** Accounting Occupations**

**Labor Market Information Report**

**City College of San Francisco**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

May 2019

# Recommendation

Based on all available data, there appears to be a significant undersupply of Accounting 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.) There is a projected annual gap of about 10,734 students in the Bay region and 3,445 students in the Mid-Peninsula Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 0502.00 - Accounting 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 (CCSF) and in the region.

# Introduction

This report profiles Accounting Occupations in the 12 county Bay region and in the Mid-Peninsula sub-region for the review of an existing program at City College of San Francisco. Labor market information (LMI) is not available at the eight-digit SOC Code level for Accountants (13-2011.01) or for Auditors (13-2011.02) therefore, the data shown in Tables 1 and 2 is for Accountants and Auditors (at the six digit SOC level). Tables 3, 4, 6, 9, 10 and 11 use job postings data from Burning Glass at the eight-digit SOC Code level for Accountants (13-2011.01) and Auditors (13-2011.02).

|  |
| --- |
| * **Accountants and Auditors (SOC 13-2011):** Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data. Excludes “Tax Examiners and Collectors, and Revenue Agents” (13-2081). |
| Entry-Level Educational Requirement: Bachelor's degree |
| Training Requirement: None |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 16% |
|  |
| * **Bookkeeping, Accounting, and Auditing** **Clerks (SOC 43-3031):** Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers. Excludes “Payroll and Timekeeping Clerks” (43-3051). |
| Entry-Level Educational Requirement: Some *college, no degree* |
| Training Requirement: Moderate-term *on-the-job training* |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 48*%* |
|  |
| * **Payroll and Timekeeping Clerks** (SOC 43-3051): Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks. Excludes “Bookkeeping, Accounting, and Auditing Clerks” (43-3031). |
| Entry-Level Educational Requirement: High *school diploma or equivalent* |
| Training Requirement: Moderate-term *on-the-job training* |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 48*%* |

# Occupational Demand

**Table 1. Employment Outlook for Accounting Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Accountants and Auditors | 48,540 | 52,802 | 4,262 | 9% | 26,214 | 5,243 | $25.20 | $37.58 |
| Bookkeeping, Accounting, and Auditing Clerks | 48,359 | 49,642 | 1,283 | 3% | 28,300 | 5,660 | $15.46 | $23.85 |
| Payroll and Timekeeping Clerks | 6,232 | 6,383 | 152 | 2% | 3,265 | 653 | $18.34 | $27.78 |
| **Total** | **103,130** | **108,827** | **5,697** | **6%** | **57,779** | **11,556** | **$20.22** | **$30.55** |

*Source: EMSI 2019.1*

**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 Accounting Occupations in Mid-Peninsula Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Accountants and Auditors | 16,921 | 18,410 | 1,489 | 9% | 9,167 | 1,901 | $26.22 | $39.62 |
| Bookkeeping, Accounting, and Auditing Clerks | 12,611 | 13,181 | 570 | 5% | 7,600 | 1,560 | $16.32 | $26.00 |
| Payroll and Timekeeping Clerks | 1,894 | 1,962 | 69 | 4% | 1,012 | 206 | $21.99 | $30.80 |
| **TOTAL** | **31,426** | **33,553** | **2,128** | **7%** | **17,779** | **3,667** | **$21.99** | **$33.62** |

*Source: EMSI 2019.1*

**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 (May 2018 - April 2019)**

| Occupation | Bay Region | Mid-Peninsula |
| --- | --- | --- |
| Accountants | 10,892 | 6,230 |
| Bookkeeping, Accounting, and Auditing Clerks | 9,685 | 4,200 |
| Auditors | 2,986 | 1,736 |
| Payroll and Timekeeping Clerks | 2,277 | 1,049 |
| **Total** | **25,840** | **13,215** |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Accounting Occupations for latest 12 months (May 2018 - April 2019) Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Bay | Common Title | Bay |
| Accountant | 2,459 | Accounting Specialist | 365 |
| Senior Accountant | 2,024 | Junior Accountant | 343 |
| Staff Accountant | 1,535 | Senior Tax Associate | 338 |
| Bookkeeper | 1,436 | Payroll Clerk | 321 |
| Accounting Clerk | 1,133 | Audit Manager | 310 |
| Accounts Payable Specialist | 1,067 | Internal Auditor | 298 |
| Payroll Specialist | 901 | Cost Accountant | 291 |
| Accounts Payable Clerk | 831 | Tax Accountant | 285 |
| Accounting Assistant | 444 | Fund Accountant | 256 |
| Accounts Receivable Clerk | 436 | Specialist | 249 |
| Accounts Receivable Specialist | 426 | Internal Audit Manager | 249 |
| Revenue Accountant | 404 | Audit Associate | 220 |
| General Ledger Accountant | 384 | Project Accountant | 218 |
| Payroll Administrator | 370 | Property Accountant | 203 |

