

**Labor Market Analysis for Program Recommendation**

**Architecture Occupations**

**Diablo Valley College**

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

## October 2023

## Recommendation

Based on all available data, there appears to be an “undersupply” of Architecture workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda, Contra Costa counties). There is a projected annual gap of about 374 students in the Bay region and 111 students in the East Bay Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0201.00 - Architecture and Architectural 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 Diablo Valley College and in the region.

This report profiles Architecture Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new Architecture History and Theory program at Diablo Valley College.

* **Architects, Except Landscape and Naval (17-1011):** Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property. Excludes “Landscape Architects” (17-1012) and “Marine Engineers and Naval Architects” (17-2121).
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: Internship/residency
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 8%

## Occupational Demand

**Table 1. Employment Outlook for Architecture Occupations in Bay Region**

| **Occupation** | **2021 Jobs** | **2026 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Architects, Except Landscape and Naval | 5,170 | 5,540 | 370 | 7% | 2,219 | 444 | $42 | $50 |
| **Total** | **5,170** | **5,540** | **370** | **7%** | **2,219** | **444** | **$42** | **$50** |
| Source: Lightcast 2022.3 |
| **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 Architecture Occupations in East Bay Sub-region**

| **Occupation** | **2021 Jobs** | **2026 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Architects, Except Landscape and Naval | 1,667 | 1,852 | 186 | 11% | 790 | 158 | $41 | $43 |
| **Total** | **1,667** | **1,852** | **186** | **11%** | **790** | **158** | **$41** | **$43** |
| Source: Lightcast 2022.3 |
| 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 (Sept. 2022 - Aug. 2023)**

| **Occupation** | **Bay Region** | **East Bay** |
| --- | --- | --- |
| Architects, Except Landscape and Naval | 1,481 | 315 |
| Source: Lightcast |

**Table 4a. Top Job Titles for Architecture Occupations for latest 12 months (Sept. 2022 - Aug. 2023) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Project Architects | 213 | Silicon Architecture Engineers | 18 |
| Architectural Designers | 164 | Design Architects | 14 |
| Architects | 98 | Architects/Project Managers | 13 |
| Captains | 60 | Distinguished Architects | 13 |
| Space Planners | 40 | Principal Architects | 13 |
| Experience Architects | 31 | Associate Architects | 12 |
| Project Architects/Designers | 31 | Facilities Planners | 12 |
| CPU Architects | 24 | Project Managers/Project Architects | 12 |
| Healthcare Project Architects | 19 | Engineering Assistants/Field Engineers | 11 |
| Source: Lightcast |

**Table 4b. Top Job Titles for Architecture Occupations for latest 12 months (Sept. 2022 - Aug. 2023) East Bay Sub-Region**

| **Title** | **East Bay** | **Title** | **East Bay** |
| --- | --- | --- | --- |
| Architectural Designers | 49 | Architects/Construction Managers | 5 |
| Project Architects | 48 | Office Engineers | 5 |
| Architects | 25 | Engineering Assistants/Field Engineers | 4 |
| Captains | 22 | Facilities Planners | 4 |
| Space Planners | 12 | Associate Architects | 3 |
| Project Managers/Project Architects | 8 | Cloud Architect Engineers | 3 |
| Experience Architects | 6 | Field Engineers | 3 |
| Healthcare Project Architects | 6 | Graduate Engineers | 3 |
| Principals | 6 | Project Architects/Designers | 3 |
| Source: Lightcast |

## Industry Concentration

**Table 5. Industries hiring Architecture Workers in Bay Region**

| **Industry - 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2021)** | **Jobs in Industry (2026)** | **% Change (2021-26)** | **% Occupation Group in Industry (2022)** |
| --- | --- | --- | --- | --- |
| Architectural Services | 3,353 | 3,698 | 10% | 52% |
| Engineering Services | 826 | 863 | 4% | 12% |
| Landscape Architectural Services | 697 | 746 | 7% | 11% |
| Building Inspection Services | 353 | 483 | 37% | 6% |
| Surveying and Mapping (except Geophysical) Services | 364 | 424 | 16% | 6% |
| Drafting Services | 127 | 134 | 6% | 2% |
| Geophysical Surveying and Mapping Services | 83 | 96 | 16% | 1% |
| Residential Remodelers | 63 | 69 | 10% | 1% |
| Commercial and Institutional Building Construction | 52 | 66 | 28% | 1% |
| Interior Design Services | 44 | 53 | 21% | 1% |
| Source: Lightcast 2022.3 |

**Table 6. Top Employers Posting Architecture Occupations in Bay Region and East Bay Sub-Region (Sept. 2022 - Aug. 2023)**

| **Employer** | **Bay** | **Employer** | **East Bay** |
| --- | --- | --- | --- |
| Archinect | 79 | Archinect | 21 |
| Aia San Francisco | 54 | CyberCoders | 14 |
| Apple | 53 | Pivotal Retail Group | 10 |
| CyberCoders | 49 | Lionakis | 7 |
| ASML | 26 | Tesla | 7 |
| GPAC | 26 | Turner Construction Company | 7 |
| Source: Lightcast |

## Educational Supply

There are seven (7) community colleges in the Bay Region issuing 70 awards on average annually (last 3 years ending 2021-22) on TOP 0201.00 - Architecture and Architectural Technology. In the East Bay Sub-Region, there are three (3) community colleges that issued 47 awards on average annually (last 3 years) on this TOP code.

