** Accounting Occupations**

**Labor Market Information Report**

**Laney College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

November 2018

# 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 East Bay sub-region (Alameda and Contra Costa Counties). The gap is about 10,511 students annually in the Bay region and 2,634 students annually in the East Bay 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 this 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 Laney College and in the region.

# Introduction

This report profiles Accounting Occupations in the 12 county Bay region and in the East Bay sub-region for the revision of an existing program at Laney College.

|  |
| --- |
| * **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: 49%* |
|  |
| * **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: 17%* |
|  |
| * **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: 49%* |

# 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 | Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Bookkeeping, Accounting, and Auditing Clerks | 48,850 | 49,831 | 980  | 2% | 28,269 | 5,654 | $15.42  | $23.78  |
| Accountants and Auditors | 49,008 | 52,677 | 3,669  | 7% | 25,660 | 5,132 | $25.01  | $37.41  |
| Payroll and Timekeeping Clerks | 6,293 | 6,404 | 111  | 2% | 3,251 | 650 | $18.36  | $27.75  |
| **Total** | **104,151** | **108,912** | **4,760** | **5%** | **57,180** | **11,436** | **$20.11**  | **$30.43**  |

*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 Accounting Occupations in East Bay 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 |
| Bookkeeping, Accounting, and Auditing Clerks | 13,320 | 13,480 | 159  | 1% | 7,562 | 1,512 | $15.95  | $23.55  |
| Accountants and Auditors | 11,510 | 12,172 | 663  | 6% | 5,802 | 1,160 | $24.79  | $34.96  |
| Payroll and Timekeeping Clerks | 1,570 | 1,590 | 20  | 1% | 798 | 160 | $18.38  | $27.30  |
| **TOTAL** | **26,400** | **27,242** | **842**  | **3%** | **14,162** | **2,832** | **$19.95**  | **$28.75**  |

*Source: EMSI 2018.4*

**East Bay Sub-Region** includes Alameda and Contra Costa Counties

### Job Postings in Bay Region and East Bay Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (Nov 2017 - Oct 2018)**

|  |  |  |
| --- | --- | --- |
| Occupation | Bay Region | East Bay |
| Accountants (13-2011.01) | 10,399 | 3,092 |
| Bookkeeping, Accounting, and Auditing Clerks (43-3031.00) | 9,901 | 2,368 |
| Auditors (13-2011.02) | 2,512 | 447 |
| Payroll and Timekeeping Clerks (43-3051.00) | 2,466 | 726 |
| Bill and Account Collectors (43-3011.00) | 895 | 327 |
| **Total** | **26,173** | **6,960** |

*Source: Burning Glass*

**Table 4. Top Job Titles for Accounting Occupations for latest 12 months (Nov 2017 - Oct 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay | East Bay | Common Title | Bay | East Bay |
| Accountant | 2,387 | 582 | Accounting Assistant | 440 | 110 |
| Senior Accountant | 2,028 | 479 | Accounts Receivable Specialist | 432 | 143 |
| Staff Accountant | 1,599 | 415 | Revenue Accountant | 398 | 55 |
| Bookkeeper | 1,407 | 502 | Payroll Administrator | 385 | 105 |
| Accounting Clerk | 1,145 | 357 | Payroll Clerk | 384 | 145 |
| Accounts Payable Specialist | 1,023 | 299 | Accounting Specialist | 352 | 110 |
| Payroll Specialist | 963 | 281 | General Ledger Accountant | 339 | 62 |
| Accounts Payable Clerk | 877 | 271 | Junior Accountant | 339 | 96 |
| Accounts Receivable Clerk | 541 | 188 | Collections Specialist | 321 | 127 |

*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 (2017) | Jobs in Industry (2022) | % Change (2017-22) | % in Industry (2017) |
| Offices of Certified Public Accountants (541211) | 8,951 | 8,945 | 8% | 8.6% |
| Other Accounting Services (541219) | 6,845 | 6,946 | 6% | 6.7% |
| Corporate, Subsidiary, and Regional Managing Offices (551114) | 5,787 | 5,918 | 4% | 5.7% |
| Local Government, Excluding Education and Hospitals (903999) | 4,016 | 4,016 | 2% | 3.8% |
| Tax Preparation Services (541213) | 2,637 | 2,678 | 8% | 2.6% |
| Custom Computer Programming Services (541511) | 1,980 | 1,999 | 12% | 1.9% |
| Payroll Services (541214) | 1,727 | 1,861 | 11% | 1.8% |
| Internet Publishing and Broadcasting and Web Search Portals (519130) | 1,816 | 1,848 | 33% | 1.8% |
| Colleges, Universities, and Professional Schools (State Government) (902612) | 1,545 | 1,575 | 5% | 1.5% |
| Office Administrative Services (561110) | 1,664 | 1,559 |  (7%) | 1.5% |
| Colleges, Universities, and Professional Schools (611310) | 1,231 | 1,245 | 6% | 1.2% |
| Computer Systems Design Services (541512) | 1,236 | 1,223 | 9% | 1.2% |
| Religious Organizations (813110) | 1,204 | 1,211 | 1% | 1.2% |
| Software Publishers (511210) | 1,009 | 1,031 | 19% | 1.0% |
| Hotels (except Casino Hotels) and Motels (721110) | 1,010 | 1,005 |  (2%) | 1.0% |
| Electronic Computer Manufacturing (334111) | 993 | 1,001 | 5% | 1.0% |
| Plumbing, Heating, and Air-Conditioning Contractors (238220) | 1,002 | 1,001 | 4% | 1.0% |

