

Licensed Vocational Nursing

Inland Empire/Desert Region (Riverside and San Bernardino counties)

This workforce demand report uses state and federal job projection data developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available.

Please consult with local employers to understand their current employment needs.

Summary

- Community college licensed vocational nursing programs provide the knowledge, skills, and abilities that lead to the licensed vocational nurse occupation.
- Employment for this occupation is projected to increase by 11% and is expected to have 764 annual job openings through 2025.
- This occupation's 50th percentile hourly earnings are \$28.69 per hour, above the regional \$24.36 per hour self-sustainable earnings standard for a single adult with one child.
- Regional community colleges have issued 196 awards annually in licensed vocational nursing
 programs over the last three academic years. Other educational institutions in the region have issued
 440 awards annually over the previous three academic years in programs related to licensed
 vocational nurses.
- The Centers of Excellence recommends expanding licensed vocational nurse programs to meet the regional demand for licensed vocational nurses. For more information, see the <u>recommendation</u> <u>section</u>.

Introduction

California Community College licensed vocational nursing (TOP 1230.20) programs lead to vocational nurse licensure by the Board of Vocational Nursing and Psychiatric Technicians. These programs provide technical and manual nursing skills, practiced under the direction of a registered nurse, physician, or other medical staff, specific to the scope of practice of the licensed vocational nurse (Taxonomy of Programs, 2012). The knowledge, skills, and abilities trained by licensed vocational nursing programs lead to the licensed vocational nurse occupation, further referred to as licensed vocational nurse in this report.

Licensed Vocational Nurses (29-2061)

Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

Sample job titles: Charge Nurse, Clinic Licensed Practical Nurse (Clinic LPN), Clinic Nurse, Home Health Licensed Practical Nurse (Home Health LPN), Licensed Vocational Nurse (LVN), Office Nurse, Pediatric LPN (Pediatric



Licensed Practical Nurse), Private Duty Nurse, Radiation Oncology Nurse, Triage LPN (Triage Licensed Practical Nurse)

Entry-Level Educational Requirement: Postsecondary nondegree award

Work Experience Required: None

Training Requirement: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 71%

Job Counts and Projections

In 2020, there were 8,041 licensed vocational nurse jobs in the Inland Empire/Desert Region. Employment for this occupation is expected to grow by 11% through 2025. Over this period, there are 764 annual job openings projected for licensed vocational nurses. Exhibit 1 displays the job counts, five-year projected job growth, job openings, and the share of incumbent workers age 55 years and greater in the region.

Exhibit 1: Five-year projections, 2020-2025

2020 Jobs	2025 Jobs	5-Yr % Change (New Jobs)	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
8,041	8,942	11%	3,818	764	24%

Source: Emsi 2021.3

A search of online job advertisements over the last 12 months for licensed vocational nurse jobs was conducted to reveal the details about the employers seeking these workers, including the time it takes to fill positions, earnings information, and in-demand skills. Over the previous 12 months, 3,039 job advertisements for licensed vocational nurses were posted in the region. Please note that job advertisements were limited to positions that required a licensed vocational nurse or licensed practical nurse certification.

Exhibit 2 shows the number of job ads posted during the last 12 months in the region and the regional and statewide average time to fill this job. On average, regional employers fill online job advertisements for licensed vocational nurses within 33 days. The regional average time to fill is one day longer than the statewide average time to fill, indicating that regional employers may face similar challenges filling open positions as other employers in California.

Exhibit 2: Job ads and time to fill

Job Ads	Regional Average Time to Fill (Days)	Statewide Average Time to Fill (Days)
3,039	33	32

Source: Burning Glass - Labor Insights



Earnings and Benefits

Community colleges should ensure their training programs lead to employment opportunities that provide selfsustainable income. The University of Washington estimates that a self-sufficient hourly rate for a single adult with one school-age child is \$24.36 per hour or \$51,452 annually in Riverside County; \$23.73 per hour or \$50,119 annually in San Bernardino County (Pearce, 2021). For this study, the higher hourly earnings requirement in Riverside County is adopted as the self-sufficiency standard for the two-county region.

