

Labor Market Analysis for Program Recommendation: 1223.10/Health Information Coding (Medical Billing/Coding)

CVML Center of Excellence, February 2025



FOR LABOR MARKET RESEARCH
CENTRAL VALLEY/MOTHER LODGE

Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input type="checkbox"/>	Endorsed: Some LMI Criteria Met <input checked="" type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
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Program LMI Endorsement Criteria

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Supply Gap:	<i>Comments:</i> There is projected to be 1,172 annual job openings throughout the SCV/SML subregion for <i>Healthcare Administration and Billing occupations</i> , which is more than the 537 awards conferred by SCV/SML educational institutions (CC + Non-CC) .	
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	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Living Wage: (Entry-Level, 25 th)	<i>Comments:</i> The entry-level hourly wage for <i>Health Information Technologists and Medical Registrars, Billing and Posting Clerks, Medical Records Specialists, and Medical Secretaries and Administrative Assistants</i> are above the SCV/SML living wage of \$16.08.	
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	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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Education:	<i>Comments:</i> The Bureau of Labor Statistics (BLS) lists a postsecondary nondegree award for <i>Medical Records Specialists and Health Information Technologists and Medical Registrars</i> and a high school diploma or equivalent for <i>Billing and Posting Clerks and Medical Secretaries and Administrative Assistants</i> as the typical entry-level education. Between 22% and 57% of the workers in the field have completed some college or an associate degree as their highest level of education.	
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Emerging Occupation(s)

	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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Comments: N/A

The CVML Center of Excellence for Labor Market Research (CVML COE) prepared this report to determine whether there is a supply gap in the South Central Valley/Southern Mother Lode regional labor market related to the following middle-skill occupations:

- Medical Records Specialists (SOC 29-2072)
- Health Information Technologists and Medical Registrars (SOC 29-9021)
- Billing and Posting Clerks (SOC 43-3021)
- Medical Secretaries and Administrative Assistants (SOC 43-6013)

Based on the available data, there appears to be a supply gap for *Healthcare Administration and Billing occupations*. In addition to these four occupations having an entry-level hourly wage above the subregion's living wage, the typical entry-level education for two of the four occupations is a postsecondary nondegree award. **Due to some of the regional labor market criteria being met, the COE endorses this proposed program.**

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for *Healthcare Administration and Billing* occupations.

Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Medical Records Specialists (29-2072)	NCV/NML: 62 SCV/SML: 93		NCV/NML: \$21.26 SCV/SML: \$19.32	Postsecondary nondegree award	57%
Health Information Technologists and Medical Registrars (29-9021)	NCV/NML: 6 SCV/SML: 16	NCV/NML: 265 SCV/SML: 537	NCV/NML: \$28.95 SCV/SML: \$29.26	Postsecondary nondegree award	22%
Billing and Posting Clerks (43-3021)	NCV/NML: 183 SCV/SML: 311		NCV/NML: \$18.81 SCV/SML: \$19.70	High school diploma or equivalent	48%
Medical Secretaries and Administrative Assistants (43-6013)	NCV/NML: 398 SCV/SML: 752		NCV/NML: \$18.31 SCV/SML: \$17.84	High school diploma or equivalent	51%
Total	1,821	802	-		

Demand:

- The number of jobs related to *Healthcare Administration and Billing* is projected to increase 8% in the SCV/SML subregion through 2028, equating to 1,172 annual job openings.
- The entry-level hourly wage for *Health Information Technologists and Medical Registrars* (\$29.26), *Billing and Posting Clerks* (\$19.70), *Medical Records Specialists* (\$19.32), and *Medical Secretaries and Administrative Assistants* (\$17.84) are above the SCV/SML living wage of \$16.08.
- There were 1,428 online job postings for *Healthcare Administration and Billing* over the past 12 months. The highest number of postings were for *Medical Secretaries and Administrative Assistants* (529).
- The Bureau of Labor Statistics (BLS) lists a postsecondary nondegree award for *Medical Records Specialists* and *Health Information Technologists and Medical Registrars* and a high school diploma or equivalent for *Billing and Posting Clerks* and *Medical Secretaries and Administrative Assistants* as the typical entry-level education.
- Between 22% to 57% of workers in the field have completed some college or an associate degree as their highest level of education.

