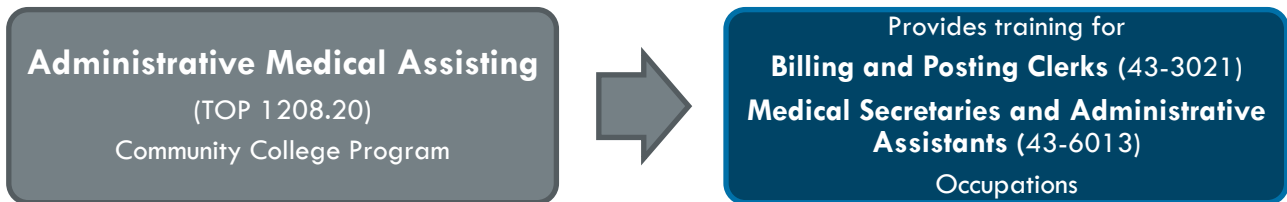


Medical Billing

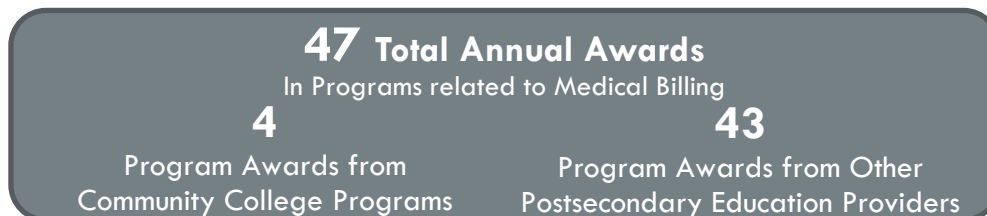
Inland Empire/Desert Region (Riverside and San Bernardino counties)

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 verify their current employment needs.

Summary



Over the next five years (2021-2026), medical billing employment is projected to



The Inland Empire/Desert Centers of Excellence
 **Recommends**
Administrative Medical Assisting Program Expansion
to meet the need for more workers in the region

Introduction

This report provides labor market occupational demand and wage research and postsecondary program outcomes related to medical billing. The community college program most likely to prepare students for employment in medical billing is the administrative medical assisting program (TOP 1208.20). California Community College administrative medical assisting programs prepare students for employment through the instruction of the principles and techniques to assist with administration in health care offices and clinics. These programs include receptionist duties, maintaining patient records, billing, insurance, bookkeeping,

appointments, and scheduling (Taxonomy of Programs, 2012). The knowledge, skills, and abilities trained by administrative medical assisting programs focused on medical billing lead to the following occupations, further referred to as the medical billing occupational group.

- Billing and Posting Clerks (43-3021)
- Medical Secretaries and Administrative Assistants (43-6013)

In 2021, there were 13,989 jobs in the medical billing occupational group in the Inland Empire/Desert Region. There are 1,706 job openings expected annually for the medical billing occupational group, increasing employment by 7% through 2026 in the region. Exhibit 1 displays the job counts, five-year projected job growth, job openings, and the share of incumbent workers aged 55 years and greater in the regions.

Exhibit 1: Five-year projections for the medical billing occupational group, Inland Empire/Desert Region, 2021-2026

Occupation	2021 Jobs	2026 Jobs	5-Yr % Change	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
Medical Secretaries and Administrative Assistants	9,277	10,002	8%	5,875	1,175	28%
Billing and Posting Clerks	4,711	4,911	4%	2,656	531	24%
Total	13,989	14,913	7%	8,532	1,706	27%

Source: Lightcast 2022.3

An online job advertisement (ad) search for medical billing jobs was conducted to reveal the employers seeking these workers, including the time it takes to fill positions, earnings information, and in-demand skills. The job ad search was limited by keyword and industry filters to ensure job ad information in this report is specific to medical billing positions. Over the previous 12 months, there were 52 job ads posted for the medical billing occupational group in the region. The Centers of Excellence typically seeks to report job ad information for occupations with at least 100 job ads over the last 12 months in the region to ensure that the job ad information in this report is reliable and actionable. The job ad search for the medical billing occupational group was expanded to include all advertisements posted in California over the last 12 months.

Exhibit 2 shows the number of job ads posted during the last 12 months and the statewide average time to fill these jobs. Over the last 12 months, there were 805 job ads posted for the medical billing occupational group in California. Employers in the state fill online job ads for the medical billing occupational group in 29 days.

