

Radio and Television

Inland Empire/Desert Region (Riverside and San Bernardino counties combined)

Summary

- Employment for the radio and television occupational group is expected to **increase by 4% between 2018 and 2023** in the Inland Empire/Desert Region. A total of **1,106 job openings** will be available over the five-year timeframe.
- The **entry-level wage** for the radio and television occupational group is **above the MIT Living Wage estimate of \$12.39 per hour** for a single adult living in the Inland Empire/Desert Region.
- **There appears to be an opportunity for program growth** based on the annual average number of program credentials issued for the selected community college programs in the region (**41 annual average community college credentials**), and the annual openings for the radio and television occupational group across the region (**221 average annual openings**).

Introduction

This report provides data on the occupations related to the California Community College radio and television (TOP 0604.00) and television (including combined TV/film/video) (TOP 0604.20) programs. Descriptions of these programs can be found on pages six and eight, respectively. The occupations included in the radio and television occupational group are the following:

- Audio and Video Equipment Technicians
- Broadcast Technicians
- Camera Operators, Television, Video, and Motion Picture
- Film and Video Editors
- Producers and Directors
- Radio and Television Announcers
- Sound Engineering Technicians

Job Opportunities

In 2018, there were 2,150 jobs in the radio and television occupational group in the Inland Empire/Desert Region. This occupational group is projected to increase employment by 4% by 2023. Employers in the region will need to hire 1,106 workers over the next five years to fill new jobs and backfill jobs that

workers are permanently vacating (includes occupational transfers and retirements). Exhibit 1 displays five-year projections for the radio and television occupational group in the Inland Empire/Desert Region.

Exhibit 1: Five-year projections for the radio and television occupational group

2018 Jobs	2023 Jobs	5-Yr % Change (New Jobs)	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
2,150	2,238	4%	1,106	221	15%

Source: EMSI 2018.4

Earnings

The entry-level wage for the radio and television occupational group is above the MIT Living Wage estimate of \$12.39 per hour for a single adult living in the Inland Empire/Desert Region (Glasmeier, 2019). Median wages are sufficient for two working adults and one child (\$14.75 per hour, per adult, or \$30,680 annually for each adult). Exhibit 2 displays wage information for the radio and television occupational group in the Inland Empire/Desert Region.

Exhibit 2: Earnings for the radio and television occupational group

Occupation	Entry to Experienced Hourly Wage Range*	Median Wage*	Average Annual Earnings
Film and Video Editors	\$24.85 to \$32.28	\$28.40	\$63,500
Sound Engineering Technicians	\$24.88 to \$31.56	\$28.25	\$61,700
Producers and Directors	\$19.64 to \$37.02	\$23.74	\$59,500
Camera Operators, Television, Video, and Motion Picture	\$18.87 to \$25.09	\$21.92	\$47,900
Broadcast Technicians	\$17.31 to \$33.31	\$20.53	\$55,900
Radio and Television Announcers	\$15.65 to \$23.75	\$20.15	\$42,900
Audio and Video Equipment Technicians	\$13.53 to \$19.13	\$15.65	\$35,800

Source: EMSI 2018.4

*Entry Hourly is 25th percentile wage, the median is 50th percentile wage, and experienced is 75th percentile wage.

Job Postings, Employers, Skills, and Education

Exhibit 3 displays the number of job ads posted during the last 12 months along with the regional and statewide average time to fill for the radio and television occupational group in the Inland Empire/Desert

Region. On average, local employers fill online job postings for the radio and television occupational group within 89 days. This regional average is 39 days longer than the statewide average, indicating that it is much harder for local employers to find qualified candidates.

Exhibit 3: Job ads and time to fill for the radio and television occupational group, Apr 2018 – Mar 2019

Occupation	Job Ads	Regional Average Time to Fill (Days)	California Average Time to Fill (Days)
Audio and Video Equipment Technicians	60	82	44
Producers and Directors	46	94	54
Camera Operators, Television, Video, and Motion Picture	34	86	46
Sound Engineering Technicians	13	107	58
Film and Video Editors	10	84	45
Broadcast Technicians	7	96	52
Radio and Television Announcers	3	98	53
Total	173	89	50

Source: Burning Glass – Labor Insights

Exhibit 4 displays the employers posting the most job ads for the radio and television occupational group during the last 12 months in the Inland Empire/Desert Region.