Supply:

- Between 2020 and 2023, there was an average of 101 awards conferred by five community colleges in the SCV/SML subregion.
- Between 2019 and 2022, there was an average of 436 awards conferred in relevant programs by non-community college institutions in the SCV/SML subregion.

Demand

Occupational Projections

Exhibit 2 shows the annual percent change in jobs for the *Healthcare Administration and Billing* occupations studied in this report (2018 through 2028). In the SCV/SML subregion, employment in these occupations experienced a 3% growth in 2021, after a 2% decline in 2020. Employment projections through 2028 for these occupations are projected to remain steady in the two subregions, with the NCV/NML subregion following the SCV/SML subregion's growth trends but to a lesser extent.

Exhibit 2: Annual Percent Change for Jobs in *Healthcare Administration and Billing*, 2018-2028

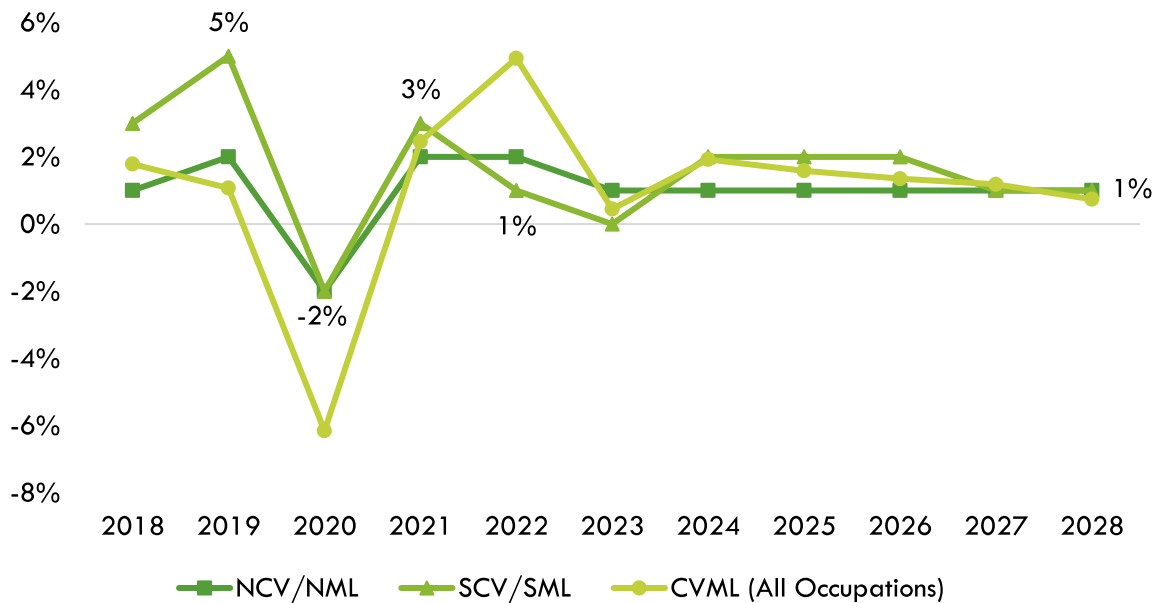


Exhibit 3 shows the five-year occupational demand projections for *Healthcare Administration and Billing* occupations. In the SCV/SML subregion, the number of jobs related to these four occupations is projected to increase by 8% through 2028. There is projected to be 1,172 jobs available annually in the SCV/SML subregion.

