Department of Health Care Access and Information

HEALTH WORKFORCE RESEARCH DATA CENTER ANNUAL REPORT TO THE LEGISLATURE APRIL 2025

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"A healthier California where all receive equitable, affordable, and quality health care"

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Introduction

California Health and Safety Code Section 128050 established the Health Workforce Research Data Center at the Department of Health Care Access and Information (HCAI) as the state's central source of health care workforce and education data. HCAI is responsible for the collection, analysis, and distribution of information on the educational and employment trends for health care occupations and geographic distribution across the state. The statute requires HCAI to produce an annual report to the legislature that:

a) Identifies education and employment trends in the health care professions.
b) Reports the current supply and demand for health care workers in California and gaps in the educational pipeline producing workers in specific occupations and geographic areas.
c) Recommends state policy to address issues of Health Workforce shortage and distribution.
d) Describes outcomes and effectiveness of the state's Health Workforce programs.

With the establishment of the Research Data Center in 2021 (Assembly Bill 133, Committee on Budget, 2021), HCAI began the work to collect the data necessary to provide comprehensive, timely, and accessible workforce information to ensure that state policies are as informed and effective as possible.

While new data collection efforts are in progress, this report focuses on building the baseline for health professions data by summarizing the data collected and providing general information about the professions for which data are already available. As HCAI collects more data, reports will include more state policy recommendations and analyses of program outcomes and effectiveness. The Next Steps section of this report summarizes HCAI's ongoing data collection efforts and reporting plans.

There are more than a million licensed health professionals in California across more than 50 professions, each playing a role in delivering health care to Californians. While basic supply data are available for many of these professions in the form of license counts, supply data have lacked important detail necessary for a comprehensive understanding of the workforce (i.e., in-depth demographic details, detailed practice metrics, education information, etc.). HCAI's ongoing collaboration with the Department of Consumer Affairs (DCA) expanded the breadth and quality of licensure data and overhauled its supplemental workforce survey, which has provided high-quality, high-value data on topics like employment, education, demographics, and language fluency. This survey has greatly enriched and expanded upon HCAI's ability to analyze, evaluate, and model the workforce. These metrics have been incorporated into HCAI's most thorough workforce models on Behavioral Health and Nursing.

This report groups related licensed professions into six Health Workforce groups:

- **Allied Health**: Advanced Practice Pharmacists (APH), Audiologists (AU), Chiropractors (DC), Doctors of Podiatric Medicine (DPM), Hearing Aid Dispensers (HA), Hearing Aid Dispenser Trainees (HT), Licensed Acupuncturists (AC), Occupational Therapists (OT), Occupational Therapy Assistants (OTA), Optometrists (OPT), Pharmacy Technicians (PhT), Physical Therapists (PT), Physical Therapist Assistants (PTA), Polysomnographic Technicians (PTN), Polysomnographic Technologists (PTL), Registered Contact Lens Dispensers (CLD), Registered Pharmacists (RPH), Registered Spectacle Lens Dispensers (SLD), Respiratory Care Practitioners (RCP), Speech Pathologists (SP), and Speech-Language Pathology Assistants (SPA)
- **Behavioral Health**: Associate Clinical Social Workers (ACSW), Associate Marriage and Family Therapists (AMFT), Associate Professional Clinical Counselors (APCC), Licensed Clinical Social Workers (LCSW), Licensed Educational Psychologists (LEP), Licensed Marriage and Family

Therapists (LMFT), Licensed Professional Clinical Counselors (LPCC), Psychiatric Mental Health Nurses (PMHN), Psychiatric Technicians (PST), Psychologists (PSY), and Registered Psychological Associates (RPA)

- **Medicine**: Naturopathic Doctors (ND), Osteopathic Physicians and Surgeons (DO), Physicians and Surgeons (MD), and Physician Assistants (PA)
- **Nursing**: Public Health Nurses (PHN), Registered Nurses (RN), and Vocational Nurses (LVN)
- **Advanced Practice Nursing:** Clinical Nurse Specialists (CNS), Licensed Midwives (LM), Nurse Anesthetists (NA), Nurse Midwives (NM), and Nurse Practitioners (NP)
- **Oral Health**: Dental Sedation Assistants (DSA), Dentists (DDS), Orthodontic Assistants (OA), Registered Dental Assistants (RDA), RDAs in Extended Functions (RDAEF), Registered Dental Hygienists (RDH), RDHs Alternative Practice (RDHAP), and RDHs Extended Function (RDHEF)

Professions in the Allied Health section were chosen from our surveyed license types to best match those assigned by the Health Resources and Services Administration's (HRSA) Bureau of Health Workforce (BHW)[1].

The key findings section of this report highlights select figures within each topic, while each workforce section contains all topics and figures for each profession group. Future reports will go into more detail about these professions and others as more data become available. In comparison to last year's report, we have added a section to showcase the supply and demand modeling work that HCAI completed on both the Behavioral Health Workforce and Nursing Workforce. We have also included additional details on the response rates for each survey metric as well as the total counts for each license type in the Technical Appendix. Additionally, data on Sexual Orientation, Gender Identity, and Disability Status are included in this year's report. Furthermore, we have added a section for Certified Wellness Coaches, a new profession certified and administered by HCAI starting in January of 2024. Additional data will be included in future reports as the program expands.

Data

The primary data source for this report is licensure data collected by the Department of Consumer Affairs (DCA) as part of the administrative licensing process. This licensure data enumerates every license within a given profession and is foundational to accurately describing California's Health Workforce. Licensure data collected include each license's status, issue date, licensee's public address of record, and date of birth.

Since the establishment of the Research Data Center in 2021, HCAI has partnered with DCA to update the data it collects. Previously, HCAI received licensure and survey data for only a subset of licensing boards, and the workforce survey collected inconsistent data. In July 2022, HCAI began receiving more comprehensive licensure reports from every board and launched a modernized HCAI Health Workforce License Renewal Survey administered as part of the electronic licensure renewal process (typically every two years for most license types). This new survey builds upon DCA's licensure data by adding demographic information about each licensee and provides details about their past, present, and future work plans. The new renewal survey collects a standard set of information across all licensees and maximizes response rates by requiring a response to every question (but provides a "decline to state"

[1]See HRSA's website for more information on how they defined Allied Health: https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/technical-documentation/allied-health-other

option for all items). Business and Professions Code section 502 prescribes the minimum information to be collected in the modernized survey. As part of the ongoing HCAI and DCA collaboration, HCAI receives updates to both licensure and survey data on the third of every month.

Workforce Data

All licensure data presented in this report represent a snapshot of the active license population on November 3, 2024, collected by DCA. All survey data presented in this report for licensed professionals represent data received from the HCAI Health Workforce License Renewal Survey as of November 3, 2024. Response rates from the renewal survey vary by profession, so HCAI utilizes a cell-based weighting methodology to compensate for any disproportionate quantity of responses from a certain group. The Technical Appendix details the response rates and weighting methodology.

All Wellness Coach data presented in this report represent a snapshot of the certified population on December 30th, 2024, collected by HCAI.

Population Data

This report incorporates data about California's population. This report uses county population projections from the California Department of Finance (P-2A) for the year 2024. For demographic and social characteristics, this report utilizes population estimates from the 2023 U.S. Census Bureau's American Community Survey 5-year estimates for race and ethnicity (DP-05) and languages spoken (DP-02).

Modeling Data

HCAI developed models to measure and predict the current and future supply and demand of the Behavioral Health and Nursing Workforces. While other sections in this report (Allied Health, Medicine, and Oral Health) include future supply projections based on historical monthly counts of active licenses, these models utilize licensing data and care delivery trends broken down by role or role group to create supply projections by Full Time Equivalent (FTE). These FTEs are used in conjunction with actual reported average patient care hours and employment rates from each role or role group to determine supply and demand at the individual provider level. In addition, these models consider the current and potential future demand for each role or role grouping. Behavioral Health demand is based on the calculated inpatient met/unmet demand and outpatient met/unmet demand for each role. The Nursing model uses capacity and utilization rates, in addition to provider-to-population ratios based on setting, to estimate demand.

For the purposes of supply modeling, Behavioral Health licenses were categorized into the following roles or role groups based on role similarity and scope of practice:

- **Associate Level Clinicians**: Associate Clinical Social Worker (ACSW), Associate Marriage and Family Therapist (AMFT), Associate Professional Clinical Counselor (APCC) and Registered Psychological Associate (RPA).
- **Non-Prescribing Licensed Clinicians**: Licensed Clinical Social Worker (LCSW), Licensed Marriage and Family Therapist (LMFT), Licensed Professional Clinical Counselor (LPCC), and Psychologist (PSY).
- **Psychiatrists**

Nursing professions were categorized into the following role or role groups based on role similarity and scope of practice:

- **Nurse Anesthetist:** Nurse Anesthetist (NA).
- **Vocational Nurse:** Vocational Nurse (LVN).
- **Registered Nurse:** Registered Nurse (RN), Certified Nurse Specialist (CNS), Public Health Nurse (PHN), and Psychiatric Mental Health Nurse (PMHN).

Nurse Practitioners are essential to addressing access to primary care. Therefore, HCAI will be including them in a future model for the Primary Care Workforce.

See the HCAI Modeling Methodology for additional details.

Regions

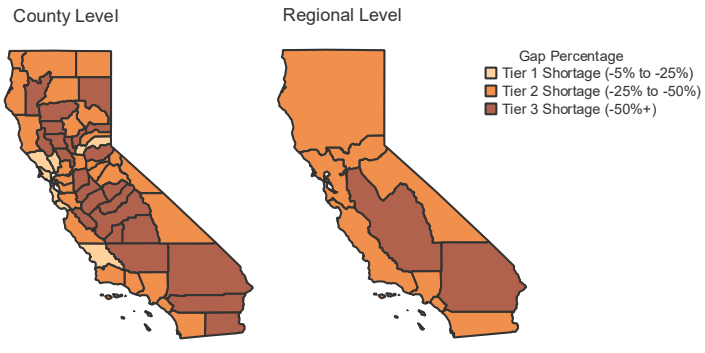
HCAI analyzes data at multiple geographic levels of detail. Statewide numbers alone may mask significant geographic or demographic variation that exist within the state. For ease of comparison with other research, this report includes both statewide results and results for nine regions that align with other similar research such as those conducted by the Healthforce Center at the University of California, San Francisco and the California Health Interview Survey (CHIS) from the University of California, Los Angeles. The Technical Appendix details the counties within each region.

Key Findings

Model Projections for Behavioral Health

- All nine regions are facing a shortage of all behavioral health roles examined, with the most severe shortages in the Northern & Sierra and San Joaquin Valley regions.
- All regions and counties face a shortage of Non-Prescribing Licensed Clinicians, with two regions and 24 counties facing a shortage of -50% or more (*Figure A-1*, right). Statewide, this is an estimated need for 43,317 additional providers to meet current demand (*Table A-1*).
- All regions and counties face a shortage of Associate Level Clinicians, with one region and 20 counties facing a shortage of -50% or more (*Figure A-2*). Statewide, this represents an estimated need for 14,733 additional providers to meet current demand (*Table A-2*).

Figure A-1: Non-Prescribing Licensed Clinicians: Supply & Demand Data

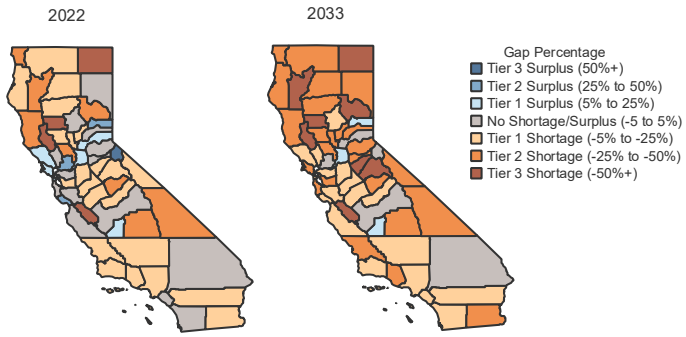


- All regions and counties face a shortage of Psychiatrists, with three regions and 37 counties facing a shortage of -50% or more (*Figure A-3*). Statewide, this is an estimated need for 3,101 additional providers to meet current demand (*Table A-3*).

Model Projections for Nursing

- Seven of the nine regions are facing a shortage of one or more Nursing role groups, with the highest shortages in the Northern & Sierra and Central Coast regions.
- Overall, the statewide shortage of Registered Nurses is just over -2%, with an estimated need for 6,132 additional providers to meet current demand (*Table B-1*). The Northern & Sierra, San Joaquin Valley and Los Angeles County regions are currently facing a shortage of Registered Nurse providers of -5% or more, while the Sacramento Area region faces a surplus of nearly 14% (*Figure B-1*).
- By 2033, it is projected that 50 counties and eight of the nine regions will face a -5% shortage or more of Registered Nurses (*Figure B-2*), right). The overall statewide shortage will increase to just under -17%, and an estimated need for 61,141 additional providers will be required to meet future demand (*Table B-2*).
- Statewide, there is a 5.7% surplus of Vocational Nurses (*Table B-3*). However, two regions and 25 counties are facing a shortage of Vocational Nurses, while five regions and 19 counties are facing a surplus (*Figure B-3*). This indicates there is a maldistribution of Vocational Nursing providers within the state.

Figure B-2: Registered Nurse: Supply & Demand Projections

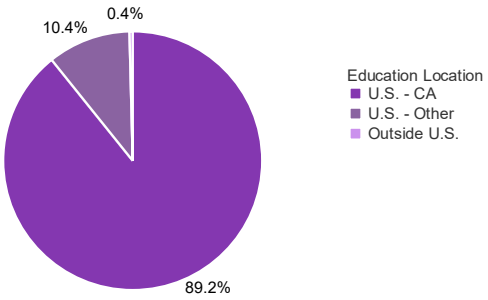


- Seven regions and 38 counties are currently facing a shortage of Nurse Anesthetists, with five regions and 26 counties facing a shortage of -25% or more (*Figure B-4*). Statewide, this is an estimated need for 499 additional providers to meet current demand (*Table B-4*).

Education and Employment Trends

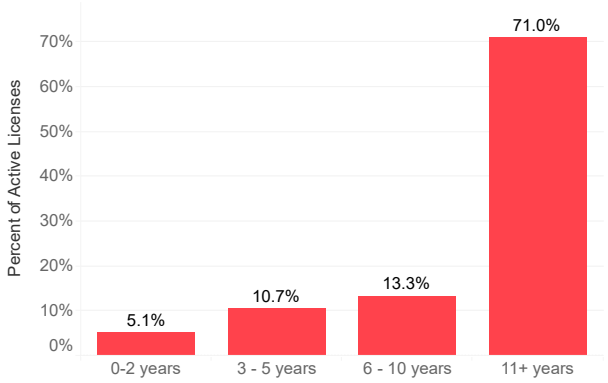
- More Behavioral Health licensees complete their initial qualifying degree within California than any other Health Workforce group. Within the Behavioral Health group, nearly 90% receive their initial qualifying degree within California, while 99.6% complete their education somewhere in the U.S. (*Figure D-1*, right).
- More Nursing licensees receive their initial qualifying degree from outside the U.S. than any other Health Workforce group at just over 11%. Only 88.7% report completing their education somewhere in the U.S., with 75.5 receiving their initial qualifying degree within California (*Figure F-1*).

Figure D-1: Education Location: Behavioral Health



- Over 99% of Osteopathic Physician and Surgeons (*Figure E-2*) and Doctors of Podiatric Medicine (*Figure C-2*) report completing their residency within the U.S., the highest of all license types requiring a residency. Dentists reported the highest rates of completion for residency programs within California at just over 70% (*Figure H-2*).
- On average, the Nursing group reported the lowest rate of licensees actively working or seeking work at just over 92% (*Figure F-2*). Within Nursing, 3.8% of licensees are already retired, and just under four percent report actively working in a different field or not working and not seeking work.
- While the Behavioral Health group did not have the lowest employment rate overall, it did have the two lowest rates among the individual license types included in this report; only 62.5% of Psychiatric Mental Health Nurses and 72.9% of Licensed Educational Psychologists report actively working or seeking work using their license (*Figure D-2*).
- Licensees within the Medicine group reported spending the highest amounts of time per week on Patient Care with an average of 33.4 hours (*Figure E-4*), while Behavioral Health licensees reported spending the least at 22.2 hours per week (*Figure D-3*).
- Over five percent of Nursing licensees actively working or seeking work estimate retiring within the next two years, the highest rate in this span of time of any Health Workforce group (*Figure F-4*, right). This trend is driven primarily by Public Health Nurses (6%) and Registered Nurses (5.5%).
- Oral Health licensees estimate retiring faster than any other Health Workforce group over the next five years, with nearly 17% of licensees actively working or seeking work planning to retire in the next five years. Within the Oral Health group, 50% of RDH Extended Functions and 22% of Dentists estimate retiring within the next five years (*Figure H-5*).

Figure F-4: Retirement Estimates: Nursing



Demographics

- Hispanic licensees are the most underrepresented in the Health Workforce when compared to California's population; they are underrepresented in all six Health Workforce groups and 39 of the 49 license types included in this report. Oral Health has the highest representation of Hispanic licensees at 29% (*Figure H-7*, below), while Medicine has the lowest representation at only 9.6% of licensees (*Figure E-7*, below).

Figure H-7: Race/Ethnicity: Oral Health

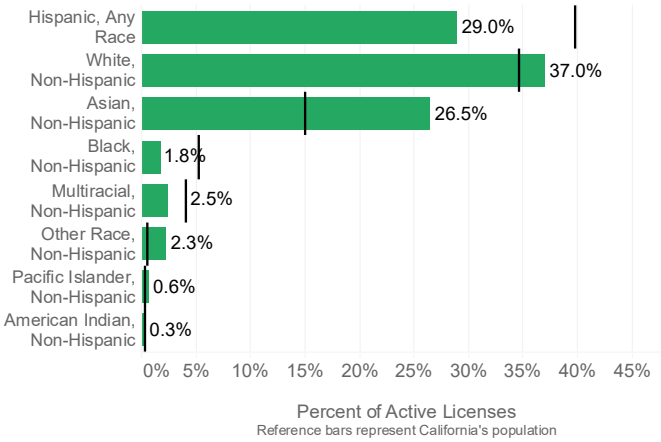
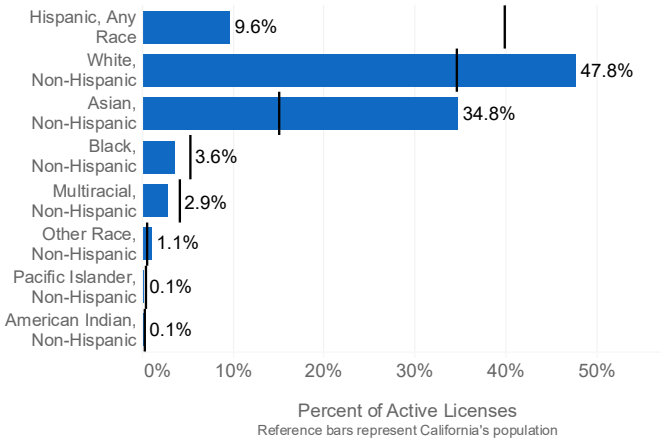


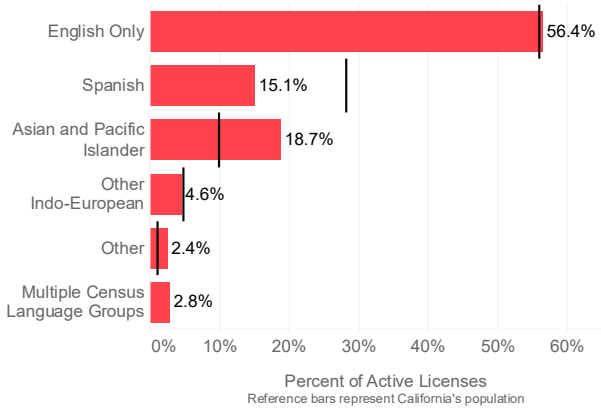
Figure E-7: Race/Ethnicity: Medicine



- Black, Non-Hispanic licensees are underrepresented in three of the six Health Workforce groups when compared to California's population. Oral Health has the lowest representation of Black, Non-Hispanic licensees with less than two percent of licensees identifying as Black, Non-Hispanic (*Figure H-7*), while Advanced Practice Nursing licensees are the most well represented at 7.3% (*Figure G-6*).

- Spanish-speaking licensees are the most underrepresented language group in the Health Workforce when compared to California's population; they are underrepresented in all six Health Workforce groups and 38 of the 49 license types included in this report. Oral Health has the highest representation of Spanish-speaking licensees at 22.5% (*Figure H-8*), while Nursing has the lowest representation at only 15.1% of licensees (*Figure F-7*, right).

Figure F-7: Languages Spoken: Nursing



- Licensees who are fluent in Asian and Pacific Islander languages are underrepresented in all 11 license types within the Behavioral Health group (*Figure D-7*), and three of the four license types within the Medicine group (*Figure E-8*).

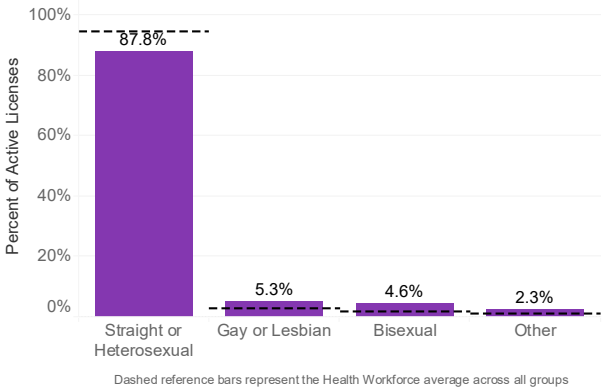
- Other languages are well-represented in all six Health Workforce groups compared to California's population. Other Indo-European languages are well-represented in all Health Workforce groups with the exceptions of Behavioral Health and Nursing (see Technical Appendix for the breakdown of language groups).

- Licensees within the Medicine group are among the oldest in the Health Workforce, with approximately 27% 60 years or older (*Figure E-6*). Conversely, Allied Health licensees are some of the youngest in the Health Workforce, with more than eight percent under the age of 30 (*Figure C-6*).

Sexual Orientation, Sex at Birth, Gender Identity, and Disability Status

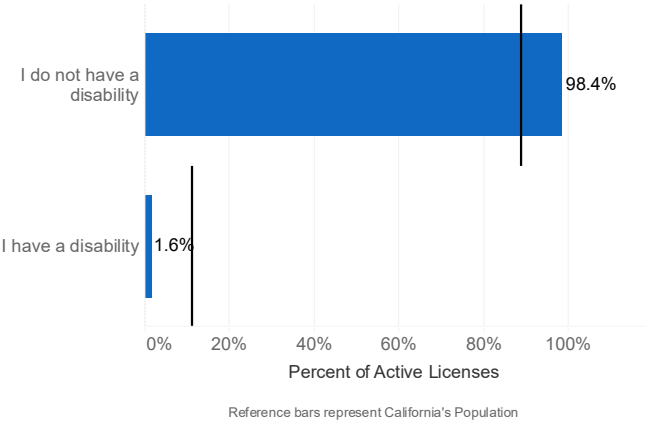
- Licensees within the Behavioral Health group reported the most diverse Sexual Orientations. While the majority still identified as Straight or Heterosexual (87.8%), 5.3% identified as Gay or Lesbian and 4.6% identified as Bisexual, the highest rates among any Health Workforce group (*Figure D-8*, right).
- The Behavioral Health group also reported the highest rates of licensees identifying as Transgender (0.4%) as well as licensees not identifying as Male, Female, or Transgender (0.6%; *Figure D-10*).

Figure D-8: Sexual Orientation: Behavioral Health



- Medicine is the only Health Workforce group where the sex assigned at birth for the majority of licensees was Male (55.2%; *Figure E-10*). This is primarily driven by Osteopathic Physician and Surgeons (54.0%) and Physician and Surgeons (58.6%)
- The Nursing group reported the highest rates of licensees identifying as Female, with 84.4% of Nursing licensees and 85.7% of Advanced Practice Nursing licensees identifying as Female. Responses are similarly distributed among the license types within the Nursing group (*Figure F-10*) but vary more widely for Advanced Practice Nursing license types.
- Behavioral Health has the largest percentage of licensees who identify as having a disability (8%) among all Health Workforce groups (*Figure D-11*). Medicine had the lowest with only 1.6% of licensees identifying as having a disability (*Figure E-12*, right).

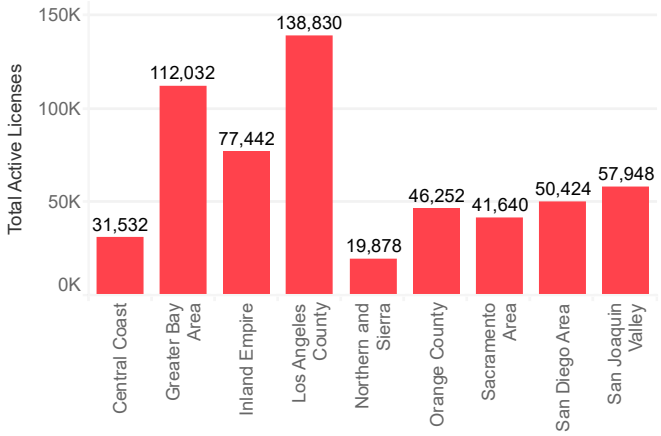
Figure E-12: Disability Status: Medicine



Statewide Workforce Availability and Distribution

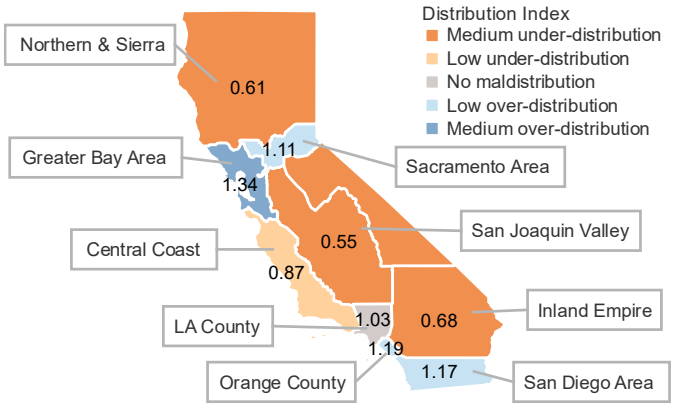
- The Nursing group is the largest Health Workforce group with 575,978 active licenses at the time of this report (*Figure F-12*, right). Registered Nurses make up the majority of this group (73.7%) and are the largest of any individual license type. Advanced Practice Nursing makes up the smallest Health Workforce group in this report with only 41,744 active licenses.
- The Greater Bay Area region holds the highest number of active Medicine (*Figure E-13*) and Oral Health (*Figure H-13*) licenses while the Los Angeles region holds the highest number of active Allied Health (*Figure C-13*), Behavioral Health (*Figure D-12*), Nursing (*Figure F-12*, right) and Advanced Practice Nursing licenses (*Figure G-12*).

Figure F-12: Active Licenses: Nursing



- The Nursing group issued the highest number of new active licenses per month with an average issue rate of 2,979 new licenses (*Figure F-13*). Within the Nursing Workforce, Registered Nurses make up the largest portion of the licenses issued with an average of 1,835 new active licenses per month.
- By region, Sacramento Area has the largest over-supply of licenses across the health workforce, with a low to medium over-supply of Allied Health (*Figure C-15*), Medicine (*Figure E-15*), Nursing (*Figure F-14*), and Oral Health (*Figure H-15*) licenses. Conversely, the San Joaquin Valley region has the largest under-supply of licenses, with a low to medium under-supply of all six workforce groups.
- Supply projections indicate the Medicine Workforce will have the largest growth of all six Health Workforce groups and is expected to grow 7.7% by 2027. Every license type within the group is expected to increase over the next three years, with the greatest growth occurring in Osteopathic Physician and Surgeons who have a projected growth rate of 18.7% by 2027 (*Figure E-16*).
- Medicine is the most maldistributed workforce group, with four regions experiencing a low to medium under-supply of licenses, while four regions face a low to medium over-supply of licenses. Los Angeles is the only region with an even share of Medicine licenses relative to their population size (*Figure E-15*, right).
- Certified Wellness Coaches are expected to grow 1.6% by December 2025. Projections show estimates of over 1,100 active certificates by the end of 2025 (*Figure I-3*).

Figure E-15: Distribution Index: Medicine



HCAI Programs

Statewide Program Awards

HCAI programs work to increase workforce diversity and access to healthcare in underserved areas throughout California in order to address supply shortages and inequities. Programs provide financial incentives to encourage underrepresented groups to pursue healthcare careers, and individuals and organizations to provide services in areas of unmet need. We achieve this by providing individuals with financial aid in the form of loan repayments, scholarships, and stipends, as well as overseeing organization-level grants to support training capacity/expansion, recruitment/retention, and/or training and placement.

Figure 1 illustrates the distribution of 1,464 HCAI awards to both individuals and organizations across the state during the 2024 calendar year. Of the 58 counties, 52 (88.1%) contained at least one awardee.

Figure 1: 2024 Calendar Year Program Awards by City

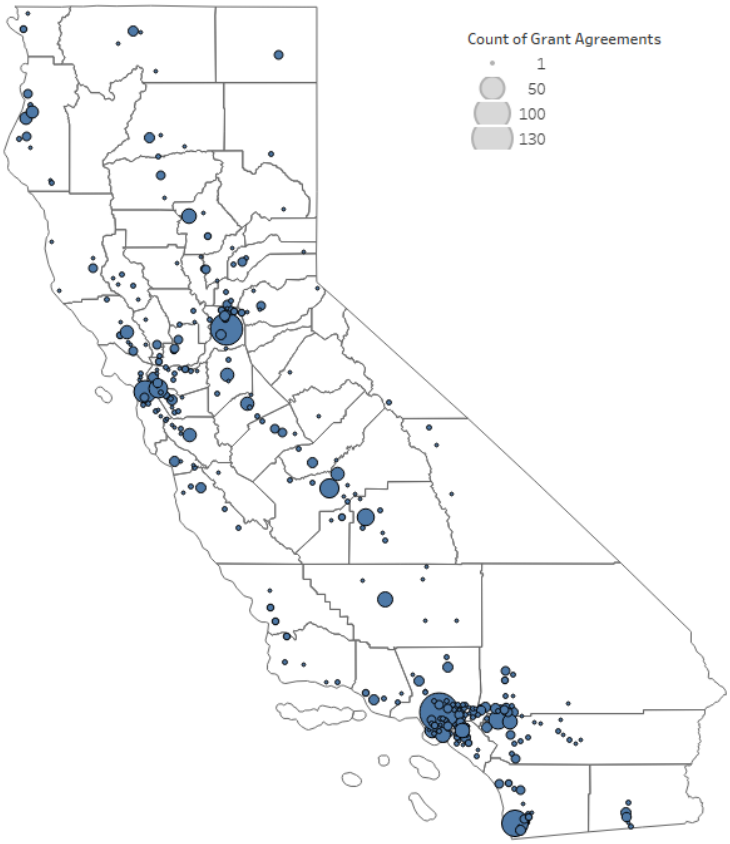


Table 1: 2023 and 2024 Fiscal Year Program Awards by Program Type

	FY 23/24		FY 24/25		Grand Total	
Program Type	**Amount Awarded**	**Award Count**	**Amount Awarded**	**Award Count**	**Amount Awarded**	**Award Count**
Education Expion	$11,575,000	14	$6,090,350	5	**$17,665,350**	**19**
Loan Repaymnt	$2,664,832	100	$935,076	29	**$3,599,908**	**129**
Other Organizional Grant	$9,850,230	102	$84,895	4	**$9,935,125**	
Scholarship	$2,880,445	129	$2,659,865	97	**$5,540,310**	**226**
Grand Total	**$26,970,507**	**345**	**$9,770,186**	**135**	**$36,740,693**	**480**

Next Steps

HCAI will continue to work with key stakeholders to effectively position the Health Workforce Research Data Center as California's leading generator of policy-relevant information about the state's health workforce and build upon the baseline data displayed in this report. Over the next year, HCAI will focus on the following data for inclusion:

Collection of Health Workforce Data for Certified Professions

HCAI has developed data sharing agreements with key stakeholders to obtain workforce data for home and community-based providers. These data include several certified professions, along with important data on the uncertified workforce.

Collection of Education Pipeline data

HCAI will also explore public and private education data options to better understand health program educational capacity, throughput, and demographics. The Integrated Postsecondary Education Data System (IPEDS) and collaboration with state higher education entities will be essential inputs for HCAI to leverage in future reports. HCAI will integrate these data with additional data sources, such as supply-side data and HCAI's hospital utilization data, to gain key insights into the Health Workforce.

Additional Data Products

Throughout the year, HCAI will also publish a range of data products on HCAI's Health Workforce data page and the California Health and Human Services Agency's Open Data Portal, ranging from one-page infographics, to interactive dashboards, and minimally processed aggregate data. We also publish 'data stories' and visualizations, intended to transform our data into information with context to make the data more useful and meaningful. For examples of these visualizations, see HCAI's Featured Releases Page.

Refinement and Expansion of Supply and Demand Modeling

We will continue to update our models for Nursing and Behavioral Health and will also incorporate additional roles, such as Licensed Midwives and Certified Nurse Midwives, newer data sets, and feedback that we have received from stakeholders on how to improve our methodologies. These models will give HCAI a more accurate idea of where discrepancies are between workforce supply and demand and may be useful in influencing future funding decisions. Future work will also include adding modeling projections for all roles and role groups at the statewide, regional and county levels.

HCAI is in the process of developing two additional predictive models for the supply and demand of Primary Care and Oral Health professionals across the state, as internal resources become available. This will be completed with stakeholder engagement, along with robust data management and integration. We acknowledge and plan to delve into how these models intersect with our current in-depth models for Nursing and Behavioral Health.

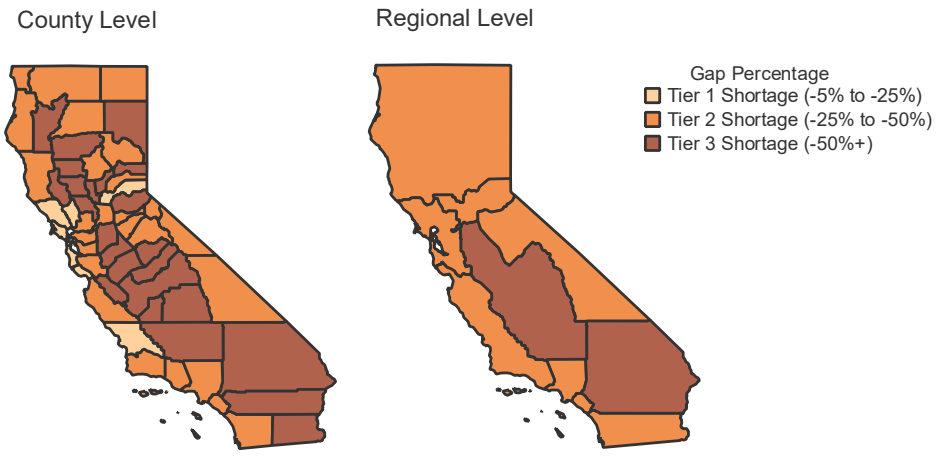
Section A: Model Findings, Behavioral Health

The license types included in the Behavioral Health model were categorized into the following role or role groups based on role similarity and scope of practice: Associate Level Clinicians (Associate Clinical Social Worker, Associate Marriage and Family Therapist, Associate Professional Clinical Counselor and Registered Psychological Associate), Non-Prescribing Licensed Clinicians (Licensed Clinical Social Worker, Licensed Marriage and Family Therapist, Licensed Professional Clinical Social Worker, and Psychologist), and Psychiatrists.

The data presented in this section reflect estimated FTE adjusted counts of *providers*, rather than counts of active *licenses* as presented in Sections C-H of this report. See the HCAI Modeling Methodology for additional details.

Multiple measures of supply and demand are presented below: the raw difference between estimated supply and demand (Supply-Demand Gap), the Gap per 100k (Supply-Demand Gap/(County's Population/100,000)), and the Gap Percentage (Supply-Demand Gap/Demand). Each of these values provides important context to understanding the shortage or surplus of providers within a given area and relative to statewide trends. The raw Supply-Demand Gap indicates the basic difference between the estimated supply and demand and gives a picture of the sheer additional number of providers needed to meet demand. The Gap Percentage illustrates this same shortage on a standardized scale, which allows for direct comparison of severity between geographies and roles. The Gap per 100k provides population context but does not allow for comparison between roles or role groups and does not account for different utilization rates between counties, so comparisons between geographies is unequal. For example, a county may have the highest Gap per 100k without having the highest Gap Percentage.

Figure A-1: Non-Prescribing Licensed Clinicians: Supply & Demand Data



Overall, the statewide shortage of Non-Prescribing Licensed Clinicians is -37%, an estimated shortage of 43,317 providers. Notably, all regions and counties face some level of shortage of Non-Prescribing Licensed Clinicians. On a regional level, the San Joaquin Valley and Inland Empire are facing the most severe shortages, with fewer than 50% of the providers needed to meet their demand. All counties within the Inland Empire and San Joaquin Valley regions are experiencing a tier 3 shortage (-50% or more), with Merced County facing the largest shortage within those regions at more than -81%. In contrast, the Orange County region is facing the lowest regional level shortage at -28%, while Sonoma County is facing the lowest county level shortage at just over -6%.

Relative to population size, the Northern & Sierra region faces the largest shortage of providers with a gap of -147.4 per 100k, and five counties in the region face a gap of more than -200 per 100k. In contrast, the Orange County region faces the lowest regional shortage at -72.5 per 100k, while Sonoma County faces the lowest county level shortage at -20.6 per 100k.

In terms of raw provider counts, Los Angeles has the highest regional and county level shortages at -10,764.9 providers, nearly four times more than the next highest county level shortage.

Table A-1: Non-Prescribing Licensed Clinicians: Supply & Demand Data – Current State

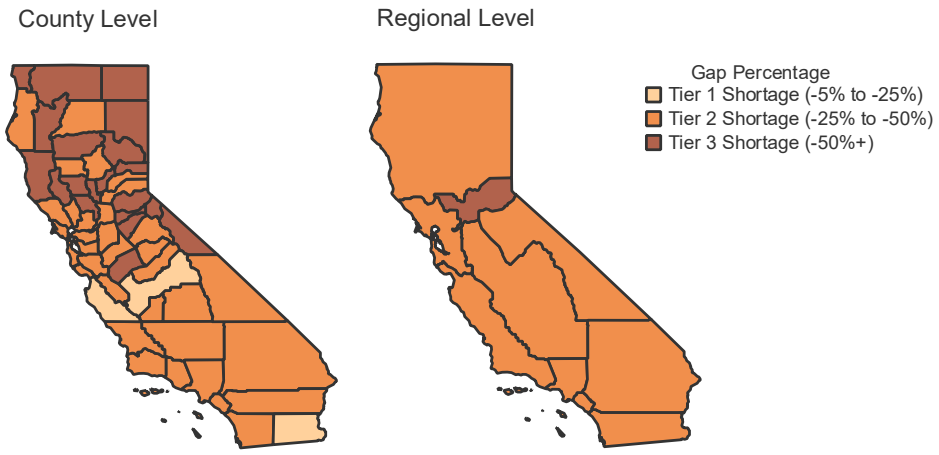
Region	County	Estimated Supply (FTE)	Estimated Demand (FTE)	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	640.0	936.7	-296.7	-68.0	-31.7%
	San Benito	58.0	183.2	-125.2	-190.7	-68.3%
	San Luis Obispo	872.0	1,117.8	-245.8	-88.0	-22.0%
	Santa Barbara	1,047.0	1,518.5	-471.5	-106.4	-31.1%
	Santa Cruz	990.0	1,250.5	-260.5	-98.5	-20.8%
	Ventura	1,748.0	2,544.1	-796.1	-95.7	-31.3%
	Region Total	**5,355.0**	**7,550.9**	**-2,195.9**	**-94.6**	**-29.1%**
Greater Bay Area	Alameda	4,799.0	6,813.9	-2,014.9	-122.6	-29.6%
	Contra Costa	2,268.0	3,497.4	-1,229.4	-106.9	-35.2%
	Marin	1,413.0	1,723.1	-310.1	-121.4	-18.0%
	Napa	366.0	483.7	-117.7	-86.8	-24.3%
	San Francisco	3,101.0	4,711.9	-1,610.9	-191.6	-34.2%
	San Mateo	1,623.0	2,126.5	-503.5	-67.9	-23.7%
	Santa Clara	3,332.0	5,347.3	-2,015.3	-106.3	-37.7%
	Solano	701.0	962.1	-261.1	-58.4	-27.1%
	Sonoma	1,536.0	1,634.9	-98.9	-20.6	-6.1%
	Region Total	**19,139.0**	**27,300.9**	**-8,161.9**	**-107.5**	**-29.9%**
Inland Empire	Riverside	2,610.0	5,549.0	-2,939.0	-121.1	-53.0%
	San Bernardino	2,508.0	5,091.4	-2,583.4	-118.5	-50.7%
	Region Total	**5,118.0**	**10,640.4**	**-5,522.4**	**-119.9**	**-51.9%**
LA County	Los Angeles	21,014.0	31,778.9	-10,764.9	-109.2	-33.9%
	Region Total	**21,014.0**	**31,778.9**	**-10,764.9**	**-109.2**	**-33.9%**
Northern & Sierra	Alpine	2.0	2.8	-0.8	-70.2	-29.5%
	Amador	61.0	97.6	-36.6	-91.5	-37.5%
	Butte	429.0	743.3	-314.3	-152.5	-42.3%
	Calaveras	71.0	107.4	-36.3	-80.7	-33.9%
	Colusa	13.0	63.0	-50.0	-230.2	-79.4%
	Del Norte	44.0	68.5	-24.5	-90.8	-35.8%
	Glenn	21.0	81.7	-60.7	-211.0	-74.3%
	Humboldt	356.0	491.0	-135.0	-100.6	-27.5%
	Inyo	26.0	44.1	-18.1	-95.6	-41.0%
	Lake	57.0	198.8	-141.8	-209.7	-71.3%
	Lassen	33.0	74.5	-41.4	-139.0	-55.7%
	Mariposa	20.0	40.1	-20.1	-118.1	-50.1%

	Mendocino	203.0	354.0	-151.0	-167.3	-42.7%
	Modoc	14.0	21.9	-7.9	-92.3	-36.0%
	Mono	18.0	30.4	-12.4	-95.3	-40.8%
	Nevada	284.0	431.5	-147.5	-145.9	-34.2%
	Plumas	27.0	49.2	-22.2	-115.1	-45.1%
	Shasta	337.0	591.8	-254.8	-141.4	-43.1%
	Sierra	1.0	7.9	-6.9	-214.8	-87.3%
	Siskiyou	63.0	111.3	-48.3	-110.9	-43.4%
	Sutter	95.0	275.1	-180.1	-181.6	-65.5%
	Tehama	47.0	171.4	-124.4	-191.5	-72.6%
	Trinity	15.0	40.3	-25.3	-158.3	-62.8%
	Tuolumne	74.0	120.3	-46.3	-85.0	-38.5%
	Yuba	48.0	224.7	-176.7	-214.9	-78.6%
	Region Total	**2,359.0**	**4,442.3**	**-2,083.3**	**-147.4**	**-46.9%**
Orange County	Orange	5,898.0	8,186.4	-2,288.4	-72.5	-28.0%
	Region Total	**5,898.0**	**8,186.4**	**-2,288.4**	**-72.5**	**-28.0%**
Sacramento	El Dorado	331.0	750.2	-419.2	-221.4	-55.9%
	Placer	875.0	1,129.9	-254.9	-62.6	-22.6%
	Sacramento	2,840.0	4,876.9	-2,036.9	-129.6	-41.8%
	Yolo	411.0	892.6	-481.6	-218.8	-54.0%
	Region Total	**4,457.0**	**7,649.6**	**-3,192.6**	**-133.6**	**-41.7%**
San Diego Area	Imperial	80.0	420.8	-340.8	-188.9	-81.0%
	San Diego	6,779.0	9,672.0	-2,893.0	-88.2	-29.9%
	Region Total	**6,859.0**	**10,092.8**	**-3,233.8**	**-93.5**	**-32.0%**
San Joaquin Valley	Fresno	1,267.0	2,562.1	-1,295.1	-128.2	-50.5%
	Kern	729.0	1,799.2	-1,070.2	-117.8	-59.5%
	Kings	117.0	401.3	-284.3	-187.5	-70.8%
	Madera	124.0	375.3	-251.3	-160.0	-67.0%
	Merced	165.0	894.8	-729.8	-256.9	-81.6%
	San Joaquin	591.0	1,506.2	-915.2	-117.0	-60.8%
	Stanislaus	501.0	1,269.5	-768.4	-140.2	-60.5%
	Tulare	419.0	978.1	-559.1	-117.8	-57.2%
	Region Total	**3,913.0**	**9,786.4**	**-5,873.4**	**-136.1**	**-60.0%**
Statewide		**74,112.0**	**117,428.6**	**-43,316.6**	**-110.7**	**-36.9%**

■ Tier 3 Shortage (-50% or more) ■ Tier 2 Shortage (-25% to -50%) ■ Tier 1 Shortage (-5% to -25%)

Note: Table values are rounded to the first decimal place for display purposes only.

