



# STRENGTHENING L.A.'S HEALTH CARE TALENT PIPELINE

# L.A. region K-16 collaborative

L.A. region

## K-16 collaborative

The Los Angeles Region K-16 Collaborative advances regional strategies to increase equitable degree attainment and align education pathways with labor market needs in healthcare, computer science, and engineering. The Collaborative brings together K-12 districts, community colleges, universities, and employers to strengthen transfer pathways, expand dual enrollment, and scale high-quality work-based learning. The Collaborative is funded through the K-16 Education Regional Collaborative Grant Program, administered by the Office of Public School Construction in the California Department of General Services.



Regional convener UNITE-LA has championed equitable, economic mobility via cradle-through-career education and workforce development efforts that strengthen systems, policies and high-quality education and career pathways since 1998. UNITE-LA serves as an intermediary, collaborating with key stakeholders—including educators, employers, policymakers and community leaders—to ensure all individuals, especially those facing systemic barriers, have opportunities to thrive. Co-founded by the City of Los Angeles, L.A. Unified School District and L.A. Community College District, UNITE-LA is grounded in the region with state and national partnerships extending its impact throughout California and the U.S.



WestEd is a nonpartisan, nonprofit agency that conducts and applies research, develops evidence-based solutions, and provides services and resources in the realms of education, human development, and related fields, with the end goal of improving outcomes and ensuring equity for individuals from infancy through adulthood. For more information about WestEd, visit [WestEd.org](https://www.wested.org), to learn more about the Center for Economic Mobility, visit [Center for Economic Mobility](https://www.wested.org/center-for-economic-mobility).

---

This report may be shared and used for educational, research, and policy development purposes with proper attribution and advance permission from UNITE-LA. Contact Carrie Lemmon, [clemmon@unitela.com](mailto:clemmon@unitela.com), for usage guidelines.



# Table of Contents

<b>Executive Summary</b>	<b>4</b>
Key Labor Market Trends	5
Recommendations for K-16 Educators	7
Recommendations for K-12 Educators	8
Recommendations for Community College Educators	9
Recommendations for Four-Year College/University Educators	10
<b>Los Angeles Health Care Sector: A Growing Opportunity</b>	<b>12</b>
Which health care industries are fueling job growth in L.A. County?	12
What are the most in-demand jobs in health care?	13
Who holds in-demand health care jobs in Los Angeles County?	15
How are high schools exposing and preparing students for careers in health care?	20
Opportunity Youth and frontline care workforce	28
What are high-growth health care occupations in Los Angeles County?	31
What are the skills required for high-growth occupations?	35
<b>What are the K-16 Pathways to Health Care Careers?</b>	<b>38</b>
Bachelor’s Degree Pathways into the Health Care Sector	38
Transfer Pathways into the Health Care Sector	41
Community College Pathways into the Health Care Sector	44
<b>Bridging the Middle Skill Health Care Gap: Where Opportunity Meets Urgent Need</b>	<b>48</b>
Opportunities to increase community college program completions	59
Where do we go from here?	61
<b>Appendices</b>	<b>66</b>

# Executive Summary

## Empowering our Systems to Meet Health Care Workforce Needs

Los Angeles County is home to one of the most diverse and expansive public education systems in the nation. Its health care sector represents both a critical economic engine and a unique opportunity to drive equitable workforce development. As of 2022, the health care services industry employed nearly 500,000 payroll workers in Los Angeles County, accounting for more than 11 percent of the region's employment. As nearly 42,400 new health care jobs are already expected by 2026, educators play a critical role in guiding students into these growing, stable and often well-compensated fields. However, the systems that prepare students for these roles—K-12, community colleges and universities—face significant challenges in terms of equity, alignment and capacity. This executive summary provides an accessible interpretation of key labor market data from the full report into actionable recommendations for educators at every system level.

**The upshot: there is a mismatch in the sector's significant labor market supply and demand that has profound implications for both students and the regional economy.** Students seeking affordable pathways into health care careers often face limited community college options, forcing them toward expensive private programs that can cost three to four times more and saddle graduates with substantial debt. Meanwhile, health care employers struggle to fill essential positions, potentially limiting access to care across the region. By designing educational pathways that align with high-opportunity careers, educators can help relieve this health care labor crisis by helping students enter and succeed in roles that offer family-sustaining wages, job security and opportunities for upward mobility.

Los Angeles County's health care workforce needs are growing. The student pipeline exists. The economic returns are proven.

The question is whether educational systems can overcome long standing capacity constraints to meet this critical opportunity.

## Key Labor Market Trends

- In 2022, **L.A. County's health care sector supported 498,650 jobs,<sup>1</sup> with most growth in Ambulatory Care** (60 percent of all jobs). Projections in Ambulatory Care show a growth of 42,400 jobs by 2026, particularly in Nursing and Residential Care Facilities (+7,400 jobs) and Outpatient Care (p. 12).
- **Health care careers have vastly different earning potential and educational requirements.** For example, Home Health Aides earn an average annual salary of \$32,404, while Nurse Practitioners earn nearly five times that amount, averaging \$153,444 (p. 14). The educational demands mirror this gap: Home Health Aides typically need only a high school diploma and a short-term credential, whereas Nurse Practitioners must complete postgraduate education and years of clinical training. **Despite the clear wage progression across the sector, few structured educational pathways connecting lower-wage roles to higher-wage professions exist, limiting mobility of health care frontline workers.**
- **High-growth middle-skill** roles such as Radiologic Technologists, Dental Hygienists and Physical Therapist Assistants **offer salaries well above the Self-Sufficiency Standard,<sup>2</sup>** while others, like Dental Assistants and LVNs, fall below that threshold for entry-level earners (pp. 30–31).
- **Workforce demographics in Los Angeles County reveal stark equity gaps.** Although Hispanic/Latino<sup>3</sup> residents make up 48 percent of the county's population, they are overrepresented in low-wage health care roles—comprising 62 percent of Medical Assistants, for instance. In contrast, higher-wage positions like Nurse Practitioners are disproportionately held by white and Asian workers, with Hispanic/Latino individuals accounting for just 22 percent of that workforce (p. 15). This imbalance underscores systemic barriers to advancement and highlights the **need for more inclusive pathways into high-opportunity health care careers.**

L.A. County's self-sufficiency standard in 2024 for one single adult is \$24.03/hour or \$50,758 annually.

Women's Center at the University of Washington Self Sufficiency Standard

<sup>1</sup> QCEW, Non-Employers Data, Lightcast, LAEDC.

<sup>2</sup> The Center for Women's Welfare Self-Sufficiency Standard defines the income working families need to meet a minimum yet adequate level, taking into account family composition, ages of children and geographic differences in costs. The Standard is an affordability and living wage economic security measure that [provides an alternative](#) to the official poverty measure. For L.A. County in 2024, that equates to \$24.03/hour for a single adult. [California Self-Sufficiency Standard](#).

<sup>3</sup> Hispanic/Latino is used in the body of the report to represent all students who identify as Hispanic and/or Latin American; descriptives from data sources have not been altered.

**Federal Budget and Policy Outlook:** L.A.'s health care system faces unprecedented uncertainty as pending federal actions threaten core funding streams. With L.A. County's health services deriving 80 percent of revenue from Medicaid, proposed caps and cuts could force service reductions without replacement funding.<sup>4</sup> Scheduled Medicaid DSH cuts (\$8 billion annually starting FY2026), potential Community Health Center Fund expiration (September 2025),<sup>5</sup> and reduced CDC discretionary programs all jeopardize the safety net and workforce training infrastructure. The federal "unwinding" of pandemic protections is already increasing uncompensated care burdens.<sup>6</sup> These fiscal headwinds will interact with local labor dynamics and may deepen equity gaps if funding cuts limit training capacity. **K-16 educators must act decisively now to expand health care workforce pipelines, as realizing L.A.'s projected health care job growth depends critically on educational systems adapting to this volatile funding environment and addressing the supply-demand gap before system capacity is further compromised.**



<sup>4</sup> Los Angeles County Department of Health Services. (2025). [Memo of Department of Health Services' \(DHS\) Fiscal Outlook](#). Los Angeles County DHS.

<sup>5</sup> National Association of Community Health Centers. (2024). [Community Health Center Funding](#). NACHC.

<sup>6</sup> California Health Care Foundation. (2025). [Medi-Cal renewals after the public health emergency. Lessons from the unwinding](#). CHCF; Kaiser Family Foundation. (2025). [Medicaid enrollment and unwinding tracker](#).

## Recommendations for K-16 Educators

### Engage in labor market information to advance equitable career pathways

Educators play a vital role in preparing students for meaningful, well-paying careers. By leveraging labor market information (LMI) to take strategic action, schools, colleges and workforce partners can better align education with regional economic opportunities—especially in health care, where job quality and accessibility vary widely.

#### **Here are ways K-16 educators can take action with LMI:<sup>7</sup>**

##### **Share Local Career Data with Students, Families and Staff**

Use LMI to build awareness of in-demand health care careers, including wage levels, growth projections and education requirements. Present data in accessible formats to help students, caregivers, counselors and faculty understand the real opportunities—and barriers—within L.A. County’s health care economy.

##### **Map Existing Programs to High-Demand, High-Wage Occupations**

Assess whether current course offerings and pathways align with occupations that offer self-sufficient wages. Identify gaps where program redesign or expansion is needed to better connect learners to health care roles with strong growth and advancement potential.

##### **Build Employer Partnerships to Stay Responsive to Workforce Needs**

Collaborate with local health care employers to understand evolving hiring trends, preferred credentials and opportunities for work-based learning. Use this information to co-design programs that are both learner-centered and industry-informed.

##### **Communicate Wage and Career Outcomes Transparently**

Empower students and families to make informed choices by clearly sharing wage outcomes, career trajectories and potential return on investment for health care training programs. This includes clarifying which roles offer sustainable wages and which may require further education to reach economic mobility.

---

<sup>7</sup> Q OECD (2025), [Empowering the Workforce in the Context of a Skills-First Approach](#), OECD Skills Studies, OECD Publishing, Paris.

## Recommendations for K-12 Educators

### Use labor market data to shape advising, career exploration and pathways

Many high school students, particularly those from underserved communities, are interested in health care but may only be exposed to narrow patient care roles like Certified Nursing Assistants or Medical Assistants, roles that often offer limited wage growth. According to 2018-2019 enrollment data, Patient Care CTE pathways enrolled more than twice the number of students than all other health pathways combined (p. 24).

**Educators can help by broadening student awareness of the health care sector's diversity by:**

- Embedding labor market information in career exploration and CTE courses.
- Integrating simulations, job shadowing or virtual career days featuring allied health and administrative roles.
- Exposing students to high-return careers (listed in Figure 12) such as Radiologic Technologist, which offers both strong job growth (8 percent) and median earnings (~\$81,200) (p. 50).

### Improve alignment between high school pathways and postsecondary opportunities

Many high school health pathways don't clearly connect to community college or university programs, leading to a lack of continuity for students if they choose to progress in their health-care-related studies. **Educators should collaborate across segments to:**

- Crosswalk high school CTE curriculum and learning outcomes with those of local community college programs.
- Create dual enrollment course options within high-demand health programs.
- Use shared advising tools to show how the learning in high school courses can stack into credentials and multiple, high-demand careers.
- Identify, teach and reinforce skills that support students to be career ready across future pathways.

## Recommendations for Community College Educators

### Expand capacity in programs tied to high-growth roles

For community colleges, five middle-skill occupations—**Radiologic Technologist, Physical Therapist Assistant, Dental Hygienist, Dental Assistant and LVN**—are expected to add more than 6,000 jobs in L.A. County through 2028. Yet, community colleges are not meeting demand. For example:

- 48 percent of Radiologic Technologist degrees and 60 percent of Dental Hygienist degrees come from public community colleges, an opportunity to understand successful approaches and grow programs to meet demand (pp. 50, 52-53).
- LVNs are predominantly trained at private institutions, with community colleges contributing just 14 percent of completions (p. 57).

### Community colleges should work with regional employers and public agencies to:

- Increase faculty hiring pipelines and upgrade facilities by partnering with health care employers that have the most to gain in program growth.
- Address clinical placement shortages through partnerships and simulation-based learning (Appendix C).
- Prioritize investments in community college programs that have high-value market share and room to grow (p. 48).

### Improve program accessibility and reduce equity barriers

High-unit prerequisites, limited financial aid for extended certificates and complex admissions processes disproportionately impact low-income, first-generation and working students. **Institutions can support access and persistence by:**

- Using Credit for Prior Learning and Competency-Based Education to reduce time to completion and to capture prior knowledge, specifically useful when building stackable credentials.
- Providing embedded advising, child care and transportation support to allow students to attend full time and persist in college programs.
- Developing learn and earn opportunities that don't require students to choose between work and training.
- Creating real pathways that are stacked between entry roles (e.g., MA, CNA) to higher-wage opportunities.

## **Strengthen ADT and transfer pipelines in health-related majors**

Though Associate Degrees for Transfer (ADTs) streamline transfer to CSU campuses, very few are available in health-related fields. In 2019–20, only 17 percent of all associate degrees in health were ADTs (p. 42). **To improve upward mobility, colleges should:**

- Expand ADTs in public health, nutrition and behavioral health.
- Work with CSU partners to ensure ADT alignment with receiving majors.
- Improve advising so students understand the value and requirements of ADTs.

## **Recommendations for Four-Year College/University Educators**

### **Align bachelor's degree programs with regional workforce needs**

Universities in L.A. County offer key pathways in nursing, public health and health administration, yet many occupations, such as Clinical Lab Technologists or Health Information Managers, lack clear educational offerings (p. 38). **Institutions should:**

- Identify gaps between available majors and regional occupational demand.
- Add or expand applied health degree offerings tied to growing roles.
- Partner with community colleges to offer clearer transfer pathways, including the growth of ADTs.

### **Use labor market data in curriculum and student advising**

Students often major in health-related fields without understanding the job market, credentialing requirements or how their skills can be applied to multiple careers. **By integrating wage and job data into advising systems, universities can:**

- Help students make informed decisions about majors.
- Reduce excess unit accumulation.
- Promote degree completion aligned with good jobs.

## Support clinical partnerships and placement systems

An estimated 4.6 to 6.5 million additional clinical hours are needed to meet statewide health care training demand.<sup>8</sup> **Universities should:**

- Co-develop clinical placement systems with local employers and community colleges.
- Create pilot programs to share clinical rotations and simulation models.
- Invest in faculty and preceptor development across shared sites.

In addition to K-16 educational partners, Los Angeles has a strong regional consortium structure positioned to leverage local assets and drive systematic innovation based on shared interests.<sup>9</sup> Addressing health care pathway bottlenecks in education will require a multipronged regional partnership approach using a set of solutions simultaneously, rather than relying on a single solution.<sup>10</sup> For example, an approach might combine addressing clinical practical hours through simulation, placements at alternative sites like Federally Qualified Health Centers, and limited time in hospital settings to satisfy training requirements and provide diverse experiences to students (ibid).

Educators in every segment play a crucial role in shaping a more inclusive and effective health care workforce pipeline. Labor market information reveals not only where the opportunities are, but also where systems fall short. **By integrating this information into planning, curriculum, advising and program design, the K-16 systems in Los Angeles County can better prepare students for careers that offer stability, purpose and prosperity—and ensure the region is ready to meet its health care demands for decades to come.**

---

<sup>8</sup> California Competes. (2021). *Meeting California's demand for allied health workers*. [California Competes: Higher Education for a Strong Economy](#).

<sup>9</sup> [Los Angeles Regional Consortia](#).

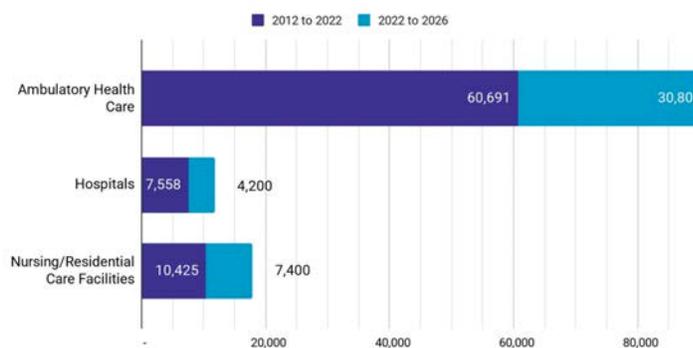
<sup>10</sup> California Competes. (2021). *Meeting California's demand for allied health workers*. [California Competes: Higher Education for a Strong Economy](#).

# Los Angeles Health Care Sector: A Growing Opportunity

## Which health care industries are fueling job growth in L.A. County?

Los Angeles County's thriving health care sector shows sustained growth across core industries. This report focused on major health care industries that drive much of the employment opportunity: Ambulatory Health Care, Hospitals and Nursing and Residential Care Facilities.<sup>11</sup> **Between 2022 and 2026, these three industries are projected to add more than 42,400 new jobs.** Ambulatory Health Care (NAICS 621) will drive most of this growth, adding 30,800 new positions—more than seven times the job growth of Hospitals (4,200) and more than four times that of Nursing and Residential Care Facilities (7,400). This trend builds on the momentum from the previous decade (2012–2022), when ambulatory care added more than 60,000 jobs, far outpacing other industries.<sup>12</sup> The data reflects a sustained shift toward outpatient, community-based care models and highlights where future employment opportunities will be most concentrated within health care.

Figure 1. Number of Jobs Added by Industry, 2012–2026 in Los Angeles County.



Source: QCEW, Non-Employers Data, Lightcast, LAEDC.

<sup>11</sup> Ambulatory Health Care Services includes outpatient clinics, physician offices, diagnostic laboratories, home health care services, and specialty care centers. Hospitals encompass acute care hospitals, psychiatric facilities and specialty hospitals. Nursing and Residential Care Facilities include skilled nursing facilities, assisted living centers, continuing care retirement communities and residential care facilities for individuals with disabilities.

<sup>12</sup> QCEW, Non-Employers Data, Lightcast.

The Ambulatory Health Care industry, which currently accounts for nearly 60 percent of employment in the Health Services industry, is expected to see the greatest job growth in total positions.<sup>13</sup>

**Ambulatory Health Care includes jobs in:**

- Offices of physicians, dentists and other health practitioners (i.e., chiropractors; optometrists; physical, occupational and speech therapists; and audiologists);
- Outpatient care facilities;
- Medical and diagnostic laboratories;
- And other ambulatory health care services, which include home health care services, ambulance services and blood banks.

Meanwhile, the Nursing and Residential Care Facilities industry is projected to have the highest proportional job growth, with 7,400 jobs added.<sup>14</sup> Nursing and Residential Care Facilities include jobs that provide inpatient nursing and rehabilitative services for an extended period of time; residential intellectual facilities, which comprise developmental disability, mental health and substance abuse facilities; continuing care retirement communities and assisted living facilities for the elderly; and other residential care facilities.