Exhibit 3: Occupational Demand in the NCV/NML, SCV/SML, and CVML¹

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
NCV/NML	5,849	6,161	312	5%	649
SCV/SML	9,839	10,634	795	8%	1,172
CVML	15,688	16,795	1,107	7%	1,821

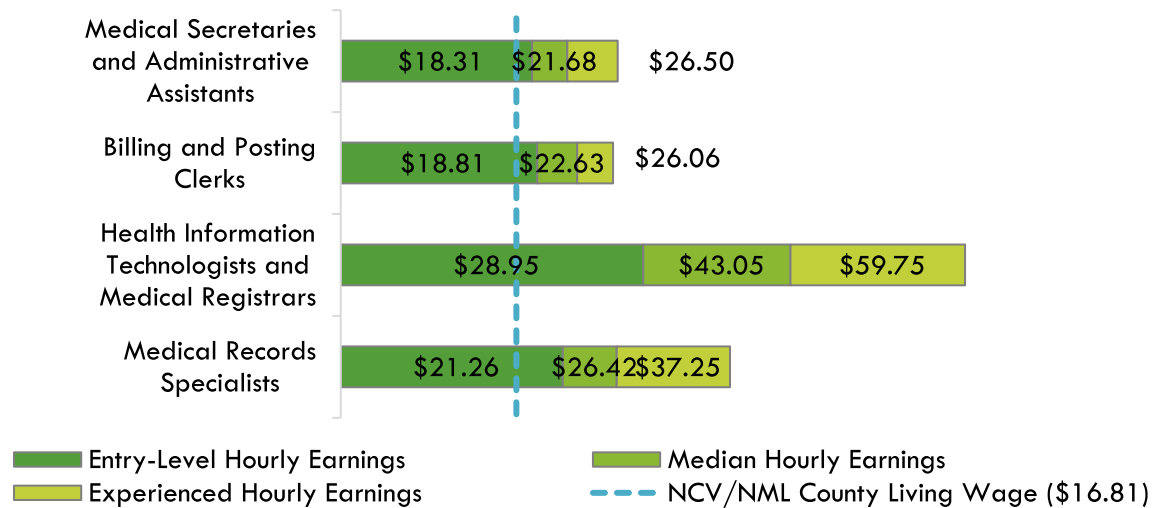
¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Wages:

The labor market endorsement in this report considers the entry-level hourly wages for *Healthcare Administration and Billing* as they relate to the subregions and region's living wage. NCV/NML, SCV/SML, and CVML wages are included below to provide a complete analysis of the region.

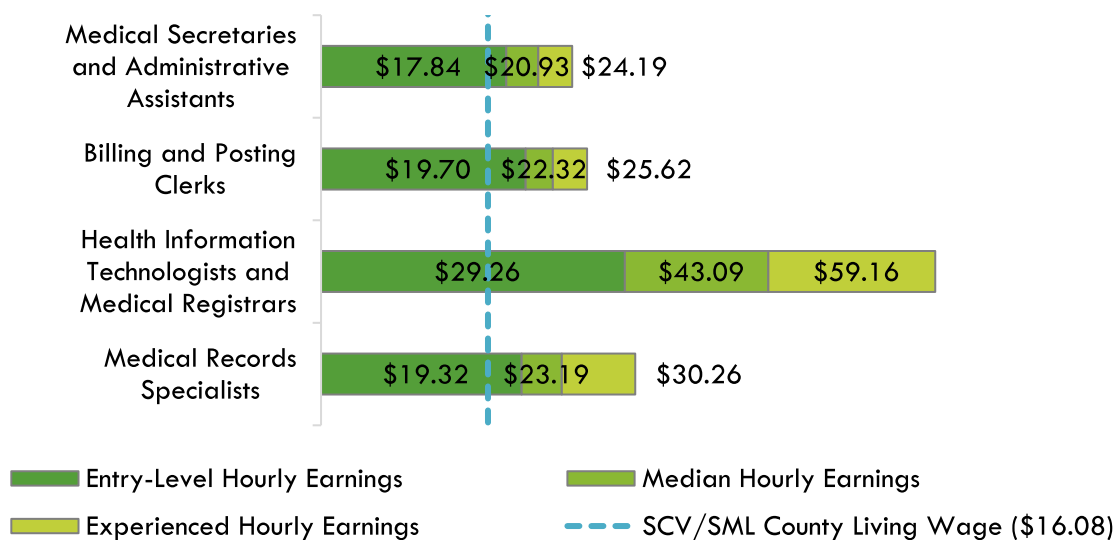
The typical entry-level hourly wage for *Medical Records Specialists* (\$21.26), *Health Information Technologists and Medical Registrars* (\$28.95), *Billing and Posting Clerks* (\$18.81), and *Medical Secretaries and Administrative Assistants* (\$18.31) are above the living wage for one adult in the NCV/NML subregion (\$16.81). The NCV/NML average wage for these occupations is \$24.73, which is less than the statewide average wage of \$26.20. Exhibit 4a shows the wage range for the occupations of interest and how they compare to the NCV/NML subregion's living wage.