Figure A-2: Associate Level Clinicians: Supply & Demand Data



Overall, the statewide shortage of Associate Level Clinicians is -37.4%, an estimated shortage of nearly 14,733 providers. On a regional level, the Northern & Sierra and Sacramento Area regions are facing the most severe shortages, with fewer than 50% of the providers needed to meet their demand in the Sacramento Area and -49.8% in Northern & Sierra. Seventeen counties within the Northern & Sierra region and half of the counties in the Sacramento Area region are experiencing a tier 3 shortage (-50% or more), with Alpine County (-100%), Lassen County (-87.7%), Trinity County (-84.8%) and Amador County (-77.9%) facing the four largest county level shortages statewide. In contrast, the Orange County region is facing the lowest regional level shortage at -33.2%, while Fresno County is facing the lowest county level shortage at just under -17%.

Relative to population size, the Sacramento Area region faces the largest shortage of providers with a gap of -57 per 100k, while the Northern & Sierra region holds 11 of the top 15 county level shortages per 100k. In contrast, the Orange County region faces the lowest regional shortage at -28.5 per 100k, while Imperial County faces the lowest county level shortage at -13.4 per 100k.

In terms of raw provider counts, Los Angeles County has the highest regional and county level shortages at -4,035.5 providers, more than three times the next highest county level shortage.

Table A-2: Associate Level Clinicians: Supply & Demand Data - Current State

Region	County	Estimated Supply (FTE)	Estimated Demand (FTE)	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	242.0	314.2	-72.2	-16.6	-23.0%
	San Benito	37.0	62.1	-25.1	-38.2	-40.4%
	San Luis Obispo	159.0	301.1	-142.1	-50.9	-47.2%
	Santa Barbara	293.0	496.0	-203.0	-45.8	-40.9%
	Santa Cruz	187.0	308.5	-121.5	-45.9	-39.4%
	Ventura	486.0	715.4	-229.4	-27.6	-32.1%
	Region Total	**1,404.0**	**2,197.4**	**-793.3**	**-34.2**	**-36.1%**
Greater Bay Area	Alameda	1213.0	1,862.6	-649.6	-39.5	-34.9%
	Contra Costa	640.0	1,173.6	-533.6	-46.4	-45.5%
	Marin	176.0	245.1	-69.1	-27.1	-28.2%
	Napa	78.0	126.0	-48.0	-35.4	-38.1%
	San Francisco	659.0	1,080.8	-421.7	-50.2	-39.0%
	San Mateo	359.0	596.7	-237.7	-32.0	-39.8%
	Santa Clara	1,022.0	1,687.8	-665.8	-35.1	-39.4%
	Solano	274.0	375.5	-101.4	-22.7	-27.0%

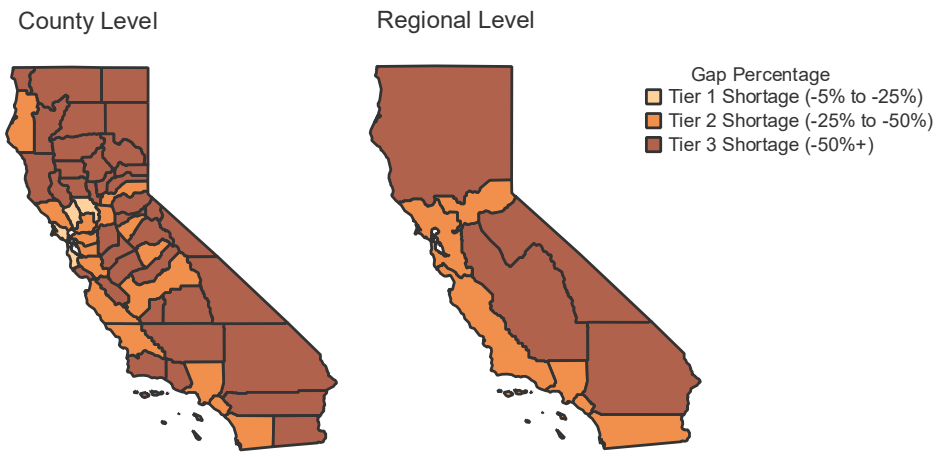
	Sonoma	261.0	462.0	-201.0	-41.9	-43.5%
	Region Total	**4,682.0**	**7,610.0**	**-2,928.0**	**-38.6**	**-38.5%**
Inland Empire	Riverside	1,420.0	2,049.4	-629.4	-25.9	-30.7%
	San Bernardino	1,310.0	2,138.8	-828.8	-38.0	-38.7%
	Region Total	**2,730.0**	**4,188.2**	**-1,458.1**	**-31.6**	**-34.8%**
LA County	Los Angeles	7,839.0	11,874.5	-4,035.5	-40.9	-34.0%
	Region Total	**7,839.0**	**11,874.5**	**-4,035.5**	**-40.9**	**-34.0%**
Northern & Sierra	Alpine	0.0	0.2	-0.2	-16.3	-100.0%
	Amador	7.0	31.7	-24.7	-61.6	-77.9%
	Butte	147.0	249.4	-102.4	-49.7	-41.1%
	Calaveras	12.0	34.6	-22.6	-50.2	-65.3%
	Colusa	7.0	20.5	-13.5	-62.0	-65.8%
	Del Norte	8.0	22.4	-14.3	-53.2	-64.2%
	Glenn	15.0	26.6	-11.6	-40.1	-43.5%
	Humboldt	113.0	164.7	-51.7	-38.5	-31.4%
	Inyo	9.0	14.3	-5.3	-28.0	-37.1%
	Lake	21.0	64.8	-43.8	-64.8	-67.6%
	Lassen	3.0	24.3	-21.3	-71.5	-87.7%
	Mariposa	8.0	13.0	-5.0	-29.4	-38.4%
	Mendocino	41.0	118.8	-77.8	-86.2	-65.5%
	Modoc	3.0	7.1	-4.1	-48.5	-58.0%
	Mono	3.0	9.9	-6.9	-52.8	-69.6%
	Nevada	54.0	94.6	-40.6	-40.2	-42.9%
	Plumas	7.0	16.0	-9.0	-47.0	-56.4%
	Shasta	125.0	198.5	-73.5	-40.8	-37.0%
	Sierra	1.0	2.7	-1.6	-51.4	-62.2%
	Siskiyou	15.0	36.3	-21.3	-48.9	-58.7%
	Sutter	45.0	92.1	-47.1	-47.5	-51.1%
	Tehama	21.0	55.8	-34.8	-53.5	-62.3%
	Trinity	2.0	13.1	-11.1	-69.7	-84.8%
	Tuolumne	20.0	39.0	-19.0	-34.9	-48.8%
	Yuba	27.0	72.9	-45.9	-55.8	-63.0%
	Region Total	**714.0**	**1,423.2**	**-709.2**	**-50.2**	**-49.8%**
Orange County	Orange	1,808.0	2,708.5	-900.4	-28.5	-33.2%
	Region Total	**1,808.0**	**2,708.5**	**-900.4**	**-28.5**	**-33.2%**
Sacramento	El Dorado	69.0	251.7	-182.7	-96.5	-72.6%
	Placer	219.0	379.1	-160.0	-39.3	-42.2%
	Sacramento	827.0	1,635.8	-808.8	-51.4	-49.4%
	Yolo	90.0	299.6	-209.6	-95.2	-70.0%
	Region Total	**1,205.0**	**2,566.1**	**-1,361.1**	**-57.0**	**-53.0%**
San Diego Area	Imperial	117.0	141.2	-24.2	-13.4	-17.1%
	San Diego	2,052.0	3,244.5	-1,192.5	-36.4	-36.8%
	Region Total	**2,169.0**	**3,385.7**	**-1,216.7**	**-35.2**	**-35.9%**
San Joaquin Valley	Fresno	698.0	837.8	-139.8	-13.8	-16.7%
	Kern	429.0	709.9	-280.9	-30.9	-39.6%

	Kings	69.0	134.7	-65.7	-43.3	-48.8%
	Madera	68.0	125.9	-57.9	-36.9	-46.0%
	Merced	106.0	300.1	-194.1	-68.4	-64.7%
	San Joaquin	287.0	532.6	-245.6	-31.4	-46.1%
	Stanislaus	269.0	493.4	-224.4	-40.9	-45.5%
	Tulare	219.0	340.8	-121.8	-25.7	-35.7%
	Region Total	**2,145.0**	**3,475.2**	**-1,330.2**	**-30.8**	**-38.3%**
Statewide		**24,696.0**	**39,428.8**	**-14,732.8**	**-37.7**	**-37.4%**

Tier 3 Shortage (-50% or more) Tier 2 Shortage (-25% to -50%) Tier 1 Shortage (-5% to -25%)

Note: Table values are rounded to the first decimal place for display purposes only.

Figure A-3: Psychiatrists: Supply & Demand Data



Overall, the statewide shortage of Psychiatrists is -38%, an estimated shortage of nearly 3,101 providers. On a regional level, the Northern & Sierra, San Joaquin Valley, and Inland Empire regions are facing the most severe shortages, with fewer than 50% of the providers needed to meet their demand. Twenty-two counties within the Northern & Sierra region, seven counties within the San Joaquin Valley region, and both counties within the Inland Empire region are experiencing a tier 3 shortage (-50% or more). In contrast, the Greater Bay Area region is facing the lowest regional level shortage at -25.1%, while Marin County is facing the lowest county level shortage at just under -11%.

Relative to population size, the Northern & Sierra region faces the largest shortage of providers with a gap of -11.2 per 100k, and three of the five highest county level shortages. Los Angeles County faces the lowest regional shortage at -6.2 per 100k, and Sierra County faces the lowest county level shortage at -1.5 per 100k.

In terms of raw provider counts, Los Angeles County has the highest regional and county level shortages at -612.7 providers, more than two times more than the next highest county level shortage.

Table A-3: Psychiatrists: Supply & Demand Data – Current State

Region	County	Estimated Supply (FTE)	Estimated Demand (FTE)	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	43.0	62.2	-19.2	-4.4	-30.8%
	San Benito	2.0	11.1	-9.1	-13.9	-82.0%
	San Luis Obispo	64.0	104.2	-40.2	-14.4	-38.6%
	Santa Barbara	44.0	99.1	-55.1	-12.4	-55.6%
	Santa Cruz	21.0	64.7	-43.7	-16.5	-67.5%
	Ventura	74.0	149.2	-75.2	-9.0	-50.4%
	Region Total	**248.0**	**490.5**	**-242.5**	**-10.5**	**-49.4%**
Greater Bay Area	Alameda	247.0	372.1	-125.1	-7.6	-33.6%
	Contra Costa	134.0	215.8	-81.8	-7.1	-37.9%
	Marin	133.0	148.9	-15.9	-6.2	-10.7%
	Napa	54.0	66.7	-12.7	-9.3	-19.0%
	San Francisco	396.0	475.6	-79.6	-9.5	-16.7%
	San Mateo	170.0	220.8	-50.8	-6.9	-23.0%
	Santa Clara	384.0	521.6	-137.6	-7.3	-26.4%
	Solano	44.0	60.5	-16.5	-3.7	-27.2%
	Sonoma	69.0	95.3	-26.3	-5.5	-27.6%
	Region Total	**1,631.0**	**2,177.2**	**-546.2**	**-7.2**	**-25.1%**
Inland Empire	Riverside	162.0	405.9	-243.9	-10.0	-60.1%
	San Bernardino	179.0	434.2	-255.2	-11.7	-58.8%
	Region Total	**341.0**	**840.0**	**-499.0**	**-10.8**	**-59.4%**
LA County	Los Angeles	1,298.0	1,910.7	-612.7	-6.2	-32.1%
	Region Total	**1,298.0**	**1,910.7**	**-612.7**	**-6.2**	**-32.1%**
Northern & Sierra	Alpine	0.0	0.0	0.0	-2.5	-100.0%
	Amador	2.0	6.3	-4.3	-10.7	-68.1%
	Butte	9.0	18.7	-9.7	-4.7	-51.9%
	Calaveras	4.0	7.3	-3.3	-7.3	-45.0%
	Colusa	0.0	1.7	-1.7	-8.0	-100.0%
	Del Norte	1.0	4.3	-3.3	-12.1	-76.6%
	Glenn	2.0	4.9	-2.9	-10.1	-59.1%
	Humboldt	10.0	19.5	-9.5	-7.1	-48.7%
	Inyo	1.0	2.8	-1.8	-9.5	-64.3%
	Lake	4.0	11.9	-7.9	-11.7	-66.4%
	Lassen	0.0	1.7	-1.7	-5.5	-100.0%
	Mariposa	2.0	3.1	-1.1	-6.5	-35.7%
	Mendocino	3.0	20.9	-17.9	-19.8	-85.7%
	Modoc	0.0	0.5	-0.5	-5.5	-100.0%
	Mono	0.0	0.9	-0.9	-6.6	-100.0%
	Nevada	9.0	18.2	-9.2	-9.1	-50.5%
	Plumas	0.0	1.1	-1.1	-5.6	-100.0%
	Shasta	9.0	25.8	-16.8	-9.3	-65.1%
	Sierra	0.0	0.0	0.0	-1.5	-100.0%
	Siskiyou	1.0	6.9	-5.9	-13.6	-85.6%

	Sutter	5.0	35.7	-30.7	-31.0	-86.0%
	Tehama	1.0	11.4	-10.4	-16.0	-91.2%
	Trinity	1.0	2.5	-1.5	-9.6	-60.5%
	Tuolumne	3.0	7.6	-4.6	-8.4	-60.6%
	Yuba	1.0	12.1	-11.1	-13.5	-91.7%
	Region Total	**68.0**	**225.7**	**-157.7**	**-11.2**	**-69.9%**
Orange County	Orange	364.0	575.5	-211.5	-6.7	-36.8%
	Region Total	**364.0**	**575.5**	**-211.5**	**-6.7**	**-36.8%**
Sacramento	El Dorado	13.0	45.2	-32.2	-17.0	-71.2%
	Placer	52.0	78.7	-26.7	-6.6	-34.0%
	Sacramento	232.0	339.4	-107.4	-6.8	-31.6%
	Yolo	43.0	54.8	-11.8	-5.4	-21.6%
	Region Total	**340.0**	**518.1**	**-178.1**	**-7.5**	**-34.4%**
San Diego Area	Imperial	11.0	27.1	-16.1	-8.9	-59.5%
	San Diego	527.0	755.5	-228.5	-7.0	-30.2%
	Region Total	**538.0**	**782.7**	**-244.7**	**-7.1**	**-31.3%**
San Joaquin Valley	Fresno	73.0	134.6	-61.6	-6.1	-45.8%
	Kern	47.0	132.3	-85.3	-9.4	-64.5%
	Kings	7.0	24.4	-17.4	-11.5	-71.3%
	Madera	4.0	23.4	-19.4	-12.4	-82.9%
	Merced	7.0	48.8	-41.8	-14.7	-85.6%
	San Joaquin	47.0	116.0	-69.0	-8.8	-59.5%
	Stanislaus	23.0	89.3	-66.3	-12.1	-74.2%
	Tulare	16.0	64.3	-48.3	-10.2	-75.1%
	Region Total	**224.0**	**633.0**	**-409.0**	**-9.5**	**-64.6%**
Statewide		**5,052.0**	**8,153.4**	**-3,101.4**	**-7.9**	**-38.0%**

Tier 3 Shortage (-50% or more) Tier 2 Shortage (-25% to -50%) Tier 1 Shortage (-5% to -25%)

Note: Table values are rounded to the first decimal place for display purposes only.

Section B: Model Findings and Projections, Nursing

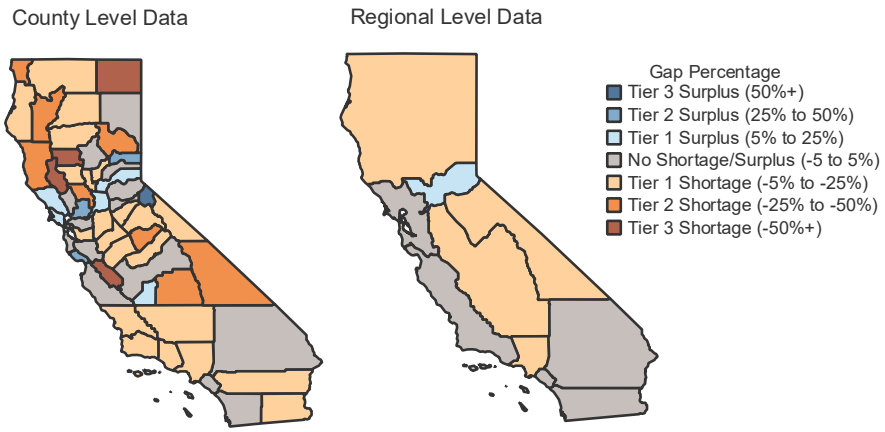
The license types included in the Nursing model were categorized into the following role or role groups based on role similarity and scope of practice: Nurse Anesthetists, Vocational Nurses and Registered Nurses (Registered Nurse, Certified Nurse Specialist, Public Health Nurse, and Psychiatric Mental Health Nurse).

The data presented in this section reflect estimated FTE adjusted counts of *individuals*, rather than total license counts as presented in Sections C-H of this report. Commuting patterns were analyzed for the Registered Nursing role group using a licensee's Address of Record and Primary Practice Address. This allowed us to redistribute individuals who cross county or regional boundaries for work (i.e. live in one county but practice in another), resulting in much more accurate Supply metrics. This is particularly important in urban areas or areas with a high cost of living where commuting is more common (such as the Greater Bay Area). Because of the large sample size needed to perform this analysis, only the Registered Nurse role group received this adjustment. See the HCAI Modeling Methodology for additional details.

Multiple measures of supply and demand are presented below: the raw difference between estimated supply and demand (Supply-Demand Gap), the Gap per 100k (Supply-Demand Gap/(County's Population/100,000)), and the Gap Percentage (Supply-Demand Gap/Demand). Each of these values provides important context to understanding the shortage or surplus of providers within a given area and relative to statewide trends. The raw Supply-Demand Gap indicates the basic difference between the estimated supply and demand and gives a picture of the sheer additional number of providers needed to meet demand. The Gap Percentage illustrates this same shortage on a standardized scale, which allows for direct comparison of severity between geographies and roles. The Gap per 100k provides population context but does not allow for comparison between roles or role groups and does not account for different utilization rates between counties, so comparisons between geographies is unequal. For example, a county may have the highest Gap per 100k without having the highest Gap Percentage.

Supply and Demand projections are provided for the Registered Nursing role group only; future work will include the expansion of our modeling projections to all roles and role groups at the statewide, regional and county levels.

Figure B-1: Registered Nurse: Supply & Demand Data



Overall, there is almost no statewide shortage of Registered Nurses with a gap value just over -2%, an estimated shortage of 6,132 providers. At the regional level, the San Joaquin Valley and Northern & Sierra regions are facing the largest shortages, at -11.5 and -16.6% respectively. Six counties within the San Joaquin Valley are facing a shortage of -5% or more, while nine counties in the Northern & Sierra region are facing a shortage of -25% or more. In contrast, the Sacramento Area region is experiencing the highest regional level surplus at nearly 14%, while Alpine County (56%) and Sierra County (31.8%) are experiencing the two highest county level surpluses. This combination of shortages and surpluses within the same region suggests an issue with maldistribution among Registered Nursing providers.

Relative to population size, the Northern & Sierra region faces the largest shortage of providers with a gap of -125.1 per 100k and holds five of the six highest county level shortages statewide. In contrast, the Sacramento Area region faces the highest regional surplus at 99.8 per 100k.

In terms of raw provider counts, Los Angeles County has the highest regional and county level shortage at -5,210.6 providers, more than five times the next highest county level shortage. The Greater Bay Area region has the highest regional level surplus with 2,475.7 providers, while Sacramento County has the highest county level surplus at 1,879.5 providers.

Table B-1: Registered Nurse: Supply & Demand Data – Current State

Region	County	Estimated Supply (FTE)	Estimated Demand (FTE)	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	2,475.7	2,435.4	40.3	9.2	1.7%
	San Benito	105.1	266.6	-161.5	-246.1	-60.6%
	San Luis Obispo	2,015.7	2,141.7	-126.0	-45.1	-5.9%
	Santa Barbara	2,992.1	3,361.3	-369.2	-83.3	-11.0%
	Santa Cruz	1,694.4	1,328.7	365.8	138.3	27.5%
	Ventura	4,729.8	5,148.6	-418.8	-50.4	-8.1%
	Region Total	**14,012.8**	**14,682.3**	**-669.5**	**-28.9**	**-4.6%**
Greater Bay Area	Alameda	10,224.5	10,778.0	-553.6	-33.7	-5.1%
	Contra Costa	7,092.7	6,759.5	333.2	29.0	4.9%
	Marin	1,871.4	1,602.4	269.0	105.3	16.8%
	Napa	1,495.6	1,474.3	21.3	15.7	1.4%
	San Francisco	10,208.2	9,526.2	682.0	81.1	7.2%
	San Mateo	3,702.9	3,576.1	126.9	17.1	3.5%
	Santa Clara	16,055.5	15,489.2	566.3	29.9	3.7%
	Solano	3,454.4	2,700.8	753.6	168.6	27.9%

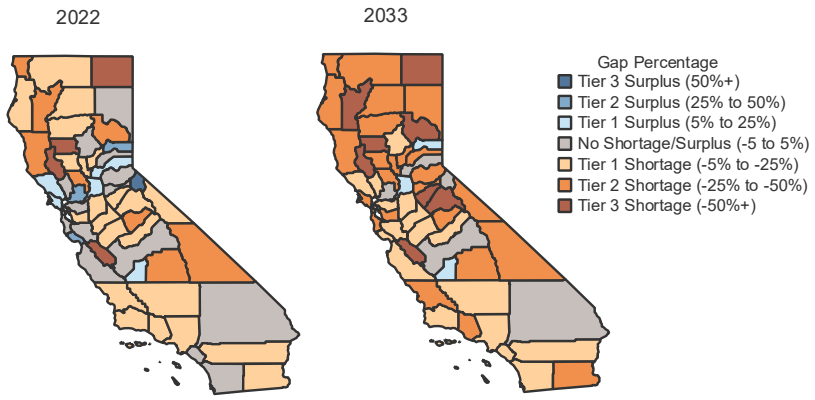
	Sonoma	3,536.2	3,259.2	277.1	57.8	8.5%
	Region Total	**57,641.3**	**55,165.7**	**2,475.7**	**32.6**	**4.5%**
Inland Empire	Riverside	11,430.4	12,125.2	-694.8	-28.6	-5.7%
	San Bernardino	15,023.6	14,952.2	71.4	3.3	0.5%
	Region Total	**26,453.9**	**27,077.4**	**-623.4**	**-13.5**	**-2.3%**
LA County	Los Angeles	67,668.2	72,878.8	-5,210.6	-52.8	-7.1%
	Region Total	**67,668.2**	**72,878.8**	**-5,210.6**	**-52.8**	**-7.1%**
Northern & Sierra	Alpine	8.0	5.1	2.9	241.3	56.0%
	Amador	242.2	241.6	0.6	1.5	0.3%
	Butte	1,970.3	1,972.6	-2.3	-1.1	-0.1%
	Calaveras	122.4	147.4	-25.0	-55.5	-16.9%
	Colusa	73.3	79.3	-6.0	-27.6	-7.6%
	Del Norte	142.8	212.5	-69.6	-258.1	-32.8%
	Glenn	27.1	125.8	-98.7	-343.0	-78.5%
	Humboldt	995.3	1,127.3	-132.0	-98.4	-11.7%
	Inyo	126.0	171.9	-45.9	-242.8	-26.7%
	Lake	234.5	495.4	-260.9	-386.0	-52.7%
	Lassen	140.2	138.8	1.4	4.7	1.0%
	Mariposa	43.6	72.4	-28.8	-169.5	-39.8%
	Mendocino	492.5	793.1	-300.7	-333.3	-37.9%
	Modoc	29.5	93.7	-64.2	-751.0	-68.5%
	Mono	88.0	103.1	-15.2	-116.7	-14.7%
	Nevada	635.0	648.0	-13.0	-12.8	-2.0%
	Plumas	87.8	164.3	-76.5	-397.3	-46.6%
	Shasta	1,593.5	1,773.0	-179.5	-99.6	-10.1%
	Sierra	21.0	16.0	5.1	158.3	31.8%
	Siskiyou	228.7	247.6	-18.8	-43.3	-7.6%
	Sutter	208.4	270.3	-61.9	-62.4	-22.9%
	Tehama	220.6	287.6	-67.0	-103.1	-23.3%
	Trinity	37.7	63.9	-26.2	-164.3	-41.0%
	Tuolumne	410.9	498.3	-87.4	-160.4	-17.5%
	Yuba	708.2	907.0	-198.8	-241.7	-21.9%
	Region Total	**8,887.5**	**10,655.9**	**-1,768.4**	**-125.1**	**-16.6%**
Orange County	Orange	20,478.8	20,994.7	-515.9	-16.3	-2.5%
	Region Total	**20,478.8**	**20,994.7**	**-515.9**	**-16.3**	**-2.5%**
Sacramento	El Dorado	786.4	820.1	-33.7	-17.8	-4.1%
	Placer	4,400.4	3,625.4	775.0	190.2	21.4%
	Sacramento	13,769.4	11,889.9	1,879.5	119.5	15.8%
	Yolo	658.6	895.2	-236.6	-107.5	-26.4%
	Region Total	**19,614.8**	**17,230.6**	**2,384.2**	**99.8**	**13.8%**
San Diego Area	Imperial	719.7	865.9	-146.1	-81.0	-16.9%
	San Diego	25,689.3	24,555.9	1,133.4	34.6	4.6%
	Region Total	**26,409.0**	**25,421.7**	**987.3**	**28.5**	**3.9%**
San Joaquin Valley	Fresno	6,708.9	6,768.1	-59.2	-5.9	-0.9%
	Kern	4,541.4	5,373.7	-832.3	-91.6	-15.5%

	Kings	746.2	695.9	50.3	33.2	7.2%
	Madera	1,206.4	1,506.8	-300.4	-191.3	-19.9%
	Merced	845.9	1,093.5	-247.6	-87.2	-22.6%
	San Joaquin	4,233.5	4,888.7	-655.2	-83.8	-13.4%
	Stanislaus	4,200.1	4,456.0	-255.9	-46.7	-5.7%
	Tulare	2,065.3	2,955.8	-890.4	-187.6	-30.1%
	Region Total	**24,547.8**	**27,738.5**	**-3,190.7**	**-73.9**	**-11.5%**
Statewide		**265,714.1**	**271,845.6**	**-6,131.5**	**-15.7**	**-2.3%**

Tier 1 Shortage (-5% to -25%) | No Shortage/Surplus (-5% to 5%) | Tier 1 Surplus (5% to 25%)
Tier 2 Shortage (-25% to -50%) | Tier 2 Surplus (25% to 50%)
Tier 3 Shortage (-50% or more) | Tier 3 Surplus (50% or more)

Note: Table values are rounded to the first decimal place for display purposes only.

Figure B-2: Registered Nurse: Supply & Demand Projections



Our model projects that the overall statewide shortage of Registered Nurses will increase from -2.3% to nearly -17% by 2033, resulting in a need for 61,141 additional providers to meet the state's demand. At the regional level, all regions except the Sacramento Area are projected to face a shortage of -5% or more, with the Northern & Sierra region facing the highest shortage at -38.2%. At the county level, 51 counties are projected to face a shortage of -5% or more, with the counties within the Northern & Sierra region impacted the most. By 2033, 15 counties will face a tier 2 shortage (-25% to -50%), and seven counties will face a tier 3 shortage (-50% or more). Only three counties statewide are projected to have a surplus of providers by 2033.

Relative to population size, the Northen and Sierra region is projected to face the largest shortage of providers with a gap of -445.3 per 100k, nearly twice that of the next highest regional shortage, and have 18 of the top 20 highest county level shortages. In contrast, the Sacramento Area region is projected to face the lowest regional level shortage at -16.5 per 100k.

In terms of raw provider counts, the Greater Bay Area is projected to surpass Los Angeles County for the highest regional shortage at -17,628 providers. However, Los Angeles County will still maintain the highest county level shortage at -17,357.7 providers. The Sacramento Area region is estimated to have the lowest regional level shortage at -422.1 providers, and Sacramento County is estimated to have the highest county level surplus at 937.7 providers.

Table B-2: Registered Nurse: Supply & Demand Data - Projections

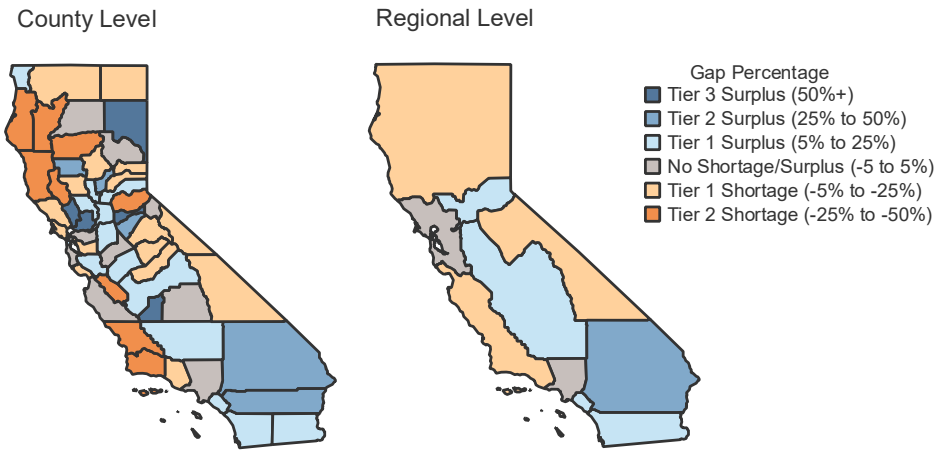
Region	County	2022			2033		
		Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	40.3	9.2	1.7%	-552.8	-118.4	-16.6%
	San Benito	-161.5	-246.7	-60.6%	-242.5	-353.6	-64.9%
	San Luis Obispo	-126.0	-44.9	-5.9%	-952.2	-330.9	-29.9%
	Santa Barbara	-369.2	-83.2	-11.0%	-996.3	-211.7	-22.9%
	Santa Cruz	365.8	137.9	27.5%	-505.6	-192.6	-21.2%
	Ventura	-418.8	-50.4	-8.1%	-1,874.1	-226.9	-25.8%
	Region Total	**-669.5**	**-28.8**	**-4.6%**	**-5,123.6**	**-215.0**	**-24.5%**
Greater Bay Area	Alameda	-553.6	-33.6	-5.1%	-5541.4	-322.8	-32.2%
	Contra Costa	333.3	29.0	4.9%	-1826.2	-154.5	-18.3%
	Marin	269.0	105.1	16.8%	-1235.1	-490.2	-37.4%
	Napa	21.3	15.7	1.4%	-153.2	-115.7	-8.3%
	San Francisco	682.0	80.9	7.2%	-2965.7	-337.1	-20.6%
	San Mateo	126.9	17.0	3.5%	-2279.9	-301.8	-35.3%
	Santa Clara	566.3	29.8	3.7%	-2634.7	-134.0	-12.6%
	Solano	753.6	168.6	27.9%	125.0	26.0	3.2%
	Sonoma	277.1	57.6	8.5%	-1,116.7	-235.7	-21.8%
	Region Total	**2475.7**	**32.5**	**4.5%**	**-17,628.0**	**-224.9**	**-21.2%**
Inland Empire	Riverside	-694.8	-28.6	-5.7%	-2,323.6	-90.6	-14.7%
	San Bernardino	71.4	3.3	0.5%	324.6	14.3	1.9%
	Region Total	**-623.4**	**-13.5**	**-2.3%**	**-1999.0**	**-41.3**	**-6.1%**
LA County	Los Angeles	-5,210.6	-53.0	-7.1%	-17,357.7	-178.5	-18.3%
	Region Total	**-5,210.6**	**-53.0**	**-7.1%**	**-17,357.7**	**-178.5**	**-18.3%**
Northern & Sierra	Alpine	2.9	244.4	56.0%	0.3	29.0	3.2%
	Amador	0.6	1.5	0.3%	-189.6	-447.7	-40.0%
	Butte	-2.3	-1.1	-0.1%	-529.5	-251.5	-19.3%
	Calaveras	-25.0	-55.8	-16.9%	-299.0	-690.9	-68.7%
	Colusa	-6.0	-27.5	-7.6%	-59.1	-272.0	-40.5%
	Del Norte	-69.7	-260.5	-32.8%	-146.9	-597.8	-47.4%
	Glenn	-98.7	-346.9	-78.5%	-176.2	-665.3	-85.1%
	Humboldt	-132.0	-98.0	-11.7%	-473.2	-348.2	-30.0%
	Inyo	-45.9	-243.7	-26.7%	-74.6	-412.2	-35.2%
	Lake	-260.9	-388.3	-52.7%	-480.1	-780.3	-63.7%
	Lassen	1.4	4.7	1.0%	-73.1	-303.6	-32.3%
	Mariposa	-28.8	-169.9	-39.8%	-24.3	-150.7	-33.1%
	Mendocino	-300.7	-334.2	-37.9%	-488.4	-547.9	-46.2%
	Modoc	-64.2	-753.7	-68.5%	-69.8	-887.6	-70.5%
	Mono	-15.2	-114.9	-14.7%	-77.4	-614.8	-46.4%
	Nevada	-13.0	-12.8	-2.0%	-592.1	-606.1	-45.1%
	Plumas	-76.5	-396.7	-46.6%	-226.9	-1313.5	-70.7%
	Shasta	-179.5	-99.9	-10.1%	-690.8	-400.4	-27.7%
	Sierra	5.1	159.2	31.8%	2.8	93.3	14.7%
	Siskiyou	-18.9	-43.5	-7.6%	-234.0	-579.0	-47.8%
	Sutter	-61.9	-62.7	-22.9%	-153.8	-147.1	-38.1%
	Tehama	-67.0	-103.1	-23.3%	-224.8	-345.9	-47.3%
	Trinity	-26.2	-164.8	-41.0%	-62.0	-385.9	-59.0%
	Tuolumne	-87.4	-163.7	-17.5%	-520.3	-972.7	-53.2%
	Yuba	-198.8	-240.5	-21.9%	-357.1	-391.5	-29.6%
	Region Total	**-1,768.4**	**-125.4**	**-16.6%**	**-6,219.4**	**-445.4**	**-38.2%**
Orange County	Orange	-515.9	-16.4	-2.5%	-6,038.9	-187.8	-20.5%
	Region Total	**-515.9**	**-16.4**	**-2.5%**	**-6,038.9**	**-187.8**	**-20.5%**
Sacramento Area	El Dorado	-33.7	-17.8	-4.1%	-825.2	-431.5	-47.9%

	Placer	775.0	189.2	21.4%	81.5	18.3	1.6%
	Sacramento	1,879.5	119.1	15.8%	937.7	55.4	6.2%
	Yolo	-236.6	-106.9	-26.4%	-616.1	-262.2	-44.9%
	Region Total	**2384.2**	**99.4**	**13.8%**	**-422.1**	**-16.5**	**-1.8%**
San Diego Area	Imperial	-146.2	-81.2	-16.9%	-398.8	-205.9	-32.9%
	San Diego	1,133.4	34.4	4.6%	-2,782.1	-81.0	-8.7%
	Region Total	**987.3**	**28.4**	**3.9%**	**-3,180.8**	**-87.7**	**-9.6%**
San Joaquin Valley	Fresno	-59.2	-5.9	-0.9%	-109.9	-10.4	-1.4%
	Kern	-832.3	-91.6	-15.5%	-656.2	-70.8	-10.9%
	Kings	50.3	33.1	7.2%	74.1	45.7	9.6%
	Madera	-300.4	-191.0	-19.9%	-369.7	-220.3	-20.8%
	Merced	-247.6	-86.8	-22.6%	-191.1	-63.9	-16.1%
	San Joaquin	-655.2	-83.6	-13.4%	-616.5	-72.8	-10.9%
	Stanislaus	-255.9	-46.7	-5.7%	-418.4	-75.2	-7.9%
	Tulare	-890.4	-187.5	-30.1%	-884.1	-177.9	-27.5%
	Region Total	**-3,190.7**	**-73.8**	**-11.5%**	**-3,171.7**	**-70.3**	**-10.0%**
Statewide		**-6,131.5**	**-15.7**	**-2.3%**	**-61,141.1**	**-152.5**	**-16.7%**

Tier 1 Shortage (-5% to -25%) | No Shortage/Surplus (-5% to 5%) | Tier 1 Surplus (5% to 25%)
Tier 2 Shortage (-25% to -50%) | Tier 2 Surplus (25% to 50%)
Tier 3 Shortage (-50% or more) | Tier 3 Surplus (50% or more)

Note: Table values are rounded to the first decimal place for display purposes only.

Figure B-3: Vocational Nurse: Supply & Demand Data



Overall, the statewide surplus of Vocational Nurses is just under six percent, an estimated surplus of 3,823 providers. At the regional level, the Central Coast and Northern & Sierra regions are facing the largest shortages, at -15.4% and -6.3% respectively. Three counties within the Central Coast region are facing a shortage of -25% or more, while five counties in the Northern & Sierra region are facing a shortage of -25% or more. In contrast, the Inland Empire region is experiencing the highest regional level surplus at just under 43%, while Lassen County is experiencing the highest county level surplus at more than 200%. This combination of extreme shortages and extreme surpluses within the same region, as well as between regions, suggests an issue with maldistribution among Vocational Nursing providers.

Relative to population size, the Central Coast region faces the largest shortage of providers with a gap of -22.9 per 100k, while the Northern & Sierra region holds the six highest county level shortages statewide. In contrast, the Inland Empire region is experiencing the highest regional surplus at 67.7 per 100k.

In terms of raw provider counts, Los Angeles County has the highest regional and county level shortages at -779.8 providers, more than double the next highest county level shortage. The Inland

Empire region has the highest regional level surplus with 3,118.7 providers, while Riverside County has the highest county level surplus at 1,584.7 providers.