The 50th percentile hourly earnings for licensed vocational nurses surpass the self-sustainability rate, indicating that only the top 50% of workers earn a self-sustainable wage. Exhibit 3 displays the hourly earnings for licensed vocational nurses.

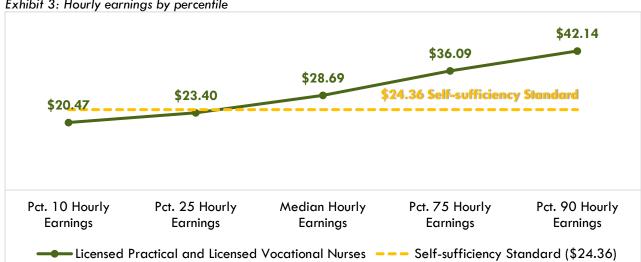


Exhibit 3: Hourly earnings by percentile

Source: Emsi 2021.3

According to the occupational guides developed by the California Labor Market Information Division, benefits for licensed vocational nurses typically include vacation, sick leave, medical and dental insurance, and retirement plans (Detailed Occupational Guides, 2021).

Advertised Salary from Online Job Ads

Exhibit 4 displays online job ad salary data for licensed vocational nurses over the last 12 months. Online job ad salary information reveals that employers are willing to pay licensed vocational nurses a median annual salary of \$58,000, above the region's \$51,452 annual (\$24.36 hourly) self-sufficiency standard. Consider the salary information with caution since only 42% (1,272 out of 3,039) of online job advertisements for this occupation provided salary information. The salary figures are prorated to reflect full-time, annual earnings status.



Exhibit 4: Advertised salary information

	Real-Time Salary Information									
Number of job ads	Less than \$35,000	\$35,000 to \$49,999	\$50,000 to \$74,999	More than \$75,000	Median Annual Salary					
1,272	2%	19%	67%	12%	\$58,000					

Source: Burning Glass - Labor Insights

Employers, Skills, Education, Work Experience, and Certifications

Exhibit 5 displays the employers that posted 30 or more job ads for licensed vocational nurses in the region over the last 12 months. Showing employer names provides some insight into where students may find employment after completing a program. Allcare Health Services posted the most job advertisements for licensed vocational nurses over the last 12 months.

Exhibit 5: Employers posting the most job ads for licensed vocational nurses

Top Employers	Job Ads
Allcare Health Services	94
Aveanna Healthcare	90
Hospice Alliance Network	88
Kaiser Permanente	82
Charter Healthcare Group	82
Bright Sky Home Health and Hospice	80
Loma Linda University Health	70
Community Hospital of San Bernardino	62
Telecare Corporation	58
Accenture	57
Eisenhower Medical Center	40
Bridge Home Health Hospice	33
All other employers	2,203
Total	3,039

Source: Burning Glass - Labor Insights

Exhibit 6 lists a sample of specialized and employability skills employers' seek when looking for workers to fill licensed vocational nurse positions. Specialized skills are occupation-specific skills that employers request for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is often referred to as "soft skills." The skills requested in job ads may be utilized to guide curriculum development.



Exhibit 6: Sample of in-demand skills from employer job ads

Sp	ecialized skills (n=2,690)	Employability skills
•	Patient Care	Communication Skills
•	Cardiopulmonary Resuscitation (CPR)	 Organizational Skills
•	Treatment Planning	 Physical Abilities
•	Home Health	 Teamwork/Collaboration
•	Hospice	 Bilingual (English/Spanish)
•	Medication Administration	Detail-Oriented

Source: Burning Glass - Labor Insights

According to the Bureau of Labor Statistics, approximately 71% of incumbent workers in this field hold a community college-level of educational attainment; "some college, no degree" and an "associate degree." The majority (78%) of the job advertisements for licensed vocational nurses sought candidates with a high school diploma or vocational training. Exhibit 7 displays the typical entry-level education, educational attainment, and minimum advertised education requirements for licensed vocational nurses.

