

Health Information Technology

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

Based on the available data, there appears to be employer demand for health information technology workers in the Inland Empire/Desert Region. While demand is typically defined as the number of annual job openings for a set of occupations, traditional labor market data for health information technology workers does not exist at this time. For this reason, this analysis is primarily based on online job advertisements over the previous 12 months. Following is an overview of this report's key findings:

Key Findings:

- Over the past 12 months, there were 589 online job ads for health information technology workers in the Inland Empire/Desert Region. The highest number of job ads were for a medical biller, medical records clerk, and medical billing specialist.
 - Compared to the same period from 2019 to 2020, online job advertisements increased by 35%.
 - As a minimum level of education within job ads, 76% (328) job ads requested a high school diploma or vocational training, 9% (37) requested an associate degree, and 15% (63) requested a bachelor's degree.
- Overall, online job ad salary information reveals that employers are willing to pay these positions \$43,000 annually, below the region's \$51,452 annual (\$24.36 hourly) self-sufficiency standard. Consider the salary information with caution since only 44% of online job ads (262 out of 589) for health information technology positions provided salary information.
- Regional community colleges do not currently offer health information technology (TOP 1223.00) programs.

Introduction

California Community College health information technology (TOP 1223.00) programs prepare students for employment through training related to the compilation and maintenance of medical records, development of statistical reports, coding of diseases and operations, maintenance of indexes, and handling of requests for medical records information (Taxonomy of Programs, 2012). The occupations historically trained by this program include health information technologists and medical registrars, and medical records specialists.

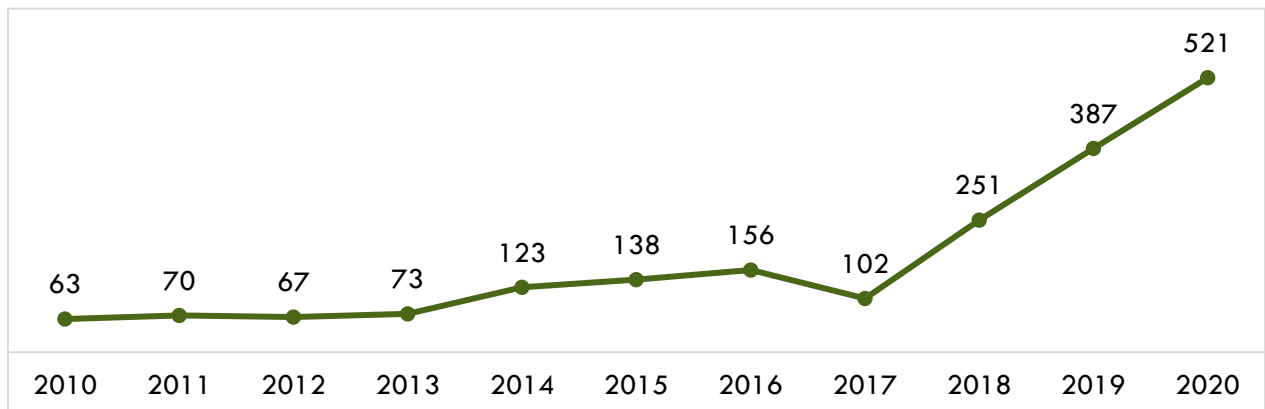
However, due to recent changes to the Standard Occupational Classification System (SOC), these occupations have been combined with other occupations to create the new occupational codes, health information technologists, medical registrars, surgical assistants, and healthcare practitioners and technical workers, all other medical dosimetrists, medical records specialists, and health technologists and technicians, all other.

As a result of the changes to the SOC system, labor market data for these newly combined occupations may overstate the demand for health information technologists and medical registrars, and medical records specialists since it was combined with occupations unrelated to health information technology. As a result, this report does not provide traditional labor market information to prevent the overstatement of demand for health information technology workers. A job advertisement search was conducted to quantify regional demand for jobs related to health information technology. Furthermore, job advertisements reveal the employers seeking these workers, including the time it takes to fill positions, earnings information, and in-demand skills. Please see the Appendix section for a note on online job advertisements.

Job Advertisements

Exhibit 1 displays the job advertisements for health information technology positions in the Inland Empire/Desert Region from 2010 through 2020. From 2019 to 2020, job advertisements for health information technology workers increased by 35%. Over the last 12 months, there were 589 job advertisements posted in the region.

Exhibit 1: Job advertisements for health information technology workers, 2010-2020



Source: Burning Glass – Labor Insights

Exhibit 2 displays the job titles from employers posting ten or more online job ads for health information technician positions over the last 12 months in the region. This job advertisement search was conducted using a mix of job titles for health information technician occupations. See the appendix for a complete list of the job titles used for the job ad search.

Exhibit 2: Job titles most frequently included in health information technician positions

Job Titles	Job Ads
Medical Biller	83
Medical Records Clerk	44
Medical Billing Specialist	30
Medical Biller/Collector	25
Medical Records Coordinator	17
Medical Biller and Coder	17
Medical Records Assistant	13
All other job titles	360
Total	589

Source: Burning Glass – Labor Insights

Advertised Salary from Online Job Ads

Community colleges should ensure their training programs lead to employment opportunities that provide self-sustainable 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.