Exhibit 4a: Wages by Occupation in NCV/NML



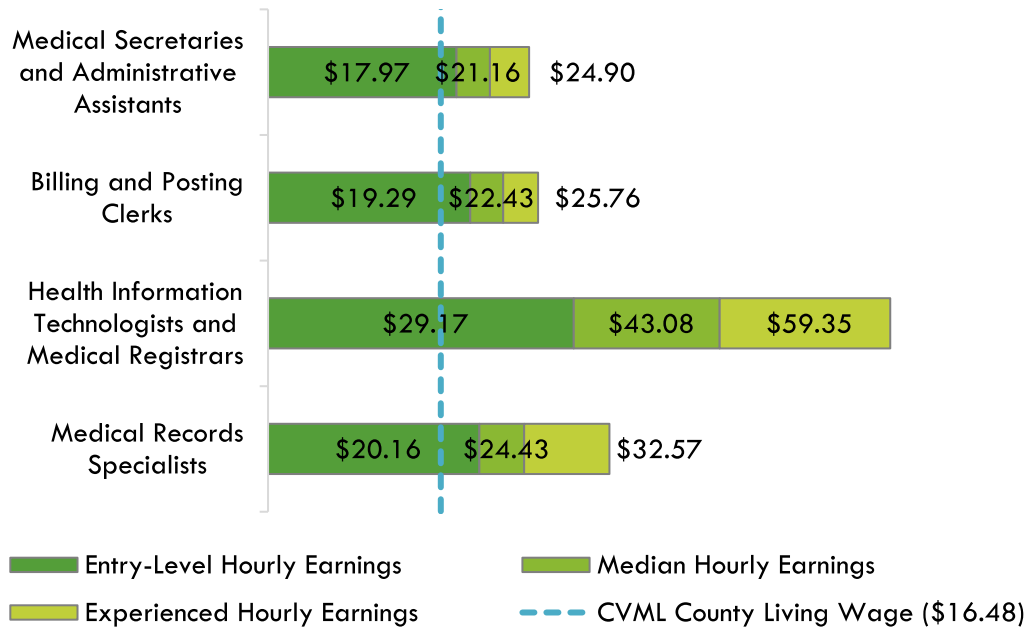
The typical entry-level hourly wage for *Medical Records Specialists* (\$19.32), *Health Information Technologists and Medical Registrars* (\$29.26), *Billing and Posting Clerks* (\$19.70), and *Medical Secretaries and Administrative Assistants* (\$17.84) are above the living wage for one adult in the SCV/SML subregion (\$16.08). The SCV/SML average wage for these occupations is \$23.15, which is less than the statewide average wage of \$26.20. Exhibit 4b shows the wage range for the occupations of interest and how they compare to the SCV/SML subregion's living wage.

Exhibit 4b: Wages by Occupation in SCV/SML



The typical entry-level hourly wage for *Medical Records Specialists* (\$20.16), *Health Information Technologists and Medical Registrars* (\$29.17), *Billing and Posting Clerks* (\$19.29), and *Medical Secretaries and Administrative Assistants* (\$17.97) are above the living wage for one adult in the CVML region (\$16.48). The CVML average wage for these occupations is \$23.74, which is below the average statewide wage of \$26.20. Exhibit 5 shows the wage range for the occupations of interest and how they compare to the CVML living wage.

Exhibit 5: Wages by Occupation in CVML



Job Postings:

Online job postings data is sourced from Lightcast, a labor market analytics firm that scrapes, collects, and organizes data from online job boards such as LinkedIn, Indeed, Glassdoor, Monster, GovernmentJobs.com, and thousands more. Lightcast uses natural language processing (NLP) to determine the related company, industry, occupation, and other information for each job posting. However, NLP has limitations that include understanding contextual words of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors. For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast’s database.