Table B-3: Vocational Nurse: Supply & Demand Data – Current State

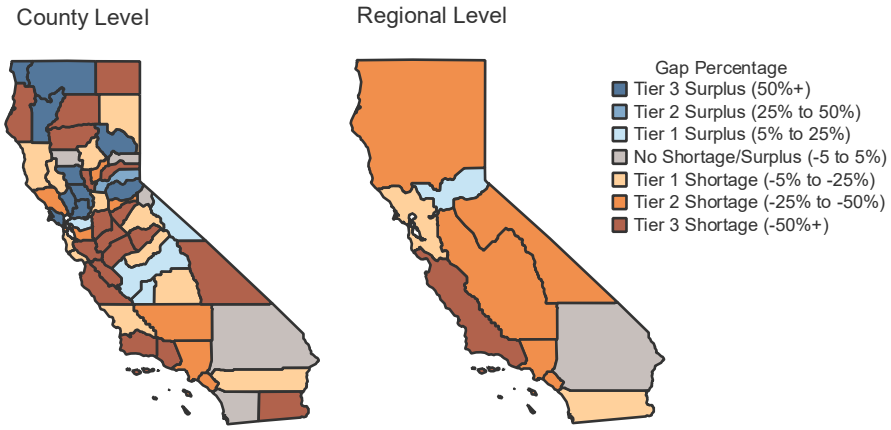
Region	County	Estimated Supply (FTE)	Estimated Demand (FTE)	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	535.4	524.5	10.9	2.5	2.1%
	San Benito	31.9	48.1	-16.1	-24.6	-33.6%
	San Luis Obispo	334.6	451.7	-117.1	-41.9	-25.9%
	Santa Barbara	565.1	760.5	-195.3	-44.1	-25.7%
	Santa Cruz	237.7	285.2	-47.4	-17.9	-16.6%
	Ventura	1202.8	1368.8	-166.1	-20.0	-12.1%
	Region Total	**2907.6**	**3438.7**	**-531.2**	**-22.9**	**-15.4%**
Greater Bay Area	Alameda	2290.7	2611.2	-320.5	-19.5	-12.3%
	Contra Costa	1682.2	1687.9	-5.7	-0.5	-0.3%
	Marin	304.7	390.2	-85.6	-33.5	-21.9%
	Napa	253.5	166.6	86.9	64.1	52.2%
	San Francisco	1024.9	913.1	111.8	13.3	12.2%
	San Mateo	947.0	908.7	38.3	5.2	4.2%
	Santa Clara	2518.4	2331.0	187.4	9.9	8.0%
	Solano	738.4	418.2	320.2	71.6	76.6%
	Sonoma	523.4	690.8	-167.3	-34.9	-24.2%
	Region Total	**10283.1**	**10117.5**	**165.5**	**2.2**	**1.6%**
Inland Empire	Riverside	4951.8	3367.1	1584.7	65.3	47.1%
	San Bernardino	5465.4	3931.4	1534.0	70.4	39.0%
	Region Total	**10417.2**	**7298.5**	**3118.7**	**67.7**	**42.7%**
LA County	Los Angeles	22148.7	22928.5	-779.8	-7.9	-3.4%
	Region Total	**22148.7**	**22928.5**	**-779.8**	**-7.9**	**-3.4%**
Northern & Sierra	Alpine	1.0	1.0	0.0	-1.7	-2.0%
	Amador	68.3	34.7	33.5	83.7	96.4%
	Butte	385.4	491.0	-105.6	-51.2	-21.5%
	Calaveras	68.3	47.0	21.3	47.2	45.2%
	Colusa	49.7	59.0	-9.3	-42.7	-15.7%
	Del Norte	86.9	71.9	15.0	55.6	20.9%
	Glenn	77.6	61.6	15.9	55.4	25.9%
	Humboldt	114.1	182.7	-68.6	-51.1	-37.5%
	Inyo	47.4	53.0	-5.6	-29.5	-10.5%
	Lake	94.7	126.9	-32.2	-47.6	-25.4%
	Lassen	102.9	33.9	69.0	231.3	200+%*
	Mariposa	28.3	29.7	-1.5	-8.8	-5.0%
	Mendocino	102.5	157.2	-54.7	-60.6	-34.8%
	Modoc	25.9	31.0	-5.0	-58.7	-16.2%
	Mono	12.0	13.6	-1.6	-12.2	-11.7%
	Nevada	126.8	157.5	-30.7	-30.4	-19.5%
	Plumas	79.9	76.4	3.5	18.2	4.6%

	Shasta	550.3	533.2	17.2	9.5	3.2%
	Sierra	4.0	4.4	-0.4	-14.0	-10.1%
	Siskiyou	73.6	90.3	-16.7	-38.3	-18.5%
	Sutter	200.4	172.4	28.0	28.2	16.2%
	Tehama	47.4	87.2	-39.8	-61.2	-45.6%
	Trinity	11.5	18.2	-6.7	-42.2	-37.0%
	Tuolumne	110.4	125.8	-15.5	-28.4	-12.3%
	Yuba	91.6	72.9	18.8	22.8	25.8%
	Region Total	**2560.8**	**2732.6**	**-171.8**	**-12.2**	**-6.3%**
Orange County	Orange	5703.6	5361.4	342.2	10.8	6.4%
	Region Total	**5703.6**	**5361.4**	**342.2**	**10.8**	**6.4%**
Sacramento	El Dorado	118.9	187.9	-69.0	-36.4	-36.7%
	Placer	661.8	569.7	92.1	22.6	16.2%
	Sacramento	2565.8	2135.4	430.4	27.4	20.2%
	Yolo	211.6	200.9	10.7	4.9	5.3%
	Region Total	**3558.0**	**3093.8**	**464.3**	**19.4**	**15.0%**
San Diego Area	Imperial	262.7	220.1	42.6	23.6	19.3%
	San Diego	5252.0	4812.9	439.1	13.4	9.1%
	Region Total	**5514.7**	**5033.0**	**481.7**	**13.9**	**9.6%**
San Joaquin Valley	Fresno	1,951.0	1,748.8	202.2	20.0	11.60%
	Kern	1,557.9	1,344.9	212.9	23.4	15.80%
	Kings	315.9	149.1	166.8	109.8	111.9%
	Madera	172.2	212.6	-40.4	-25.7	-19.00%
	Merced	400.7	339.2	61.5	21.6	18.10%
	San Joaquin	1,327.5	1,219.5	108.1	13.8	8.90%
	Stanislaus	1,080.6	1,039.8	40.8	7.5	3.90%
	Tulare	812.7	831.1	-18.3	-3.9	-2.20%
	Region Total	**7,618.6**	**6,884.9**	**733.7**	**17.0**	**10.70%**
Statewide		**70,712.2**	**66,888.9**	**3,823.2**	**9.8**	**5.70%**

Tier 1 Shortage (-5% to -25%)
Tier 2 Shortage (-25% to -50%)
Tier 3 Shortage (-50% or more)
No Shortage/Surplus (-5% to 5%)
Tier 1 Surplus (5% to 25%)
Tier 2 Surplus (25% to 50%)
Tier 3 Surplus (50% or more)

*Surplus percentages are capped at 200%.
Note: Table values are rounded to the first decimal place for display purposes only.

Figure B-4: Nurse Anesthetist: Supply & Demand Data



Overall, the statewide shortage of Nurse Anesthetists is just over 23%, an estimated shortage of 499 providers. Four regions are facing a tier 2 shortage (-25% to -50%), and one region is facing a tier 3 shortage (-50% or more). All six counties within the Central Coast region are facing a shortage of -10% or more, with San Benito County facing one of the highest county level shortages statewide (-100%). In contrast, the Sacramento Area region is experiencing the highest regional level surplus at just under 22%, while the Northern & Sierra region has the top four county level surpluses as well as five counties with a shortage of -100%. This combination of extreme shortages and extreme surpluses within the same region, as well as between neighboring regions, suggests an issue with maldistribution among Nurse Anesthetist providers.

Relative to population size, the Central Coast region faces the largest shortage of providers with a gap of -2.9 per 100k, while Shasta County holds the highest county level shortage at -7 per 100k. In contrast, the Sacramento Area region is experiencing the highest regional surplus of providers at 1.2 per 100k, and Siskiyou County has the highest county level surplus at 17.6 per 100k.

In terms of raw provider counts, Los Angeles County has the highest regional and county level shortages at -174.6 providers. The Sacramento Area region has the highest regional level surplus with 28.7 providers, while Solano County has the highest county level surplus at 16.2 providers.

Table B-4: Nurse Anesthetist: Supply & Demand Data – Current State

Region	County	Estimated Supply (FTE)	Estimated Demand (FTE)	Supply-Demand Gap	Gap Per 100k Pop	Gap Percentage
Central Coast	Monterey	4.0	17.6	-13.6	-3.1	-77.2%
	San Benito	0.0	0.7	-0.7	-1.0	-100.0%
	San Luis Obispo	16.0	18.1	-2.1	-0.7	-11.4%
	Santa Barbara	6.0	26.5	-20.5	-4.6	-77.4%
	Santa Cruz	9.0	10.6	-1.6	-0.6	-15.3%
	Ventura	23.0	51.6	-28.6	-3.4	-55.4%
	Region Total	**58.0**	**125.0**	**-67.0**	**-2.9**	**-53.6%**
Greater Bay Area	Alameda	62.0	85.3	-23.3	-1.4	-27.3%
	Contra Costa	61.0	56.6	4.4	0.4	7.8%
	Marin	22.0	12.0	10.0	3.9	82.8%
	Napa	11.0	4.8	6.2	4.6	127.9%
	San Francisco	47.0	65.8	-18.8	-2.2	-28.6%
	San Mateo	31.0	37.5	-6.5	-0.9	-17.3%
	Santa Clara	48.0	129.8	-81.8	-4.3	-63.0%
	Solano	37.0	20.8	16.2	3.6	77.5%

	Sonoma	15.0	22.8	-7.8	-1.6	-34.2%
	Region Total	**334.0**	**435.5**	**-101.5**	**-1.3**	**-23.3%**
Inland Empire	Riverside	91.0	99.8	-8.8	-0.4	-8.8%
	San Bernardino	101.0	96.7	4.3	0.2	4.4%
	Region Total	**192.0**	**196.5**	**-4.5**	**-0.1**	**-2.3%**
LA County	Los Angeles	382.0	556.6	-174.6	-1.8	-31.4%
	Region Total	**382.0**	**556.6**	**-174.6**	**-1.8**	**-31.4%**
Northern & Sierra	Alpine	0.0	0.0	0.0	0.0	0.0%
	Amador	1.0	1.4	-0.4	-0.9	-26.7%
	Butte	11.0	14.5	-3.5	-1.7	-24.4%
	Calaveras	0.0	0.4	-0.4	-0.9	-100.0%
	Colusa	1.0	0.0	1.0	4.6	200+%*
	Del Norte	1.0	0.5	0.5	1.8	91.0%
	Glenn	0.0	0.0	0.0	0.0	0.0%
	Humboldt	1.0	4.4	-3.4	-2.5	-77.3%
	Inyo	0.0	0.3	-0.3	-1.8	-100.0%
	Lake	1.0	1.3	-0.3	-0.5	-23.7%
	Lassen	1.0	1.3	-0.3	-0.9	-20.4%
	Mariposa	0.0	0.8	-0.8	-4.9	-100.0%
	Mendocino	5.0	5.4	-0.4	-0.4	-6.8%
	Modoc	0.0	0.0	0.0	-0.4	-100.0%
	Mono	1.0	0.9	0.1	1.0	15.3%
	Nevada	1.0	3.7	-2.7	-2.6	-72.7%
	Plumas	1.0	0.1	0.9	4.6	200+%*
	Shasta	2.0	14.6	-12.6	-7.0	-86.3%
	Sierra	0.0	0.0	0.0	0.0	0.0%
	Siskiyou	9.0	1.3	7.7	17.6	200+%*
	Sutter	1.0	3.5	-2.5	-2.6	-71.7%
	Tehama	0.0	2.0	-2.0	-3.1	-100.0%
	Trinity	1.0	0.0	1.0	6.2	200+%*
	Tuolumne	3.0	3.6	-0.6	-1.1	-16.9%
	Yuba	1.0	2.0	-1.0	-1.2	-49.2%
	Region Total	**42.0**	**62.1**	**-20.1**	**-1.4**	**-32.4%**
Orange County	Orange	154.0	238.2	-84.2	-2.7	-35.3%
	Region Total	**154.0**	**238.2**	**-84.2**	**-2.7**	**-35.3%**
Sacramento	El Dorado	20.0	5.7	14.3	7.6	200+%*
	Placer	39.0	26.9	12.1	3.0	45.0%
	Sacramento	85.0	91.2	-6.2	-0.4	-6.8%
	Yolo	16.0	7.6	8.4	3.8	111.1%
	Region Total	**160.0**	**131.3**	**28.7**	**1.2**	**21.9%**
San Diego Area	Imperial	1.0	5.2	-4.2	-2.3	-80.6%
	San Diego	166.0	174.6	-8.6	-0.3	-4.9%
	Region Total	**167.0**	**179.8**	**-12.8**	**-0.4**	**-7.1%**
San Joaquin Valley	Fresno	72.0	61.5	10.5	1.0	17.1%
	Kern	28.0	40.9	-12.9	-1.4	-31.6%

	Kings	3.0	2.7	0.3	0.2	9.9%
	Madera	6.0	8.0	-2.0	-1.3	-24.8%
	Merced	1.0	9.6	-8.6	-3.0	-89.6%
	San Joaquin	9.0	26.8	-17.8	-2.3	-66.4%
	Stanislaus	9.0	37.2	-28.2	-5.1	-75.8%
	Tulare	16.0	20.5	-4.5	-1.0	-22.1%
	Region Total	**144.0**	**207.3**	**-63.3**	**-1.5**	**-30.5%**
Statewide		**1,633.0**	**2,132.2**	**-499.2**	**-1.3**	**-23.4%**

Tier 1 Shortage (-5% to -25%)
Tier 2 Shortage (-25% to -50%)
Tier 3 Shortage (-50% or more)
No Shortage/Surplus (-5% to 5%)
Tier 1 Surplus (5% to 25%)
Tier 2 Surplus (25% to 50%)
Tier 3 Surplus (50% or more)

*Surplus percentages are capped at 200%.
Note: Table values are rounded to the first decimal place for display purposes only.

Section C: Allied Health, All Figures

The professions included in the Allied Health section align with publications from the Health Resources and Services Administration's (HRSA) Bureau of Health Workforce (BHW) and include the following: Advanced Practice Pharmacist, Audiologist, Chiropractor, Doctor of Podiatric Medicine, Hearing Aid Dispenser, Hearing Aid Dispenser Trainee, Licensed Acupuncturist, Occupational Therapist, Occupational Therapy Assistant, Optometrist, Pharmacy Technician, Physical Therapist, Physical Therapist Assistant, Polysomnographic Technician, Polysomnographic Technologist, Registered Contact Lens Dispenser, Registered Pharmacist, Registered Spectacle Lens Dispenser, Respiratory Care Practitioner, Speech Pathologist, and Speech-Language Pathology Assistant.

Figure C-1: Education Location: Allied Health

Over 95% of Allied Health licensees completed their education in the U.S., with nearly 80% receiving their initial qualifying degree within California. Notable license types within the Allied Health Workforce include Audiologists with only 52% receiving their initial qualifying degree in California, and Physical Therapists with over 10% receiving their initial qualifying degree from outside the U.S. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

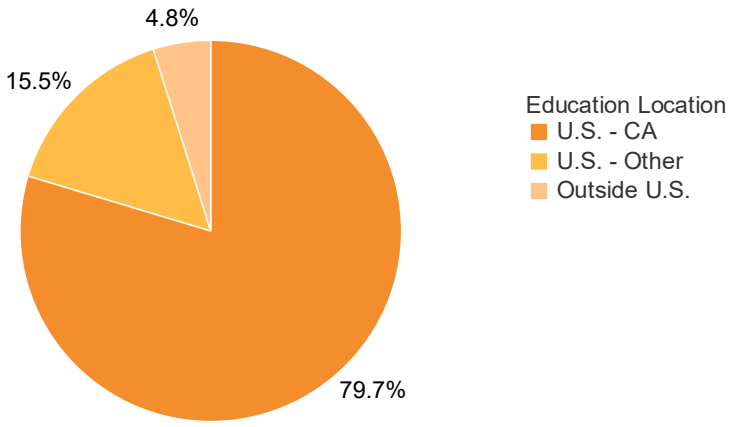
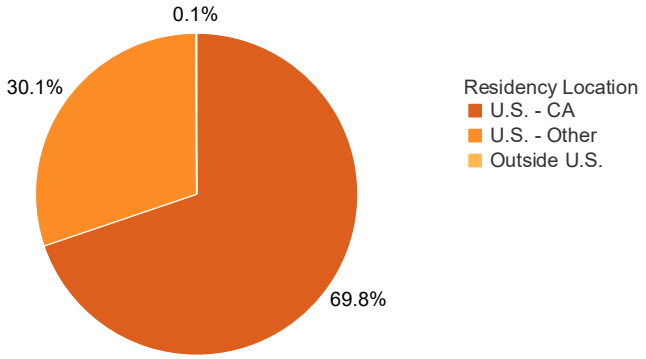


Table C-1: Education Location: Allied Health

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Advanced Practice Pharmacist	74.9%	21.2%	3.9%
Audiologist	52.9%	46.5%	0.6%
Chiropractor	87.6%	11.7%	0.7%
Doctor of Podiatric Medicine	74.0%	25.9%	0.1%
Hearing Aid Dispenser	86.9%	9.3%	3.8%
Hearing Aid Dispenser - Trainee	93.1%	6.9%	0.0%
Licensed Acupuncturist	90.3%	3.1%	6.6%
Occupational Therapist	72.3%	22.1%	5.7%
Occupational Therapy Assistant	86.3%	13.5%	0.2%
Optometrist	75.9%	23.7%	0.4%
Pharmacy Technician	92.2%	3.7%	4.1%
Physical Therapist	66.3%	23.5%	10.2%
Physical Therapist Assistant	82.1%	10.2%	7.7%
Registered Contact Lens Dispenser	93.0%	4.0%	3.0%
Registered Pharmacist	66.3%	26.1%	7.6%
Registered Spectacle Lens Dispenser	91.3%	5.7%	3.0%
Respiratory Care Practitioner	93.2%	6.3%	0.5%
Speech Pathologist	69.2%	28.3%	2.5%
Speech-Language Pathology Assistant	92.9%	6.9%	0.3%
Allied Health Group	**79.7%**	**15.5%**	**4.8%**

Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.

Figure C-2: Residency Location: Allied Health



Doctors of Podiatric Medicine are the only license type within the Allied Health Workforce that requires a residency. Nearly 100% of those licensees reported completing their residency within the U.S., and nearly 70% completed their residency somewhere in California. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

Table C-2: Residency Location: Allied Health

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Doctor of Podiatric Medicine	69.8%	30.1%	0.1%
Allied Health Group	**69.8%**	**30.1%**	**0.1%**

Figure C-3: Employment Status: Allied Health

Over 90% of Allied Health licensees are actively working or seeking work, 1.5% are not working and not seeking work, 1.3% have already retired and just over four percent are working in a different field, the highest of any Health Workforce group. Notable license types within the Allied Health Workforce include Pharmacy Technicians with over 10% actively working in a different field, and nearly three percent of Doctors of Podiatric Medicine, Licensed Acupuncturists and Speech Pathologists reporting already being retired despite their active license status. These metrics will be used in the future to calculate more accurate supply data for each license type.

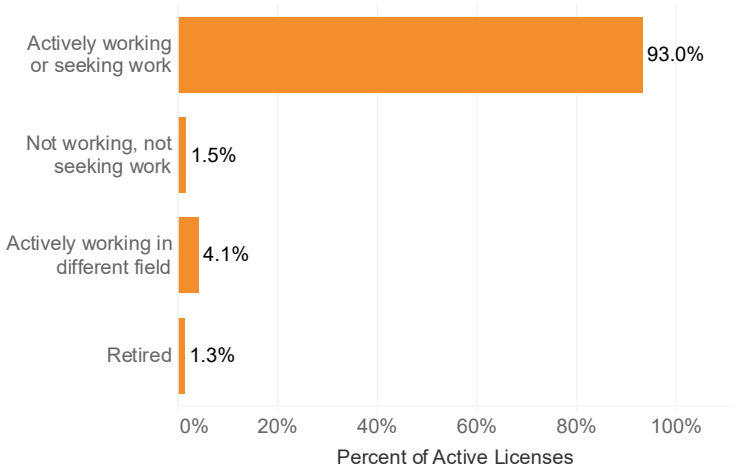
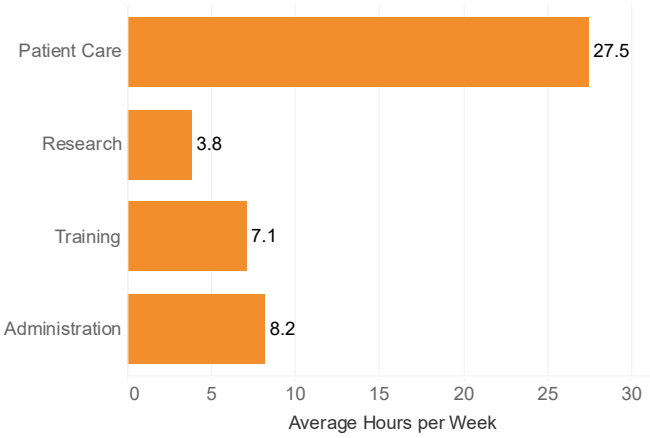


Table C-3: Employment Status: Allied Health

License Name	Actively working or seeking work	Not working, not seeking work	Actively working in different field	Retired
Advanced Practice Pharmacist	98.4%	0.2%	0.9%	0.4%
Audiologist	95.7%	1.6%	0.5%	2.1%
Chiropractor	94.0%	1.2%	2.9%	2.0%
Doctor of Podiatric Medicine	96.7%	0.2%	0.3%	2.8%
Hearing Aid Dispenser	96.0%	1.1%	1.9%	1.0%
Hearing Aid Dispenser - Trainee	97.2%	0.0%	2.8%	0.0%
Licensed Acupuncturist	88.5%	2.6%	6.2%	2.7%
Occupational Therapist	95.6%	2.1%	1.5%	0.8%
Occupational Therapy Assistant	94.8%	1.9%	3.0%	0.3%
Optometrist	97.3%	1.0%	0.6%	1.1%
Pharmacy Technician	86.8%	1.8%	10.9%	0.5%
Physical Therapist	95.9%	1.4%	1.5%	1.2%

Physical Therapist Assistant	95.6%	1.4%	2.7%	0.4%
Registered Contact Lens Dispenser	96.6%	0.5%	2.6%	0.3%
Registered Pharmacist	93.4%	1.4%	2.7%	2.4%
Registered Spectacle Lens Dispenser	95.8%	0.7%	2.8%	0.7%
Respiratory Care Practitioner	96.8%	0.7%	1.9%	0.6%
Speech Pathologist	93.6%	2.1%	1.5%	2.8%
Speech-Language Pathology Assistant	92.5%	1.8%	5.3%	0.4%
Allied Health Group	**93.0%**	**1.5%**	**4.1%**	**1.3%**
Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure C-4: Full-Time Equivalent Metrics: Allied Health

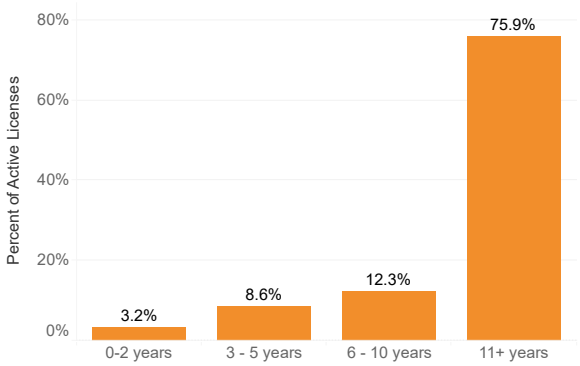


Full Time Equivalent (FTE) metrics were calculated for licensees that reported they were actively working in a position that required their license. On average, Allied Health licensees spend the highest number of hours per week on Patient Care (27.5 hours), and the least amount of time per week on Research (3.8 hours). Notable license types within the Allied Health Workforce include Pharmacy Technicians, who reported spending the least amount of time on Patient Care at only 20.1 hours per week, and Hearing Aid Dispenser - Trainees who reported the highest amounts of time per week on Training (24.4), the highest of any license type across the Health Workforce. These metrics will be used in the future to calculate more accurate supply and demand modeling.

Table C-4: Full-Time Equivalent Metrics: Allied Health

License Name	Patient Care	Research	Training	Admin
Advanced Practice Pharmacist	26.0	4.0	8.0	12.1
Audiologist	30.7	2.1	5.7	8.6
Chiropractor	27.1	4.1	6.0	9.3
Doctor of Podiatric Medicine	33.2	2.5	5.8	8.2
Hearing Aid Dispenser	32.5	4.4	7.3	9.5
Hearing Aid Dispenser - Trainee	24.7	9.9	24.4	10.6
Licensed Acupuncturist	25.5	5.8	5.9	8.2
Occupational Therapist	28.5	2.5	5.7	7.8
Occupational Therapy Assistant	32.2	4.0	7.4	5.6
Optometrist	31.5	1.6	3.5	6.7
Pharmacy Technician	20.1	6.5	9.7	10.1
Physical Therapist	30.9	1.9	5.1	7.2
Physical Therapist Assistant	33.1	3.3	6.6	4.1
Registered Contact Lens Dispenser	29.4	5.4	10.2	11.2
Registered Pharmacist	25.6	3.3	7.1	9.3
Registered Spectacle Lens Dispenser	27.3	5.9	10.3	13.2
Respiratory Care Practitioner	32.4	4.3	9.1	6.0
Speech Pathologist	27.2	2.9	5.8	8.5
Speech-Language Pathology Assistant	29.1	4.9	5.9	6.0
Allied Health Group	**27.5**	**3.8**	**7.1**	**8.2**
Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure C-5: Retirement Estimates: Allied Health



Among Allied Health licensees who reported actively working in a position that required their license, or were actively seeking work in their field, 75.9% estimated retiring in 11 or more years, the highest of any Health Workforce group, and only 3.2% estimated retiring within the next two years. Of note are Chiropractors, Doctors of Podiatric Medicine and Audiologists, with nearly 20% of licensees estimating retiring in the next five years. These metrics will be crucial for calculating more accurate supply and demand models for each license type. In addition, this information may be useful in helping to identify which areas are in most need of funding to maintain the supply of Allied Health licensees across the state.

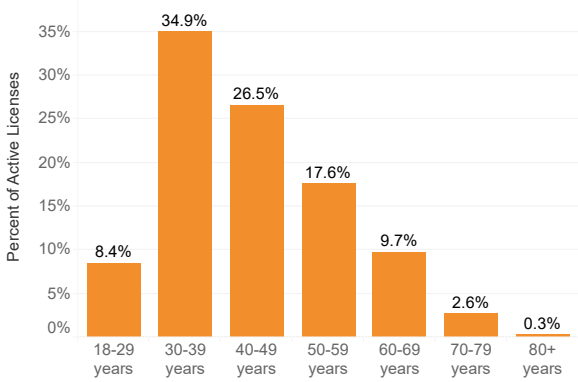
Table C-5: Retirement Estimates: Allied Health

License Name	0-2 years	3 - 5 years	6 - 10 years	11+ years
Advanced Practice Pharmacist	0.7%	5.0%	8.3%	86.0%
Audiologist	6.0%	12.9%	13.6%	67.6%
Chiropractor	5.3%	14.6%	20.5%	59.5%
Doctor of Podiatric Medicine	6.6%	14.9%	16.2%	62.4%
Hearing Aid Dispenser	3.1%	11.3%	14.6%	71.0%
Hearing Aid Dispenser - Trainee	0.0%	0.8%	6.4%	92.9%
Licensed Acupuncturist	3.4%	13.4%	20.1%	63.0%
Occupational Therapist	3.2%	7.4%	11.6%	77.8%
Occupational Therapy Assistant	1.6%	6.9%	12.1%	79.4%
Optometrist	4.7%	12.8%	16.5%	66.0%
Pharmacy Technician	1.8%	5.7%	9.6%	83.0%
Physical Therapist	3.7%	9.1%	13.8%	73.4%
Physical Therapist Assistant	2.9%	7.4%	12.4%	77.3%
Registered Contact Lens Dispenser	4.1%	8.7%	12.5%	74.7%
Registered Pharmacist	3.6%	9.3%	11.9%	75.2%
Registered Spectacle Lens Dispenser	2.9%	9.4%	12.6%	75.1%
Respiratory Care Practitioner	3.4%	7.9%	11.6%	77.2%
Speech Pathologist	3.4%	9.1%	10.8%	76.7%
Speech-Language Pathology Assistant	0.9%	3.2%	6.0%	89.8%
Allied Health Group	**3.2%**	**8.6%**	**12.3%**	**75.9%**

Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.

Figure C-6: Age Distribution: Allied Health

Overall, nearly 80% of Allied Health licensees are between the ages of 30 and 59 years old, with 12.6% over the age of 59 and just over eight percent under the age of 30, the highest percentage among all Health Workforce groups. License types with younger licensees include Hearing Aid Dispenser Trainees, Polysomnographic Technicians, and Speech-Language Pathology Assistants with over 65% of licensees under the age of 40. License types with older licensees include

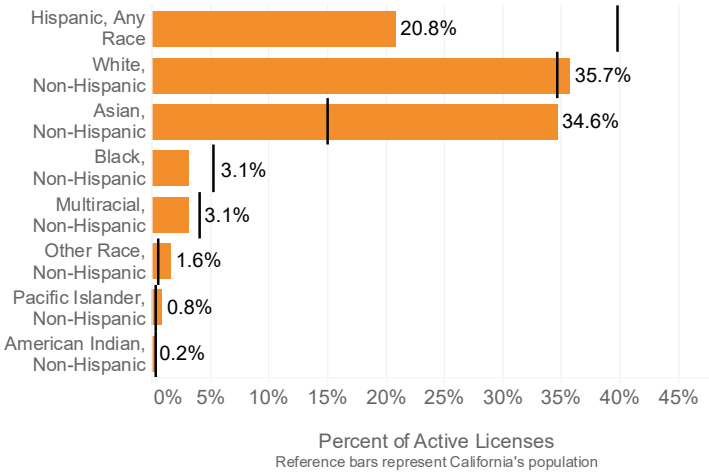


Acupuncturists, Chiropractors and Doctors of Podiatric Medicine with more than 30% over the age of 59.

Table C-6: Age Distribution: Allied Health

License Name	18-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years
Advanced Practice Pharmacist	2.4%	45.3%	35.5%	11.9%	4.0%	0.9%	0.0%
Audiologist	6.3%	30.5%	23.9%	19.9%	14.2%	5.0%	0.2%
Chiropractor	4.1%	22.0%	21.0%	25.3%	20.1%	6.9%	0.6%
Doctor of Podiatric Medicine	0.1%	22.7%	23.2%	23.4%	16.8%	12.5%	1.4%
Hearing Aid Dispenser	3.9%	25.3%	24.2%	23.9%	18.2%	4.2%	0.3%
Hearing Aid Dispenser - Trainee	32.4%	38.2%	20.6%	7.4%	1.5%	0.0%	0.0%
Licensed Acupuncturist	0.4%	11.0%	25.7%	28.3%	22.3%	10.9%	1.4%
Occupational Therapist	7.9%	37.7%	24.9%	17.6%	9.6%	2.3%	0.1%
Occupational Therapy Assistant	8.9%	39.8%	24.7%	17.4%	8.3%	0.9%	0.0%
Optometrist	1.7%	28.7%	24.5%	21.1%	15.2%	7.4%	1.3%
Pharmacy Technician	18.2%	37.4%	26.1%	13.1%	4.7%	0.5%	0.0%
Physical Therapist	4.9%	35.4%	27.1%	19.5%	10.9%	2.0%	0.1%
Physical Therapist Assistant	6.9%	37.3%	24.5%	19.6%	10.7%	0.8%	0.0%
Polysomnographic Technician	26.3%	39.5%	28.9%	5.3%	0.0%	0.0%	0.0%
Polysomnographic Technologist	2.1%	24.1%	39.5%	24.1%	8.7%	1.0%	0.5%
Registered Contact Lens Dispenser	6.4%	26.6%	27.8%	20.1%	14.6%	4.0%	0.5%
Registered Pharmacist	4.8%	41.4%	28.7%	15.8%	7.0%	2.0%	0.2%
Registered Spectacle Lens Dispenser	10.3%	29.7%	23.8%	18.4%	13.1%	4.0%	0.6%
Respiratory Care Practitioner	7.0%	32.8%	29.9%	18.6%	10.3%	1.4%	0.0%
Speech Pathologist	6.7%	38.3%	26.8%	16.1%	8.7%	3.1%	0.3%
Speech-Language Pathology Assistant	24.8%	43.3%	18.3%	9.1%	4.1%	0.5%	0.0%
Allied Health Group	**8.4%**	**34.9%**	**26.5%**	**17.6%**	**9.7%**	**2.6%**	**0.3%**

Figure C-7: Race/Ethnicity: Allied Health



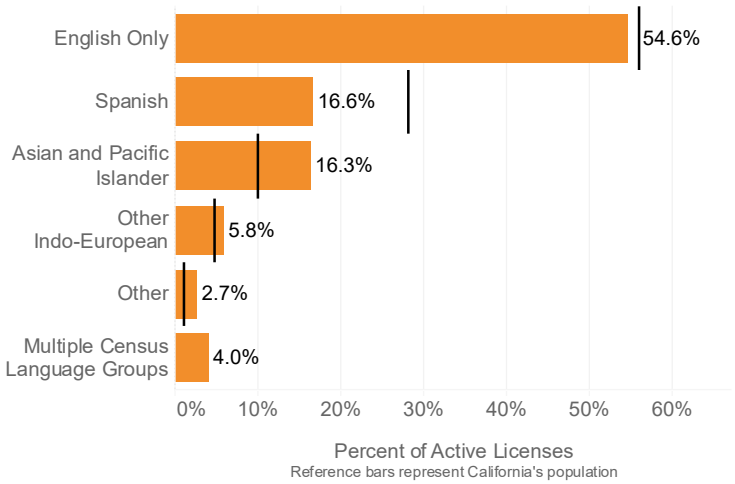
Across the Allied Health Workforce, Hispanic, Any Race and Black, Non-Hispanic licensees are the most underrepresented when compared to California's population, with only five license types at or above the population average for Hispanic, Any Race and only one license type at or above the population average for Black, Non-Hispanic. Conversely, Asian, Non-Hispanic licensees are the most well represented with 16 license types at or above the population average. White, Non-Hispanic licensees are well represented in the Allied Health Workforce on average but still make up more than 50% of all licensees in six different license types. Future work will include the addition of a Middle Eastern and North African (MENA) category following the revised Statistical Policy Directive 15 guidelines.

Table C-7: Race/Ethnicity: Allied Health

License Name	Hispanic, Any Race	White, NH	Asian, NH	Black, NH	Multiracial, NH	Other Race, NH	Pacific Islander, NH	American Indian, NH
Advanced Practice Pharmacist	4.6%	31.3%	57.3%	2.1%	2.9%	1.3%	0.3%	0.2%
Audiologist	11.7%	63.5%	16.4%	4.0%	3.1%	1.2%	0.1%	0.0%
Chiropractor	12.2%	61.7%	18.4%	1.9%	2.9%	2.3%	0.4%	0.3%
Doctor of Podiatric Medicine	5.6%	57.1%	28.8%	2.3%	2.8%	2.7%	0.5%	0.3%
Hearing Aid Dispenser	29.8%	50.6%	10.7%	1.9%	4.3%	2.0%	0.0%	0.7%
Hearing Aid Dispenser – Trainee	45.7%	37.3%	11.0%	1.6%	4.4%	0.0%	0.0%	0.0%
Licensed Acupuncturist	4.8%	30.9%	59.5%	0.6%	2.4%	1.4%	0.2%	0.1%
Occupational Therapist	12.4%	47.4%	32.5%	2.1%	3.5%	1.5%	0.6%	0.1%
Occupational Therapy Assistant	26.5%	35.0%	28.0%	4.5%	3.4%	1.3%	1.1%	0.2%
Optometrist	6.3%	32.3%	56.3%	0.7%	2.2%	1.7%	0.5%	0.1%
Pharmacy Technician	42.2%	19.6%	27.3%	4.8%	2.8%	1.7%	1.4%	0.3%
Physical Therapist	9.8%	51.5%	31.1%	1.6%	3.9%	1.5%	0.6%	0.1%
Physical Therapist Assistant	22.0%	37.3%	31.0%	2.9%	3.7%	1.5%	1.3%	0.3%
Registered Contact Lens Dispenser	42.6%	30.5%	17.4%	3.2%	2.9%	2.0%	1.2%	0.2%
Registered Pharmacist	4.2%	26.9%	61.6%	2.7%	2.3%	1.9%	0.3%	0.1%
Registered Spectacle Lens Dispenser	42.1%	31.4%	17.9%	2.8%	3.2%	1.6%	0.9%	0.2%
Respiratory Care Practitioner	29.7%	29.9%	27.0%	5.7%	3.7%	1.8%	2.0%	0.3%
Speech Pathologist	16.9%	60.8%	15.0%	2.4%	3.4%	1.2%	0.2%	0.1%
Speech-Language Pathology Assistant	53.5%	28.5%	9.9%	3.3%	3.3%	1.1%	0.2%	0.2%
Allied Health Group	**20.8%**	**35.7%**	**34.6%**	**3.1%**	**3.1%**	**1.6%**	**0.8%**	**0.2%**
California's Population	**39.8%**	**34.6%**	**15.1%**	**5.3%**	**4.1%**	**0.5%**	**0.3%**	**0.3%**

Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals. NH = Non-Hispanic

Figure C-8: Languages Spoken: Allied Health

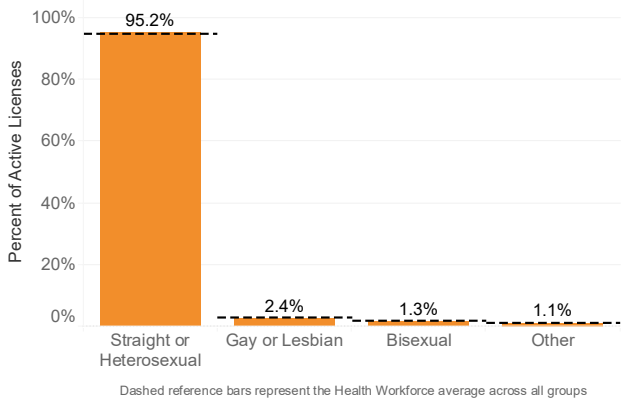


On average, Spanish is the most underrepresented language in the Allied Health Workforce when compared to California's population, with only five license types at or above the population average. Asian and Pacific Islander languages are represented well above the population average overall, however this is largely driven by the high rates among Licensed Acupuncturists, Registered Pharmacists and Advanced Practice Pharmacists, as these languages are at or below the population average in nine of the individual license types. Similarly, Other Indo-European languages are also represented above the population average in the Allied Health Workforce overall, largely driven by the high rates among Registered Pharmacists and Advanced Practice Pharmacists. Within the Allied Health Workforce, Other Indo-European languages are still underrepresented in more than half of the individual license types.

Table C-8: Languages Spoken: Allied Health

License Name	English Only	Spanish	Asian and Pacific Islander	Other Indo-European	Other	Multiple Census Language Groups
Advanced Practice Pharmacist	50.1%	6.0%	23.4%	10.7%	6.0%	3.9%
Audiologist	69.5%	11.7%	5.2%	4.0%	5.4%	4.1%
Chiropractor	62.0%	14.5%	9.3%	6.7%	2.0%	5.5%
Doctor of Podiatric Medicine	57.8%	13.4%	10.1%	9.3%	2.1%	7.4%
Hearing Aid Dispenser	65.8%	20.2%	6.1%	2.2%	1.9%	3.8%
Hearing Aid Dispenser - Trainee	42.3%	43.2%	7.7%	1.4%	2.7%	2.7%
Licensed Acupuncturist	35.9%	5.4%	47.9%	4.1%	1.0%	5.7%
Occupational Therapist	66.5%	11.7%	12.1%	4.3%	1.7%	3.6%
Occupational Therapy Assistant	56.4%	20.4%	13.6%	3.0%	1.9%	4.7%
Optometrist	48.2%	16.7%	17.1%	4.7%	1.6%	11.7%
Pharmacy Technician	43.7%	29.6%	15.5%	5.9%	2.7%	2.6%
Physical Therapist	64.2%	12.7%	11.8%	5.4%	1.4%	4.6%
Physical Therapist Assistant	55.8%	20.0%	13.4%	3.8%	1.5%	5.5%
Registered Contact Lens Dispenser	51.0%	31.0%	8.8%	3.9%	1.9%	3.3%
Registered Pharmacist	48.8%	3.8%	27.2%	10.4%	5.5%	4.3%
Registered Spectacle Lens Dispenser	50.7%	31.2%	9.1%	4.0%	2.1%	3.0%
Respiratory Care Practitioner	60.4%	17.7%	12.7%	4.9%	2.3%	2.1%
Speech Pathologist	73.0%	13.2%	4.1%	4.2%	2.7%	2.9%
Speech-Language Pathology Assistant	52.2%	34.2%	3.3%	2.5%	3.8%	3.9%
Allied Heath Group	**54.6%**	**16.6%**	**16.3%**	**5.8%**	**2.7%**	**4.0%**
California's Population	**55.9%**	**28.2%**	**10%**	**4.8%**	**1.1%**	**N/A**
Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.						

Figure C-9: Sexual Orientation: Allied Health



As a group, the majority (95.2%) of Allied Health licensees reported identifying as Straight or Heterosexual, and 2.4% reported identifying as Gay or Lesbian. Licensees identifying as Bisexual and Other were nearly even at just over one percent each. Within the Allied Health Workforce, six license types reported identifying as Gay or Lesbian or Other at or above the workforce average, and 10 reported identifying as Bisexual at or above the workforce average. Notably, Registered Spectacle Lens Dispensers, Registered Contact Lens Dispensers and Hearing Aid Dispenser – Trainees reported above averages rates for all three minority Sexual Orientations.

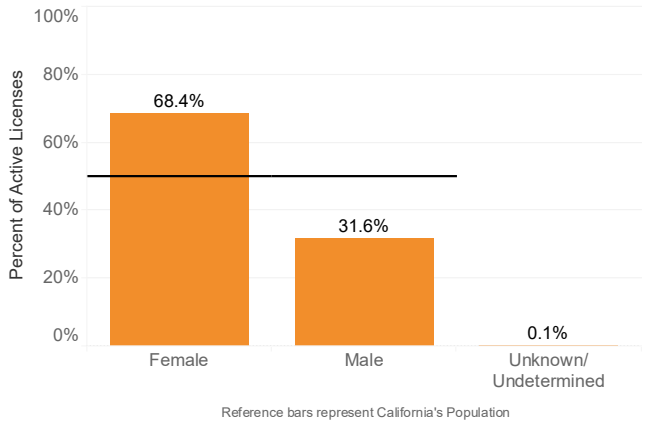
Table C-9: Sexual Orientation: Allied Health

License Name	Straight or Heterosexual	Gay or Lesbian	Bisexual	Other
Advanced Practice Pharmacist	95.9%	2.4%	1.0%	0.6%
Audiologist	94.5%	2.9%	2.0%	0.6%
Chiropractor	95.8%	2.9%	0.7%	0.6%
Doctor of Podiatric Medicine	98.0%	1.4%	0.3%	0.3%
Hearing Aid Dispenser	96.5%	1.8%	0.7%	1.0%
Hearing Aid Dispenser - Trainee	90.5%	6.7%	1.8%	1.1%

Licensed Acupuncturist	92.1%	2.7%	2.0%	3.2%
Occupational Therapist	94.7%	2.4%	2.0%	0.9%
Occupational Therapy Assistant	94.6%	2.7%	1.9%	0.9%
Optometrist	98.0%	1.4%	0.4%	0.3%
Pharmacy Technician	93.6%	2.5%	1.9%	2.1%
Physical Therapist	95.7%	2.8%	1.0%	0.5%
Physical Therapist Assistant	96.0%	2.7%	0.7%	0.6%
Registered Contact Lens Dispenser	91.7%	3.5%	1.9%	2.9%
Registered Pharmacist	96.8%	1.9%	0.7%	0.6%
Registered Spectacle Lens Dispenser	90.7%	4.5%	2.8%	2.1%
Respiratory Care Practitioner	96.5%	2.1%	0.7%	0.7%
Speech Pathologist	94.8%	2.3%	2.1%	0.8%
Speech-Language Pathology Assistant	96.0%	1.1%	2.1%	0.8%
Allied Health Group	**95.2%**	**2.4%**	**1.3%**	**1.1%**
Health Workforce Average	**94.5%**	**2.8%**	**1.7%**	**1.0%**

Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.

