

# Environmental Health and Safety Technician Occupations

# Labor Market Information Report

# Ohlone College

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

**January 2021**

## Recommendation

Based on all available data, there appears to be an “undersupply” of Environmental Health and Safety Technician 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). There is a projected annual gap of about 602 students in the Bay region and 254 students in the East Bay Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0303.00 - Environmental Technology 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 Ohlone College and in the region.

This report profiles Environmental Health and Safety Technician Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Ohlone College.

* **Environmental Engineering Technologists and Technicians (17-3025):** Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientist. May assist in the development of environmental remediation devices.
  Entry-Level Educational Requirement: Associate’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 51%
* **Environmental Science and Protection Technicians, Including Health (19-4042):** Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, under the direction of an environmental scientist, engineer, or other specialist. May collect samples of gases, soil, water, and other materials for testing.
  Entry-Level Educational Requirement: Associate’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 35%
* **Hazardous Materials Removal Workers (47-4041):** Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.
  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: 25%

## Occupational Demand

**Table 1. Employment Outlook for Environmental Health and Safety Technician Occupations in Bay Region**

| **Occupation** | **2019 Jobs** | **2024 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Environmental Engineering Technologists and Technicians | 777 | 819 | 42 | 5% | 429 | 86 | $23.54 | $27.95 |
| Environmental Science and Protection Technicians, Including Health | 1,640 | 1,728 | 88 | 5% | 1,086 | 217 | $18.11 | $26.06 |
| Hazardous Materials Removal Workers | 2,261 | 2,388 | 127 | 6% | 1,597 | 319 | $18.76 | $22.24 |
| **Total** | **4,678** | **4,935** | **257** | **5%** | **3,112** | **622** | **$19.33** | **$24.53** |
| Source: EMSI 2020.4 |

**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 Environmental Health and Safety Technician Occupations in East Bay Sub-Region**

| **Occupation** | **2019 Jobs** | **2024 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Environmental Engineering Technologists and Technicians | 271 | 284 | 13 | 5% | 147 | 29 | $21.33 | $24.58 |
| Environmental Science and Protection Technicians, Including Health | 478 | 494 | 16 | 3% | 305 | 61 | $15.51 | $21.93 |
| Hazardous Materials Removal Workers | 1,193 | 1,245 | 52 | 4% | 820 | 164 | $18.45 | $21.18 |
| **Total** | **1,942** | **2,023** | **81** | **4%** | **1,272** | **254** | **$18.13** | **$21.84** |
| Source: EMSI 2020.4 |

**East Bay Sub-Region includes:** Alameda, 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 (Dec 2019-Nov 2020)**

| **Occupation** | **Bay Region** | **East Bay** |
| --- | --- | --- |
| Hazardous Materials Removal Workers | 164 | 66 |
| Geological Sample Test Technicians | 133 | 34 |
| Geophysical Data Technicians | 64 | 11 |
| Environmental Engineering Technicians | 15 | 9 |
| Source: Burning Glass |

**Table 4a. Top Job Titles for Environmental Health and Safety Technician Occupations for latest 12 months (Dec 2019-Nov 2020) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Materials Technician | 9 | Lead Restoration Technician | 5 |
| Hazardous Materials Specialist | 9 | Asbestos Abatement Technician | 5 |
| Geotechnical Field Technician | 8 | Water/Fire/Demo/Restoration Lead Technician | 4 |
| Asbestos And Lead Professional | 8 | Materials Test Technician, Materials Reliability & Test | 4 |
| Material Handling Technician | 7 | Materials Process Technician | 4 |
| Hazardous Materials Technician | 7 | Lead Av Field Technician | 4 |
| Water Restoration & Mold Remediation Technician/Supervisor | 6 | Hydrographer I/II | 4 |
| Water Restoration Lead Technician | 5 | Db Operator/Locater | 4 |
| Material Warehouse Technician | 5 | Sem Materials Technician | 3 |
| Source: Burning Glass |