Exhibit 4: Employers posting the most job ads for the radio and television occupational group, Apr 2018 – Mar 2019

Occupation	Employers
Audio and Video Equipment Technicians (n=57)	<ul style="list-style-type: none"> PSAV Presentation Services Live Nation
Producers and Directors (n=41)	<ul style="list-style-type: none"> Media Zoo Live Nation
Camera Operators, Television, Video, and Motion Picture (n=25)	<ul style="list-style-type: none"> California State University, San Bernardino Live Nation
Sound Engineering Technicians (n=10)	<ul style="list-style-type: none"> Live Nation City of Rancho Cucamonga
Film and Video Editors (n=7)	<ul style="list-style-type: none"> Archaius Creative Pechanga Resort & Casino
Broadcast Technicians (n=5)	<ul style="list-style-type: none"> Entercom Communications Turner Broadcasting System
Radio and Television Announcers (n=3)	<ul style="list-style-type: none"> Entercom Communications

Source: Burning Glass – Labor Insights

Exhibit 5 displays a sample of specialized, employability, and software and programming skills that employers are seeking when looking for workers to fill positions in the radio and television occupational group. Specialized skills are occupation-specific skills that employers are requesting for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is commonly referred to as “soft skills.” The skills requested in job postings may be utilized as a helpful guide for curriculum development. There were too few postings for broadcast technicians and radio and television announcers to yield reliable skills information.

Exhibit 5: Sample of in-demand skills from employer job ads for the radio and television occupational group, Apr 2018 – Mar 2019

Occupation	Specialized Skills	Employability Skills	Software and Programming Skills
Audio and Video Equipment Technicians (n=56)	<ul style="list-style-type: none"> • Repair • Audio Engineering • Customer Service 	<ul style="list-style-type: none"> • Communication Skills • Troubleshooting • Planning 	<ul style="list-style-type: none"> • Microsoft Office • Audio Mixing
Producers and Directors (n=39)	<ul style="list-style-type: none"> • Budgeting • Journalism • Video Editing 	<ul style="list-style-type: none"> • Creativity • Editing • Writing 	<ul style="list-style-type: none"> • Adobe Creative Suite* • Autodesk Maya • Final Cut Pro
Camera Operators, Television, Video, and Motion Picture (n=32)	<ul style="list-style-type: none"> • Digital Video • Creative Direction • Quality Management 	<ul style="list-style-type: none"> • Creativity • Editing • Research 	<ul style="list-style-type: none"> • Adobe Creative Suite*
Sound Engineering Technicians (n=7)	<ul style="list-style-type: none"> • Repair • Audio Systems • Production Management 	<ul style="list-style-type: none"> • Building Effective Relationships • Physical Abilities • Communication Skills 	<ul style="list-style-type: none"> • Audio Mixing
Film and Video Editors (n=9)	<ul style="list-style-type: none"> • Videography • Post Production • Scheduling 	<ul style="list-style-type: none"> • Creativity • Teamwork/ Collaboration • Detail-Oriented 	<ul style="list-style-type: none"> • Adobe Creative Suite* • Final Cut Pro
Broadcast Technicians (n=3)	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
Radio and Television Announcers (n=1)	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

Source: Burning Glass – Labor Insights

*Adobe Creative Suite contains Adobe Photoshop, InDesign, Illustrator, Acrobat, as well as others and is widely considered to be the industry standard for graphic design.

Exhibit 6 displays the work experience and entry-level education typically required to enter each occupation according to the Bureau of Labor Statistics (BLS), educational attainment for incumbent workers with “some college, no degree” and an “associate degree” according to the U.S. Census (2016-17), and the minimum advertised education requirement from employer job ads. There were too few postings for broadcast technicians and radio and television announcers to yield reliable education information.