Figure C-10: Sex at Birth: Allied Health



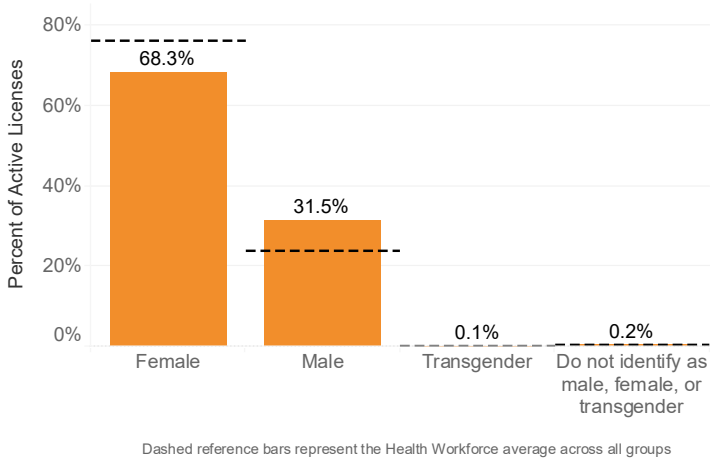
As a group, the majority (68.4%) of Allied Health licensees reported identifying as Female, and 31.6% reported identifying as Male. Only 0.1% of Licensees identified as Unknown/Undetermined. Of note, over 85% of Occupational Therapists and over 94% of Speech Pathologists and Speech-Language Pathology Assistants identified as Female, while over 66% of Chiropractors and Doctors of Podiatric Medicine identified as Male, the two highest rates among all license types within the Health Workforce identifying as Male.

Table C-10: Sex at Birth: Allied Health

License Name	Female	Male	Unknown/Undetermined
Advanced Practice Pharmacist	68.2%	31.5%	0.3%
Audiologist	81.0%	19.0%	0.0%
Chiropractor	33.2%	66.7%	0.1%
Doctor of Podiatric Medicine	31.0%	68.8%	0.1%
Hearing Aid Dispenser	53.0%	47.0%	0.0%
Hearing Aid Dispenser - Trainee	68.9%	31.1%	0.0%
Licensed Acupuncturist	62.9%	37.0%	0.1%
Occupational Therapist	86.9%	13.1%	0.0%
Occupational Therapy Assistant	77.1%	22.8%	0.1%
Optometrist	62.3%	37.6%	0.0%
Pharmacy Technician	76.1%	23.8%	0.1%
Physical Therapist	63.8%	36.2%	0.0%
Physical Therapist Assistant	54.2%	45.7%	0.1%
Registered Contact Lens Dispenser	64.8%	34.7%	0.4%
Registered Pharmacist	62.9%	37.1%	0.0%
Registered Spectacle Lens Dispenser	60.5%	39.3%	0.2%
Respiratory Care Practitioner	53.0%	47.0%	0.1%
Speech Pathologist	94.0%	6.0%	0.0%
Speech-Language Pathology Assistant	94.9%	5.1%	0.1%

Allied Health Group	**68.4%**	**31.6%**	**0.1%**
California's Population	**50.0%**	**50.0%**	**N/A**
Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.			

Figure C-11: Gender Identity: Allied Health

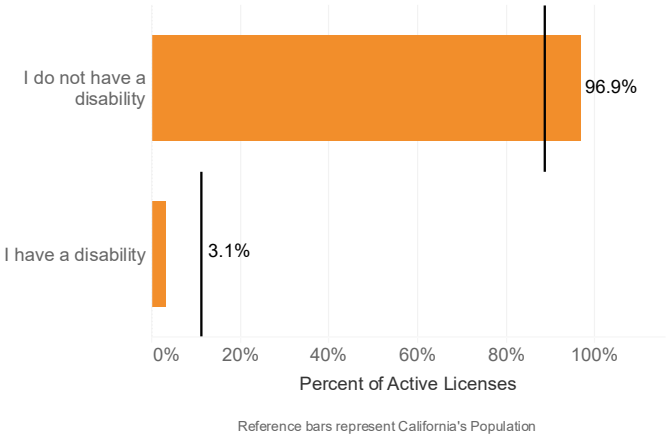


As a group, the majority (68.3%) of Allied Health licensees reported identifying as Female, and 31.5% reported identifying as Male. Licensees identifying as Transgender or not identifying as Male, Female or Transgender were nearly even at 0.1% and 0.2% each. Of note, over 85% of Occupational Therapists and over 90% of Speech Pathologists and Speech-Language Pathology Assistants identified as Female, while over 65% of Chiropractors and Doctors of Podiatric Medicine identified as Male, the two highest rates among all license types within the Health Workforce identifying as Male.

Table C-11: Gender Identity: Allied Health

License Name	Female	Male	Transgender	Do not identify as male, female, or transgender
Advanced Practice Pharmacist	68.1%	31.3%	0.0%	0.6%
Audiologist	81.0%	18.5%	0.2%	0.2%
Chiropractor	33.2%	66.7%	0.0%	0.0%
Doctor of Podiatric Medicine	30.9%	69.0%	0.0%	0.1%
Hearing Aid Dispenser	54.0%	45.7%	0.0%	0.3%
Hearing Aid Dispenser - Trainee	68.8%	31.2%	0.0%	0.0%
Licensed Acupuncturist	62.4%	36.9%	0.2%	0.5%
Occupational Therapist	86.7%	13.0%	0.1%	0.2%
Occupational Therapy Assistant	76.8%	22.8%	0.2%	0.3%
Optometrist	62.3%	37.5%	0.1%	0.1%
Pharmacy Technician	75.9%	23.7%	0.2%	0.2%
Physical Therapist	63.7%	36.1%	0.1%	0.1%
Physical Therapist Assistant	54.1%	45.7%	0.0%	0.1%
Registered Contact Lens Dispenser	66.4%	33.3%	0.0%	0.3%
Registered Pharmacist	62.9%	37.0%	0.0%	0.1%
Registered Spectacle Lens Dispenser	60.5%	38.9%	0.3%	0.4%
Respiratory Care Practitioner	52.9%	46.9%	0.1%	0.1%
Speech Pathologist	93.7%	5.9%	0.2%	0.2%
Speech-Language Pathology Assistant	94.5%	5.1%	0.2%	0.2%
Allied Health Group	**68.3%**	**31.5%**	**0.1%**	**0.2%**
Health Workforce Average	**79.5%**	**23.8%**	**0.1%**	**0.2%**
Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure C-12: Disability Status: Allied Health



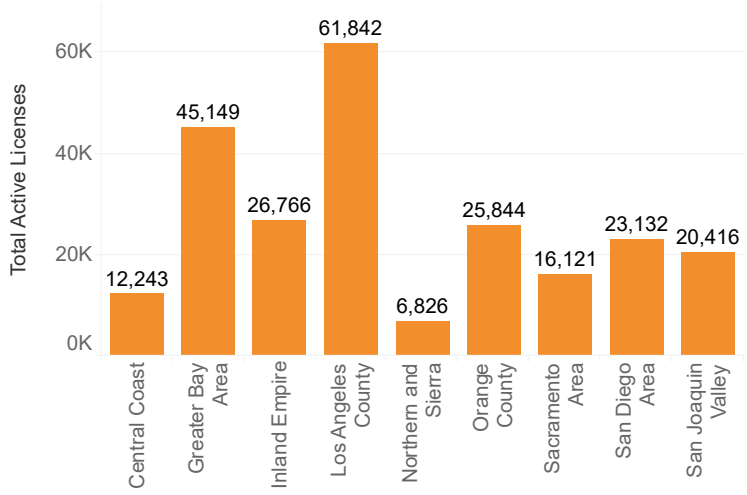
On average, 96.9% of Allied Health licensees did not identify as having a disability, while 3.1% reported having a disability. Within the Allied Health Workforce, Audiologists (6.3%), Hearing Aid Dispensers (5.6%), and Hearing Aid Dispenser – Trainees (7.6%) reported the highest rates of having a disability, while Optometrists reported the lowest at just over one percent.

Table C-12: Disability Status: Allied Health

License Name	I do not have a disability	I have a disability
Advanced Practice Pharmacist	97.7%	2.3%
Audiologist	93.7%	6.3%
Chiropractor	96.1%	3.9%
Doctor of Podiatric Medicine	97.2%	2.8%
Hearing Aid Dispenser	94.4%	5.6%
Hearing Aid Dispenser – Trainee	92.4%	7.6%
Licensed Acupuncturist	97.5%	2.5%
Occupational Therapist	96.0%	4.0%
Occupational Therapy Assistant	96.4%	3.6%
Optometrist	98.6%	1.4%
Pharmacy Technician	96.4%	3.6%
Physical Therapist	97.7%	2.3%
Physical Therapist Assistant	97.6%	2.4%
Registered Contact Lens Dispenser	96.6%	3.4%
Registered Pharmacist	97.6%	2.4%
Registered Spectacle Lens Dispenser	95.8%	4.2%
Respiratory Care Practitioner	96.5%	3.5%
Speech Pathologist	96.1%	3.9%
Speech-Language Pathology Assistant	96.4%	3.6%
Allied Health Group	**96.9%**	**3.1%**
California's Population	**88.7%**	**11.3%**

Note: Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.

Figure C-13: Active Licenses: Allied Health



As a group, the Los Angeles County region has the highest total number of Allied Health licenses in the state while the Northern & Sierra region has the fewest. Within the Allied Health Workforce, Pharmacy Technicians make up the largest proportion, representing nearly 26% of all active licenses. In general, more specialized licenses (such as Polysomnographic Technologists) tend to have much lower license counts while more generalized licenses (such as Pharmacy Technicians) have substantially higher counts. For detailed metrics on how the distribution of these active licenses compares to the population (see Figure C-15: Distribution Index: Allied Health).

Table C-13: Active Licenses: Allied Health

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Advanced Prtice Pharmacist	28	217	112	424	21	226	95	116	72
Audiologist	76	409	98	365	24	162	129	217	81
Chiropractor	790	2,453	753	2,683	381	1,410	578	1,050	590
Doctor of Podiric Medicine	111	513	156	578	63	223	124	157	150
Hearing Aid Dspenser	73	181	142	222	50	129	75	102	110
Hearing Aid Dspenser - Trainee	12	38	15	44	7	5	6	16	19
Licensed Acupturist	585	2,701	418	3,156	191	1,200	239	996	120
Occupational Tapist	985	3,606	1,121	4,118	333	1,604	865	1,594	684
Occupational Tapy Assistant	131	182	673	1,224	102	534	331	492	279
Optometrist	354	1,869	657	1,862	157	951	427	640	452
Pharmacy Teccian	2,732	9,562	8,637	17,099	1,947	4,514	4,156	5,470	7,637
Physical Theraist	1,971	6,085	2,143	6,026	908	2,922	1,917	3,197	1,660
Physical Theraist Assistant	465	1,147	1,300	2,111	403	880	507	857	883
Polysomnograc Technician	15	26	29	22	10	3	19	2	29
Polysomnograc Technologist	43	136	62	68	18	62	68	30	55
Registered Coact Lens Dispenser	89	251	223	282	41	95	101	137	151
Registered Phmacist	1,460	8,792	3,100	10,481	780	6,716	3,126	3,659	2,916
Registered Sptacle Lens Dispenser	180	565	505	786	84	274	214	357	306
Respiratory Cae Practitioner	796	2,661	4,102	4,725	653	1,413	1,539	1,764	2,257
Speech Pathoogist	1,168	3,449	1,662	3,925	550	1,825	1,222	2,018	1,492
Speech-Languathology Assistant	179	306	858	1,641	103	696	383	261	473
Allied Health oup	**12,243**	**45,149**	**26,766**	**61,842**	**6,826**	**25,844**	**16,121**	**23,132**	**20,416**

Figure C-14: New Licenses: Allied Health

On average, there were 1,320 new active Allied Health licenses issued per month from October 2023 to October 2024. Within the Allied Health Workforce, Pharmacy Technicians make up the largest portion by total volume with an average of 482 new licenses issued per month, while Hearing Aid Dispenser – Trainees had the highest average issue rate relative to their total volume at just over seven percent. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

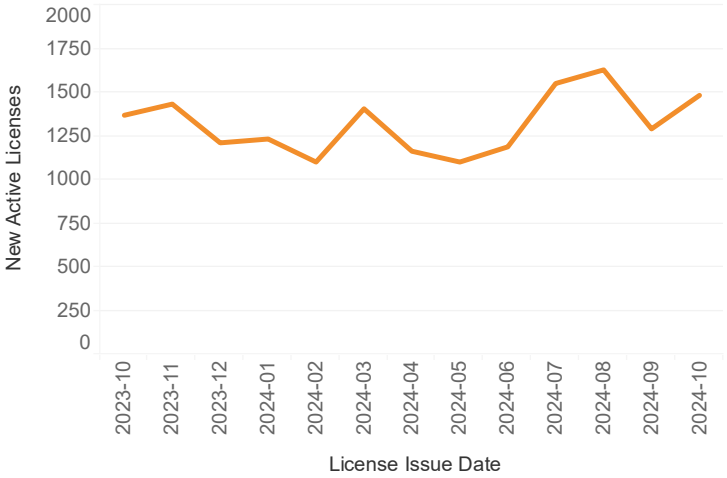
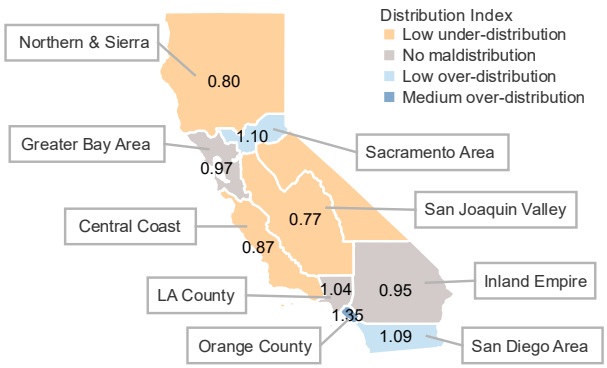


Table C-14: New Licenses: Allied Health

License Name	2023-10	2023-11	2023-12	2024-01	2024-02	2024-03	2024-04	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10
Advanced Prtice Pharmacist	17	2	11	7	13	11	18	19	40	3	25	6	22
Audiologist	24	9	7	3	1	3	1	1	13	22	12	11	11
Chiropractor	31	13	11	35	56	30	27	27	30	29	19	15	35
Doctor of Podiric Medicine	2	2	5	8	2	8	7	12	4	8	1	2	3
Hearing Aid Dspenser	9	10	0	21	10	12	17	5	2	15	11	0	18
Hearing Aid Dspenser - Trainee	5	6	9	3	12	19	12	8	15	20	18	12	15
Licensed Acupturist	31	29	30	27	21	30	23	16	24	27	27	11	29
Occupational Tapist	94	96	90	71	69	89	90	81	49	89	75	84	80
Occupational Tapy Assistant	39	28	30	23	16	25	26	32	17	20	19	21	22
Optometrist	9	5	5	6	10	5	4	66	51	23	17	17	17
Pharmacy Teccian	393	551	569	438	380	766	459	419	433	457	334	451	621
Physical Theraist	48	196	96	78	147	83	54	101	66	75	375	145	22
Physical Theraist Assistant	108	50	26	89	27	33	47	39	13	164	65	14	135
Polysomnograc Technician	1	2	3	3	1	1	5	3	1	2	2	2	1
Polysomnograc Technologist	2	1	1	0	3	0	1	0	2	0	2	0	0
Registered Coact Lens Dispenser	11	11	8	19	10	8	17	12	12	11	11	19	14
Registered Phmacist	154	198	72	48	84	34	152	35	19	162	221	250	122
Registered Sptacle Lens Dispenser	29	25	27	39	25	18	28	28	25	27	28	31	35
Respiratory Cae Practitioner	131	43	65	86	71	100	53	68	127	138	126	55	138
Speech Pathoogist	155	113	109	95	70	84	71	87	99	144	159	98	122
Speech-Languathology Assistant	76	43	37	134	73	47	51	42	146	115	82	47	21
Allied Health oup	**1,369**	**1,433**	**1,211**	**1,233**	**1,101**	**1,406**	**1,163**	**1,101**	**1,188**	**1,551**	**1,629**	**1,291**	**1,483**

Figure C-15: Distribution Index: Allied Health



The distribution index describes the magnitude of difference between a region's share of the state's licenses and its share of the state's population. A distribution index of 1 indicates the region has an equal share of the state's licenses and population (e.g., 10% of the state's licenses and 10% of the state's population). A distribution index below 1 indicates a smaller share of licenses than population (e.g., 5% of the state's licenses and 10% of the state's population), and a distribution index greater than 1 indicates the opposite. The further away the index is from 1, the greater the maldistribution.

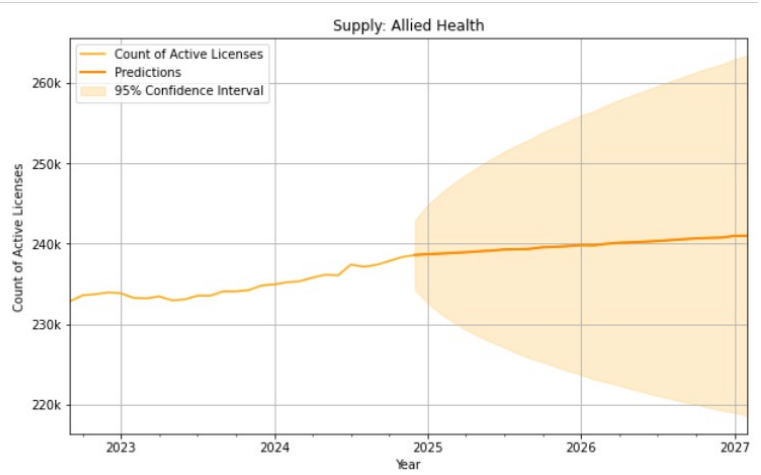
While Los Angeles County region has the highest total count of active Allied Health licenses by volume, Orange County region has the highest distribution of active Allied Health licenses compared to the population. Similarly, while Northern & Sierra region has the lowest total count of active Allied Health licenses by volume, San Joaquin Valley has a lower distribution of active Allied Health licenses compared to the population. Specifically, the region has half the amount of Advanced Practice Pharmacists, Audiologists, Chiropractors, and Occupational Therapists, as well as less than a quarter of the amount of Licensed Acupuncturists they should have based on their population size.

Table C-15: Distribution Index: Allied Health

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Advanced Practice Pharmacist	0.36	0.85	0.72	1.29	0.45	2.15	1.18	0.99	0.50
Audiologist	0.82	1.34	0.53	0.93	0.43	1.29	1.34	1.56	0.47
Chiropractor	1.25	1.18	0.60	1.00	1.00	1.64	0.88	1.10	0.50
Doctor of Podiatric Medicine	0.90	1.27	0.64	1.11	0.85	1.34	0.97	0.85	0.65
Hearing Aid Dispenser	1.14	0.86	1.11	0.82	1.29	1.48	1.12	1.05	0.92
Hearing Aid Dispenser - Trainee	1.25	1.20	0.78	1.09	1.21	0.38	0.60	1.11	1.06
Licensed Acupuncturist	1.03	1.44	0.37	1.31	0.56	1.56	0.40	1.16	0.11
Occupational Therapist	1.11	1.24	0.64	1.10	0.62	1.34	0.94	1.20	0.41
Occupational Therapy Assistant	0.56	0.24	1.44	1.24	0.72	1.68	1.36	1.40	0.64
Optometrist	0.81	1.30	0.75	1.01	0.60	1.61	0.94	0.97	0.55
Pharmacy Technician	0.75	0.79	1.18	1.11	0.88	0.91	1.09	0.99	1.12
Physical Therapist	1.24	1.16	0.68	0.90	0.95	1.36	1.16	1.34	0.56
Physical Therapist Assistant	0.92	0.69	1.29	0.99	1.32	1.28	0.96	1.12	0.93
Polysomnographic Technician	1.63	0.86	1.58	0.57	1.80	0.24	1.99	0.14	1.69
Polysomnographic Technologist	1.34	1.29	0.97	0.50	0.93	1.42	2.04	0.62	0.92
Registered Contact Lens Dispenser	1.10	0.94	1.38	0.82	0.84	0.86	1.20	1.12	1.00
Registered Pharmacist	0.60	1.10	0.64	1.02	0.53	2.04	1.24	1.00	0.64
Registered Spectacle Lens Dispenser	0.93	0.89	1.31	0.96	0.72	1.04	1.06	1.22	0.85
Respiratory Care Practitioner	0.67	0.69	1.74	0.95	0.92	0.88	1.26	0.99	1.02
Speech Pathologist	1.14	1.02	0.81	0.91	0.89	1.31	1.15	1.31	0.78
Speech-Language Pathology Assistant	0.62	0.32	1.48	1.34	0.59	1.77	1.27	0.60	0.87
Grand Total	**0.87**	**0.97**	**0.95**	**1.04**	**0.80**	**1.35**	**1.10**	**1.09**	**0.77**

Low Under-Distribution (0.95-0.75)
Medium Under-Distribution (0.75-0.50)
High Under-Distribution (0.50 or less)
No Maldistribution (0.95-1.05)
Low Over-Distribution (1.05-1.25)
Medium Over-Distribution (1.25-1.50)
High Over-Distribution (1.50 or more)

Figure C-16: Supply Projections: Allied Health



To project supply for the Allied Health Workforce, each license type within the group was individually modelled with a 95% confidence interval. Active license counts for each month from September 2022 to November 2024 were used to predict the monthly supply of active licenses each month from December 2024 to February 2027. The table below lists the count of active licenses for November of each year.

On average, the Allied Health group is expected to grow just over one percent by 2027. Most Allied Health license types are expected to increase over the next three years, with the exception of Chiropractors, Hearing Aid Dispensers, Pharmacy Technicians and Polysomnographic Technicians which are projected to decrease by 2027. These metrics combined with Retirement estimates (see Figure C-5: Retirement Estimates: Allied Health) will be crucial for calculating more accurate supply and demand projections for each license type in our modeling data.

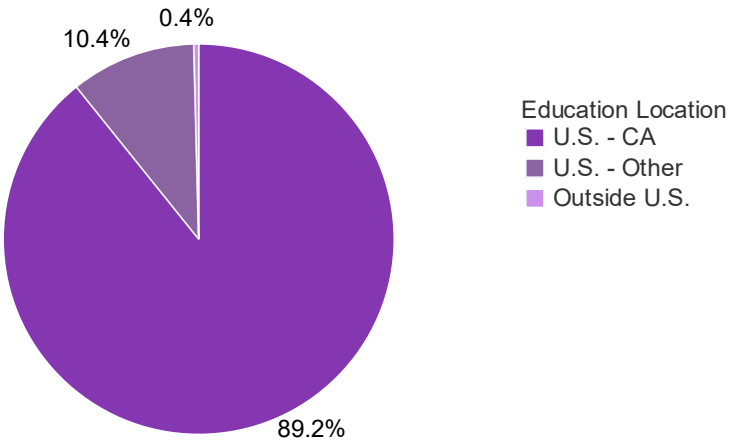
Table C-16: Supply Projections: Allied Health

License Name	2022	2023	2024	2025	2026	2027
Advanced Prtice Pharmacist	1,077	1,147	1,311	1,370	1,424	1,438
Audiologist	1,525	1,531	1,561	1,588	1,616	1,623
Chiropractor	10,893	10,708	10,688	10,605	10,535	10,518
Doctor of Podiric Medicine	2,012	2,037	2,075	2,090	2,105	2,109
Hearing Aid Dipenser	1,090	1,045	1,084	1,073	1,056	1,056
Hearing Aid Dipenser - Trainee	160	164	162	182	186	178
Licensed Acupncturist	9,652	9,659	9,606	9,623	9,617	9,615
Occupational Tapist	13,841	14,305	14,910	15,195	15,458	15,524
Occupational Tapy Assistant	3,590	3,794	3,948	4,046	4,137	4,160
Optometrist	7,249	7,287	7,369	7,407	7,442	7,451
Pharmacy Teccian	64,859	62,123	61,754	60,932	60,175	59,985
Physical Theraist	25,391	26,039	26,829	27,202	27,546	27,632
Physical Theraist Assistant	7,700	8,086	8,553	8,773	8,977	9,028
Polysomnograc Technician	141	138	155	149	151	151
Polysomnograc Technologist	544	543	542	545	556	547
Registered Coact Lens Dispenser	1,207	1,296	1,370	1,412	1,452	1,462
Registered Phmacist	40,093	40,509	41,030	41,257	41,466	41,519
Registered Sptacle Lens Dispenser	3,059	3,205	3,271	3,308	3,355	3,366
Respiratory Cae Practitioner	19,228	19,621	19,910	20,085	20,248	20,288
Speech Pathoogist	16,146	16,504	17,311	17,615	17,897	17,967
Speech-LanguPathology Assistant	4,254	4,486	4,900	5,151	5,316	5,376
Allied Health oup	**233,711**	**234,227**	**238,339**	**239,608**	**240,715**	**240,993**
Note: Cells sn light orange are predictions based on the Workforce Supply Model (see Figure C-16).						

Section D: Behavioral Health, All Figures

This section focuses on licenses issued by the California Board of Behavioral Sciences (Associate Clinical Social Worker, Associate Marriage and Family Therapist, Associate Professional Clinical Counselor, Licensed Clinical Social Worker, Licensed Educational Psychologist, Licensed Marriage and Family Therapist, Licensed Professional Clinical Counselor), the Board of Registered Nursing (Psychiatric Mental Health Nurse), the Board of Psychology (Psychologist, Registered Psychological Associate) and the Board of Vocational Nursing and Psychiatric Technicians (Psychiatric Technicians).

Figure D-1: Education Location: Behavioral Health

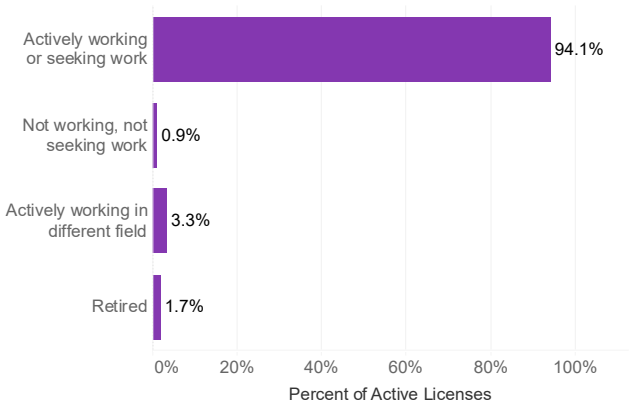


Nearly 100% of all Behavioral Health licensees complete their education in the U.S., with just over 89% receiving their initial qualifying degree in California, the highest of any Health Workforce group. Notable license types within the Behavioral Health Workforce include Psychiatric Mental Health Nurses with only 49.6% receiving their initial qualifying degree in California, and Licensed Professional Clinical Counselors with only 71.8%. Psychiatric Mental Health Nurses also reported the highest rates of receiving their initial qualifying degrees from outside the U.S at 2.6%. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

Table D-1: Education Location: Behavioral Health

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Associate Clincal Social Worker	86.1%	13.6%	0.3%
Associate Mariage and Family Therapist	98.0%	1.8%	0.1%
Associate Profsional Clinical Counselor	85.5%	14.3%	0.2%
Licensed Clinial Social Worker	82.9%	16.7%	0.4%
Licensed Educional Psychologist	91.6%	8.4%	0.0%
Licensed Marrage and Family Therapist	96.9%	2.8%	0.2%
Licensed Profesional Clinical Counselor	71.8%	27.7%	0.5%
Psychiatric Metal Health Nurse	49.6%	47.8%	2.6%
Psychiatric Tehnician	96.9%	1.9%	1.3%
Psychologist	78.6%	20.8%	0.6%
Registered Pschological Associate	88.2%	10.6%	1.2%
Behavioral Hth Group	**89.2%**	**10.4%**	**0.4%**

Figure D-2: Employment Status: Behavioral Health

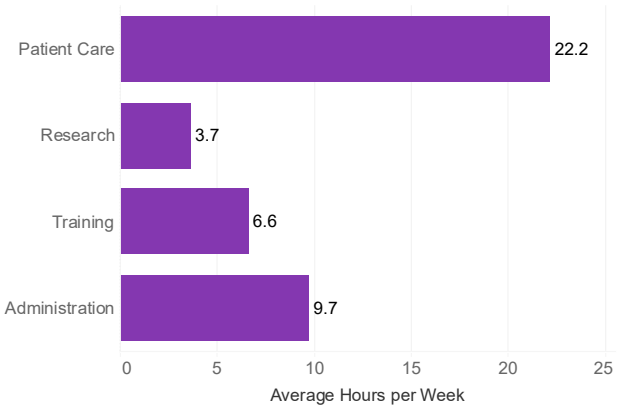


Nearly 95% of Behavioral Health licensees are actively working or seeking work, while just over three percent are working in a different field and 1.7% have already retired. Notable license types within the Behavioral Health Workforce include Licensed Educational Psychologists with over 20% actively working in a different field, and over 31% of Psychiatric Mental Health Nurses reporting already being retired, and 3.4% reporting not working or seeking work, despite their active license status. These data correlate with the above average age ranges for this license type (see Figure D-5: Age Distribution: Behavioral Health). These metrics will be used in the future to calculate more accurate supply data for each license type.

Table D-2: Employment Status: Behavioral Health

License Name	Actively working or seeking work	Not working, not seeking work	Actively working in different field	Retired
Associate Clinical Social Worker	92.9%	0.4%	6.6%	0.1%
Associate Marriage and Family Therapist	95.7%	0.7%	3.4%	0.1%
Associate Professional Clinical Counselor	94.9%	0.3%	4.7%	0.1%
Licensed Clinical Social Worker	92.9%	1.1%	3.3%	2.8%
Licensed Educational Psychologist	72.9%	1.1%	20.4%	5.5%
Licensed Marriage and Family Therapist	95.0%	1.2%	2.3%	1.6%
Licensed Professional Clinical Counselor	95.3%	0.7%	3.4%	0.6%
Psychiatric Mental Health Nurse	62.5%	3.4%	2.8%	31.3%
Psychiatric Technician	89.4%	1.2%	4.6%	4.8%
Psychologist	97.1%	0.6%	1.3%	1.0%
Registered Psychological Associate	97.0%	0.2%	2.7%	0.1%
Behavioral Health Group	**94.1%**	**0.9%**	**3.3%**	**1.7%**

Figure D-3: Full-Time Equivalent Metrics: Behavioral Health



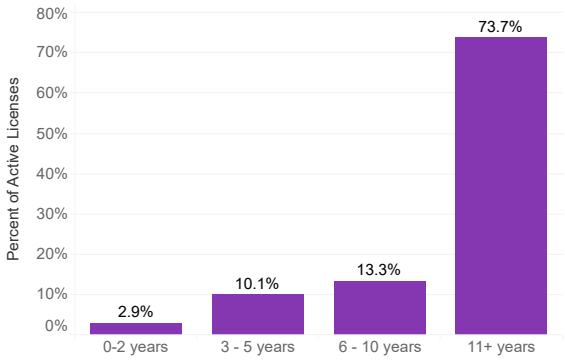
Full Time Equivalent (FTE) metrics were calculated for licensees that reported they were actively working in a position that required their license. On average, Behavioral Health licensees spend the highest number of hours per week on Patient Care (22.2 hours), and the least amount of time per week on Research (3.7 hours). This was the lowest amount of time spent on Patient Care of any Health Workforce group. Notable license types within the Behavioral Health Workforce include Licensed Educational Psychologists who reported spending the least amount of time on Patient Care at only 18.2 hours per week, the lowest of any license type across the Health Workforce, and Psychiatric Technicians who reported the highest amounts of time per week on

Patient Care (33.7 hours) and Training (13.5). These metrics will be used in the future to calculate more accurate supply and demand modeling.

Table D-3: Full-Time Equivalent Metrics: Behavioral Health

License Name	Patient Care	Research	Training	Admin
Associate Clincal Social Worker	25.7	5.8	7.6	9.2
Associate Mariage and Family Therapist	21.5	4.4	6.4	9.0
Associate Profsional Clinical Counselor	21.7	4.4	6.6	8.9
Licensed Clinial Social Worker	22.5	3.0	6.4	10.8
Licensed Educional Psychologist	18.2	3.2	6.0	9.2
Licensed Marrage and Family Therapist	20.3	3.0	5.8	9.4
Licensed Profesional Clinical Counselor	22.2	3.5	6.3	10.7
Psychiatric Metal Health Nurse	19.6	3.0	5.5	7.7
Psychiatric Tehnician	33.7	8.4	13.5	11.1
Psychologist	20.2	2.7	5.8	9.0
Registered Pschological Associate	22.1	4.5	7.2	8.6
Behavioral Hth Group	**22.2**	**3.7**	**6.6**	**9.7**

Figure D-4: Retirement Estimates: Behavioral Health

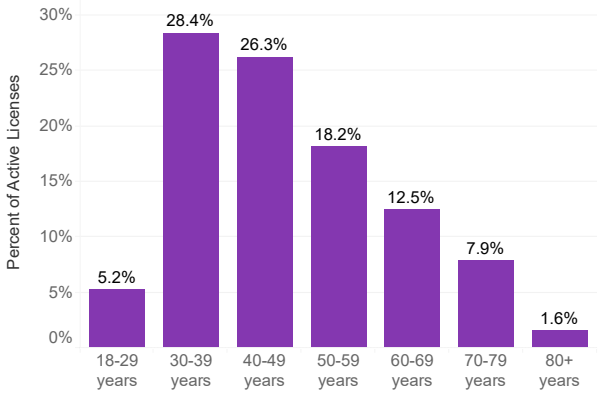


Among Behavioral Health licensees who reported actively working in a position that required their license, or were actively seeking work in their field, 73.7% estimated retiring in 11 or more years, and just under three percent estimated retiring within the next two years, the lowest of any Health Workforce group. Of note are Psychiatric Mental Health Nurses, with 30% reporting they estimate retiring within the next two years, and nearly 67% reporting they plan to retire within the next five years, the highest of any license type across the Health Workforce. This trend may be driven by the above average ages of the licensees (see Figure D-5: Age Distribution: Behavioral Health). Additionally, nearly 20% of Licensed Educational Psychologists, Psychiatric Technicians, and Psychologists also reported planning to retire within the next five years. These metrics will be crucial for calculating more accurate supply and demand models for each license type. In addition, this information may be useful in helping to identify which areas are in most need of funding to maintain the supply of Behavioral Health licensees across the state.

Table D-4: Retirement Estimates: Behavioral Health

License Name	0-2 years	3 - 5 years	6 - 10 years	11+ years
Associate Clincal Social Worker	0.5%	1.4%	4.5%	93.6%
Associate Mariage and Family Therapist	0.5%	1.5%	4.6%	93.5%
Associate Profsional Clinical Counselor	0.5%	1.0%	4.5%	94.0%
Licensed Clinial Social Worker	3.7%	10.9%	14.3%	71.2%
Licensed Educional Psychologist	4.0%	15.7%	19.0%	61.3%
Licensed Marrage and Family Therapist	3.1%	12.3%	16.1%	68.5%
Licensed Profesional Clinical Counselor	1.0%	5.0%	10.9%	83.1%
Psychiatric Metal Health Nurse	30.0%	36.8%	21.1%	12.0%
Psychiatric Tehnician	5.3%	14.8%	17.2%	62.7%
Psychologist	4.0%	15.0%	16.8%	64.2%
Registered Pschological Associate	0.5%	1.4%	4.3%	93.9%
Behavioral Hth Group	**2.9%**	**10.1%**	**13.3%**	**73.7%**

Figure D-5: Age Distribution: Behavioral Health

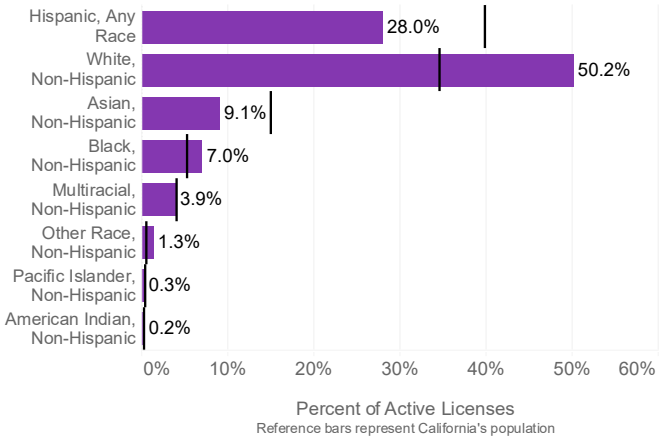


Overall, nearly 80% of Behavioral Health licensees are between the ages of 30 and 59 years old, with only 5.2% under the age of thirty, and 22% over the age of 59. License types with younger licensees include all four associate-level licenses, with 48% or more of licensees under the age of 40. License types with older licensees include Psychiatric Mental Health Nurses with more than 87% over the age of 59, the highest of any license type in the Health Workforce. This high proportion of older licensees among Psychiatric Mental Health Nurses is likely a contributing factor to the high percentage that are already retired or planning to retire within the next two years (see Figure D-4: Retirement Estimates: Behavioral Health).

Table D-5: Age Distribution: Behavioral Health

License Name	18-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years
Associate Clinical Social Worker	20.3%	47.6%	19.9%	8.9%	2.9%	0.4%	0.0%
Associate Marriage and Family Therapist	18.1%	41.1%	21.3%	12.6%	5.5%	1.3%	0.0%
Associate Professional Clinical Counselor	20.9%	44.8%	18.8%	11.4%	3.6%	0.5%	0.0%
Licensed Clinical Social Worker	1.7%	29.5%	29.1%	19.0%	12.2%	7.1%	1.4%
Licensed Educational Psychologist	0.1%	12.4%	31.9%	27.4%	16.0%	9.7%	2.4%
Licensed Marriage and Family Therapist	1.3%	22.6%	26.2%	19.7%	16.0%	11.7%	2.6%
Licensed Professional Clinical Counselor	2.6%	36.8%	25.9%	18.5%	11.7%	4.4%	0.1%
Psychiatric Mental Health Nurse	0.0%	0.0%	5.5%	6.7%	28.7%	45.7%	13.4%
Psychiatric Technician	5.6%	26.9%	29.2%	22.0%	13.8%	2.4%	0.1%
Psychologist	0.0%	15.3%	28.9%	22.2%	16.8%	14.0%	2.8%
Registered Psychological Associate	8.0%	40.8%	26.9%	15.8%	6.7%	1.5%	0.3%
Behavioral Health Group	**5.2%**	**28.4%**	**26.3%**	**18.2%**	**12.5%**	**7.9%**	**1.6%**

Figure D-6: Race/Ethnicity: Behavioral Health

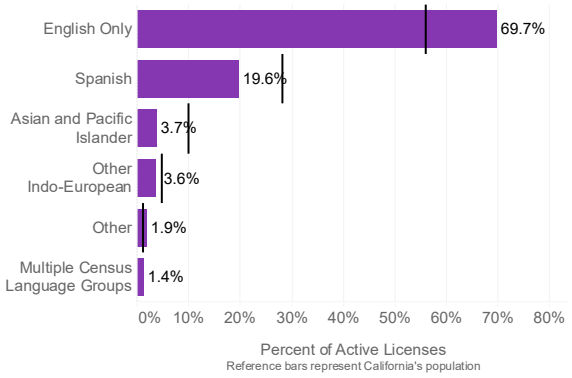


Across the Behavioral Health Workforce, Hispanic, Any Race and Asian, Non-Hispanic licensees are the most underrepresented when compared to California's population, with only Associate Clinical Social Workers at or above the population average for Hispanic, Any Race and only Psychiatric Technicians at or above the population average for Asian, Non-Hispanic. Conversely, White, Non-Hispanic licensees are the most well represented with nine license types at or above the population average. Pacific Islander, Non-Hispanic licensees are equally represented in the Behavioral Health Workforce on average but are still below the population average in eight different license types. Future work will include the addition of a Middle Eastern and North African (MENA) category following the revised Statistical Policy Directive 15 guidelines.