**Table 7a. Community College Awards on TOP 0201.00 - Architecture and Architectural Technology in Bay Region**

| **College** | **Subregion** | **Associate Degree** | **High unit Certificate** | **Low unit Certificate** | **Total** |
| --- | --- | --- | --- | --- | --- |
| Chabot  | East Bay | 5 | 5 | 0 | 10 |
| Diablo Valley | East Bay | 19 | 0 | 12 | 31 |
| Laney | East Bay | 4 | 2 | 0 | 6 |
| Marin | North Bay | 1 | 0 | 0 | 1 |
| San Francisco | Mid-Peninsula | 8 | 0 | 0 | 8 |
| San Mateo | Mid-Peninsula | 6 | 0 | 0 | 6 |
| West Valley | Silicon Valley | 6 | 2 | 0 | 8 |
| **Total** |  | **49** | **9** | **12** | **70** |
| Source: Data Mart |
| Note: The annual average for awards is 2019-20 to 2021-22. |

## Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 444 annual openings for the Architecture occupational cluster and 70 annual (3-year average) awards for an annual undersupply of 374 students. In the East Bay Sub-Region, there is also a gap with 158 annual openings and 47 annual (3-year average) awards for an annual undersupply of 111 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0201.00 - Architecture and Architectural Technology**

| **Metric Outcomes** | **Bay All CTE Programs** | **Diablo Valley All CTE Programs** | **State 0201.00** | **Bay 0201.00** | **East Bay 0201.00** | **Diablo Valley 0201.00** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 74% | 70% | 67% | 70% | 60% | 75% |
| Median Annual Earnings for SWP Exiting Students | $53,090 | $41,892 | $37,118 | $50,077 | $41,900 | $37,614 |
| Median Change in Earnings for SWP Exiting Students | 24% | 27% | 30% | 29% | 27% | 51% |
| Exiting Students Who Attained the Living Wage | 54% | 45% | 47% | 47% | 46% | 40% |
| Source: Launchboard Strong Workforce Program Median of 2018 to 2021. |

## Skills, Certifications and Education

**Table 9. Top Skills for Architecture Occupations in Bay Region (Sept. 2022 - Aug. 2023)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Autodesk Revit | 640 | Schematic Diagrams | 125 |
| Project Management | 482 | Architectural Drawing | 123 |
| AutoCAD | 440 | Adobe Creative Suite | 115 |
| Construction Management | 333 | Rhinoceros 3D | 105 |
| Construction | 330 | Shop Drawing | 102 |
| SketchUp (3D Modeling Software) | 283 | Electrical Engineering | 96 |
| Building Codes | 276 | 3D Modeling | 93 |
| Architectural Design | 180 | Adobe Illustrator | 89 |
| Building Information Modeling | 175 | Adobe InDesign | 87 |
| Adobe Photoshop | 134 | Submittals (Construction) | 87 |
| Source: Lightcast |

**Table 10. Certifications for Architecture Occupations in Bay Region (Sept. 2022 - Aug. 2023)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Architecture License | 244 | Master of Business Administration (MBA) | 5 |
| LEED Accredited Professional (AP) | 126 | Landscape Architect License | 4 |
| Valid Driver's License | 58 | Engineer in Training | 4 |
| Architect Registration Examination | 30 | Top Secret-Sensitive Compartmented Information (TS/SCI Clearance) | 4 |
| Enterprise Desktop Administrator (Microsoft Certified IT Professional) | 11 | ServiceNow Certified Implementation Specialist (CIS) | 3 |
| Project Management Professional Certification | 10 | American Institute of Certified Planners (AICP) Certification | 3 |
| Security Clearance | 10 | Top Secret Clearance | 3 |
| LEED Green Associate | 8 | Certified Risk Adjustment Coder (CRC) | 3 |
| Source: Lightcast |

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

| **Education Level** | **Job Postings** | **% of Total** |
| --- | --- | --- |
| High school or GED | 18 | 1% |
| Associate degree | 36 | 3% |
| Bachelor's degree & higher | 1,273 | 96% |
| Source: Lightcast |
| Note: 38% 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 job descriptions and skills listed in O\*Net. Labor demand data is sourced from Lightcast occupation and job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CCCCO Data Mart and CTE Launchboard.

## Sources

O\*Net Online
Lightcast
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

For more information, please contact:

* Leila Jamoosian, Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (COE), leila@baccc.net
* John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 267-6544