** Health Information Technology Occupations**

**Labor Market Information Report**

**City College of San Francisco**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

January 2019

# Recommendation

Based on all available data, there appears to be a significant undersupply of Health Information Technology workers compared to the demand for this cluster of occupations in the Bay region and in the Mid-Peninsula sub-region (San Francisco and San Mateo Counties). The gap is about 652 students annually in the Bay region and 146 students annually in the Mid-Peninsula Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 1223.00 - Health Information Technology in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at City College of San Francisco and in the region.

# Introduction

This report profiles Health Information Technology Occupations in the 12 county Bay region and in the Mid-Peninsula sub-region for the review of an existing Health Information Technology AS Degree program at City College of San Francisco.

|  |
| --- |
| * **File Clerks (SOC 43-4071):** File correspondence, cards, invoices, receipts, andother records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested. |
| *Entry-Level Educational Requirement: High school diploma or equivalent* |
| *Training Requirement: Short-term on-the-job training* |
| *Percentage of Community College Award Holders or Some Postsecondary Coursework: 44%* |
|  |
| * **Medical Records and Health Information Technicians (SOC** **29-2071):** Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry’s numerical coding system. Excludes “File Clerks” (43-4071). |
| *Entry-Level Educational Requirement: Postsecondary nondegree award* |
| *Training Requirement: None* |
| *Percentage of Community College Award Holders or Some Postsecondary Coursework: 56%* |
|  |

# Occupational Demand

**Table 1. Employment Outlook for Health Information Technology Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| File Clerks | 3,404 | 3,361 | (44) | (1%) | 418 | 412 | $10.75 | $15.55 |
| Medical Records and Health Information Technicians | 4,838 | 5,276 | 438 | 9% | 383 | 295 | $15.84 | $25.28 |
| **Total** | **8,243** | **8,637** | **394** | **5%** | **800** | **707** | **$13.74** | **$21.26** |

*Source: EMSI 2018.4*

**Bay Region** includes Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

**Table 2. Employment Outlook for Health Information Technology Occupations in Mid-Peninsula Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| File Clerks | 1,085 | 1,088 | 3 | 0% | 136 | 132 | $10.83 | $14.80 |
| Medical Records and Health Information Technicians | 1,124 | 1,262 | 138 | 12% | 97 | 69 | $16.49 | $25.03 |
| **TOTAL** | **2,208** | **2,350** | **141** | **6%** | **233** | **201** | **$13.71** | **$20.01** |

*Source: EMSI 2018.4*

**Mid-Peninsula Sub-Region** includes San Francisco and San Mateo Counties

### Job Postings in Bay Region and Mid-Peninsula Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (Jan 2018 - Dec 2018)**

| Occupation | Bay Region | Mid-Peninsula |
| --- | --- | --- |
| Medical Records and Health Information Technicians | 3,417 | 1,144 |
| File Clerks | 594 | 251 |
| **Total** | 4,011 | 1,395 |

*Source: Burning Glass*

**Table 4. Top Job Titles for Health Information Technology Occupations for latest 12 months (Jan 2018 - Dec 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay | Mid-Peninsula | Common Title | Bay | Mid-Peninsula |
| File Clerk | 291 | 129 | Specialist | 37 | 10 |
| Medical Biller | 204 | 61 | Records Specialist | 36 | 23 |
| Medical Coder | 140 | 79 | Clerk | 34 | 10 |
| Medical Billing Specialist | 114 | 45 | Clinical Applications Systems Analyst | 30 | 24 |
| Medical Records Clerk | 104 | 27 | Medical Records Specialist | 30 | 4 |
| Clinical Systems Analyst | 100 | 13 | Record Center Specialist | 26 | 4 |
| Records Clerk | 73 | 35 | Clinical Documentation Consultant | 24 | 9 |
| Applications Analyst | 69 | 17 | Management Analyst | 24 | 7 |
| Healthcare Data Analyst | 60 | 36 | Medical Records | 24 | 7 |
| Medical Scribe | 55 | 14 | Health Information Specialist | 23 | 3 |
| Epic Analyst | 49 | 20 | File Management Clerk | 22 | 8 |
| Medical Records Technician | 48 | 13 | Medical Records Assistant | 22 | 8 |
| Data Analyst | 44 | 12 | Quality Specialist | 22 | 3 |
| Coder | 38 | 11 | Registered Nurse | 22 | 4 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Health Information Technology Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 6 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2017) | Jobs in Industry (2022) | % Change (2017-22) | % in Industry (2017) |
| General Medical and Surgical Hospitals (622110) | 1,067 | 1,064 | (2%) | 12.9% |
| Offices of Physicians (except Mental Health Specialists) (621111) | 753 | 748 | (1%) | 9.1% |
| Hospitals (Local Government) (903622) | 535 | 541 | 8% | 6.6% |
| HMO Medical Centers (621491) | 467 | 468 | 26% | 5.7% |