Table D-6: Race/Ethnicity: Behavioral Health

License Name	Hispanic, Any Race	White, NH	Asian, NH	Black, NH	Multiracial, NH	Other Race, NH	Pacific Islander, NH	American Indian, NH
Assoc. Clinical Social Worker	51.6%	23.4%	9.2%	10.5%	3.9%	0.7%	0.3%	0.3%
Assoc. Marriage and Family Therapist	36.9%	37.1%	9.8%	9.5%	5.3%	1.0%	0.2%	0.1%
Assoc. Professional Clinical Counselor	34.8%	38.2%	10.4%	10.0%	5.1%	1.1%	0.2%	0.2%
Lic. Clinical Social Worker	31.5%	46.8%	9.6%	6.9%	3.5%	1.3%	0.2%	0.2%
Lic. Educational Psychologist	20.0%	62.4%	5.8%	4.7%	5.5%	1.3%	0.1%	0.3%
Lic. Marriage and Family Therapist	21.6%	61.2%	6.8%	4.8%	3.6%	1.6%	0.2%	0.2%
Lic. Professional Clinical Counselor	20.6%	59.0%	8.8%	5.7%	4.6%	1.0%	0.1%	0.2%
Psychiatric Mental Health Nurse	4.4%	85.2%	4.1%	3.3%	3.0%	0.0%	0.0%	0.0%
Psychiatric Technician	35.0%	23.1%	17.2%	17.4%	3.8%	1.8%	1.2%	0.5%
Psychologist	11.9%	69.0%	9.9%	3.8%	3.6%	1.4%	0.1%	0.2%
Registered Psychological Associate	25.4%	42.5%	10.8%	13.4%	5.5%	1.7%	0.3%	0.4%
Behavioral Health Group	**28.0%**	**50.2%**	**9.1%**	**7.0%**	**3.9%**	**1.3%**	**0.3%**	**0.2%**
California's Population	**39.8%**	**34.6%**	**15.1%**	**5.3%**	**4.1%**	**0.5%**	**0.3%**	**0.3%**
NH = Non-Hispanic								

Figure D-7: Languages Spoken: Behavioral Health

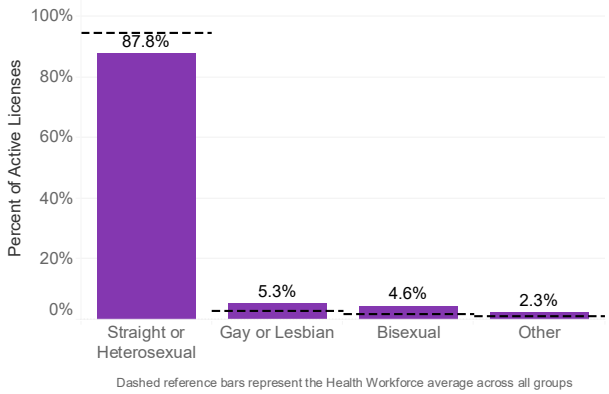


On average, Asian and Pacific Islander languages are the most underrepresented in the Behavioral Health Workforce when compared to California's population, at less than four percent and no license types at or above the population average, the lowest of any Health Workforce group. Spanish and Other-Indo European languages are also underrepresented, with only Associate Clinical Social workers at or above the population average for Spanish, and Psychologists and Registered Psychological Associates at or above the population average for Other Indo-European languages. Other languages are well represented overall and are above the population average for all license types. As a group, the Behavioral Health Workforce is the least diverse linguistically, with the highest rates of English Only speaking licensees of any Health Workforce group.

Table D-7: Languages Spoken: Behavioral Health

License Name	English Only	Spanish	Asian and Pacific Islander	Other Indo-European	Other	Multiple Census Language Groups
Associate Clinical Social Worker	52.8%	38.1%	4.0%	2.2%	1.7%	1.2%
Associate Marriage and Family Therapist	63.8%	24.2%	4.2%	4.3%	1.9%	1.6%
Associate Professional Clinical Counselor	66.0%	22.2%	4.3%	3.6%	2.4%	1.5%
Licensed Clinical Social Worker	66.8%	24.8%	3.8%	2.4%	1.2%	1.0%
Licensed Educational Psychologist	76.4%	15.6%	2.5%	2.7%	1.4%	1.4%
Licensed Marriage and Family Therapist	75.3%	14.4%	2.8%	4.3%	1.8%	1.5%
Licensed Professional Clinical Counselor	76.0%	13.7%	3.6%	3.5%	1.9%	1.2%
Psychiatric Mental Health Nurse	87.9%	3.7%	3.4%	2.6%	1.8%	0.6%
Psychiatric Technician	65.0%	17.8%	9.2%	1.8%	4.6%	1.7%
Psychologist	78.8%	8.8%	3.2%	5.5%	2.0%	1.7%
Registered Psychological Associate	64.4%	16.8%	4.7%	8.6%	3.4%	2.1%
Behavioral Health Group	**69.7%**	**19.6%**	**3.7%**	**3.6%**	**1.9%**	**1.4%**
California's Population	**55.9%**	**28.2%**	**10%**	**4.8%**	**1.1%**	**N/A**

Figure D-8: Sexual Orientation: Behavioral Health

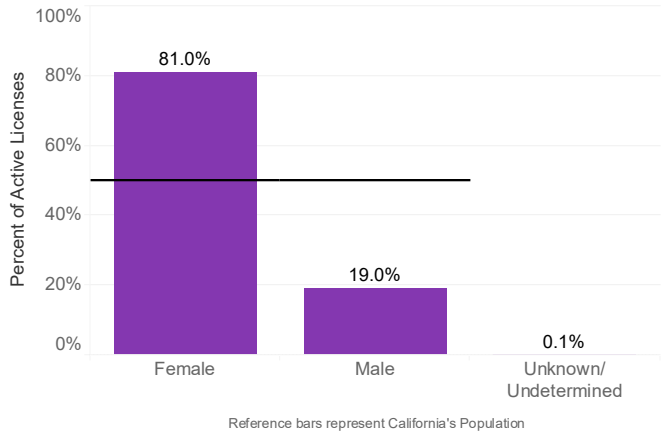


As a group, the majority (87.8%) of Behavioral Health licensees reported identifying as Straight or Heterosexual, the lowest of any Health Workforce group. Additionally, 5.3% reported identifying as Gay or Lesbian, 4.6% identified as Bisexual and 2.3% identified as Other, the highest rates for all three Sexual Orientations of any Health Workforce group. Within the Behavioral Health Workforce, nine license types reported identifying as Gay or Lesbian or Bisexual at or above the workforce average, and 10 reported identifying as Other at or above the workforce average. Notably, Licensed Clinical Counselors and all four associate-level license types reported the most diverse Sexual Orientation rates of all license types within the Health Workforce.

Table D-8: Sexual Orientation: Behavioral Health

License Name	Straight or Heterosexual	Gay or Lesbian	Bisexual	Other
Associate Clinical Social Worker	86.8%	4.5%	6.0%	2.7%
Associate Marriage and Family Therapist	84.4%	4.8%	7.5%	3.3%
Associate Professional Clinical Counselor	86.2%	3.8%	6.5%	3.5%
Licensed Clinical Social Worker	87.6%	6.1%	4.2%	2.0%
Licensed Educational Psychologist	95.4%	2.2%	1.8%	0.6%
Licensed Marriage and Family Therapist	87.9%	5.5%	4.4%	2.2%
Licensed Professional Clinical Counselor	84.3%	6.5%	5.8%	3.4%
Psychiatric Mental Health Nurse	87.5%	10.2%	1.2%	1.2%
Psychiatric Technician	95.4%	2.0%	1.1%	1.5%
Psychologist	87.8%	6.1%	4.1%	2.0%
Registered Psychological Associate	83.8%	5.0%	7.6%	3.7%
Behavioral Health Group	**87.8%**	**5.3%**	**4.6%**	**2.3%**
Health Workforce Average	**94.5%**	**2.8%**	**1.7%**	**1.0%**

Figure D-9: Sex at Birth: Behavioral Health

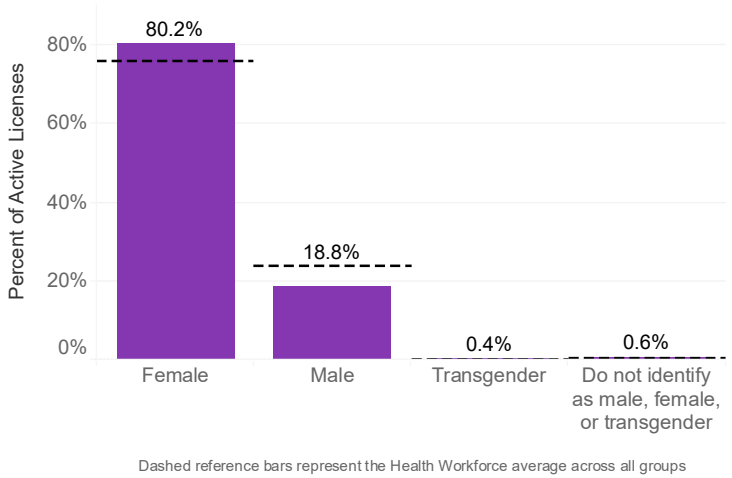


As a group, the majority (81%) of Behavioral Health licensees reported identifying as Female, and 19% reported identifying as Male. Only 0.1% of licensees identified as Unknown/Undetermined. Well above the Workforce averages were Psychiatric Mental Health Nurses, with nearly 90% identifying as Female, and nearly 40% of Psychiatric Technicians and almost 30% of Psychologists identifying as Male.

Table D-9: Sex at Birth: Behavioral Health

License Name	Female	Male	Unknown/Undetermined
Associate Clinical Social Worker	86.2%	13.7%	0.1%
Associate Marriage and Family Therapist	82.2%	17.7%	0.1%
Associate Professional Clinical Counselor	83.9%	16.0%	0.0%
Licensed Clinical Social Worker	85.4%	14.6%	0.1%
Licensed Educational Psychologist	82.7%	17.3%	0.0%
Licensed Marriage and Family Therapist	82.0%	17.9%	0.1%
Licensed Professional Clinical Counselor	83.6%	16.3%	0.1%
Psychiatric Mental Health Nurse	88.7%	11.3%	0.0%
Psychiatric Technician	61.8%	38.0%	0.2%
Psychologist	72.2%	27.8%	0.0%
Registered Psychological Associate	79.9%	20.1%	0.0%
Behavioral Health Group	**81.0%**	**19.0%**	**0.1%**
California's Population	**50.0%**	**50.0%**	**N/A**

Figure D-10: Gender Identity: Behavioral Health



As a group, the majority (80.2%) of Behavioral Health licensees reported identifying as Female, and 18.8% reported identifying as Male. Licensees identifying as Transgender or not identifying as Male, Female or Transgender were nearly even at 0.4% and 0.6% each, and were the highest rates reported among any Health Workforce group. Well above the Workforce averages were Psychiatric Mental Health Nurses, with nearly 90% identifying as Female, and nearly 40% of Psychiatric Technicians and almost 30% of Psychologists identifying as Male.

Table D-10: Gender Identity: Behavioral Health

License Name	Female	Male	Transgender	Do not identify as male, female, or transgender
Associate Clinical Social Worker	85.0%	13.5%	0.8%	0.8%
Associate Marriage and Family Therapist	81.3%	17.2%	0.6%	0.9%
Associate Professional Clinical Counselor	83.0%	15.6%	0.8%	0.6%
Licensed Clinical Social Worker	84.6%	14.4%	0.4%	0.6%
Licensed Educational Psychologist	82.7%	17.2%	0.1%	0.0%
Licensed Marriage and Family Therapist	81.4%	17.7%	0.3%	0.5%
Licensed Professional Clinical Counselor	82.6%	16.1%	0.5%	0.8%
Psychiatric Mental Health Nurse	88.7%	11.3%	0.0%	0.0%
Psychiatric Technician	62.0%	37.6%	0.2%	0.2%
Psychologist	71.6%	27.7%	0.3%	0.5%
Registered Psychological Associate	77.9%	20.0%	1.1%	1.0%
Behavioral Health Group	**80.2%**	**18.8%**	**0.4%**	**0.6%**
Health Workforce Average	**79.5%**	**23.8%**	**0.1%**	**0.2%**

Figure D-11: Disability Status: Behavioral Health

On average, 92% of Behavioral Health licensees did not identify as having a disability, while eight percent reported having a disability, the highest of any Health Workforce group. Within the Behavioral Health Workforce, all four associate-level licenses reported the highest rates of having a disability, while Psychiatric Technicians reported the lowest at just over six percent.

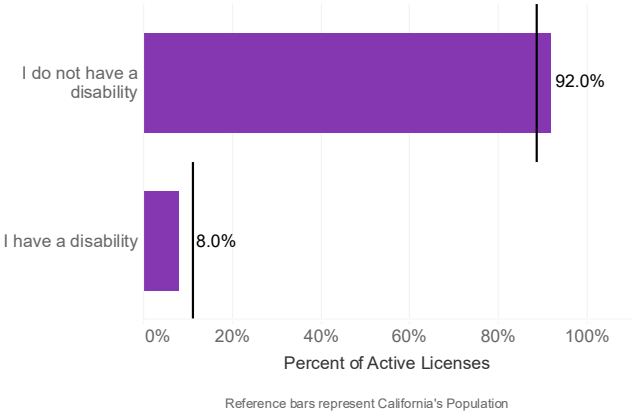
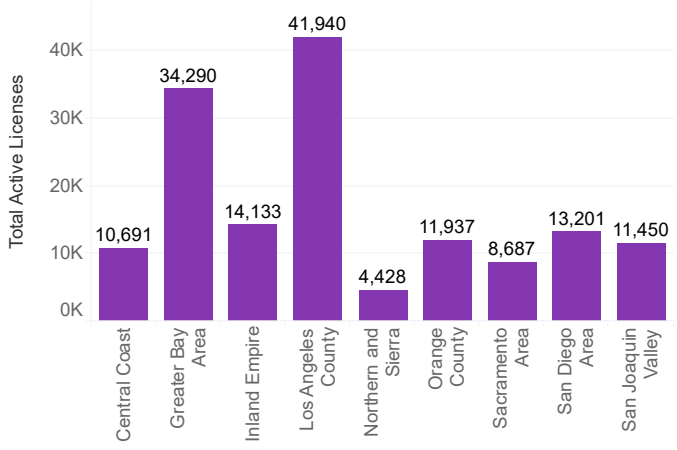


Table D-11: Disability Status: Behavioral Health

License Name	I do not have a disability	I have a disability
Associate Clinical Social Worker	90.1%	9.9%
Associate Marriage and Family Therapist	89.8%	10.2%
Associate Professional Clinical Counselor	89.4%	10.6%
Licensed Clinical Social Worker	92.1%	7.9%
Licensed Educational Psychologist	91.6%	8.4%
Licensed Marriage and Family Therapist	92.8%	7.2%
Licensed Professional Clinical Counselor	91.7%	8.3%
Psychiatric Mental Health Nurse	87.8%	12.2%
Psychiatric Technician	93.7%	6.3%
Psychologist	92.8%	7.2%
Registered Psychological Associate	84.2%	15.8%
Behavioral Health Group	**92.0%**	**8.0%**
California's Population	**88.7%**	**11.3%**

Figure D-12: Active Licenses: Behavioral Health

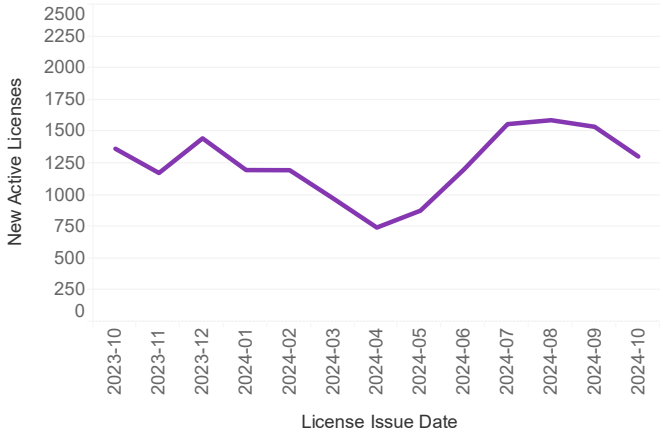


As a group, the Los Angeles County region has the highest total number of Behavioral Health licenses in the state while the Northern & Sierra region has the least. Within the Behavioral Health Workforce, Licensed Marriage Family Therapists and Licensed Clinical Social Workers make up more than 50% of all active Behavioral Health licenses, at 30% and 21.8% respectively. Psychiatric Mental Health Nurses make up the smallest portion of the Behavioral Health Workforce at 0.1%. For detailed metrics on how the distribution of these active licenses compares to the population (see Figure D-14: Distribution Index: Behavioral Health).

Table D-12: Active Licenses: Behavioral Health

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern and Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Associate Clinical Social Worker	870	2,795	1,933	5,567	609	1,132	928	1,289	1,782
Associate Marriage and Family Therapist	1,003	3,255	1,620	4,792	387	1,328	749	1,266	1,061
Associate Professional Clinical Counselor	297	1,007	717	1,157	101	482	324	607	433
Licensed Clinical Social Worker	1,872	7,232	2,703	10,525	1,107	2,362	2,126	2,893	1,983
Licensed Educational Psychologist	138	388	134	392	53	184	129	127	125
Licensed Marriage and Family Therapist	3,878	11,026	3,603	12,007	1,542	3,984	2,732	3,848	2,650
Licensed Professional Clinical Counselor	231	901	431	750	133	338	285	619	257
Psychiatric Mental Health Nurse	15	55	14	44	3	10	7	20	5
Psychiatric Technician	1,122	1,231	1,970	771	168	419	305	91	2,358
Psychologist	1,176	6,037	865	5,310	302	1,524	1,019	2,206	691
Registered Psychological Associate	89	363	143	625	23	174	83	235	105
Behavioral Health Group	**10,691**	**34,290**	**14,133**	**41,940**	**4,428**	**11,937**	**8,687**	**13,201**	**11,450**

Figure D-13: New Licenses: Behavioral Health

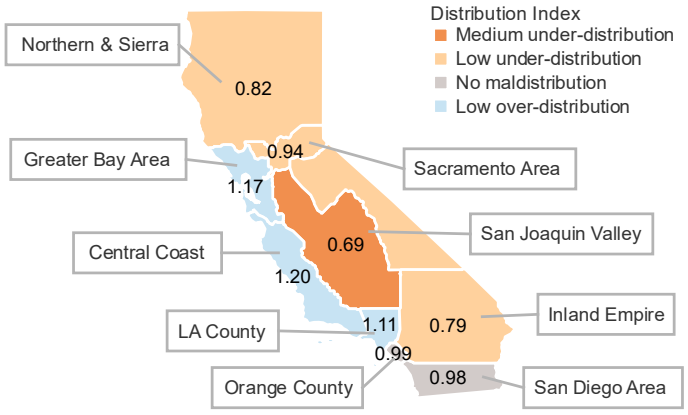


On average, there were 1,244 new active Behavioral Health licenses issued per month from October 2023 to October 2024. Within the Behavioral Health Workforce, Associate Marriage and Family Therapists and Associate Clinical Social Workers make up the largest portion by total volume with an average of 899 new active licenses issued per month, more than 72% of all new Behavioral Health licenses issued. Associate-level licenses had the highest average issue rates relative to their total volume at three percent. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

Table D-13: New Licenses: Behavioral Health

License Name	2023-10	2023-11	2023-12	2024-01	2024-02	2024-03	2024-04	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10
Associate Clinical Social Worker	396	341	466	440	308	265	195	363	544	731	579	542	418
Associate Marriage and Family Therapist	552	491	673	408	534	382	274	257	371	488	622	577	471
Associate Professional Clinical Counselor	182	147	164	185	159	169	136	127	123	117	150	218	191
Licensed Clinical Social Worker	26	20	17	16	16	12	10	17	21	16	11	17	10
Licensed Educational Psychologist	15	9	11	23	17	15	16	11	14	17	9	16	3
Licensed Marriage and Family Therapist	3	15	7	7	5	8	5	2	3	6	2	4	4
Licensed Professional Clinical Counselor	10	12	11	18	15	11	14	9	6	5	5	7	7
Psychiatric Mental Health Nurse	0	0	0	0	0	0	0	0	2	1	0	0	0
Psychiatric Technician	41	25	10	14	39	14	19	7	19	27	19	18	23
Psychologist	63	57	61	57	56	64	46	48	56	75	71	74	83
Registered Psychological Associate	77	57	27	29	47	33	29	36	43	76	122	65	94
Behavioral Health Group	**1,365**	**1,174**	**1,447**	**1,197**	**1,196**	**973**	**744**	**877**	**1,202**	**1,559**	**1,590**	**1,538**	**1,304**

Figure D-14: Distribution Index: Behavioral Health



The distribution index describes the magnitude of difference between a region's share of the state's licenses and its share of the state's population. A distribution index of 1 indicates the region has an equal share of the state's licenses and population (e.g., 10% of the state's licenses and 10% of the state's population). A distribution index below 1 indicates a smaller share of licenses than population (e.g., 5% of the state's licenses and 10% of the state's population), and a distribution index greater than 1 indicates the opposite. The further away the index is from 1, the greater the maldistribution. Note: These distribution indexes reflect the distribution of active *licenses*, not the distribution of *providers* as presented in *Section A: Model Projections, Behavioral Health*.

While Los Angeles County region has the highest total count of active Behavioral Health licenses by volume, the Central Coast region has the highest distribution of active Behavioral Health licenses compared to the population. Similarly, while the Northern & Sierra region has the lowest total count of active Behavioral Health licenses by volume, the San Joaquin Valley region has the lowest distribution of active Behavioral Health licenses compared to the population. Specifically, the region has less than a third of the amount of Psychiatric Mental Health Nurses and Psychologists they should have based on their population size.

Table D-14: Distribution Index: Behavioral Health

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Associate Clinical Social Worker	0.87	0.85	0.97	1.32	1.01	0.83	0.89	0.85	0.95
Associate Marriage and Family Therapist	1.09	1.08	0.89	1.24	0.70	1.07	0.79	0.92	0.62
Associate Professional Clinical Counselor	0.98	1.01	1.18	0.90	0.55	1.17	1.03	1.33	0.76
Licensed Clinical Social Worker	0.96	1.13	0.70	1.28	0.94	0.90	1.05	0.99	0.55
Licensed Educational Psychologist	1.39	1.19	0.68	0.94	0.89	1.37	1.25	0.85	0.68
Licensed Marriage and Family Therapist	1.45	1.25	0.67	1.06	0.95	1.10	0.98	0.95	0.53
Licensed Professional Clinical Counselor	0.99	1.17	0.92	0.76	0.94	1.07	1.17	1.76	0.59
Psychiatric Mental Health Nurse	1.46	1.63	0.68	1.02	0.48	0.72	0.66	1.30	0.26
Psychiatric Technician	2.24	0.75	1.98	0.37	0.56	0.62	0.59	0.12	2.53
Psychologist	1.04	1.62	0.38	1.11	0.44	0.99	0.87	1.29	0.33
Registered Psychological Associate	0.82	1.01	0.66	1.36	0.35	1.18	0.73	1.43	0.52
Grand Total	**1.20**	**1.17**	**0.79**	**1.11**	**0.82**	**0.99**	**0.94**	**0.98**	**0.69**

Low Under-Distribution (0.95-0.75) ☐ No Maldistribution (0.95-1.05) Low Over-Distribution (1.05-1.25)
Medium Under-Distribution (0.75-0.50) Medium Over-Distribution (1.25-1.50)
High Under-Distribution (0.50 or less) High Over-Distribution (1.50 or more)

With the exception of Psychiatric Technicians, the San Joaquin Valley Region has a smaller share of all Behavioral Health providers compared with its share of the state population. The distribution index of 0.69 indicates that its share of the state's Behavioral Health licenses is barely over half of its share of the population. Data for the Inland Empire Region shows a similar, slightly less severe, maldistribution.

Section E: Medicine, All Figures

This section focuses on licenses issued by the Naturopathic Medicine Committee (Naturopathic Doctor), Medical Board of California (Physician and Surgeon), Osteopathic Medical Board of California (Osteopathic Physician and Surgeon), and the Physician Assistant Board (Physician Assistant).

Figure E-1: Education Location: Medicine

Over 90% of Medicine licensees completed their education in the U.S., but only 50% received their initial qualifying degree within California, the lowest of any Health Workforce group. Notable license types within the Medicine Workforce include Naturopathic Doctors with only 45.6% receiving their initial qualifying degree in California, and Physician and Surgeons with over 10% receiving their initial qualifying degree from outside the U.S. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

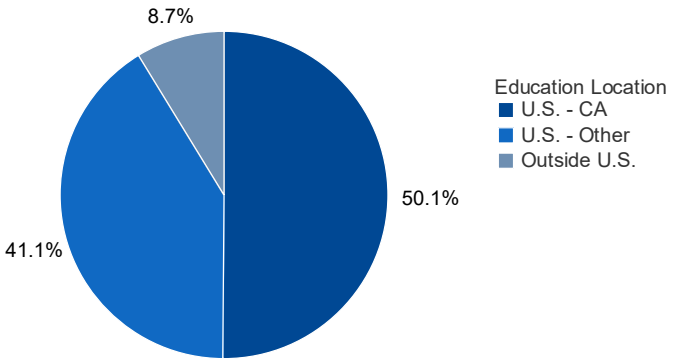
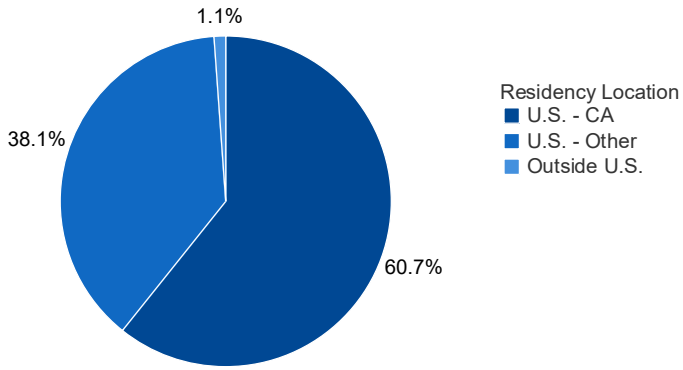


Table E-1: Education Location: Medicine

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Naturopathic Doctor	45.6%	50.5%	3.9%
Osteopathic Physician and Surgeon	61.1%	38.8%	0.0%
Physician and Surgeon	47.1%	42.3%	10.6%
Physician Assistant	66.1%	33.5%	0.4%
Medicine Group	**50.1%**	**41.1%**	**8.7%**

Figure E-2: Residency Location: Medicine

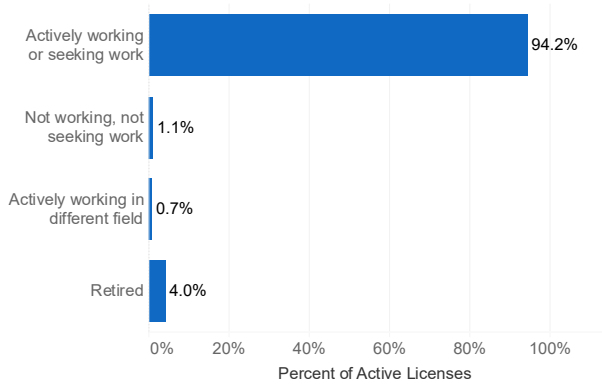


For license types within the Medicine Workforce that require a residency, nearly 100% of those licensees completed their residency within the U.S., and just over 60% completed their residency somewhere in California. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

Table E-2: Residency Location: Medicine

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Osteopathic Physician and Surgeon	59.7%	40.2%	0.1%
Physician and Surgeon	60.8%	38.0%	1.2%
Medicine Group	**60.7%**	**38.1%**	**1.1%**

Figure E-3: Employment Status: Medicine



Nearly 95% of Medicine licensees are actively working or seeking work, while less than one percent are working in a different field and four percent have already retired, the highest of any Health Workforce group. Notable license types within the Medicine Workforce include Naturopathic Doctors with 2.7% actively working in a different field, and nearly five% of Physician and Surgeons reporting already being retired despite their active license status. These data correlate with the above average age ranges for this license type (see Figure E-6: Age Distribution: Medicine). These metrics will be used in the future to calculate more accurate supply data for each license type.

Table E-3: Employment Status: Medicine

License Name	Actively working or seeking work	Not working, not seeking work	Actively working in different field	Retired
Naturopathic Doctor	96.5%	0.3%	2.7%	0.5%
Osteopathic Physician and Surgeon	98.8%	0.2%	0.2%	0.7%
Physician and Surgeon	93.4%	1.1%	0.7%	4.7%
Physician Assistant	97.3%	1.1%	0.9%	0.7%
Medicine Group	**94.2%**	**1.1%**	**0.7%**	**4.0%**

Figure E-4: Full-Time Equivalent Metrics: Medicine

Full Time Equivalent (FTE) metrics were calculated for licensees that reported they were actively working in a position that required their license. On average, Medicine licensees spend the highest number of hours per week on Patient Care (33.4 hours), the highest of any Health Workforce group, and the least amount of time per week on Research (3.1 hours). Notable license types within the Medicine Workforce include Naturopathic Doctors, who reported spending the least amount of time on Patient Care at only 22.2 hours per week, and Osteopathic Physician and Surgeons, who reported spending the highest amount of time on Patient Care at 35.9 hours per week. These metrics will be used in the future to calculate more accurate supply and demand modeling.

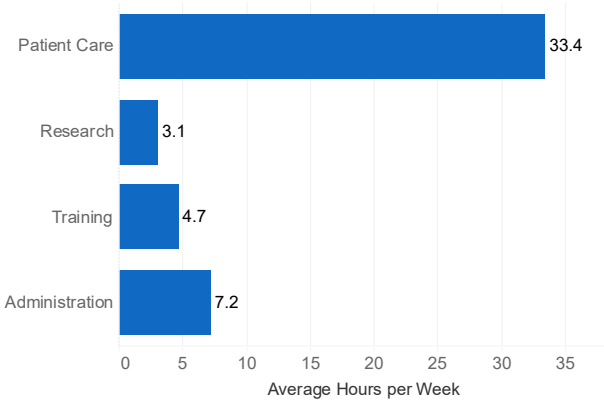
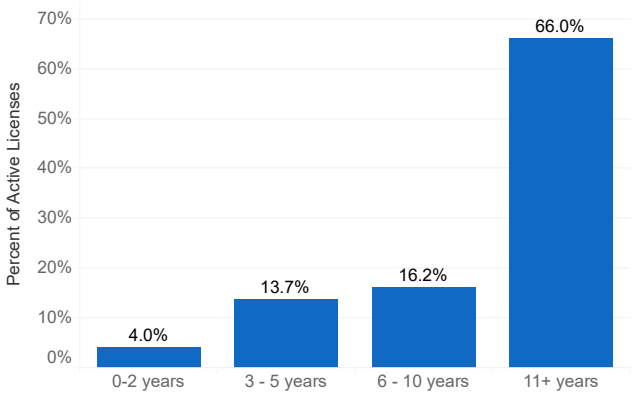


Table E-4: Full-Time Equivalent Metrics: Medicine

License Name	Patient Care	Research	Training	Admin
Naturopathic Doctor	22.2	5.9	5.8	9.7
Osteopathic Physician and Surgeon	35.9	1.6	5.0	7.3
Physician and Surgeon	33.0	3.3	4.6	7.3
Physician Assistant	35.3	2.3	5.0	5.9
Medicine Group	**33.4**	**3.1**	**4.7**	**7.2**

Figure E-5: Retirement Estimates: Medicine



Among Medicine licensees who reported actively working in a position that required their license, or were actively seeking work in their field, only 66% estimated retiring in 11 or more years, and four percent estimated retiring within the next two years. Nearly 18% estimated retiring within the next five years, the highest of any Health Workforce group. Of particular note are Physician and Surgeons, with just over 20% estimating retiring within the next five years, and almost 36% estimating retiring within the next 10 years. Nearly 20% of Naturopathic Doctors and Physician Assistants also estimate retiring within the next 10 years. These trends may be driven by the above average ages of the licensees within this Health Workforce group (see Figure E-6: Age Distribution: Medicine). These metrics will be crucial for calculating more accurate supply and demand models for each license type. In addition, this information may be useful in helping to identify which areas are in most need of funding to maintain the supply of Medicine licensees across the state.

Table E-5: Retirement Estimates: Medicine

License Name	0-2 years	3 - 5 years	6 - 10 years	11+ years
Naturopathic Doctor	0.9%	5.1%	13.6%	80.4%
Osteopathic Physician and Surgeon	1.1%	5.4%	9.9%	83.6%
Physician and Surgeon	4.6%	15.5%	17.4%	62.5%
Physician Assistant	2.4%	7.0%	12.0%	78.7%
Medicine Group	**4.0%**	**13.7%**	**16.2%**	**66.0%**

Figure E-6: Age Distribution: Medicine

Just over 72% of Medicine licensees are between the ages of 30 and 59 years old, with less than one percent under the age of thirty, and 27% over the age of 59, the highest across all Health Workforce groups. License types with younger licensees include Physician Assistants, with 5.6% under the age of 30, and nearly 45% under the age of 40. License types with older licensees include Physician and Surgeons, with more than 30% over the age of 59. This high proportion of older licensees among Physician and Surgeons is likely a contributing factor to the high percentage that are already retired or planning to retire within the next two years (see Figure E-5: Retirement Estimates: Medicine).

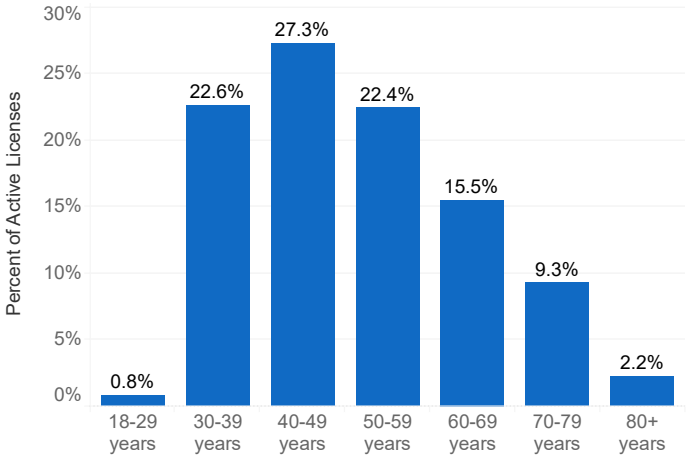


Table E-6: Age Distribution: Medicine

License Name	18-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years
Naturopathic Doctor	1.1%	29.8%	37.2%	21.5%	7.4%	2.5%	0.4%
Osteopathic Physician and Surgeon	0.0%	35.3%	35.6%	18.3%	7.9%	2.6%	0.3%
Physician and Surgeon	0.2%	19.3%	26.6%	23.5%	17.0%	10.7%	2.7%
Physician Assistant	5.6%	39.3%	26.5%	16.5%	9.1%	2.9%	0.1%
Medicine Group	**0.8%**	**22.6%**	**27.3%**	**22.4%**	**15.5%**	**9.3%**	**2.2%**

Figure E-7: Race/Ethnicity: Medicine

Across the Medicine Workforce, Hispanic, Any Race, and Black, Non-Hispanic licensees are the most underrepresented when compared to California's population, with no license types at or above the population average for either Race & Ethnicity group. Conversely, White, Non-Hispanic and Asian, Non-Hispanic licensees are the most well represented with all four license types at or above the population average for White, Non-Hispanic, and three out of four license types for Asian, Non-Hispanic. Future work will include the addition of a Middle Eastern and North African (MENA) category following the revised Statistical Policy Directive 15 guidelines.

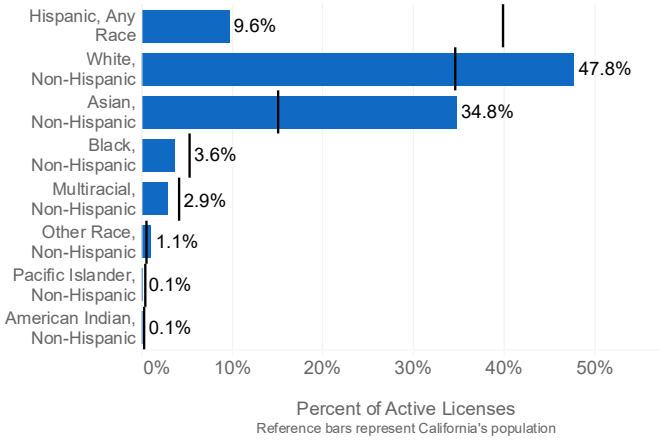
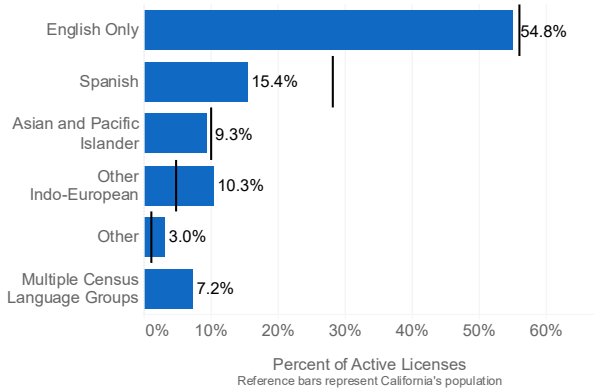


Table E-7: Race/Ethnicity: Medicine

License Name	Hispanic, Any Race	White, NH	Asian, NH	Black, NH	Multiracial, NH	Other Race, NH	Pacific Islander, NH	American Indian, NH
Naturopathic Doctor	8.6%	65.8%	14.9%	2.1%	5.3%	3.0%	0.0%	0.3%
Osteopathic Physician & Surgeon	5.8%	48.3%	40.2%	1.4%	3.1%	1.0%	0.1%	0.1%
Physician & Surgeon	8.8%	47.4%	36.2%	3.7%	2.7%	1.0%	0.1%	0.1%
Physician Assistant	17.7%	49.2%	22.4%	4.2%	4.0%	1.7%	0.5%	0.2%
Medicine Group	**9.6%**	**47.8%**	**34.8%**	**3.6%**	**2.9%**	**1.1%**	**0.1%**	**0.1%**
California's Population	**39.8%**	**34.6%**	**15.1%**	**5.3%**	**4.1%**	**0.5%**	**0.3%**	**0.3%**
NH = Non-Hispanic								

Figure E-8: Languages Spoken: Medicine



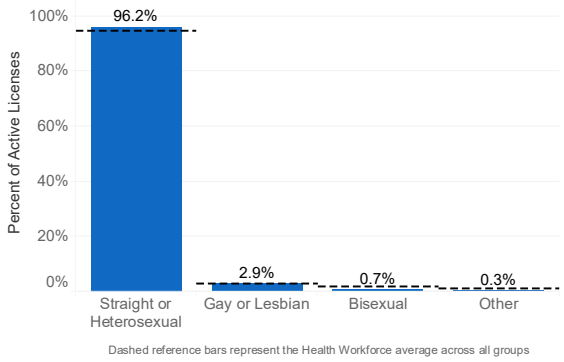
Spanish is the most underrepresented language in the Medicine Workforce when compared to California's population, with no license types at or above the population average. Other Indo-European languages and Other languages are both well represented, with all four license types at or above the population average. Asian and Pacific Islander languages are equally represented on average; however, this is largely driven by the high rates among Osteopathic Physician and Surgeons and is at or below the population average for the other three license types within the Medicine group.

Physicians and Surgeons have the highest proportion of licensees who provide services in multiple census language groups.

Table E-8: Languages Spoken: Medicine

License Name	English Only	Spanish	Asian and Pacific Islander	Other Indo-European	Other	Multiple Census Language Groups
Naturopathic Doctor	73.2%	8.1%	4.8%	8.5%	2.1%	3.3%
Osteopathic Physician and Surgeon	58.8%	12.0%	11.4%	8.9%	2.2%	6.8%
Physician and Surgeon	53.6%	14.9%	9.5%	11.1%	3.2%	7.6%
Physician Assistant	60.5%	21.1%	6.8%	4.8%	2.0%	4.8%
Medicine Group	**54.8%**	**15.4%**	**9.3%**	**10.3%**	**3.0%**	**7.2%**
California's Population	**55.9%**	**28.2%**	**10%**	**4.8%**	**1.1%**	**N/A**

Figure E-9: Sexual Orientation: Medicine

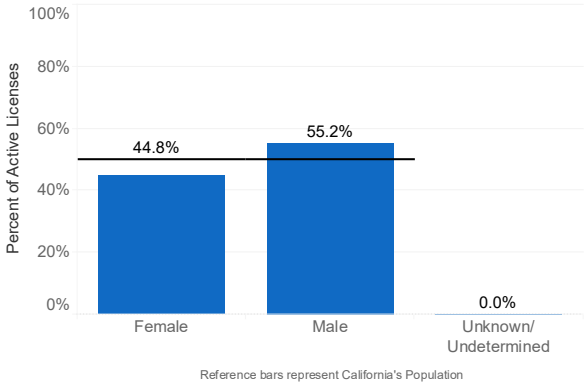


As a group, the majority (96.2%) of Medicine licensees reported identifying as Straight or Heterosexual and 2.9% reported identifying as Gay or Lesbian. Less than one percent identified as Bisexual and only 0.3% identified as Other, the lowest rate among any Health Workforce group. Notably, Osteopathic Physician and Surgeons and Physician and Surgeons reported some of the lowest rates for Bisexual and Other of any license type within the Health Workforce, while Naturopathic Doctors reported identifying as Bisexual well above the Health Workforce average.

Table E-9: Sexual Orientation: Medicine

License Name	Straight or Heterosexual	Gay or Lesbian	Bisexual	Other
Naturopathic Doctor	91.9%	2.6%	5.5%	0.0%
Osteopathic Physician and Surgeon	96.2%	3.0%	0.5%	0.2%
Physician And Surgeon	96.3%	2.9%	0.5%	0.2%
Physician Assistant	95.5%	2.9%	1.2%	0.3%
Medicine Group	**96.2%**	**2.9%**	**0.7%**	**0.3%**
Health Workforce Average	**94.5%**	**2.8%**	**1.7%**	**1.0%**

Figure E-10: Sex at Birth: Medicine

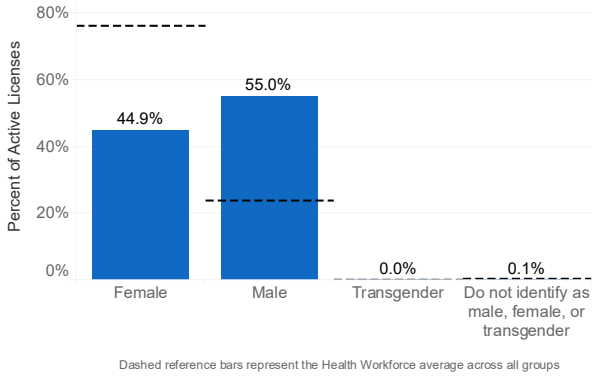


As a group, the majority (55.2%) of Medicine licensees reported identifying as Male, and almost 45% reported identifying as Female. While this is the highest percentage identifying as Male of any Health Workforce group, it is also the closest split between Male and Female licensees of any Health Workforce group and closest to California's population. Licensees identifying as Unknown/Undetermined were the lowest of any Health Workforce group at less than 0.1%. Notably, Osteopathic Physician and Surgeons have the closest split between Male and Female licensees of any license type within the Health Workforce.