**Table 4b. Top Job Titles for Environmental Health and Safety Technician Occupations for latest 12 months (Dec 2019-Nov 2020) East Bay Sub-Region**

| **Title** | **East Bay** | **Title** | **East Bay** |
| --- | --- | --- | --- |
| Water/Fire/Demo/Restoration Lead Technician | 4 | Damage Restoration Technician | 3 |
| Materials Test Technician, Materials Reliability & Test | 4 | Technical Operator | 2 |
| Material Handling Technician | 4 | Senior Material Specialist | 2 |
| Hazardous Materials Specialist | 4 | Rf Field Tester | 2 |
| Asbestos And Lead Professional | 4 | Restoration Water Technician | 2 |
| Water Restoration & Mold Remediation Technician/Supervisor | 3 | Recycling Area Lead | 2 |
| Restoration Lead Technician | 3 | Materials Distribution Technician - Per Diem - Summit Campus | 2 |
| Lead Warehouse Restoration Lead Technician | 3 | Lead Technician - Asbestos | 2 |
| Geotechnical Field Technician | 3 | Hospital Patient Decontamination - Contractor | 2 |
| Source: Burning Glass |

## Industry Concentration

**Table 5. Industries hiring Environmental Health and Safety Technician Workers in Bay Region**

| **Industry – 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2019)** | **Jobs in Industry (2024)** | **% Change (2019-24)** | **% Occupation Group in Industry (2019)** |
| --- | --- | --- | --- | --- |
| Commercial and Institutional Building Construction | 4,106 | 4,631 | 13% | 14% |
| Residential Remodelers | 3,945 | 4,488 | 14% | 14% |
| New Single-Family Housing Construction (except For-Sale Builders) | 2,532 | 2,609 | 3% | 9% |
| Electrical Contractors and Other Wiring Installation Contractors | 2,296 | 2,467 | 7% | 8% |
| Plumbing, Heating, and Air-Conditioning Contractors | 1,898 | 2,074 | 9% | 7% |
| All Other Specialty Trade Contractors | 1,335 | 1,304 | -2% | 5% |
| Local Government, Excluding Education and Hospitals | 1,051 | 1,101 | 5% | 4% |
| Site Preparation Contractors | 984 | 974 | -1% | 3% |
| Painting and Wall Covering Contractors | 919 | 904 | -2% | 3% |
| Drywall and Insulation Contractors | 732 | 822 | 12% | 3% |
| Source: EMSI 2020.4 |

**Table 6. Top Employers Posting Environmental Health and Safety Technician Occupations in Bay Region and East Bay Sub-Region (Dec 2019-Nov 2020)**

| **Employer** | **Bay** | **Employer** | **East Bay** |
| --- | --- | --- | --- |
| Eurofins Scientific | 11 | Five Star Cleaners | 6 |
| Pacific Gas and Electric Company | 8 | Tesla | 5 |
| Stealth Mode Startup Company | 6 | Sutter Health | 5 |
| Five Star Cleaners | 6 | California Emergency Services | 4 |
| Faragon Restoration | 6 | Restoration Management Company | 3 |
| Tesla | 5 | Lucid Motors Inc | 3 |
| Sutter Health | 5 | Cenergy International | 3 |
| Restoration Management Company | 5 | Tesla Motors | 2 |
| Ninyo Moore | 5 | Tesla Energy Operations | 2 |
| Compliance Solutions | 5 | Servpro Of Lafayette/Moraga/Orinda & Napa County | 2 |
| Cablecom Llc | 5 | ServiceMaster | 2 |
| 911 Remediation Llc | 5 | Safety Compliance Management | 2 |
| Roto Rooter Plumbing Drain | 4 | Rrs Patient Decontamination Llc | 2 |
| Emergency Packout Company | 4 | Phillips 66 | 2 |
| Source: Burning Glass |

## Educational Supply

There are two (2) community colleges in the Bay Region issuing 20 awards on average annually (last 3 years ending 2018-19) on TOP 0303.00 - Environmental Technology. In the East Bay Sub-Region, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