*Source: EMSI 2018.4*

**Table 6. Top Employers Posting Accounting Occupations in Bay Region and East Bay Sub-Region (Nov 2017 - Oct 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | East Bay |
| PricewaterhouseCoopers | 211 | Uber | 48 | Uc San Diego | 36 |
| KPMG | 171 | Republic Bancorp | 47 | ARC Document Solutions | 30 |
| Google Inc. | 116 | Moss Adams Llp | 46 | University Of California Berkeley | 30 |
| Wells Fargo | 102 | Redpoint Ventures | 43 | Bio-Rad Laboratories | 29 |
| Marriott International Incorporated | 85 | Intuit | 41 | University California | 28 |
| Bvoh | 81 | California State University | 38 | Enclipse Corporation | 26 |
| Ernst & Young | 78 | UC San Diego | 36 | Kaiser Permanente | 22 |
| Stanford University | 59 | University Of California Berkeley | 36 | Workday, Inc | 21 |
| Deloitte | 57 | Jones Lang Lasalle Incorporated | 35 | Bank of the West | 20 |
| University California | 50 | Sephora | 35 | Clorox Company | 20 |

*Source: Burning Glass*

# Educational Supply

There are 28 community colleges in the Bay Region issuing 925 awards annually on TOP 0502.00 – Accounting. There are ten colleges in the East Bay sub-region issuing198 awards annually on this TOP code.

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Headcount | Associates | Certificates | Noncredit | Total |
| **Alameda** | East Bay |  | 12 | 2 |  | 13 |
| **Berkeley City** | East Bay | 253 | 5 | 10 |  | 16 |
| **Cabrillo** | Santa Cruz & Monterey | 702 | 22 | 35 |  | 57 |
| **Canada** | Mid-Peninsula | 279 | 10 | 15 |  | 25 |
| **Chabot**  | East Bay | 1,301 | 20 | 38 |  | 58 |
| **Contra Costa** | East Bay | 255 |  | 6 |  | 6 |
| **DeAnza** | Silicon Valley | 2,878 | 32 | 47 |  | 79 |
| **Diablo Valley** | East Bay | 1,955 | 11 | 31 |  | 42 |
| **Evergreen Valley** | Silicon Valley | 712 | 25 | 7 |  | 32 |
| **Foothill** | Silicon Valley | 4 | 26 | 160 |  | 186 |
| **Gavilan** | Silicon Valley | 382 | 9 | 2 |  | 11 |
| **Hartnell** | Santa Cruz & Monterey | 417 |  | 3 |  | 3 |
| **Laney** | East Bay | 931 | 13 | 6 |  | 19 |
| **Las Positas** | East Bay | 628 |  | 6 |  | 6 |
| **Los Medanos** | East Bay | 384 | 13 | 8 |  | 21 |
| **Marin** | North Bay | 219 | 2 | 5 |  | 7 |
| **Merritt** | East Bay | 93 | 7 | 3 |  | 10 |
| **Mission** | Silicon Valley | 826 | 13 | 9 |  | 22 |
| **Monterey** | Santa Cruz & Monterey | 479 | 4 | 5 |  | 8 |
| **Napa** | North Bay | 372 | 9 | 5 |  | 14 |
| **Ohlone** | East Bay |  | 4 | 4 |  | 8 |
| **San Francisco** | Mid-Peninsula | 1,056 | 6 | 11 |  | 17 |
| **San Francisco Ctrs** | Mid-Peninsula | 365 |  |  | 25 | 25 |
| **San Jose City** | Silicon Valley | 458 | 16 | 11 |  | 27 |
| **San Mateo** | Mid-Peninsula | 1,552 | 30 | 95 |  | 125 |
| **Santa Rosa** | North Bay | 1,369 |  | 34 |  | 34 |
| **Skyline** | Mid-Peninsula | 1,047 | 19 | 13 |  | 32 |
| **Solano** | North Bay | 523 | 9 | 10 |  | 19 |
| **West Valley** | Silicon Valley | 730 |  | 5 |  | 5 |
| **Total Bay Region** |  **20,170**  |  **315**  |  **585**  |  **25**  |  **925**  |
| **Total East Bay Sub-Region** |  **5,800**  |  **85**  |  **114**  |  **-**  |  **198**  |