Table E-10: Sex at Birth: Medicine

License Name	Female	Male	Unknown/Undetermined
Naturopathic Dtor	75.3%	24.7%	0.0%
Osteopathic Psician and Surgeon	46.0%	54.0%	0.0%
Physician And urgeon	41.4%	58.6%	0.0%
Physician Assiant	69.1%	30.8%	0.0%
Medicine Grop	**44.8%**	**55.2%**	**0.0%**
California's Ppulation	**50.0%**	**50.0%**	**N/A**

Figure E-11: Gender Identity: Medicine

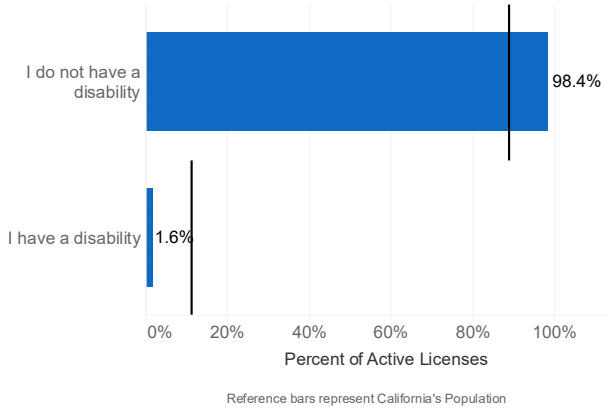


As a group, the majority (55%) of Medicine licensees reported identifying as Male, and almost 45% reported identifying as Female. While this is the highest percentage identifying as Male of any Health Workforce group, it is also the closest split between Male and Female licensees of any Health Workforce group. Licensees identifying as Transgender were the lowest of any Health Workforce group at less than 0.1%, and licensees not identifying as Male, Female or Transgender were below the workforce average at 0.1%. Notably, Osteopathic Physician and Surgeons have the closest split between Male and Female licensees of any license type within the Health Workforce.

Table E-11: Gender Identity: Medicine

License Name	Female	Male	Transgender	Do not identify as male, female, or transgender
Naturopathic Doctor	75.2%	24.6%	0.0%	0.2%
Osteopathic Physician and Surgeon	46.1%	53.7%	0.0%	0.1%
Physician And Surgeon	41.5%	58.4%	0.0%	0.1%
Physician Assistant	69.0%	30.9%	0.0%	0.1%
Medicine Group	**44.9%**	**55.0%**	**0.0%**	**0.1%**
Health Workforce Average	**79.5%**	**23.8%**	**0.1%**	**0.2%**

Figure E-12: Disability Status: Medicine



On average, 98.4% of Medicine licensees did not identify as having a disability, while only 1.6% reported having a disability, the lowest of any Health Workforce group. Within the Medicine Workforce, Physician Assistants reported the highest rates of having a disability at 2.9%, while Osteopathic Physician and Surgeons and Physician and Surgeons reported the lowest at just over one percent each, some of the lowest rates among all license type within the Health Workforce.

Table E-12: Disability Status: Medicine

License Name	I do not have a disability	I have a disability
Naturopathic Doctor	97.5%	2.5%
Osteopathic Physician and Surgeon	98.8%	1.2%
Physician And Surgeon	98.6%	1.4%
Physician Assistant	97.1%	2.9%
Medicine Group	**98.4%**	**1.6%**
California's Population	**88.7%**	**11.3%**

Figure E-13: Active Licenses: Medicine

As a group, the Greater Bay Area has the highest total number of Medicine licenses in the state while the Northern & Sierra Region has the fewest. Within the Medicine Workforce, Physicians and Surgeons make up more than 82% of all active Medicine licenses, while Naturopathic Doctors make up the smallest portion at 0.5%. For detailed metrics on how the distribution of these active licenses compares to the population (see Figure E-15: Distribution Index: Medicine).

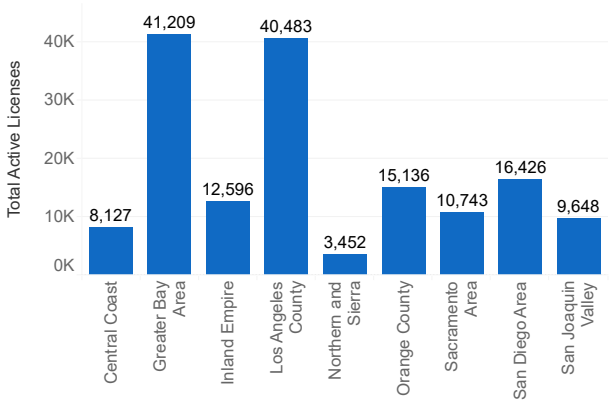
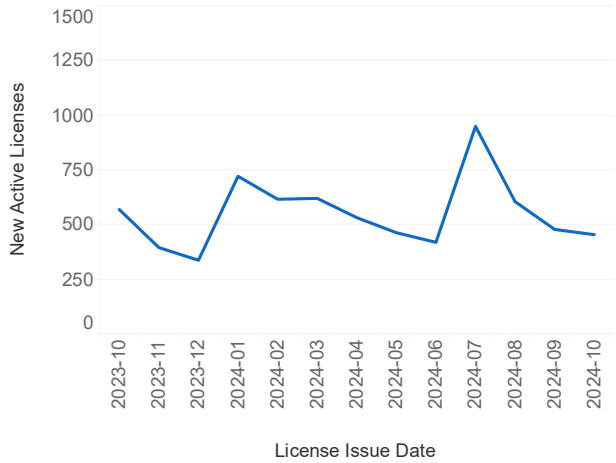


Table E-13: Active Licenses: Medicine

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Naturopathic Doctor	57	208	33	128	24	95	54	213	13
Osteopathic Physician and Surgeon	747	1,980	1,681	2,732	388	1,141	797	1,213	988
Physician and Surgeon	6,284	36,188	9,179	33,985	2,453	12,052	8,871	13,255	7,431
Physician Assistant	1,039	2,833	1,703	3,638	587	1,848	1,021	1,745	1,216
Medicine Group	**8,127**	**41,209**	**12,596**	**40,483**	**3,452**	**15,136**	**10,743**	**16,426**	**9,648**

Figure E-14: New Licenses: Medicine



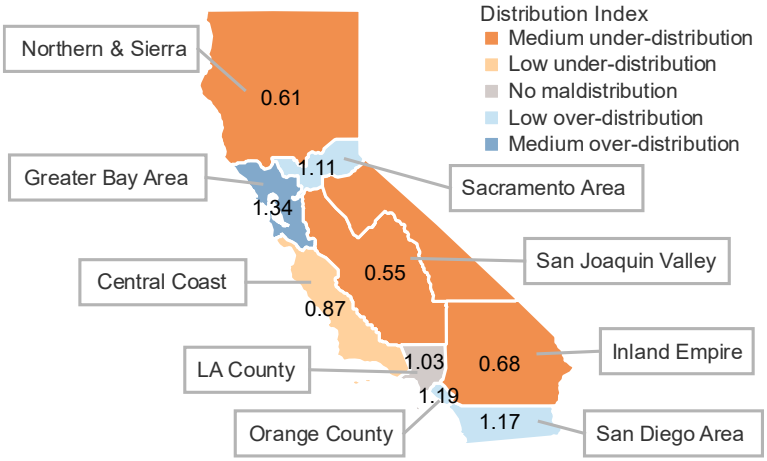
On average, there were 552 new active Medicine licenses issued per month from October 2023 to October 2024. Within the Medicine Workforce, Physician and Surgeons make up the largest portion by total volume with an average of 384 new active licenses issued per month, while Osteopathic Physician and Surgeons and Physician and Surgeons were tied for the highest average issue rate relative to their total volume at just 0.6%. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

Table E-14: New Licenses: Medicine

License Name	2023-10	2023-11	2023-12	2024-01	2024-02	2024-03	2024-04	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10
Naturopathic Doctor	19	7	0	2	5	1	3	5	0	2	0	2	12
Osteopathic Physician and Surgeon	77	43	36	47	75	75	57	50	37	127	96	84	56
Physician And Surgeon	346	224	236	595	403	461	411	340	266	724	454	301	232
Physician Assistant	128	122	66	78	134	84	62	69	117	97	56	92	155
Grand Total	**570**	**396**	**338**	**722**	**617**	**621**	**533**	**464**	**420**	**950**	**606**	**479**	**455**

Figure E-15: Distribution Index: Medicine

The distribution index describes the magnitude of difference between a region's share of the state's licenses and its share of the state's population. A distribution index of 1 indicates the region has an equal share of the state's licenses and population (e.g., 10% of the state's licenses and 10% of the state's population). A distribution index below 1 indicates a smaller share of licenses than population (e.g., 5% of the state's licenses and 10% of the state's population), and a distribution index greater than 1 indicates the opposite. The further away the index is from 1, the greater the maldistribution.



The Greater Bay Area region has the highest total count of active Medicine licenses by volume, as well as the highest distribution of active Medicine licenses compared to the population. While Northern & Sierra region has the lowest total count of active Medicine licenses by volume, San Joaquin Valley has the lowest distribution of active Medicine licenses compared to the population. Specifically, the region has just over 50% of the Physician and Surgeons, as well as less than 20% of the amount of Naturopathic Doctors they should have based on their population size.

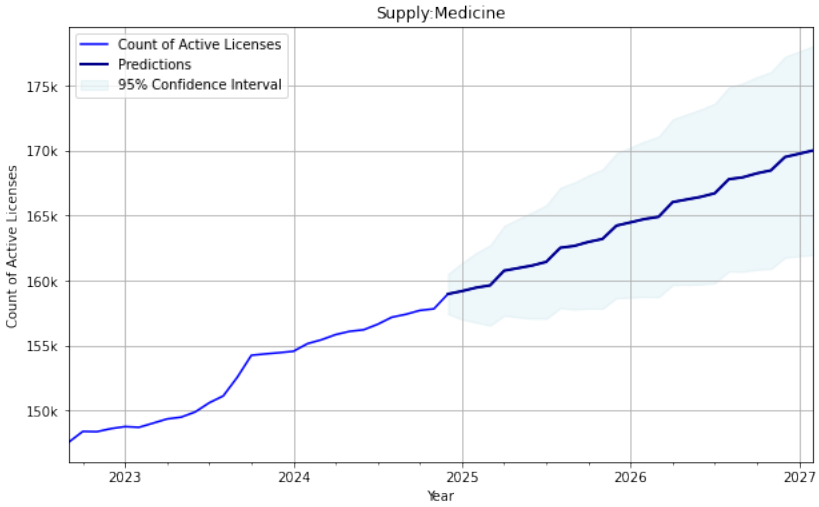
Table E-15: Distribution Index: Medicine

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Naturopathic Doctor	1.17	1.29	0.34	0.62	0.81	1.43	1.06	2.89	0.14
Osteopathic Physician and Surgeon	1.08	0.87	1.22	0.94	0.93	1.22	1.11	1.16	0.77
Physician and Surgeon	0.82	1.43	0.60	1.05	0.53	1.16	1.11	1.14	0.52
Physician Assistant	1.12	0.93	0.92	0.93	1.05	1.47	1.06	1.25	0.70
Medicine Group	**0.87**	**1.34**	**0.68**	**1.03**	**0.61**	**1.19**	**1.11**	**1.17**	**0.55**

Low Under-Distribution (0.95-0.75) ☐ No Maldistribution (0.95-1.05) Low Over-Distribution (1.05-1.25)
Medium Under-Distribution (0.75-0.50) Medium Over-Distribution (1.25-1.50)
High Under-Distribution (0.50 or less) High Over-Distribution (1.50 or more)

Overall, Medicine licenses are fairly well distributed across the state, though there is an extremely high ratio of Naturopathic Doctors in the San Diego Area. The San Joaquin Valley Region has the lowest distribution index across all Medicine license types; the value of 0.55 indicates that the share of the state's Medicine licenses is nearly half that of the San Joaquin Valley Region's population, though this is mostly being driven by a low rate of Naturopathic Doctors in the region.

Figure E-16: Supply Projections: Medicine



To project supply for the Medicine Workforce, each license type within the group was individually modelled with a 95% confidence interval. Active license counts for each month from September 2022 to November 2024 were used to predict the monthly supply of active licenses each month from December 2024 to February 2027. The table below lists the count of active licenses for November of each year.

On average, the Medicine Workforce is expected to grow 7.7% by 2027. Every license type within the group is expected to increase over the next three years, with the greatest growth occurring in Osteopathic Physician and Surgeons who have a projected growth rate of 18.7% by 2027. These metrics combined with Retirement estimates (see Figure E-5: Retirement Estimates: Medicine) will be crucial for calculating more accurate supply and demand projections for each license type in our modeling data.

Table E-16: Supply Projections: Medicine

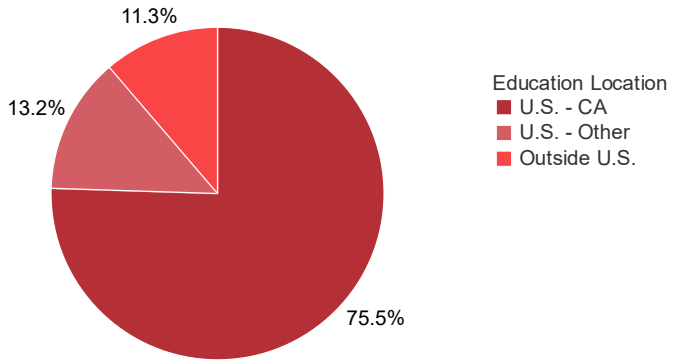
License Types	2022	2023	2024	2025	2026	2027
Naturopathic Doctor	805	816	825	842	857	861
Osteopathic Physician and Surgeon	9,809	11,067	11,668	12,650	13,610	13,849
Physician and Surgeon	123,838	127,745	129,699	133,298	136,779	137,864
Physician Assistant	13,902	14,722	15,630	16,417	17,249	17,457
Medicine Group	**148,354**	**154,350**	**157,822**	**163,207**	**168,495**	**170,031**

Note: Cells shaded in light blue are predictions based on the Workforce Supply Model (see Figure E-16).

Section F: Nursing, All Figures

This section focuses on licenses issued by the California Board of Registered Nursing (Registered Nurse, Public Health Nurse) and Board of Vocational Nursing and Psychiatric Technicians (Vocational Nurse).

Figure F-1: Education Location: Nursing



Nearly 90% of Nursing licensees completed their education in the U.S., with over 75% receiving their initial qualifying degree within California. 11.3% reported receiving their initial qualifying degree outside the U.S., the highest of all Health Workforce Groups. Notable license types within the Nursing Workforce include Registered Nurses with just under 70% receiving their initial qualifying degree in California, and 14% receiving their initial qualifying degree from somewhere outside the U.S. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

Table F-1: Education Location: Nursing

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Public Health Nurse	93.0%	5.1%	1.9%
Registered Nurse	69.5%	16.5%	14.0%
Vocational Nurse	92.0%	3.5%	4.5%
Nursing Group	**75.5%**	**13.2%**	**11.3%**

Figure F-2: Employment Status: Nursing

Over 92% of Nursing licensees are actively working or seeking work, while just under two percent are actively working in a different field and just under four percent are already retired. Notable license types within the Nursing Workforce include Vocational Nurses with 3.5% actively working in a different field, and nearly six percent of Public Health Nurses reporting already being retired despite their active license status. These metrics will be used in the future to calculate more accurate supply data for each license type.

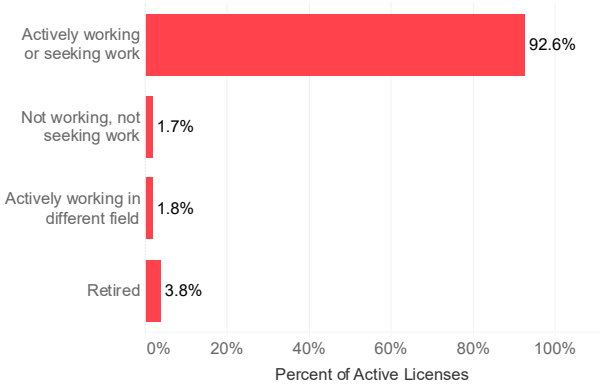
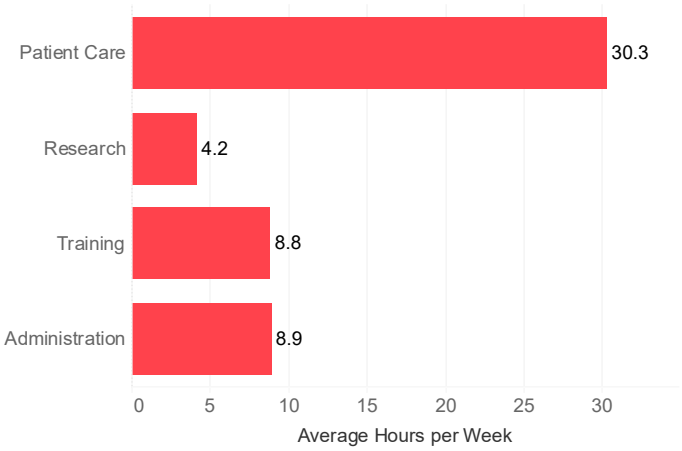


Table F-2: Employment Status: Nursing

License Name	Actively working or seeking work	Not working, not seeking work	Actively working in different field	Retired
Public Health Nurse	90.9%	2.0%	1.6%	5.5%
Registered Nurse	92.6%	1.8%	1.5%	4.2%
Vocational Nurse	93.5%	1.6%	3.5%	1.4%
Nursing Group	**92.6%**	**1.7%**	**1.8%**	**3.8%**

Figure F-3: Full-Time Equivalent Metrics: Nursing



Full Time Equivalent (FTE) metrics were calculated for licensees that reported they were actively working in a position that required their license. On average, Nursing licensees spend the highest number of hours per week on Patient Care (30.3 hours), and the least amount of time per week on Research (4.2 hours). Notable license types within the Nursing Workforce include Public Health Nurses, who reported spending the least amount of time on Patient Care at only 25.8 hours per week, and Vocational Nurses who reported the highest amounts of time per week on Training (11.2 hours) and Admin (11.6). These metrics will be used in the future to calculate more accurate supply and demand modeling.

Table F-3: Full-Time Equivalent Metrics: Nursing

License Name	Patient Care	Research	Training	Admin
Public Health Nurse	25.8	4.3	8.7	10.8
Registered Nurse	30.6	3.6	8.2	8.1
Vocational Nurse	31.1	6.5	11.2	11.6
Nursing Group	**30.3**	**4.2**	**8.8**	**8.9**

Figure F-4: Retirement Estimates: Nursing

Among Nursing licensees who reported actively working in a position that required their license, or were actively seeking work in their field, 71% estimated retiring in 11 or more years, and 5.1% estimated retiring within the next two years, the highest rate among all Health Workforce groups. Of note are Public Health Nurses and Registered Nurses, with over 15% estimating retiring within the next five years, and over 30% estimating retiring in the next 10 years. These metrics will be crucial for calculating more accurate supply and demand models for each license type. In addition, this information may be useful in helping to identify which areas are in most need of funding to maintain the supply of Nursing licensees across the state.

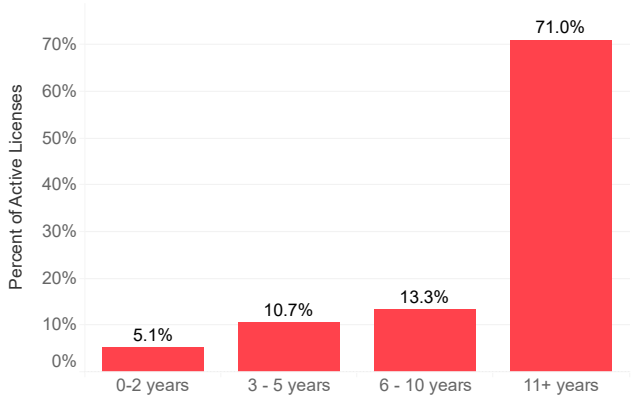
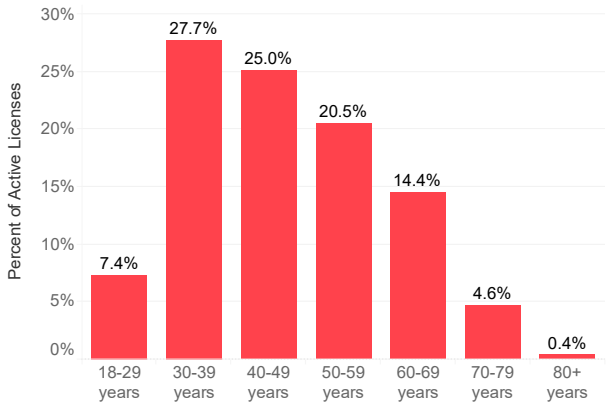


Table F-4: Retirement Estimates: Nursing

License Name	0-2 years	3 - 5 years	6 - 10 years	11+ years
Public Health Nurse	6.0%	12.3%	14.3%	67.4%
Registered Nurse	5.5%	11.1%	13.6%	69.8%
Vocational Nurse	2.7%	7.9%	11.3%	78.2%
Nursing Group	**5.1%**	**10.7%**	**13.3%**	**71.0%**

Figure F-5: Age Distribution: Nursing

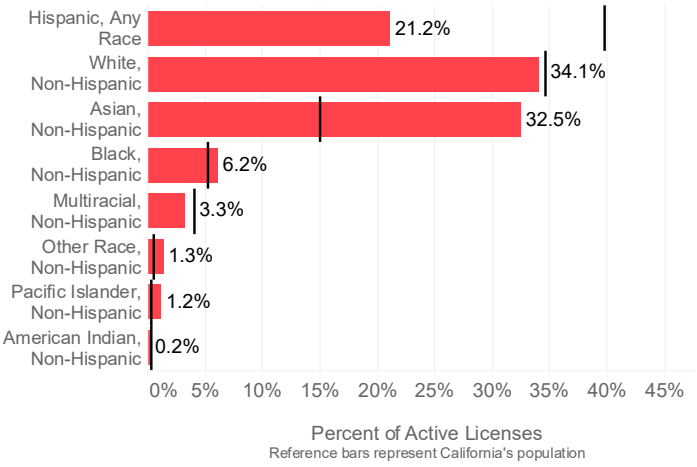


Overall, just over 73% of Nursing licensees are between the ages of 30 and 59 years old, with 7.4% under the age of thirty, and 19.4% over the age of 59. License types with younger licensees include Vocational Nurses with over 40% of licensees under the age of 40. License types with older licensees include Public Health Nurses with more than 23% over the age of 59.

Table F-5: Age Distribution: Nursing

License Name	18-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years
Public Health Nurse	5.0%	24.8%	26.2%	20.7%	16.7%	6.0%	0.5%
Registered Nurse	7.1%	27.3%	24.6%	20.8%	14.9%	4.9%	0.4%
Vocational Nurse	9.4%	30.9%	26.2%	18.9%	11.6%	2.9%	0.2%
Nursing Group	**7.4%**	**27.7%**	**25.0%**	**20.5%**	**14.4%**	**4.6%**	**0.4%**

Figure F-6: Race/Ethnicity: Nursing

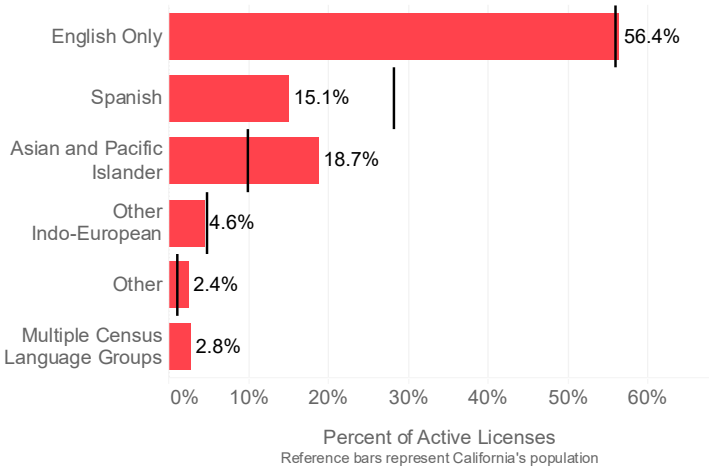


Across the Nursing Workforce, Hispanic, Any Race and American Indian, Non-Hispanic licensees are the most underrepresented when compared to California's population, with no license types at or above the population average for Hispanic, Any Race and only Vocational Nurses at or above the population average for American Indian, Non-Hispanic. Conversely, Asian, Non-Hispanic licensees are the most well represented with all three license types at or above the population average. White, Non-Hispanic licensees are equally represented in the Nursing Workforce on average but are underrepresented amongst Vocational Nurses. Future work will include the addition of a Middle Eastern and North African (MENA) category following the revised Statistical Policy Directive 15 guidelines.

Table F-6: Race/Ethnicity: Nursing

License Name	Hispanic, Any Race	White, NH	Asian, NH	Black, NH	Multiracial, NH	Other Race, NH	Pacific Islander, NH	American Indian, NH
Public Health Nurse	21.2%	38.6%	26.7%	7.3%	3.9%	1.2%	0.9%	0.2%
Registered Nurse	17.5%	37.8%	33.8%	5.0%	3.2%	1.3%	1.1%	0.2%
Vocational Nurse	35.4%	17.5%	30.1%	10.4%	3.2%	1.5%	1.6%	0.3%
Nursing Group	**21.2%**	**34.1%**	**32.5%**	**6.2%**	**3.3%**	**1.3%**	**1.2%**	**0.2%**
California's Population	**39.8%**	**34.6%**	**15.1%**	**5.3%**	**4.1%**	**0.5%**	**0.3%**	**0.3%**
NH = Non-Hispanic								

Figure F-7: Languages Spoken: Nursing

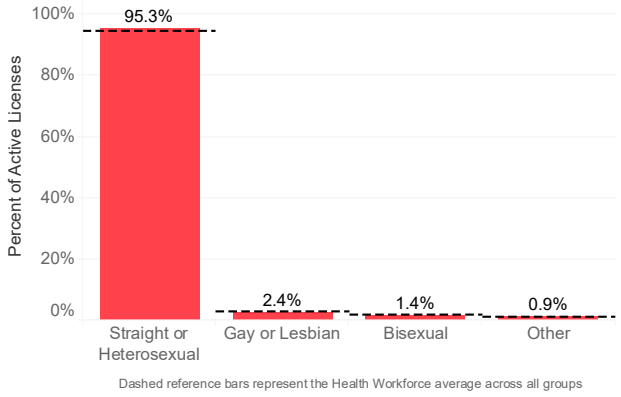


On average, Spanish is the most underrepresented language in the Nursing Workforce when compared to California's population, with no license types at or above the population average and the lowest average of any Health Workforce group. Conversely, Asian and Pacific Islander languages are represented well above the population average overall and have the highest average of any Health Workforce group with all three license types well above the population average. Other languages are also represented well above the population average overall and are above the population average for all three individual license types. Other Indo-European languages are equally represented compared to the population.

Table F-7: Languages Spoken: Nursing

License Name	English Only	Spanish	Asian and Pacific Islander	Other Indo-European	Other	Multiple Census Language Groups
Public Health Nurse	62.3%	16.6%	12.0%	4.0%	2.4%	2.7%
Registered Nurse	58.2%	12.5%	19.4%	4.6%	2.4%	2.8%
Vocational Nurse	46.6%	24.5%	18.7%	4.7%	2.7%	2.9%
Nursing Group	**56.4%**	**15.1%**	**18.7%**	**4.6%**	**2.4%**	**2.8%**
California's Population	**55.9%**	**28.2%**	**10%**	**4.8%**	**1.1%**	**N/A**

Figure F-8: Sexual Orientation: Nursing

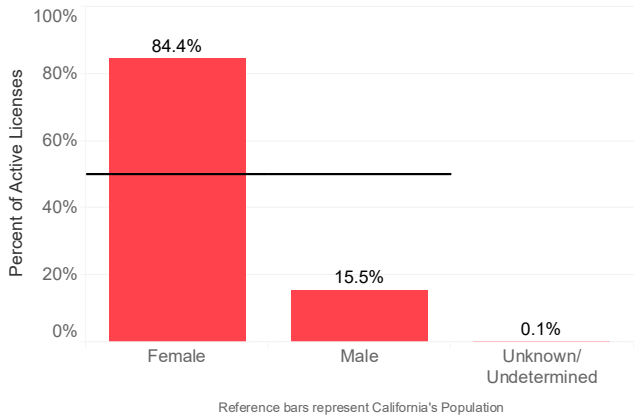


As a group, the majority (95.3%) of Nursing licensees reported identifying as Straight or Heterosexual, and 2.4% reported identifying as Gay or Lesbian. Licensees identifying as Bisexual were just under the Health Workforce average at 1.4%, and licensees identifying as Other were nearly even with the Health Workforce average at 0.9%. Within the Nursing Workforce, all three license types reported identifying as Gay or Lesbian or Bisexual below the workforce average, and only one reported identifying as Other at or above the workforce average.

Table F-8: Sexual Orientation: Nursing

License Name	Straight or Heterosexual	Gay or Lesbian	Bisexual	Other
Public Health Nurse	95.1%	2.6%	1.5%	0.8%
Registered Nurse	95.3%	2.5%	1.4%	0.8%
Vocational Nurse	95.6%	1.8%	1.3%	1.3%
Nursing Group	**95.3%**	**2.4%**	**1.4%**	**0.9%**
Health Workforce Average	**94.5%**	**2.8%**	**1.7%**	**1.0%**

Figure F-9: Sex at Birth: Nursing

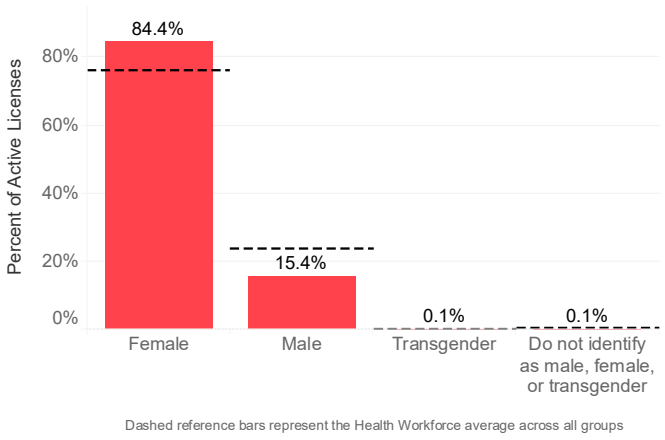


As a group, the majority (84.4%) of Nursing licensees reported identifying as Female, and nearly 16% reported identifying as Male. Only 0.1% of licensees identified as Unknown/Undetermined. Sexes were very similarly distributed across all three license types within the Nursing group, with only a slight increase in licensees identifying as Female vs Male at birth for Public Health Nurses. All three license types were above the Health Workforce average for licensees identifying as Female at birth and below the Health Workforce average for those identifying as Male at birth.

Table F-9: Sex at Birth: Nursing

License Name	Female	Male	Unknown/Undetermined
Public Health Nurse	88.9%	11.0%	0.1%
Registered Nurse	84.1%	15.9%	0.1%
Vocational Nurse	83.9%	16.0%	0.1%
Nursing Group	**84.4%**	**15.5%**	**0.1%**
Health Workforce Average	**50.0%**	**50.0%**	**N/A**

Figure F-10: Gender Identity: Nursing

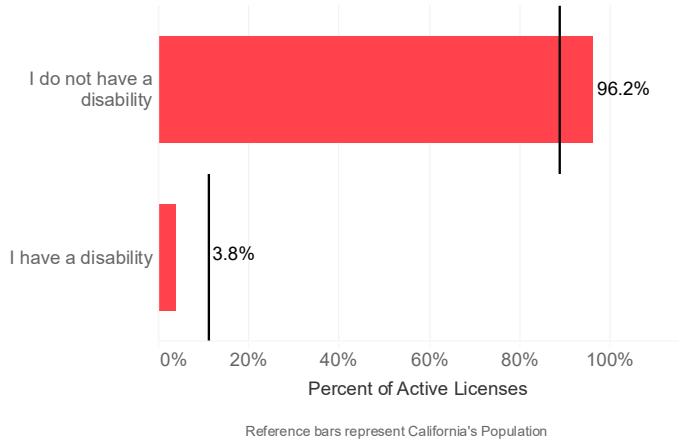


As a group, the majority (84.4%) of Nursing licensees reported identifying as Female, and 15.4% reported identifying as Male. Licensees identifying as Transgender or not identifying as Male, Female or Transgender were even at 0.1% each. Gender Identities were very similarly distributed across all three license types within the Nursing group, with only a slight increase in licensees identifying as Female vs Male for Public Health Nurses. All three license types were above the Health Workforce average for licensees identifying as Female, below the Health Workforce average for those identifying as Male, or not identifying as Male, Female or Transgender, and just at the Health Workforce average for licensees identifying as Transgender.

Table F-10: Gender Identity: Nursing

License Name	Female	Male	Transgender	Do not identify as male, female, or transgender
Public Health Nurse	88.8%	10.8%	0.1%	0.2%
Registered Nurse	84.0%	15.8%	0.1%	0.1%
Vocational Nurse	83.9%	15.8%	0.1%	0.1%
Nursing Group	**84.4%**	**15.4%**	**0.1%**	**0.1%**
Health Workforce Average	**79.5%**	**23.8%**	**0.1%**	**0.2%**

Figure F-11: Disability Status: Nursing

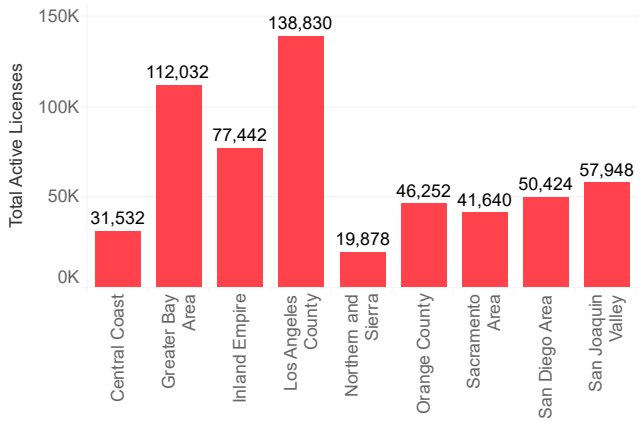


On average, 96.2% of Nursing licensees did not identify as having a disability, while 3.8% reported having a disability. Within the Nursing Workforce, Public Health Nurses reported the highest rates of having a disability at 5.2%, while Vocational Nurses reported the lowest rate at 3.6%.

Table F-11: Disability Status: Nursing

License Name	I do not have a disability	I have a disability
Public Health Nurse	94.8%	5.2%
Registered Nurse	96.3%	3.7%
Vocational Nurse	96.4%	3.6%
Nursing Group	**96.2%**	**3.8%**
California's Population	**88.7%**	**11.3%**

Figure F-12: Active Licenses: Nursing

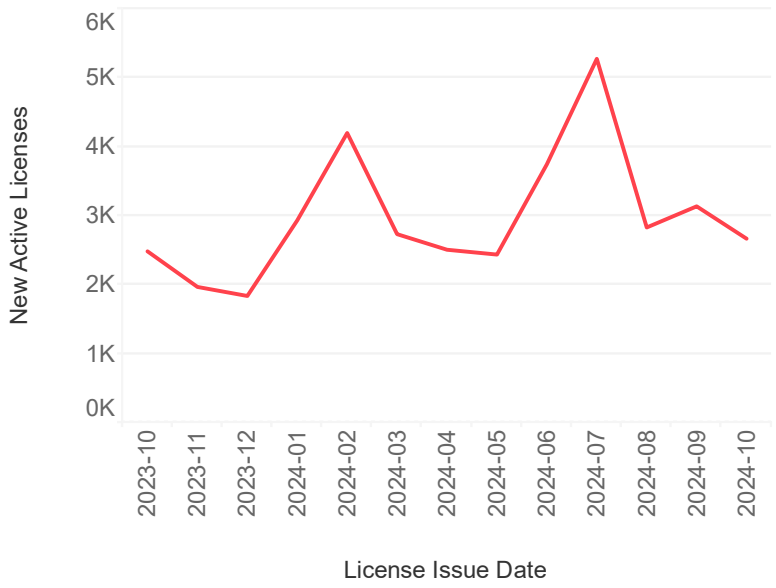


As a group, the Los Angeles County Region has the highest total number of Nursing licenses in the state while the Northern & Sierra Region has the fewest. Within the Nursing Workforce, Registered Nurses make up more than 73% of all active Nursing licenses and are the largest of any license type across the Health Workforce at 424,378 active licenses. Public Health Nurses make up the smallest portion of the Nursing Workforce at just over seven percent. For detailed metrics on how the distribution of these active licenses compares to the population (see Figure F-14: Distribution Index: Nursing).

Table F-12: Active Licenses: Nursing

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Public Health Nurse	2,541	9,798	5,242	10,797	1,607	3,731	3,108	3,207	3,766
Registered Nurse	24,463	86,955	52,997	95,972	14,617	35,327	33,074	40,116	40,857
Vocational Nurse	4,528	15,279	19,203	32,061	3,654	7,194	5,458	7,101	13,325
Nursing Group	**31,532**	**112,032**	**77,442**	**138,830**	**19,878**	**46,252**	**41,640**	**50,424**	**57,948**

Figure F-13: New Licenses: Nursing

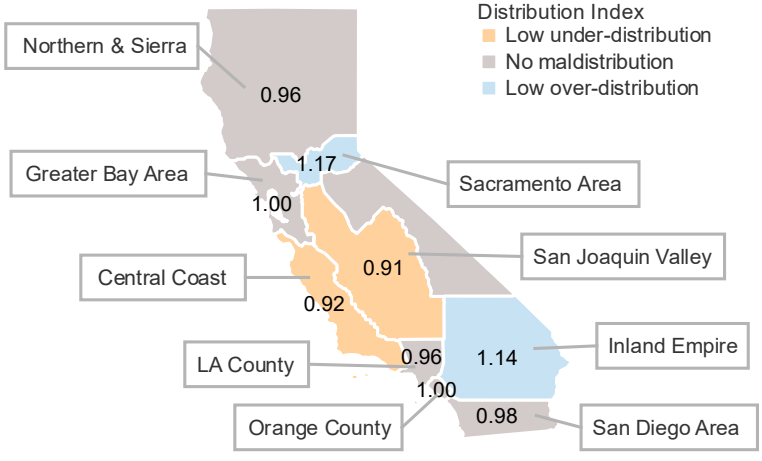


On average, there were 2,979 new active Nursing licenses issued per month from October 2023 to October 2024. Within the Nursing Workforce, Registered Nurses make up the largest portion by total volume with an average of 1,835 new active licenses issued per month, while Public Health Nurses had the highest average issue rate relative to their total volume at just under one percent. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

Table F-13: New Licenses: Nursing

License Name	2023-10	2023-11	2023-12	2024-01	2024-02	2024-03	2024-04	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10
Public Health Nurse	182	99	123	363	514	495	454	461	426	655	559	507	506
Registered Nurse	1,535	1,187	1,170	1,781	2,948	1,414	1,334	1,280	2,588	3,800	1,544	1,915	1,353
Vocational Nurse	765	680	542	787	735	822	717	694	730	817	725	712	806
Grand Total	**2,482**	**1,966**	**1,835**	**2,931**	**4,197**	**2,731**	**2,505**	**2,435**	**3,744**	**5,272**	**2,828**	**3,134**	**2,665**

Figure F-14: Distribution Index: Nursing



The distribution index describes the magnitude of difference between a region's share of the state's licenses and its share of the state's population. A distribution index of 1 indicates the region has an equal share of the state's licenses and population (e.g., 10% of the state's licenses and 10% of the state's population). A distribution index below 1 indicates a smaller share of licenses than population (e.g., 5% of the state's licenses and 10% of the state's population), and a distribution index greater than 1 indicates the opposite. The further away the index is from 1, the greater the maldistribution.

Note: These distribution indexes reflect the distribution of active *licenses*, not the distribution of *providers* as presented in *Section B: Model Projections, Nursing.*

While Los Angeles County region has the highest total count of active Nursing licenses by volume, the Sacramento Area region has the highest distribution of active licenses compared to the population. Similarly, while Northern & Sierra region has the lowest total count of active Nursing licenses by volume, San Joaquin Valley has the lowest distribution of active licenses compared to the population. As a group, the Nursing Workforce is the most well distributed of all Health Workforce groups.

Table F-14: Distribution Index: Nursing

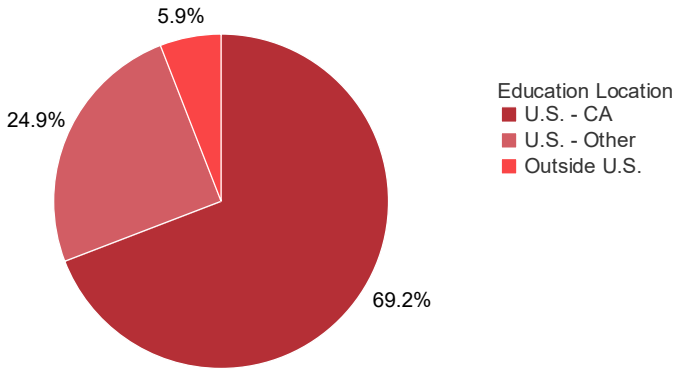
License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Public Health Nse	0.98	1.15	1.01	0.99	1.03	1.06	1.15	0.82	0.78
Registered Nure	0.97	1.05	1.06	0.90	0.96	1.04	1.27	1.06	0.87
Vocational Nure	0.71	0.73	1.51	1.19	0.95	0.83	0.82	0.74	1.12
Nursing Grou	**0.92**	**1.00**	**1.14**	**0.96**	**0.96**	**1.00**	**1.17**	**0.98**	**0.91**

Low Under-Distribution (0.95-0.75)
Medium Unde -Distribution (0.75-0.50)
High Under-Distribution (0.50 or less)
No Mdistribution (0.95 -1.05)
Low Over-Distribution (1.05-1.25)
Medium Over-Distribution (1.25-1.50)
High Over-Distribution (1.50 or more)

Section G: Advanced Practice Nursing, All Figures

This section focuses on licenses issued by the California Board of Registered Nursing (Clinical Nurse Specialist, Nurse Anesthetist, Nurse Midwife, Nurse Practitioner) and the Medical Board of California (Licensed Midwife).

Figure G-1: Education Location: Advanced Practice Nursing



Nearly 95% of Advanced Practice Nursing licensees completed their education in the U.S., but only 69.2% received their initial qualifying degree within California. Notable license types within the Advanced Practice Nursing Workforce include Nurse Anesthetists with over 42% receiving their initial qualifying degree outside California, and Nurse Practitioners and Clinical Nurse Specialists with at least six percent receiving their initial qualifying degree from somewhere outside the U.S. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

Table G-1: Education Location: Advanced Practice Nursing

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Clinical Nurse Specialist	74.4%	19.6%	6.0%
Nurse Anesthetist	55.4%	42.3%	2.3%
Nurse Midwife	59.6%	37.8%	2.6%
Nurse Practitioner	70.0%	23.7%	6.3%
Advanced Practice Group	**69.2%**	**24.9%**	**5.9%**
Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.			

