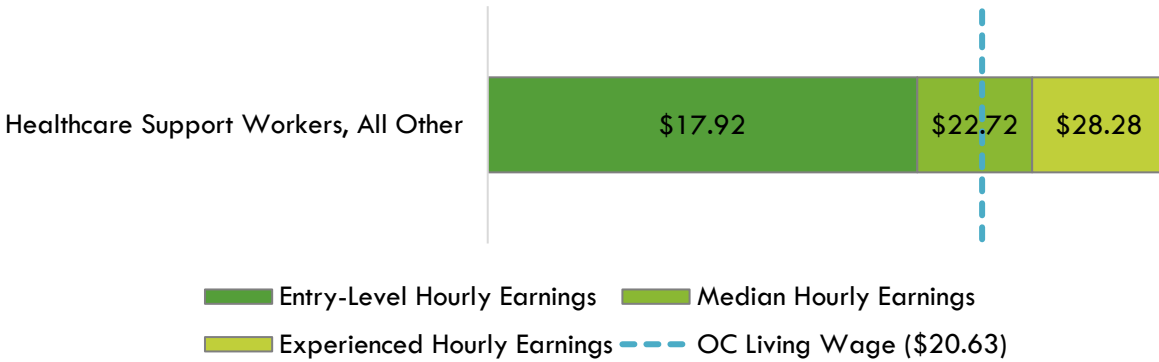
Wages:

The labor market endorsement in this report considers the entry-level hourly wages for *healthcare support workers, all other* 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.

The typical entry-level hourly wages for *healthcare support workers, all other* are \$17.92, which is significantly below the living wage for one adult (\$20.63 in Orange County). Median wages are \$22.72, which is above the living wage. Orange County’s average wages are similar to the average statewide wage of \$23.89 for these occupations. Exhibit 4 shows the wage range for *healthcare support workers, all other* in Orange County and how it compares to the regional living wage.

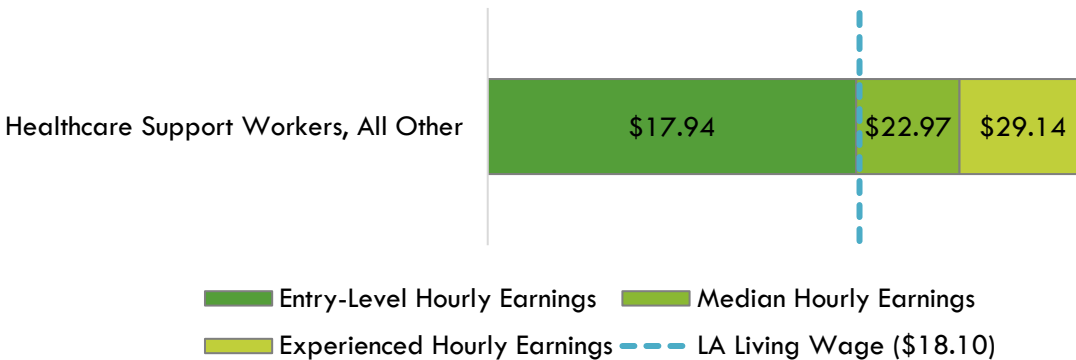
¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Exhibit 4: Wages by Occupation in Orange County



The typical entry-level hourly wages for *healthcare support workers, all other* are \$17.94, which is slightly below the living wage for one adult (\$18.10 in Los Angeles County). Median wages are \$22.97, which is above the living wage. Los Angeles County average wages are above the average statewide wage of \$23.89 for these occupations. Exhibit 5 shows the wage range for *healthcare support workers, all other* 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 or 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.

² K. R. Chowdhary, *Fundamentals of Artificial Intelligence* (Basingstoke: Springer Nature, 2020), <https://link.springer.com/book/10.1007/978-81-322-3972-7>.

There were 49 online job postings specifically related to the emerging occupation *speech-language pathology assistants* listed in the past 12 months.