**Table 7a. Community College Awards on TOP 0303.00 - Environmental Technology in Bay Region**

| **College** | **Subregion** | **Associate** | **Certificate Low** | **Total** |
| --- | --- | --- | --- | --- |
| De Anza | Silicon Valley | 6 | 11 | 17 |
| Skyline | Mid-Peninsula | 0 | 3 | 3 |
| **Total** |  | **6** | **14** | **20** |
| 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 labor market gap in the Bay region with 622 annual openings for the Environmental Health and Safety Technician occupational cluster and 20 annual (3-year average) awards for an annual undersupply of 602 students. In the East Bay Sub-Region, there is also a gap with 254 annual openings and no annual (3-year average) awards for an annual undersupply of 254 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0303.00 - Environmental Technology**

| **2017-18** | **Bay** **All CTE Program** | **Ohlone****All CTE Program** | **State****0303.00**  | **Bay 0303.00** | **East Bay 0303.00** | **Ohlone 0303.00** |
| --- | --- | --- | --- | --- | --- | --- |
| % Employed Four Quarters After Exit | 67% | 67% | 40% | 58% | NA | NA |
| Median Quarterly Earning Two Quarters After Exit | $11,466 | $12,655 | $16,797 | $9,011 | NA | NA |
| Median % Change in Earning | 31% | 21% | 22% | 32% | NA | NA |
| % of Students Earning a Living Wage | 53% | 59% | 76% | 40% | NA | NA |
| Source: Launchboard Pipeline (version available on August 2020) |

## Skills, Certifications and Education

**Table 9. Top Skills for Environmental Health and Safety Technician Occupations in Bay Region (Dec 2019-Nov 2020)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Occupational Health and Safety | 49 | Chemistry | 21 |
| Data Entry | 40 | Predictive / Preventative Maintenance | 21 |
| HAZMAT | 40 | Spreadsheets | 21 |
| Hazardous Waste | 37 | Hazardous Material Handling | 19 |
| Forklift Operation | 36 | Calibration | 18 |
| Scheduling | 35 | Customer Contact | 18 |
| Repair | 33 | Failure Analysis | 18 |
| Microscope | 30 | Physics | 18 |
| Personal Protective Equipment (PPE) | 30 | Calculation | 17 |
| Quality Assurance and Control | 30 | Demolition | 17 |
| Cleaning | 27 | Materials Testing | 17 |
| Customer Service | 27 | Sample Preparation | 17 |
| Data Collection | 24 | Lifting Ability | 16 |
| Packaging | 23 | Procurement | 16 |
| Source: Burning Glass |

**Table 10. Certifications for Environmental Health and Safety Technician Occupations in Bay Region (Dec 2019-Nov 2020)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Driver's License | 134 | HazMat Operations | 4 |
| OSHA Forklift Certification | 15 | HazMat Awareness | 4 |
| Cdl Class C | 11 | Firefighter II | 4 |
| Hazardous Materials Certification | 10 | Fire Fighter I | 4 |
| Certified Industrial Hygienist | 10 | Airport Firefighter | 4 |
| Security Clearance | 7 | Aerial Rescue and Fire Fighting (ARFF) | 4 |
| HazMat Technician | 6 | First Aid Cpr Aed | 3 |
| Certified Pest Control | 5 | Cdl Class B | 3 |
| Asbestos Contractor/Supervisor | 5 | CDL Class A | 3 |
| Hazwoper | 4 | Asbestos Worker | 3 |
| Source: Burning Glass |

*Note: 49% 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.*

**Table 11. Education Requirements for Environmental Health and Safety Technician Occupations in Bay Region**

| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **Percent 12 Mos. Postings** |
| --- | --- | --- |
| High school or vocational training | 96 | 51% |
| Associate degree | 23 | 12% |
| Bachelor's degree | 68 | 36% |
| Master's degree | 2 | 1% |
| Source: Burning Glass |

*Note: 50% 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.*

## 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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