

Sound Engineering Technicians

Labor Market Analysis: San Diego County

November 2018

Summary

According to available labor market information, there is a small demand for *Sound Engineering Technicians*. *Sound Engineering Technicians* has a labor market demand of 30 annual job openings, which is less than the average occupation. The average regional demand for an occupation is 276 annual job openings. Six colleges in San Diego County supply 164 awards for this occupation, suggesting that there is an oversupply. Creating another program could impact those programs.

The following list summarizes findings from the labor market analysis for *Sound Engineering Technicians*:

- Between 2017 and 2022, *Sound Engineering Technicians* are projected to decrease by five jobs or one percent.
- Employers in San Diego County will need to hire 30 workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.
- There is insufficient data to determine the number of online job postings for *Sound Engineering Technicians* between 2010 and 2017 in San Diego County.
- *Sound Engineering Technicians* earn median hourly earnings of \$26.38; this is more than the Self-Sufficiency Standard for a single adult in San Diego County, which is \$15.99 per hour.
- There are six Taxonomy of Programs (TOP) codes associated with this occupation: Radio and Television (060400), Television (including combined TV/film/video) (060420), Film Production (061220), Animation (061440), Commercial Music (100500), and Technical Theater (100600).
- According to TOP data, six community colleges supply the region with awards for this occupation: Palomar College, Grossmont College, Southwestern College, San Diego City College, MiraCosta College, and San Diego Miramar College.
- Comparing labor demand (annual openings) with labor supply suggests that there is an oversupply for this occupation in San Diego County, with 30 annual openings and 164 awards. Comparatively, there are 590 annual openings in California and 2,663 awards.
- Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were Qualcomm, KFMB Stations, Tribune Company, Sony Electronics Incorporated, and Quickplay Media.

- The typical on-the-job training for this profession is short-term on-the-job training. The typical entry-level education is a post-secondary non-degree award.

Introduction

This report provides labor market information in San Diego County for the following occupational code in the Standard Occupational Classification (SOC)¹ system:

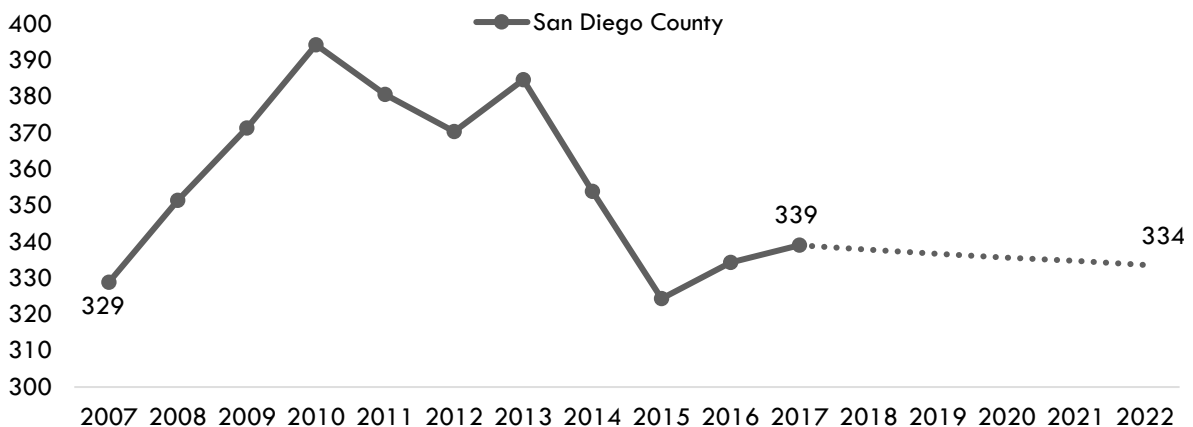
Sound Engineering Technicians (SOC 27-4014): Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording studios, or movie and video productions. Sample reported job titles include:

- Recording Engineer
- Sound Editor
- Dub Room Engineer
- Audio Engineer
- Video Editor
- Television Production Assistant (TV Production Assistant)
- Studio Engineer
- Sound Technician
- Production Engineer

Projected Occupational Demand

Between 2017 and 2022, *Sound Engineering Technicians* are projected to decrease by **five jobs** or **one percent** (Exhibit 1). Employers in San Diego County will need to hire **30 workers** annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.

Exhibit 1: Number of Jobs for Sound Engineering Technicians (2007-2022)²



¹ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. [bls.gov/soc](https://www.bls.gov/soc/).

² Economic Modeling Specialists, Int'l. (EMSI). San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2007-2022.

Online Job Postings

There is insufficient data to determine the number of online job postings for *Sound Engineering Technicians* between 2010 and 2017 in San Diego County (Exhibit 2).

