

**Labor Market Information Report**

**E-Business Occupations**

**City College of San Francisco**

### Prepared by the San Francisco Bay Center of Excellence for Labor Market Research

**August 2022**

## Recommendation

Based on all available data, there appears to be an “undersupply” of E-Business workers compared to the demand for this cluster of occupations in the Bay region and in the Mid-Peninsula sub-region (San Francisco, San Mateo counties). There is a projected annual gap of about 22,707 students in the Bay region and 8,155 students in the Mid-Peninsula Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0509.70 E-Commerce (Business emphasis) programs 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.

This report profiles E-Business Occupations in the 12 county Bay region and in the Mid-Peninsula sub-region for an E-Business Entrepreneurial Apps and Tools existing low unit, local certificate(s) for state chaptering at City College of San Francisco.

Labor market information (LMI) is not available at the eight-digit SOC Code level for Online Merchants (13-1199.06), therefore, the data shown in Tables 1 and 2 is for Project Management Specialists and Business Operations Specialists, All Other (at the six digit SOC level) and likely overstates demand for Online Merchants. Tables 3, 4, 6, 9, 10 and 11 use job postings data from Burning Glass at the eight-digit SOC Code level for Online Merchants (13-1199.06).

Similarly, labor market information (LMI) is not available at the eight-digit SOC Code level for Search Marketing Strategists (13-1161.01), therefore, the data shown in Tables 1 and 2 is for Market Research Analysts and Marketing Specialists (at the six digit SOC level) and likely overstates demand for Search Marketing Strategists. Tables 3, 4, 6, 9, 10 and 11 use job postings data from Burning Glass at the eight-digit SOC Code level for Search Marketing Strategists (13-1161.01).

* **Market Research Analysts and Marketing Specialists (13-1161):** Research market conditions in local, regional, or national areas, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution.  
    Entry-Level Educational Requirement: Bachelor’s degree  
    Training Requirement: None  
    Percentage of Community College Award Holders or Some Postsecondary Coursework: 15%
* **Project Management Specialists and Business Operations Specialists, All Other (13-1198):** All business operations specialists not listed separately.  
    Entry-Level Educational Requirement: Bachelor’s degree  
    Training Requirement: None  
    Percentage of Community College Award Holders or Some Postsecondary Coursework: 22%
* **Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel (41-3091):** All services sales representatives not listed separately.  
    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: 30%
* **Customer Service Representatives (43-4051):** Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints. Excludes individuals whose duties are primarily installation, sales, or repair.  
    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: 42%

## Occupational Demand

**Table 1. Employment Outlook for E-Business Occupations in Bay Region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Market Research Analysts and Marketing Specialists | 36,988 | 40,976 | 3,988 | 11% | 22,879 | 4,576 | $31 | $45 |
| Project Management Specialists and Business Operations Specialists, All Other | 71,672 | 74,750 | 3,078 | 4% | 29,821 | 5,964 | $32 | $44 |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 40,346 | 43,170 | 2,823 | 7% | 26,640 | 5,328 | $24 | $38 |
| Customer Service Representatives | 51,472 | 52,459 | 986 | 2% | 34,203 | 6,841 | $16 | $21 |
| **Total** | **200,479** | **211,354** | **10,876** | **5%** | **113,543** | **22,709** |  |  |
| Source: EMSI 2022.1 | | | | | | | | |

**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 E-Business Occupations in Mid-Peninsula Sub-region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Market Research Analysts and Marketing Specialists | 13,875 | 15,711 | 1,836 | 13% | 9,096 | 1,819 | $33 | $46 |
| Project Management Specialists and Business Operations Specialists, All Other | 22,997 | 24,164 | 1,167 | 5% | 9,891 | 1,978 | $35 | $48 |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 14,444 | 16,328 | 1,883 | 13% | 10,603 | 2,121 | $25 | $38 |
| Customer Service Representatives | 15,966 | 16,708 | 742 | 5% | 11,187 | 2,237 | $18 | $23 |
| **Total** | **67,283** | **72,911** | **5,629** | **8%** | **40,778** | **8,155** |  |  |
| Source: EMSI 2022.1 | | | | | | | | |