**Table 4.b Top Job Titles for Accounting Occupations for latest 12 months (May 2018 - April 2019) Mid-Peninsula Sub-Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Mid-Peninsula | Common Title | Mid-Peninsula |
| Senior Accountant | 1,302 | Accounts Receivable Clerk | 191 |
| Accountant | 1,278 | Senior Tax Associate | 182 |
| Staff Accountant | 903 | Payroll Administrator | 181 |
| Bookkeeper | 614 | Accounting Assistant | 173 |
| Accounts Payable Specialist | 515 | Internal Auditor | 166 |
| Accounting Clerk | 459 | Internal Audit Manager | 163 |
| Payroll Specialist | 392 | Property Accountant | 154 |
| Accounts Payable Clerk | 345 | Tax Accountant | 152 |
| Revenue Accountant | 221 | Specialist | 152 |
| Fund Accountant | 221 | Accounting Specialist | 150 |
| Audit Manager | 209 | Payroll Clerk | 141 |
| Junior Accountant | 202 | Audit Associate | 140 |
| General Ledger Accountant | 200 | Project Accountant | 131 |
| Accounts Receivable Specialist | 196 | Audit Senior | 120 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Accounting Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 6 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2018) | Jobs in Industry (2022) | % Change (2018-22) | % in Industry (2018) |
| Offices of Certified Public Accountants (541211) | 8,890 | 9,553 | 7.5% | 8.5% |
| Other Accounting Services (541219) | 6,670 | 6,989 | 4.8% | 6.4% |
| Corporate, Subsidiary, and Regional Managing Offices (551114) | 6,271 | 6,566 | 4.7% | 6.0% |
| Local Government, Excluding Education and Hospitals (903999) | 3,904 | 3,996 | 2.4% | 3.7% |
| Tax Preparation Services (541213) | 2,629 | 2,829 | 7.6% | 2.5% |
| Payroll Services (541214) | 2,155 | 2,418 | 12.2% | 2.1% |
| Custom Computer Programming Services (541511) | 2,051 | 2,287 | 11.5% | 2.0% |
| Internet Publishing and Broadcasting and Web Search Portals (519130) | 1,952 | 2,548 | 30.5% | 1.9% |
| Colleges, Universities, and Professional Schools (State Government) (902612) | 1,587 | 1,628 | 2.6% | 1.5% |
| Office Administrative Services (561110) | 1,391 | 1,268 | (8.8%) | 1.3% |
| Colleges, Universities, and Professional Schools (611310) | 1,242 | 1,305 | 5.1% | 1.2% |
| Computer Systems Design Services (541512) | 1,225 | 1,334 | 8.9% | 1.2% |
| Religious Organizations (813110) | 1,186 | 1,175 | (0.9%) | 1.1% |
| Software Publishers (511210) | 1,089 | 1,275 | 17.1% | 1.0% |
| Electronic Computer Manufacturing (334111) | 1,052 | 1,112 | 5.7% | 1.0% |
| Plumbing, Heating, and Air-Conditioning Contractors (238220) | 1,017 | 1,071 | 5.3% | 1.0% |

*Source: EMSI 2019.2*

**Table 6. Top Employers Posting Accounting Occupations in Bay Region and Mid-Peninsula Sub-Region (May 2018 - April 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | Mid-Peninsula |
| KPMG | 320 | RSM US LLP. | 30 | KPMG | 213 |
| PricewaterhouseCoopers | 262 | Crowe | 29 | PricewaterhouseCoopers | 133 |
| Marriott International Incorporated | 124 | University Of California San Francisco | 28 | Uber | 72 |
| Ernst & Young | 123 | Sprouts Farmers Markets | 28 | Bvoh | 65 |
| Bvoh | 83 | BDO International | 27 | Ernst & Young | 64 |
| Uber | 72 | Shea Labagh Dobberstein | 26 | Wells Fargo | 61 |
| Deloitte | 67 | Hyatt | 26 | Marriott International Incorporated | 58 |
| Stanford University | 66 | Juul Labs | 25 | Republic Bancorp | 49 |
| Google Inc. | 63 | Bpm | 24 | Deloitte | 39 |
| Wells Fargo | 62 | Square | 23 | Facebook | 32 |
| Intuit | 52 | Western Digital | 22 | Sfmta | 30 |
| Republic Bancorp | 49 | Sr Resources Incorporated | 22 | Salesforce | 29 |
| Anthem Blue Cross | 46 | Rsi | 22 | University Of California San Francisco | 28 |
| Bio-Rad Laboratories | 43 | Oum & Co Llp | 22 | Grant Thornton | 27 |
| Grant Thornton | 37 | Moss Adams Llp | 22 | Crowe | 27 |
| Cisco Systems Incorporated | 37 | Intellipro Incorporated | 22 | Shea Labagh Dobberstein | 25 |
| Facebook | 35 | Gilead Sciences | 22 | Juul Labs | 25 |
| California State University | 31 | City and County of San Francisco | 22 | Square | 23 |
| Sfmta | 30 | Blue Cross Blue Shield of California | 22 | Oum & Co Llp | 22 |
| Salesforce | 30 | Anderson Frank | 22 | Gilead Sciences | 22 |