Exhibit 3 displays online job ad salary data for the health information technology positions over the last 12 months. Online job ad salary information reveals that employers are willing to pay these positions \$43,000 annually, below the region's \$51,452 annual (\$24.36 hourly) self-sufficiency standard. Consider the salary information with caution since only 44% (262 out of 589) of online job postings for these occupations provided salary information. The salary figures are prorated to reflect full-time, annual wage status.

Exhibit 3: Advertised salary information

Number of job postings	Less than \$35,000	\$35,000 to \$49,999	\$50,000 to \$74,999	More than \$75,000	Average Annual Salary
262	39%	44%	6%	11%	\$43,000

Source: Burning Glass – Labor Insights

Employers, Skills, Education, Work Experience, and Certifications

Exhibit 4 displays the employers that posted more than five job ads for health information technology workers over the last 12 months in the Inland Empire/Desert Region. Displaying employer names provides some insight into where students may find employment after completing a program. The employer posting the most job advertisements for health information technology workers in the region is Prime Healthcare Services.

Exhibit 4: Employers posting the most job ads for health information technology workers

Top Employers	Job Ads
Prime Healthcare Services	38
Inland Empire Health Plans	26
Arrowhead Regional Medical Center	16
Riverside University Health System – Medical Center	12
Anthem Blue Cross	12
Temecula Valley Hospital	10
The Oncology Institute of Hope and Innovation	8
Telecare Corporation	8
Epic Management	8
Citrus Valley	7
Loma Linda University Health	7
Team Nurses Home Health Services, Inc.	6
Inland Neurosurgery Institute	6
Department of Veteran Affairs	6
Eisenhower Medical Center	6
Chino Valley Medical Center	6
<i>All other employers</i>	<i>407</i>
Total	589

Source: Burning Glass – Labor Insights

Exhibit 5 lists a sample of specialized, employability, and software and programming skills employers seek when looking for workers to fill health information technology 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 postings may be utilized to guide curriculum development.

Exhibit 5: Sample of in-demand skills from employer job ads

Specialized skills	Employability skills	Software and Programming Skills
<ul style="list-style-type: none"> • Medical Records • Medical Coding • Medical Billing • Health Insurance Portability and Accountability Act (HIPAA) • Health Information Management (HIM) • Medical Terminology 	<ul style="list-style-type: none"> • Communication Skills • Detail-Oriented • Organizational Skills • Typing • Computer Literacy • Problem 	<ul style="list-style-type: none"> • International Classification Diseases (ICD-10) • Microsoft Office

Source: Burning Glass – Labor Insights

Online job advertisements indicate that most employers (76%) seeking health information technology workers sought candidates with a high school diploma or vocational training. Exhibit 6 displays the minimum advertised education requirements for the health information technology occupational group.

Exhibit 6: Minimum advertised education requirements

Real-Time Minimum Advertised Education Requirement			
Number of Job Ads	High school or vocational training	Associate degree	Bachelor's degree or higher
428	76%	9%	15%

Source: Burning Glass – Labor Insights

Exhibit 7 displays the real-time work experience requirements from employer job ads. Job advertisements indicate that the majority of employers sought candidates with zero to two years of work experience.

Exhibit 7: Real-time work experience requirements

Real-Time Work Experience			
Number of job postings	0 – 2 years	3 – 5 years	6+ years
371	58%	36%	6%

Source: Emsi 2021.3, Burning Glass – Labor Insights

Exhibit 8 displays the certifications typically required by employers seeking health information technology workers. Certified coding Associate (CCA), Certified Coding Specialist (CCS), Registered Health Information Technician (RHIT), and the Registered Health Information Administrator (RHIA) certifications were requested in approximately 7% of job advertisements. The American Health Information Management Association (AHIMA) administers all of these professional certifications. For more information regarding certification requirements, please visit the AHIMA website (AHIMA, 2021).

Exhibit 8: Certifications typically required in advertisements for health information technology positions

Certifications (n=184)	Job Ads
Driver's License	80
Medical Billing and Coding Certification	41
Registered Health Information Technician (RHIT)	39
Registered Health Information Administrator (RHIA)	36

Source: Burning Glass – Labor Insights

Health Information Technology Programs

According to the Chancellor's Office Curriculum Inventory (COCI), Inland Empire/Desert community colleges do not currently offer health information technology (TOP 1223.00) programs. 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 9. Among the students exiting health information technology programs in the state, 75% of students reported working in their field of study, the median annual earnings was \$36,548, and 56% attained a living wage. The outcome methodology is available in the appendix section of this report.