Exhibit 6: Number of Job Postings by Occupation (n=49)

Occupation	Job Postings	Percentage of Job Postings
Speech-Language Pathology Assistants	49	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=49)

Employer	Job Postings	Percentage of Job Postings
Speechful Therapy Services	5	10%
Integrated Therapy Solutions	4	8%
Edlogical Group	3	6%
My Voice	3	6%
Soliant Health	3	6%
Covina Valley Unified School District	2	4%
Elliott Speech Services	2	4%
Golden State Speech Pathology Services	2	4%
Ocean View School District	2	4%
Prep For Success	2	4%

The top specialized and soft skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 8. There was insufficient data to determine the top computer skills.

Exhibit 8: Top Skills by Number of Job Postings (n=49)

Top Specialized Skills	Top Soft Skills
Speech-Language Pathology (26)	Communications (16)
Pathology (21)	Clerical Works (8)
Articulation (13)	Record Keeping (8)
Audiology (13)	Grammar (6)
Communication Disorders (12)	Arithmetic (5)
Language Disorders (10)	Prioritization (5)
Treatment Planning (10)	Time Management (5)
Individualized Education Programs (IEP) (9)	Decision Making (4)
Rehabilitation (9)	Critical Thinking (3)
Special Education (9)	Writing (3)

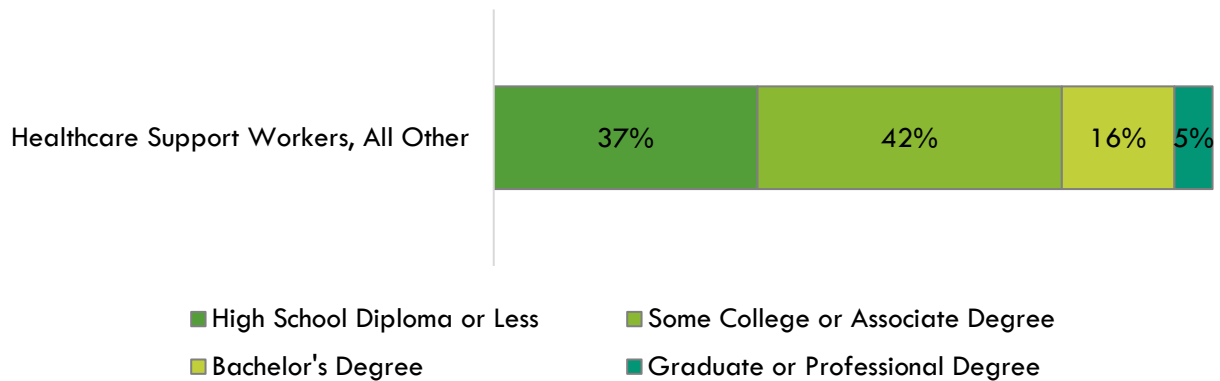
Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *healthcare support workers, all other*. The national-level educational attainment data indicates approximately 42% 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 *healthcare support workers, all other*.

Though educational attainment data is not available for *speech-language pathology assistants*, the California Speech-Language Pathology & Audiology & Hearing Aid Dispensers Board states that the minimum qualifications for registration as a *speech-language pathology assistant* is an associate degree from an accredited speech-language pathology assistant program or completion of a bachelor's degree from an approved and accredited institution.³

Of the 55% of the cumulative job postings for *speech-language pathology assistants* that listed a minimum education requirement in Los Angeles/Orange County, 92% (25) requested a high school diploma or an associate degree and 8% (2) requested a bachelor's degree.

Exhibit 9: National-level Educational Attainment for Occupations



³ https://www.speechandhearing.ca.gov/applicants/app_pack_slp_assist.shtml

Educational Supply

Community College Supply:

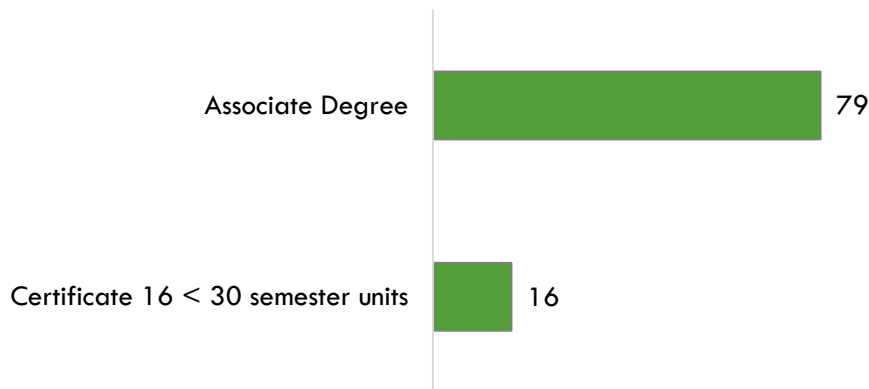
Exhibit 10 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Speech/Language Pathology and Audiology (1220.00). The highest number of awards were conferred by Cerritos Over the past 12 months, there were no other related program recommendation requests.

Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2018-2021

TOP Code	Program	College	2018-2019 Awards	2019-2020 Awards	2020-2021 Awards	3-Year Award Average
1220.00	Speech/ Language Pathology and Audiology	Cerritos	40	28	31	33
		Pasadena	22	24	18	21
		LA Subtotal	62	52	49	54
		Orange Coast	15	16	23	18
		Santa Ana	22	25	21	23
		OC Subtotal	37	41	44	41
Supply Subtotal/Average			99	93	93	95

Exhibit 11 shows the annual average community college awards by type from 2018-19 through 2020-21. The majority of the awards are for associate degrees.

Exhibit 11: Annual Average Community College Awards by Type, 2018-2021



Community College Student Outcomes:

Exhibit 12 shows the Strong Workforce Program (SWP) metrics for speech/language pathology and audiology programs in Coast Community College District (CCCD), the Orange County Region, and California.

Of the 249 speech/language pathology and audiology student in Orange County, 29% (73) attended a CCCD college. Orange County students that exited speech/language pathology and audiology programs in the 2019-20 academic year had median annual earnings of \$32,288, which is slightly higher when compared to students throughout the state (\$30,668). However, 34% of Orange County speech/language

pathology and audiology students attained the living wage, which is significantly lower when compared to students throughout the state (43%).

Exhibit 12: Speech/Language Pathology and Audiology (1 220.00) Strong Workforce Program Metrics, 2020-21⁴

SWP Metric	CCCD	OC Region	California
SWP Students	73	249	899
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	67%	47%	45%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	Insufficient Data	0%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	23	43	137
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2019-20)	Insufficient Data	Insufficient Data	62
SWP Students with a Job Closely Related to Their Field of Study (2018-19)	100%	86%	0%
Median Annual Earnings for SWP Exiting Students (2019-20)	\$24,152 (\$11.61)	\$32,288 (\$15.52)	\$30,668 (\$14.74)
Median Change in Earnings for SWP Exiting Students (2019-20)	17%	18%	8%
SWP Exiting Students Who Attained the Living Wage (2019-20)	Insufficient Data	34%	43%

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 *speech-language pathology assistants*. There were no non-community college institutions that conferred awards in the related CIP code: Speech-Language Pathology Assistant (51.0816).

⁴ All SWP metrics are for 2020-21 unless otherwise noted.