Exhibit 2: Job ads and time to fill, California, September 2021 through August 2022

Occupation	Job Ads	Statewide Average Time to Fill (Days)
Medical Secretaries and Administrative Assistants	433	29
Billing and Posting Clerks	372	28
Total	805	29

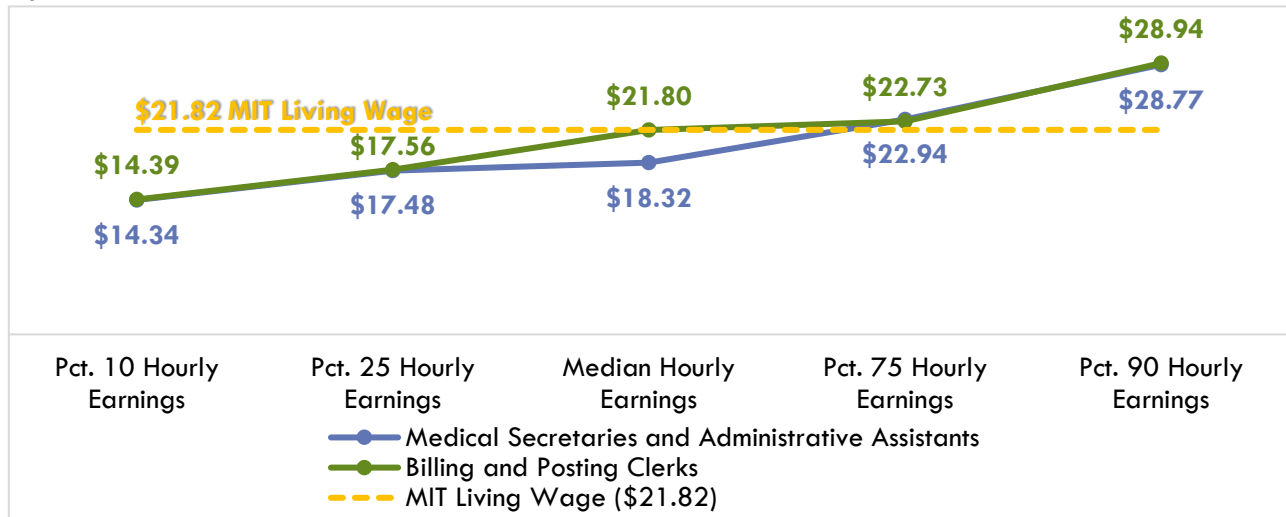
Source: Burning Glass – Labor Insights

Earnings and Benefits

Community colleges should ensure their training programs lead to employment opportunities that provide a living wage. The MIT living wage calculator estimates that an individual must earn \$21.82 per hour or \$45,386 annually in California (Glasmeier, 2022).

Exhibit 3 displays the hourly earnings for the medical billing occupational group in the Inland Empire/Desert Region. The 75th percentile hourly earnings for the medical billing occupational group are above the living wage, indicating that only the top 25% of workers earn a living wage.

Exhibit 3: Hourly earnings by percentile for the medical billing occupational group, Inland Empire/Desert Region, 2021



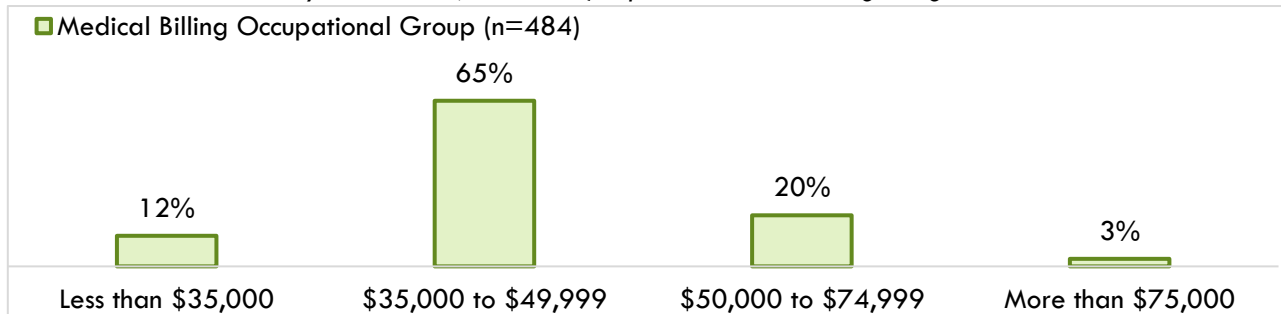
Source: Lightcast 2022.3

Benefits information, provided in the occupational guides developed by the California Labor Market Information Division, reveals that employers may provide medical secretaries and administrative assistants health and life insurance, sick leave, vacation, and retirement plans. Benefits information is not available for billing and posting clerks (Detailed Occupational Guides, 2022).

