**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 2,030 students annually in the Bay region and 550 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 Certificate program at City College of San Francisco.

|  |
| --- |
| * **File Clerks (SOC 43-4071): File correspondence, cards, invoices, receipts, and** other 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%* |
| * **Medical and Health Services Managers** **(SOC 11-9111):** Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.
 |
| *Entry-Level Educational Requirement: Bachelor's degree* |
| *Training Requirement: None* |
| *Percentage of Community College Award Holders or Some Postsecondary Coursework: 28%* |
| * **Information and Record Clerks, All Other (SOC 43-4199):** All information and record clerks not listed separately.
 |
| *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%* |

# 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  |
| Medical and Health Services Managers | 9,639 | 10,945 | 1,306  | 14% | 1,032 | 769 | $29.05  | $60.33  |
| Information and Record Clerks, All Other | 5,374 | 5,683 | 309  | 6% | 673 | 609 | $13.20  | $21.88  |
| **Total** | **23,256** | **25,266** | **2,010** | **9%** | **2,506** | **2,085** | **$19.96**  | **$37.60**  |

*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  |
| Medical and Health Services Managers | 2,316 | 2,616 | 301  | 13% | 245 | 185 | $31.77  | $68.45  |
| Information and Record Clerks, All Other | 1,932 | 2,052 | 120  | 6% | 244 | 219 | $11.70  | $16.95  |
| **TOTAL** | **6,456** | **7,018** | **562**  | **9%** | **722** | **605** | **$19.59**  | **$36.47**  |

*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 | 13,175 | 4,970 |
| Medical and Health Services Managers | 3,417 | 1,144 |
| File Clerks | 594 | 251 |
| Information and Record Clerks, All Other | 18 |  |
| **Total** | **17,204** | **6,365** |

*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 |
| Clinical Manager | 790 | 414 | Senior Director | 137 | 71 |
| Medical Director | 615 | 217 | Health Manager | 122 | 29 |
| Director | 516 | 243 | Medical Billing Specialist | 114 | 45 |
| Coordinator | 325 | 132 | Medical Records Clerk | 104 | 27 |
| File Clerk | 291 | 129 | Clinic Manager | 101 | 34 |
| Registered Nurse | 274 | 84 | Clinical Director | 101 | 32 |
| Director of Nursing | 230 | 37 | Clinical Systems Analyst | 100 | 13 |
| Clinical Supervisor | 213 | 38 | Director of Rehabilitation | 100 | 25 |
| Medical Biller | 204 | 61 | Services Coordinator | 96 | 38 |
| Laboratory Manager | 181 | 60 | Medical Affairs Director | 87 | 58 |
| Health Director | 173 | 52 | Manager | 81 | 25 |
| Associate Medical Director | 154 | 106 | Director, Demand | 79 | 49 |
| Assistant Manager | 151 | 24 | Clinical Operations Manager | 75 | 51 |
| Medical Coder | 140 | 79 | Director, Services | 75 | 37 |