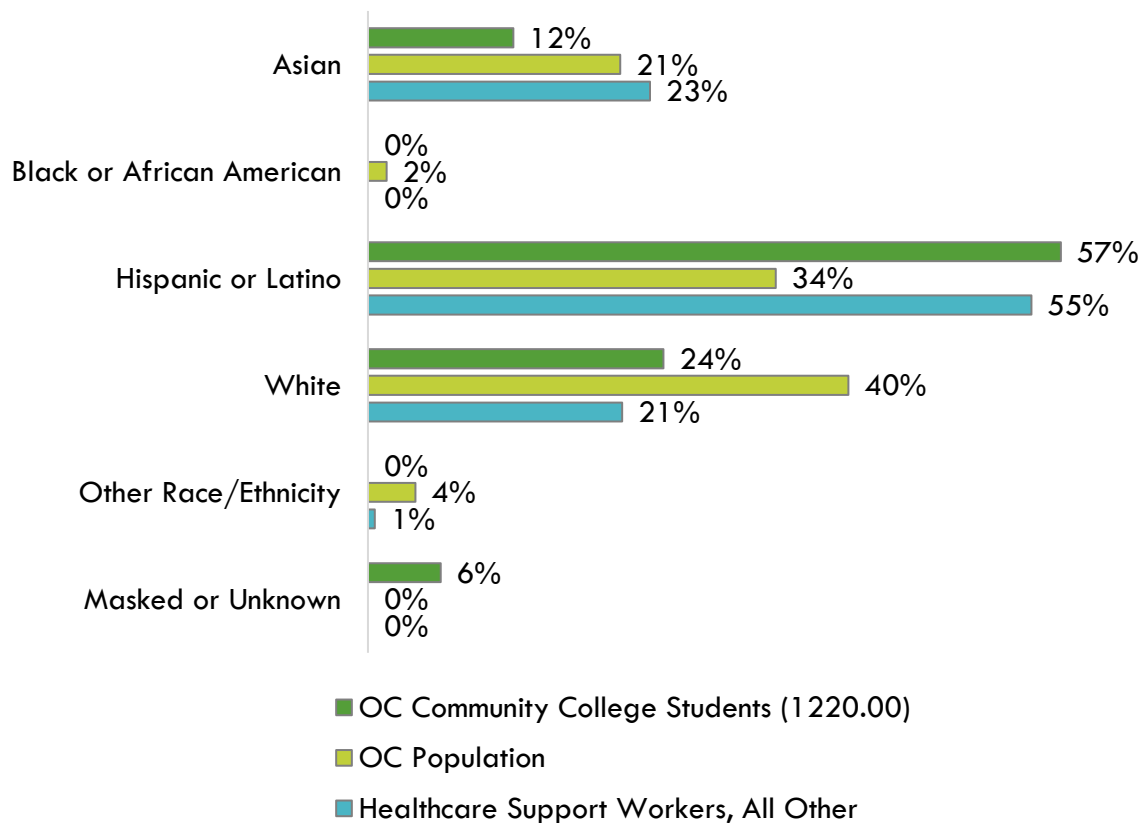
Regional Demographics

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

Ethnicity:

Exhibit 13 shows the ethnicity of Orange County community college students enrolled in speech/language pathology and audiology programs compared to the overall Orange County population, as well as *healthcare support workers, all other*. Notably, the majority of workers (55%) and community college speech/language pathology and audiology students (57%) are Hispanic or Latino. Additionally, 23% of *healthcare support workers, all other* are Asian, which is similar to the population (21%) but higher than community college speech/language pathology and audiology students (12%).