Advertised Salary from Online Job Ads

Exhibit 4 displays online job ad salary data for the medical billing occupational group over the last 12 months. Online job ad salary information reveals that employers are willing to pay the medical billing occupational group \$45,000 annually, similar to the region's \$45,386 annual (\$21.82 hourly) living wage standard. Consider the salary information with caution since only 60% (484 out of 805) of online job ads for these occupations provided salary information. The salary figures are prorated to reflect full-time, annual wage status.

Exhibit 4: Advertised salary information, California, September 2021 through August 2022



Source: Burning Glass – Labor Insights

Job Titles, Employers, Skills, Education, and Work Experience

Exhibit 5 displays the job titles most frequently included in ads for the medical billing occupational group over the last 12 months. Displaying job titles may provide insight into the types of positions available to students after completing a program. The most frequently requested job title over the last 12 months for the medical billing occupational group was billing specialist.

Exhibit 5: Job titles most frequently included in job ads for the medical billing occupational group, California, September 2021 through August 2022

Top Job Titles	Job Ads
Billing Specialist	45
Medical Receptionist	39
Referral Coordinator	35
Front Desk Receptionist	33
Patient Account Representative	26
Billing Clerk	24
Medical Office Receptionist	22
Biller	21
All other job titles	560
Total	805

Source: Burning Glass – Labor Insights

Exhibit 6 displays the employers that posted the most job ads during the last 12 months. Displaying employer names provides insight into where students may find employment after completing a program. The University of California, Los Angeles, posted the most job ads for the medical billing occupational group over the last twelve months.

Exhibit 6: Employers posting the most job ads for the medical billing occupational group, California, September 2021 through August 2022

Top Employers	Job Ads
University of California, Los Angeles	35
PIH Health	32
Planned Parenthood	16
Envision	14
Tenet Health System	10
UC Davis Health	9
Central City Community Health Center	8
San Diego Imaging	7
Evolution Physical Therapy	6
All other employers	668
Total	805

Source: Burning Glass – Labor Insights

Exhibit 7 lists a sample of specialized, employability, and software and programming skills employers seek when looking for workers to fill positions in the medical billing occupational group. 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.

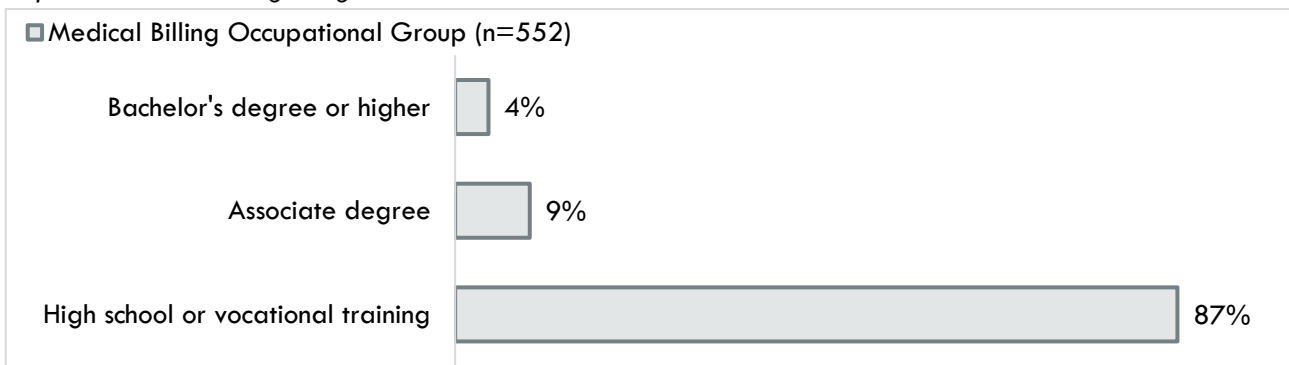
Exhibit 7: Sample of in-demand skills from employer job ads, California, September 2021 through August 2022

Specialized skills	Employability skills	Software and Programming skills
Customer Billing	Communication Skills	Microsoft Office
Medical Coding	Organizational Skills	ICD-10-CM
Scheduling	Detailed-Oriented	
Administrative Support	Computer Literacy	
Customer Service	Multi-Tasking	
Appointment Setting	Bilingual (English-Spanish)	
Data Entry	Telephone Skills	

Source: Burning Glass – Labor Insights

Exhibit 8 displays the minimum advertised education requirements for the medical billing occupational group. Approximately 87% (480 ads) of job ads for the medical billing occupational group sought candidates with a high school diploma or vocational training.

