** Global Trade & Logistics Occupations**

**Labor Market Information Report**

**Chabot College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

February 2019

# Recommendation

Based on all available data, there appears to be a significant undersupply of Global Trade & Logistics workers compared to the demand for this cluster of occupations in the Bay region and East Bay sub-region (Alameda and Contra Costa Counties). There is a projected annual gap of up to 10,043 students in the Bay region and up to 2,709 students in the East Bay Sub-Region. It should be noted that the gap/undersupply is likely smaller than these outside ranges because the demand for two occupations: Custom Brokers and Human Resources Specialists are likely overstated in Tables 1 and 2 of this report, because more precise labor market data is not available.

This report also provides student outcomes data on employment and earnings for programs on TOP 0508.00 - International Business and Trade 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 Chabot College and in the region.

# Introduction

This report profiles Global Trade & Logistics Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Chabot College. Labor market information (LMI) is not available at the eight-digit SOC code level for Custom Brokers (13-1199.03), therefore the data shown in Tables 1 and 2 is for Business Operations Specialists, All Other (SOC 13-1199) and likely overstates demand for Custom Brokers. Tables 3, 4, 6, 9, 10 and 11 use job postings data from Burning Glass at the eight-digit SOC Code level for Custom Brokers (13-1199.03). It is also important to note that there is not a separate occupation code for Human Resources Specialist who work for companies with foreign born workers or companies with international offices, and therefore the actual demand for Human Resources Specialists within the Global Trade & Logistics sector is likely overstated.

|  |
| --- |
| * **Business Operations Specialists, All Other (SOC 13-1199):** 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: 23%* |
|  |
| * **Cargo and Freight Agents (SOC 43-5011):** Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals, and shipping docks. Take orders from customers and arrange pickup of freight and cargo for delivery to loading platform. Prepare and examine bills of lading to determine shipping charges and tariffs.
 |
| *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: 48%* |
|  |
| * **Shipping, Receiving, and Traffic** **Clerks (SOC 43-5071):** Verify and maintain records on incoming and outgoing shipments. Prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying and recording incoming merchandise or material; and arranging for the transportation of products. Excludes "Stock Clerks and Order Fillers" (43-5081) and "Weighers, Measurers, Checkers, and Samplers, Recordkeeping" (43-5111).
 |
| *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: 33%* |
|  |
| * **Human Resources Specialists (SOC 13-1071):** Perform activities in the human resource area. Includes employment specialists who screen, recruit, interview, and place workers. Excludes “Compensation, Benefits, and Job Analysis Specialists” (13-1141) and “Training and Development Specialists” (13-1151).
 |
| *Entry-Level Educational Requirement: Bachelor's degree* |
| *Training Requirement: None* |
| *Percentage of Community College Award Holders or Some Postsecondary Coursework: 27%* |
|  |
| * **Logisticians (SOC 13-1081):** Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources. Excludes “Transportation, Storage, and Distribution Managers” (11-3071).
 |
| *Entry-Level Educational Requirement: Bachelor's degree* |
| *Training Requirement: None* |
| *Percentage of Community College Award Holders or Some Postsecondary Coursework: 39%* |

# Occupational Demand

**Table 1. Employment Outlook for Global Trade & Logistics 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 |
| Business Operations Specialists, All Other | 48,417 | 51,417 | 3,000  | 6% | 25,118 | 5,024 | $22.59  | $40.50  |
| Cargo and Freight Agents | 2,674 | 2,555 | (119) |  (4%) | 1,148 | 230 | $13.53  | $21.58  |
| Shipping, Receiving, and Traffic Clerks | 18,614 | 19,129 | 515  | 3% | 9,960 | 1,992 | $12.49  | $17.58  |
| Human Resources Specialists | 19,704 | 21,118 | 1,415  | 7% | 11,153 | 2,231 | $23.00  | $37.13  |
| Logisticians | 5,228 | 5,568 | 340  | 6% | 2,920 | 584 | $25.63  | $40.01  |
| **Total** | **94,637** | **99,787** | **5,150**  | **5%** | **50,299** | **10,060** | **$20.60**  | **$34.73**  |

*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 Global Trade & Logistics Occupations in East Bay 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 |
| Business Operations Specialists, All Other | 13,175 | 13,731 | 556  | 4% | 6,534 | 1,307 | $20.20  | $38.67  |
| Cargo and Freight Agents | 728 | 783 | 55  | 8% | 358 | 72 | $15.79  | $22.84  |
| Shipping, Receiving, and Traffic Clerks | 6,357 | 6,501 | 144  | 2% | 3,355 | 671 | $12.58  | $17.56  |
| Human Resources Specialists | 4,966 | 5,165 | 199  | 4% | 2,620 | 524 | $21.84  | $35.17  |
| Logisticians | 1,191 | 1,282 | 90  | 8% | 678 | 136 | $23.97  | $37.28  |
| **TOTAL** | **26,417** | **27,462** | **1,045**  | **4%** | **13,546** | **2,709** | **$18.72**  | **$32.43**  |