*Source: EMSI 2018.4*

**Table 6. Top Employers Posting Health Information Technology Occupations in Bay Region and Mid-Peninsula Sub-Region (Jan 2018 - Dec 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | Mid-Peninsula |
| Stanford Health Care | 107 | IBM | 19 | Healthcare It Leaders | 29 |
| Uc San Diego | 66 | Anthem Blue Cross | 17 | UC San Francisco Medical Center | 29 |
| Sutter Health | 54 | Blue Cross Blue Shield of California | 17 | Dignity Health | 18 |
| Kaiser Permanente | 39 | Department of Veterans Affairs | 16 | Blue Cross Blue Shield of California | 17 |
| Alameda Health System | 37 | US Army | 16 | Sutter Health | 14 |
| Sutter Medical Center | 36 | UnitedHealth Group | 16 | UnitedHealth Group | 14 |
| Healthcare It Leaders | 32 | Ciox Health | 15 | University California | 14 |
| UC San Francisco Medical Center | 31 | Hospital Corporation of America | 14 | Lucile Packard Children’s Hospital | 12 |
| Lucile Packard Children’s Hospital | 28 | Seneca Family Of Agencies | 14 | Navigant | 12 |
| Sutter Health Sacramento Sierra Region | 25 | State of California | 14 | University Of California San Francisco | 12 |
| Telecare Corporation | 25 | Apple Inc. | 13 | Ciox Health | 11 |
| University California | 25 | Seneca Center | 12 | Genentech | 11 |
| Navigant | 24 | University Of California San Francisco | 12 | Deloitte | 10 |
| Dignity Health | 23 | Bass Medical | 11 | IBM | 10 |
| County Santa Clara | 22 | Genentech | 11 | Adda Incorporated | 8 |
| Deloitte | 20 | Hill Physicians Medical Group/Primed | 11 | Sutter Health Sacramento Sierra Region | 8 |

*Source: Burning Glass*

# Educational Supply

City College of San Francisco is the only community college in the Bay Region and Mid-Peninsula sub-region issuing 55 awards annually on TOP 1223.00 - Health Information Technology.

**Table 7. Awards on TOP 1223.00 - Health Information Technology in the Bay Region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Headcount | Associates | Certificates | Total |
| **San Francisco** | Mid-Peninsula | 343 | 15 | 39 | 55 |
| **Total Bay Region** | | 343 | 15 | 39 | 55 |
| **Total Mid-Peninsula Sub-Region** | | **343** | **15** | **39** | **55** |

# *Source: IPEDS, Data Mart and Launchboard*

NOTE: Headcount of students who took one or more courses is for 2016-17. The annual average for awards is 2014-17 unless there are only awards in 2016-17. The annual average for other postsecondary is for 2013-16.

# Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 707 annual openings for the Health Information Technology occupational cluster and 55 annual awards for an annual undersupply of 652 students. In the Mid-Peninsula sub-region there is also a gap with 201annual openings and 55 annual awards for an annual undersupply of 146 students.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1223.00 - Health Information Technology**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay  (All CTE Programs) | City College of San Francisco (All CTE Programs) | State (1223.00) | Bay (1223.00) | Mid-Peninsula (1223.00) | City College of San Francisco (1223.00) |
| % Employed Four Quarters After Exit | 74% | 73% | 72% | 75% | 75% | 75% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $22,070 | $27,271 | $20,209 | $20,209 | $20,209 |
| Median % Change in Earnings | 46% | 50% | 31% | 64% | 64% | 64% |
| % of Students Earning a Living Wage | 63% | 20% | 65% | 49% | 49% | 49% |