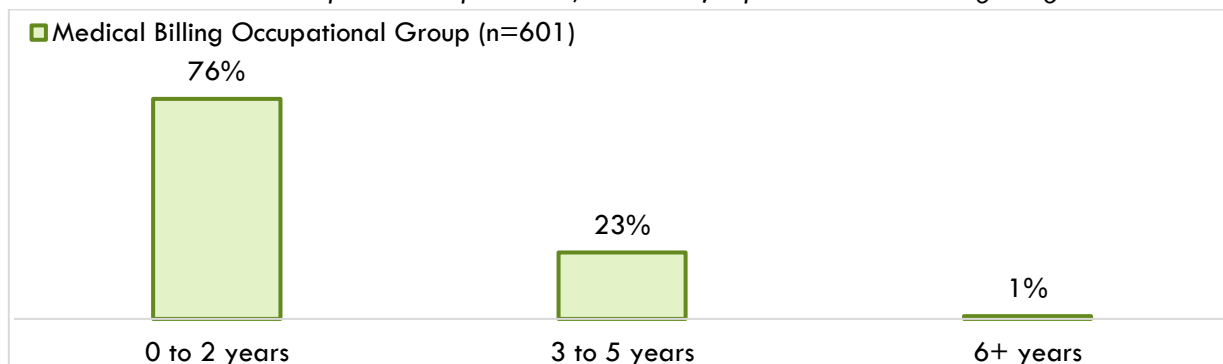
Exhibit 8: Minimum advertised education requirements for the medical billing occupational group, California, September 2021 through August 2022



Source: Burning Glass – Labor Insights

Exhibit 9 displays the real-time work experience requirements from employer job ads. Approximately 76% of job ads sought candidates with zero to two years of previous work experience.

Exhibit 9: Real-time work experience requirements, California, September 2021 through August 2022



Source: Burning Glass – Labor Insights

Student Completions and Programs Outcomes

Regional community colleges have not issued awards in administrative medical assisting programs (1208.20) over the last three academic years (20118-21). Mt. San Jacinto College is the only regional community college offering an administrative medical assisting program. Program completion and student outcome methodologies are found in the appendix.

California program outcome data may provide 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.

Exhibit 11. 1208.20 – Administrative medical assisting strong workforce program outcomes, Inland Empire/Desert Region, Academic Year 2018-2019 (Unless Noted)

Strong Workforce Program Metrics: 1208.20 – Administrative Medical Assisting	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2019-20)	83	2,540
Completed 9+ career education units in one year (2019-20)	45%	28%
Perkins Economically disadvantaged students (2019-20)	88%	83%
Students who attained a noncredit workforce milestone in a year (2019-20)	-	87%
Students who earned a degree, certificate, or attained apprenticeship (2019-20)	-	317
Transferred to a four-year institution (transfers)	-	33
Job closely related to the field of study (2017-18)	-	69%
Median annual earnings (all exiters)	-	\$27,066
Median change in earnings (all exiters)	-	22%
Attained a living wage (completers and skills-builders)	-	20%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

While administrative medical assisting programs (TOP 1208.20) provide the training most likely to prepare students for employment in medical billing, health information coding programs (TOP 1223.10) focused on medical billing may equip students with the requisite skills to obtain medical billing employment. California Community College health information coding programs prepare students for employment through the training to assign numerical codes to diagnoses, symptoms, and procedures using standard international classifications and terminology (Taxonomy of Programs, 2012). San Bernardino Valley College offers a Medical Coding and Billing certificate program that utilizes the health information program code. Exhibit 12 displays student completions for the health information coding program (TOP 1223.10) over the last three academic years (2018-21). Program outcome metrics are not available for this program.

