

# Entertainment-Entrepreneurship Occupations

# Labor Market Information Report

# Diablo Valley College

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

**March 2021**

## Recommendation

Based on all available data, there appears to be an “undersupply” of Entertainment-Entrepreneurship 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 554 students in the Bay region and 89 students in the East Bay Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 1005.00 - Commercial Music 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 Entertainment-Entrepreneurship Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Diablo Valley College.

* **Music Directors and Composers (27-2041):** Conduct, direct, plan, and lead instrumental or vocal performances by musical groups, such as orchestras, bands, choirs, and glee clubs. Includes arrangers, composers, choral directors, and orchestrators.
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 18%
* **Audio and Video Technicians (27-4011):** Set up, or set up and operate audio and video equipment including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, presentations, and news conferences. May also set up and operate associated spotlights and other custom lighting systems. Excludes “Sound Engineering Technicians” (27-4014).
  Entry-Level Educational Requirement: Postsecondary nondegree award
  Training Requirement: Short-term on-the-job training
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 39%
* **Sound Engineering Technicians (27-4014):** Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording studios, or movie and video productions.
  Entry-Level Educational Requirement: Postsecondary nondegree award
  Training Requirement: Short-term on-the-job training
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 39%

## Occupational Demand

**Table 1. Employment Outlook for Entertainment-Entrepreneurship 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** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Music Directors and Composers | 1,411 | 1,421 | 10 | 1% | 881 | 176 | $ 17.26 | $ 26.80 |
| Audio and Video Technicians | 3,422 | 3,748 | 326 | 10% | 2,243 | 449 | $ 19.63 | $ 27.03 |
| Sound Engineering Technicians | 701 | 726 | 25 | 4% | 417 | 83 | $ 22.82 | $ 31.11 |
| **Total** | **5,534** | **5,895** | **361** | **7%** | **3,541** | **708** | **$19.43** | **$27.49** |
| 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 Entertainment-Entrepreneurship 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** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Music Directors and Composers | 437 | 438 | 1 | 0% | 265 | 53 | $ 16.89 | $ 25.57 |
| Audio and Video Technicians | 859 | 930 | 71 | 8% | 548 | 110 | $ 19.10 | $ 26.31 |
| Sound Engineering Technicians | 198 | 203 | 5 | 3% | 112 | 22 | $ 21.12 | $ 30.06 |
| **Total** | **1,494** | **1,571** | **77** | **5%** | **925** | **185** | **$18.72** | **$26.59** |
| Source: EMSI 2020.4 |

**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 (Mar 2020 - Feb 2021)**

| **Occupation** | **Bay Region** | **East Bay** |
| --- | --- | --- |
| Audio and Video Technicians | 332 | 74 |
| Sound Engineering Technicians | 253 | 35 |
| Music Directors | 34 | 5 |
| Music Composers and Arrangers | 8 | 2 |
| Source: Burning Glass |

**Table 4a. Top Job Titles for Entertainment-Entrepreneurship Occupations for latest 12 months (Mar 2020 - Feb 2021) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Audio Visual Technician | 57 | Event Technician | 7 |
| Broadcast Engineer | 14 | Audio Video Installer | 6 |
| Interaction Sound Designer | 11 | Audio Test Engineer | 6 |
| Audio/Video Technician | 9 | Senior Sound Designer | 5 |
| Audio Firmware Engineer | 9 | Audio Visual Systems Technician | 5 |
| Sound Designer | 8 | Lead Audio Systems Engineer | 4 |
| Freelance Audio Visual Technician | 8 | Embedded Audio Dsp Engineer | 4 |
| Staff Dsp Audio Engineer | 7 | Audio Technician | 4 |
| Audio/Video Installer | 7 | Audio Systems Engineer | 4 |
| Audio Visual Installation Technician | 7 | Audio Video Technician | 4 |
| Audio Engineer | 7 | Audio Video & Home Automation Integrator |  |
| Interaction Sound Designer II | 6 |  |  |
| Source: Burning Glass |