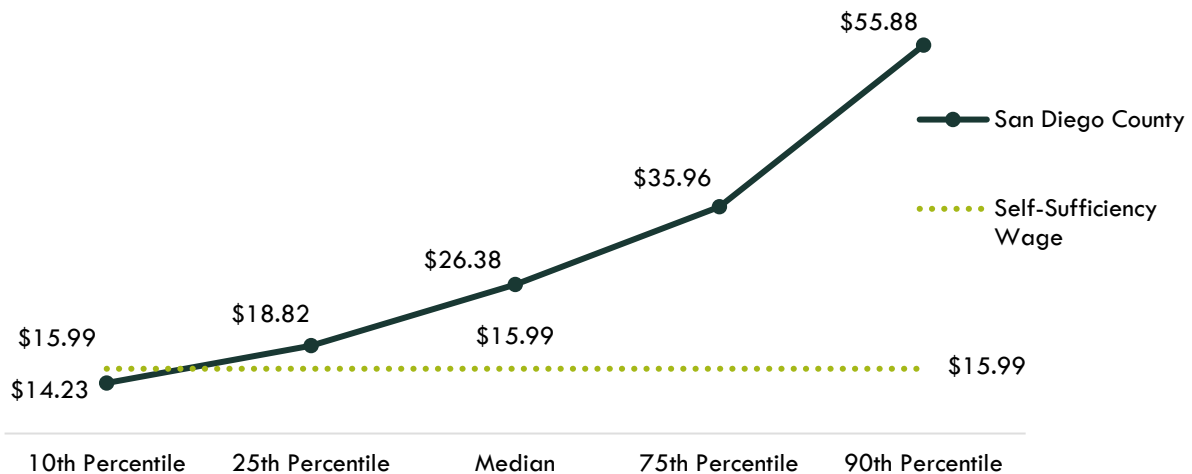
Exhibit 2: Number of Online Job Postings for Sound Engineering Technicians in San Diego County (2010-2017)³

0	0	0	0	0	0	0	0
2010	2011	2012	2013	2014	2015	2016	2017

Earnings

Sound Engineering Technicians earn median hourly earnings of **\$26.38**; this is more than the Self-Sufficiency Standard for a single adult in San Diego County, which is **\$15.99** per hour (Exhibit 3).⁴

Exhibit 3: Hourly Earnings for Sound Engineering Technicians in San Diego County⁵



³ Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2010-2017.

⁴ The self-sufficient wage in San Diego for one adult is \$15.99. insightccd.org/2018-self-sufficiency-standard.

⁵ EMSI. San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.⁶ There are **six** TOP codes associated with this occupation: Radio and Television (060400), Television (including combined TV/film/video) (060420), Film Production (061220), Animation (061440), Commercial Music (100500), and Technical Theater (100600). There is one CIP code associated with this occupation: 10.0203 – Recording Arts Technology/Technician (Exhibit 4).

Exhibit 4: Related TOP and CIP Codes in San Diego County

SOC 27-4014: Sound Engineering Technicians

TOP 060400: Radio and Television

TOP 060420: Television (including combined TV/film/video)

TOP 061220: Film Production

TOP 061440: Animation

TOP 100500: Commercial Music

TOP 100600: Technical Theater

CIP 10.0203: Recording Arts Technology/Technician

According to TOP data, **six** community colleges supply the region with awards for this occupation: [Palomar College](#), [Grossmont College](#), [Southwestern College](#), [San Diego City College](#), [MiraCosta College](#), and [San Diego Miramar College](#) (Exhibit 5).⁷

⁶ TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data).

⁷ Awards associated with MediaTech institute-Oceanside will not be counted for this report because the school closed down.

**Exhibit 5: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions
(Program Year 2013-14 through PY2016-17 Average)**

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY14-15 to PY16-17)	Other Educational Institutions 3-Yr Annual Average Awards (PY13-14 to PY15-16)	3-Yr Total Average Supply (PY13-14 to PY16-17)
060400	Radio and Television	37	0	37
	Palomar	15	0	
	San Diego City	12	0	
	Southwestern	10	0	
060420	Television (including combined TV/film/video)	15	0	15
	Grossmont	14	0	
	Southwestern	1	0	
061220	Film Production	18	0	18
	San Diego City	18	0	
061440	Animation	12	0	12
	Palomar	12	0	
100500	Commercial Music	32	0	32
	MiraCosta	20	0	
	San Diego City	8	0	
	San Diego Miramar	1	0	
	Southwestern	3	0	
100600	Technical Theater	2	0	2
	Grossmont	0	0	
	MiraCosta	2	0	
	Palomar	0	0	
10.0203	Recording Arts Technology/Technician	0	48	48
	Argosy University-The Art Institute of California-San Diego	0	48	
			Total	164

Demand vs. Supply

Comparing labor demand (annual openings) with labor supply⁸ suggests that there is an **oversupply** for this occupation in San Diego County, with 30 annual openings and 164 awards. Comparatively, there are 590 annual openings in California and 2,663 completions⁹ (Exhibit 6).

Exhibit 6: Labor Demand (Annual Openings) Compared to Labor Supply (Average Annual Awards)

Community Colleges and Other Postsecondary Educational Institutions	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or Oversupply
San Diego	30	164	134
California	590	2,663	2,073

Please note: This is a basic analysis of supply and demand of labor. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed. Additionally, the data does not include workers who are currently in the labor force who could fill these positions or workers who are not captured by publicly available data.