Exhibit 6: Work experience, typical entry-level education, educational attainment, and minimum advertised education requirements for the radio and television occupational group, Apr 2018 – Mar 2019

Occupation	Work Experience Required	Typical Entry-Level Education Requirement	Educational Attainment*	Minimum Advertised Education Requirement from Job Ads			
				Number of Job Ads (n=)	High school diploma or vocational training	Associate degree	Bachelor's degree or higher
Audio and Video Equipment Technicians	None	Postsecondary nondegree award	44%	43	88%	-	12%
Producers and Directors	Less than 5 years	Bachelor's degree	18%	24	13%	4%	83%
Camera Operators, Television, Video, and Motion Picture	None	Bachelor's degree	24%	20	35%	-	65%
Sound Engineering Technicians	None	Postsecondary nondegree award	44%	5	80%	-	20%
Film and Video Editors	None	Bachelor's degree	24%	5	80%	-	20%
Broadcast Technicians	None	Associate degree	44%	4	N/A	N/A	N/A
Radio and Television Announcers	None	Bachelor's degree	36%	3	N/A	N/A	N/A

Source: EMSI 2018.4, Burning Glass – Labor Insights

*Percentage of incumbent workers with a Community College Credential or Some Postsecondary Coursework

Student Completions and Program Outcomes

This section contains completion and outcome data for the California Community College radio and television (TOP 0604.00) and television (including combined TV/film/video) (TOP 0604.20) programs. Exhibits 7 & 9 display the average annual regional California Community College (CCC) credentials conferred during the three academic years between 2014 and 2017, from the California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, along with the headcount from the most recent year available on LaunchBoard. Credentials are the combined total of associate degrees and certificates issued during the timeframe, divided by three in this case in order to calculate an annual average. This is done to minimize the effect of atypical variation that might be present in a single year. Headcount is the unduplicated number of students who enrolled in one or more courses in the program. The relevant TOP code is from the Taxonomy of Programs manual, and the corresponding program titles used at each college (in *italics*) is sourced from the Chancellor's Office Curriculum Inventory (COCI). Please note, a credential is not always equal to a single person in search of a job opening since a student may earn more than one credential, such as an associate degree in addition to a certificate.

Community college student outcome information is from LaunchBoard and based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor's Office Management Information Systems (MIS) by community colleges, which comes from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from records provided by California's Employment Development Department's Unemployment Insurance database. When available, outcomes for completers are reported in order to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included for each metric, please see the web link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2019a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2017). Data from the latest academic year for each metric is provided in Exhibits 8 & 10.

Program descriptions are sourced from the California Community Colleges Taxonomy of Programs. Descriptions for the programs included in this report are the following:

Radio and Television (TOP 0604.00): History, theories, principles, techniques, functions, technologies, and creative processes of radio and television (including combined television/film/video programs) in reaching mass audiences.

Exhibit 7: Annual average community college credentials and headcount for the radio and television program in the Inland Empire/Desert Region

0604.00 – Radio and Television	CCC Headcount, Academic Year 2016-17	CCC Annual Average Credentials, Academic Years 2014-17
Chaffey – Broadcasting and Cinema	71	
Associate Degree		13
Certificate 18 to < 30 semester units		1*
Desert – Basic Radio Production	385	
Mt. San Jacinto	-	
San Bernardino - RTVF	210	
Associate Degree		7
Certificate 18 to < 30 semester units		1
Total CCC Headcount, Academic Year 2016-17	667	
Total Annual Average CCC Credentials, Academic Years 2014-17		22

Source: LaunchBoard, MIS Data Mart, COCI

*Chaffey award 1 18 to < 30-semester unit certificate in 2014-15.