# *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 11,436 annual openings for the Accounting occupational cluster and 925 annual awards for an annual undersupply of 10,511. In the East Bay sub-region, there is also a gap with 2,832 annual openings and 198 annual awards for an annual undersupply of 2,634.

# Student Outcomes

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay (All CTE Programs) | Laney College (All CTE Programs) | State (TOP 0502.00) | Bay (TOP 0502.00) | East Bay (TOP 0502.00) | Laney College (TOP 0502.00) |
| % Employed Four Quarters After Exit | 75% | 66% | 72% | 75% | 71% | 71% |
| Median Quarterly Earnings Two Quarters After Exit | $13,996 | $9,865 | $10,000 | $11,929 | $10,570 | $10,229 |
| Median % Change in Earnings | 40% | 45% | 53% | 67% | 60% | 62% |
| % of Students Earning a Living Wage | 63% | 61% | 65% | 70% | 67% | 64% |

*Source: Launchboard Pipeline (version available on 11/14/18)*

# Skills, Certifications and Education

**Table 9. Top Skills for Accounting Occupations in Bay Region (Nov 2017 - Oct 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Accounting | 19,686 | External Auditing | 2,927 | NetSuite | 1,707 |
| Account Reconciliation | 6,580 | Quickbooks | 2,910 | Bank Reconciliation | 1,677 |
| General Ledger | 5,005 | Enterprise Resource Planning (ERP) | 2,846 | Accounting Systems | 1,651 |
| Accounts Payable / Accounts Receivable | 4,740 | Public Accounting | 2,772 | SAP | 1,579 |
| Generally Accepted Accounting Principles (GAAP) | 4,593 | Invoice Processing | 2,718 | Financial Analysis | 1,473 |
| Month-End Close Processes | 4,163 | Balance Sheet | 2,567 | Calculation | 1,421 |
| Payroll Processing | 3,793 | Customer Service | 2,551 | Accounting Management | 1,404 |
| Data Entry | 3,688 | Customer Checkout | 2,334 | Customer Contact | 1,377 |
| Financial Reporting | 3,534 | Spreadsheets | 2,090 | Internal Auditing | 1,350 |
| Financial Statements | 3,468 | Expense Reports | 2,085 | Project Management | 1,283 |
| Budgeting | 3,455 | Oracle | 1,976 | Invoicing | 1,230 |
| Customer Billing | 3,294 | Sarbanes-Oxley (SOX) | 1,907 | Business Administration | 1,213 |
| Scheduling | 3,265 | Accruals | 1,845 | Fixed Assets | 1,156 |
| Bookkeeping | 3,224 | Accounting Software | 1,734 | General Ledger Accounting | 1,148 |

*Source: Burning Glass*

**Table 10. Certifications for Accounting Occupations in the Bay Region (Nov 2017 - Oct 2018)**

Note: 77% 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) | 4,805 | Certified Regulatory Compliance Manager (CRCM) | 82 |
| Certified Information Systems Auditor (CISA) | 522 | Business License | 63 |
| Driver's License | 460 | Certified Fraud Examiner (CFE) | 62 |
| Certified Payroll Professional (CPP) | 236 | Project Management Certification | 52 |
| Certified Internal Auditor (CIA) | 208 | Fundamental Payroll Certification | 46 |
| Financial Accounting Standards Board (FASB) | 139 | Security Clearance | 42 |
| Certified Information Systems Security Professional (CISSP) | 124 | Certified Information Security Manager (CISM) | 40 |
| Certified Protection Professional (CPP) | 119 | IT Infrastructure Library (ITIL) Certification | 31 |
| Information Systems Certification | 114 | Investment Advisor | 27 |
| Institute of Internal Auditors (IIA) | 113 | Chartered Accountant | 23 |
| Certificate in Accounting | 83 | Licensed Attorney | 22 |

*Source: Burning Glass*

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

Note: 37% 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 | 1,837 (11%) |
| Associate Degree | 932 (6%) |
| Bachelor’s Degree or Higher | 13,793 (83%) |

*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 or (831) 479-6481
* John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 267-6544