Figure G-2: Employment Status: Advanced Practice Nursing

Nearly 95% of Advanced Practice Nursing licensees are actively working or seeking work, while just over one percent are working in a different field and 2.7% have already retired. Notable license types within the Advanced Practice Nursing Workforce include Nurse Midwives with over three percent reporting not working and not seeking work, and over five percent of Clinical Nurse Specialists and Nurse Midwives reporting already being retired despite their active license status. These metrics will be used in the future to calculate more accurate supply data for each license type.

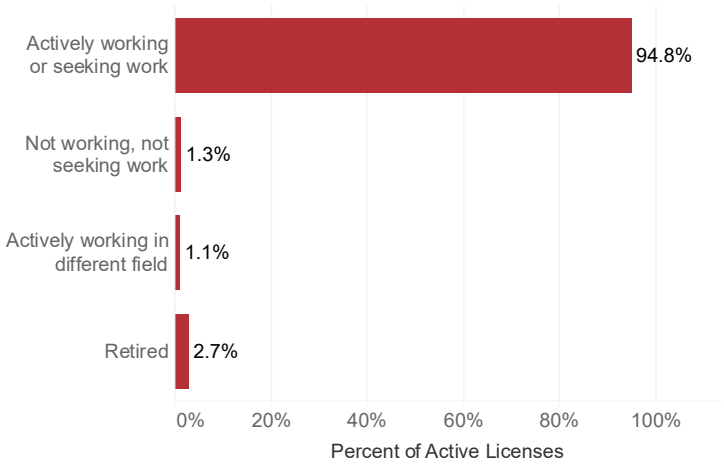
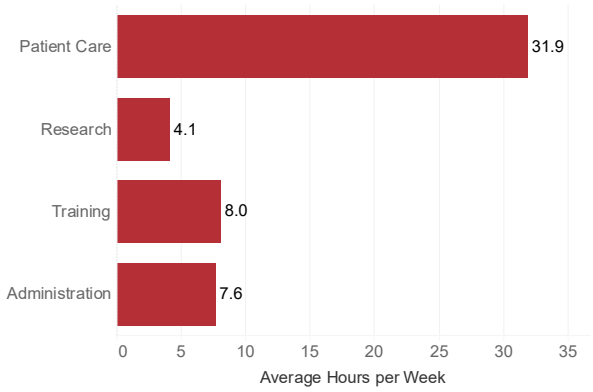


Table G-2: Employment Status: Advanced Practice Nursing

License Name	Actively working or seeking work	Not working, not seeking work	Actively working in different field	Retired
Clinical Nurse Specialist	89.2%	2.0%	1.3%	7.5%
Nurse Anesthetist	97.9%	0.9%	0.5%	0.6%
Nurse Midwife	89.9%	3.1%	1.3%	5.6%
Nurse Practitioner	95.3%	1.2%	1.1%	2.3%
Advanced Practice Group	**94.8%**	**1.3%**	**1.1%**	**2.7%**
Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure G-3: Full-Time Equivalent Metrics: Advanced Practice Nursing



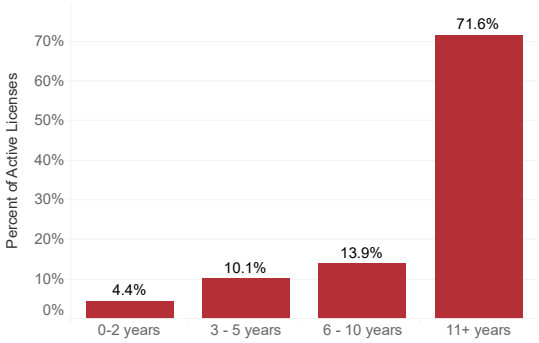
Full Time Equivalent (FTE) metrics were calculated for licensees that reported they were actively working in a position that required their license. On average, Advanced Practice Nursing licensees spend the highest number of hours per week on Patient Care (31.9 hours), and the least amount of time per week on Research (4.1 hours). Notable license types within the Advanced Practice Nursing Workforce include Clinical Nurse Specialists, who reported spending the least amount of time on Patient Care at only 18.7 hours per week, and Nurse Anesthetists with the highest amounts of time per week on Patient Care at 36.2 hours. Clinical Nurse Specialists also reported the highest amounts of time per week on Research (5.5), Training (10.7) and Admin (13.2). These metrics will be used in the future to calculate more accurate supply and demand modeling.

Table G-3: Full-Time Equivalent Metrics: Advanced Practice Nursing

License Name	Patient Care	Research	Training	Admin
Clinical Nurse Specialist	18.7	5.5	10.7	13.2
Nurse Anesthetist	36.2	2.2	6.9	3.8
Nurse Midwife	30.4	1.7	6.7	5.3
Nurse Practitioner	32.7	4.3	7.9	7.5
Advanced Practice Group	**31.9**	**4.1**	**8.0**	**7.6**
Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure G-4: Retirement Estimates: Advanced Practice Nursing

Among Advanced Practice Nursing licensees who reported actively working in a position that required their license, or were actively seeking work in their field, 71.6% estimated retiring in 11 or more years, and 4.4% estimated retiring within the next two years. Of note are Clinical Nurse Specialists, with nearly 30% estimating retiring in the next five years, and nearly 50% estimating retiring within the next 10 years. Over 22% of Nurse Midwives also estimate retiring within the next five years. These metrics will be crucial for



calculating more accurate supply and demand models for each license type. In addition, this information may be useful in helping to identify which areas are in most need of funding to maintain the supply of Advanced Practice Nursing licensees across the state

Table G-4: Retirement Estimates: Advanced Practice Nursing

License Name	0-2 years	3 - 5 years	6 - 10 years	11+ years
Clinical Nurse Specialist	9.6%	20.1%	19.6%	50.8%
Nurse Anesthetist	4.0%	10.0%	13.9%	72.1%
Nurse Midwife	8.5%	13.6%	16.5%	61.5%
Nurse Practitioner	3.9%	9.1%	13.3%	73.7%
Advanced Practice Group	**4.4%**	**10.1%**	**13.9%**	**71.6%**
Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure G-5: Age Distribution: Advanced Practice Nursing

Overall, 80% of Advanced Practice Nursing licensees are between the ages of 30 and 59 years old, the highest across all Health Workforce groups, with only 2.1% under the age of thirty, and 17.9% over the age of 59. License types with younger licensees include Nurse Practitioners and Nurse Anesthetists with over 33% of licensees under the age of 40. License types with older licensees include Clinical Nurse Specialists with more than 34% over the age of 59.

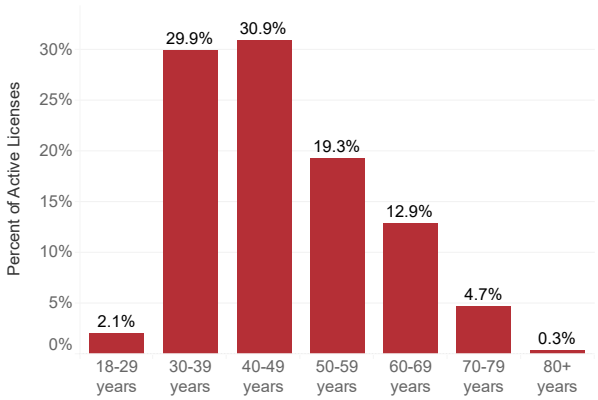
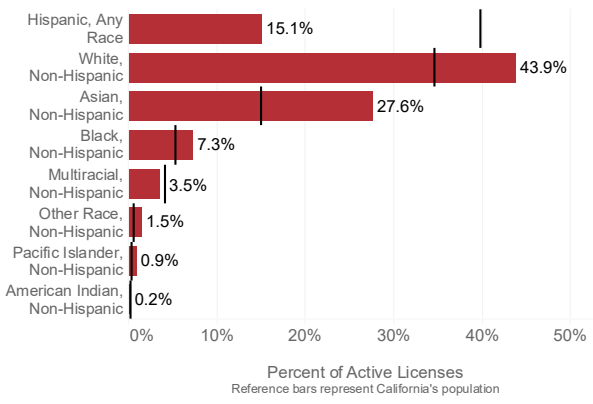


Table G-5: Age Distribution: Advanced Practice Nursing

License Name	18-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years
Clinical Nurse Specialist	0.4%	11.1%	30.0%	23.8%	23.5%	10.4%	0.9%
Licensed Midwife	1.3%	22.9%	35.9%	24.8%	11.1%	3.9%	0.0%
Nurse Anesthetist	1.0%	33.3%	33.4%	18.6%	10.9%	2.5%	0.2%
Nurse Midwife	1.6%	23.3%	28.2%	20.0%	18.4%	8.1%	0.5%
Nurse Practitioner	2.3%	31.4%	30.9%	18.9%	12.0%	4.2%	0.3%
Advanced Practice Group	**2.1%**	**29.9%**	**30.9%**	**19.3%**	**12.9%**	**4.7%**	**0.3%**

Figure G-6: Race/Ethnicity: Advanced Practice Nursing



Across the Advanced Practice Nursing Workforce, Hispanic, Any Race and American Indian, Non-Hispanic licensees are the most underrepresented when compared to California's population, with no license types at or above the population average for Hispanic, Any Race and only two license types at or above the population average for American Indian, Non-Hispanic. Conversely, White, Non-Hispanic and Other, Non-Hispanic licensees are the most well represented with all four license types at or above the population average. Asian, Non-Hispanic are well represented on average

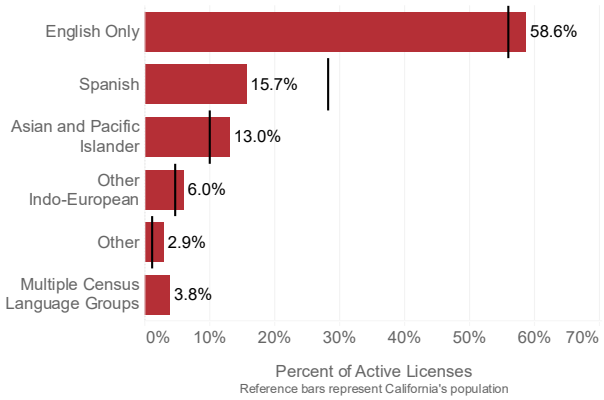
but are underrepresented amongst Nurse Midwives. Future work will include the addition of a Middle Eastern and North African (MENA) category following the revised Statistical Policy Directive 15 guidelines.

Table G-6: Race/Ethnicity: Advanced Practice Nursing

License Name	Hispanic, Any Race	White, NH	Asian, NH	Black, NH	Multiracial, NH	Other Race, NH	Pacific Islander, NH	American Indian, NH
Clinical Nurse Specialist	12.4%	54.6%	21.2%	5.6%	3.3%	1.5%	1.1%	0.3%
Nurse Anesthetist	12.4%	52.7%	23.6%	4.5%	4.3%	1.5%	1.0%	0.1%
Nurse Midwife	13.0%	68.6%	5.6%	6.5%	4.7%	1.1%	0.1%	0.3%
Nurse Practitioner	15.6%	41.3%	29.3%	7.7%	3.4%	1.5%	0.9%	0.2%
Advanced Practice Group	**15.1%**	**43.9%**	**27.6%**	**7.3%**	**3.5%**	**1.5%**	**0.9%**	**0.2%**
California's Population	**39.8%**	**34.6%**	**15.1%**	**5.3%**	**4.1%**	**0.5%**	**0.3%**	**0.3%**

Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals. NH = Non-Hispanic

Figure G-7: Languages Spoken: Advanced Practice Nursing



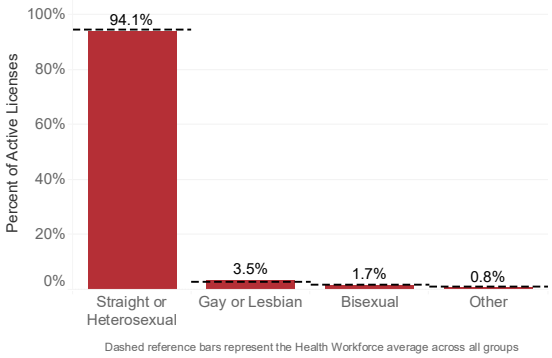
On average, Spanish is the most underrepresented language in the Advanced Practice Nursing Workforce when compared to California's population, with only one license type at or above the population average. Asian and Pacific Islander languages are represented well above the population average overall, however this is largely driven by the high rates among Nurse Practitioners and Clinical Nurse Specialists, as these languages are below the population average for the other two license types within the group. Similarly, Other Indo-European languages are represented well above the population average overall but are below the population average for three of the individual license types within the group. Other languages are represented well above the population average overall and are above the population average for all four license types included in the Nursing group.

Table G-7: Languages Spoken: Advanced Practice Nursing

License Name	English Only	Spanish	Asian and Pacific Islander	Other Indo-European	Other	Multiple Census Language Groups
Clinical Nurse Specialist	71.2%	10.8%	10.8%	3.0%	2.0%	2.2%
Nurse Anesthetist	73.4%	11.3%	7.6%	3.5%	1.6%	2.6%
Nurse Midwife	59.0%	30.1%	2.4%	2.7%	1.6%	4.2%
Nurse Practitioner	56.5%	15.8%	14.0%	6.6%	3.1%	4.0%
Advanced Practice Group	**58.6%**	**15.7%**	**13.0%**	**6.0%**	**2.9%**	**3.8%**
California's Population	**55.9%**	**28.2%**	**10%**	**4.8%**	**1.1%**	**N/A**

Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.

Figure G-8: Sexual Orientation: Advanced Practice Nursing



As a group, the majority (94.1%) of Advanced Practice Nursing licensees reported identifying as Straight or Heterosexual, and 3.5% reported identifying as Gay or Lesbian. Licensees identifying as Bisexual were even with the Health Workforce average at 1.7%, and licensees identifying as Other were just under the Health Workforce average at 0.8%. Within the Nursing Workforce, all four license types reported identifying as Gay or Lesbian above the workforce average, but only half report identifying as Bisexual or Other at or above the workforce average. Notably, Nurse Midwives reported above averages rates for all three minority Sexual Orientations.

Table G-8: Sexual Orientation: Advanced Practice Nursing

License Typ	Straight or Heterosexual	Gay or Lesbian	Bisexual	Other
Clinical Nurse pecialist	94.1%	4.1%	1.2%	0.6%
Nurse Anesthtist	92.5%	6.0%	1.2%	0.3%
Nurse Midwif	87.5%	3.7%	6.5%	2.3%
Nurse Practitoner	94.4%	3.2%	1.6%	0.8%
Advanced Pactice Group	**94.1%**	**3.5%**	**1.7%**	**0.8%**
Health Workfrce Average	**94.5%**	**2.8%**	**1.7%**	**1.0%**
Note: License Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting fromack of online licensure renewals.				

Figure G-9: Sex at Birth: Advanced Practice Nursing

As a group, the majority (85.8%) of Advanced Practice Nursing licensees reported identifying as Female, the highest of any Health Workforce group, and only 14.1% reported identifying as Male, the lowest of any Health Workforce group. Less than 1% of licensees selected Unknown/Undetermined. Notably, there is wide variation in the distribution of responses to sex at birth among the license types within the Advanced Practice Nursing group; while less than one percent of Nurse Midwives were assigned Male at birth, the lowest of any license type within the Health Workforce, over 40% of Nurse Anesthetists were Male at birth.

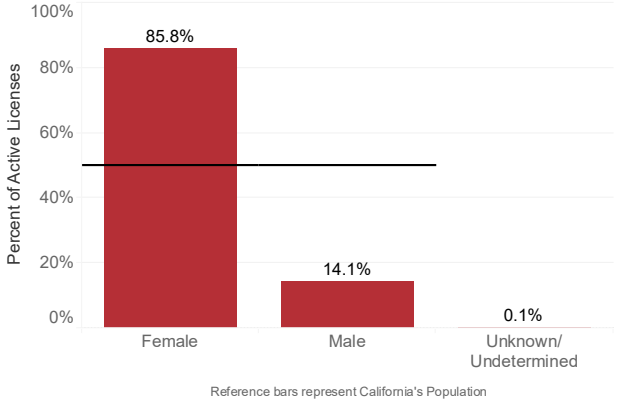


Table G-9: Sex at Birth: Advanced Practice Nursing

License Name	Female	Male	Unknown/Undetermined
Clinical Nurse Secialist	91.4%	8.6%	0.0%
Nurse Anesthetst	57.9%	41.9%	0.2%
Nurse Midwife	99.3%	0.7%	0.0%
Nurse Practitio	86.8%	13.2%	0.1%
Advanced Practce Group	**85.8%**	**14.1%**	**0.1%**
Health Workfoce Average	**50.0%**	**50.0%**	**N/A**
Note: Licensedidwives are excluded from survey -based data tables due to insufficient same sizes resulting from a lack of online licensure renewals.			

Figure G-10: Gender Identity: Advanced Practice Nursing

As a group, the majority (85.7%) of Advanced Practice Nursing licensees reported identifying as Female, the highest of any Health Workforce group, and only 14% reported identifying as Male, the lowest of any Health Workforce group. Licensees identifying as Transgender or not identifying as Male, Female or Transgender were even with the Health Workforce average at 0.1% and 0.2% respectively. Notably, there is wide variation in the distribution of Gender Identities among the license types within the Advanced Practice Nursing group; while less than one percent of Nurse Midwives identify as Male, the lowest of any license type within the Health Workforce, over 40% of Nurse Anesthetists identify as Male.

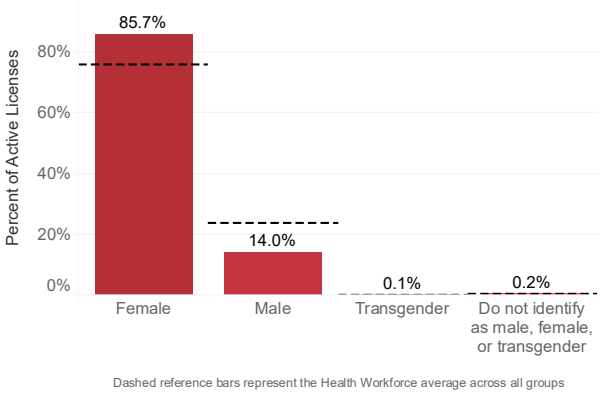
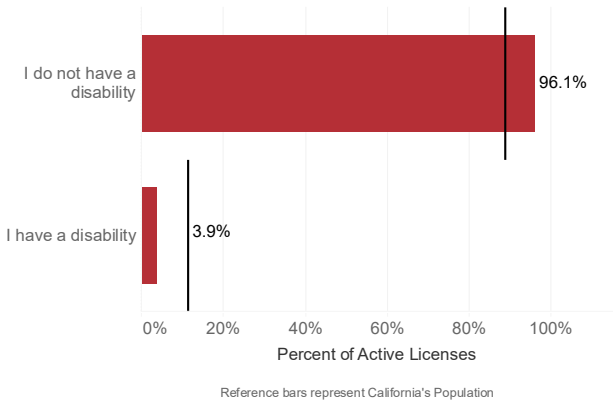


Table G-10: Gender Identity: Advanced Practice Nursing

License Name	Female	Male	Transgender	Do not identify as male, female, or transgender
Clinical Nurse Specialist	91.2%	8.6%	0.1%	0.1%
Nurse Anesthetist	58.1%	41.6%	0.0%	0.2%
Nurse Midwife	98.4%	0.7%	0.3%	0.7%
Nurse Practitioner	86.6%	13.1%	0.1%	0.2%
Advanced Practice Group	**85.7%**	**14.0%**	**0.1%**	**0.2%**
Health Workforce Average	**79.5%**	**23.8%**	**0.1%**	**0.2%**
Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.				

Figure G-11: Disability Status Advanced Practice Nursing



On average, 96.1% of Advanced Practice Nursing licensees did not identify as having a disability, while 3.9% reported having a disability. Within the Advanced Practice Nursing Workforce, over five percent of Clinical Nurse Specialists and Nurse Midwives reported having a disability, while Nurse Anesthetists reported the lowest rate at 2.7%.

Table G-11: Disability Status Advanced Practice Nursing

License Name	I do not have a disability	I have a disability
Clinical Nurse Specialist	94.7%	5.3%
Nurse Anesthetist	97.3%	2.7%
Nurse Midwife	94.1%	5.9%
Nurse Practitioner	96.2%	3.8%
Advanced Practice Group	**96.1%**	**3.9%**
California's Population	**88.7%**	**11.3%**
Note: Licensed Midwives are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.		

Figure G-12: Active Licenses: Advanced Practice Nursing

As a group, the Los Angeles County Region has the highest total number of Advanced Practice Nursing licenses in the state while the Northern & Sierra Region has the fewest. Within the Advanced Practice Nursing Workforce, Nurse Practitioners make up the largest portion at 83% of all active Advanced Practice Nursing licenses, while Licensed Midwives make up the smallest portion at just over one percent. For detailed metrics on how the distribution of these active licenses compares to the population (see Figure G-14: Distribution Index: Advanced Practice Nursing).

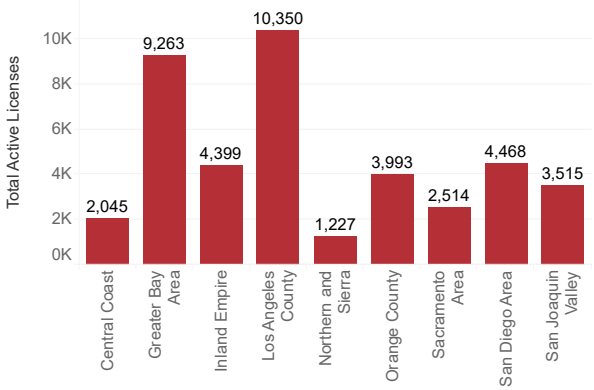


Table G-12: Active Licenses: Advanced Practice Nursing

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Clinical Nurse Specialist	119	972	202	557	21	190	158	458	156
Licensed Midwife	63	92	35	64	58	20	37	56	14
Nurse Anesthetist	90	523	322	593	69	244	235	261	220
Nurse Midwife	101	422	81	206	67	99	84	158	69
Nurse Practitioner	1,672	7,254	3,759	8,930	1,012	3,440	2,000	3,535	3,056
Advanced Practice Group	**2,045**	**9,263**	**4,399**	**10,350**	**1,227**	**3,993**	**2,514**	**4,468**	**3,515**

Figure G-13: New Licenses: Advanced Practice Nursing

On average, there were 303 new active Advanced Practice Nursing licenses issued per month from October 2023 to October 2024. Within the Advanced Practice Nursing Workforce, Nurse Practitioners make up the largest portion by total volume with an average of 275 new active licenses issued per month and have the highest average issue rate relative to their total volume at 0.8%. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

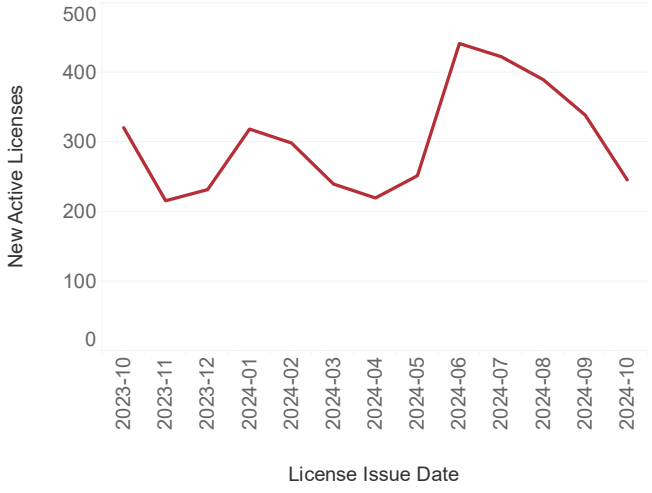
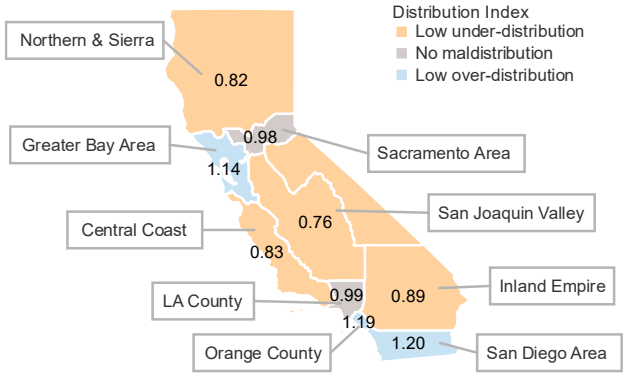


Table G-13: New Licenses: Advanced Practice Nursing

License Name	2023-10	2023-11	2023-12	2024-01	2024-02	2024-03	2024-04	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10
Clinical Nurse Specialist	8	16	4	7	13	7	2	5	7	15	5	4	4
Licensed Midwife	0	0	4	1	4	2	0	0	0	3	1	2	2
Nurse Anesthetist	15	3	3	21	23	11	7	18	13	13	6	37	10
Nurse Midwife	7	7	4	8	4	3	5	2	8	8	5	7	4
Nurse Practitioner	291	190	217	282	255	217	206	227	414	384	373	289	226
Advanced Practice Group	**321**	**216**	**232**	**319**	**299**	**240**	**220**	**252**	**442**	**423**	**390**	**339**	**246**

Figure G-14: Distribution Index: Advanced Practice Nursing



The distribution index describes the magnitude of difference between a region's share of the state's licenses and its share of the state's population. A distribution index of 1 indicates the region has an equal share of the state's licenses and population (e.g., 10% of the state's licenses and 10% of the state's population). A distribution index below 1 indicates a smaller share of licenses than population (e.g., 5% of the state's licenses and 10% of the state's population), and a distribution index greater than 1 indicates the opposite. The further away the index is from 1, the greater the maldistribution. Note: These distribution indexes reflect the distribution of active *licenses*, not the distribution of *providers* as presented in *Section B: Model Projections, Nursing*.

While Los Angeles County region has the highest total count of active Advanced Practice Nursing licenses by volume, San Diego area region has the highest distribution of active licenses compared to the population. Similarly, while Northern & Sierra region has the lowest total count of active licenses by volume, San Joaquin Valley has the lowest distribution of active Advanced Practice Nursing licenses compared to the population. Specifically, the region has half the amount of Clinical Nurse Specialists and Nurse Midwives, as well as less than a third the amount of Licensed Midwives they should have based on their population size.

Table G-14: Distribution Index: Advanced Practice Nursing

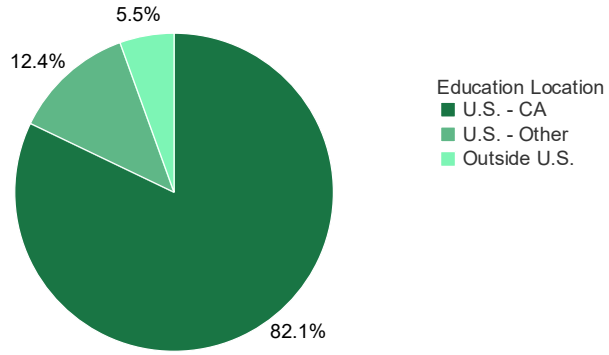
License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Clinical Nurse Specialist	0.71	1.76	0.60	0.79	0.21	0.83	0.91	1.81	0.50
Licensed Midwife	2.42	1.07	0.67	0.58	3.69	0.57	1.37	1.43	0.29
Nurse Anesthetist	0.59	1.05	1.07	0.93	0.75	1.19	1.49	1.14	0.78
Nurse Midwife	1.32	1.68	0.53	0.64	1.45	0.96	1.06	1.38	0.48
Nurse Practitioner	0.81	1.07	0.92	1.03	0.82	1.24	0.94	1.14	0.80
Advanced Practice Group	**0.83**	**1.14**	**0.89**	**0.99**	**0.82**	**1.19**	**0.98**	**1.20**	**0.76**

Low Under-Distribution (0.95-0.75) ☐ No Maldistribution (0.95-1.05) Low Over-Distribution (1.05-1.25)
Medium Under-Distribution (0.75-0.50) Medium Over-Distribution (1.25-1.50)
High Under-Distribution (0.50 or less) High Over-Distribution (1.50 or more)

Section H: Oral Health, All Figures

This section focuses on licenses issued by the Dental Board of California (Dentist) and the Dental Hygiene Board of California (Orthodontic Assistant, RDA in Extended Functions, RDH Alternative Practice, RDH in Extended Functions, Registered Dental Assistant, Registered Dental Hygienist).

Figure H-1: Education Location: Oral Health



Nearly 95% of Oral Health licensees completed their education in the U.S., with just over 82% receiving their initial qualifying degree within California. Notable license types within the Oral Health Workforce include Dentists with only 67.1% receiving their initial qualifying degree in California, and 10.4% receiving their initial qualifying degree from outside the U.S. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

Table H-1: Education Location: Oral Health

License Name	U.S. - CA	U.S. – Other	Outside U.S.
Dental Sedation Assistant	95.7%	0.0%	4.3%
Dentist	67.1%	22.4%	10.4%
Orthodontic Assistant	94.4%	2.3%	3.3%
RDA In Extended Functions	94.3%	2.1%	3.6%
RDH Alternative Practice	89.2%	10.5%	0.3%
RDH Extended Function	92.9%	7.1%	0.0%
Registered Dental Assistant	95.0%	2.0%	3.0%
Registered Dental Hygienist	88.4%	11.2%	0.4%
Oral Health Group	**82.1%**	**12.4%**	**5.5%**

Figure H-2: Residency Location: Oral Health

Dentists are the only license type within the Oral Health Workforce that requires a residency. Just over 90% of those licensees reported completing their residency within the U.S., with 70.6% completing their residency somewhere in California. Nine percent reported completing their residency somewhere outside the U.S., the highest of all residency-required license types in the Health Workforce. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply.

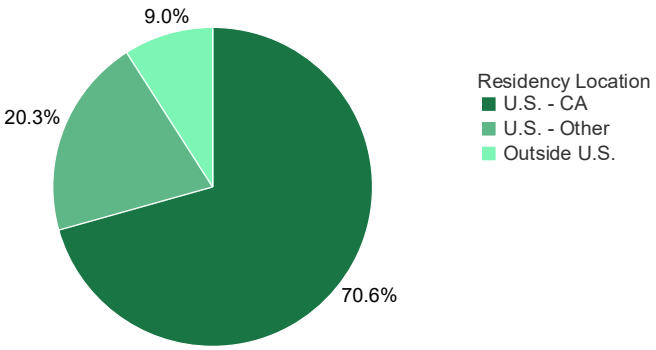
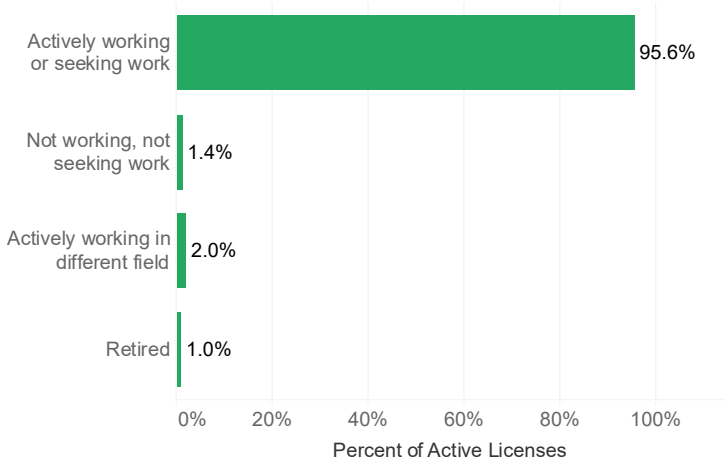


Table H-2: Residency Location: Oral Health

License Name	U.S. - CA	U.S. - Other	Outside U.S.
Dentist	70.6%	20.3%	9.0%
Oral Health Group	**70.6%**	**20.3%**	**9.0%**

Figure H-3: Employment Status: Oral Health



Over 95% of Oral Health licensees are actively working or seeking work, while two percent are working in a different field and only one percent have already retired, the lowest of all Health Workforce groups. Notable license types within the Oral Health Workforce include Dental Sedation Assistants and RDH Extended Functions with over seven percent actively working in a different field, and over two percent of Dental Sedation Assistants and Registered Dental Hygienists reporting not working or seeking work despite their active license status. These metrics will be used in the future to calculate more accurate supply data for each license type.

Table H-3: Employment Status: Oral Health

License Name	Actively working or seeking work	Not working, not seeking work	Actively working in different field	Retired
Dental Sedation Assistant	88.9%	2.2%	8.9%	0.0%
Dentist	97.2%	0.7%	0.4%	1.7%
Orthodontic Assistant	96.5%	0.9%	2.3%	0.3%
RDA In Extended Functions	95.8%	1.2%	2.3%	0.8%
RDH Alternative Practice	93.1%	1.8%	4.1%	1.0%
RDH Extended Function	92.9%	0.0%	7.1%	0.0%
Registered Dental Assistant	94.2%	1.6%	3.7%	0.4%
Registered Dental Hygienist	94.6%	2.5%	2.1%	0.8%
Oral Health Group	**95.6%**	**1.4%**	**2.0%**	**1.0%**

Figure H-4: Full-Time Equivalent Metrics: Oral Health

Full Time Equivalent (FTE) metrics were calculated for licensees that reported they were actively working in a position that required their license. On average, Oral Health licensees spend the highest number of hours per week on Patient Care (30.4 hours), and the least amount of time per week on Research (3.4 hours). Notable license types within the Oral Health Workforce include RDHs Alternative Practice, who reported spending the least amount of time on Patient Care at only 26.6 hours per week, and Registered Dental Assistants who reported the highest amounts of time per week on Training (9.2 hours) and Admin (10 hours). These metrics will be used in the future to calculate more accurate supply and demand modeling.

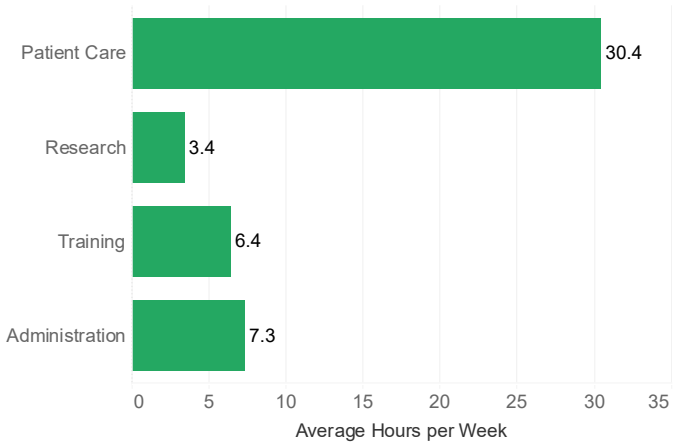
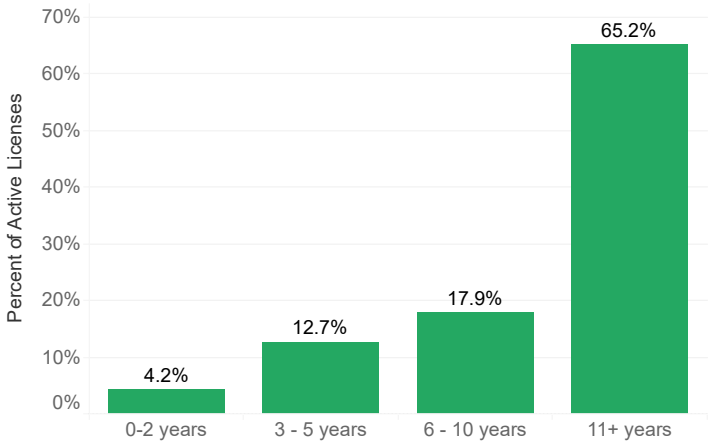


Table H-4: Full-Time Equivalent Metrics: Oral Health

License Name	Patient Care	Research	Training	Admin
Dentist	31.9	2.0	5.1	7.3
Orthodontic Assistant	30.6	5.9	9.2	8.4
RDA In Extended Functions	31.8	5.3	8.7	8.0
RDH Alternative Practice	26.6	3.3	5.8	6.4
RDH Extended Function	34.4	2.2	5.8	2.2
Registered Dental Assistant	29.8	5.7	9.2	10.0
Registered Dental Hygienist	28.3	2.4	4.3	3.0
Oral Health Group	**30.4**	**3.4**	**6.4**	**7.3**

Note: Dental Sedation Assistants were excluded from this survey metric due to insufficient sample size.

Figure H-5: Retirement Estimates: Oral Health

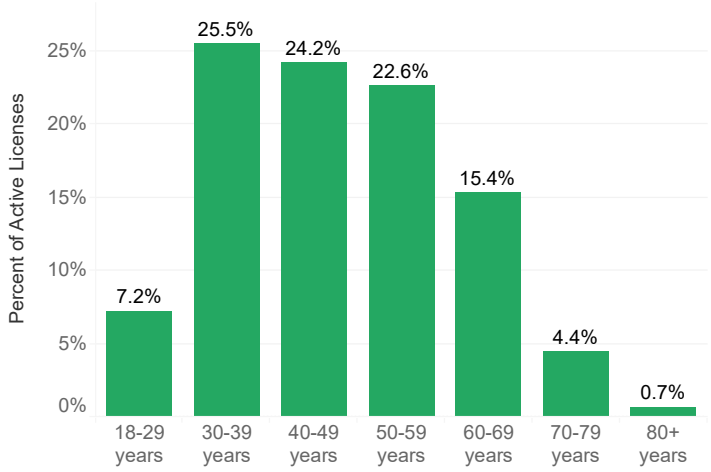


Among Oral Health licensees who reported actively working in a position that required their license, or were actively seeking work in their field, only 65.2% estimated retiring in 11 or more years, the lowest across all Health Workforce groups, and 4.2% estimated retiring within the next two years. Of note are RDH Extended Functions, with 50% estimating retiring in the next five years, and nearly 43% of Dentists estimating retiring in the next 10 years. These metrics will be crucial for calculating more accurate supply and demand models for each license type. In addition, this information may be useful in helping to identify which areas are in most need of funding to maintain the supply of Oral Health licensees across the state.

Table H-5: Retirement Estimates: Oral Health

License Name	0-2 years	3 - 5 years	6 - 10 years	11+ years
Dental Sedation Assistant	0.0%	13.0%	10.1%	76.8%
Dentist	6.0%	16.0%	20.8%	57.1%
Orthodontic Assistant	1.0%	7.1%	11.4%	80.5%
RDA In Extended Functions	2.7%	9.7%	18.1%	69.5%
RDH Alternative Practice	3.2%	13.7%	19.5%	63.6%
RDH Extended Function	0.0%	50.0%	12.5%	37.5%
Registered Dental Assistant	2.4%	9.1%	14.4%	74.1%
Registered Dental Hygienist	4.0%	12.3%	17.7%	65.9%
Oral Health Group	**4.2%**	**12.7%**	**17.9%**	**65.2%**

Figure H-6: Age Distribution: Oral Health

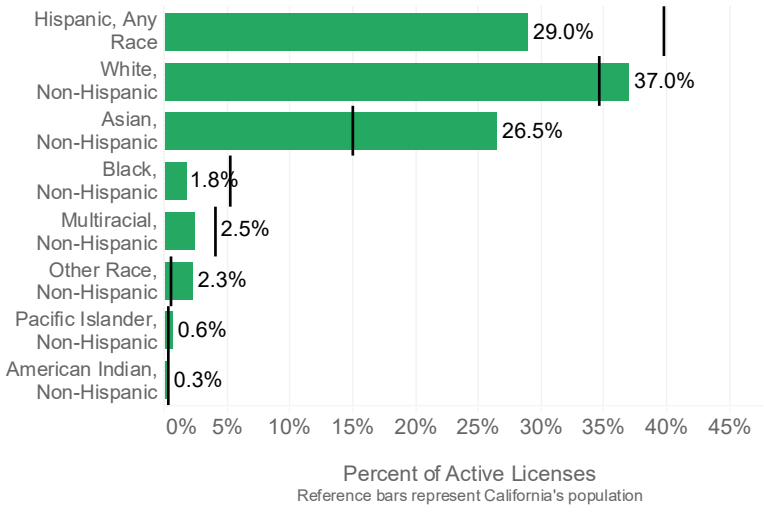


Overall, more than 72% of Oral Health licensees are between the ages of 30 and 59 years old, with 7.2% under the age of thirty, and 20.5% over the age of 59. License types with younger licensees include Orthodontic Assistants and Registered Dental Assistants with over 43% of licensees under the age of 40. License types with older licensees include RDH Extended Functions with 100% of licensees aged 50 or older, and nearly 56% of all Dentist licensees.

Table H-6: Age Distribution: Oral Health

License Name	18-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years
Dental Sedation Assistant	0.0%	35.7%	23.8%	28.6%	11.9%	0.0%	0.0%
Dentist	1.9%	20.3%	22.2%	24.9%	20.8%	8.5%	1.5%
Orthodontic Assistant	10.6%	35.9%	27.5%	19.0%	6.6%	0.5%	0.1%
RDA In Extended Functions	4.6%	25.5%	30.1%	26.7%	12.1%	0.9%	0.1%
RDH Alternative Practice	0.6%	20.0%	29.8%	28.6%	17.2%	3.5%	0.2%
RDH Extended Function	0.0%	0.0%	0.0%	50.0%	42.9%	7.1%	0.0%
Registered Dental Assistant	14.4%	28.6%	24.5%	21.1%	10.6%	0.8%	0.0%
Registered Dental Hygienist	6.4%	30.0%	26.7%	20.1%	13.4%	3.1%	0.2%
Oral Health Group	**7.2%**	**25.5%**	**24.2%**	**22.6%**	**15.4%**	**4.4%**	**0.7%**

Figure H-7: Race/Ethnicity: Oral Health



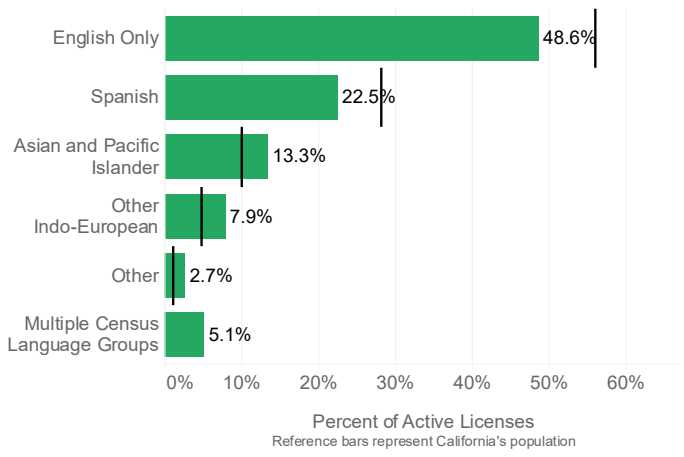
Across the Oral Health Workforce, Black, Non-Hispanic and Multiracial, Non-Hispanic licensees are the most underrepresented when compared to California's population, with only one license type at or above the population average for Black, Non-Hispanic and no license types at or above the population average for Multiracial, Non-Hispanic. Hispanic, Any Race licensees are underrepresented in the Oral Health Workforce on average but make up 45% or more of licensees for half of the license types included in this group, the best across all Health Workforce groups. Conversely, American Indian, Non-Hispanic licensees are equally represented in the Oral Health Workforce on average but are underrepresented in half of the license

types within the group. Future work will include the addition of a Middle Eastern and North African (MENA) category following the revised Statistical Policy Directive 15 guidelines.