Exhibit 8: Radio and television strong workforce program outcomes

Strong Workforce Program Metrics: 0604.00 – Radio and Television Academic Year 2015-16, unless noted otherwise	Inland Empire/Desert Region	California Median
Course enrollments (2016-17)	869	239
Completed 12+ units in one year (2016-17)	101	32
Economically disadvantaged students* (2016-17)	75%	68%
Transferred to a four-year institution	40	23
Employed in the fourth fiscal quarter after exit (all exiters)	66%	71%
Median annual earnings* (all exiters)	\$17,000	\$17,529
Job closely related to the field of study (2014-15)	N/A	43%
Median change in earnings (all exiters)	84%	64%
Attained a living wage (completers and skills-builders)	N/A	34%

Source: LaunchBoard

*Data for these metrics is available in Community College Pipeline. All others are available in Strong Program Workforce Metrics.

Television (including combined TV/film/video) (TOP 0604.20): History, theories, principles, techniques, functions, technologies and creative processes of television and video. Includes programs that combine television with film and/or video.

Exhibit 9: Annual average community college credentials and headcount for the television (including TV/film/video) program in the Inland Empire/Desert Region

0604.20 – Television (including TV/film/video)	CCC Headcount, Academic Year 2016-17	CCC Annual Average Credentials, Academic Years 2014-17
Chaffey – Television and Video Picture Production/ Film, Television, and Electronic Media/Screenwriting	120	
Certificate 6 to < 18 semester units		1*
Certificate 12 to < 18 semester units		9
Mt. San Jacinto – Film, Television, and Electronic Media	55	
Riverside – Film, Television, and Video: Basic Television Production/Film, Television, and Video: Production Specialist	514	
Associate Degree		3
Certificate 18 to < 30 semester units		6
Certificate 6 to < 18 semester units		1
Total CCC Headcount, Academic Year 2016-17	689	
Total Annual Average CCC Credentials, Academic Years 2014-17		19

Source: LaunchBoard, MIS Data Mart, COCI

Exhibit 10: Television (including combined TV/Film/Video) strong workforce program outcomes

Strong Workforce Program Metrics: 0604.20 – Television (including combined TV/film/video) Academic Year 2015-16, unless noted otherwise	Inland Empire/Desert Region	California Median
Course enrollments (2016-17)	1,110	163
Completed 12+ units in one year (2016-17)	109	35
Economically disadvantaged students* (2016-17)	73%	71%
Transferred to a four-year institution	50	25
Employed in the fourth fiscal quarter after exit (all exiters)	49%	59%
Median annual earnings* (all exiters)	\$14,092	\$15,931
Median change in earnings (all exiters)	29%	57%
Attained a living wage (completers and skills-builders)	N/A	42%

Source: LaunchBoard *Data for these metrics is available in Community College Pipeline. All others are available in Strong Program Workforce Metrics.

References

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Contact

Michael Goss, Director
Center of Excellence, Inland Empire/Desert Region
michael.goss@chaffey.edu
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Appendix: Occupation definitions, sample job titles, five-year projections for radio and television occupations

Occupation Definitions (SOC) code), Education and Training Requirement, Community College Educational Attainment

Producers and Directors (27-2012)

Produce or direct stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.

Sample job titles: Broadcast Producer, Casting Director, Film Maker, Independent Film Maker, Independent Video Producer, Motion Picture Director, Movie Producer, Music Video Director, Music Video Producer, News Production Supervisor, Newscast Director, Newscast Producer, On-Air Director, Pageant Director, Radio Producer, Radio Television Technical Director, Stage Manager, Television News Producer, Television Newscast Director, Television Producer, Television Program Director, Theater Company Producer, Video Producer

Entry-Level Educational Requirement: Bachelor's degree

Training Requirement: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 18%

Radio and Television Announcers (27-3011)

Speak or read from scripted materials, such as news reports or commercial messages, on radio or television. May announce artist or title of performance, identify station, or interview guests.

Sample job titles: Anchor, Announcer, DJ (Disc Jockey), Host, Meteorologist, Morning Show Host, News Anchor, Radio Announcer, Sports Director, Television News Anchor (TV News Anchor)

Entry-Level Educational Requirement: Bachelor's degree

Training Requirement: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 36%

Audio and Video Equipment 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.

