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**Music Technology Program Report  
For Greater South Bay and Peninsula Region  
(Santa Clara and San Mateo Counties)**

## Recording Arts Technology/Technician

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CIP 2010: A program that prepares individuals to apply technical knowledge and skills to the production of sound recordings as finished products or as components of film/video, broadcast, live, or mixed media productions. Includes instruction in sound equipment operation and maintenance; music, dialogue, and sound effects recording; sound track editing; dubbing and mixing; sound engineering; tape, disk, and CD production; digital recording and transmission; amplification and modulation; and working with producers, editors, directors, artists, and production managers.

### Target Occupations‡

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Audio and Video Equipment Technicians (27-4011)

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Sound Engineering Technicians (27-4014)

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‡Based on EMSI crosswalk of the Classification of Instructional Programs (CIP) codes with Standard Occupational Classification (SOC) codes as published by the U.S. Department of Education.

In 2012, the number of music technology (recording arts technology) jobs in the target occupations in Santa Clara and San Mateo Counties totaled 818. The Bureau of Labor Statistics (BLS) expects the total number of positions to increase by 3.7% over the next three years. Regional openings in 2012, which included created jobs and turnover, totaled 60. Completions in business administration programs totaled 23, with an additional seven completions from other related programs. These other programs are linked to multiple occupations and not all those who complete will enter the target occupations indicated in this report.

### Target Occupation Performance

<b>818*</b> <b>Jobs (2012)</b> National Location Quotient: 1.27 <sup>†</sup>	<b>3.7%*</b> <b>Growth (2013-2016)</b> National: 2.5%	<b>\$23.34/hr</b> <b>Median Earnings</b> National: \$20.57/hr
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\*Based on total number of jobs for target occupations Santa Clara and San Mateo Counties.

<sup>†</sup>Represents occupation density as compared to national average (national average=1).

Regional Openings (2012)**	60
Regional Program Completions (2012)	23
All Regional Completions for Target Occupations <sup>††</sup> (2012)	30

\*\*Openings include created jobs and turnover.

<sup>††</sup> Includes all regional programs applicable to target occupations.

### Music Technology Occupations Performance

Target Occupations	Regional Openings (2012)	Average Hourly Earnings	Growth (2013-2016)
Audio and Video Equipment Technicians (27-4011)	45	\$23.47	4.0%
Sound Engineering Technicians (27-4014)	15	\$30.84	2.4%

### Regional Breakdown for Music Technology

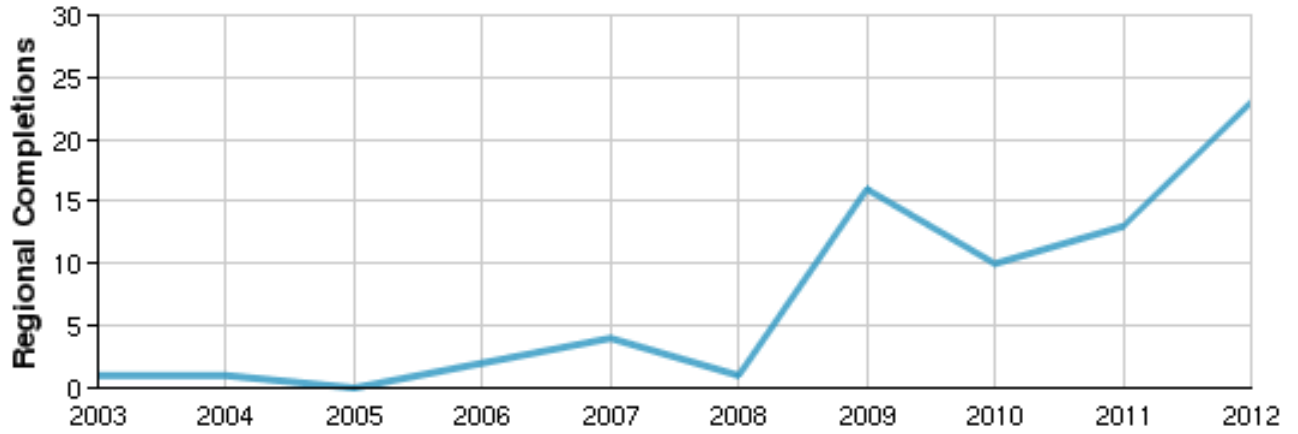
County Name	2013 Jobs	2016 Jobs	2013 Annual Openings	Median Hourly Earnings	2013 National Location Quotient
Santa Clara	573	607	29	\$22.07	1.19
San Mateo	280	278	8	\$25.86	1.55
Total	854	885	37	\$23.34	