Student Outcomes

Based on the information available in the CTE LaunchBoard, students who took courses in the related TOP codes exhibited the following outcomes (Exhibit 7).

Exhibit 7: Strong Workforce Program Metrics for TOP 100600: Technical Theater San Diego-Imperial Region vs. California (PY2015-16)

Metric	San Diego-Imperial	California
Number of course enrollments ¹⁰	343	8,635
Completed 12+ CTE Units in One Year ¹¹	22	596
Completed 48+ CTE Contact Hours in One Year ¹²	0	50
Number of students who got a degree or certificate ¹³	N/A	74

⁸ Labor supply can be found in the California Community Colleges Chancellor's Office MIS Data Mart.

⁹ EMSI. California (6). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

¹⁰ The number of enrollments in courses assigned to the TOP code in the selected year.

¹¹ The number of students who completed 12 or more credit CTE units.

¹² The number of students who completed 48 or more noncredit CTE instructional contact hours.

¹³ The number of unduplicated students who earned a locally-issued certificate, Chancellor's Office approved certificate, associate degree, and/or California Community Colleges bachelor's degree in the selected TOP code.

Metric	San Diego-Imperial	California
Number of students who transferred ¹⁴	23	365
Employed in the second fiscal quarter after exit ¹⁵	78%	65%
Employed in the fourth fiscal quarter after exit ¹⁶	61%	64%
Job closely related to field of study ¹⁷	N/A	N/A
Median earnings in the second fiscal quarter after exit ¹⁸	\$3,687	\$4,759
Median change in earnings ¹⁹	96%	117%
Attained a living wage ²⁰	N/A	20%

Top Employers and Work Locations

Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were [Qualcomm](#), [KFMB Stations](#), [Tribune Company](#), [Sony Electronics Incorporated](#), and [Quickplay Media](#) (Exhibit 8).

Exhibit 8: Top Employers in San Diego County for Sound Engineering Technicians²¹

Top Employers	
<ul style="list-style-type: none"> • Qualcomm • KFMB Stations • Tribune Company • Sony Electronics Incorporated • Quickplay Media 	<ul style="list-style-type: none"> • Corsair Components, Inc. • Cubic Corporation • Epsilon Systems Solutions Incorporated • Live Nation Worldwide • NBC

¹⁴ Students who took non-introductory courses or completed a California Community Colleges Chancellor's Office award in the selected TOP code in selected year who subsequently enrolled for the first time in a four-year institution the following year.

¹⁵ Among all exiters with a valid SSN, the percentage who were employed two quarters after exiting California Community Colleges.

¹⁶ Among exiting students with a valid SSN, the percentage who were employed four quarters after exiting California Community Colleges.

¹⁷ Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

¹⁸ Among exiting students, the median second-quarter earnings one year after the year in which they exited California Community Colleges.

¹⁹ Among exiting students with a valid SSN, the percentage change in earnings one year before and one year after exiting California Community Colleges.

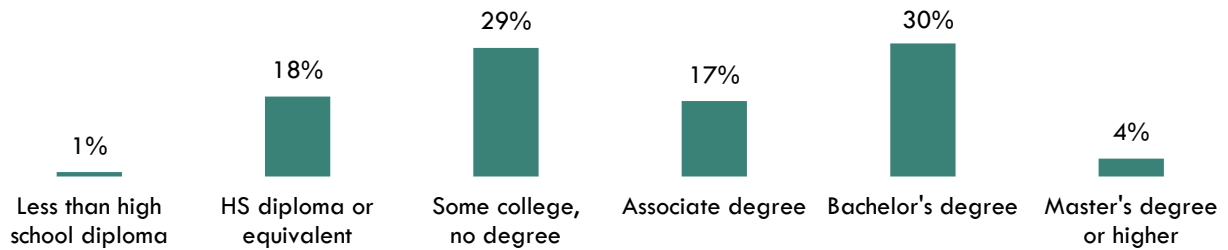
²⁰ Among completers and skills builders who exited, the proportion of students who attained a living wage.

²¹ Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2015-2017.

Skills, Education, and Certifications

Exhibit 9 indicates the educational attainment for the occupation found currently in the national labor force. The typical on-the-job training for this profession is *short-term on-the-job training*. The typical entry-level education is a *post-secondary non-degree award*.²²

Exhibit 9: National Educational Attainment of Sound Engineering Technicians²³



*May not add to 100% due to rounding

Exhibit 10 lists the top specialized, soft and software skills that appeared in online job postings for the occupation between January 1, 2015 and December 31, 2017.

Exhibit 10: Top Skills for Sound Engineering Technicians in San Diego County²⁴

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> • Broadcast Industry Knowledge • Audio / Visual Knowledge • Budgeting • Microsoft Visio • Repair 	<ul style="list-style-type: none"> • Troubleshooting • Communication Skills • Teamwork / Collaboration • Editing • Written Communication 	<ul style="list-style-type: none"> • Microsoft Visio • Linux • Python • Debugging • C++

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²² EMSI. San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

²³ Bureau of Labor Statistics, Educational attainment for workers 25 years and older by detailed occupation. bls.gov/emp/ep_table_111.htm.

²⁴ Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2015-2017.

Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and the report findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.