** Sheet Metal Workers**

**Labor Market Information Report**

**Las Positas College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

January 2020

# Recommendation

Based on all available data, there appears to be an undersupply of Sheet Metal Workers compared to the demand for this occupation in the Bay region and in the East Bay sub-region (Alameda and Contra Costa Counties). There is a projected annual gap of about 325 students in the Bay region and 135 students in the East Bay Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 0956.40 - Sheet Metal and Structural Metal 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 Las Positas College and in the region.

# Introduction

This report profiles Sheet Metal Workers in the 12 county Bay region and in the East Bay sub-region for a proposed new Ironworkers Apprenticeship Program at Las Positas College.

|  |
| --- |
| * **Sheet Metal Workers (SOC 47-2211):** Fabricate, assemble, install,and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.
 |
| Entry-Level Educational Requirement: High school *diploma or equivalent* |
| Training Requirement: Apprenticeship |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 32% |

# Occupational Demand

**Table 1. Employment Outlook for Sheet Metal Workers in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2018 Jobs | 2023 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Sheet Metal Workers |  2,668  |  2,943  | 275 | 10% |  1,711  |  342  | $20.96 | $28.66 |

*Source: EMSI 2019.3*

**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 Sheet Metal Workers in East Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2018 Jobs | 2023 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Sheet Metal Workers |  1,047  |  1,161  | 114 | 11% |  674  |  135  | $20.33 | $26.94 |

*Source: EMSI 2019.3*

**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 (January 2019 - December 2019)**

| Occupation | Bay Region | East Bay |
| --- | --- | --- |
|  Sheet Metal Workers | 207 | 107 |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Sheet Metal Workers for latest 12 months (January 2019 - December 2019) Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Bay | Common Title | Bay |
| Fabricator | 36 | Hood Technician | 4 |
| Deburr Technician | 26 | Welder | 3 |
| Deburr | 17 | Specialist | 3 |
| Sheet Metal Mechanic | 16 | Sheet Metal Technician | 3 |
| Technician | 9 | Operator, Sheet Metal | 3 |
| Field Installer | 8 | Urgently assembler And Deburr | 2 |
| Operator | 7 | Shop Associate | 2 |
| Metal Fabricator | 7 | Optical Technician, Polish, Support | 2 |
| Sheet Metal Worker | 6 | Mechanic | 2 |
| Sheet Metal Fabricator | 6 | Journeyman Sheet Metal Worker | 2 |
| Sheet Metal Journeyman | 5 | Finiher/Deburr | 2 |
| Installer | 5 | Architect/Fabricator | 2 |
| Fabrication Technician | 5 | Worker, Information And Technology Industry | 1 |
| Sheetmetal Worker | 4 | Sheet Metal Mech Cr Wass | 1 |