Exhibit 13: Program and County Demographics by Ethnicity

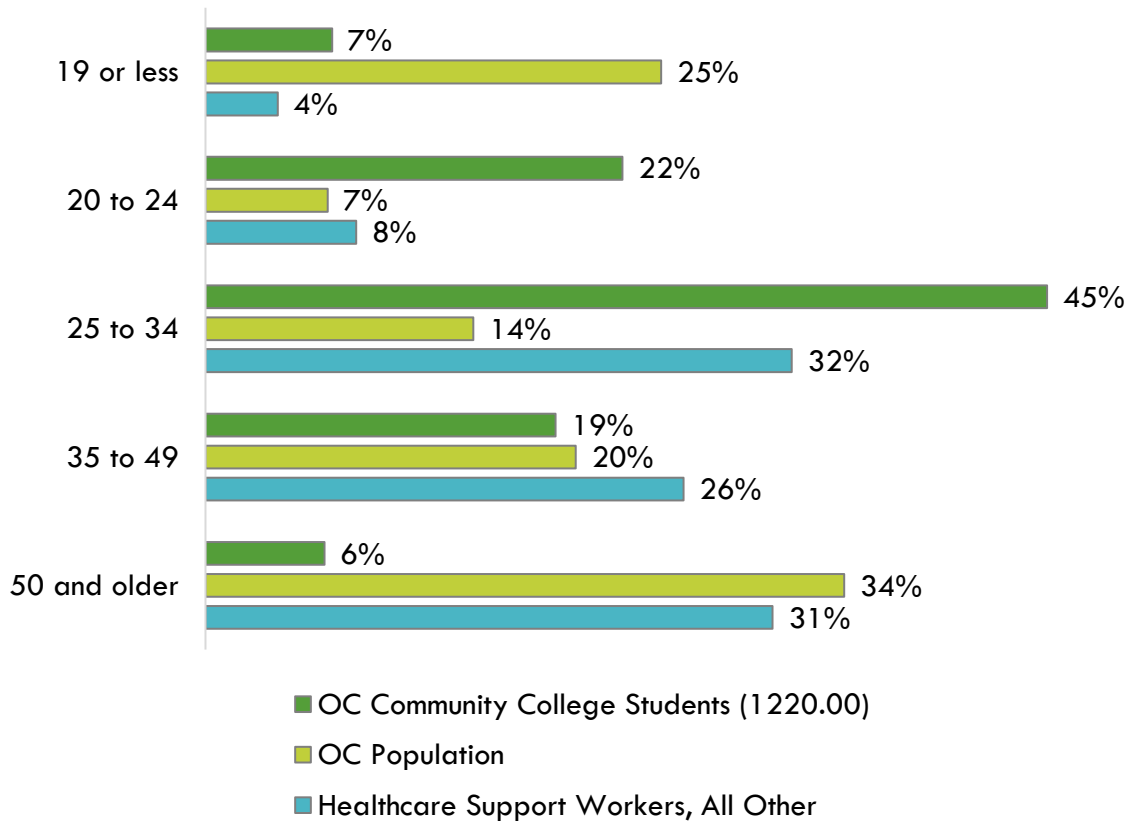


Age:

Exhibit 15 shows the age of Orange County community college students enrolled in speech/language pathology and audiology programs compared to the overall Orange County population, as well as *healthcare support workers, all other*.

The plurality (45%) of community college speech/language pathology and audiology students are 25 to 34, which is significantly higher than both the population (14%) and *healthcare support workers, all other* (32%). Conversely, 31% of *healthcare support workers, all other* are 50 and older, which is similar to the population (34%), but significantly higher than community college speech/language pathology and audiology students (6%).

Exhibit 15: Program and County Demographics by Age

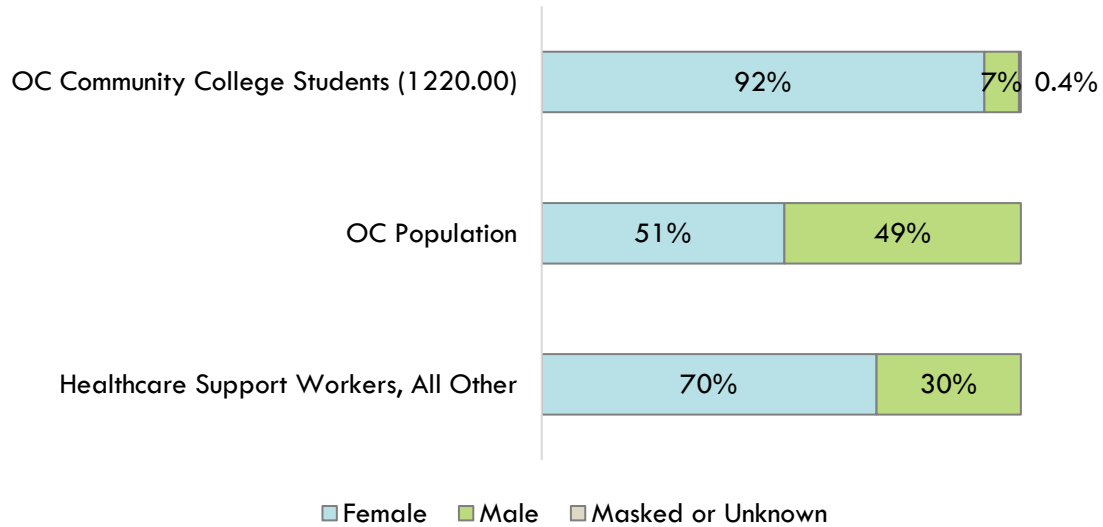


Sex:

Exhibit 14 shows the sex of Orange County community college students enrolled in speech/language pathology and audiology programs compared to the overall Orange County population as well as *healthcare support workers, all other*.

Though the population is split nearly evenly, 92% of community college speech/language pathology and audiology students and 70% of *healthcare support workers, all other* are women.

Exhibit 14: 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>

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