Exhibit 7: Typical entry-level education, educational attainment, and minimum advertised education requirements

Typical Entry-Level	CC-Level		Real-Time Minimun Education Requ		
Education Requirement	Educational Attainment*	Number of Job Ads	High school or vocational training	Associate degree	Bachelor's degree or higher
Postsecondary nondegree award	71%	355	78%	22%	-

Source: Emsi 2021.3, Burning Glass - Labor Insights

Exhibit 8 displays the work experience typically required and the real-time work experience requirements from employer job ads for licensed vocational nurses. Most employers sought candidates with zero to two years of work experience.

Exhibit 8: Work experience required and real-time work experience requirements

Work Experience		Real-Time Wor	rk Experience	
Typically Required	Number of job ads	0 – 2 years	3 – 5 years	6+ years
None	1,592	87%	13%	-

Source: Emsi 2021.3, Burning Glass - Labor Insights

Exhibit 9 displays the certifications most frequently requested or required by employers in job postings for licensed vocational nurses in the region over the last 12 months. According to the Board of Vocational Nursing and Psychiatric Technicians (BVNPT), individuals must complete a California-approved Vocational Nursing Program (BVNPT) to become a licensed vocational nurse. For more information regarding licensure, please

^{*}Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework



visit the BVNPT website (BVNPT, 2021). For a list of state-approved programs and program pass rates, please visit the BVNPT website (BVNPT, 2021a).

Exhibit 9: Certifications most frequently required by employers

Certification (n=3,039)	Job Ads
Licensed Vocational Nurse (LVN)	2,823
Licensed Practical Nurse (LPN)	1,128
First Aid CPR AED	914
Basic Life Support (BLS)	608

Source: Burning Glass - Labor Insights

Student Completions and Programs Outcomes

Exhibit 10 displays completion data for regional licensed vocational nursing programs in the region. Over the last three academic years, from 2017 to 2020, regional colleges have issued 196 awards annually from state-approved programs. The student completion and outcome methodology are available on page 10.

Exhibit 10: 2017-20, Annual average community college awards for licensed vocational nursing programs in the Inland Empire/Desert Region

TOP 1230.20 – Licensed Vocational Nursing	Associate Degree	Certificate requiring 60+ semester units	Certificate requiring 30 to < 60-semester units	Total CC Annual Average Awards, Academic Years 2017-20
Chaffey (Nursing: Vocational)	25	19	6	50
Copper Mountain (Vocational Nursing)	12	-	11	23
Desert (Vocational Nursing)	12	-	25	37
Palo Verde (Vocational Nursing)	-	-	5	5
Riverside (Vocational Nursing)	35	-	46	81
Total	84	19	93	196

Source: MIS Data Mart

California program outcome data may provide a useful insight into the likelihood of success for the proposed program. Community college student outcome information based on the selected TOP code and region is provided in Exhibit 11. Among the students exiting licensed vocational nursing programs in the region, 100% reported working in a job closely related to their field of study. The median annual earnings were \$34,172, and 66% attained a living wage. The outcome methodology is available in the appendix section of this report.



Exhibit 11: 1230.20 - Licensed vocational nursing strong workforce program outcomes

Strong Workforce Program Metrics: 1230.20 – Licensed Vocational Nursing Academic Year 2018-19, unless noted otherwise	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2019-20)	589	3,714
Completed 9+ career education units in one year (2019-20)	58%	44%
Perkins Economically disadvantaged students	94%	85%
Students who attained a noncredit workforce milestone in a year (2019-20)	87%	39%
Students who earned a degree, certificate, or attained apprenticeship (2019-20)	132	638
Transferred to a four-year institution (transfers)	19	161
Job closely related to the field of study (2017-18)	100%	86%
Median annual earnings (all exiters)	\$34,172	\$36,602
Median change in earnings (all exiters)	27%	26%
Attained a living wage (completers and skills-builders)	66%	58%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Exhibit 12 displays awards that other education providers reported in licensed practical/vocational nurse training (CIP 51.3901) programs. Completion data is compiled from the Integrated Postsecondary Education Data System (IPEDS) for the most recent three years available. On average, five other postsecondary education institutions in the region have issued 440 awards annually over the last three academic years from state-approved programs.