**Table 4b. Top Job Titles for Sheet Metal Workers for latest 12 months (January 2019 - December 2019) East Bay Sub-Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | East Bay | Common Title | East Bay |
| Fabricator | 21 | Sheet Metal Worker | 2 |
| Sheet Metal Mechanic | 9 | Metal Fabricator | 2 |
| Deburr Technician | 9 | Journeyman Sheet Metal Worker | 2 |
| Deburr | 8 | Finiher/Deburr | 2 |
| Technician | 6 | Fabrication Technician | 2 |
| Field Installer | 5 | Worker, Information And Technology Industry | 1 |
| Sheetmetal Worker | 4 | Shop Associate | 1 |
| Hood Technician | 4 | Production Worker | 1 |
| Welder | 3 | Polish Specialist | 1 |
| Sheet Metal Technician | 3 | Metal Work And Painting W/Benefits | 1 |
| Sheet Metal Fabricator | 3 | Metal Deburr | 1 |
| Operator, Sheet Metal | 3 | Junior Architect/Fabricator | 1 |
| Installer | 3 | Journeyman Fabricator | 1 |
| Urgentlyassembler And Deburr | 2 | Jennifer Lee | 1 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Sheet Metal 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) |
| Plumbing, Heating, and Air-Conditioning Contractors (238220) | 1,383 | 1,538 | 11% | 52% |
| Roofing Contractors (238160) | 162 | 174 | 7% | 6% |
| Sheet Metal Work Manufacturing (332322) | 154 | 177 | 15% | 6% |
| Commercial and Institutional Building Construction (236220) | 75 | 88 | 17% | 3% |
| Federal Government, Civilian, Excluding Postal Service (901199) | 58 | 58 | 0% | 2% |
| Fabricated Structural Metal Manufacturing (332312) | 48 | 55 | 15% | 2% |
| Structural Steel and Precast Concrete Contractors (238120) | 46 | 56 | 22% | 2% |
| Temporary Help Services (561320) | 45 | 48 | 7% | 2% |
| Residential Remodelers (236118) | 43 | 46 | 7% | 2% |
| Framing Contractors (238130) | 43 | 44 | 2% | 2% |
| Glass and Glazing Contractors (238150) | 35 | 39 | 11% | 1% |
| Ornamental and Architectural Metal Work Manufacturing (332323) | 35 | 39 | 11% | 1% |
| Electronic Computer Manufacturing (334111) | 35 | 38 | 9% | 1% |
| Electrical Contractors and Other Wiring Installation Contractors (238210) | 30 | 32 | 7% | 1% |
| Semiconductor Machinery Manufacturing (333242) | 26 | 31 | 19% | 1% |

*Source: EMSI 2019.3*

**Table 6. Top Employers Posting Jobs for Sheet Metal Workers in Bay Region and East Bay Sub-Region (January 2019 - December 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | East Bay |
| Zenetex | 6 | Grease Monkey International Inc | 2 | Zenetex | 6 |
| Joby Aviation | 5 | Grease Monkey | 2 | Usk Manufacturing Inc | 4 |
| HD Supply | 5 | Florian Industries, Inc | 2 | E3 Systems | 4 |
| Usk Manufacturing Inc | 4 | Dp Products | 2 | Lawrence Livermore National Laboratory | 3 |
| Hunter Douglas | 4 | Deka Fabrication | 2 | Axial To Terminal | 3 |
| E3 Systems | 4 | Ch Enterprises | 2 | UC Berkeley | 2 |
| Lawrence Livermore National Lab | 3 | Bayview Plastic Solutions | 2 | Therm California | 2 |
| Benattar Marble Granite | 3 | Bay Photo Lab | 2 | Hunter Douglas | 2 |
| Axial To Terminal | 3 | Apollo Retail Specialists | 2 | Grease Monkey International Inc | 2 |
| Alta Design Manufacturing Inc | 3 | Zenetex Llc | 1 | Grease Monkey | 2 |
| Warren Installation, Inc | 2 | Yost Metal Fab, Inc | 1 | Deka Fabrication | 2 |
| UC Berkeley | 2 | West Valley Precision | 1 | Ch Enterprises | 2 |
| US Government | 2 | Volt Demo Account | 1 | Benattar Marble Granite | 2 |
| Therm California | 2 | Verra Mobility | 1 | Bayview Plastic Solutions | 2 |
| Precision Swiss Products Inc | 2 | Vacuum Engineering Materials | 1 | Zenetex Llc | 1 |
| Kreysler & Associates | 2 | Usfalcon, Inc | 1 | Yost Metal Fab, Inc | 1 |
| Jwp Manufacturing Incorporated | 2 | Usagain Llc | 1 | Warren Installation, Inc | 1 |

*Source: Burning Glass*

# Educational Supply

There is one community college in the Bay Region issuing 17 awards on average annually (last 3 years) on TOP 0956.40 - Sheet Metal and Structural Metal. There are no colleges in the East Bay Sub-Region issuing awards on average annually (last 3 years) on this TOP code.