Sample job titles: Audio Technician, Audio Visual Specialist, Audio Visual Technician, Master Control Operator (MCO), Media Specialist, Media Technician, Multimedia Educational Specialist, Operations Technician, Stagehand, Video Technician

Entry-Level Educational Requirement: Postsecondary nondegree award

Training Requirement: Less than one month of on-the-job training

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 44%

Broadcast Technicians (27-4012)

Set up, operate, and maintain the electronic equipment used to transmit radio and television programs. Control audio equipment to regulate volume level and quality of sound during radio and television broadcasts. Operate transmitter to broadcast radio or television programs.

Sample job titles: Audio Engineer, Board Operator, Broadcast Engineer, Broadcast Maintenance Engineer, Broadcast Operations Engineer, Broadcast Technician, Engineer, Master Control Operator (MCO), Master Control Supervisor, Production Assistant

Entry-Level Educational Requirement: Associate degree

Training Requirement: Less than one month of on-the-job training

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 44%

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.

Sample job titles: Audio Engineer, Audio Operator, Broadcast Engineer, Broadcast Technician, Master Control Operator, Mixer, Recording Engineer, Sound Engineer, Sound Technician, Studio Engineer

Entry-Level Educational Requirement: Postsecondary nondegree award

Training Requirement: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 44%



Camera Operators, Television, Video, and Motion Picture (27-4031)

Operate television, video, or motion picture camera to record images or scenes for various purposes, such as TV broadcasts, advertising, video production, or motion pictures.

Sample job titles: Camera Operator, Cameraman, Floor Director, Master Control Operator (MCO), Photojournalist, Production Assistant, Production Technician, Studio Camera Operator, Television News Photographer, Videographer

Entry-Level Educational Requirement: Bachelor's degree

Training Requirement: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 24%

Film and Video Editors (27-4032)

Edit moving images on film, video, or other media. May edit or synchronize soundtracks with images.

Sample job titles: Assistant Film Editor, Editor, Film Editor, News Editor, News Video Editor, News Videotape Editor, Non-Linear Editor, Online Editor, Video Editor, Videographer

Entry-Level Educational Requirement: Bachelor's degree

Training Requirement: None

Incumbent workers with a Community College Award or Some Postsecondary Coursework: 24%



Table 1: 2018 to 2023 job growth, wages, education, training, and work experience required for the radio and television occupational group, Inland Empire/Desert Region

Occupation (SOC)	2018 Jobs	5-Yr Change	5-Yr % Change	Annual Openings (New + Replacement Jobs)	Entry-Experienced Hourly Wage*	Median Hourly Wage*	Average Annual Earnings	Typical Entry-Level Education & On-The-Job Training Required	Work Experience Required
Audio and Video Equipment Technicians (27-4011)	863	65	8%	94	\$13.53 to \$19.13	\$15.65	\$35,800	Postsecondary nondegree award & less than 1 month	None
Producers and Directors (27-2012)	574	23	4%	56	\$19.64 to \$37.02	\$23.74	\$59,500	Bachelor's degree & none	Less than 5 years
Film and Video Editors (27-4032)	183	15	8%	21	\$24.85 to \$32.28	\$28.40	\$63,500	Bachelor's degree & none	None
Radio and Television Announcers (27-3011)	180	(22)	(12%)	16	\$15.65 to \$23.75	\$20.15	\$42,900	Bachelor's degree & none	None
Camera Operators, Television, Video, and Motion Picture (27-4031)	121	6	5%	13	\$18.87 to \$25.09	\$21.92	\$47,900	Bachelor's degree & none	None
Broadcast Technicians (27-4012)	116	(2)	(2%)	11	\$17.31 to \$33.31	\$20.53	\$55,900	Associate degree & less than 1 month	None
Sound Engineering Technicians (27-4014)	114	1	1%	11	\$24.88 to \$31.56	\$28.25	\$61,700	Postsecondary nondegree award & less than 1 month	None
Total	2,150	88	4%	221	-	-	-	-	-

Source: EMSI 2018.4

*Entry Hourly is 25th percentile wage, the median is 50th percentile wage, experienced is 75th percentile wage.