Exhibit 12. Annual average community college awards for health information coding programs, Inland Empire/Desert Region, Academic Years 2018-2021

TOP 1223.10 – Health Information Coding (Local Program Title)	Academic Year 2018-19	Academic Year 2019-20	Academic Year 2021-21	Total CC Annual Average Awards, Academic Years 2018-21
San Bernardino Valley College (Medical Coding and Billing)				4
Certificate 16 < 30 semester units	0	1	12	4

TOP 1223.10 – Health Information Coding (Local Program Title)	Academic Year 2018-19	Academic Year 2019-20	Academic Year 2021-21	Total CC Annual Average Awards, Academic Years 2018-21
Total	0	1	12	4

Source: MIS Data Mart, COCI

Exhibit 13 displays awards for other postsecondary education providers reported in medical insurance specialist/medical biller programs (CIP 51.0714). Completion data is compiled from the Integrated Postsecondary Education Data System (IPEDS) for the most recent three years. Three other regional postsecondary education providers issued 43 awards annually over the last three academic years.

Exhibit 13. Other educational providers medical insurance specialist/medical biller programs, three-year annual average credentials, Inland Empire/Desert Region, Academic Years 2017-2020

51.0714 – Medical Insurance Specialist/ Medical Biller	Award < 1 academic year	Postsecondary awards	Other Educational Providers Annual Average Credentials, 2017-2020
American College of Healthcare and Technology	-	16	16
Concorde Career College-San Bernardino	5	-	5
North-West College-Riverside	14	8	22
Total	19	24	43

Source: IPEDS

Summary of Findings

The knowledge, skills, and abilities trained by administrative medical assisting programs (TOP 1208.20) focused on medical billing lead to two occupations, collectively referred to as the medical billing occupational group. Over the next five years (2021-2026), the medical billing occupational group is projected to increase employment by 7%, with 1,706 annual job openings in the region. The 75th percentile hourly earnings for the medical billing occupational group are above the MIT living wage, indicating that at least the top 25% of workers earn a living wage.

Over the last three academic years, regional community colleges have not issued awards in administrative medical assisting (TOP 1208.20) programs. However, San Bernardino Valley College issued four awards annually over the last three academic years in its Medical Coding and Billing program, utilizing the health information coding program code. Over the last three academic years, other postsecondary education institutions in the region issued 43 awards annually in programs related to medical billing.

The Centers of Excellence recommends expanding programs related to medical billing to meet the demand for these workers in the region. Colleges considering this program should have a strong partnership with the appropriate employers to document their demand for workers and the skills needed for students to work in this field and earn a living wage shortly after exiting the program.

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Appendix: Occupation definitions, sample job titles, five-year projections, and earnings for medical billing occupations

Occupation Definitions (SOC code), Education and Training Requirement, Community College Education Attainment

Billing and Posting Clerks (43-3021)

Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.

Sample job titles: Account Services Representative (Accounts Services Rep), Biller, Billing Clerk, Billing Coordinator, Item Processing Clerk (IP Clerk), Medical Biller, Pre-Audit Clerk, Statement Clerk, Statement Distribution Clerk, Statement Services Representative (Statement Services Rep)

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Between one and twelve-months on-the-job training

Work Experience: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 53%

Medical Secretaries and Administrative Assistants (43-6013)

Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.

Sample job titles: Clinic Office Assistant, Front Desk Receptionist, Medical Office Specialist, Medical Receptionist, Medical Secretary, Physician Office Specialist, Secretary, Unit Clerk, Unit Support Representative, Ward Clerk

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Between one and twelve-months on-the-job training

Work Experience: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 48%

Appendix: Methodology

Exhibit 12 displays the average annual California Community College (CCC) awards conferred during the three academic years between 2018 and 2021 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 for each metric, please see the web link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2022a). 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, 2022a).

Job ad 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 ads 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 collecting resumes for future hiring needs. A closed job ad may not be the result of a hired worker.

Table 1. 2021 to 2026 job growth, wages, entry-level education, training, and work experience required for the medical billing occupational group in the Inland Empire/Desert Region (Riverside and San Bernardino Counties combined)

Occupation (SOC)	2021 Jobs	5-Year Change	5-Year % Change	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
Medical Secretaries and Administrative Assistants (43-6013)	9,277	725	8%	1,175	\$14.34 to \$28.77	\$18.32	\$43,100	High school diploma or equivalent & 1-12 months	None
Billing and Posting Clerks (43-3021)	4,711	199	4%	531	\$14.39 to \$28.94	\$21.80	\$44,600	High school diploma or equivalent & 1-12 months	None
Total	13,989	924	7%	1,706	-	-	-	-	-

Source: Lightcast 2022.3