**Music Industry Studies Occupations**

**Labor Market Information Report**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

February 2018

# Recommendation

Based on all available data included in this report, there appears to be an undersupply of Music Industry Studies workers compared to the demand for this cluster of occupations in the Bay region and the East Bay sub-region. The annual gap between demand and supply is 642 in the region and 162 in the East Bay sub-region.

SOC (Standard Occupational Codes) were not included in the request for labor market data (LMI) from Laney College, only job titles. Therefore, the following two searches of Burning Glass online job postings
provided job titles, employers, skill sets, and education desired for this cluster of occupations:

* a search on a suggested list of SOC codes from job titles provided by Laney College in the online LMI application
* a keyword search in the job title of postings, using “music”, “audio”, “sound”, “mixing”, “recording”, or “composer”

The two searches produced slightly different results. So, both are included in this report.

This report also provides student outcomes data on employment and earnings for Commercial Music programs (TOP 1005.00) in the region and state. It is recommended that this data be reviewed to better understand how student outcomes for Commercial Music programs at colleges in the region and sub-region compare to the state programs in this area, as well as outcomes across all programs in the region.

# Introduction

This report profiles Music Industry Studies occupations in the 12 county Bay region and the East Bay sub-region (Alameda and Contra Costa counties) for a proposed new program at Laney College. The following list of SOC codes was compiled from job titles provided in the LMI application submitted by Laney College.

* **Agents and Business Managers of Artists, Performers, and Athletes (SOC 13-1011)**: Represent and promote artists, performers, and athletes in dealings with current or prospective employers. May handle contract negotiation and other business matters for clients.

*Entry-Level Educational Requirement:* *Bachelor’s Degree*

*Training Requirement:* *None*

*Percentage of Community College Award Holders or Some Postsecondary Coursework:* 30%

* **Music Directors and Composers (SOC 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:* 27%

* **Audio and Video Equipment Technicians (SOC 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.

*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:* 45%

* **Sound Engineering Technicians (SOC 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:* 45%

# Occupational Demand

**Table 1. Employment Outlook for Music Industry Studies Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Open-ings | Annual Open-ings | 10% Hrly Wage | Median Hrly Wage |
| Agents & Business Managers of Artists, Performers & Athletes | 664 | 682 | 18 | 3% | 412 | 82 | $16.87 | $21.80 |
| Music Directors & Composers | 1,808 | 1,896 | 88 | 5% | 976 | 195 | $12.67 | $20.88 |
| Audio & Video Equipment Technicians | 3,184 | 3,422 | 238 | 7% | 1,744 | 349 | $15.14 | $22.60 |
| Sound Engineering Technicians | 801 | 839 | 38 | 5% | 418 | 84 | $15.33 | $28.66 |
| **Total** | **6,457** | **6,839** | **382** | **6%** | **3,550** | **710** | **$14.65**  | **$22.79**  |

*Source: EMSI 2017.4*

**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 Music Industry Studies Occupations in East Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Open-ings | Annual Open-ings | 10% Hrly Wage | Median Hrly Wage |
| Agents & Business Managers of Artists, Performers & Athletes | 158 | 171 | 13 | 8% | 105 | 21 | $17.28 | $21.66 |
| Music Directors & Composers | 623 | 657 | 34 | 5% | 337 | 67 | $13.65 | $23.29 |
| Audio & Video Equipment Technicians | 856 | 912 | 56 | 7% | 456 | 91 | $15.50 | $24.47 |
| Sound Engineering Technicians | 210 | 218 | 8 | 4% | 107 | 21 | $15.04 | $27.78 |
| **Total** | **1,847** | **1,957** | **110** | **6%** | **1,005** | **201** | **$14.97**  | **$24.21**  |

*Source: EMSI 2017.4***East Bay Sub-Region** includes Alameda and Contra Costa counties

### Job Postings in Bay Region and East Bay Sub-Region

**Table 3a. Number of Job Postings for Music Industry Studies SOC Occupations for latest 12 mos (Jan 2017 – Dec 2017)**

|  |  |  |
| --- | --- | --- |
| Occupation | Bay Region | East Bay |
| Audio and Video Equipment Technicians (27-4011.00) | 351 | 43 |
| Sound Engineering Technicians (27-4014.00) | 139 | 5 |
| Music Directors (27-2041.01) | 33 | 6 |
| Agents and Business Managers of Artists, Performers, and Athletes (13-1011.00) | 9 | 0 |
| Music Composers and Arrangers (27-2041.04) | 5 | 0 |
| **Total** | **537** | **54** |