**Table 4b. Top Job Titles for Entertainment-Entrepreneurship Occupations for latest 12 months (Mar 2020 - Feb 2021) East Bay Sub-Region**

| **Title** | **East Bay** | **Title** | **East Bay** |
| --- | --- | --- | --- |
| Audio Visual Technician | 14 | Video Surveillance Technician | 2 |
| Senior Sound Designer | 5 | Sound Designer | 2 |
| Audio Visual Systems Technician | 5 | Radio/Video Fabrication Technician/Senior Fabrication Technician | 2 |
| Lead Commercial Audiovisual Installation Technician | 4 | IT Technician Visual/Audio | 2 |
| Audio/Video Technician | 4 | Broadcast Engineer | 2 |
| Audio Engineer | 4 | Audio Visual Technician II | 2 |
| Freelance Audio Visual Technician | 3 | Audio Visual Onsite Customer Support Technician | 2 |
| Audiovisual Onsite Customer Support Technician | 3 | Audio Visual Installation Technician | 2 |
| Audio Embedded Engineer | 3 |  |  |
| Source: Burning Glass |

## Industry Concentration

**Table 5. Industries hiring Entertainment-Entrepreneurship 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)** |
| --- | --- | --- | --- | --- |
| Religious Organizations | 795 | 818 | 3% | 15% |
| Independent Artists, Writers, and Performers | 393 | 408 | 4% | 7% |
| Motion Picture and Video Production | 332 | 346 | 4% | 6% |
| Internet Publishing and Broadcasting and Web Search Portals | 222 | 305 | 37% | 4% |
| Promoters of Performing Arts, Sports, and Similar Events with Facilities | 199 | 256 | 29% | 4% |
| Musical Groups and Artists | 185 | 174 | -6% | 3% |
| Theater Companies and Dinner Theaters | 162 | 148 | -9% | 3% |
| Sound Recording Studios | 142 | 155 | 10% | 3% |
| Colleges, Universities, and Professional Schools | 141 | 155 | 10% | 3% |
| Colleges, Universities, and Professional Schools (State Government) | 119 | 125 | 5% | 2% |
| Source: EMSI 2020.4 |

**Table 6. Top Employers Posting Entertainment-Entrepreneurship Occupations in Bay Region and East Bay Sub-Region (Mar 2020 - Feb 2021)**

| **Employer** | **Bay** | **Employer** | **East Bay** |
| --- | --- | --- | --- |
| Apple | 39 | HS Audio Visual | 7 |
| HS Audio Visual | 16 | Striking Distance Studios | 6 |
| PSAV | 13 | Logitech | 5 |
| Facebook | 13 | Avidex | 5 |
| Amazon | 11 | Psav Presentation Services | 4 |
| Regent5 | 8 | Logitech Incorporated | 4 |
| AV Hero, Inc. | 8 | Creation Networks | 4 |
| Xoriant Inc. | 6 | Sodexo | 3 |
| Striking Distance Studios | 6 | Power Design | 3 |
| Zoom Video Communications | 5 | AV Hero, Inc. | 3 |
| Source: Burning Glass |

## Educational Supply

There is a six (6) community colleges in the Bay Region issuing 84 awards on average annually (last 3 years ending 2018-19) on TOP 1005.00 - Commercial Music. In the East Bay Sub-Region, there are three (3) community colleges that issued 54 awards on average annually (last 3 years) on this TOP code.

There are a four (4) other CTE educational institutions in the Bay Region issuing 70 awards on average annually (last 3 years ending 2016-17) on TOP 1005.00 - Commercial Music. There is one (1) other CTE educational institution in the East Bay Sub-Region issuing 42 awards on average annually (last 3 years) on this TOP code.