*Source: EMSI 2019.1*

**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 (Feb 2018 - Jan 2018)**

| Occupation | Bay Region | East Bay |
| --- | --- | --- |
| Shipping, Receiving, and Traffic Clerks (43-5071.00) | 2,797 | 1,009 |
| Logisticians (13-1081.00) | 1,221 | 289 |
| Logistics Analysts (13-1081.02) | 1,033 | 273 |
| Cargo and Freight Agents (43-5011.00) | 382 | 136 |
| Customs Brokers (13-1199.03) | 50 | 6 |
| Logistics Engineers (13-1081.01) | 11 | 4 |
| Freight Forwarders (43-5011.01) | 6 | 0 |
| **Total** | **180** | **71** |

*Source: Burning Glass*

**Table 4. Top Job Titles for Global Trade & Logistics Occupations for latest 12 months (Feb 2018 - Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay | East Bay | Common Title | Bay | East Bay |
| Receiving Clerk | 405 | 145 | Shipping Supervisor | 32 | 13 |
| Shipping and Receiving Clerk | 386 | 147 | Coordinator | 31 | 7 |
| Receiving Associate | 383 | 165 | Sales Associate | 30 | 5 |
| Supply Chain Analyst | 357 | 94 | Delivery Supervisor | 29 | 20 |
| Shipping Clerk | 253 | 100 | Demand Planning Analyst | 29 | 3 |
| Production Planner | 231 | 71 | Export Coordinator | 29 | 4 |
| Shipping And Receiving | 173 | 58 | Receiving Lead | 28 | 6 |
| Logistics Specialist | 161 | 33 | Traffic Coordinator | 28 | 6 |
| Supply Chain Specialist | 159 | 94 | Freight Handler | 27 | 11 |
| Receiver | 158 | 58 | Shipper/Receiver | 27 | 6 |
| Logistics Analyst | 136 | 48 | Cargo Agent | 26 | 4 |
| Freight/Receiving | 63 | 26 | Supply Chain Consultant | 25 | 6 |
| Demand Planner | 62 | 9 | Supply Planner | 25 | 5 |
| Freight Agent/Broker | 48 | 14 | Export Agent | 22 | 1 |
| Receiving Specialist | 48 | 10 | Fulfillment Coordinator | 22 | 11 |
| Shipping Coordinator | 43 | 16 | Supply Chain Planner | 21 | 13 |
| Shipping & Receiving | 42 | 12 | Logistics Associate | 20 | 10 |
| Material Planner | 37 | 15 | Transportation Analyst | 20 | 0 |
| Materials Planner | 36 | 13 | Unit Supply Specialist | 20 | 12 |
| Distribution Associate | 35 | 16 | Export Specialist | 19 | 6 |
| Inventory Control Analyst | 33 | 14 | Freight Coordinator | 17 | 6 |
| Inventory Analyst | 32 | 5 | Shipper | 17 | 4 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Global Trade & Logistics 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) |
| Federal Government, Civilian, Excluding Postal Service (901199) | 4,693 | 4,621 |  (2%) | 6.1% |
| Corporate, Subsidiary, and Regional Managing Offices (551114) | 3,737 | 3,927 | 10% | 5.2% |
| Custom Computer Programming Services (541511) | 2,126 | 2,164 | 14% | 2.9% |
| Local Government, Excluding Education and Hospitals (903999) | 2,125 | 2,137 | 5% | 2.8% |
| Electronic Shopping and Mail-Order Houses (454110) | 1,789 | 1,834 | 21% | 2.4% |
| Internet Publishing and Broadcasting and Web Search Portals (519130) | 1,740 | 1,821 | 34% | 2.4% |
| Colleges, Universities, and Professional Schools (State Government) (902612) | 1,769 | 1,782 |  (1%) | 2.4% |
| Electronic Computer Manufacturing (334111) | 1,336 | 1,374 | 7% | 1.8% |
| State Government, Excluding Education and Hospitals (902999) | 1,295 | 1,314 | 3% | 1.7% |
| Freight Transportation Arrangement (488510) | 1,294 | 1,299 |  (0%) | 1.7% |
| Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology) (541715) | 1,234 | 1,289 |  (3%) | 1.7% |
| Computer Systems Design Services (541512) | 1,293 | 1,272 | 8% | 1.7% |
| Temporary Help Services (561320) | 1,207 | 1,200 | 5% | 1.6% |
| Administrative Management and General Management Consulting Services (541611) | 1,103 | 1,154 | 25% | 1.5% |
| Software Publishers (511210) | 1,019 | 1,066 | 21% | 1.4% |
| Colleges, Universities, and Professional Schools (611310) | 1,045 | 1,051 | 6% | 1.4% |
| Other Scientific and Technical Consulting Services (541690) | 963 | 926 |  (9%) | 1.2% |
| Semiconductor and Related Device Manufacturing (334413) | 911 | 904 |  (8%) | 1.2% |
| Natural Gas Distribution (221210) | 849 | 802 |  (9%) | 1.1% |
| Engineering Services (541330) | 767 | 773 | 10% | 1.0% |
| Research and Development in Biotechnology (except Nanobiotechnology) (541714) | 732 | 768 | 41% | 1.0% |
| General Medical and Surgical Hospitals (622110) | 769 | 763 |  (4%) | 1.0% |