Additionally, there are several limitations when analyzing job postings. A single job posting may not represent a single job opening, as employers may be creating a pool of candidates for future openings or hiring for multiple positions with a single posting. Additionally, not all jobs are posted online, and jobs may be filled through other methods such as internal promotion, word-of-mouth advertising, physical job boards, or a variety of other channels.

There were 1,428 online job postings for *Healthcare Administration and Billing* listed in the past 12 months. Exhibit 6 shows the number of job postings for each occupation.

Exhibit 6: Number of Job Postings by Occupation (n=1,428)

Occupation	Job Postings	Percentage of Job Postings
Medical Secretaries and Administrative Assistants	529	37%
Medical Records Specialists	477	33%
Billing and Posting Clerks	240	17%
Health Information Technologists and Medical Registrars	182	13%

The top employers in the region for *Healthcare Administration and Billing*, by number of job postings, are shown in Exhibit 7.

Exhibit 7: Top Employers by Number of Job Postings (n=1,428)

Employer	Job Postings	Percentage of Job Postings
FullShift Staffing	48	3%
United Health Centers of the San Joaquin Valley	37	3%
Adventist Health	36	3%
TEKsystems	30	2%
Saint Agnes Medical Center	28	2%
Community Regional Medical Center	27	2%
AppleOne	22	2%
Community Medical Centers	17	1%
RadNet	17	1%
Robert Half	16	1%

The top specialized, common, and software skills for *Healthcare Administration and Billing* are listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 8.

Exhibit 8: Top Skills by Number of Job Postings (n=1,428)

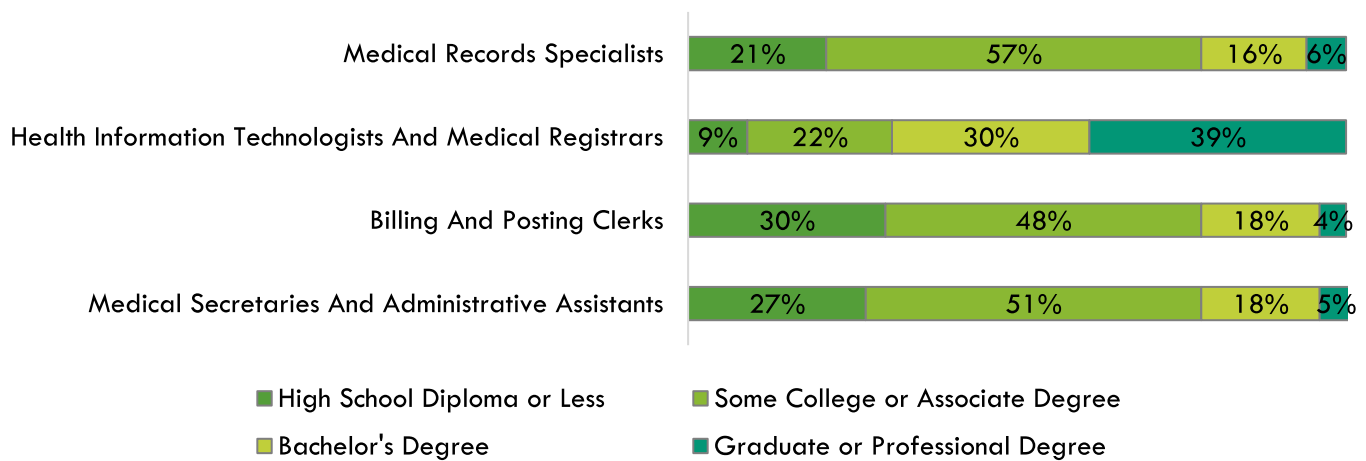
Top Specialized Skills	Top Common Skills	Top Software Skills
Billing (586)	Communication (596)	Microsoft Excel (132)
Medical Records (455)	Customer Service (431)	Microsoft Office (100)
Medical Terminology (334)	Detail Oriented (402)	Microsoft Word (57)
Data Entry (262)	Scheduling (236)	Microsoft Outlook (57)
Medical Billing (259)	Collections (235)	Spreadsheets (49)
ICD Coding (ICD-9/ICD-10) (204)	Management (229)	Dentrix (45)
Medicare (199)	Clerical Works (212)	Clinic Management Systems (40)
Electronic Medical Record (188)	Multitasking (211)	Microsoft PowerPoint (39)
Front Office (181)	Problem Solving (190)	Epic EMR (33)
Accounts Receivable (173)	Computer Literacy (181)	Accounting Software (26)