**Mid-Peninsula Sub-Region includes:** San Francisco, 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 (July 2021 - June 2022)**

| **Occupation** | **Bay Region** | **Mid-Peninsula** |
| --- | --- | --- |
| Customer Service Representatives | 27,809 | 6,455 |
| Market Research Analysts and Marketing Specialists | 13,705 | 6,365 |
| Sales Representatives, Services, All Other | 3,808 | 1,133 |
| Business Operations Specialists, All Other | 334 | 108 |
| Source: Burning Glass | | |

**Table 4a. Top Job Titles for E-Business Occupations for latest 12 months (July 2021 - June 2022) - Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Customer Service Representative | 4,725 | Social Media Manager | 314 |
| Customer Service Associate | 991 | Route Sales Representative | 310 |
| Customer Service | 746 | Call Center Representative | 304 |
| Marketing Coordinator | 617 | Client Service Associate | 296 |
| Cashier/Customer Service | 601 | Customer Service Representative-Cashier | 281 |
| Service Advisor | 495 | Technical Sourcer | 260 |
| Customer Service Specialist | 388 | Marketing Associate | 247 |
| Marketing Specialist | 335 | Customer Service Representative- Self Storage Manager | 243 |
| Client Service Representative | 332 | Marketing Assistant | 230 |
| Source: Burning Glass | | | |

**Table 4b. Top Job Titles for E-Business Occupations for latest 12 months (July 2021 - June 2022) - Mid-Peninsula Sub-Region**

| **Title** | **Mid-Peninsula** | **Title** | **Mid-Peninsula** |
| --- | --- | --- | --- |
| Customer Service Representative | 838 | Product Analyst | 102 |
| Marketing Coordinator | 242 | Customer Support Specialist | 96 |
| Social Media Manager | 177 | Sales Operations Analyst | 90 |
| Customer Service Associate | 176 | Cashier/Customer Service | 87 |
| Technical Sourcer | 157 | Client Service Representative | 87 |
| Customer Service | 155 | Customer Service Specialist | 86 |
| Marketing Associate | 148 | Business Development Associate | 83 |
| Client Service Associate | 141 | Sales Account Executive | 81 |
| Marketing Specialist | 114 | Service Advisor | 71 |
| Source: Burning Glass | | | |

## Industry Concentration

**Table 5. Industries hiring E-Business Workers in Bay Region**

| **Industry - 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2020)** | **Jobs in Industry (2025)** | **% Change (2020-25)** | **% Occupation Group in Industry (2020)** |
| --- | --- | --- | --- | --- |
| Corporate, Subsidiary, and Regional Managing Offices | 250,640 | 256,232 | 2% | 4% |
| Federal Government, Civilian, Excluding Postal Service | 213,145 | 213,709 | 0% | 3% |
| Telemarketing Bureaus and Other Contact Centers | 189,368 | 201,501 | 6% | 3% |
| Insurance Agencies and Brokerages | 176,501 | 191,766 | 9% | 3% |
| Administrative Management and General Management Consulting Services | 137,706 | 166,630 | 21% | 2% |
| Commercial Banking | 142,274 | 139,385 | -2% | 2% |
| Temporary Help Services | 127,361 | 143,669 | 13% | 2% |
| Computer Systems Design Services | 118,157 | 134,047 | 13% | 2% |
| Custom Computer Programming Services | 111,615 | 127,833 | 15% | 2% |
| Wired Telecommunications Carriers | 111,874 | 96,649 | -14% | 2% |
| Source: EMSI 2022.1 | | | | |

**Table 6. Top Employers Posting E-Business Occupations in Bay Region and Mid-Peninsula Sub-Region (July 2021 - June 2022)**

| **Employer** | **Bay** | **Employer** | **Mid-Peninsula** |
| --- | --- | --- | --- |
| Whole Foods Market, Inc. | 500 | Facebook | 123 |
| Latest Today | 386 | Google Inc. | 86 |
| Walgreens Boots Alliance Inc | 354 | Public Storage Incorporated | 82 |
| Public Storage Incorporated | 288 | Salesforce | 69 |
| State Farm Insurance Companies | 282 | Wells Fargo | 67 |
| FedEx | 275 | Whole Foods Market, Inc. | 65 |
| Sherwin Williams | 247 | State Farm Insurance Companies | 62 |
| CSI Processing | 243 | Walgreens Boots Alliance Inc | 58 |
| Neighbor Com | 183 | Sherwin Williams | 57 |
| Google Inc. | 173 | Morgan Stanley | 57 |
| Source: Burning Glass | | | |