*Source: EMSI 2019.1*

**Table 6. Top Employers Posting Global Trade & Logistics Occupations in Bay Region and East Bay Sub-Region (Feb 2018 - Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | East Bay |
| Burlington Stores | 72 | Millennium Group | 42 | Burlington Stores | 38 |
| Ricoh Electronics | 64 | US Army | 42 | Tesla Motors | 28 |
| The Home Depot Incorporated | 64 | Whole Foods Market, Inc. | 41 | The Home Depot Incorporated | 26 |
| Burlington | 50 | FedEx | 36 | US Army | 26 |
| Goodwill | 46 | Burlington Coat Factory | 30 | Burlington | 24 |
| Apple Inc. | 44 | Google Inc. | 28 | Nordstrom | 18 |
| Millennium Group | 42 | Tesla Motors | 28 | Tesla | 18 |
| US Army | 42 | Sprouts Farmers Markets | 27 | Burlington Coat Factory | 17 |
| Whole Foods Market, Inc. | 41 | Tesla | 27 | Whole Foods Market, Inc. | 15 |
| FedEx | 36 | United States Postal Service | 27 | CEVA Logistics | 12 |
| Burlington Coat Factory | 30 | IBM | 26 | FedEx | 12 |
| Google Inc. | 28 | Accenture | 25 | Sprouts Farmers Markets | 11 |
| Tesla Motors | 28 | Nordstrom | 25 | Bevmo Holdings Llc | 10 |
| Sprouts Farmers Markets | 27 | KLA-Tencor | 23 | Logistic Dynamics Inc | 10 |
| Tesla | 27 | Cisco Systems Incorporated | 22 | Stryker Medical | 10 |
| United States Postal Service | 27 | Deloitte | 22 | Reyes Holdings | 9 |
| IBM | 26 | Logistic Dynamics Inc | 22 | Formfactor, Inc | 8 |
| Accenture | 25 | Lowe's Companies, Inc | 21 | Ghirardelli Chocolate Company | 8 |
| Nordstrom | 25 | Bevmo Holdings Llc | 20 | Lowe's Companies, Inc | 8 |
| KLA-Tencor | 23 | Milestone Technologies Incorporated | 20 | Bevmo | 7 |
| Cisco Systems Incorporated | 22 | Bevmo | 19 | Smiths Detection | 7 |
| Deloitte | 22 | Facebook | 19 | United Parcel Service Incorporated | 7 |
| Burlington Stores | 72 | Gap Inc. | 19 | Air Liquide | 6 |
| Ricoh Electronics | 64 | Northrop Grumman | 19 | Bio-Rad Laboratories | 6 |
| The Home Depot Incorporated | 64 | United Parcel Service Incorporated | 19 | Lam Research Corporation | 6 |
| Burlington | 50 | Macy's | 17 | Nestle USA Incorporated | 6 |
| Goodwill | 46 | Flagship Facility Services, Inc | 16 | Penske | 6 |
| Apple Inc. | 44 | Western Digital | 16 | Aryzta | 5 |

*Source: Burning Glass*

# Educational Supply

There are four community colleges in the Bay Region issuing 17 awards on average annually (last 3 years) on TOP 0508.00 - International Business and Trade. There are no colleges in the East Bay Sub-Region issuing awards on this TOP code.