**Table 7a. Community College Awards on TOP 1005.00 - Commercial Music in Bay Region**

| **College** | **Subregion** | **Associate** | **Certificate Low** | **Noncredit** | **Total** |
| --- | --- | --- | --- | --- | --- |
| Cabrillo | SC-Monterey | 1 | 2 | 0 | 3 |
| Diablo Valley | East Bay | 11 | 10 | 0 | 21 |
| Foothill | Silicon Valley | 13 | 4 | 0 | 17 |
| Las Positas | East Bay | 0 | 0 | 1 | 1 |
| Los Medanos | East Bay | 7 | 25 | 0 | 32 |
| West Valley | Silicon Valley | 0 | 10 | 0 | 10 |
| **Total** |  | **32** | **51** | **1** | **84** |
| Source: Data Mart |

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

**Table 7b. Other CTE Instituton Awards on TOP 1005.00 - Commercial Music in Bay Region**

| **College** | **Subregion** | **Award 1 < 2 academic yrs** | **Bachelor's Degree** | **Total** |
| --- | --- | --- | --- | --- |
| Argosy University-The Art Institute of California-San Francisco | Mid-Peninsula | 0 | 14 | 14 |
| Cogswell College | Silicon Valley | 0 | 11 | 11 |
| SAE Expression College | East Bay | 0 | 42 | 42 |
| San Francisco Conservatory of Music | Mid-Peninsula | 3 | 0 | 3 |
| **Total** |  | **3** | **67** | **70** |
| 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 708 annual openings for the Entertainment-Entrepreneurship occupational cluster and 154 annual (3-year average) awards from community colleges and other institutions for an annual undersupply of 554 students. In the East Bay Sub-Region, there is also a gap with 185 annual openings and 96 annual (3-year average) awards from community colleges and other institutions for an annual undersupply of 89 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1005.00 - Commercial Music**

| **Metric Outcomes** | **Bay** **All CTE Program** | **DVC** **All CTE Program** | **State 1005.00** | **Bay 1005.00** | **East Bay 1005.00** | **DVC 1005.00** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study\* | 75% | 72% | 44% | 38% | 32% | N/A |
| Median Annual Earnings for SWP Exiting Students | $45,864 | $35,916 | $21,112 | $27,670 | $23,148 | $23,160 |
| Median Change in Earnings for SWP Exiting Students | 31% | 35% | 56% | 84% | 59% | 28% |
| Exiting Students Who Attained the Living Wage | 53% | 40% | 26% | 28% | 18% | 18% |
| Source: Launchboard Strong Workforce Program from version 2018-19).\* Data from version 2017-18 |

## Skills and Education

**Table 9. Top Skills for Entertainment-Entrepreneurship Occupations in Bay Region (Mar 2020 - Feb 2021)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Digital Signal Processing (DSP) | 82 | Linux | 47 |
| Audio Engineering | 74 | Sound Design | 47 |
| Customer Service | 74 | MacIntosh OS | 45 |
| Music | 74 | Operations Management | 43 |
| Video Conferencing | 74 | Sales | 43 |
| C++ | 71 | Firmware | 42 |
| Audio / Visual Knowledge | 70 | Equipment Operation | 41 |
| Scheduling | 66 | Technical Support | 41 |
| Repair | 65 | Audio Systems | 39 |
| Debugging | 63 | Customer Contact | 36 |
| Digital Audio | 63 | Cisco | 35 |
| Broadcast Industry Knowledge | 56 | Software Issue Resolution | 34 |
| Project Management | 54 | Software Engineering | 33 |
| Python | 48 | Facebook | 32 |
| Source: Burning Glass |

**Table 10. Education Requirements for Entertainment-Entrepreneurship Occupations in Bay Region**

| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **Percent 12 Mos. Postings** |
| --- | --- | --- |
| High school or vocational training | 115 | 32% |
| Associate's degree | 12 | 3% |
| Bachelor's degree | 195 | 54% |
| Master's degree and above | 41 | 11%  |
| 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/
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