*Source: Burning Glass*

**Table 3b. Number of Job Postings by Occupation using Keyword Search on “Music”, “Audio”, “Sound”, “Recording”, “Mixing” or “Composer” (excluding Teacher) in Job Title for latest 12 mos (Jan 2017 – Dec 2017)**

|  |  |  |
| --- | --- | --- |
| Occupation | Bay Region | East Bay |
| Audio and Video Equipment Technicians (27-4011) | 234 | 29 |
| Software Developers, Applications (15-1132) | 162 | 11 |
| Sound Engineering Technicians (27-4014) | 116 | 1 |
| Computer Occupations, All Other (15-1199) | 98 | 6 |
| Teachers And Instructors, All Other, Except Substitute Teachers (25-3099) | 62 | 26 |
| Electronics Engineers, Except Computer (17-2072) | 40 | 3 |
| Sales Reps, Wholesale & Manufacturing except Tech & Scientific Products (41-4012) | 34 | 4 |
| Producers & Directors (27-2012) | 14 | 10 |
| **Total** | **1,231** | **174** |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Music Industry Studies SOC Occupations for latest 12 mos (Jan 2017 – Dec 2017)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay Region | East Bay | Common Title | Bay Region | East Bay |
| Audio Visual Technician | 163 | 26 | Technology Project Manager | 6 | 0 |
| Director of Event Technology | 28 | 0 | Video Streaming Technician | 6 | 0 |
| Audio Dsp Engineer | 9 | 0 | Hardware Engineer | 5 | 0 |
| Video Production Specialist | 9 | 0 | Senior Audio Engineer | 5 | 0 |
| Audio Engineer | 8 | 0 | Software Development Engineer | 5 | 0 |
| Sound Designer | 6 | 0 | Theater Technician | 5 | 2 |
| Technical Specialist - Audio Visual | 6 | 0 | Audio Visual Specialist | 4 | 0 |

*Source: Burning Glass*

**Table 4b. Top Job Titles using Keyword Search on “Music”, “Audio”, “Sound”, “Recording”, “Mixing” or “Composer” in Job Title (excluding Teachers) for latest 12 months (Jan 2017 – Dec 2017)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Common Title | Bay Region |  | Common Title | East Bay |
| Audio Visual Technician | 164 |  | Audio Visual Technician | 26 |
| Software Development Engineer | 141 |  | Software Development Engineer | 7 |
| Quality Assurance Engineer | 18 |  | Instructional Assistant | 5 |
| Systems Engineer | 17 |  | Adjunct Faculty Pool - Music | 4 |
| Engineering Manager | 11 |  | Applications Developer | 4 |
| Account Manager | 10 |  | Senior Creative Audio Producer | 4 |
| Adjunct Instructor | 10 |  | Audio Producer, Advertising | 3 |
| Hardware Engineer | 10 |  | Audio Video Design Engineer | 3 |
| Audio Dsp Engineer | 9 |  | Music Docent | 3 |
| Audio Engineer | 8 |  | Music Laboratory Coordinator | 3 |
| Firmware Engineer | 8 |  | Recording Document Specialist | 3 |
| Quality Engineer | 8 |  | Sales Specialist | 3 |
| Systems Integrator | 8 |  | Test Technician | 3 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Music Industry Studies Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Industry – 3 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2016)** | **Jobs in Industry (2021)** | **% Change (2016-21)** | **% in Industry (2016)** |
| Performing Arts, Spectator Sports, and Related Industries (711) | 1,477 | 1,504 | 2% | 22.8% |
| Religious, Grantmaking, Civic, Professional & Similar Organizations (813) | 979 | 1,030 | 5% | 15.2% |
| Motion Picture and Sound Recording Industries (512) | 941 | 980 | 4% | 14.5% |
| Professional, Scientific, and Technical Services (541) | 501 | 561 | 12% | 7.9% |
| Educational Services (611) | 451 | 507 | 12% | 7.0% |
| Rental and Leasing Services (532) | 420 | 462 | 10% | 6.5% |
| Local Government (903) | 383 | 394 | 3% | 5.9% |
| Broadcasting (except Internet) (515) | 262 | 249 |  (5%) | 4.0% |
| State Government (902) | 172 | 194 | 13% | 2.7% |
| Administrative and Support Services (561) | 155 | 165 | 6% | 2.4% |
| Other Information Services (519) | 151 | 181 | 20% | 2.3% |
| Specialty Trade Contractors (238) | 74 | 86 | 16% | 1.2% |
| Computer and Electronic Product Manufacturing (334) | 69 | 67 |  (3%) | 1.0% |
| Accommodation (721) | 50 | 53 | 6% | 0.8% |