## Educational Supply

There is one (1) community college in the Bay Region issuing two (2) awards on average annually (last 3 years ending 2018-19) on TOP 0509.70 E-Commerce (Business emphasis). In the Mid-Peninsula Sub-Region, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

**Table 7. Community College Awards on TOP 0509.70 E-Commerce (Business emphasis) in Bay Region**

| **College** | **Subregion** | **Certificate Low** | **Total** |
| --- | --- | --- | --- |
| Santa Rosa | North Bay | 2 | 2 |
| **Total** |  | **2** | **2** |
| Source: Data Mart | | | |

*Note: The annual average for awards is 2016-17 to 2018-19.*

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 22,709 annual openings for the E-Business occupational cluster and two (2) annual (3-year average) awards for an annual undersupply of 22,707 students. In the Mid-Peninsula Sub-Region, there is also a large gap with 8,155 annual openings and no annual (3-year average) awards for an annual undersupply of 8,155 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0509.70 E-Commerce (Business emphasis)**

| **Metric Outcomes** | **Bay All CTE Programs** | **CCSF All CTE Program** | **State 0509.70** | **Bay 0509.70** | **Mid-Peninsula 0509.70** | **CCSF 0509.70** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 74% | 72% | 64% | N/A | N/A | N/A |
| Median Annual Earnings for SWP Exiting Students | $47,419 | $52,800 | $30,558 | $35,603 | N/A | N/A |
| Median Change in Earnings for SWP Exiting Students | 23% | 18% | 22% | 17% | N/A | N/A |
| Exiting Students Who Attained the Living Wage | 52% | 48% | 45% | 46% | N/A | N/A |
| Source: Launchboard Strong Workforce Program Median of 2017 to 2020. | | | | | | |

## Skills, Certifications and Education

**Table 9. Top Skills for E-Business Occupations in Bay Region (July 2021 - June 2022)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Customer Service | 27,676 | Appointment Setting | 2,250 |
| Sales | 8,778 | Customer Billing | 2,246 |
| Customer Contact | 7,980 | Digital Marketing | 2,222 |
| Marketing | 7,611 | Repair | 2,138 |
| Social Media | 5,711 | Customer Relationship Management (CRM) | 2,128 |
| Scheduling | 5,529 | Prospective Clients | 2,092 |
| Retail Industry Knowledge | 4,609 | Business Development | 2,084 |
| Project Management | 3,700 | Vaccination | 2,019 |
| Data Entry | 3,028 | Administrative Support | 1,961 |
| Salesforce | 2,924 | Market Strategy | 1,943 |
| Product Sales | 2,709 | Cash Handling | 1,913 |
| Budgeting | 2,638 | Customer Checkout | 1,835 |
| Cleaning | 2,631 | Instagram | 1,790 |
| Facebook | 2,299 | Key Performance Indicators (KPIs) | 1,782 |
| Source: Burning Glass | | | |

**Table 10. Certifications for E-Business Occupations in the Bay Region (July 2021 - June 2022)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Driver's License | 4,488 | Series 66 | 101 |
| Property and Casualty License | 453 | Series 65 | 99 |
| Series 7 | 361 | Investment Advisor | 92 |
| Life and Health Insurance License | 215 | Security Clearance | 71 |
| First Aid Cpr Aed | 169 | Certified Public Accountant (CPA) | 68 |
| Series 63 | 134 | IT Infrastructure Library (ITIL) Certification | 67 |
| Insurance License | 134 | Department of Transportation (DOT) Medical Certification | 61 |
| Insurance Agent Certification | 126 | Cdl Class B | 61 |
| Project Management Certification | 111 |  |  |
| Source: Burning Glass | | | |

Note: 85% of records have been excluded because they do not include a certification. As a result, the chart above may not be representative of the full sample.

**Table 11. Education Requirements for E-Business Occupations in Bay Region**

| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **Percent 12 Mos. Postings** |
| --- | --- | --- |
| High school or vocational training | 12,651 | 51% |
| Associate degree | 1,069 | 4% |
| Bachelor's degree and higher | 11,029 | 45% |
| Source: Burning Glass | | |

*Note: 46% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.*

## 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/  
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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