**Table 7. Awards on TOP 0956.40 - Sheet Metal and Structural Metal in Bay Region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Associates | Certificate 18+ units | Certificate Low unit | Total |
| Foothill College  | Silicon Valley |   | 17 |  | 17 |
| **Total Bay Region** | **0** | **17** | **0** | **17** |
| **Total East Bay Sub-Region** | **0** | **0** | **0** | **0** |

# *Source: Data Mart*

Note: The annual average for awards is 2015-16 to 2017-18.

# Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 342 annual openings for Sheet Metal Workers and 17 annual (3-year average) awards for an annual undersupply of 325 students. In the East Bay Sub-Region, there is also a gap with 135 annual openings and no annual (3-year average) awards for an annual undersupply of 135 students.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0956.40 - Sheet Metal and Structural Metal**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay (All CTE Programs) | Las Positas College (All CTE Programs) | State (0956.40) | Bay (0956.40) | East Bay (0956.40) | Las Positas College (0956.40) |
| % Employed Four Quarters After Exit | 74% | 75% | 80% | 80% | n/a | n/a |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $10,000 | $14,373 | $19,388 | n/a | n/a |
| Median % Change in Earnings | 46% | 28% | 73% | 75% | n/a | n/a |
| % of Students Earning a Living Wage | 63% | 64% | 82% | 80% | n/a | n/a |

*Source: Launchboard Pipeline (version available on 1/13/20)*

# Skills, Certifications and Education

**Table 9. Top Skills for Sheet Metal Workers in Bay Region (January 2019 - December 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Hand Tools | 58 | Painting | 13 | Enterprise Resource Planning  | 7 |
| Welding | 55 | Micrometers | 12 | Manufacturing Processes | 7 |
| Repair | 47 | Technical Support | 12 | Measuring Tape | 7 |
| Grinders | 36 | Welding Equipment | 12 | Occupational Health and Safety | 7 |
| Sheet Metal Fabrication | 30 | Manual Dexterity | 11 | Quality Assurance and Control | 7 |
| Power Tools | 28 | Record Keeping | 11 | Schematic Diagrams | 7 |
| Calipers | 25 | HVAC | 10 | 3D Printing / Additive Manufacturing (AM) | 6 |
| Cleaning | 20 | Pneumatic Tools | 10 | 5S Methodology | 6 |
| Machinery | 20 | Drill Presses | 9 | Air Vehicle Engineering | 6 |
| Machining | 19 | Lifting Ability | 9 | Compliance with Customer Specifications | 6 |
| Computer Numerical Control  | 18 | Press Brakes | 9 | Duct Work | 6 |
| Scheduling | 16 | Computer Aided Drafting/Design (CAD) | 8 | Engineering Specifications | 6 |
| Soldering | 15 | Forklift Operation | 8 | Epoxy | 6 |
| Basic Mathematics | 13 | Microscope | 8 | Equipment Moving | 6 |
| Mig and Tig Welding | 13 | Engineering Drawings | 7 | Network Attached Storage (NAS) | 6 |

*Source: Burning Glass*

**Table 10. Certifications for Sheet Metal Workers in Bay Region (January 2019 - December 2019)** Note: 79% 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 | 30 | Mobile Electronics Certified Professional (MECP) | 2 |
| Security Clearance | 8 | Orthotic and Prosthetic Technician | 1 |
| Mobile Electronics Certified Professional (MECP) | 2 | Hazardous Materials Certification | 1 |
| Mobile Electronics Certified Professional | 2 | EPA CFC/HCFC Certification | 1 |
| Business License | 2 | Certified Outpatient Coding (COC) | 1 |
| Welding Certification | 1 | Certified Composite Technician | 1 |
| Sheet Metal Certification | 1 | Certified Cardiographic Technician | 1 |
| Driver's License | 30 | CNC Certification | 1 |
| Security Clearance | 8 | ABC Certified | 1 |

*Source: Burning Glass*

**Table 11. Education Requirements for Sheet Metal Workers in Bay Region**

Note: 72% 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 | Percent 12 Mos. Postings |
| High school or vocational training | 54 | 93% |
| Associate Degree | 4 | 7% |
| Bachelor’s Degree or Higher | 0 | 0% |

*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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