*Source: EMSI 2017.4*

**Table 6a. Top Employers Posting Music Industry Studies SOC Occupations in Bay Region and East Bay for latest 12 months (Jan 2017 – Dec 2017)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Employer** | **Bay Region** |  | **Employer** | **East Bay** |
| Psav Presentation Services | 96 |  | Dublin Unified School District | 3 |
| Apple Inc. | 29 |  | Live Nation Worldwide | 3 |
| Psav | 22 |  | Psav | 3 |
| Amazon.com | 16 |  | Psav Presentation Services | 3 |
| Facebook | 6 |  | University Of California Berkeley | 3 |
| Lab126 | 6 |  |  |  |

*Source: Burning Glass*

**Table 6b. Top Employers using Keyword Search on “Music”, “Audio”, “Sound”, “Recording”, “Mixing” or “Composer” in Job Title (excluding Teachers) for latest 12 months (Jan 2017 – Dec 2017)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employer** | **Bay** | **Employer** | **Bay** | **Employer** | **East Bay** |
| Apple Inc. | 160 | Pandora Media, Inc | 26 | Pandora Media, Inc | 26 |
| Amazon.com | 97 | Facebook | 22 | Pandora | 9 |
| Psav Presentation Services | 66 | Dolby Laboratories Inc | 21 | San Ramon Valley USD | 9 |
| Google Inc. | 32 | Psav | 19 | University Of California Berkeley | 6 |
| Lab126 | 27 | Gaikai Inc | 16 | Logitech | 5 |

*Source: Burning Glass*

# Educational Supply

On the supply side, for Commercial Music (TOP 1005.00), there are six community colleges in the Bay region issuing 64 awards annually, and one other educational postsecondary institution in the region issuing four certificates annually. Three of these colleges are in the East Bay sub-region, issuing 32 awards annually.

**Table 7. Commercial Music Programs on TOP 1005.00 or CIP 50.0913 Music Technology in the Bay Region**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | CC Headcount | No of Transfer Students | Associate Degrees | Certificates | Total Awards |
| Cabrillo | SC & Monterey | on another TOP | 0 | 1 | 5 | 6 |
| Chabot | East Bay | 133 | 4 | 0 | 0 | 0 |
| Diablo Valley | East Bay | 371 | 13 | 9 | 12 | 21 |
| Foothill | Silicon Valley | 544 | 20 | 12 | 3 | 15 |
| Los Medanos | East Bay | 193 | 3 | 6 | 4 | 10 |
| Marin | North Bay | 46 | 1 | 0 | 0 | 0 |
| Napa | North Bay | 14 | 1 | 0 | 0 | 0 |
| Ohlone | East Bay | on another TOP | 0 | 0 | 1 | 1 |
| Santa Rosa | North Bay | 170 | 4 | 0 | 0 | 0 |
| Solano | North Bay | 24 | 1 | 0 | 0 | 0 |
| West Valley | Silicon Valley | on another TOP | 1 | 0 | 11 | 11 |
| SF Conservatory of Music | Mid-Peninsula | n/a | n/a | 0 | 4 | 4 |
| **Total Bay Region** | **1,492** | **48** | **28** | **40** | **68** |
| **Total East Bay Sub-Region** | **693** | **20** | **15** | **17** | **32** |

# *Sources: IPEDS, Data Mart and Launchboard*

NOTE: For Community Colleges, the annual average for Associate Degrees and Certificates is 2014-17 (except for Cabrillo and West Valley, who only issued awards in 2016-17). Number of transfer students is the annual average for 2012-15. Headcount is for 2015-16. For the other educational postsecondary institutes, the annual average for awards is 2013-16 from IPEDS.

# Gap Analysis

The labor market gap is significant in the Bay region for this cluster of occupation with total annual openings of 710 and annual supply of 68 awards. This represents an annual undersupply of 642 students. In the East Bay sub-region, there is also a gap with total annual openings of 201and annual supply of 32 awards for an annual gap of 169.