## What are the most in-demand jobs in health care?

The 20 most common health care occupations in Los Angeles County vary widely in wages and projected growth (see Figure 2). Earnings range from \$32,404 for Home Health and Personal Care Aides—well below the self-sufficiency standard—to \$153,444 for Nurse Practitioners. Home Health Aides represent the second-largest workforce but remain the lowest-paid. In contrast, Dental Assistants employ fewer workers yet offer higher wages and a 19 percent projected growth rate, making them a more financially viable option.<sup>15</sup>

**High employment doesn't always equate to high value—wage and career growth potential must also guide career pathway design.**

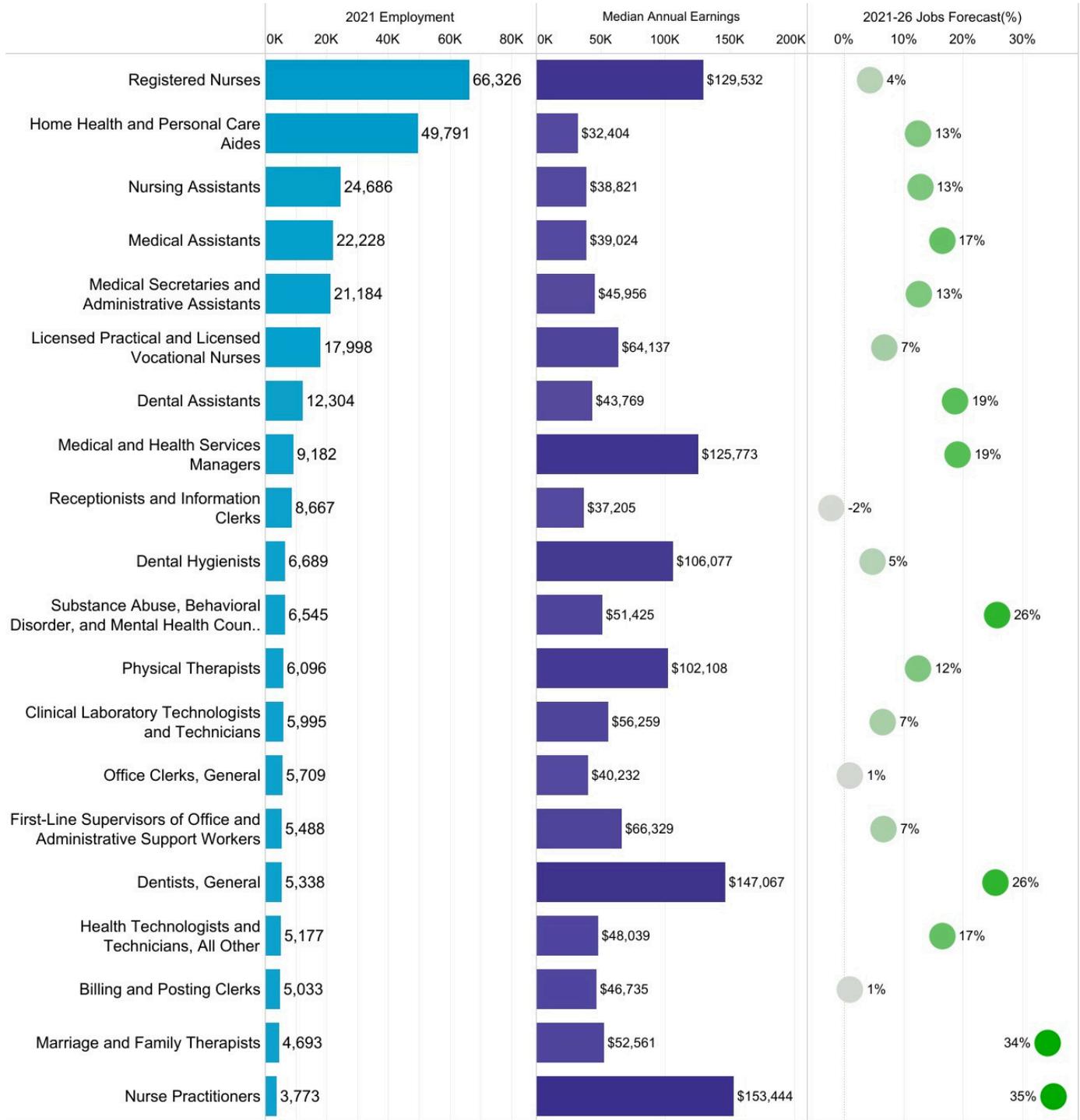
---

<sup>13</sup> QCEW, Non-Employers Data, Lightcast.

<sup>14</sup> QCEW, Non-Employers Data, Lightcast.

<sup>15</sup> Self-Sufficiency Standard wage data was pulled from [The Self-Sufficiency Standard Tool for California](#). L.A. County's self-sufficiency standard for one single adult is \$24.03/hour or \$50,758 annually.

Figure 2. Top 20 Occupations in the Health Care Sector in Los Angeles County.



Source: Lightcast, QCEW, CA EDD.

## Who holds in-demand health care jobs in Los Angeles County?

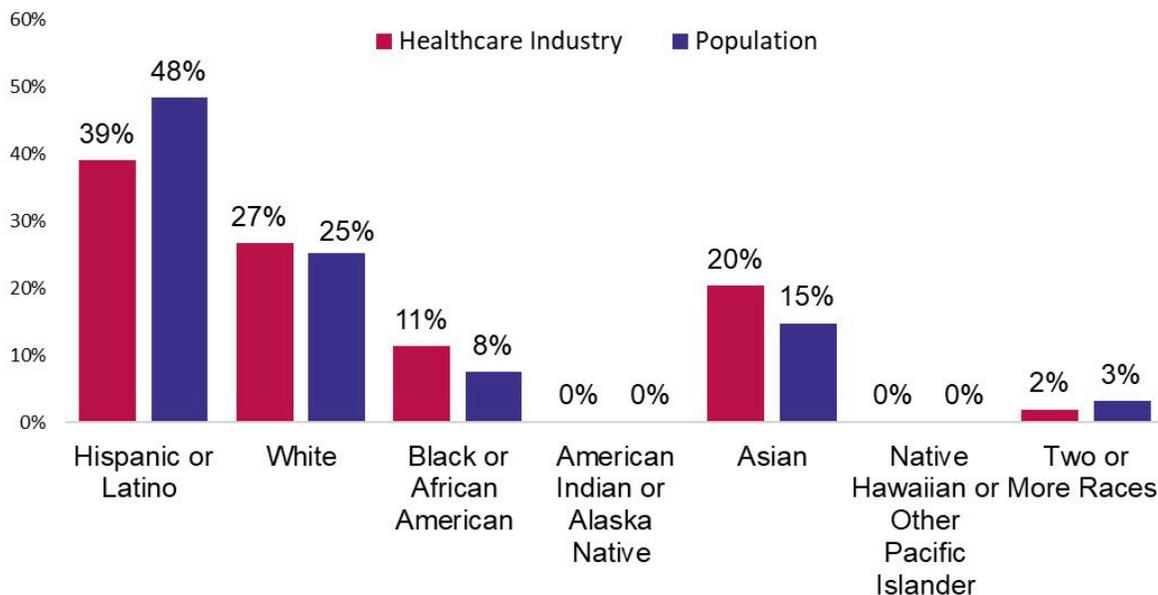
Understanding the racial, gender and age composition of the health care workforce is essential for identifying inequities in access to opportunity, fair wages and career advancement.

Health equity is impossible without confronting the racial, gender and class divisions embedded in the health care workforce. (Duffy, 2022)

In Los Angeles County, women of color and immigrant workers are disproportionately concentrated in the lowest-paid, highest-risk health care jobs—positions that are vital yet historically undervalued due to long-standing occupational segregation. Advancing diversity in health care pathways is not just a matter of representation; it's a structural imperative for creating an equitable system.<sup>16</sup>

Demographic insights should inform targeted recruitment, continuous improvement, accountability and pathway design that promote true economic mobility.

Figure 3. Top 20 Occupations in the Health Care Sector in Los Angeles County.



Source: Population data retrieved from DP05 2023 five-year estimate ACS demographic and housing estimate tables. Industry data retrieved from Lightcast industry demographic report 2023-2024.

<sup>16</sup> Duffy, M. (2022). [Why improving low-wage health care jobs is critical for health equity](#). AMA Journal of Ethics, 24(9), 871-875.

## Why does diversity in health care workforce matter?

- **Reflecting the Population Improves Patient Care** – L.A. County is one of the most racially and ethnically diverse regions in the country. When the health care workforce reflects this diversity, it enhances cultural competence, improves communication and builds trust between providers and patients—leading to better health outcomes.
- **Reducing Health Disparities** – Communities of color in L.A. County face disproportionate health challenges due to systemic inequities. A diverse workforce can help address these disparities by bringing lived experience, language access and culturally responsive care to the forefront.
- **Strengthening Workforce Supply** – Tapping into L.A.’s diverse population to fill health care roles helps meet growing workforce demands. As the region’s health care sector expands, diversifying the pipeline ensures that the workforce is inclusive, sustainable and representative of the community it serves.
- **Promoting Equity and Upward Mobility** – Health care careers offer a range of opportunities for economic advancement. Ensuring equitable access for Black, Latino, and other underrepresented groups is essential to building an inclusive economy and breaking cycles of intergenerational poverty.

In Los Angeles County, as salaries increase, so does the percentage of white workers, often at a rate that exceeds their proportion among county residents.

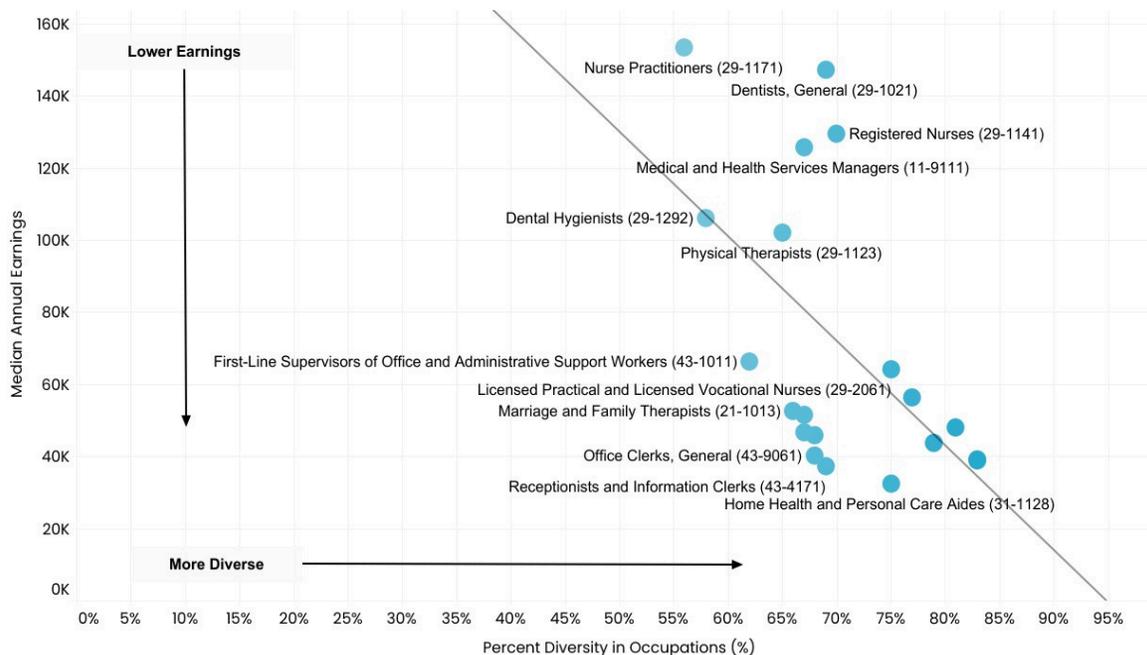
This disparity highlights the need to create equity-focused pathways that ensure fair access to higher-wage occupations.

The proportion of diverse workers varies among the top 20 occupations in health care, ranging from a low percentage of diversity, 55.9 percent among Nurse Practitioners (SOC 29-1171), to a high of 83.4 percent among Nursing Assistants (SOC 31-1131). More than 80 percent of Medical Assistants and Nursing Assistants are people of color, with women overwhelmingly filling the majority of these positions; 88.3 percent of Medical Assistants and 90.7 percent of Medical Secretaries are female. In L.A. County, 49.5 percent of the population is Hispanic/Latino, and 67 percent of HS graduates are Latino. **Representation of L.A.’s Hispanic/Latino population in high-wage health care roles in L.A. County remains disproportionately low, while Hispanic/Latino workers are overrepresented in the lowest-wage occupations within the health care sector.** By contrast, Asian and white populations are overrepresented in higher-wage health care occupations. Overall, Black workers tend to be about in

line with countywide population representation in health care occupations, but are still more likely to be represented in low and middle-wage occupations.

As seen in Figure 4, Percent Diversity<sup>17</sup> and Median Annual Salary, the higher the diversity percentage of a job, the lower the median annual wage. Nurse Practitioners (SOC 29-1171) exhibit the lowest percentage of diversity but the highest median annual salary at \$153,444. By contrast, Nurse Assistants (SOC 31-1131) show the highest diversity yet have among the lowest median annual salary at \$38,821. There are some exceptions to this trend. Most notably, General Dentists (SOC 29-1021) at 69 percent diversity with a median annual salary of \$147,067.

Figure 4. Percent Diversity, Median Annual Salary in Top 20 Health Care Occupations.



Source: Lightcast, QCEW, CA EDD.

Recent analyses of California’s health care workforce found consistent underrepresentation of Black, Hispanic/Latino and Asian demographics across a significant portion of the Health Industry. **Black and Hispanic/Latino workers are underrepresented in the majority of health license types.**<sup>18</sup> Spanish-speaking

<sup>17</sup> Percent diversity is defined as the percent of non-white workers currently working in the selected occupation.

<sup>18</sup> California Department of Health Care Access and Information. (2024, January). [Health Workforce Research Data Center annual report to the Legislature.](#)

## L.A. region K-16 collaborative

professionals are also underrepresented in the majority of health license types despite the demand for bilingual Spanish workers. In contrast, Asian populations are underrepresented in several Behavioral Health professions (ibid). This workforce disparity presents challenges for the health care industry in providing culturally relevant care to Californians.

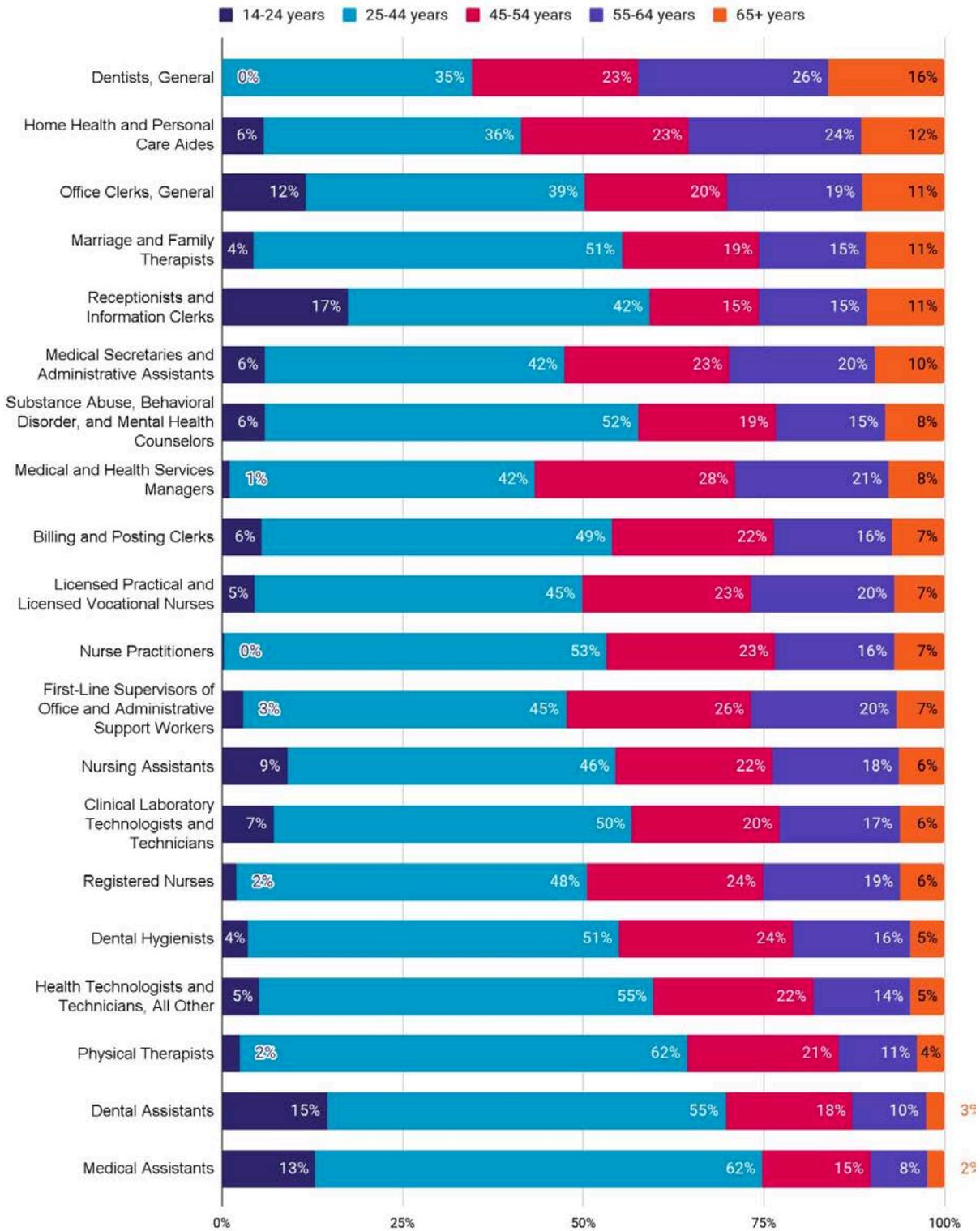
The health care sector's aging workforce presents both challenges and opportunities. The same report found that "11.9 percent of Allied Health professionals are 60 years old and over."<sup>19</sup> These metrics are crucial for understanding future demand and estimating demand more accurately. Figure 5 provides an age breakdown of workers in the Los Angeles County region. The share of workers aged 55 and older ranges from 10.2 percent for Medical Assistants (SOC 31-9092) to 42.3 percent for General Dentists (SOC 29-1021). Understanding the age distribution of the health care workforce helps identify potential talent gaps as older workers retire. It also highlights areas where targeted training or upskilling may be necessary, ensuring that younger workers are prepared to step into critical roles and adapt to evolving industry demands.



<sup>19</sup> California Department of Health Care Access and Information. (2024, January). [Health Workforce Research Data Center annual report to the Legislature](#).



Figure 5. Age Distribution of Top 20 Health Care Occupations.



Source: Lightcast, QCEW, CA EDD.

**Striking in this data is the nursing pipeline, which reveals more than 30 percent of Licensed Vocational Nurses and Registered Nurses are aged 55 and older, signaling a potential wave of retirements that could create vacancies and new access points for younger workers.** General Dentists and Medical and Health Service Managers also have high percentages of middle-aged and older workers. These occupations have lower percentages of younger workers, with almost no workers under the age of 24 (likely due to the educational requirements). These jobs will likely experience waves of worker retirement and may be at risk of future shortages, suggesting that opportunities exist to expand educational programs to help students gain the skills and education needed to fill vacant positions left by those retiring.