## Regional Music Technology Training Providers

**1**  
Institutions

**23\***  
Completions (2012)

\*Based on IPEDS data.



Institution	Degrees	Certificates	Total Completions
Foothill College	15	8	23

Other regional programs may train individuals eligible for the targeted music technology occupations, which are based on an occupation-program crosswalk developed by the Department of Education. These additional programs are offered at De Anza College, West Valley College, and Cogswell College. As noted earlier, many postsecondary programs are linked to multiple occupations and not all those who complete the program will enter the target occupation.

### San Mateo/ Santa Clara | Educational Programs


<b>3</b> Programs (2012)	<b>30</b> Completions (2012)
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Program	2008	2009	2010	2011	2012
Photographic and Film/Video Technology/Technician and Assistant (10.0201)	0	3	6	3	4
Music Technology (50.0913)	0	0	0	7	3
Digital Communication and Media/Multimedia (09.0702)	14	0	0	0	0









## Target Occupations Demographics

The demographics among those employed in music technology occupations in Santa Clara and San Mateo Counties for 2013 show that a majority are men (86.0%) and almost three-fifths are between the ages of 25-44 (57.7%). The national breakdown of the education level among those employed as sound engineering technicians show that 44% have earned an Associate's degree or have completed some college.



### Gender Demographics (Regional)

Gender	Jobs (2013)	% of Total	
Male	734	86.0%	
Female	119	14.0%	

### Age Demographics (Regional)

Age	Jobs (2013)	% of Total	
14-18 Years	<10	0.9%	
19-21 Years	38	4.5%	
22-24 Years	49	5.7%	
25-34 Years	282	33.0%	
35-44 Years	211	24.7%	
45-54 Years	169	19.8%	
55-64 Years	74	8.7%	
65+ Years	23	2.7%	

### Educational Attainment (National)

Doctoral or professional degree	1%	
Master's degree	4%	
Bachelor's degree	30%	
Associate's degree	15%	
Some college, no degree	29%	
High school diploma or equivalent	19%	
Less than high school diploma	2%	

## Industries Employing Music Technology Occupations

A number of industries in Santa Clara and San Mateo Counties employ those trained in music technology and its related occupations. The following table represents a regional industry breakdown of the number of music technology positions employed, the percentage of music technology jobs employed by industry and the percentage music technology jobs represent within all jobs by each industry. While motion picture and video production employed 14.7% of all regional music technicians in 2013, music technology and its related occupations represent 7.5% of the total jobs in that industry.

### Inverse Staffing Patterns (Regional)

Top Five Industries	Occupation Group Jobs in Industry (2013)	% of Occupation Group in Industry (2013)	% of Total Jobs in Industry (2013)
Motion Picture and Video Production (512110)	126	14.7%	7.5%
Internet Publishing and Broadcasting and Web Search Portals (519130)	67	7.9%	0.3%
Promoters of Performing Arts, Sports, and Similar Events with Facilities (711310)	62	7.2%	7.0%
Colleges, Universities, and Professional Schools (Private) (611310)	41	4.8%	0.2%
Independent Artists, Writers, and Performers (711510)	37	4.3%	7.4%

## Data Sources and Calculations

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### State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department

### Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

### Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

### Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

### Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

### Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.