*Source: Burning Glass*

# Educational Supply

There are 28 community colleges in the Bay Region issuing 822 awards on average annually (last 3 years) on TOP 0502.00 – Accounting. There are four colleges in the Mid-Peninsula Sub-Region issuing 222 awards on average annually (last 3 years) on this TOP code.

**Table 7. Awards on TOP 0502.00 - Accounting in the Bay Region**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Headcount | Associates | Certificates | Noncredit | Total |
| Berkeley City College | East Bay | 253 | 5 | 10 |  | 16 |
| Cabrillo College | Santa Cruz - Monterey | 702 | 22 | 35 |  | 57 |
| Cañada College | Mid-Peninsula | 279 | 10 | 13 |  | 23 |
| Chabot College | East Bay | 1,301 | 20 | 38 |  | 58 |
| City College of San Francisco | Mid-Peninsula | 1,056 | 6 | 11 |  | 17 |
| College of Alameda | East Bay | 269 | 12 | 2 |  | 13 |
| College of Marin | North Bay | 219 | 2 | 5 |  | 7 |
| College of San Mateo | Mid-Peninsula | 1,552 | 30 | 95 |  | 125 |
| Contra Costa College | East Bay | 255 |  | 6 |  | 6 |
| De Anza College | Silicon Valley | 2,878 | 32 | 47 |  | 79 |
| Diablo Valley College | East Bay | 1,955 | 11 | 31 |  | 42 |
| Evergreen Valley College | Silicon Valley | 712 | 25 | 6 |  | 31 |
| Foothill College | Silicon Valley | 3,677 | 26 | 64 |  | 90 |
| Gavilan College | Santa Cruz - Monterey | 382 | 9 | 2 |  | 11 |
| Hartnell College | Santa Cruz - Monterey | 417 |  | 1 |  | 1 |
| Laney College | East Bay | 931 | 13 | 6 |  | 19 |
| Las Positas College | East Bay | 628 |  | 6 |  | 6 |
| Los Medanos College | East Bay | 384 | 13 | 8 |  | 21 |
| Merritt College | East Bay | 93 | 7 | 3 |  | 10 |
| Mission College | Silicon Valley | 826 | 13 | 9 |  | 22 |
| Monterey Peninsula College | Santa Cruz - Monterey | 479 | 4 | 3 |  | 7 |
| Napa Valley College | North Bay | 372 | 9 | 5 |  | 14 |
| Ohlone College | East Bay | 912 | 4 | 4 |  | 8 |
| San Francisco City Centers | Mid-Peninsula | 365 |  |  | 25 | 25 |
| San Jose City College | Silicon Valley | 458 | 16 | 11 |  | 27 |
| Santa Rosa Junior College | North Bay | 1,369 |  | 34 |  | 34 |
| Skyline College | Mid-Peninsula | 1,047 | 19 | 13 |  | 32 |
| Solano College | North Bay | 523 | 9 | 8 |  | 16 |
| West Valley College | Silicon Valley | 730 |  | 4 |  | 4 |
| **Total Bay Region** | | **25,024** | **317** | **480** | **25** | **822** |
| **Total Mid-Peninsula Sub-Region** | | **4,299** | **65** | **132** | **25** | **222** |

# *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 11,556 annual openings for the Accounting occupational cluster and 822 annual (3-year average) awards for an annual undersupply of 10,734 students. In the Mid-Peninsula Sub-Region, there is also a gap with 3,667 annual openings and 222 annual (3-year average) awards for an annual undersupply of 3,445 students.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0502.00 - Accounting**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay  (All CTE Programs) | City College of San Francisco (All CTE Programs) | State (0502.00) | Bay (0502.00) | Mid-Peninsula (0502.00) | City College of San Francisco (0502.00) |
| % Employed Four Quarters After Exit | 74% | 73% | 72% | 75% | 75% | 77% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $10,170 | $10,000 | $11,929 | $12,247 | $12,592 |
| Median % Change in Earnings | 46% | 50% | 53% | 67% | 48% | 54% |
| % of Students Earning a Living Wage | 63% | 55% | 65% | 70% | 65% | 71% |