## How are high schools exposing and preparing students for careers in health care?

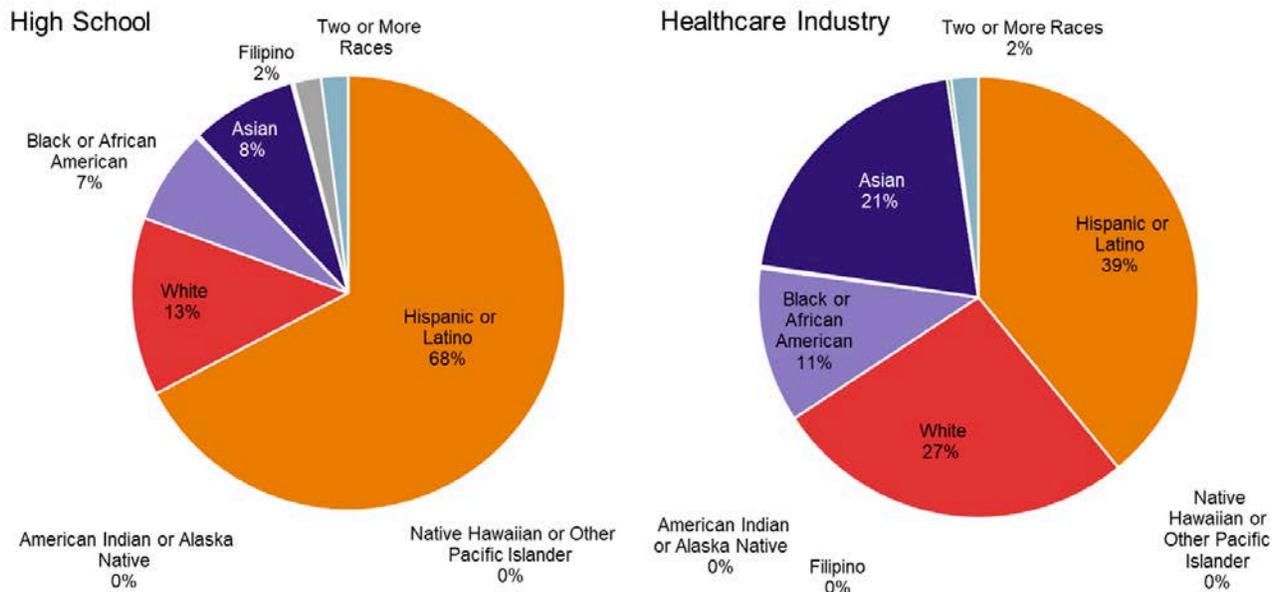
Offering health care career-related courses in public high schools is a promising strategy to address workforce shortages by expanding talent pipelines while providing effective contextualized learning experiences. Introducing career pathways as early as middle school can help students explore and prepare for diverse health care careers. K-12 programs should ensure that patient care pathways emphasize roles that meet self-sufficiency wage standards, aligning with current California Department of Education (CDE) curriculum standards that prioritize preparation for higher-wage health care occupations. CDE identifies sample occupations associated with the patient care pathway including Kinesiotherapist, Nurse Anesthetist, Respiratory Therapist, Radiologic Technician and Dental Hygienist.<sup>20</sup> Shown in Figure 6, high school graduates in Los Angeles are more racially and ethnically diverse than the county's overall population, presenting a key opportunity to increase racial and ethnic diversity of in the health care workforce to be more reflective of the county as a whole.<sup>21</sup>

---

<sup>20</sup> [CTE Model Curr Stds: Health Sci & Med Tech - Standards and Framework \(CA Dept of Education\)](#).

<sup>21</sup> Gomez, L. E., & Bernet, P. (2019). [Diversity improves performance and outcomes](#). *Journal of the National Medical Association*, 111(4), 383-392.

Figure 6. Race and ethnicity of L.A. County high school graduates vs. health care workforce (2023).



Sources: CCI metric, CDE website (2023); industry data retrieved from Lightcast industry demographic report 2023–24. In the High School pie chart, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander are listed as 0 percent due to rounding, but are both 0.2 percent. In the Health Care Industry pie chart, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander are listed as 0 percent due to rounding, but are 0.2 percent and 0.3 percent respectively. Filipino is listed as 0 percent in the Health Care Industry pie chart because it is not a disaggregated variable.

## Dual Enrollment

Dual enrollment is an evidence-based lever for closing educational equity gaps, particularly for Black, Hispanic/Latino and Native American students who have historically been underrepresented in these programs.<sup>22</sup> When designed with intentional equity practices, dual enrollment can provide early college exposure, accelerate time to degree completion, reduce college costs and create seamless pathways from high school to postsecondary education—benefits that are especially critical for first-generation college students and those from low-income backgrounds.<sup>23</sup> Research has shown that first-generation college students, students from low-income backgrounds, and students from underrepresented racial minority (URM) communities stand to benefit most from

<sup>22</sup> Muñoz, Y., Wheatfall-Lum, N., Wolf, L., & Ramirez, C. (2021). [Jumpstart: Setting goals to drive equitable dual enrollment participation in California's community colleges](#). The Education Trust–West.

<sup>23</sup> Los Angeles County Office of Education & The Greater L.A. Education Foundation. (2023). [Los Angeles County toolkit to equity-centered dual enrollment partnerships](#).

high-quality dual enrollment programs.<sup>24</sup> However, health care career preparation through dual enrollment faces unique structural challenges that can limit its equity potential.

The lack of alignment between community college courses and four-year university transfer requirements creates a problematic choice point for students. When students choose dual enrollment courses in health care or other technical fields, these courses typically do not transfer to four-year universities (such as the University of California or California State University), forcing students to choose between immediate career preparation and gaining credit that is transferable to a university in the pursuit of obtaining a bachelor degree.<sup>25</sup>

This binary choice creates challenges for students of color and first-generation college students regardless of which path they select. Career-focused coursework provides immediate access to workforce entry and short-term financial stability, but may limit future access to higher-level positions that require bachelor's degrees. Conversely, transfer-focused courses open pathways to four-year degrees and broader career advancement opportunities, but require longer-term educational investment without immediate economic returns and often lack career contextualization that helps students see connections to future employment.

The absence of stackable credentials and seamless pathways between career preparation and transfer education particularly disadvantages students from families without college experience, who may struggle to navigate these complex trade-offs while facing immediate economic pressures. An Education Trust-West analysis found that more than three in four of California's 72 community college districts received at least one Low Representation rating because too few Black, Hispanic/Latino or Native American students in their region are represented in dual enrollment courses, underscoring how these systemic barriers disproportionately impact underrepresented communities and highlighting the need for targeted interventions to address these gaps.<sup>26</sup>

---

<sup>24</sup> Lee, J., Fernandez, F., Ro, H. K., & Suh, H. (2022). [Does dual enrollment influence high school graduation, college enrollment, choice, and persistence?](#) *Research in Higher Education*, 63(5), 825–848.

<sup>25</sup> University of California Office of the President. (2023). [Transfer credit practices - UC Admissions](#).

<sup>26</sup> Muñoz, Y., Wheatfall-Lum, N., Wolf, L., & Ramirez, C. (2021). [Jumpstart: Setting goals to drive equitable dual enrollment participation in California's community colleges](#). The Education Trust-West.

These equity concerns are compounded by significant limitations in publicly available data that would allow researchers and practitioners to understand course-level patterns of dual enrollment participation, including which health-related courses are being offered and who is accessing them. Current data collection systems provide headcounts of dual enrollment participants but lack granular information about specific course enrollments, completion rates and success patterns disaggregated by student demographics. **This data gap makes it impossible to determine whether students of color are being systemically excluded from high-value health care pathway courses or whether completion patterns differ across demographic groups.** To address these challenges and advance equity in health care dual enrollment pathways, state and local education leaders must prioritize greater transparency in dual enrollment data collection and reporting. At minimum, this should include publicly accessible data on course-level enrollment and completion rates disaggregated by student race, ethnicity, gender and socioeconomic status, enabling stakeholders to identify and address disparities in access to healthcare career preparation opportunities.

## **Career Technical Education (CTE)**

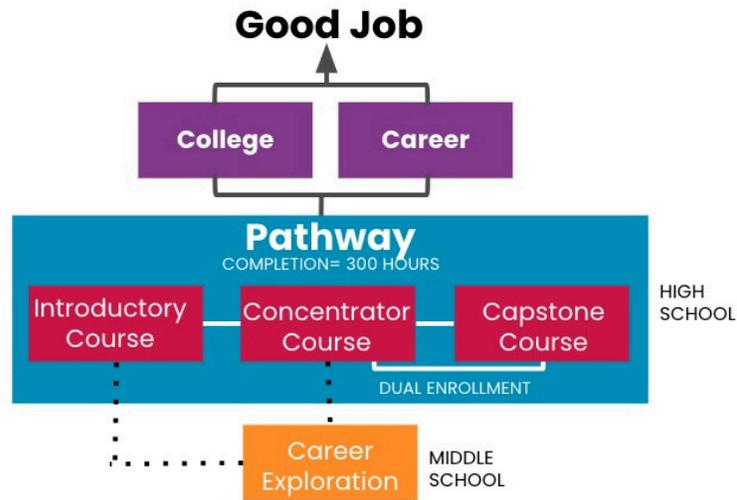
Career Technical Education (CTE), offered throughout California high schools, exposes students to careers in 15 industry sectors.<sup>27</sup> Courses in these industry sectors integrate rigorous academic studies with industry specific career skills. Within industry sectors, sequenced pathways exist to support students from career exposure to workforce training. As shown in Figure 7, a full pathway includes three course levels: introductory, concentrator and capstone. The capstone course signals pathway completion. Designed to support students in postsecondary transitions, courses may include job shadows, apprenticeship and dual-enrollment opportunities.<sup>28</sup> Over the past decade, high schools have increasingly adopted career pathway programs, partly due to state investments. Key grantmaking initiatives include K-16 Regional Collaboratives, Career Technical Education Incentive Grant, Golden State Pathways Program, the K-12 Strong Workforce Program and the California Career Pathways Trust.

---

<sup>27</sup> [Career Technical Education.](#)

<sup>28</sup> [CTE Model Curriculum Standards – Standards & Framework \(CA Dept of Education\).](#)

Figure 7. Anatomy of the K-12-focused CTE pathway.

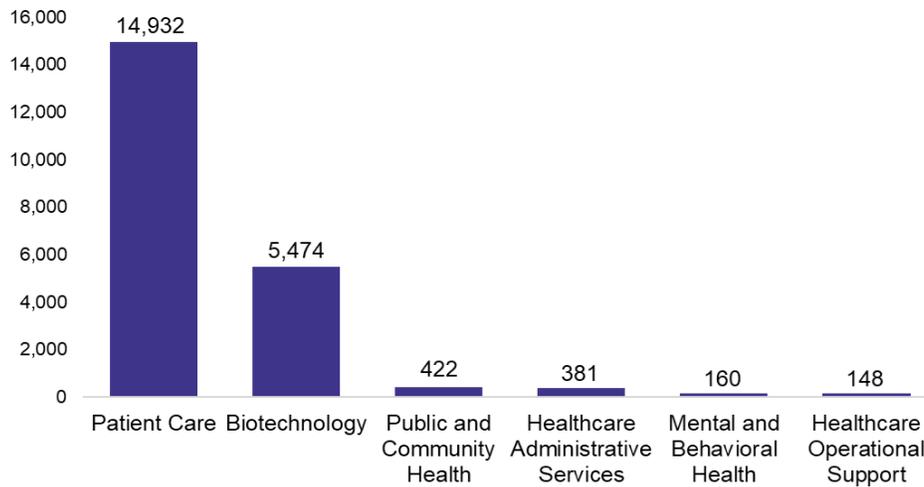


CTE course enrollment data for 2019 for Los Angeles public high schools, as shown in Figure 8, highlight a strong concentration of student course enrollment in the Patient Care pathway, which accounts for nearly 15,000 participants, more than double the number of participants in all other health pathways combined.<sup>29</sup> Biotechnology follows as a distant second with more than 5,400 enrollees. In contrast, the remaining pathways, including Public and Community Health, Health Care Administrative Services, Mental and Behavioral Health and Health Care Operational Support, reflect significantly smaller enrollment numbers, suggesting either more specialized focus areas or limited program capacity.



<sup>29</sup> Enrollment includes any student enrolled in any course, regardless of course level, within the respective career pathway.

Figure 8. L.A. County High School Enrollment in CTE Courses by Health Care Pathway, 2018-19.



Source: California Department of Education Staff and Course Enrollment files for the most recent available year 2018-2028.

The Los Angeles course enrollment data in Figure 8 reveals that Patient Care overwhelmingly dominates student interest within health-care-related pathways, as seen in Figure 9, attracting more than 8,500 students engaged in Career Technical Education (CTE) courses at the Concentrator level and maintaining a solid pipeline into Capstone. Persistence through a CTE pathway is vital information as it demonstrates the proportion of students who are receiving advanced industry and pathway-specific instruction. Several smaller pathways demonstrated strong retention into the Capstone stage, particularly Mental and Behavioral Health and Health Care Operational Support.

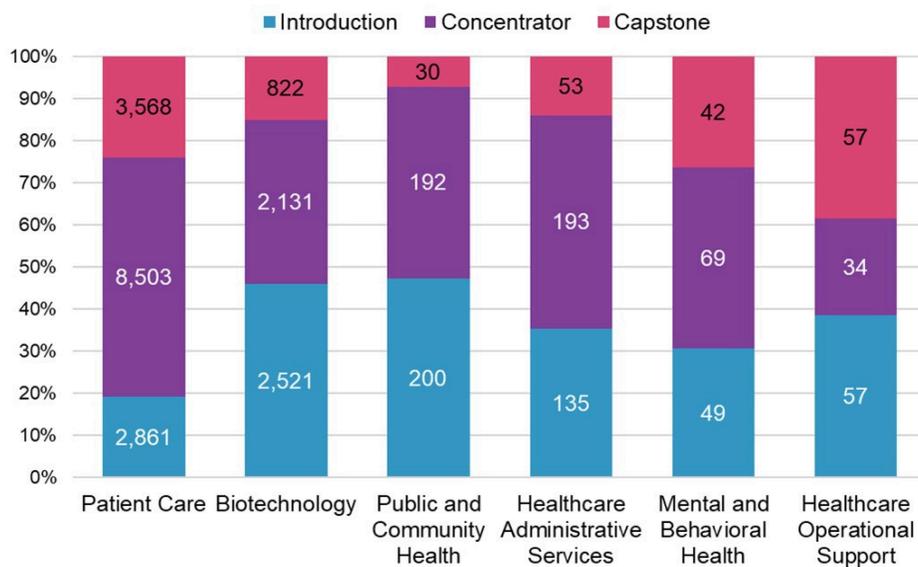
Many high school students are drawn to health care because they want to "help people," often expressing interest in patient care roles like nursing or medicine. Students of all backgrounds interact with health care professionals throughout their lives, making those occupations more transparent and familiar, which influences career choices. Research confirms that occupational visibility plays a crucial role in career aspiration formation, operating on the principle that "you can't be what you can't see".<sup>30</sup> Yet most of these careers typically require years of postsecondary education and offer few direct entry points from high school.

<sup>30</sup> Nguyen, P. D., Desai, S., Mays, J., & Kanim, S. (2021). [Which role models are effective for which students? A systematic review and four recommendations for maximizing the effectiveness of role models in STEM](#). *International Journal of STEM Education*, 8(1), 59.



As a result, students are either guided toward lower-wage roles—such as phlebotomists, EMTs or medical assistants—that may offer stability but limited advancement, or they miss out on lesser-known but high-opportunity pathways in health care administration, operations or technology. These alternatives often provide strong wages and upward mobility but are less visible or intuitive to students and advisors. For example, health care administration roles, such as medical and health services managers, offer median annual wages of \$110,680 to more than \$200,000 for specialized positions, with high projected growth over the next 10 years. These alternatives provide strong wages and upward mobility but remain less visible or intuitive to students and advisors, despite offering clear pathways for those interested in improving health care delivery and operations.

Figure 9. L.A. County Health Care pathway enrollment by course level, 2018–19.



Source: California Department of Education Staff and Course Enrollment files for the most recent available year 2018–2028.

The California Department of Education CTE Model Curriculum offers sample occupations such as Radiologic Technician and Dental Hygienist that offer higher wages but require postsecondary education, and necessitates clear pathways into postsecondary education.<sup>31</sup> Despite the promise of career pathways being integrated into high schools as an entry point into health care, there are persistent challenges in doing so, including:

<sup>31</sup> California Department of Education. (2014). [California Career Technical Education model curriculum standards: Health science and medical technology.](#)

- 1. Limited Access to Work-Based Learning Opportunities.** High school students often struggle to access internships, clinical experiences or job shadowing in health care settings due to liability issues, age restrictions and limited partnerships with health care providers.<sup>32</sup>
- 2. Shortage of Qualified Teachers and Industry Expertise.** There is a shortage of qualified teachers with health care experience who can teach CTE health science courses, particularly in rural and under-resourced schools. Many districts report long-standing vacancies or rely on teachers with emergency permits who lack recent industry experience.<sup>33</sup>
- 3. Inadequate K-12 and Postsecondary Alignment.** Many high school health care pathway programs are not fully aligned with community college or industry certifications, resulting in duplication of coursework or unclear next steps for students after graduation.<sup>34</sup>
- 4. Dual Enrollment Courses Create a Binary Choice.** California's community colleges' offerings creates a problematic choice point for students: CTE courses in health care and other technical fields typically do not transfer to four-year universities (UC/CSU),<sup>35</sup> forcing students to choose between immediate career preparation and maintaining transfer eligibility.
- 5. Inequitable Access across School Districts and Regions.** Access to health care pathways is uneven across California, with fewer offerings in high-poverty, rural or smaller districts. This exacerbates L.A. regional disparities in both educational attainment and workforce supply.<sup>36</sup>
- 6. Insufficient Career Counseling and Advising.** Most high school students—particularly those from underserved communities—receive minimal career counseling. Where counseling is available, it is often generic and does not reflect up-to-date labor market information or programmatic pathways.<sup>37</sup>
- 7. Limited Use of Labor Market Data in Pathway Design.** Pathways are not always designed based on current or projected labor market demand, leading to misalignment between student interest, program offerings and regional workforce needs, which results in programs that may not lead to high-demand or high-wage careers.<sup>38</sup>

---

<sup>32</sup> [Top 6 Challenges for Health Science Teachers & How to Solve Them.](#)

<sup>33</sup> [Teacher Supply in California, 2022-23 A Report to the Legislature.](#)

<sup>34</sup> [Improving Career Education Pathways into California's Workforce.](#)

<sup>35</sup> University of California Office of the President. (2023). [Transfer credit practices - UC Admissions.](#)

<sup>36</sup> [Improving Career Education Pathways into California's Workforce.](#)

<sup>37</sup> California Alliance of Child and Family Services & the Catalyst Center. (2023). [Minding the future: A report on workforce challenges in youth behavioral health.](#)

<sup>38</sup> California State Auditor. (2022). [K-12 Strong Workforce Program: State and regional administrative shortcomings limit the program's effectiveness in supporting grant applicants.](#) (Report No. 2021-101) California State Auditor.

## Opportunity Youth and Frontline Care Workforce

To support building intentional pathways for OY to reach good health care jobs, Figure 10 applies three questions to gauge on occupation viability:

1. Does the median wage meet the self sufficiency standard?
2. Is there a projected growth in the occupation?
3. Is there a clear, accessible pathway for young people to gain more education to reach a higher wage occupation?

**Opportunity youth**—young people, ages 16 to 24, who are not in school or employed—represent a critical, often overlooked talent pool for Los Angeles County’s health care workforce. Young people of color from low-income communities are disproportionately represented in entry-level health care roles—such as Medical Assistants, Home Health Aides, Phlebotomists, EMS personnel and Peer Support Educators. These jobs require minimal education or short-term certification, making them accessible to youth who face barriers to higher education and stable employment (e.g., opportunity youth). Many are employed in long-term care or community health settings, which tend to rely heavily on workers from marginalized communities.<sup>39</sup>

Although these entry-level positions can offer a pathway to stability and purpose, without intentional design and support, these roles too often become low-wage dead ends rather than stepping stones into long-term, high-quality health care careers. Addressing this challenge is key to advancing both workforce equity and regional health care resilience.



<sup>39</sup> Institute for Economic and Racial Equity. (n.d.). [Mapping the solution: Equitable career advancement for entry-level healthcare employees](#). Brandeis University, Heller School for Social Policy and Management.

Figure 10. Summary of Los Angeles labor market data of common occupations offered by Opportunity Youth career pathway programs.