Exhibit 12: Other educational provider licensed practical/vocational nurse training programs, three-year annual average credentials in the Inland Empire/Desert Region

51.3901 – Licensed Practical/Vocational Nurse Training	Award 1<2 Academic Years	Other Educational Providers Annual Average Credentials, Academic Years 2016-19
American Career College-Ontario	179	179
Baldy View Regional Occupational Program	15	15
Beaumont Adult School	33	33
California Nurses Educational Institute	68	68
North-West College-Riverside	145	145
Total	440	440

Source: IPEDS



Recommendation

Community college licensed vocational nursing programs provide the knowledge, skills, and abilities that lead to the licensed vocational nurse occupation. Employment for this occupation is projected to increase by 11% and is expected to have 764 annual job openings through 2025. The 50th percentile hourly earnings (\$28.69 per hour) for licensed vocational nurses surpass the regional self-sustainability standard (\$24.36 per hour), indicating that the top 50% of workers earn a self-sustainable wage.

Regional community colleges have issued 196 awards in licensed vocational nursing (TOP 1230.20) programs over the last three academic years. Among the students exiting licensed vocational nursing programs in the region, 100% reported working in a job closely related to their field of study. The median annual earnings were \$34,172, and 66% attained a living wage. Other postsecondary educational institutions have issued 440 awards annually over the last three academic years. Combined, postsecondary educational institutions have issued 636 awards from state-approved programs.

The Centers of Excellence recommends expanding licensed vocational nurse programs to meet regional demand for licensed vocational nurses. Colleges considering this program should partner with applicable employers to document their demand for licensed vocational nurses and the skills needed for students to earn self-sustainable earnings after exiting the program.

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Appendix: Methodology

Exhibit 10 displays the average annual California Community College (CCC) awards conferred during the three academic years between 2017 and 2020 from the California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. Awards are the combined total of associate degrees and certificates issued during the timeframe, divided by three in this case to calculate an annual average. This is done to minimize the effect of atypical variations that might be present in a single year.

Community college student outcome information is from LaunchBoard and based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor's Office Management Information Systems (MIS) by community colleges, which come from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from California's Employment Development Department's Unemployment Insurance database records. When available, outcomes for completers are reported to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included in each metric, please see the web link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2021a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2021a).

Job advertisement data is limited to the information provided by employers and the ability of artificial intelligence search engines to identify this information. Additionally, preliminary calculations by Georgetown Center on Education and the Workforce found that "just 30 to 40 percent of openings for candidates with some college or an associate degree, and only 40 to 60 percent of openings for high school diploma holders appear online" (Carnevale et al., 2014). Online job advertisements often do not reveal employers' hiring intentions; it is unknown if employers plan to hire one or multiple workers from a single online job ad or if they are collecting resumes for future hiring needs. A closed job ad may not be the result of a hired worker.



Table 1. 2020 to 2025 job growth, wages, entry-level education, training, and work experience required for licensed vocational nurses in the Inland Empire/Desert Region (Riverside and San Bernardino counties combined)

C	Occupation (SOC)	2020 Jobs	5-Year Change (New Jobs)	5-Year % Change (New Jobs)	Annual Openings (New + Replacement Jobs)	Entry-Experienced Hourly Wage (10 th to 90 th percentile)	Median Hourly Wage (50 th percentile)	Average Annual Earnings	Entry-Level Education & On- The-Job-Training	Work Experience Required
	icensed Vocational lurses (29-2061)	8,041	901	11%	764	\$20.47 to \$42.14	\$28.69	\$62,000	Postsecondary nondegree award & None	None

Source: Emsi 2021.3