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a postsecondary nondegree award for *Medical Records Specialists* and *Health Information Technologists and Medical Registrars* and a high school diploma or equivalent for *Billing and Posting Clerks* and *Medical Secretaries and Administrative Assistants* as the typical entry-level education. National-level educational attainment data indicates that 57% of *Medical Records Specialists*, 51% of *Medical Secretaries and Administrative Assistants*, 48% of *Billing and Posting Clerks*, and 22% of *Health Information Technologists and Medical Registrars* have completed some college or an associate degree as their highest level of education in the field, as shown in Exhibit 9.

Of the 1,428 online job postings, 56% (equivalent to 797 postings) of cumulative job postings for *Healthcare Administration and Billing* listed a minimum education requirement in the SCV/SML, and 89% (706) requested a high school diploma or equivalent.

Exhibit 9: National-Level Educational Attainment for Healthcare Administration and Billing Occupations



Educational Supply

Community College Supply:

Exhibits 10a and 10b show the annual and three-year average number of awards conferred by community colleges in the programs that have historically trained for the occupations included in this report. The colleges with the most completions are Modesto (North), Merced (North), and Fresno City (South).

Exhibit 10a: NCV/NML Community College Awards (Certificates and Degrees) 2020-21 through 2022-23

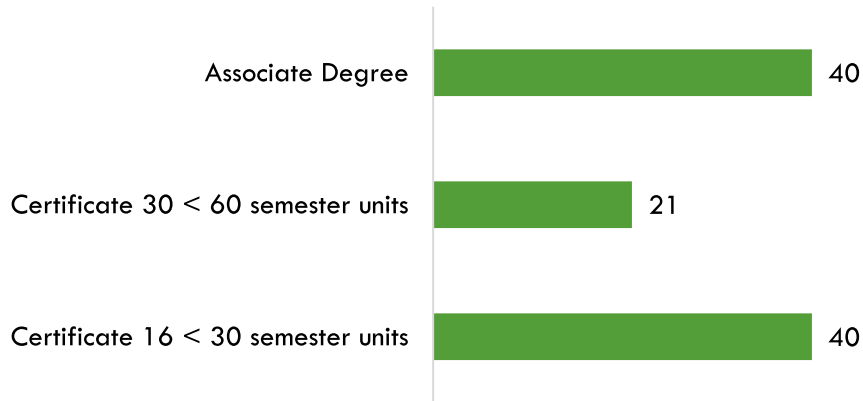
TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
0514.20	Medical Office Technology	Columbia	1	-	-	0
		Merced	55	40	51	49
		San Joaquin Delta	12	17	18	16
Subtotal/Average			68	57	69	65
1208.00	Medical Assisting	Merced	-	17	38	18
		Modesto	70	73	110	84
Subtotal/Average			70	90	148	103
NCV/NML Supply Grand Total			138	147	217	167

Exhibit 10b: SCV/SML Community College Awards (Certificates and Degrees) 2020-21 through 2022-23

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
0514.20	Medical Office Technology	Fresno City	26	16	24	22
		Madera	8	11	6	8
		Reedley	31	27	14	24
Subtotal/Average			65	54	44	54
1208.00	Medical Assisting	Cerro Coso	3	7	9	6
		Subtotal/Average			3	7
1208.20	Administrative Medical Assisting	Cerro Coso	12	6	28	15
		Subtotal/Average			12	6
1223.00	Health Information Technology	Bakersfield	3	10	10	8
		Fresno City	14	8	2	8
Subtotal/Average			17	18	12	16
1223.10	Health Information Coding	Fresno City	8	13	8	10
		Subtotal/Average			8	13
SCV/SML Supply Grand Total			105	98	101	101

Exhibit 11 shows the annual average community college awards by type from 2020-21 through 2022-23. Of the 101 awards conferred in the SCV/SML subregion, 40% of all awards were for a certificate 16 < 30 semester units (40) and 40% of all awards were for an associate degree (40).