*Source: Launchboard Pipeline (version available on 1/15/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Health Information Technology Occupations in Bay Region (Jan 2018 - Dec 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Medical Coding | 892 | Medical Terminology | 263 | Systems Analysis | 172 |
| Customer Billing | 801 | Electronic Medical Records | 260 | Budgeting | 161 |
| Customer Service | 592 | Staff Management | 258 | Record Keeping | 158 |
| Data Entry | 521 | Health Insurance Portability and Accountability Act (HIPAA) | 256 | Medical Records Maintenance | 157 |
| Medical Billing | 504 | Health Information Management (HIM) | 249 | Technical Support | 157 |
| Epic Systems | 424 | CPT Coding | 248 | Claims Knowledge | 155 |
| Medical Records | 403 | Clinical Documentation | 240 | Copying | 148 |
| Billing | 369 | Health Information Technology (HIT) | 239 | Medical Abstraction | 148 |
| Patient Care | 352 | Information Systems | 239 | Filing | 146 |
| ICD-10 | 351 | Data Analysis | 209 | Medical Records Review | 146 |
| Project Management | 328 | Spreadsheets | 198 | Clinical Information Systems / Technology | 143 |
| Scheduling | 324 | Health Information | 194 | Quality Management | 143 |
| Quality Assurance and Control | 304 | General Office Duties | 182 | Medical Release of Information (ROI) | 137 |
| Electronic Health Records | 270 | Administrative Support | 176 | Scanners | 136 |
| SQL | 269 | Accounting | 173 | Anatomy | 134 |

*Source: Burning Glass*

**Table 10. Certifications for Health Information Technology Occupations in the Bay Region (Jan 2018 - Dec 2018)**

Note: 70% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.

|  |  |  |  |
| --- | --- | --- | --- |
| Certification | Postings | Certification | Postings |
| Epic Certification | 272 | Advanced Cardiac Life Support (ACLS) Certification | 18 |
| Certified Professional Coder | 231 | Certified Medical Assistant | 18 |
| Registered Health Information Technician | 222 | Certified Tumor Registrar | 16 |
| Driver's License | 188 | Certified Hipaa Professional | 15 |
| Registered Health Information Administrator | 186 | Certified Coding Associate | 12 |
| Certified Coding Specialist | 137 | SAS Certification | 12 |
| Medical Billing and Coding Certification | 122 | Typing Certification | 11 |
| Registered Nurse | 122 | Basic Cardiac Life Support Certification | 10 |
| Certified Outpatient Coding (COC) | 82 | Certified Information Privacy Professional (CIPP) | 10 |
| Clinical Documentation Improvement Practitioner | 49 | Certified Interventional Radiology Cardiovascular Coder | 10 |
| Certified Clinical Document Specialist | 44 | Certified Cargo Security Professional | 8 |
| First Aid Cpr Aed | 41 | Advanced Programmer Certification | 7 |
| Basic Life Saving (BLS) | 27 | Cardiac Medicine | 7 |
| Security Clearance | 27 | IT Infrastructure Library (ITIL) Certification | 7 |
| Nurse Practitioner | 23 | Business Applications Certificate | 6 |
| Certified Professional Coder-Payer (CPC-P) | 22 | Cdl Class C | 6 |
| Emergency Medical Technician (EMT) | 19 | ITIL Certification | 6 |
| Project Management Certification | 19 | Six Sigma Certification | 6 |

*Source: Burning Glass*

**Table 11. Education Requirements for Health Information Technology Occupations in Bay Region**

Note: 47% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

|  |  |
| --- | --- |
| Education (minimum advertised) | Latest 12 Mos. Postings |
| High school or vocational training | 960 (45%) |
| Associate Degree | 190 (9%) |
| Bachelor’s Degree or Higher | 980 (46%) |

*Source: Burning Glass*

# Methodology

Occupations for this report were identified by use of skills listed in O\*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCO Data Mart.

# Sources

O\*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard [www.calpassplus.org/Launchboard/](http://www.calpassplus.org/Launchboard/)

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor’s Office MIS system

# Contacts

For more information, please contact:

* Doreen O’Donovan, Data Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (CoE), [doreen@baccc.net](mailto:doreen@baccc.net) or (831) 479-6481
* John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, [jcarrese@ccsf.edu](mailto:jcarrese@ccsf.edu) or (415) 267-6544