*Source: Launchboard Pipeline (version available on 5/9/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Accounting Occupations in Bay Region (May 2018 - April 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Accounting | 19,823 | Enterprise Resource Planning (ERP) | 3,102 | Bank Reconciliation | 1,707 |
| Account Reconciliation | 6,740 | Public Accounting | 3,062 | Financial Analysis | 1,547 |
| Generally Accepted Accounting Principles (GAAP) | 5,076 | Customer Billing | 3,001 | Customer Contact | 1,444 |
| General Ledger | 4,904 | Invoice Processing | 2,852 | Accounting Management | 1,388 |
| Accounts Payable / Accounts Receivable | 4,479 | Balance Sheet | 2,822 | SAP | 1,382 |
| Month-End Close Processes | 4,173 | Customer Service | 2,507 | Calculation | 1,342 |
| Financial Statements | 3,802 | Spreadsheets | 2,323 | Project Management | 1,326 |
| Payroll Processing | 3,698 | Customer Checkout | 2,247 | Internal Auditing | 1,312 |
| Data Entry | 3,670 | Expense Reports | 2,185 | General Ledger Accounting | 1,291 |
| Budgeting | 3,615 | NetSuite | 2,179 | Business Administration | 1,288 |
| Financial Reporting | 3,599 | Oracle | 2,081 | Fixed Assets | 1,218 |
| Bookkeeping | 3,563 | Accruals | 2,037 | Tax Returns | 1,174 |
| Scheduling | 3,359 | Sarbanes-Oxley (SOX) | 1,947 | Invoicing | 1,137 |
| Quickbooks | 3,226 | Accounting Systems | 1,780 | Pivot Tables | 1,116 |
| External Auditing | 3,158 | Accounting Software | 1,708 | Staff Management | 1,102 |

*Source: Burning Glass*

**Table 10. Certifications for Accounting Occupations in Bay Region (May 2018 - April 2019)**

Note: 74% 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 |
| Certified Public Accountant (CPA) | 5,482 | Fundamental Payroll Certification | 28 |
| Certified Information Systems Auditor (CISA) | 516 | Project Management Professional (PMP) | 26 |
| Driver's License | 490 | Registered Health Information Technician | 25 |
| Certified Payroll Professional (CPP) | 199 | Registered Health Information Administrator | 25 |
| Certified Internal Auditor (CIA) | 171 | Certified Coding Specialist | 25 |
| Certified Information Systems Security Professional | 147 | Chartered Accountant | 24 |
| Financial Accounting Standards Board (FASB) | 133 | Medical Billing and Coding Certification | 23 |
| Institute of Internal Auditors (IIA) | 121 | Investment Advisor | 23 |
| Certificate in Accounting | 115 | Bookkeeping Certification | 20 |
| Certified Protection Professional (CPP) | 95 | Chartered Financial Analyst (CFA) | 18 |
| Certified Information Security Manager (CISM) | 64 | Certified in The Governance of Enterprise IT (CGEIT) | 14 |
| Project Management Certification | 63 | Adp Payroll Certification | 14 |
| Business License | 60 | ITIL Certification | 12 |
| Certified Regulatory Compliance Manager (CRCM) | 56 | Certified ScrumMaster (CSM) | 12 |
| Certified Fraud Examiner (CFE) | 55 | Tax Professional | 11 |
| Information Systems Certification | 48 | Sarbanes-Oxley (SOX) Certification | 11 |
| Licensed Attorney | 43 | Certified Information Privacy Professional (CIPP) | 11 |
| Security Clearance | 40 | SANS/GIAC Certification | 10 |
| IT Infrastructure Library (ITIL) Certification | 36 | Quickbooks Certification | 10 |
| Certified Professional Coder | 32 | Contractors License | 10 |
| Certified Financial Planner (CFP) | 31 | Cisco Certified Internetwork Professional | 10 |

*Source: Burning Glass*

**Table 11. Education Requirements for Accounting Occupations in Bay Region**

Note: 51% 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 | 1,595 (9%) |
| Associate Degree | 993 (6%) |
| Bachelor’s Degree or Higher | 14,483 (85%) |

*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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