**Table 7. Awards on TOP 0508.00 - International Business and Trade in the Bay Region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Headcount | Associates | Certificates | Total |
| Canada College | Mid-Peninsula | 2 |  |  |  |
| Chabot College | East Bay | 3 |  |  |  |
| City College of San Francisco | Mid-Peninsula | 14 |  | 7 | 7 |
| Diablo Valley | East Bay | 10 |  |  |  |
| Foothill | Silicon Valley | 1 | 2 |  | 2 |
| Monterey Peninsula | Santa Cruz & Monterey | 1 | 1 | 0 | 1 |
| San Jose City | Silicon Valley | 1 |  |  |  |
| Skyline | Mid-Peninsula | 35 | 1 | 6 | 7 |
| **Total Bay Region** | **67** | **4** | **13** | **17** |
| **Total East Bay Sub-Region** | **13** | **0** | **0** | **0** |

# *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 up to 10,060 annual openings for the Global Trade & Logistics occupational cluster and 17 annual (3-year average) awards for an annual undersupply of up to 10,043 students. In the Mid-Peninsula Sub-Region, there is also a gap with up to 2,709 annual openings and no annual (3-year average) awards, for an annual undersupply of up to 2,709 students.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0508.00 - International Business and Trade**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay (All CTE Programs) | Chabot College (All CTE Programs) | State (050800) | Bay (050800) | East Bay (050800) | Chabot College (050800) |
| % Employed Four Quarters After Exit | 74% | 74% | 65% | 69% | 72% | 63% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $9,425 | $8,307 | $9,605 | $11,015 | $9,745 |
| Median % Change in Earnings | 46% | 71% | 34% | 40% | 41% | 16% |
| % of Students Earning a Living Wage | 63% | 60% | 51% | 57% | 73% | n/a |

*Source: Launchboard Pipeline (version available on 2/13/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Global Trade & Logistics Occupations in Bay Region (Feb 2018 - Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Shipping and Receiving | 1,730 | Purchasing | 537 | Process Improvement | 230 |
| Shipping | 1,693 | Procurement | 443 | Quality Assurance and Control | 218 |
| Supply Chain Knowledge | 1,084 | Data Entry | 397 | Demand Planning | 217 |
| Logistics | 964 | Project Management | 392 | Production Planning | 211 |
| Forklift Operation | 938 | Sorting | 388 | Key Performance Indicators (KPIs) | 209 |
| Customer Service | 862 | Customer Contact | 368 | Spreadsheets | 207 |
| Scheduling | 831 | Manufacturing Resource Planning (MRP) | 319 | Data Analysis | 197 |
| Receiving | 760 | Oracle | 314 | Business Process | 194 |
| Supply Chain Management | 663 | Retail Industry Knowledge | 291 | Supply Chain Planning | 193 |
| Enterprise Resource Planning (ERP) | 643 | Budgeting | 287 | SQL | 189 |
| Inventory Management | 633 | Inventory Maintenance | 255 | Product Sales | 174 |
| SAP | 573 | Repair | 253 | Demand Forecasting | 171 |
| Packaging | 564 | Basic Mathematics | 251 | Materials Transport | 171 |
| Lifting Ability | 541 | Sales | 237 | Record Keeping | 157 |
| Inventory Control | 537 | Material Requirement Planning (MRP) | 230 | Mailing | 156 |

*Source: Burning Glass*

**Table 10. Certifications for Global Trade & Logistics Occupations in the Bay Region (Feb 2018 - Jan 2018)**

Note: 85% 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 |
| Driver's License | 433 | Alcohol Server Certification | 5 |
| Forklift Operator Certification | 154 | Certified Estimating Professional (CEP) | 5 |
| American Production and Inventory Control Society (APICS) Certification | 82 | Certified in Integrated Resource Management (CIRM) | 5 |
| Certified in Production and Inventory Management (CPIM) | 66 | Certified Customs Specialist | 4 |
| Certified Supply Chain Professional (CSCP) | 29 | IT Infrastructure Library (ITIL) Certification | 4 |
| Project Management Certification | 27 | Lean Six Sigma Certification | 4 |
| Security Clearance | 23 | Occupational Safety and Health Administration Certification | 4 |
| Project Management Professional (PMP) | 17 | American Board for Engineering and Technology (ABET) Accredited | 3 |
| Certified Professional in Supply Management (CPSM) | 16 | Cdl Class B | 3 |
| Certified Purchasing Manager (CPM) | 16 | Certified Outpatient Coding (COC) | 3 |
| Food Handler Certification | 15 | Food Service Certification | 3 |
| CDL Class A | 9 | Hazardous Materials Certification | 3 |
| Six Sigma Certification | 9 | Hazardous Waste Transportation Certificate | 3 |
| Certified Public Accountant (CPA) | 8 | Purchasing Certification | 3 |
| Cdl Class C | 7 | ServSafe | 3 |
| Production Certificate | 6 | Certified Coding Specialist | 2 |
| Six Sigma Green Belt Certification | 6 | Certified Construction Manager | 2 |

*Source: Burning Glass*

**Table 11. Education Requirements for Global Trade & Logistics 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 | 1,381 (47%) |
| Associate Degree | 98 (4%) |
| Bachelor’s Degree or Higher | 1,429 (49%) |

*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