Exhibit 9: 1223.00 – Health information technology strong workforce program outcomes

Strong Workforce Program Metrics: 1223.00 – Health Information Technology Academic Year 2018-19, unless noted otherwise		California
Unduplicated count of enrolled students (2019-20)		5,415
Completed 9+ career education units in one year (2019-20)		28%
Perkins Economically disadvantaged students		86%
Students who attained a noncredit workforce milestone in a year (2019-20)		62%
Students who earned a degree, certificate, or attained apprenticeship (2019-20)		251
Transferred to a four-year institution (transfers)		382
Job closely related to the field of study (2017-18)		75%
Median annual earnings (all exiters)		\$36,548
Median change in earnings (all exiters)		16%
Attained a living wage (completers and skills-builders)		56%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Health Information/Medical Records Administration/Administrator (CIP 51.0706) awards reported by other postsecondary education providers are displayed in Exhibit 10. Completion data is compiled from the

Integrated Postsecondary Education Data System (IPEDS) for the most recent three years available. Two regional programs issued 15 awards annually. Due to IPEDS reporting limitations, it is assumed that each award represents a qualified worker since it is unknown if students are earning multiple awards from this program.

Exhibit 10: Other postsecondary educational provider health information/medical records administration/administrator programs, three-year annual average credentials in the Inland Empire/Desert Region

51.0706 – Health Information/Medical Records Administration/Administrator	Award <1 academic year	Award 1<2 academic year	Bachelor's degree	Other Educational Providers Annual Average Credentials, Academic Years 2016-19
Loma Linda University	-	1	5	6
Summit College	9	-	-	9
Total	9	1	5	15

Source: IPEDS

Recommendation for Health Information Technology Programs

California Community College health information technology programs prepare students for employment as health information technologists and medical registrars, and medical records specialists, collectively referred to as health information technology workers in this report. There were 589 job advertisements posted for health information technology workers over the last 12 months in the Inland Empire/Desert Region. Online job ads for these workers increased by 35% from 2019 to 2020. Online job ad salary information reveals that employers are willing to pay these positions \$43,000 annually, below the region's \$51,452 annual (\$24.36 hourly) self-sufficiency standard.

Regional community colleges do not currently offer health information technology (TOP 1223.00) programs. Among the students exiting health information technology programs in the state, 75% of students reported working in their field of study, the median annual earnings was \$36,548, and 56% attained a living wage. Two private educational institutions issued 15 awards annually in health information/medical records administration/administrator programs.

The Centers of Excellence recommends caution in developing health information technology programs. While there are many job advertisements for health information technology workers, the advertised wages for these workers fall short of the regional self-sustainability standard. Colleges considering this program should partner with applicable employers to document knowledge, skills, and certifications necessary to ensure that students earn a self-sustainable earnings shortly after entering the workforce.

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October 2021

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Appendix:

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, 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). While online job ads are useful for understanding knowledge, skills, abilities, education requirements, and other employer hiring preferences, the number of job ads may result in an imperfect assessment of job demand. 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 collect resumes for future hiring needs. A closed job ad may not be the result of a hired worker.

The job advertisement search used in this report was conducted using a mix of job titles associated with the traditional health information technology occupations, medical records specialists and health information technologists and medical registrars. Job advertisements were sourced from the National Center for O*NET Development (O*NET, 2021).

Job Titles Related to Health Information Technology

Job Titles	
<ul style="list-style-type: none"> • Applications Analyst • Cancer Registrar • Certified Coding Specialist • Certified Medical Coder • Certified Professional Coder (CPC) • Clinical Analyst • Clinical Data Specialist • Clinical Documentation Improvement Specialist (CDIS) 	<ul style="list-style-type: none"> • Medical Administrative Specialist • Medical Administrative Technician (Medical Administrative Tech) • Medical Biller • Medical Biller Coder • Medical Billing Coder • Medical Billing Specialist • Medical Care Evaluation Specialist • Medical Claims Processor

Job Titles

- Clinical Office Technician (Clinical Office Tech)
- Coder
- Compliance Coordinator
- Disability Rater
- Electronic Health Records Specialist (EHR Specialist)
- Health Data Analyst
- Health Informatics Specialist
- Health Information Administrator
- Health Information Clerk
- Health Information Coder
- Health Information Management Hospital Coder (HIM Hospital Coder)
- Health Information Management Inpatient Coding Auditor (HIM Inpatient Coding Auditor)
- Health Information Management Technician (HIM Tech)
- Health Information Specialist
- Health Information Systems Technician (Health Information Systems Tech)
- Health Information Technician (Health Information Tech)
- Health Record Technician (Health Record Tech)
- Health Services Information Specialist
- Healthcare Data Analyst
- Insurance Coder
- Medical Coder
- Medical Coding Specialist
- Medical Coding Technician (Medical Coding Tech)
- Medical Data Analyst
- Medical Insurance Coder
- Medical Insurance Coding Specialist
- Medical Office Technician (Medical Office Tech)
- Medical Record Assistant
- Medical Record Coder
- Medical Record Consultant
- Medical Record Specialist
- Medical Records Analyst
- Medical Records Clerk
- Medical Records Coordinator
- Medical Records Custodian
- Medical Records Director
- Medical Records Technician (Medical Records Tech)
- Medical Reimbursement Specialist
- Public Health Registrar
- Registered Health Information Technician (RHIT)
- Release of Information Specialist
- Severity of Illness Coordinator
- Tumor Registrar
- Utilization Review Coordinator