Table H-7: Race/Ethnicity: Oral Health

License Name	Hispanic, Any Race	White, NH	Asian, NH	Black, NH	Multiracial, NH	Other Race, NH	Pacific Islander, NH	American Indian, NH
Dental Sedation Assistant	28.9%	44.4%	14.4%	6.7%	3.3%	2.2%	0.0%	0.0%
Dentist	9.2%	39.7%	43.4%	1.6%	2.2%	3.1%	0.5%	0.2%
Orthodontic Assistant	58.2%	23.3%	11.7%	1.7%	2.7%	1.0%	1.2%	0.2%
RDA In Extended Functions	46.8%	34.5%	11.0%	1.8%	2.4%	2.0%	1.0%	0.5%
RDH Alternative Practice	26.6%	45.3%	17.8%	3.1%	3.5%	2.3%	0.8%	0.4%
RDH Extended Function	45.2%	21.4%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Registered Dental Assistant	52.8%	26.4%	13.6%	2.3%	2.3%	1.4%	0.7%	0.5%
Registered Dental Hygienist	22.7%	50.6%	19.3%	1.2%	3.3%	2.0%	0.6%	0.3%
Oral Health Group	**29.0%**	**37.0%**	**26.5%**	**1.8%**	**2.5%**	**2.3%**	**0.6%**	**0.3%**
California's Population	**39.8%**	**34.6%**	**15.1%**	**5.3%**	**4.1%**	**0.5%**	**0.3%**	**0.3%**
NH = Non-Hispanic								

Figure H-8: Languages Spoken: Oral Health

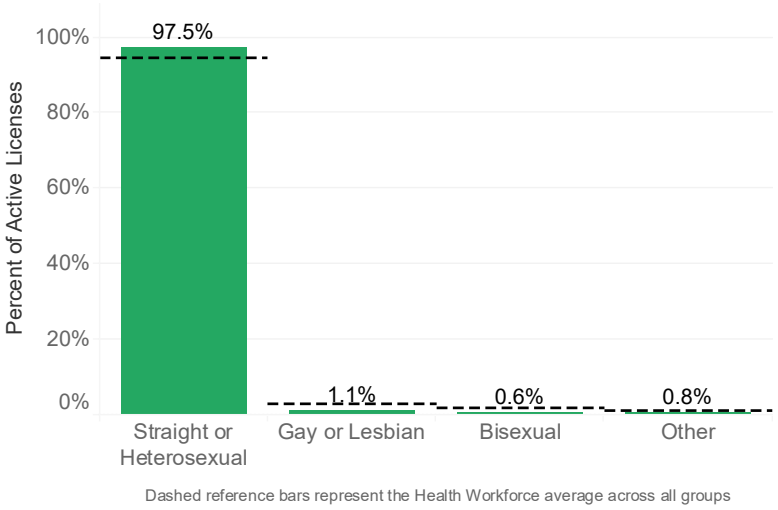


As a group, the Oral Health Workforce is the most diverse linguistically, with the lowest rates of licensees speaking English Only in the Health Workforce and the highest rates of Spanish speaking licensees. However, Spanish is still underrepresented in the Oral Health Workforce when compared to California's population, with half of the included license types at or below the population average. Asian and Pacific Islander languages are represented well above the population average overall, but this is largely driven by the high rates among Dentists and RDH Extended Functions, as these languages are at or below the population average for the other six license types within the group. Similarly, Other Indo-European languages are also represented above the population average in the Oral Health Workforce overall, largely driven by the high rates among Dentists, Dental Sedation Assistants and RDH Alternative Practices. Within the Oral Health Workforce, Other languages were not reported by any licensee for two of the of the individual license types in the group.

Table H-8: Languages Spoken: Oral Health

License Name	English Only	Spanish	Asian and Pacific Islander	Other Indo-European	Other	Multiple Census Language Groups
Dental Sedation Assistant	60.6%	17.0%	7.4%	12.8%	0.0%	2.1%
Dentist	42.6%	11.0%	19.4%	13.4%	3.9%	9.6%
Orthodontic Assistant	43.9%	42.5%	8.4%	2.3%	1.6%	1.3%
RDA In Extended Functions	48.0%	35.3%	8.1%	4.2%	2.4%	2.1%
RDH Alternative Practice	52.1%	21.8%	9.3%	10.2%	2.5%	4.1%
RDH Extended Function	57.1%	28.6%	14.3%	0.0%	0.0%	0.0%
Registered Dental Assistant	46.1%	38.4%	9.3%	2.9%	1.5%	1.7%
Registered Dental Hygienist	64.7%	15.0%	9.4%	6.3%	2.3%	2.4%
Oral Health Group	**48.6%**	**22.5%**	**13.3%**	**7.9%**	**2.7%**	**5.1%**
California's Population	**55.9%**	**28.2%**	**10%**	**4.8%**	**1.1%**	**N/A**

Figure H-9: Sexual Orientation: Oral Health

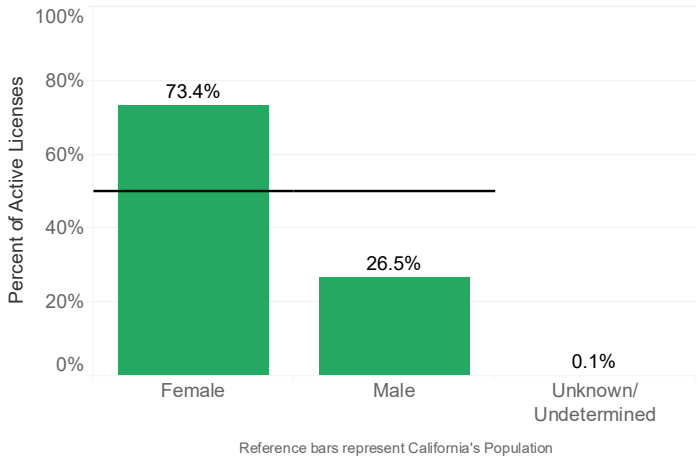


As a group, the majority (97.5%) of Oral Health licensees reported identifying as Straight or Heterosexual, the highest of any Health Workforce group, and just over one percent reported identifying as Gay or Lesbian, the lowest of any Health Workforce group. Licensees identifying as Bisexual and Other were nearly even at just under one percent each, both below the Health Workforce average. Within the Oral Health Workforce, not a single license type met the workforce average for Bisexual individuals (1.7%), and only Dental Sedation Assistants reported identifying as Gay or Lesbian at or above the workforce average. Notably, while Dental Sedation Assistants reported one of the highest rates for Gay or Lesbian of any license type in the Health Workforce, they did not report any individuals identifying as Bisexual or Other.

Table H-9: Sexual Orientation: Oral Health

License Name	Straight or Heterosexual	Gay or Lesbian	Bisexual	Other
Dental Sedation Assistant	91.1%	8.9%	0.0%	0.0%
Dentist	98.1%	1.1%	0.3%	0.5%
Orthodontic Assistant	96.3%	2.3%	0.5%	0.9%
RDA In Extended Functions	96.2%	1.7%	0.9%	1.3%
RDH Alternative Practice	98.6%	0.7%	0.6%	0.1%
RDH Extended Function	100.0%	0.0%	0.0%	0.0%
Registered Dental Assistant	96.5%	1.3%	0.9%	1.3%
Registered Dental Hygienist	98.0%	0.8%	0.8%	0.4%
Oral Health Group	**97.5%**	**1.1%**	**0.6%**	**0.8%**
Health Workforce Average	**94.5%**	**2.8%**	**1.7%**	**1.0%**

Figure H-10: Sex at Birth: Oral Health

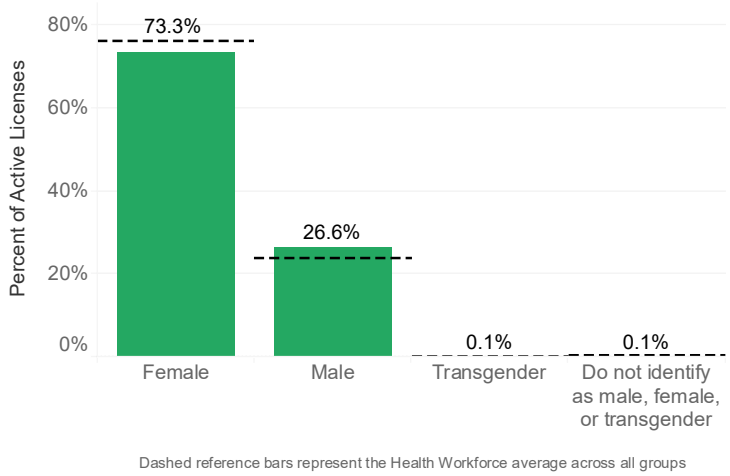


As a group, the majority (73.4%) of Oral Health licensees reported being identified as Female at birth, and 26.5% reported being identified as Male. Less than one percent of licensees (0.1%) reporting having an Unknown/Undetermined sex at birth. Notably, while the number of licensees assigned Male at birth is above the workforce average for Oral Health as a group, this is driven by the high rate of Dental licensees assigned as Male; 85% or more of all other license types within the Oral Health group were Female at birth, well above the Health Workforce average.

Table H-10: Sex at Birth: Oral Health

License Name	Female	Male	Unknown/Undetermined
Dental Sedation Assistant	85.3%	14.7%	0.0%
Dentist	43.5%	56.4%	0.1%
Orthodontic Assistant	88.0%	12.0%	0.0%
RDA In Extended Functions	89.5%	10.5%	0.1%
RDH Alternative Practice	92.4%	7.4%	0.1%
RDH Extended Function	92.9%	7.1%	0.0%
Registered Dental Assistant	93.3%	6.6%	0.1%
Registered Dental Hygienist	94.2%	5.7%	0.1%
Oral Health Group	**73.4%**	**26.5%**	**0.1%**
Health Workforce Average	**50.0%**	**50.0%**	**N/A**

Figure H-11: Gender Identity: Oral Health



As a group, the majority (73.3%) of Oral Health licensees reported identifying as Female, and 26.6% reported identifying as Male. Licensees identifying as Transgender or not identifying as Male, Female or Transgender were even at 0.1% each. Notably, while the number of licensees identifying as Male is above the workforce average for Oral Health as a group, this is driven by the high rate of Dental licensees identifying as Male; 85% or more of all other license types within the Oral Health group identified as Female, well above the Health Workforce average.

Table H-11: Gender Identity: Oral Health

License Name	Female	Male	Transgender	Do not identify as male, female, or transgender
Dental Sedation Assistant	85.3%	14.7%	0.0%	0.0%
Dentist	43.5%	56.4%	0.0%	0.1%
Orthodontic Assistant	87.9%	12.1%	0.0%	0.0%
RDA In Extended Functions	89.2%	10.6%	0.1%	0.1%
RDH Alternative Practice	92.4%	7.5%	0.0%	0.1%
RDH Extended Function	92.9%	7.1%	0.0%	0.0%
Registered Dental Assistant	93.2%	6.6%	0.1%	0.1%
Registered Dental Hygienist	94.1%	5.7%	0.1%	0.1%
Oral Health Group	**73.3%**	**26.6%**	**0.1%**	**0.1%**
Health Workforce Average	**79.5%**	**23.8%**	**0.1%**	**0.2%**

Figure H-12: Disability Status: Oral Health

On average, 97.9% of Oral Health licensees did not identify as having a disability, while 2.1% reported having a disability. Within the Oral Health Workforce, over 16% of RDH Extended Functions and over five percent of RDH Alternative Practices reported having a disability, while Dental Sedation Assistants reported the lowest of any license type across the Health Workforce at 0%.

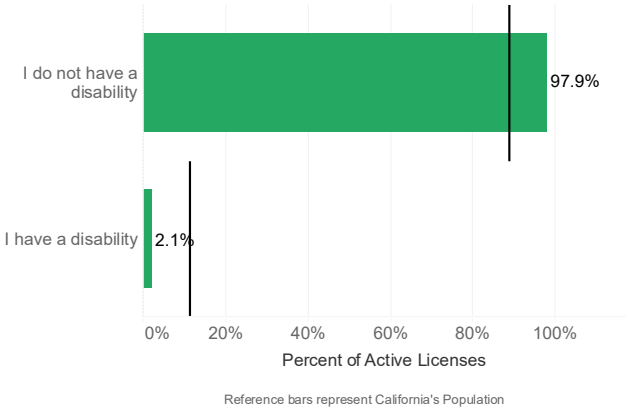
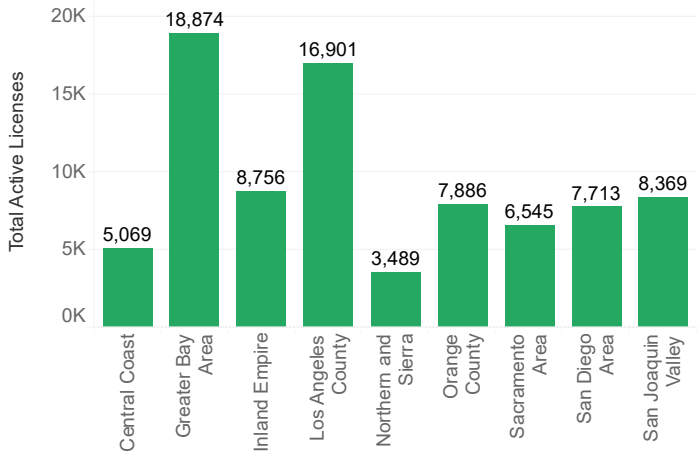


Table H-12: Disability Status: Oral Health

License Name	I do not have a disability	I have a disability
Dental Sedation Assistant	100.0%	0.0%
Dentist	98.0%	2.0%
Orthodontic Assistant	98.0%	2.0%
RDA In Extended Functions	97.8%	2.2%
RDH Alternative Practice	94.9%	5.1%
RDH Extended Function	83.3%	16.7%
Registered Dental Assistant	98.3%	1.7%
Registered Dental Hygienist	97.3%	2.7%
Oral Health Group	**97.9%**	**2.1%**
California's Population	**88.7%**	**11.3%**

Figure H-13: Active Licenses: Oral Health



As a group, the Greater Bay Area has the highest total number of Oral Health licenses in the state while the Northern & Sierra Region has the fewest. Within the Oral Health Workforce, Dentists and Registered Dental Assistants make up nearly 74% of all active Oral Health licenses, at 39.6% and 34.3% respectively. RDH Extended Functions make up the smallest portion of the Oral Health Workforce at less than 0.1%. For detailed metrics on how the distribution of these active licenses compares to the population (see Figure H-15: Distribution Index: Oral Health).

Table H-13: Active Licenses: Oral Health

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Dental Sedation Assistant	5	18	3	5	3	4	2	3	9
Dentist	1,636	8,049	2,680	8,602	727	4,341	1,995	2,950	2,122
Orthodontic Assistant	104	255	262	422	52	91	172	134	228
RDA In Extended Functions	179	360	208	253	205	94	317	180	309
RDH Alternative Practice	44	149	87	194	52	60	49	62	73
RDH Extended Function	0	7	1	2	2	0	1	0	1
Registered Dental Assistant	1,758	6,394	3,606	4,546	1,583	1,644	2,485	2,664	3,961
Registered Dental Hygienist	1,343	3,642	1,909	2,877	865	1,652	1,524	1,720	1,666
Oral Health Group	**5,069**	**18,874**	**8,756**	**16,901**	**3,489**	**7,886**	**6,545**	**7,713**	**8,369**

Figure H-14: New Licenses: Oral Health

On average, there were 403 new active Oral Health licenses issued per month from October 2023 to October 2024. Within the Oral Health Workforce, Registered Dental Assistants make up the largest portion by total volume with an average of 211 new active licenses issued per month, while Dental Sedation Assistants had the highest average issue rate relative to their total volume at 1.3%. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

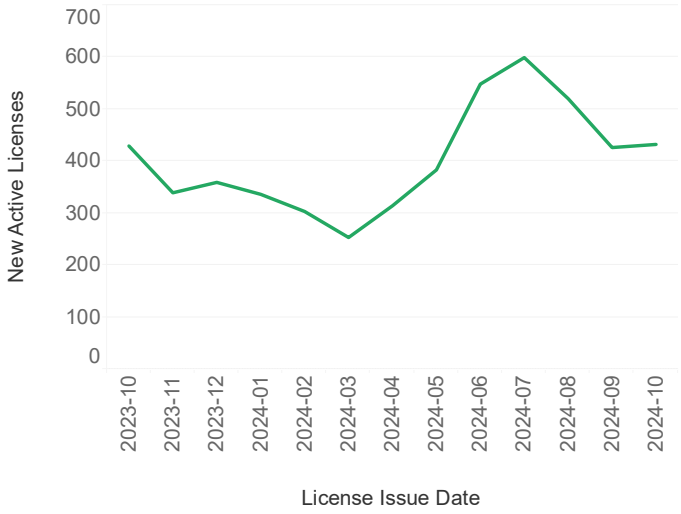
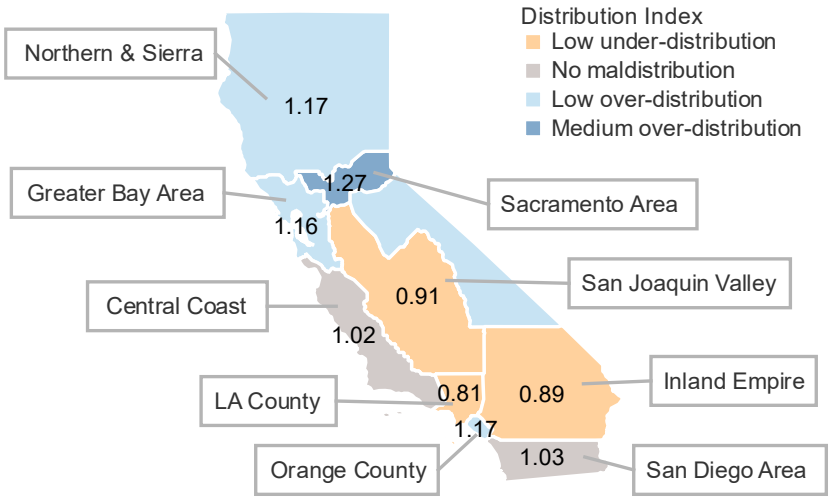


Table H-14: New Licenses: Oral Health

License Name	2023-10	2023-11	2023-12	2024-01	2024-02	2024-03	2024-04	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10
Dental Sedation Assistant	1	0	2	1	2	2	0	0	0	1	0	0	0
Dentist	81	57	44	39	71	47	36	51	114	126	250	147	85
Orthodontic Assistant	4	26	12	17	11	18	16	17	19	19	24	15	16
RDA In Extended Functions	27	18	12	8	6	19	20	34	22	21	12	14	17
RDH Alternative Practice	6	3	7	10	7	7	3	4	6	13	11	8	4
RDH Extended Function	0	0	0	0	0	0	0	0	0	0	0	0	0
Registered Dental Assistant	280	209	196	219	186	139	188	206	231	268	138	187	290
Registered Dental Hygienist	30	26	86	42	20	21	51	71	156	151	85	55	20
Oral Health Group	**429**	**339**	**359**	**336**	**303**	**253**	**314**	**383**	**548**	**599**	**520**	**426**	**432**

Figure H-15: Distribution Index: Oral Health



The distribution index describes the magnitude of difference between a region's share of the state's licenses and its share of the state's population. A distribution index of 1 indicates the region has an equal share of the state's licenses and population (e.g., 10% of the state's licenses and 10% of the state's population). A distribution index below 1 indicates a smaller share of licenses than population (e.g., 5% of the state's licenses and 10% of the state's population), and a distribution index greater than 1 indicates the opposite. The further away the index is from 1, the greater the maldistribution.

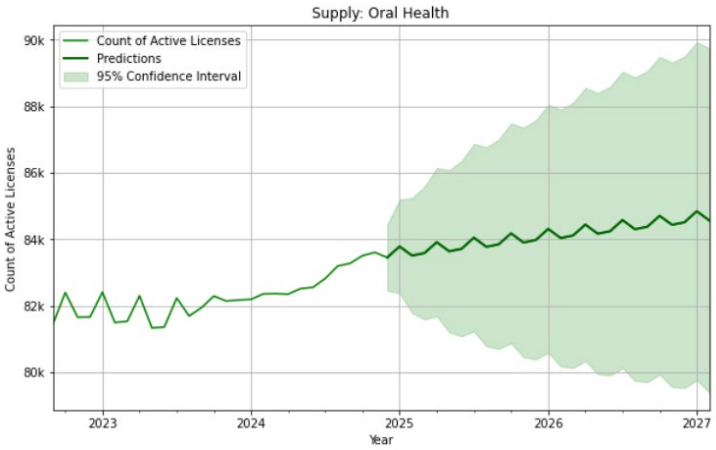
While the Greater Bay Area region has the highest total count of active Oral Health licenses by volume, Sacramento Area region has the highest distribution of active licenses compared to the population. Similarly, while Northern & Sierra region has the lowest total count of active Oral Health licenses by volume, Los Angeles County region has the lowest distribution of active Oral Health licenses compared to the population. Specifically, the region has less than half the amount of Dental Sedation Assistants and RDA in Extended Functions they should have based on their population size. Three regions do not have any active RDH Extended Function licenses at all.

Table H-15: Distribution Index: Oral Health

License Name	Central Coast	Greater Bay Area	Inland Empire	Los Angeles County	Northern & Sierra	Orange County	Sacramento Area	San Diego Area	San Joaquin Valley
Dental Sedation Assistant	1.62	1.78	0.49	0.38	1.61	0.96	0.62	0.65	1.56
Dentist	0.83	1.25	0.69	1.04	0.61	1.63	0.98	1.00	0.58
Orthodontic Assistant	1.02	0.76	1.29	0.98	0.84	0.66	1.62	0.87	1.20
RDA In Extended Functions	1.44	0.88	0.84	0.48	2.72	0.56	2.45	0.96	1.33
RDH Alternative Practice	0.96	0.99	0.96	1.01	1.89	0.97	1.03	0.90	0.86
RDH Extended Function	0.00	2.56	0.60	0.57	3.99	0.00	1.16	0.00	0.65
Registered Dental Assistant	1.04	1.15	1.07	0.63	1.54	0.71	1.41	1.04	1.25
Registered Dental Hygienist	1.32	1.09	0.94	0.67	1.41	1.20	1.44	1.12	0.88
Grand Total	**1.02**	**1.16**	**0.89**	**0.81**	**1.17**	**1.17**	**1.27**	**1.03**	**0.91**

Low Under-Distribution (0.95-0.75)
Medium Under-Distribution (0.75-0.50)
High Under-Distribution (0.50 or less)
No Maldistribution (0.95-1.05)
Low Over-Distribution (1.05-1.25)
Medium Over-Distribution (1.25-1.50)
High Over-Distribution (1.50 or more)

Figure H-16: Supply Projections: Oral Health



To project supply for the Oral Health Workforce, each license type within the group was individually modelled with a 95% confidence interval. Active license counts for each month from September 2022 to November 2024 were used to predict the monthly supply of active licenses each month from December 2024 to February 2027. The table below lists the count of active licenses for November of each year.

On average, the Oral Health Workforce is expected to grow 1.2% by 2027. Nearly every license type within the group is expected to increase over the next three years, with the greatest growth occurring in Dental Sedation Assistants who have a projected growth rate of 32.7% by 2027. Notably, RDH Extended Functions are expected to decrease by 64.3% over the next three years. These metrics combined with Retirement estimates (see Figure H-5: Retirement Estimates: Oral Health) will be crucial for calculating more accurate supply and demand projections for each license type in our modeling data.

Table H-16: Supply Projections: Oral Health

License Type	2022	2023	2024	2025	2026	2027
Dental Sedation Assistant	41	45	52	58	65	69
Dentist	32,596	32,810	33,102	33,187	33,293	33,313
Orthodontic Assistant	1,437	1,588	1,720	1,843	1,947	1,999
RDA In Extended Functions	1,802	1,976	2,105	2,184	2,245	2,276
RDH Alternative Practice	698	739	770	806	836	851
RDH Extended Function	20	17	14	9	6	5
Registered Dental Assistant	28,094	28,010	28,641	28,573	28,632	28,650
Registered Dental Hygienist	16,963	16,954	17,198	17,239	17,348	17,402
Oral Health Group	**81,651**	**82,139**	**83,602**	**83,899**	**84,372**	**84,565**

Note: Cells shaded in light green are predictions based on the Workforce Supply Model (see Figure H-16).

Section I: Wellness Coaches, All Figures

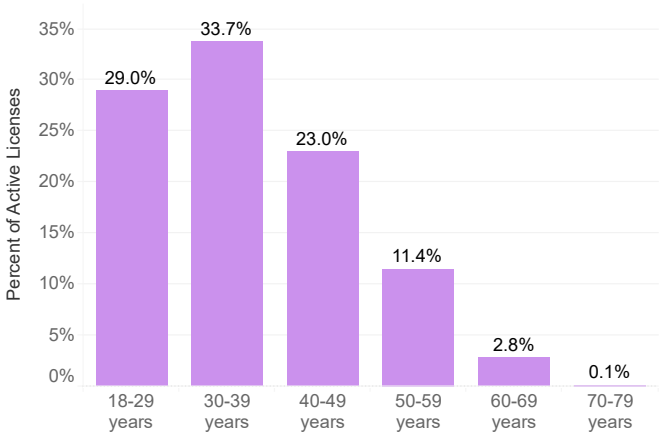
This section focuses on certificates issued for Wellness Coaches. The information collected at the time of certification differs from the information collected on the HCAI Health Workforce License Renewal Survey. At this time, survey data is not available for this profession. Future reports will include additional survey metrics such as education and employment trends, demographics, and Sexual Orientation/Gender Identity data.

California Health and Safety Code Section 127825 established a new category of behavioral health provider as part of the Children and Youth Behavioral Health Initiative, the Certified Wellness Coach (CWC). The Department of Health Care Access and Information (HCAI) was tasked to design and implement a sufficient and diverse CWC workforce that provides effective prevention and early intervention behavioral health services for California's Children and youth. With a focus on underserved communities, HCAI is conducting the following activities:

1. Partner with and fund California colleges and universities to create undergraduate education curriculum and attract diverse candidates.
2. Offer scholarships with service obligations to select associate and bachelor's students.
3. Design and implement certification, including education and minimum field/work experience requirements.
4. Conduct comprehensive marketing campaign and stakeholder outreach.
5. Offer employer support grants to organizations in high-need communities.
6. Parter with the Department of Health Care Services to establish a sustainable funding mechanism.

For more information on Wellness Coach pathway requirements, scholarship information, and more, see HCAI's Certified Wellness Coach homepage.

Figure I-1: Age Distribution: Wellness Coaches



Overall, the majority of Certified Wellness Coaches are under the age of 59, with just over 68% between the ages of 30 and 59 years old and 29% under the age of thirty. Only 2.9% are over the age of 59, making Certified Wellness Coaches younger on average than any of the licensed Health Workforce groups.

Figure I-2: New Certificates: Wellness Coaches

On average, there were 60 new Wellness Coach certificates issued per month from January 2024 to December 2024. More data will be needed to establish whether this trend is significant. Future work will aim to use this information in conjunction with education pipeline data to better understand potential workforce supply trends.

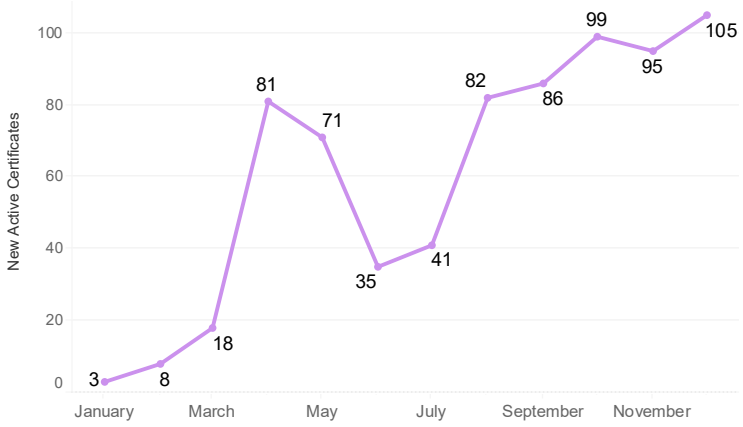
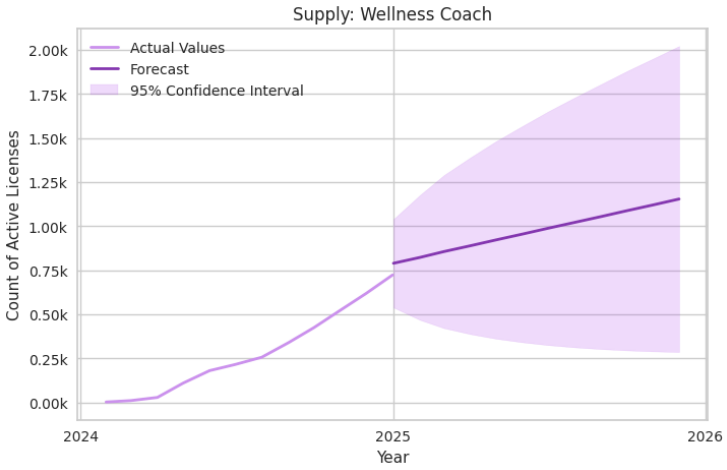


Figure I-3: Supply Projections: Wellness Coaches



To project supply for Certified Wellness Coaches, a time series model with a 95% confidence interval was used. Active certificate counts for each month from January 2024 to December 2024 were used to predict the monthly supply of certificates each month from January 2025 to December 2025. The table below lists a subsample of certificate counts from 2024 to 2025.

On average, Certified Wellness Coaches are expected to grow 1.6% by December 2025. These metrics combined with retirement estimates and employment trends will be crucial for calculating more accurate supply and demand projections in our modeling data.

Table I-1: Supply Projections: Wellness Coaches

	March 2024	June 2024	September 2024	December 2024	March 2025	June 2025	September 2025	December 2025
Wellness Coach Certificate Count	29	216	425	724	857	956	1,055	1,155

Note: Cells shaded in light purple are predictions based on the Workforce Supply Model (see Figure I-3).

TECHNICAL APPENDIX

Active Licenses: Counts for Active licenses include those in a "CLEAR", "Curr LimtdPract", "CurrTmp FamSupp", "Current", "CurrentProbatn", "Military-Active", "Military–Active", "PROBATION OR PRACTICE RESTRICTION", "VALID - PAID RENEWAL", or "VALID - PAID RENEWAL FEE" status on November 3rd, 2024. Licenses in any other status were considered Inactive and excluded from this report.

Age: DCA provides HCAI with the date of birth of licensees. For this report, age is calculated as the difference between November 3rd, 2024, and the licensee's date of birth. Licensees with a missing date of birth, or a resulting age under 18 or over 100 were excluded.

California vs. Out of State: HCAI geocodes all licensee's public address of record. Any license with a resulting state field equal to California is considered "In State", all other values are considered "Out of State".

California Population: This report uses population estimates and projections from the Department of Finance, specifically the county population projections (P-2A) for 2024.

Region	Population (2024)	Percent of Total
Central Coast	2,318,069	5.9%
Greater Bay Area	7,626,372	19.5%
Inland Empire	4,621,977	11.8%
Los Angeles County	9,784,023	25.0%
Northern & Sierra	1,399,732	3.6%
Orange County	3,142,387	8.0%
Sacramento Area	2,408,495	6.2%
San Diego Area	3,491,778	8.9%
San Joaquin Valley	4,326,901	11.1%
Grand Total	**39,119,734**	**100.0%**

Census Language Categories: HCAI collects detailed languages spoken to provide services to clients through the workforce survey. Data are summarized using high-level groups based on the U.S. Census Bureau's Four Group Classification to allow for comparison with the population. The categories "English Only" and "Multiple Census Language Groups" were added to accurately capture workforce responses.

Language Group	Detailed Languages
Asian and Pacific Islander	Chinese, Hmong, Ilocano, Samoan, Hawaiian, or other Austronesian languages, Japanese, Khmer, Korean, Other languages of Asia, Tagalog, Thai, Lao, or other Tai-Kadai languages, Vietnamese
English Only	English, no other selection
Spanish	Spanish
Other Indo-European	Armenian, Bengali, French, German, Greek, Gujarati, Hindi, Italian, Indo-European, Nepali, Marathi, or other Indic languages, Other Indo-European languages, Persian, Polish, Portuguese, Punjabi, Russian, Serbo-Croatian, Telugu, Ukrainian or other Slavic languages, Urdu, Yiddish, Pennsylvania Dutch, or other West Germanic languages

Other	Amharic, Somali, or other Afro-Asiatic languages, Arabic, Hebrew, Navajo, Other and unspecified languages, Swahili or other languages of Central, Eastern and Southern Africa, Yoruba, Twi, Igbo, or other languages of Western Africa, Other, American Sign Language, Other Sign Language, Sign Language
Multiple Census Language Groups	More than one selection from two or more of the language groups above

Languages Spoken by California's Population: This Report uses population estimates from the U.S. Census Bureau's DP-02 ACS Selected Social Characteristics 2023 5-year estimates.

Census Language Group	Population 5 years old and over	Percent of Total
Asian and Pacific Islander	3,688,508	10.0%
English Only	20,713,291	55.9%
Other Indo-European	1,759,489	4.8%
Other	421,079	1.1%
Spanish	10,446,277	28.2%
Total Population	**37,097,796**	**100.0%**

Note: The U.S. Census Bureau does not provide information on individuals who speak multiple census language groups.

New licenses: The count of licenses in an "active" status with an issue date between October 2023 and October 2024.

Percent Surveyed: The percentage of licenses that were in an Active status on November 3rd, 2024 and had completed the HCAI Licensure Renewal Survey.

Workforce Group	License Name	Percent of Active Licenses Surveyed	Count of Surveys
Advanced Practice Nursing	Clinical Nurse Specialist	99.8%	2,827
	Nurse Anesthetist	99.0%	2,531
	Nurse Midwife	98.8%	1,272
	Nurse Practitioner	98.9%	34,279
	Total	**99.0%**	**40,909**
Allied Health	Advanced Practice Pharmacist	70.3%	922
	Audiologist	69.7%	1,088
	Chiropractor	48.1%	5,144
	Doctor of Podiatric Medicine	93.5%	1,940
	Hearing Aid Dispenser	72.9%	790
	Hearing Aid Dispenser - Trainee	42.0%	68
	Licensed Acupuncturist	85.6%	8,223
	Occupational Therapist	90.3%	13,468
	Occupational Therapy Assistant	88.2%	3,481
	Optometrist	93.8%	6,915
	Pharmacy Technician	56.5%	34,872
	Physical Therapist	85.1%	22,843
	Physical Therapist Assistant	81.8%	6,993

	Registered Contact Lens Dispenser	77.1%	1,056
	Registered Pharmacist	60.6%	24,848
	Registered Spectacle Lens Dispenser	77.9%	2,549
	Respiratory Care Practitioner	89.2%	17,769
	Speech Pathologist	70.9%	12,266
	Speech-Language Pathology Assistant	61.8%	3,026
	Total	**70.8%**	**168,261**
Behavioral Health	Associate Clinical Social Worker	74.2%	12,543
	Associate Marriage and Family Therapist	69.6%	10,754
	Associate Professional Clinical Counselor	66.9%	3,427
	Licensed Clinical Social Worker	95.6%	31,355
	Licensed Educational Psychologist	81.4%	1,360
	Licensed Marriage and Family Therapist	97.1%	43,947
	Licensed Professional Clinical Counselor	89.1%	3,515
	Psychiatric Mental Health Nurse	94.8%	164
	Psychiatric Technician	94.8%	7,995
	Psychologist	87.2%	16,682
	Registered Psychological Associate	65.5%	1,206
	Total	**88.2%**	**132,948**
Medicine	Naturopathic Doctor	85.7%	707
	Osteopathic Physician and Surgeon	77.3%	9,018
	Physician And Surgeon	82.0%	106,354
	Physician Assistant	87.7%	13,711
	Total	**82.2%**	**129,790**
Nursing	Public Health Nurse	92.2%	40,396
	Registered Nurse	92.1%	390,768
	Vocational Nurse	87.5%	94,275
	Total	**91.2%**	**525,439**
Oral Health	Dental Sedation Assistant	80.8%	42
	Dentist	95.7%	31,693
	Orthodontic Assistant	87.0%	1,497
	RDA In Extended Functions	87.8%	1,849
	RDH Alternative Practice	84.4%	650
	RDH Extended Function	100.0%	14
	Registered Dental Assistant	89.7%	25,680
	Registered Dental Hygienist	92.4%	15,885
	Total	**92.5%**	**77,310**
Total Health Workforce		**86.2%**	**1,074,657**
Note: Licensed Midwives, Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.			

Race/Ethnicity Categories: HCAI collects detailed race and ethnicity information through the workforce survey but summarizes the data using high-level groups that maximize compatibility with other demographic data. The following table summarizes the top-level combinations of race and ethnicity used in this report. To improve readability, HCAI will occasionally truncate the "Non-Hispanic" portion of the categories (e.g., "Asian, Non-Hispanic" may be referred to as "Asian, NH").

		Ethnicity	
		Hispanic	**Non-Hispanic**
Race	**Multiple Races**	Hispanic, Any Race	Multiracial, Non-Hispanic
	White	Hispanic, Any Race	White, Non-Hispanic
	Asian	Hispanic, Any Race	Asian, Non-Hispanic
	Black	Hispanic, Any Race	Black, Non-Hispanic
	American Indian	Hispanic, Any Race	American Indian, Non-Hispanic
	Pacific Islander	Hispanic, Any Race	Pacific Islander, Non-Hispanic
	Other	Hispanic, Any Race	Other Race, Non-Hispanic

Race/Ethnicity of California's Population: This report uses population estimates from the U.S. Census Bureau's DP-05 ACS Demographic and Housing Estimates 2023 ACS 5-year estimates.

Race/Ethnicity	Population	Percent of Total
American Indian, Non-Hispanic	107,379	0.3%
Asian, Non-Hispanic	5,906,995	15.1%
Black, Non-Hispanic	2,076,395	5.3%
Hispanic, Any Race	15,630,830	39.8%
Multiracial, Non-Hispanic	1,605,204	4.1%
Other Race, Non-Hispanic	209,918	0.5%
Pacific Islander, Non-Hispanic	132,838	0.3%
White, Non-Hispanic	13,573,226	34.6%
Total	**39,242,785**	**100%**

Region: HCAI geocodes all licensees' public address of record. Unknown or Out of State counties are excluded, and valid California counties are grouped into one of the following nine regions:

Region	Counties
Central Coast	Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura
Greater Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
Inland Empire	Riverside, San Bernardino
Los Angeles County	Los Angeles
Northern & Sierra	Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba
Orange County	Orange
Sacramento Area	El Dorado, Placer, Sacramento, Yolo
San Diego Area	Imperial, San Diego
San Joaquin Valley	Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare

Please note that the address of record is not necessarily the same as a practice location; however, analysis shows the address of record county matches the primary practice county approximately 82% of the time and the regions match approximately 91% of the time.

Survey Response Rates: The workforce survey is administered at the time of electronic licensure renewal. Licensees can decline to answer questions, and some questions are skipped for certain license types, so the response rates vary by license type and question. Response rates below are presented at the group level to ensure data de-identification guidelines. The average response rates for each question across all license types within each Health Workforce Group are listed in the following table for all active in-state licenses:

Question	Advanced Practice Nursing	Allied Health	Behavioral Health	Medicine	Nursing	Oral Health	Total Health Workforce
Education Location	93.3%	94.5%	94.0%	88.4%	93.1%	91.8%	**92.8%**
Residency*	0.0%	90.8%	0.0%	88.1%	0.0%	69.7%	**84.2%**
Employment Status	90.8%	91.3%	88.7%	88.2%	90.2%	88.4%	**89.8%**
Patient Activity	88.1%	87.6%	85.7%	80.5%	87.5%	86.0%	**86.3%**
Research Activity	85.0%	84.5%	83.2%	75.3%	83.6%	80.2%	**82.5%**
Training Activity	85.0%	84.5%	83.2%	74.1%	83.8%	80.2%	**82.4%**
Administrative Activity	85.3%	84.8%	83.6%	76.1%	83.9%	80.8%	**82.9%**
Retirement Estimate	78.7%	74.8%	73.7%	71.7%	76.9%	69.5%	**75.1%**
Race & Ethnicity	85.0%	87.7%	86.7%	75.3%	85.9%	83.8%	**84.8%**
Language(s) Spoken	90.2%	92.1%	91.0%	83.1%	90.9%	89.4%	**90.0%**
Sexual Orientation	79.7%	79.9%	78.2%	63.5%	81.0%	77.7%	**78.1%**
Gender Identity	87.3%	89.1%	87.0%	84.5%	88.6%	87.3%	**87.8%**
Disability Status	80.4%	82.3%	75.8%	74.2%	80.4%	78.5%	**79.2%**

*Residency question not asked for all license types
Note: Licensed Midwives, Polysomnographic Technologists and Polysomnographic Technicians are excluded from survey-based data tables due to insufficient sample sizes resulting from a lack of online licensure renewals.

Survey Response Weighting: Response rates from the renewal survey vary by profession, so HCAI utilizes a cell-based weighting methodology to adjust for any difference between the respondents (sample) and the complete universe of active licenses (population). HCAI compares the distribution of each license type by region and decade of birth (e.g., seven percent of all license type A are in Region X and born in the 1980s) to the distribution of the sample (e.g., 10% of license type A responses are in Region X and born in the 1980s). Dividing the population by the sample (e.g., 7/10) creates the group weight (0.7), which is used to adjust the weight of survey responses from licensees in that group. A weight below one indicates that the group is overrepresented in the sample compared to the population. Conversely, a weight above one indicates that the group is underrepresented in the sample. When counting the number of responses for each group, any Decline to State, or Not Asked responses are excluded. Because individuals can choose to decline different questions, each question has its own unique response weight for every group.