Occupation	Median Wage 2023	Meets Single Adult Self Sufficiency <sup>40</sup>	Employment 2021	Expected Growth 2021-26	Educational Pathways to Higher Wage Occupations
Home Health Aides (31-1128)	\$16.82	No	49,791	12.5%	Very Limited
Phlebotomists (31-9097)	\$26.54	Yes	2,853	7.8%	Limited
EMS Personnel (29-2042)	\$20.50	No	2,308	-2.8%	Limited
Community Health Workers (21-1094)	\$24.87	Yes	732	27.9%	Some
Medical Assistants (31-9092)	\$21.91	No	3,666	16.5%	Some
Nursing Assistants (31-1131)	\$21.91	No	3,150	12.8%	Some

Source: Lightcast analyst occupational tables, 2021-26

Most opportunity youth entering frontline health care roles face persistent equity challenges. Positions such as EMS, Phlebotomy, Medical Assisting and Community Health Workers are frequently targeted to youth from low-income communities due to minimal entry requirements, but they often offer poverty-level wages and limited internal mobility. A national review of health care pathways for opportunity youth found that these roles frequently are endpoints rather than launchpads unless paired with support including academic remediation, career coaching, and stackable credentials.<sup>41</sup> Systemic barriers—including inadequate advising, financial constraints and lack of formal pathways—disproportionately affect youth of color, contributing to stalled advancement and long-term economic instability.<sup>42</sup> As the California Health Care Foundation notes, realizing equity in health care training requires intentional investment in supportive pathways that move young people beyond entry-level roles into high-demand, higher-wage careers.<sup>43</sup>

<sup>40</sup> Self-Sufficiency Standard at the Center for Women’s Welfare, University of Washington. [Self sufficiency standard data tool for California](#). L.A. County’s self-sufficiency standard in 2024 for one single adult is \$24.03/hour or \$50,758 annually.

<sup>41</sup> Jobs for the Future. (2014). [Health Care Pathways for Opportunity Youth](#).

<sup>42</sup> Aspen Institute Forum for Community Solutions. (2022). [Who Are Opportunity Youth?](#)

<sup>43</sup> California Health Care Foundation. (2022). [Bridging the Care Gap: Investing in California’s Future Health Workers](#).

Wraparound support, including learn and earn, can ignite career paths into self-sustaining wages from entry-level positions. When provided with intentional support and employer investment, young people can successfully enter entry-level roles that connect with a more progressive career ladder. For example, the Miguel Contreras Foundation’s high-road training partnership in Los Angeles enrolled opportunity youth in CNA and CMA programs connected to union employers, enabling participants to access living-wage jobs with advancement potential through collective bargaining and workforce navigation support.<sup>44</sup> These models align with national findings from the Health Profession Opportunity Grants (HPOG), which show that young adults can achieve better employment outcomes when occupational training is paired with holistic support and clear educational ladders.<sup>45</sup>

Figure 11. Summary of key insights and recommendations to better connect opportunity youth to health care careers.

Common Barriers	Recommendation
<b>Entry-level roles are accessible but low-wage</b>	Build stackable pathways linking training for lower-wage occupations (i.e. Medical Assisting, EMS, CNA, phlebotomy) into advanced credentials to open up access to higher wage opportunities (i.e. health information management)
<b>Certifications alone are not enough</b>	Co-design curricula, career ladder structures with health systems and unions, and create stackable credentials to ensure credential progression and wage increases.
<b>Youth from marginalized communities are concentrated in front-line roles</b>	Ensure programs explicitly center youth of color and structurally marginalized groups—linking entry-level placements to meaningful laddering opportunities with embedded wrap-around support (i.e. trauma-informed career coaching, academic remediation, and mentorship tailored for youth navigating entry-level health care roles).
<b>Long-term outcomes for opportunity youth are poor without intervention</b>	Track placement, retention and advancement rates to evaluate whether programs successfully move youth into higher-wage jobs over time.

<sup>44</sup> California Workforce Development Board. (2024). [High-Road Training Partnership: Healthcare Opportunity Youth – Miguel Contreras Foundation](#).

<sup>45</sup> U.S. Department of Health and Human Services, Office of Planning, Research, and Evaluation (2022). [Health Profession Opportunity Grants \(HPOG\) 2.0: Outcomes Study Report](#).

## What are high-growth health care occupations in Los Angeles County?

The occupations expected to experience the highest growth in the health care sector in Los Angeles County include Registered Nurses, Radiologic Technologists, and Dental Hygienists, which consistently earn wages well above the Self-Sufficiency Standard<sup>46</sup>—the minimum income needed to meet basic needs without public or private support. These occupations provide family-sustaining wages and typically require associate or bachelor's degrees through postsecondary institutions. By contrast, Licensed Vocational Nurses and Dental Assistants have more modest wage ranges and fall below the self-sufficiency threshold at the lowest 25 percent of wages. **While Licensed Vocational Nurses and Dental Assistants positions may offer quicker entry, they present limited economic mobility unless used within a stackable credential model that leads to higher-wage roles.**

This labor market information underscores the importance of guiding students toward pathways with higher earning potential and opportunities for upward mobility. Programs that lead directly to roles such as Registered Nurse or Radiologic Technician should be prioritized for quality and growth, while entry-level roles like Dental Assistant can be effective entry points within a stackable credential model. Ensuring equitable access to these high-return pathways is crucial for promoting long-term economic self-sufficiency among students and fostering continued growth in the health care sector in L.A. County.

### High Growth Occupations Above Living Wages:

- Registered Nurses
- Radiologic Technologists
- Dental Hygienists

<sup>46</sup> Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington. [Self sufficiency standard data tool for California.](#)

Figure 12. Top 10 High Growth Occupations – Education Level, Number of Jobs, Median Salary and Forecasted Growth, 22–26.



Source: Lightcast, QCEW, CA EDD.

## High Growth Occupations by Educational Level

Occupations requiring a **bachelor's degree** include:

- Registered Nurses, Medical and Health Services Managers<sup>47</sup>
- Substance Abuse, Behavioral Disorder, Mental Health Counselors
- Clinical Laboratory Technologists and Technicians

In 2022, Registered Nurses had the largest number of jobs among this group (69,131), and earned median earnings of \$120,800, with a projected growth of 6.7 percent. Substance Abuse, Behavioral Disorder and Mental Health Counselors showed the highest projected growth at 18.10 percent, with 7,183 jobs and median earnings of \$51,500. It is important to note that despite high growth, Mental Health Counselors income is on the lower end of bachelor's degree salaries.

The following occupations requiring education at the community college level that typically require an **associate degree** and have an identified supply gap in L.A. County:<sup>48</sup>

- Dental Hygienists,
- Physical Therapist Assistants, and
- Radiologic Technologists and Technicians.

Occupations that primarily require a **postsecondary non-degree award** include:

- Licensed Practical and Licensed Vocational Nurses, and
- Dental Assistants.

Licensed Practical and Licensed Vocational Nurses had the highest number of jobs in 2022 in this category at 18,691, with a median earning of \$60,500 and a projected growth of 9.2 percent. Physical Therapist Assistants are projected to have the highest growth in this group at 25.4 percent, with a median salary of \$77,900 for 1,538 jobs.

To further explore which health care occupations offer both strong labor market demand and pathways for economic mobility, Figure 13 provides a comparative view of select

---

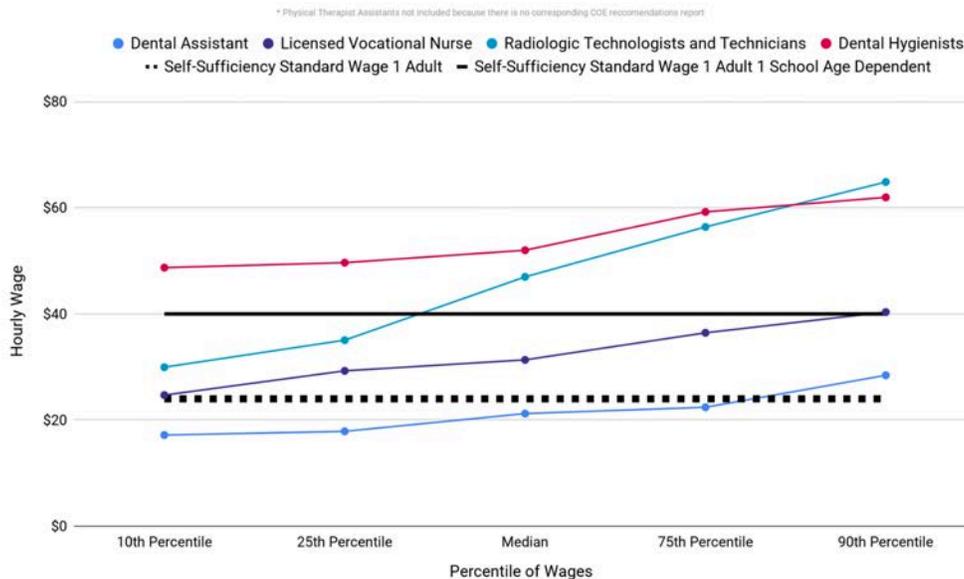
<sup>47</sup> Nursing is, and will continue to be, a high demand occupation in L.A. County. Although this report doesn't focus on challenges and opportunities in the occupation, it is a critically important piece in the health care ecosystem. There are several major initiatives aimed to address nursing shortages in California. In L.A. County, **Nursing 2035** is a partnership between CSU and CCCs to focus on addressing supply issues. Learn more by [visiting LARC's website](#).

<sup>48</sup> Supply gap is calculated both new jobs and [replacement jobs](#) constitute total openings. The annual openings figure is derived by dividing total openings by the number of years in the user's selected timeframe. Definition Source: [Lightcast Annual Openings Estimate | Lightcast Knowledge Base](#).

health care occupations in Los Angeles County from 2022 to 2026 using hourly wage pay ranges by percentile benchmarked against the Self-Sufficiency Standard. For example, Dental Assistants fall below the self-sufficiency standard wage at the 75th percentile, meaning 75 percent of employee wages fall below \$24 per hour for one adult or \$40 an hour for one adult and one school-age dependent.<sup>49</sup> In contrast, 90 percent of Dental Hygienists' wages are \$62 per hour, far above the self-sufficiency wage.

**Registered Nurses, Radiologic Technologists and Dental Hygienists consistently earn above the self-sufficiency threshold, making a clear value proposition for developing pathways to these occupations.** Dental Assistants present a more complex income picture: While top earners surpass the self-sufficiency threshold, workers in the 10th and 25th percentiles fall below it, suggesting these entry-level positions may not provide sustained economic security without additional credentials or advancement opportunities. Using the Self-Sufficiency Standard as a benchmark can focus educators on preparing students for careers that lead to economic self-sufficiency.

Figure 13. Hourly Wage Range among Workers of Four of the Top Middle Skill Health Care Careers.



Source: Center of Excellence Program Recommendations Reports for the Los Angeles region for the select occupations<sup>50</sup>

<sup>49</sup> Self-Sufficiency Standard at the Center for Women’s Welfare, University of Washington. [Self sufficiency standard data tool for California](#). L.A. County’s self-sufficiency standard in 2024 for one single adult is \$24.03/hour or \$50,758 annually.

<sup>50</sup> Center of Excellence. (2024). [Labor Market Analysis for Dental Assistant - 1240.10](#). Center of Excellence. (2024). [Labor Market Analysis for Dental Hygiene - 1240.20](#). Center of Excellence. (2024). [Labor Market Analysis for Licensed Vocational Nursing - 1230.20](#). Center of Excellence. (2023). [Labor Market Analysis for Radiologic Technology - 1225.00](#). Center of Excellence. (2024). [Labor Market Analysis for Registered Nursing - 1230.10](#). No wage data included. Currently no Center of Excellence Labor Market Analysis for 1214.00 or 1222.00.

## What are the skills required for high-growth occupations?

To prepare students for today’s fast-changing health care workforce, educators need more than just a list of growing job titles—they need to understand the skills employers are actually looking for. From entry-level certificates to bachelor’s degrees, health care jobs increasingly require specific, evolving skills due to changes in technology, patient care practices, and state and federal regulations.<sup>51</sup> That’s why it’s important for K–16 educators to consider how skills are built over time, and how education can be designed to match both local job opportunities and broader health care trends. Making skills more visible in the classroom—like demonstrating a skill that prepares them to do in a real job—can also boost engagement, support better job outcomes and even help improve enrollment.<sup>52</sup>

Figure 14. Top Five Crosscutting Skills among the Top 10 high-growth occupations.<sup>53</sup>

Skills	Bachelor's Degree					Associate Degree			Postsecondary Non-degree award	
	Registered Nurse	Medical and Health Service Managers	Clinical Laboratory Technologists	Substance and Health Services Managers	General Operations Managers	Dental Hygienists	Radiologic Technologists and Technicians	Physical Therapist Assistants	Licensed Vocational Nurse	Dental Assistants
Medical Records	11%	17%		25%	9%	3%	14%	5%	21%	7%
Infection Control	9%		7%			7%	11%	6%	14%	22%
Treatment Planning	8%	12%		46%		5%		16%	12%	10%
Billing		12%		10%	11%		8%	7%		6%
Medical Terminology		9%	6%			3%	12%	7%		3%

Source: Full list in Appendix A. Lightcast Q1 2025 data, includes jobs postings only in the health sector NAICS Ambulatory Health Care (NAICS 621), Hospitals (NAICS 622), and Nursing and Residential Care Facilities (NAICS 623). Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills and geography.

<sup>51</sup> McKinsey & Company. (2022). [Taking a skills-based approach to building the future workforce](#); Institute of Medicine. (2003). [Health professions education: A bridge to quality](#). The National Academies Press.

<sup>52</sup> McKinsey & Company. (2022). [Taking a skills-based approach to building the future workforce](#); Institute of Medicine. (2003). [Health professions education: A bridge to quality](#). The National Academies Press.

<sup>53</sup> See Appendix A. for a more complete list of specialized skills for Top 10 jobs.

**An analysis of the top 10 high-growth occupations offers some clear takeaways for educators:**

- There are skills that are in demand across occupations and education levels. For example, **technology and patient management skills** tend to increase as students move from entry-level roles to more advanced positions. Skills like Electronic Medical Records (EMR) might show up in just 4 percent of dental assistant jobs, but they're required in 11 percent of registered nurse roles—and even more in managerial jobs. Similarly, **treatment planning**—which involves thinking ahead about patient needs—becomes increasingly important in careers like substance abuse counseling (48 percent of postings) and physical therapy.
- Other skills vary by career, even at the same education level. While some skills—like **medical recordkeeping or patient education**—are needed across many health care jobs, others are highly specific. For instance, CPR certification may be essential for a home health aide but not for a medical biller. This means that health care education can't take a one-size-fits-all approach. **Programs must be flexible and responsive to what's needed locally, while still teaching common skills all health care workers need.**

Preparation for health care careers need to both build core skills that grow with the student and stay responsive to the unique demands of specific health care occupations in the L.A. region. This dual approach enables students to develop both the universal competencies needed across health care occupations, while also allowing students to explore or prepare for more specialized paths.

## **Crosscutting K-16 Curriculum Recommendations**

- 1. Teach a core set of skills across all health care programs.** Some skills show up again and again across health care careers—like medical records management (in 11–25 percent of job postings) and patient education and counseling (8–13 percent). These should be built into every program, from entry-level to advanced. In particular, basic tech and digital recordkeeping skills should start early and build gradually toward Electronic Health Record (EHR) fluency.
- 2. Structure skill development in clear, progressive stages.** Think of skills as building blocks that stack over time:

## L.A. region K-16 collaborative

- a. **Entry:** Basic patient care, safety and communication—the fundamental building blocks of health care practice.
  - b. **Middle:** Add more technology use, care coordination, basic quality improvement—competencies that bridge clinical skills with systems thinking.
  - c. **Advanced:** Prepare students for leadership roles, including management teams, improving systems and using data to make decisions—capabilities that prepare graduates to drive organizational change and innovation.
3. **Design programs around local needs and employer input.** Because job demands vary by region and employer, programs should stay in close contact with local health care providers. Regular surveys, advisory boards or feedback loops can help educators understand which skills are in demand. Using flexible, modular curriculum design allows programs to adjust quickly and ensure students are learning what’s relevant—and valuable—in the job market, while maintaining educational quality and rigor.



# What are the K-16 Pathways to Health Care Careers?

The Los Angeles region is home to one of the most robust public educational systems in the nation, offering diverse programs that serve as gateways to high-demand, living-wage health care careers. L.A.'s high schools and colleges play a critical role in preparing the next generation of health care professionals in the region—consequently, the scale and alignment of these pathways remain a key focus of regional K-16 efforts.

**This section explores the educational pipeline from high school through postsecondary education and into the health care workforce, delving into the five specific pathways to the top middle-skill careers in the last section.** It draws on recent data from community colleges, public universities and labor market sources to illuminate both the opportunities and gaps in occupations that not only offer strong job growth and economic mobility but also reflect areas where the supply of qualified graduates still falls short of regional demand.

By mapping degree completions, demographic trends, and program participation, this analysis highlights where the system is working—and where there is immediate opportunity for growth. Addressing equity gaps, expanding access to aligned programs and strengthening cross-segment coordination are essential for ensuring that students in Los Angeles—particularly those from historically underserved communities—can successfully pursue careers that sustain both individual livelihoods and the region's health care infrastructure.

By mapping degree completions, demographic trends and program participation, this analysis highlights where the system is working—and where there is immediate opportunity for growth. Addressing equity gaps, expanding access to aligned programs and strengthening cross-segment coordination are essential for ensuring that students in Los Angeles—particularly those from historically underserved communities—can successfully pursue careers that sustain both individual livelihoods and the region's health care infrastructure.

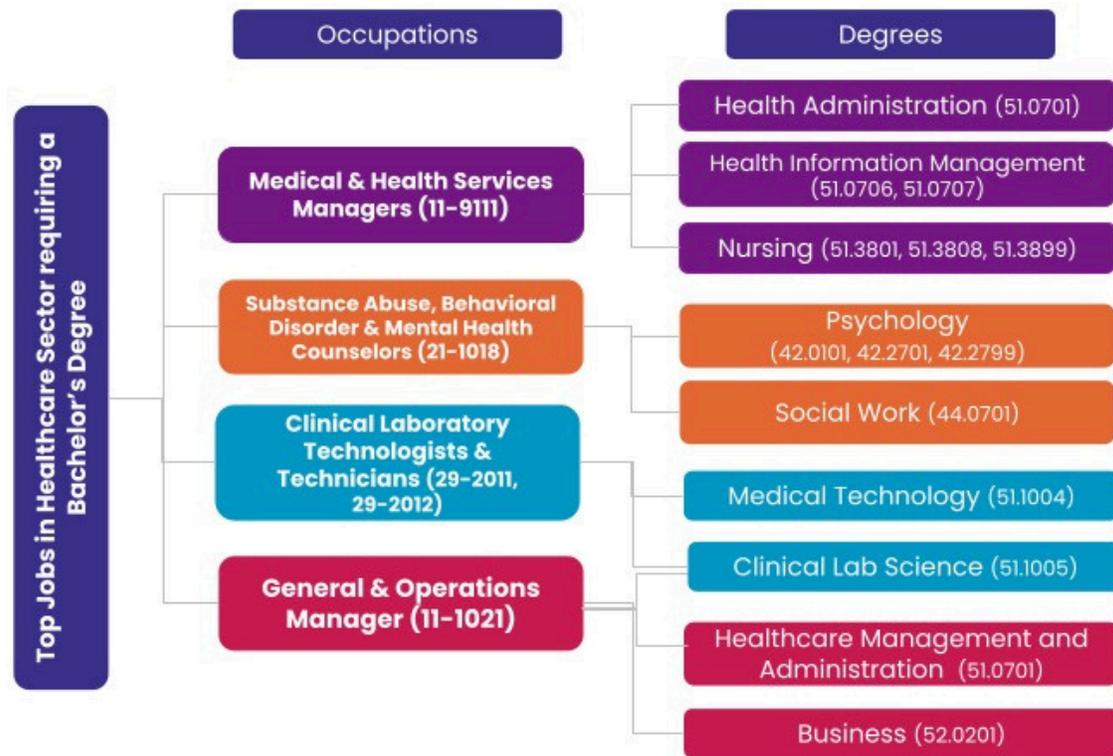
## **Bachelor's Degree Pathways into the Health Care Sector**

Los Angeles is home to some of the world's leading universities and research institutions. Along with the five California State Universities, L.A. County is also home to UCLA and USC, all of which offer programs that prepare students for careers in health care and allied health fields. These systems of higher education provide the opportunity to earn a bachelor's degree, which serves as a foundational step for many high paid careers within the health sector. The specific undergraduate major chosen can significantly influence the career trajectory in this diverse field.