Exhibit 11: Annual Average Community College (SCV/SML) Awards by Type, 2020-21 through 2022-23



Non-Community College Supply:

For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for the occupation studied in this report. Exhibits 12a and 12b show the annual and three-year average number of awards conferred by non-community college institutions in programs that have historically trained for the occupation of interest. Between 2019 and 2022, non-community colleges in the SCV/SML subregion conferred an average of 436 awards annually in related training programs.

Exhibit 12a: NCV/NML Subregional Non-Community College Awards, 2019-2022

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
51.0710	Medical Office Assistant/Specialist	San Joaquin Valley College-Modesto	20	12	12	15
		UEI College-Stockton	30	56	38	41
Subtotal/Average			50	68	50	56
51.0714	Medical Insurance Specialist/Medical Biller	Carrington College-Stockton	12	12	10	11
		Subtotal/Average	12	12	10	11
51.0716	Medical Administrative/Executive Assistant and Medical Secretary	Carrington College-Stockton	11	6	4	7
		Milan Institute-Merced	20	16	11	16
		Stellar Career College	12	8	4	8
Subtotal/Average			43	30	19	31
NCV/NML Supply Grand Total			105	110	79	98

Exhibit 12b: SCV/SML Subregional Non-Community College Awards, 2019-2022

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
51.0710	Medical Office Assistant/Specialist	Clovis Adult Education	27	21	12	20
		San Joaquin Valley College-Bakersfield	23	14	17	18
		San Joaquin Valley College-Delano	26	8	11	15
		San Joaquin Valley College-Fresno	22	13	8	14
		San Joaquin Valley College-Hanford Classroom	17	13	10	13
		San Joaquin Valley College-Madera	14	9	13	12
		San Joaquin Valley College-Porterville	17	26	7	17
		San Joaquin Valley College-Visalia	30	23	16	23
		Santa Barbara Business College-Bakersfield	28	11	-	13
				Subtotal/Average	204	138
51.0713	Medical Insurance Coding Specialist/Coder	San Joaquin Valley College-Visalia	145	174	245	188
		UEI College-Bakersfield	59	78	64	67
		UEI College-Fresno	18	1	-	6
		Subtotal/Average	222	253	309	261
51.0714	Medical Insurance Specialist/Medical Biller	Santa Barbara Business College-Bakersfield	5	1	-	2
		Subtotal/Average	5	1	-	2
51.0716	Medical Administrative/Executive Assistant and Medical Secretary	Milan Institute-Visalia	25	35	23	28
		Subtotal/Average	25	35	23	28
SCV/SML Supply Grand Total			456	427	426	436

Appendix A: Methodology

The CVML COE prepared this report by analyzing data from occupations and education programs.

Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies. Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

Using a TOP-SOC crosswalk, the CVML COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

The CVML COE determined labor market supply for an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a “supply table” with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP code data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data), also known as IPEDS. TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the CVML COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees but is not a perfect measure of the quantity of open positions.

All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see https://lightcast.io/</p>
Living Wage	<p>The living wage is derived from the Insight Center’s California Family Needs Calculator, which measures the income necessary for an individual of family to afford basic expenses. The data assesses the cost of housing, food, childcare, health care, transportation, and taxes. For more information, see: https://selfsufficiencystandard.org/California/</p> <p>Wage figures are used by the CCCCOC to calculate the percentage of students that attained the regional living wage.</p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. BLS uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. For more information, see https://www.bls.gov/emp/documentation/education/tech.htm</p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see https://www.onetonline.org/help/online/</p>
Educational Supply	<p>The CCCCOC Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu</p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</p>
Student Metrics and Demographics	<p>DataVista, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: https://datavista.cccco.edu/</p>

Data Type	Source
Population and Occupation Demographics	<p>The Census Bureau’s American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: https://www.census.gov/programs-surveys/acs</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: https://usa.ipums.org/usa/about.shtml</p>

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