*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) | 3,053 | 3,045 |  (2%) | 13.0% |
| HMO Medical Centers (621491) | 1,833 | 1,881 | 36% | 8.0% |
| Federal Government, Civilian, Excluding Postal Service (901199) | 1,629 | 1,619 |  (1%) | 6.9% |
| Offices of Physicians (except Mental Health Specialists) (621111) | 1,505 | 1,518 | 5% | 6.5% |
| Hospitals (Local Government) (903622) | 1,401 | 1,420 | 9% | 6.1% |
| Local Government, Excluding Education and Hospitals (903999) | 1,230 | 1,231 | 3% | 5.3% |
| Colleges, Universities, and Professional Schools (611310) | 836 | 849 | 8% | 3.6% |
| Corporate, Subsidiary, and Regional Managing Offices (551114) | 663 | 682 | 6% | 2.9% |
| Nursing Care Facilities (Skilled Nursing Facilities) (623110) | 631 | 627 | 3% | 2.7% |
| Colleges, Universities, and Professional Schools (State Government) (902612) | 511 | 525 | 8% | 2.2% |
| Home Health Care Services (621610) | 445 | 448 | 16% | 1.9% |
| Offices of Lawyers (541110) | 398 | 393 |  (6%) | 1.7% |
| Hospitals (State Government) (902622) | 378 | 377 | 23% | 1.6% |
| Office Administrative Services (561110) | 382 | 364 |  (4%) | 1.6% |
| Temporary Help Services (561320) | 320 | 317 | 3% | 1.4% |
| Freestanding Ambulatory Surgical and Emergency Centers (621493) | 280 | 284 | 43% | 1.2% |
| Services for the Elderly and Persons with Disabilities (624120) | 265 | 262 | 16% | 1.1% |
| Internet Publishing and Broadcasting and Web Search Portals (519130) | 246 | 247 | 24% | 1.1% |
| Data Processing, Hosting, and Related Services (518210) | 233 | 241 | 30% | 1.0% |
| Colleges, Universities, and Professional Schools (Local Government) (903612) | 249 | 238 |  (12%) | 1.0% |
| All Other Outpatient Care Centers (621498) | 209 | 225 | 39% | 1.0% |

*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 |
| Kaiser Permanente | 440 | HCR ManorCare | 62 | Genentech | 173 |
| Stanford Health Care | 239 | Nektar Therapeutics | 55 | UC San Francisco Medical Center | 105 |
| Sutter Health | 214 | University Of California Berkeley | 53 | University California | 92 |
| Genentech | 173 | Blue Cross Blue Shield of California | 49 | Sutter Health | 78 |
| University California | 157 | John Muir Health | 49 | Gilead Sciences | 72 |
| Uc San Diego | 155 | County Santa Clara | 47 | Sunrise Senior Living, Inc. | 71 |
| Sunrise Senior Living, Inc. | 144 | Google Inc. | 43 | Dignity Health | 64 |
| Sutter Medical Center | 141 | Pharmacyclics Incorporated | 43 | Kaiser Permanente | 61 |
| Lucile Packard Childrens Hospital | 132 | Biomarin Pharmaceutical Incorporated | 42 | Nektar Therapeutics | 55 |
| Hospital Corporation of America | 108 | Northbay Healthcare Group | 42 | Blue Cross Blue Shield of California | 49 |
| UC San Francisco Medical Center | 108 | Aces | 40 | UnitedHealth Group | 48 |
| Alameda Health System | 105 | Brookdale Senior Living | 40 | Sutter Medical Center | 44 |
| Sutter Health Sacramento Sierra Region | 105 | Mdstaffers | 39 | Sutter Health Sacramento Sierra Region | 37 |
| Telecare Corporation | 104 | Lifelong Medical Care | 38 | IBM | 34 |
| Dignity Health | 93 | Seneca Center | 38 | Gap Inc. | 32 |
| Stanford University | 86 | Alta Bates Summit | 37 | University Of California San Francisco | 32 |
| Anthem Blue Cross | 74 | Securitas | 37 | County San Mateo | 29 |
| Gilead Sciences | 74 | Cep America | 36 | Healthcare It Leaders | 29 |
| IBM | 72 | PricewaterhouseCooper | 35 | Nurse Management | 28 |
| Department of Veterans Affairs | 68 | University Of California San Francisco | 33 | Salesforce | 28 |
| UnitedHealth Group | 64 | State of California | 33 | Visa | 28 |

*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 large labor market gap in the Bay region with 2,085 annual openings for the Health Information Technology occupational cluster and 55 annual awards for an annual undersupply of 2,030 students. In the Mid-Peninsula Sub-Region, there is also a gap with 605 annual openings and 55 annual awards for an annual undersupply of 550 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) | Input College (All CTE Programs) | State (1223.00) | Bay (1223.00) | Mid-Peninsula (1223.00) | Input College (1223.00) |
| % Employed Four Quarters After Exit | 74% | 72% | 75% | 75% | 75% | 72% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $27,271 | $20,209 | $20,209 | $20,209 | $27,271 |
| Median % Change in Earnings | 46% | 31% | 64% | 64% | 64% | 31% |
| % of Students Earning a Living Wage | 63% | 65% | 49% | 49% | 49% | 65% |