In nursing, the educational and career pathway is clearly defined and tightly regulated at both state and federal levels, requiring a combination of accredited academic preparation and supervised clinical experience. Outside of nursing, many high-demand health care occupations—such as medical and health services managers, clinical laboratory technologists and behavioral health professionals—require at least a bachelor's degree, with some roles preferring graduate-level credentials or significant field experience. For instance, degrees in health administration, public health or health sciences can lead to careers in health care management, while degrees in psychology or social work serve as common entry points into behavioral health counseling, including roles addressing substance use and mental health. Similarly, clinical laboratory technologists often hold degrees in medical laboratory science or related disciplines, equipping them to conduct critical diagnostic testing. Additionally, business and health care management degrees can support entry into administrative and leadership positions across health care organizations.

Figure 15 illustrates the common degrees in health care that are connected with top jobs in health care requiring a bachelor's degree. This data does not capture the complexity of many postsecondary pathways to health care occupations that are not direct, one-to-one connections. With very few degrees directly related to workforce demand underscores the importance of exposing students to the breadth of health care roles—and the variety of educational pathways into them. Early career exploration, dual enrollment and CTE programming all help students understand that pursuing multiple educational pathways can lead to meaningful careers in health care and is essential for ensuring equitable access to high-opportunity careers.

Figure 15. Common Bachelor’s Degrees in Health Care Careers in L.A. County.



Source: NCES CIP 2020 to SOC 2018 crosswalk. Completions data retrieved from IPEDS Custom Data Files for four-year public schools, first major in Los Angeles County.

Of these degrees, the UCs and the CSU 5 in Los Angeles offer all of the programs except for those preparing students for the Medical Technology major connected to Clinical Laboratory Technologists. The UCs have programs related to Medical and Health Service Managers (11-9111), Mental Health Counselors (21-1018) and Operations Managers (11-1021). CSU-Long Beach and CSU-Northridge both have programs in Health/Health Care Administration/Management (51.0701), preparing students for Health Administration occupations (11-9111). CSU-Long Beach, CSU-Los Angeles and CSU-Dominguez Hills have programs preparing students for Medical & Health Services and General & Operations Managers. CSU-Pomona has programs preparing students for Mental Health Counselors (21-1018) and Operations Managers (11-1021). Uniquely, CSU-Dominguez Hills is the only four-year public University in L.A. County to offer the Clinical Lab Science major with enrolled students.

## Transfer Pathways into the Health Care Sector

The transfer pathways from California community colleges into bachelor degree programs play a crucial role in supporting the preparation for allied health occupations by providing students another, lower-cost route to advance their education and career goals. Yet despite their promise, there are persistent challenges to transfer pathways. Statewide data reveals that only 10 percent of community college students intending to transfer do so within two years, and only 19 percent within four years.<sup>54</sup> When that data is disaggregated, it reveals even lower rates exist for Black and Latino students. Transfer barriers not only impede equitable access to four-year degrees but also exacerbate socio-economic disparities across California.<sup>55</sup> In an effort to ease transfer friction points, the CSUs and CCCs developed the Associate Degree for Transfer (ADT).<sup>56</sup>

The Associate Degree for Transfer (ADT) is considered the gold standard because of the advantages it provides students. Unlike other transfer programs, the ADT guarantees admission to select universities, provides priority consideration for impacted majors and ensures that completed coursework fulfills general education requirements at the four-year institution. Students transfer with junior standing, typically needing only 60 additional credits to graduate, saving both time and money.

Over the past several years, Los Angeles-area community colleges have seen a significant increase in the number of credit certificates and degrees awarded, nearly doubling the overall total. Associate Degrees for Transfer (ADTs) have experienced an even more dramatic increase, growing five times their previous numbers (*ibid*). Despite this growth, ADTs still represent less than 20 percent of all awards granted, with credit certificates remaining the most common type of credential awarded. The percentage of students transferring with an Associate Degree for Transfer (ADT) has significantly increased, rising from 7 percent to 38 percent of all transfers. However, despite this growth, the majority of students continue to transfer without earning a degree beforehand.

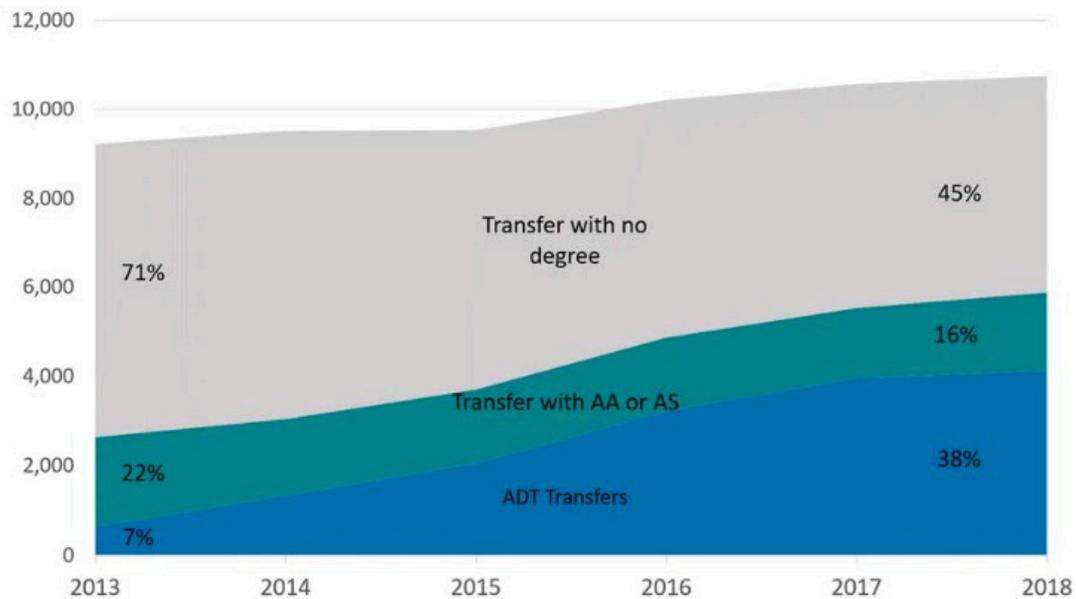
---

<sup>54</sup> [Overcoming Barriers to Transfer for California Students.](#)

<sup>55</sup> Mejia, M. C., Johnson, H., Perez, C. A., & Jackson, J. (2020). [Strengthening California's Transfer Pathway. Public Policy Institute of California.](#)

<sup>56</sup> [California State University. \(n.d.\). CCC-Associate Degree for Transfer.](#)

Figure 16. L.A. Area Community College Transfers to CSU 4 Institutions, by Degree Type, from 2013-18.



Source: Los Angeles ADT Study, Data retrieved from CCCC Datamart for years 2014 through 2018. Author’s analysis of awards data downloaded from [Chancellor’s Office Data Mart – Program Awards Summary Report](#).

Despite the potential of ADTs, there are limited offerings in health-related majors. Over a five-year period, California community colleges awarded 57,333 health associate degrees, with only 7,555 (approximately 13 percent) being ADTs. In the 2019–20 academic year alone, out of 12,796 total associate degrees in health, 2,194 were ADTs (approximately 17 percent) statewide.<sup>57</sup>

In the Los Angeles region, several CSU campuses, including CSU Los Angeles, CSU Long Beach and CSU Northridge, receive a substantial number of transfer students through the ADT pathway across all sectors. However, the alignment between available ADT programs and CSU majors varies. For instance, at CSU Los Angeles, 20 percent of the majors selected by transfer students do not have an ADT-guaranteed pathway, indicating room for improvement in program alignment.<sup>58</sup> In some majors, such as Social Sciences, Psychology and Communications, ADTs are overenrolled, awarding more ADT graduates

<sup>57</sup> [Health Professions: Associate Degrees for Transfer in Health Majors at the Community Colleges and California State University System](#).

<sup>58</sup> Booth, K., Barrat, V. X., Beltramo, K. & Tillery, R. (2019). *Regional alignment of associate degree for transfer pathways in the Los Angeles Area: Preliminary analysis*. Unpublished manuscript. WestEd.

than CSU students (ibid). This is not the case in health care professions; in 2018, no ADTs in health care professions were awarded in the L.A. area.

There are a handful of health-care-related ADT programs across L.A. County's community colleges. The ADTs below are currently offered at multiple community colleges in L.A. County<sup>59</sup> and have clear pathways into health care careers and advanced studies (See Appendix D for detail of which L.A. County community colleges offer which ADT.):

- **Public Health Science (AS-T):** This degree prepares students for transfer into CSU programs focusing on public health, community health, health education and related fields.
- **Nutrition and Dietetics (AS-T):** Students pursuing this degree can transfer into CSU programs in nutrition, dietetics and health sciences.
- **Kinesiology (AA-T):** This degree is tailored for students aiming to enter CSU programs in kinesiology, exercise science and related disciplines.
- **Psychology (AA-T):** While broader in scope, this degree supports transfer into CSU programs focusing on mental health, counseling and behavioral sciences.
- **Biology (AS-T):** This degree provides a foundation for students transferring into CSU programs in biology, biomedical sciences and pre-health tracks.

There are efforts underway to expand ADTs to more community colleges and CSUs through the CCC-CSU Transfer Collaborative.<sup>60</sup> The first phase of the Collaborative's work was identifying and addressing the systemic barriers preventing successful student transfer across the entire system. With more than 150 faculty and staff involved, the Collaborative has highlighted key challenges: misaligned ADT pathways across colleges and universities, limited cross-system data sharing, inconsistent advising, lack of a centralized digital hub for transfer information and administrative inefficiencies. The initiative aims to simplify and standardize pathways, particularly by piloting a "Single ADT" in high-enrollment majors like Biology, Business and Sociology.<sup>61</sup> While health-care-specific ADTs weren't the focus of the Collaborative, the findings have clear implications: if ADTs in health-related fields like Public Health, Nutrition or Kinesiology are inconsistent or poorly aligned across systems, students may face delayed transfer, excess credits or opt out altogether.

---

<sup>59</sup> See [Appendix C](#) for a list of ADT/AST that are offered in L.A. County community colleges. For the most current agreements, it's best to conform with colleges directly.

<sup>60</sup> [California State University San Marcos, Office of Undergraduate Studies. \(n.d.\). CCC-CSU Transfer Collaborative.](#)

<sup>61</sup> [CCC-CSU Transfer Collaborative Framework.](#) CSU Chancellor's Office.

Addressing the constraints of the transfer pipeline is especially urgent given California’s need for a diverse, skilled health workforce.

Transfer is supported through the University of California system as well.<sup>62</sup> Each university in the UC system has its own transfer process, which includes a handful of health-related programs. The UC system has a Transfer Agreement Guarantee (TAG) program to support students in having a more secure transfer pathway. TAGs are available at UC Davis, UC Irvine, UC Merced, UC Riverside, UC Santa Barbara and UC Santa Cruz. They are not offered at UCLA, UC Santa Barbara or UC San Diego. Students apply for TAG through the [UC Transfer Admission Planner \(UC TAP\)](#) and submit their application by the specified deadline (usually Sept. 30 for fall admission). If accepted, they receive a guaranteed spot at the chosen campus, provided they fulfill all remaining requirements.

## Community College Pathways into the Health Care Sector

Community colleges are a cornerstone of health care workforce development in L.A. County. With 21 institutions offering a wide range of health-related programs across the region, community colleges provide accessible, affordable pathways into critical occupations that support the region’s health care system. From certificates to associate degrees, community colleges serve thousands of students annually—yet their contributions to training students for health care occupations go beyond enrollment numbers and reflect both tremendous opportunities and significant challenges.

Community college career education programs hold particular promise for students and the state’s economy. Also known as career technical education (CTE), career education is intended to meet regional labor market demand. These programs are critical to meeting the state’s workforce needs, as roughly one-third of new jobs in California require some training beyond high school but less than a four-year degree.<sup>63</sup> In health care specifically, these programs attract diverse student populations and offer pathways to stable, family-sustaining careers. Research indicates that certain kinds of CTE training can improve

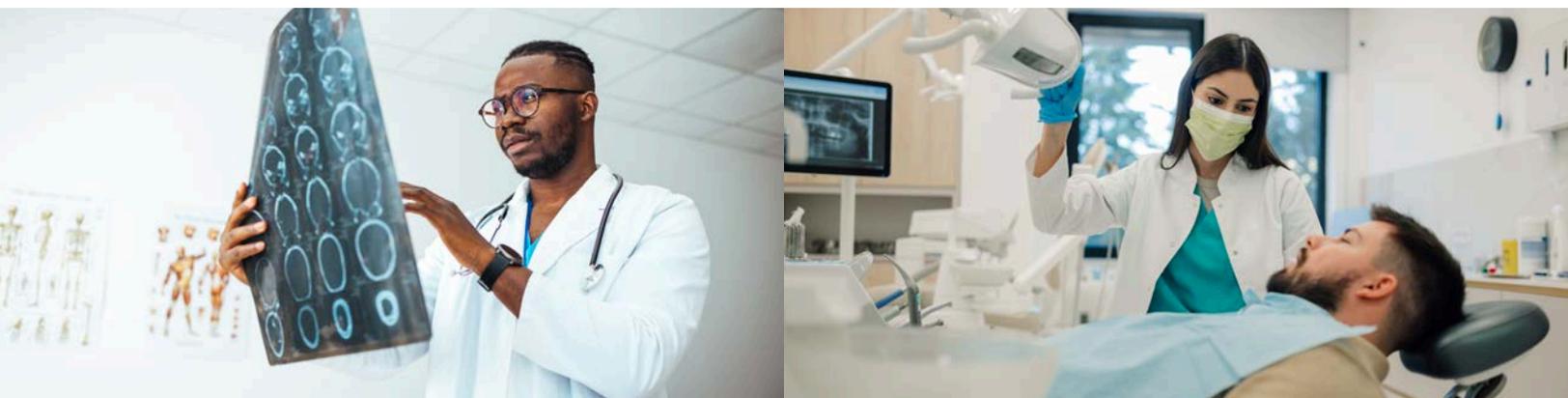
---

<sup>62</sup> [Transfer Pathways UC Admissions](#).

<sup>63</sup> Bohn, S., McConville, S. (2018). [Stackable Credentials in Career Education at California Community Colleges](#). Public Policy Institute of California.

employment and wages, with CTE credentials from community colleges increasing earnings substantially. However, gains vary widely across different types of credentials. In health care, students who complete health CTE credentials see substantial returns, with those earning credentials increasing their earnings by 51 percent on average compared to non-completers. Associate degree programs (Registered Nursing, Radiologic Technology, Respiratory Therapy) and certain specialized certificates with industry certification (Paramedic, Dental Hygienist) offer the highest returns, while many short-term certificates in basic care roles show minimal wage gains.<sup>64</sup>

As seen in Figure 17, in the 2022–23 program year, 32,472 students completed a certificate or degree, and 7 percent of those completed a certificate or degree in a health care program (2,367).<sup>65</sup> The systems that prepare students for health care roles face major challenges in terms of equity, alignment and capacity that limit their potential impact. Despite strong industry demand, community colleges are not meeting workforce needs in critical areas. For example, only 48 percent of Radiologic Technologist degrees and 25 percent of Dental Assistant degrees come from public community colleges, with the majority awarded by more expensive private institutions. LVNs are predominantly trained at private institutions, with community colleges contributing just 14 percent of completions. These supply gaps exist largely due to resource constraints, including limited faculty, specialized equipment requirements and clinical placement shortages. This section provides a detailed examination of both program-level and system-level challenges, with additional comprehensive analysis available in Appendix B.

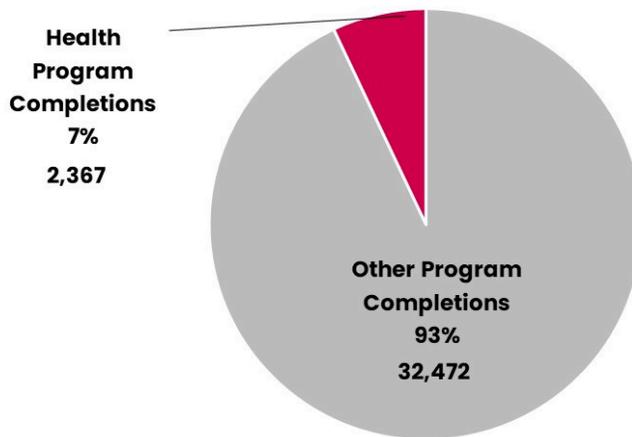


<sup>64</sup> Bohn, S., McConville, S., & Gibson, L. (2016). [Health training pathways at California's community colleges](#). Public Policy Institute of California.

<sup>65</sup> Data retrieved from the CCCCO Data Vista single metric snapshot view for the Metric 619 Number of students who were enrolled in the district and earned a CCCCO approved certificate, associate degree and/or community college bachelor's degree in the 2022–23 program year.



Figure 17. Percent of Program Completions in the Health Care Sector Compared with All Other Program Completions in L.A. County Community Colleges.



Source: CCCC Data Vista single metric snapshot view for the Metric 619, 2022-23 program year.

Students who enter health training but do not obtain credentials may nonetheless be able to enter the health care industry and experience career growth over the long term. Analysis shows that about **60 percent of students shift into the health care industry following their community college health training, regardless of credential completion.**<sup>66</sup> However, **earning credentials, particularly in high-reward programs, provides the greatest improvement in student and workforce outcomes.** Many programs lack clear connections between credentials, limiting student advancement opportunities over the long run. Very few explicit stackable credential pathways exist, despite the potential for career laddering (a structured, linear system within an organization that outlines a clear path for employees to advance to higher-level positions through increased skills, responsibilities and pay), and there are limited bridge programs connecting health care entry-level roles to higher-wage opportunities.<sup>67</sup>

**Despite these challenges, evidence suggests targeted strategies can improve outcomes.**

Research on stackable credentials shows promise: students in career education programs with well-defined stackable credentials are five percentage points more likely to stack credentials compared to those in all other programs, and 16 percentage points more likely

<sup>66</sup> Bohn, S., McConville, S., & Gibson, L. (2016). [Health training pathways at California's community colleges](#). Public Policy Institute of California.

<sup>67</sup> Bohn, S., McConville, S. (2018). [Stackable Credentials in Career Education at California Community Colleges](#). Public Policy Institute of California.

compared to students in programs with no defined stackable sequence.<sup>68</sup> Students who receive comprehensive support services—including financial aid, academic advising and wraparound services—are more likely to complete programs and stack additional credentials, with full-time enrollment and consecutive-term persistence serving as particularly strong predictors of success (ibid). **Programs with explicit stackable credential sequences see higher completion rates**, and there is evidence that Latino students particularly benefit from well-defined pathways, suggesting that clear program structure can help narrow achievement gaps (ibid).

Community colleges serve as a critical engine for training and credentialing the region's future health professionals. For the region to meet the growing demand for allied health professionals, community colleges will need to increase training capacity for the most needed occupations but also enhance pathways that lead to certificates that grow additional skills that are able to increase an incumbent workers' income over time. There is evidence that the students who are completing common entry-level health credentials (Certified Nursing Assistant, Medical Assistant, Emergency Medical Services or Licensed Vocational Nurse) at community colleges are not choosing to return to a community college for further health care education (ibid).