# Student Outcomes

Student Outcomes data from Launchboard is available for students who took courses on TOP 1005.00 - Commercial Music, in the Bay Region

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

* The percentage employed four quarters after exit for students who took courses on TOP 1005.00 in the East Bay is higher than for students who took courses on the same TOP code at other colleges in the region.
* Foothill has the top program in the state for earnings two quarters after exit and for percentage of students earning a living wage.
* Diablo Valley College has the top program in the state in terms of percentage employed four quarters after exit and median gain in earnings.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2014-15** | **Bay Region (All Programs)** | **State (1005.00)** | **Bay Region (1005.00)** | **East Bay Sub-Region (1005.00)** | **Top Colleges in State****on TOP 1005.00** **Commercial Music** |
| % Employed Four Quarters After Exit | 68% | 58% | 56% | 64% | Diablo Valley | 72% |
| Median Earnings Two Quarters After Exit | $12,640 | $4,275 | $4,800 | $3,145 | Foothill | $9,060 |
| Median % Change in Earnings | 37% | 48% | 74% | 181%\* | Diablo Valley | 142% |
| % of Students Earning a Living Wage | 51% | 19% | 29% | 25% | Foothill | 45% |

 *Source: Launchboard*

*\** One college in the sub-region has a low “n” for this metric, resulting in a 598% increase in the median percentage change in earnings. Therefore, the East Bay sub-regional data for this metric is skewed by this outlier data point.

# Skills, Certifications and Education

**Table 9a. Top Skills for Music Industry Studies SOC Occupations in Bay Region (Jan 2017 – Dec 2017)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Skill** | **Latest 12 Mos. Postings** | **Skill** | **Latest 12 Mos. Postings** |
| Microsoft Office | 130 | Supervisory Skills | 56 |
| Microsoft Excel | 126 | Broadcast | 55 |
| Dynamic Host Configuration Protocol (DHCP) | 100 | Project Management | 45 |
| Microsoft Operating Systems | 95 | Customer Contact | 43 |
| Equipment Operation | 94 | Technical Support | 41 |
| IP Address Setup | 94 | Repair | 39 |
| Universal Serial Bus (USB) | 94 | Music | 38 |
| Switches | 93 | Python | 38 |
| Network Printers | 87 | Routers | 38 |
| Software Issue Resolution | 80 | Printers | 37 |
| Upselling Products and Services | 80 | Audio Engineering | 36 |
| Scheduling | 65 | Customer Service | 36 |

*Source: Burning Glass*

**Table 9b. Top Skills using Keyword Search on “Music”, “Audio”, “Sound”, “Recording”, “Mixing” or “Composer” in Job Title for latest 12 months (Jan 2017 – Dec 2017)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Skill** | **Latest 12 Mos. Postings** | **Skill** | **Latest 12 Mos. Postings** |
| Music | 388 | JAVA | 84 |
| Software Development | 233 | MATLAB | 82 |
| C++ | 196 | Software Issue Resolution | 79 |
| Microsoft Excel | 176 | Upselling Products and Services | 79 |
| Microsoft Office | 170 | Teaching | 76 |
| Python | 165 | Audio Engineering | 73 |
| Software Engineering | 138 | Consumer Electronics | 71 |
| Universal Serial Bus (USB) | 111 | Debugging | 70 |
| Project Management | 103 | Digital Audio | 68 |
| Dynamic Host Configuration Protocol (DHCP) | 101 | JavaScript | 63 |
| Microsoft Operating Systems | 99 | Object-Oriented Analysis and Design (OOAD) | 62 |
| Scheduling | 94 | Product Management | 57 |
| IP Address Setup | 92 | Broadcast | 56 |
| Electrical Engineering | 91 | Product Development | 56 |
| Equipment Operation | 90 | Technical Support | 55 |
| Switches | 89 | Validation | 55 |
| Digital Signal Processing (DSP) | 88 | Budgeting | 52 |
| LINUX | 88 | Computer Engineering | 52 |
| Network Printers | 85 | Customer Service | 51 |

*Source: Burning Glass*

**Note: 96% of the postings did not include a certification. As a result, the table for certifications has not been included in this report.**

**Table 10a. Education Requirements for Music Industry Studies SOC Occupations in Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| **Education (minimum advertised)** |  | **Latest 12 Mos. Postings** | **% of Total Indicating Ed. Level** |
| High school or vocational training |  | 150 | 44% |
| Associate Degree |  | 14 | 4% |
| Bachelor’s Degree or Higher |  | 174 | 51% |

*Source: Burning Glass*

**Table 10b. Education Requirements using Keyword Search on “Music”, “Audio”, “Sound”, “Recording”, “Mixing” or “Composer” in Job Title for latest 12 months (Jan 2017 – Dec 2017)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Education (minimum advertised)** |  | **Latest 12 Mos. Postings** | **% of Total Indicating Ed. Level** |
| High school or vocational training |  | 164 | 19% |
| Associate Degree |  | 24 | 3% |
| Bachelor’s Degree or Higher |  | 669 | 78% |

*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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