*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 |
| Budgeting | 3,687 | Biotechnology | 805 | Psychology | 564 |
| Staff Management | 2,809 | Process Improvement | 794 | Medical Billing | 549 |
| Patient Care | 2,604 | Strategic Planning | 762 | Performance Management | 546 |
| Scheduling | 2,297 | Clinical Trials | 725 | Home Health | 542 |
| Quality Assurance and Control | 1,898 | Data Analysis | 721 | Clinical Experience | 533 |
| Project Management | 1,776 | Clinical Development | 712 | Public Health and Safety | 525 |
| Customer Service | 1,678 | Oncology | 686 | Customer Contact | 524 |
| Customer Billing | 1,625 | Cardiopulmonary Resuscitation (CPR) | 666 | Social Services | 522 |
| Medical Coding | 1,343 | Treatment Planning | 657 | Spreadsheets | 517 |
| Quality Management | 1,224 | Teaching | 640 | Staff Development | 514 |
| Supervisory Skills | 973 | Health Insurance Portability and Accountability Act (HIPAA) | 630 | Data Collection | 512 |
| Mental Health | 963 | Clinical Research | 626 | Information Systems | 503 |
| Case Management | 896 | Acute Care | 621 | Accounting | 486 |
| Business Development | 836 | Behavioral Health | 594 | Data Management | 485 |
| Data Entry | 832 | Administrative Support | 578 | Drug Development | 479 |

*Source: Burning Glass*

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

Note: 69% 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 |
| Registered Nurse | 1,645 | Certified Outpatient Coding (COC) | 89 |
| Driver's License | 1,095 | Certified Medical Assistant | 83 |
| First Aid Cpr Aed | 480 | Licensed Marriage and Family Therapist | 79 |
| Basic Life Saving (BLS) | 448 | Six Sigma Certification | 75 |
| Basic Cardiac Life Support Certification | 334 | Clinical Laboratory Scientist (ClS) | 73 |
| Epic Certification | 286 | Psychologist License | 73 |
| Registered Health Information Technician | 273 | Pediatric Advanced Life Support (PALS) Certification | 69 |
| Social Work License | 264 | Project Management Professional (PMP) | 67 |
| Certified Professional Coder | 251 | Lean Certification | 62 |
| Registered Health Information Administrator | 242 | Ca License | 59 |
| Advanced Cardiac Life Support (ACLS) Certification | 168 | Certified Clinical Document Specialist | 52 |
| Certified Coding Specialist | 163 | Certified Nurse Operating Room (CNOR) | 52 |
| Nurse Practitioner | 145 | Clinical Documentation Improvement Practitioner | 51 |
| Medical Billing and Coding Certification | 128 | Neonatal Resuscitation Program (NRP) | 49 |
| Project Management Certification | 126 | Certified Case Manager (CCM) | 46 |
| American Heart Association Certification | 120 | Phlebotomy Certification | 45 |
| Board Certified Behavior Analyst (BCBA) | 113 | American Registry of Radiologic Technologists (ARRT) Certification | 44 |
| Licensed Clinical Social Worker (LCSW) | 99 | IT Infrastructure Library (ITIL) Certification | 44 |
| Licensed Vocational Nurse (LVN) | 99 | Board Certified in Family Medicine | 43 |
| Board Certified/Board Eligible | 95 | Nursing Specialty Certification | 41 |
| Security Clearance | 90 | DEA Certificate | 40 |

*Source: Burning Glass*

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

Note: 41% 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 | 962 (10%) |
| Associate Degree | 952 (9%) |
| Bachelor’s Degree or Higher | 8,225 (81%) |

*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

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