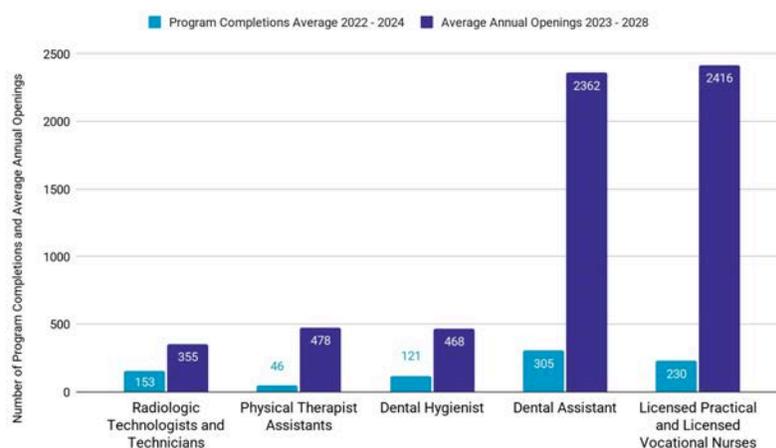
<sup>68</sup> Bohn, S., McConville, S. (2018). [Stackable Credentials in Career Education at California Community Colleges](#). Public Policy Institute of California.

# Bridging the Middle Skill Health Care Gap: Where Opportunity Meets Urgent Need

The five fastest-growing middle-skill health care occupations in Los Angeles County represent both the region’s greatest workforce opportunity and its most pressing educational challenge. These roles—**Radiologic Technologists, Physical Therapist Assistants, Dental Hygienists, Dental Assistants and Licensed Vocational Nurses**—are projected to add more than 6,000 jobs by 2026, offering family-sustaining wages and clear pathways to economic mobility.<sup>69</sup> Yet despite strong industry demand and student interest, community colleges are failing to meet workforce needs, with private institutions capturing the majority of training in several critical areas.

The data reveals striking patterns: despite being positioned as the primary workforce development engine for middle-skill careers, community colleges produce only 48 percent of radiologic technologists, 25 percent of dental assistants, and just 14 percent of licensed vocational nurses. **This represents not just a missed educational opportunity but a fundamental misalignment between public investment and regional workforce needs.**

Figure 18. Top Five Middle Skill Health Care Careers: L.A. County Program Completions and L.A. County Average Annual Openings.



Source: Datamart FTES Program Awards 2022–24 (Average) and Lightcast Economic Report Average Annual Openings (2023–28).

<sup>69</sup> Occupations requiring education beyond high school but less than a bachelor’s degree, projected to experience the highest job growth through 2026.

### **What makes these five middle skill occupations particularly compelling for educational investment?**

- High projections for growth projections
- Garner wages that consistently meet or exceed the Self-Sufficiency Standard
- Require manageable educational commitments (typically six months to two years)
- Provide clear advancement pathways
- Through community colleges, required training allows access to diverse student populations and can help address persistent equity gaps in health care workforce representation

This section examines each high potential occupation through three critical lenses: labor market demand and wage potential, current educational supply and institutional capacity and systemic barriers limiting program expansion. For each role, specific bottlenecks are identified—from clinical placement shortages to faculty recruitment challenges—that prevent community colleges from scaling programs to meet demand. In Appendix C, there is additional detail on the common pain points of middle skill occupational programs.

Understanding program constraints is essential for targeted investment and policy reform. Solutions require coordinated action across stakeholders, including funding for faculty and facility upgrades, expanded clinical training partnerships and reform of regulatory barriers that limit program flexibility. **For-profit colleges enroll a large share of health care vocational students but often at high cost and risk—students at these institutions default at four times the rate of community college students,<sup>70</sup> and nearly 24,000 federal complaints were filed between 2017 and 2019 over misleading employment claims.<sup>71</sup> The combination of high occupational demand and the dominance of for-profit training highlights the urgency—and opportunity—to expand and strengthen community college pathways.**

---

<sup>70</sup> Scott-Clayton, J. (2018). [The looming student loan default crisis: Borrowers in the shadows of repayment](#). Brookings Institution.

<sup>71</sup> Rademacher, I. (2019, March 19). [Worse off than when they enrolled: The consequence of for-profit colleges for people of color](#). Aspen Institute.



**Radiology Technician  
Wage Range**

\$30 per hour to  
\$65 per hour

Center for Excellence L.A. Orange County  
Radiologic Technology Report (2023)

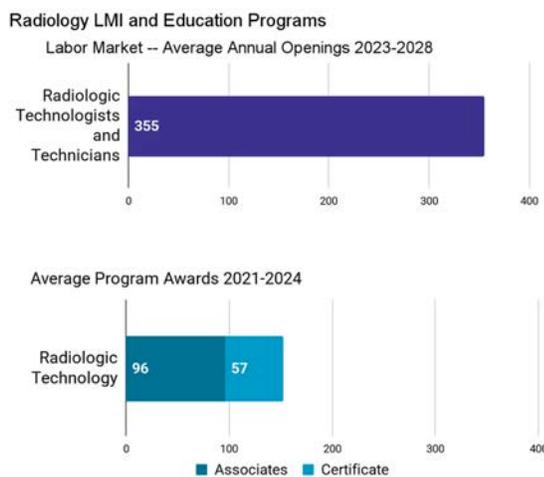
**1. Radiology Technician**

**ENTRY LEVEL EDUCATION REQUIREMENT:**

A.S. Radiologic Technology

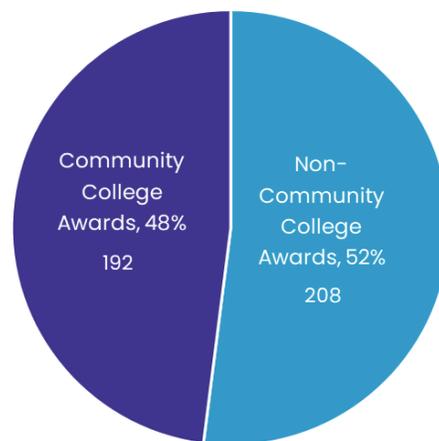
The demand in L.A. County for Radiologic Technology—classified under TOP code 1225.00—is projected to grow by 3 percent over the next five years, with an estimated 355 job openings each year through 2028.<sup>72</sup> Radiologic Technologists most often require an associate degree; research reflects that between 48 percent and 68 percent of current workers have completed either some college or an associate degree, signaling the critical role of two-year institutions in preparing this workforce. Employers such as Siemens Healthineers, Healthcare Employment Network and Providence are among the top recruiters for this role in L.A. County. Yet despite strong industry demand, a notable supply gap persists. While community colleges are positioned to address this need, community college degrees currently account for just 48 percent of degrees awarded in radiologic technology, highlighting an important opportunity for expansion.

Figure 19. Comparison of L.A. County Annual Openings 2023-28 and L.A. Program Completions - Radiology Technician 2021-24.



Source: Datamart FTES Program Awards 2022-24 (Average) and Lightcast Economic Report Average Annual Openings (2023-28).

Figure 20. Radiologic Technology - L.A. Orange County Non-Community College and Community College Awards.



Source: Center of Excellence program recommendations report I240.20 – Radiology Technician (2023). Los Angeles and Orange County.

<sup>72</sup> Center of Excellence. (2023). [Labor Market Analysis: 1225.00 –Radiologic Technology.](#)

As seen in Figure 20, Radiologic Technologists are being prepared outside of the community college system, often in private for-profit, making up 52 percent of related program awards in 2022-23 program years.<sup>73</sup> These program awards signal that community colleges could double enrollment should they have the capacity to do so.

### **Pathway Pain Points**

**Radiologic technology programs offer strong career potential but face significant barriers to equitable access and expansion.** Programs are highly competitive, often requiring extensive prerequisites that can be difficult for first-generation and low-income students to complete without strong advising and academic support. Even qualified applicants are often turned away due to limited program capacity, driven by high infrastructure costs, faculty shortages and capped cohort sizes. Clinical placement availability presents an additional bottleneck, as hospitals and imaging centers can only accommodate a limited number of students due to staffing and supervision constraints. These challenges disproportionately impact students from underrepresented backgrounds, threatening to deepen existing disparities in the health care workforce. (See Appendix C for additional detail.)

## **2. Physical Therapist Assistant**

**Entry Level Education Requirement:** A.S. Physical Therapist Assistant

The role of Physical Therapist Assistant, which closely aligns with the Orthopedic Assistant (TOP 1214.00) and Physical Therapist Assistant (TOP 1222.00) degree programs, is predominantly filled by individuals with associate degrees. An associate degree is typically the minimum educational requirement, a fact echoed by 84 percent of O\*NET workforce survey respondents.<sup>74</sup>

In Los Angeles County, jobs in this field are projected to grow significantly—by 25 percent through 2026—driven by ongoing demand in the health industry. By 2028, annual job openings are expected to reach 478, reflecting both new positions and replacements for existing roles. Data points to a growing supply gap in associate degrees awarded by community colleges. As shown below, this mismatch between workforce demand and

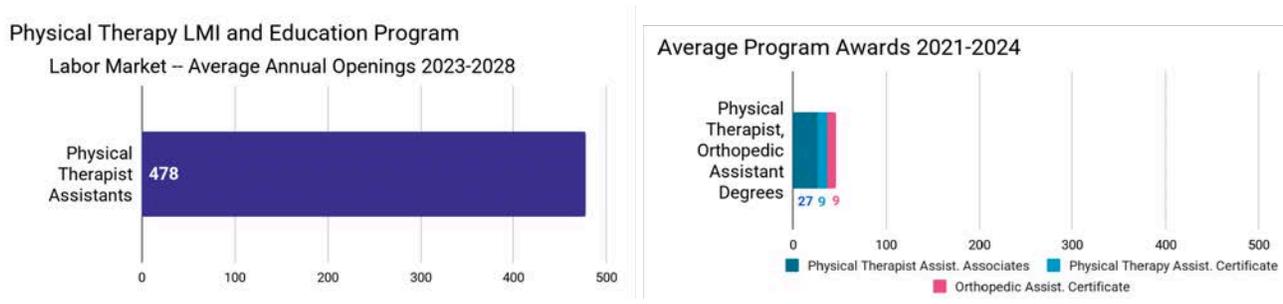
---

<sup>73</sup> Center of Excellence. (2023). [Labor Market Analysis: 1225.00 –Radiologic Technology](#).

<sup>74</sup> No wage data included. Currently no Center of Excellence Labor Market Analysis for 1214.00 or 1222.00.

credential production signals a critical opportunity for community colleges to expand and strengthen their program offerings in this area.

Figure 21. Comparison of L.A. County Annual Openings and L.A. Program Completions – Physical Therapist Assistant.



Source: Datamart FTES Program Awards 2022–24 (Average) and Lightcast Economic Report Average Annual Openings (2023–28).

### Pathway Pain Points

Physical Therapist Assistant (PTA) programs face a range of barriers that limit both access and capacity, particularly for students from underrepresented backgrounds. Admissions are highly competitive, with extensive prerequisite requirements, observation hours and health certifications often needed just to apply—creating a long and resource-intensive pathway with no guarantee of entry. Even qualified applicants face limited opportunities due to strict accreditation standards, small cohort sizes, faculty shortages and infrastructure constraints. Clinical placements present a further bottleneck, as sites are in high demand and limited by staffing and supervision capacity. Financial and equity barriers compound these challenges, especially for low-income and working students who must cover costs for transportation, uniforms and equipment—often without sufficient financial aid. (See Appendix C for additional detail.)

## 3. Dental Hygienist

**Entry Level Education Requirement:** B.S./A.S. Dental Hygienist

Dental hygiene is a high-demand health occupation that is primarily aligned with the associate degree in Dental Hygienist (TOP 1240.20), typically requiring an associate degree to enter the field. Nationally, 58 percent of Dental Hygienists report completing some college or an associate degree as their highest level of education.

# L.A. region K-16 collaborative

In Los Angeles County, jobs for Dental Hygienists are projected to grow by 8 percent through 2026, reflecting continued demand for preventive oral health services. According to labor market projections, 468 positions are expected to open each year through 2026<sup>75</sup> driven by both job growth and retirements. Leading employers in the L.A. region include Western Dental, Pacific Dental Services and Gentle Dental.

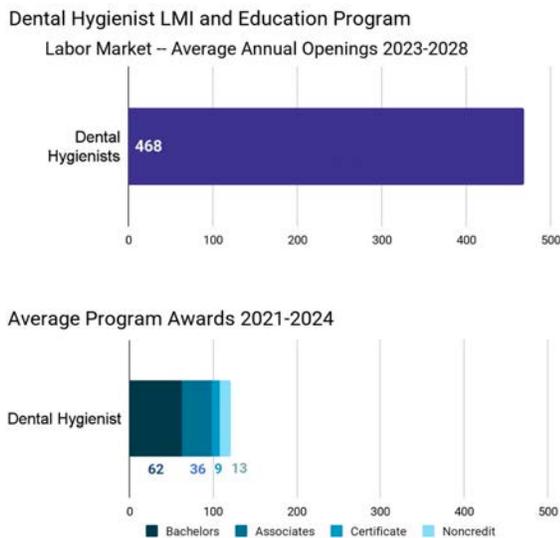
**Dental Hygienist  
Wage Range**

\$49 per hour to  
\$62 per hour

Center for Excellence L.A.  
Orange County Dental Hygienist  
Report (2024)

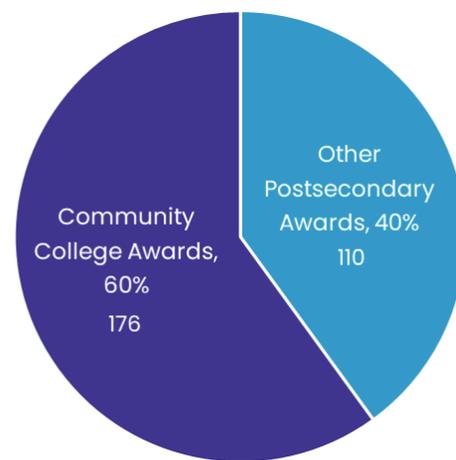
**Despite the growing need, there remains a documented supply gap in qualified dental hygiene professionals, even though California’s community colleges already serve as a major talent pipeline.** The Center of Excellence notes that 60 percent of all awards in dental hygiene come from community colleges, underscoring their critical role in training the region’s future dental workforce. However, current program capacity is not yet sufficient to meet projected employer demand, signaling a need for expanded investment and coordination.

Figure 22. Comparison of L.A. County Annual Openings and L.A. Program Completions – Dental Hygienist.



Source: Datamart FTES Program Awards 2022–24 (Average) and Lightcast Economic Report Average Annual Openings (2023–28).

Figure 23. Dental Hygienist – L.A. Orange County Non-Community College and Community College Awards.



Source: Center of Excellence program recommendations report I240.20 – Dental Hygienist (2024). Los Angeles and Orange County.

<sup>75</sup> Lightcast Analyst Occupational Tables.

A significant share of Dental Hygienists are being prepared inside of the community college system, making up 60 percent of related program awards in 2022–23 program years. These programs could significantly increase enrollment if they had the capacity to do so.

## Pathway Pain Points

Dental hygiene programs at California community colleges are among the most competitive and resource-intensive allied health pathways, presenting significant barriers to entry and completion. Applicants must complete more than 30 units of prerequisites before applying, only to face long waitlists due to limited cohort sizes and high demand. Strict accreditation standards, costly infrastructure and faculty shortages—driven by salary gaps with clinical practice—limit colleges’ ability to expand programs despite growing workforce needs. Students also face substantial upfront expenses, often exceeding \$8,000 in the first semester, creating financial hurdles that disproportionately impact low-income and first-generation students. Without targeted financial and advising support, these cumulative barriers make program access and completion especially difficult. (See Appendix C for additional detail.)

## 4. Dental Assistant

**Entry Level Education Requirement:** Certified Dental Assistant

Dental assisting is a vital occupation within the health care sector, primarily aligning with the Dental Occupations (TOP 1240.00) and Dental Assistant (TOP 1240.10) programs. Forty-six percent of dental assistants have completed a postsecondary certificate, while 17 percent have some college education without a degree.<sup>76</sup> In Los Angeles County, the demand for dental assistants is projected to grow by 9 percent through 2026, with an anticipated average openings of 2,362 through 2028.<sup>77</sup> Major employers in the region include Pacific Dental Services, West Coast Dental Services and Sonrava Health.

### Dental Assistant Wage Range

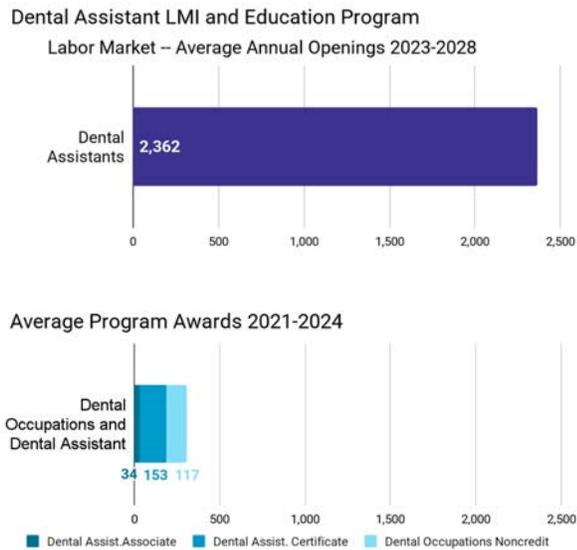
\$17 per hour to  
\$28 per hour

Center for Excellence L.A.  
Orange County Dental Assistant  
Report (2024)

<sup>76</sup> O\*Net Online [Occupational Profile Dental Assistant 31-9091](#).

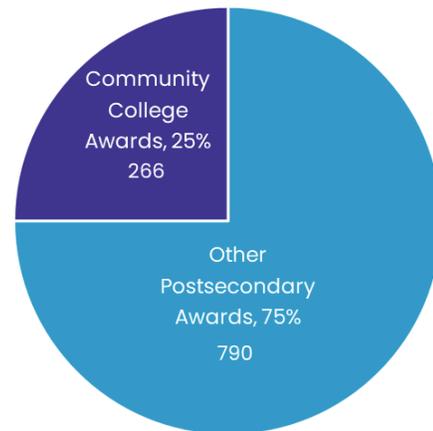
<sup>77</sup> Lightcast Analyst Occupational Tables.

Figure 24. Comparison of L.A. County Annual Openings and L.A. Community College Program Completions – Dental Assistants.



Source: Datamart FTES Program Awards 2022–24 (Average) and Lightcast Economic Report Average Annual Openings (2023–28).

Figure 25. Dental Assistants – Los Angeles Orange County Non-Community College and Community College Awards, 2023–24.



Source: Center of Excellence program recommendations report 1240.20 – Dental Assistants (2024). Los Angeles and Orange County.

Despite the growing demand, a notable supply gap exists in the number of dental assistant graduates from community colleges. In the Los Angeles and Orange County region, community colleges account for only 25 percent of dental assistant program completions.<sup>78</sup> This indicates that the majority of dental assistant credentials are awarded by private institutions, which may pose accessibility challenges for some students due to higher tuition costs.

**While dental assisting offers a pathway into the health care field, it's important to note that at the lower end of the pay scale, this occupation does not meet the regional self-sufficiency wage.** However, Registered Dental Assistants with Expanded Functions (RDAEFs) earn higher wages, with an average hourly rate of \$24.96. Educational programs should ensure they support students in becoming registered to enhance their earning potential.

<sup>78</sup> Center of Excellence. (2024). [Labor Market Analysis: 1240.10 –Dental Assistant.](#)

## Pathway Pain Points

Dental assistant programs are facing multiple challenges that limit enrollment and workforce supply. First-year enrollments have declined steadily over the past decade, a trend worsened by the COVID-19 pandemic and contributing to staffing shortages in dental practices. Community colleges often struggle with limited program capacity, faculty shortages and resource constraints that make it difficult to expand offerings. Financial barriers—including tuition, supplies and certification costs—further restrict access, especially for low-income and minority students. Additionally, limited outreach and awareness of dental assisting as a viable career path contribute to a shrinking applicant pipeline. (See Appendix C for additional detail.)

## 5. Licensed Vocational Nurse

### Entry Level Education Requirement: A.S./Certified Licensed Vocational Nursing

Licensed Vocational Nurses (LVNs) play a crucial role in the health care system, providing essential care under the supervision of registered nurses and physicians. This occupation aligns with the Licensed Vocational Nursing (TOP 1230.20) and Nursing (TOP 1230.00) programs offered at community colleges. In Los Angeles County, the demand for LVNs is projected to grow by 9 percent through 2026, anticipating an 2,416 average annual openings for LVNs through 2028.<sup>79</sup> Major employers in the region include Kaiser Permanente, Cedars-Sinai and PIH Health.

### Licensed Vocational Nurse Wage Range

\$25 per hour to  
\$40 per hour

Center for Excellence L.A.  
Orange County Licensed  
Vocational Nurse Report (2023)

Typical entry-level education for LVNs is a postsecondary certificate; 71 percent of LVNs nationally have completed some college or an associate degree.<sup>80</sup> While LVN programs offer a pathway into the health care sector, it's important to note that they are not among the well-paid occupations in the health care sector; Registered Nurses (RNs) earn a median hourly wage of \$45.27, nearly double the \$24.59 median hourly wage for LVNs, representing a 120 percent income increase. While LVN positions offer stable income, opportunities for advancement are quite limited. Few educational programs allow LVNs to build on their experience and credentials to become RNs or pursue other health care

<sup>79</sup> Lightcast Analyst Occupational Tables.

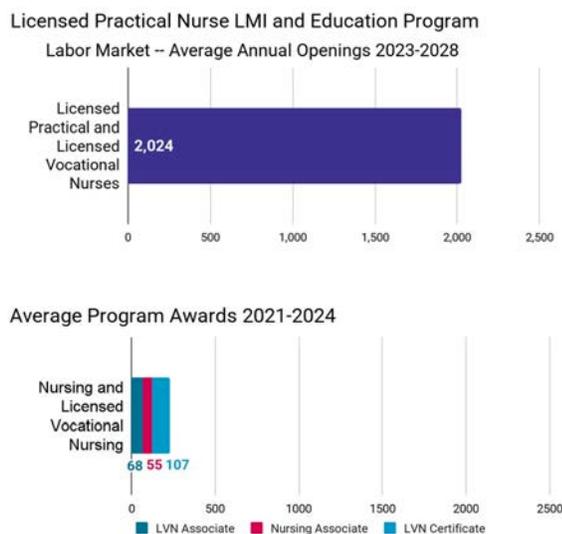
<sup>80</sup> Center of Excellence. (2023). [Labor Market Analysis: 1230.20/Licensed Vocational Nursing](#).

# L.A. region K-16 collaborative

careers through community colleges or universities. This means students often can't use what they've already learned to move into better-paying jobs, even though the region has clear career advancement paths in other health care areas. It's important that students understand these advancement opportunities—and what it takes to pursue them—before they start their programs.

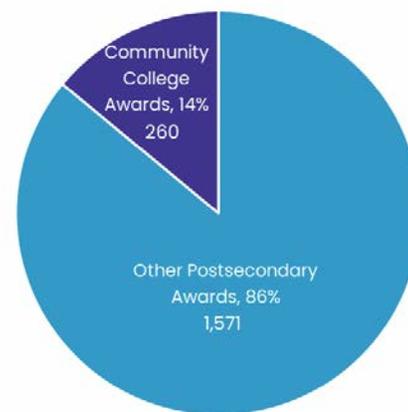
**Given the significant demand for RNs and persistent supply gaps, creating stronger alignment between LVN and RN pathways could represent a major opportunity for both workers and employers.** With California facing a shortage of approximately 36,000 licensed nurses and LVNs already possessing foundational nursing knowledge and clinical experience, developing robust LVN-to-RN bridge programs could simultaneously address workforce shortages while providing incumbent workers with clear pathways to higher wages and expanded scope of practice.<sup>81</sup>

Figure 26. Comparison of L.A. Annual Openings and L.A. Community College Program Completions - Licensed Vocational Nurse.



Source: Datamart FTES Program Awards 2022-24 (Average) and Lightcast Economic Report Average Annual Openings (2023-28).

Figure 27. Licensed Vocational Nursing - Los Angeles Orange County Non-Community College and Community College Awards, 2023-24.



Source: Center of Excellence program recommendations report 1230.20/Licensed Vocational Nursing (2023). Los Angeles and Orange County.

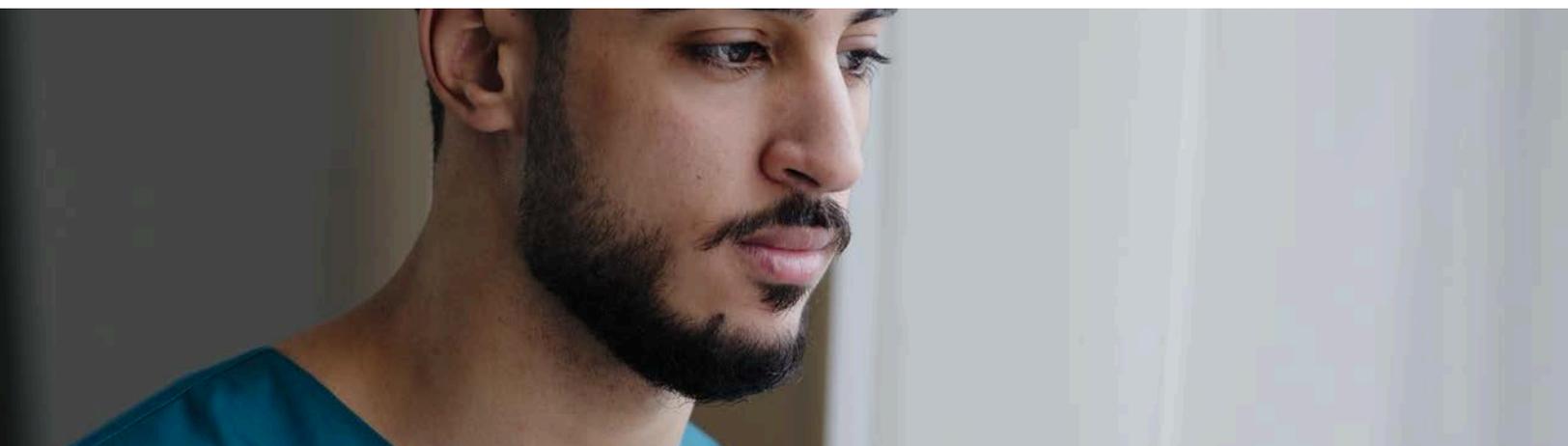
<sup>81</sup> Hwang, K. (2023). [California nursing shortage: Jobs unfilled after COVID](#). CalMatters.

Despite the growing demand, there is a notable supply gap in the number of LVN graduates from community colleges. In the Los Angeles and Orange County region, community colleges account for only 14 percent of LVN program completions. This indicates that the majority of LVN credentials are awarded by private institutions, which may pose accessibility challenges for students due to higher tuition costs and longer-term financial implications, as many students borrow for tuition without securing high-wage employment that justifies the debt burden.

### Pathway Pain Points

Licensed Vocational Nurse (LVN) programs provide a relatively short and accessible entry point into the health care workforce, especially for adult learners. However, LVNs often face limited career mobility due to scope-of-practice restrictions, underdeveloped bridge pathways to RN roles, and a lack of affordable public training options. Only 14 percent of LVN completions occur through community colleges, with the vast majority of students relying on high-cost private programs that disproportionately burden low-income learners—particularly women of color.

The broader nursing pipeline crisis exacerbates these challenges. In California, 22.5 percent of RNs aged 55 to 64 and 47.3 percent of RNs aged 65 and over plan to retire or leave the nursing field between 2022 and 2024, creating additional pressure on the entire nursing workforce pipeline.<sup>82</sup> While clinical site availability is less of a barrier than in other health programs, systemic challenges such as faculty shortages, uneven public investment and outdated articulation policies continue to constrain growth and advancement in the LVN pipeline.



<sup>82</sup> Research.com. (2025). [The U.S. nursing shortage: A state-by-state breakdown for 2025.](#)

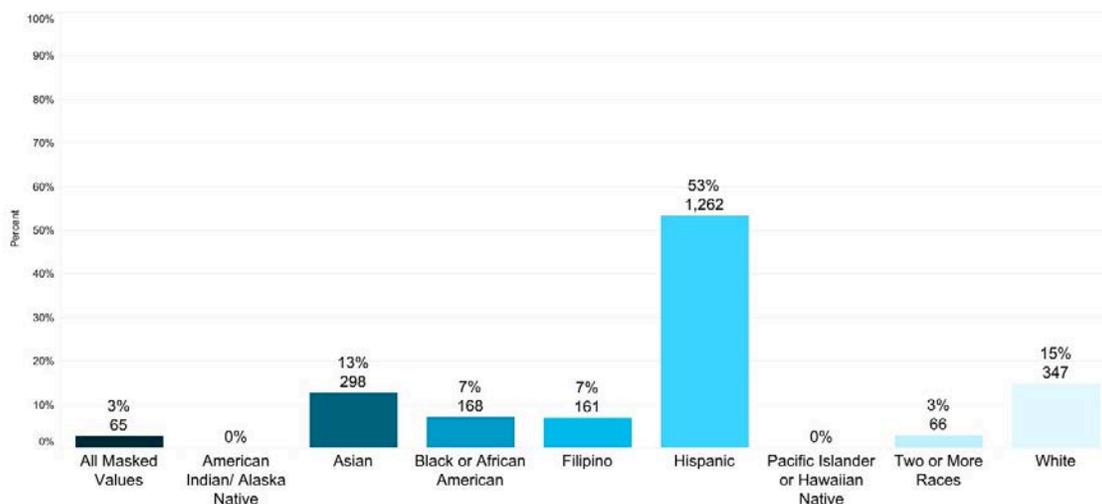
## Opportunities to Increase Community College Program Completions

The supply–demand gaps identified in the previous section—where community colleges produce only 48 percent of radiologic technologists, 25 percent of dental assistants and 14 percent of licensed vocational nurses, for example—raise a critical question: could increasing program completion rates help close these workforce shortages?

Understanding who completes health care programs, and at what rates, is essential for identifying targeted interventions that could expand the pipeline of qualified health care workers. In 2023–24, Los Angeles community colleges awarded **32,472 certificates and degrees overall**, of which **2,367 (7 percent)** were in health care programs. Among health care completers, the demographic distribution largely reflects the county’s diversity:

- **Hispanic/Latino students comprised the majority of completers**, at 53 percent (1,262 students),
- Asian students made up 13 percent (295 students),
- White students represented 15 percent (347 students), and
- Black students accounted for 7 percent (161 students).

Figure 28. Los Angeles Community College Health Care Program Completers by Race and Ethnicity, 2023–24.



Source: Datavista single metric snapshot view. Metric 619 Number of students who were enrolled in the district and earned a CCCC approved certificate, associate degree, and/or community college bachelor’s degree in the selected year (2023–24). To find more information regarding this metric, please see the Datavista data dictionary 619C [here](#).

## Low Program Completion and Capacity

While health care programs attract diverse enrollments, completion rates remain concerningly low across all demographic groups—generally between 6 percent to 11 percent. These outcomes represent a significant missed opportunity to address regional workforce shortages.<sup>83</sup> Completion disparities also emerge within programs. For instance, 53 of the 530 Hispanic students enrolled in radiology technician programs completed the program, representing just 10 percent of those who should have completed in 2023–24 compared with 24 percent of white students and 16 percent of Asian students. Across LVN programs, completion rates of Latino students were as low as 3–4 percent, despite Latino students representing the largest enrollment. These inequities highlight the importance of strengthening support to increase persistence, especially for Latino students who comprise the largest share of health care program participants but are not completing at proportional rates.

## Closing the Gap: The Impact of Higher Completion Rates

If health care program completion rates could be lifted from today's 7–11 percent range to even 15–20 percent, **the effect on workforce supply would be transformative:**

- In radiologic technology, raising completions to 20 percent could double the number of graduates, reducing reliance on private colleges that currently award more than half (52 percent) of credentials in this field.
- In LVN programs, increasing completions from 3–4 percent to 15 percent could quadruple or quintuple graduate numbers, helping community colleges capture a larger share of the 2,416 annual job openings while reducing student dependence on expensive private programs that now produce 86 percent of LVN graduates.

**Improving completion is not simply about student success—it's the fastest way to close critical workforce shortages and make training more affordable and equitable.**

---

<sup>83</sup> CCC program completions are measured depending on the credit requirements, and assume full time attendance using a cohort analysis. Additionally these numbers capture student progress at various stages of multi-year programs which would depress annual completion counts.

## Where Do We Go from Here?

Los Angeles County stands at a critical juncture in health care workforce development. With more than 42,400 new health care jobs projected by 2026 and persistent supply gaps in middle-skill occupations that offer family-sustaining wages, the region has both tremendous opportunity and urgent need to transform its educational pathways. The data reveals a troubling paradox: while community colleges are positioned as the primary workforce development engine for middle-skill health care careers, they currently produce a fraction of what is needed. This misalignment forces students—particularly those from underserved communities—toward expensive private programs that often saddle graduates with substantial debt while failing to address regional workforce shortages.

The equity implications are equally stark. Despite comprising 67 percent of high school graduates, Latino students remain dramatically underrepresented in higher-wage health care occupations, concentrated instead in entry-level roles that offer limited pathways for advancement. This occupational segregation not only perpetuates economic inequality but also undermines the health care system's ability to provide culturally responsive care to L.A. County's diverse population. Addressing these disparities requires more than expanding program capacity—it demands a fundamental reimagining of how educational pathways connect, support student persistence and create meaningful ladders for career advancement.

### The Federal Funding Crisis Adds Urgency

These workforce development challenges outlined in this report are compounded by an unprecedented federal funding crisis that threatens to destabilize L.A.'s health care infrastructure. With L.A. County's health services deriving 80 percent of revenue from Medicaid, proposed federal caps and cuts could force service reductions that eliminate both patient care capacity and essential clinical training sites.<sup>84</sup> Scheduled Medicaid DSH cuts of \$8 billion annually starting in FY2026, potential expiration of the Community Health Center Fund in September 2025,<sup>85</sup> and reduction of CDC discretionary programs all

---

<sup>84</sup> Los Angeles County Department of Health Services. (2025). [Memo of Department of Health Services' \(DHS\) Fiscal Outlook](#). Los Angeles County DHS.

<sup>85</sup> National Association of Community Health Centers. (2024). [Community Health Center Funding](#). NACHC.

jeopardize the safety net infrastructure that provides clinical placements for thousands of health care students annually.

This volatile funding environment means that the window for action is narrowing rapidly. Federal "unwinding" of pandemic protections is already increasing uncompensated care burdens across safety-net providers,<sup>7</sup> potentially forcing consolidation or closure of facilities that serve as critical workforce training partners. The convergence of growing workforce demand, persistent educational capacity constraints, and threatened federal funding creates a perfect storm that could leave L.A. County's most vulnerable communities without adequate health care access or career pathways.

### **Recommendation for Immediate Action**

#### **K-12 Education Systems:**

- **Integrate labor market information into college and career advising and counseling and high school curriculum** to expose students to high-opportunity health care careers beyond traditional patient care roles.
- **Develop dual enrollment partnerships** with community colleges in high-demand programs like radiologic technology and dental hygiene.
- **Create structured work-based learning opportunities** through partnerships with health care employers and simulation-based experiences.

#### **Community College Leaders:**

- **Prioritize investment in the five middle-skill occupations** with the greatest supply gaps: radiologic technology, physical therapist assistant, dental hygiene, dental assistant and licensed vocational nursing programs.
- **Focus on program persistence** as the critical bottleneck—completion data reveals that improving retention rates by even five to 10 percentage points could generate hundreds of additional health care graduates annually.
- **Replicate success models** by studying and scaling the support systems used in dental assistant programs (64 percent completion rate) to other health care programs
- **Address prerequisite barriers** by examining whether extensive requirements in programs like radiologic technology create unnecessary attrition points.

- **Implement comprehensive wraparound services** including embedded advising, child care and transportation support, particularly in programs with the lowest completion rates.
- **Develop stackable credential pathways** that connect entry-level health care roles to higher-wage opportunities within the same institution.

### University Partners:

- **Expand Associate Degrees for Transfer (ADT)** options in health-related fields.
- **Strengthen articulation agreements** and bridge programs to support career advancement from community college credentials.
- **Collaborate on shared clinical placement systems** and simulation models to address capacity constraints.

### All K-16 Stakeholders:

- **Act with unprecedented urgency** given federal funding uncertainties that could eliminate clinical training sites and reduce health care system capacity.
- **Diversify clinical partnerships** beyond traditional hospital systems to include community health centers, long-term care facilities and alternative sites that may prove more stable during fiscal turbulence.
- **Accelerate program expansion timelines** to graduate more health care workers before potential system contractions reduce training capacity.

### Further Investigation

Several critical questions emerged from this analysis that warrant deeper research and stakeholder engagement:

- **Clinical Placement Innovation:** How can simulation technology, alternative clinical sites (such as Federally Qualified Health Centers) and shared placement systems be scaled to address the primary bottleneck limiting program expansion?
- **Stackable Pathways Design:** What specific curriculum and policy changes are needed to create meaningful career ladders from entry-level positions (CNA, Medical Assistant) to middle-skill roles (LVN, Radiologic Technologist) and beyond?

- **Completion Rate Analysis:** Why do health care program completion rates vary so dramatically across demographic groups, and what targeted interventions could most effectively address these disparities?
- **Private Institution Market Share:** What regulatory, financial or capacity-building strategies could help public institutions reclaim market share from expensive private programs without sacrificing quality or accessibility?

### Regional and State Partnership Opportunities

The scale and complexity of health care workforce challenges require coordinated action across multiple stakeholders and policy levels. Several strategic partnerships could accelerate progress:

#### Regional Collaboration

- Leverage existing regional structures or intermediaries to coordinate clinical placement sharing, faculty development and equipment purchases across institutions.
- Partner with major health care employers (Kaiser Permanente, Cedars-Sinai, L.A. Care) to co-design programs, guarantee job placements and provide learn-and-earn opportunities.
- Engage labor unions in developing training partnerships that combine occupational skills with worker protections and advancement opportunities.

#### State-Level Advocacy

- Work with the California Community Colleges Chancellor's Office to reform funding formulas that better support high-cost, high-need health programs.
- Advocate for regulatory changes that allow more flexible clinical training models and faster program approval processes.
- Support legislation that expands financial aid eligibility for students in health career pathways, particularly those pursuing stackable credentials.
- Develop better tracking systems that account for program length and transfer between related programs to accurately measure completion rates and identify opportunities for continuous improvement.
- Prioritize funding for student support services in health care programs, where completion improvements could directly address regional workforce shortages.

## Cross-Sector Innovation

- Develop public-private partnerships that combine community college affordability with private sector efficiency in program delivery.
- Create regional healthcare workforce data sharing systems that enable real-time alignment between educational capacity and employer demand.
- Establish outcome-based funding models that reward institutions for placing graduates in family-sustaining careers and supporting long-term career advancement.

**The health care workforce challenges facing Los Angeles County are not insurmountable, but require sustained commitment, strategic investment and collaborative action across all segments of the pipeline.** By centering equity in pathway design, leveraging regional assets and partnerships, and addressing systemic barriers to program expansion, L.A. County can build a health care workforce that reflects the diversity of its communities while meeting the growing demand for quality care. The data provides a clear roadmap—now coordinated action is needed to ensure that every student who aspires to a health care career has access to affordable, high-quality pathways that lead to economic mobility and professional fulfillment.



# Appendices

## Appendix A. Sector Skills and their Relative Importance Across Top 10 High-Growth Health Care Occupations

Skills	Bachelor's Degree					Associate's Degree			Postsecondary Non-degree award	
	Registered Nurse	Medical and Health Service Managers	Clinical Laboratory Technologists	Substance and Health Services Managers	General Operations Managers	Dental Hygienists	Radiologic Technologists and Technicians	Physical Therapist Assistants	Licensed Vocational Nurse	Dental Assistants
Medical Records	11%	17%		25%	9%	3%	14%	5%	21%	7%
Infection Control	9%		7%			7%	11%	6%	14%	22%
Treatment Planning	8%	12%		46%		5%		16%	12%	10%
Billing		12%		10%	11%		8%	7%		6%
Medical Terminology		9%	6%			3%	12%	7%		3%
Nursing	81%	21%	6%		9%			10%	59%	
Patient Assistance		5%		12%			8%	12%	7%	3%
Patient Education And Counseling	10%					41%	8%	10%	6%	13%
Pediatrics	7%		4%			2%		6%	8%	6%
Vital Signs	6%					3%	13%	4%	24%	6%
Workflow Management		11%	5%		12%	2%	5%			4%
Cardiopulmonary Resuscitation (CPR)	7%						7%	7%	11%	4%
Direct Patient Care	9%	3%				2%		5%	11%	
Electronic Medical Record	4%	11%		10%			5%	3%		
Home Health Care	8%	6%				2%		17%	15%	
Medical Privacy	4%	4%		9%					6%	3%
Patient Flow		4%			6%		6%		10%	6%
Performance Improvement	10%	8%	4%		8%			5%		
Acute Care	16%	6%						3%	8%	
Bilingual (Spanish/English)		6%		9%				2%		7%

Source: Lightcast Q1 2025 data, includes jobs postings only in the health sector NAICS Ambulatory Health Care (NAICS 621), Hospitals (NAICS 622), and Nursing and Residential Care Facilities (NAICS 623) Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills and geography.

## Appendix B. Summary of Pain Points Across Allied Health Training Pipelines for Top Five Middle Skilled Occupations

Program of Study	Admissions	Program Capacity	Clinical Placement	Financial Barriers	Completion
<b>Radiologic Technology</b>	Extensive and competitive admissions requirements	Limited space and faculty constraints	Bottlenecks due to limited placement capacity, supervision, liability	Financial strain and equity barriers	Low across all groups
<b>Physical Therapist Assistant</b>	Competitive admissions and complex	Limited capacity due to accreditation, faculty, and facilities	Clinical site shortages; high competition	Financial strain and equity barriers	Program demands may affect completion
<b>Dental Hygienist</b>	Highly competitive with long waitlists	Strict accreditation and facility requirements	Faculty shortages affect placement; limited clinical slots	High operational costs and limited aid	Equity-related barriers in persistence
<b>Dental Assistant</b>	Declining enrollment; low awareness	Limited program resources and faculty availability	Fewer qualified instructors limits training opportunities	Students face significant cost-related barriers	Lack of outreach/support affects completion
<b>Licensed Vocational Nurse</b>	Minimal academic prerequisites, but limited upward mobility	Limited community college program footprint (14 percent of completions)	Clinical availability not primary barrier; programs often shorter-term	Private institutions dominate completions, posing cost barriers	Few bridge pathways to RN or advanced roles

## **Appendix C. Opportunities and Pain Points for Allied Health Training Pipelines for Top Five Middle Skilled Occupations**





## Radiologic Technology

**Entry Level Education Requirement: Associate's degree<sup>86</sup>**

**Completion Pattern:** Low rates across all groups (10-24 percent)

**Opportunity:** With 355 annual openings and high wages (~\$94,000 median), improving completion could reduce dependence on private institutions.

### **Program-Level Pain Points:**

#### 1. Rigorous and Competitive Admissions Requirements

Most radiologic technology programs are *impacted*, meaning they receive more qualified applicants than they can accommodate. Prospective students are often required to complete a demanding set of prerequisites, typically between 22-30 units, before even being considered for entry. These courses include anatomy and physiology, medical terminology and general education courses in math and English. However, research shows that students—particularly those from underrepresented and low-income backgrounds—often struggle to access the academic advising and preparatory coursework necessary to meet these requirements in a timely manner.

#### 2. Limited Program Capacity Due to Space and Faculty Constraints

Community colleges face significant limitations in expanding program capacity due to physical space restrictions and a shortage of qualified instructors. Radiologic technology programs require specialized facilities and equipment, including simulation labs and x-ray machines, which are costly to install and maintain. Many colleges report being unable to expand their cohorts beyond 20-30 students per year due to these infrastructure

<sup>86</sup> Bureau of Labor Statistics. [Radiologic and MRI Technologists : Occupational Outlook Handbook](#).

limitations.<sup>87</sup> Additionally, hiring and retaining faculty with the required clinical experience and credentials is a persistent issue. Faculty must typically hold advanced certifications and have significant field experience—requirements that often deter professionals from leaving higher-paying clinical roles to teach.

### 3. Bottlenecks in Clinical Placement Availability

Perhaps the most significant barrier to program expansion is the availability of clinical placements. Radiologic technology programs require students to complete extensive hands-on training in clinical settings such as hospitals and diagnostic imaging centers. However, clinical site capacity is often constrained by staffing, patient volume, and competition from other educational institutions.<sup>88</sup> Clinical partners may limit the number of students they accept due to supervision requirements or liability concerns, creating a bottleneck that slows the throughput of students into the field—even when classroom capacity exists.

### 4. Equity and Access Disparities

These barriers have a disproportionate impact on students from marginalized communities. While community colleges award nearly half of all associate degrees in radiologic technology, significant racial and socioeconomic disparities persist in who enrolls and completes these programs. First-generation and low-income students, particularly those from historically underrepresented groups, often struggle to navigate the complex application process and meet prerequisite requirements—especially without access to strong advising, support services or structured pathway programs. Without intentional interventions, these challenges risk reinforcing, rather than reducing, existing inequities in the health care workforce.

---

<sup>87</sup> Center of Excellence. (2023). [Labor Market Analysis: 1225.00 –Radiologic Technology](#).

<sup>88</sup> Abbot, L. (2025) [HCAI Workforce Program Update 2024](#). Department of Healthcare Access and Information.



## Physical Therapist Assistant

**Entry Level Education Requirement: Associate's degree<sup>89</sup>**

**Completion Pattern:** Moderate rates (38–45 percent) but limited overall capacity

**Opportunity:** With 478 annual openings and strong wages (\$77,900 median), targeted expansion could address middle-skill shortages.

**Program-Level Pain Points:**

**1. Competitive Admissions and Complex Prerequisite Pathways**

Entry into PTA programs is highly competitive, with many programs receiving two to three times more applicants than they can accept. Most programs require students to complete 20–30 units of prerequisites, including anatomy, physiology, psychology, and English composition, before even being considered for admission. Some programs also require job shadowing, observation hours under a licensed physical therapist, or completion of a health-related certification. For students—especially those balancing work and caregiving responsibilities—this presents a long and resource-intensive pathway with no guarantee of program entry. As noted in research from the American Physical Therapy Association (APTA), such competitive barriers can lengthen the time to completion and contribute to attrition, particularly among underrepresented students.

**2. Limited Program Capacity Due to Accreditation, Faculty and Facility Constraints**

PTA programs must meet strict accreditation standards set by the Commission on Accreditation in Physical Therapy Education (CAPTE), which limits the number of students per cohort based on available resources, clinical training sites and qualified faculty. This

---

<sup>89</sup> Bureau of Labor Statistics. [Physical Therapist Assistants and Aides : Occupational Outlook Handbook](#).

often results in small cohort sizes—commonly 20 to 30 students per year—even in regions where demand far exceeds supply. Faculty recruitment presents another challenge: instructors must possess advanced credentials and clinical experience, and the pay differential between academic and clinical settings can make hiring difficult. Furthermore, programs require specialized lab space and equipment, adding to the infrastructural burden on community colleges.

### 3. Shortages in Clinical Placement Opportunities

As with other allied health fields, the availability of clinical training placements is a critical bottleneck. Students must complete at least 16 weeks of full-time clinical education, often across multiple health care settings. However, these sites are limited and subject to competition from other institutions, including universities offering Doctor of Physical Therapy (DPT) programs. Clinical partners may be unwilling or unable to take on additional students due to staffing constraints, supervision requirements and liability concerns.

### 4. Financial and Equity Barriers for Students

PTA programs are often classified as *high-unit certificates or associate degrees*, which can affect students' eligibility for financial aid—particularly if they exceed standard unit caps due to prerequisite accumulation or course repetition. Many programs also require upfront costs for uniforms, equipment, background checks and transportation to clinical sites. These financial barriers disproportionately impact low-income and working students. Targeted supports, such as stipends, child care and advising, are named as mechanisms to improve access and persistence among students pursuing high-demand allied health careers including PTA.<sup>90</sup>

---

<sup>90</sup> Babl, R. (2024). [Factors Influencing Physical Therapist Career Choice for U.S. Pre-profession Undergraduate Students: Implications for Recruitment and Admissions](#). Association of Medical Education in the Eastern Mediterranean Region (AMEEMR).



## Dental Hygienist

**Entry Level Education Requirement: Associate's degree<sup>91</sup>**

**Completion Pattern:** Relatively consistent rates across demographics (32–38 percent)

**Opportunity:** With 468 annual openings and strong wages (\$62/hour at 90th percentile), improving completion could directly address high-wage job shortages.

**Program-Level Pain Points:**

### 1. Highly Competitive Admissions and Long Waitlists

Community college dental hygiene programs are among the most competitive in the state. Students must complete an extensive set of prerequisites—often totaling 30 or more units—before applying, including courses in anatomy, physiology, microbiology, chemistry and English composition. Once eligible, many students face long waitlists or must reapply multiple times due to limited cohort sizes. Programs typically receive a high volume of applications—approximately 200 annually—but can only admit about 35 students each year. This limited capacity results in long waitlists and delays for qualified applicants, restricting the number of new dental hygienists entering the workforce.

### 2. Stringent Accreditation and Facility Requirements

Dental hygiene programs are subject to rigorous accreditation standards set by the Commission on Dental Accreditation (CODA). These standards dictate not only curriculum but also physical infrastructure, including requirements for dental chairs, radiographic equipment, sterilization systems and simulation labs. Meeting and maintaining these standards demands significant capital investment, limiting the ability of colleges to launch

<sup>91</sup> Bureau of Labor Statistics. [Dental Hygienists : Occupational Outlook Handbook](#).

or expand programs. As a result, only a small number of California community colleges offer accredited dental hygiene programs, despite growing regional demand.

### 3. Faculty Shortages and Hiring Barriers

Recruiting and retaining qualified faculty presents another significant challenge. Instructors must typically hold a bachelor's or master's degree, along with a current California dental hygiene license and substantial clinical experience. However, salary disparities between clinical practice and academic positions deter many professionals from entering teaching roles. According to reports from the California Dental Hygienists' Association (CDHA), some programs struggle to staff core courses, further capping enrollment or delaying program completion timelines.

### 4. Limited Clinical Placement Capacity and Operational Costs

Dental hygiene programs rely on hands-on clinical training both on campus and through community-based rotations. However, there are finite opportunities for students to complete their clinical hours, particularly in underserved areas where patient access is already limited. Maintaining on-campus clinics that meet patient care and instructional needs is operationally expensive and often not subsidized adequately by state funding formulas. These financial constraints can discourage colleges from expanding their program footprint.

### 5. Equity Barriers in Entry and Completion

The extensive time and cost investment required to enter and complete a dental hygiene program pose significant barriers for low-income, working and first-generation students. In addition to prerequisite courses and program tuition, students often face additional expenses for licensing exams, uniforms, equipment, immunizations and liability insurance. Without targeted financial and advising support, these cumulative burdens contribute to attrition and reinforce existing equity gaps within the health workforce pipeline.



## Dental Assistant

**Entry Level Education Requirement: Postsecondary non-degree award<sup>92</sup>**

**Completion Pattern:** Highest completion rate at 64 percent among Hispanic students

**Opportunity:** Completion rates suggest strong program design and support systems that could be replicated in other programs; with dental assistants showing the highest demand (2,362 annual openings) but only 25 percent of degrees from community colleges. Scaling successful completion strategies here could have immediate workforce impact.

### **Program-Level Pain Points:**

#### 1. Declining Enrollment in Dental Assistant Programs

Enrollment in dental assistant programs has been on a downward trend, a situation exacerbated by the COVID-19 pandemic. The American Dental Association's Health Policy Institute<sup>93</sup> reports a significant decline in first-year enrollments in dental assisting programs over the past decade. This decline limits the number of new dental assistants entering the workforce, contributing to staffing shortages in dental practices.

#### 2. Limited Program Capacity and Resources

Community colleges often have limited capacity to accommodate students in dental assistant programs due to resource constraints. Programs frequently require students to enroll in a full-time schedule, which can be challenging for those balancing work or family commitments.

<sup>92</sup> Bureau of Labor Statistics. [Dental Assistants : Occupational Outlook Handbook](#).

<sup>93</sup> Solana, K. (2022). [HP: Allied dental education programs enrollment sees declines](#). ADA News.

### 3. Shortage of Qualified Faculty

Recruiting and retaining qualified faculty for dental assistant programs is a persistent challenge. The shortage of instructors limits the ability of community colleges to expand program offerings and accommodate more students. This issue is compounded by the need for faculty to have specific certifications and clinical experience, which can be difficult to find.

### 4. Financial Barriers for Students

The cost of dental assistant programs, including tuition, supplies and certification exams, can be prohibitive for many students. While financial aid options exist, they may not cover all expenses, and the upfront costs can deter potential applicants. This financial barrier contributes to the underrepresentation of low-income and minority students in dental assistant programs.

### 5. Limited Awareness and Outreach

There is a lack of awareness about dental assistant career pathways among prospective students. Community colleges may not have sufficient outreach programs to inform high school students and adult learners about the opportunities in dental assisting. This gap in awareness contributes to lower enrollment numbers and a smaller pipeline of future dental assistants.



## Licensed Vocational Nurse (LVN)

**Entry Level Education Requirement: Postsecondary non-degree award<sup>94</sup>**

**Completion Pattern:** Extremely low completion rates (3–4 percent) in primary program codes

**Opportunity:** Given 2,416 annual openings and current 14 percent community college market share, addressing completion barriers could significantly expand affordable public training options.

### **Program-Level Pain Points:**

#### 1. Limited Upward Mobility Despite Low Entry Barriers

LVN programs are typically short in duration (12–18 months) and require only a high school diploma or GED, which makes them attractive to adult learners and those seeking rapid entry into the workforce. However, LVNs often find themselves in roles with stagnant wages and limited autonomy unless they pursue additional education. According to the California Board of Vocational Nursing and Psychiatric Technicians (BVNPT), scope of practice restrictions and lack of advancement pathways contribute to high attrition and burnout rates among LVNs.<sup>95</sup>

#### 2. Small Community College Footprint

Public community colleges account for only 14 percent of LVN completions statewide, with the majority of graduates coming from private for-profit institutions.<sup>96</sup> This restricts the

---

<sup>94</sup> Bureau of Labor Statistics. [Licensed Practical and Licensed Vocational Nurses](#).

<sup>95</sup> California State Assembly Committee on Business and Professions. (2024). [Board of Vocational Nursing and Psychiatric Technicians: Sunset review background paper](#).

<sup>96</sup> California Community Colleges Chancellor's Office. (2023). *LaunchBoard and program completion data*. Retrieved from <https://datavista.cccco.edu> and COCI 51.3901 program listings.

availability of affordable, high-quality programs to a limited number of students—particularly in regions with few public options. For instance, several counties in California have no public LVN programs at all, creating geographic deserts for affordable access.

### 3. High Cost of Private Programs

Private LVN programs can cost upwards of \$30,000 for tuition and fees alone, compared to \$3,000–\$5,000 at most community colleges<sup>97</sup> (California Legislative Analyst’s Office, 2022). Many students take on high-interest loans without access to the same financial aid opportunities available in the public system. This results in disproportionate debt loads for students from low-income backgrounds, particularly women of color, who make up a large share of the LVN workforce.<sup>98</sup>

### 4. Bridge Pathways to RN are Limited

While some LVN-to-RN pathways exist, they are underdeveloped, competitive and often lack sufficient capacity to meet demand. Students frequently encounter delays in transferring credits or securing clinical placements, resulting in lost time and income. A 2022 report by the *California Nursing Workforce Advisory Committee* noted that limited articulation between LVN and ADN/BSN programs is a major bottleneck to upward mobility in the nursing pipeline.<sup>99</sup>

### 5. Clinical Site Availability Not the Primary Constraint

Unlike radiologic or ADN programs, clinical availability is generally *not* the chief limiting factor for LVN program growth. LVN training typically requires fewer hours and can often be completed in long-term care settings or outpatient clinics, which have greater availability. Instead, structural issues such as lack of qualified faculty, inconsistent program funding and regulatory burdens (e.g., Board of Vocational Nursing and Psychiatric Technicians approval timelines) are more pressing barriers to scaling public LVN programs.<sup>100</sup>

---

<sup>97</sup> Legislative Analyst’s Office. (2025, March). [The 2025–26 Budget: California Community Colleges](#).

<sup>98</sup> California Health and Community Alliance (HCAI). (2022). [21st century nursing, certified nursing assistant, and home & community-based services workforce initiatives](#); Public Policy Institute of California. (2025). [Assets, Debts, and Wealth in California](#).

<sup>99</sup> California Board of Registered Nursing, Nursing Education & Workforce Advisory Committee. (2025, June 25). [Minutes and materials, Nursing Education & Workforce Advisory Committee meeting](#).

<sup>100</sup> California Health and Community Alliance (HCAI). (2022). [21st century nursing, certified nursing assistant, and home & community-based services workforce initiatives](#); California State Assembly Committee on Business and Professions. (2024). [Board of Vocational Nursing and Psychiatric Technicians: Sunset review background paper](#).

## Appendix D. Health-Related Associate Degree for Transfer Programs at L.A. County Community Colleges<sup>101</sup>

COLLEGE	Biology	Kinesiology	Nutr / Dietetics	Psychology	Public Health	Pub Health Sc
CERRITOS	X	X	X	X	X	
CITRUS	X	X	X	X		
COMPTON		X		X		
EAST L.A.	X	X	X		X	
EL CAMINO				X	X	
GLENDALE	X	X	X	X	X	
L.A. CITY	X	X	X	X	X	X
L.A. HARBOR	X	X	X	X		
L.A. MISSION	X	X	X	X		
L.A. PIERCE	X	X		X		
L.A. SOUTHWEST		X	X	X	X	
L.A. TRADE-TECH			X	X		X
L.A. VALLEY	X					
LONG BEACH CITY	X		X	X		
MT. SAN ANTONIO	X					
PASADENA CITY	X	X	X	X	X	
RIO HONDO	X	X	X	X		
SANTA MONICA		X	X	X		
WEST L.A.	X	X	X	X		X
<b>Grand Total</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>16</b>	<b>8</b>	<b>3</b>

<sup>101</sup>California Community College Chancellor's Office Management Information System Data Mart. [Program Awards](#).

# Acknowledgments

## Thank You to Our Partners:

This report was produced by the Center for Economic Mobility at WestEd on behalf of the L.A. Region K-16 Collaborative, convened by UNITE-LA. We thank Los Angeles County Economic Development Corporation and the Center of Excellence for Labor Market Research for contributing expert labor market analysis. Advice and feedback was generously provided by our L.A. Region K-16 Collaborative partners.

## Primary Authors:

Rachel Antrobus, Ed. D., Center for Economic Mobility at WestEd  
Allie Bollella, Bollella Research and Consulting

## Secondary Author:

Carrie Lemmon, Senior Vice President, Systems Change Strategy, UNITE-LA

## With Support From:

Amber Chatman, Director, Workforce Systems and Policy, UNITE-LA  
Isabel Duran, Senior Manager, Workforce Systems, UNITE-LA  
Adam Gottlieb, Director, Postsecondary Systems & Policy, UNITE-LA