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Labor Market Analysis

Film, Television and Electronic Media



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Prepared by the Central Valley/Mother Lode Center of Excellence

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COVID-19 Statement: This report includes employment projection data by Lightcast. Lightcast’s projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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Summary

Please note the COVID-19 statement on page 2 when considering this report's findings.

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for Film, Television and Electronic Media. Four occupations related to Film, Television and Electronic Media were identified for Modesto Junior College:

- 27-2012, Producers and Directors
- 27-4011, Audio and Video Technicians
- 27-4031, Camera Operators, Television, Video, and Film
- 27-4032, Film and Video Editors

Key findings:

- **Occupational demand** — There was 416 workers employed in jobs related to Film, Television and Electronic Media in 2021 in the North Central Valley/Northern Mother Lode (NCV/NML) subregion. The largest occupation is producers and directors with 154 workers, a projected growth rate of 13% over the next five years, and 19 annual openings.
- **Wages** — Film and video editors earn the highest entry-level wage, \$22.11/hour in the subregion.
- **Employers** — Employers with the most job postings in the subregion are C&S Wholesale Grocers, California State University Stanislaus, and Ej Gallo Winery.
- **Occupational titles** — The most common occupational title in job postings in the subregion is Camera Operators, Television, Video, and Motion Picture. The most common job title is Audio Technician.
- **Skills and certifications** — The top baseline skill is communication skills, the top specialized skill is videography, and the top software skill is Microsoft Office. The most in-demand certification is a CDL Class A.
- **Education** — A postsecondary nondegree award is typically required for audio and video technicians. A bachelor's degree is typically required for producers and directors, camera operators, television, video, and film, and film and video editors.
- **Supply** — Analysis of postsecondary completions shows that on average 13 awards were conferred in the Central Valley/Mother Lode region each year.

Based on a comparison of occupational demand and supply, there is an undersupply of 36 trained workers in the subregion and 159 workers in the region. The Center of Excellence recommends that Modesto Junior College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Film, Television and Electronic Media workers in the region.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Modesto Junior College to provide labor market information for Film, Television and Electronic Media. The geographical focus for this report is the North Central Valley/Northern Mother Lode (NCV/NML) subregion, but regional demand and supply data has been included for broader applicability and use. The average living wage for a single adult in the NCV/NML subregion is \$12.65/hour.¹ Analysis of the program and occupational data related to Film, Television and Electronic Media resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 27-2012, Producers and Directors
- 27-4011, Audio and Video Technicians
- 27-4031, Camera Operators, Television, Video, and Film
- 27-4032, Film and Video Editors

The occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown below.

Producers and Directors

Job Description: Produce or direct stage, television, radio, video, or film 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.

Knowledge: Communications and Media, English Language, Administration and Management, Computers and Electronics, Telecommunications

Skills: Speaking, Active Listening, Critical Thinking, Coordination, Monitoring

Audio and Video Technicians

Job Description: Set up, maintain, and dismantle audio and video equipment, such as microphones, sound speakers, connecting wires and cables, sound and mixing boards, video cameras, video monitors and servers, and related electronic equipment for live or recorded events, such as concerts, meetings, conventions, presentations, podcasts, news conferences, and sporting events.

Knowledge: Computers and Electronics, Communications and Media English Language, Telecommunications, Fine Arts

Skills: Monitoring, Critical thinking, Operations Monitoring, Reading Comprehension, Complex Problem Solving

Camera Operators, Television, Video, and Film

Job Description: Operate television, video, or film camera to record images or scenes for television, video, or film productions.

Knowledge: English Language, Computers and Electronics, Communications and Media, Telecommunications

Skills: Active Listening, Coordination, Judgment and Decision Making, Reading Comprehension, Speaking

Film and Video Editors

Job Description: Edit moving images on film, video, or other media. May work with a producer or director to organize images for final production. May edit or synchronize soundtracks with images.

Knowledge: Communications and Media, English Language, Computers and Electronics, Telecommunications, Fine Arts

Skills: Active Listening, Critical Thinking, Reading Comprehension, Active Learning, Complex Problem Solving

¹ The term "living wage" in Center of Excellence reports is calculated by averaging the self-sufficiency wages from the Insight Center's California Family Needs Calculator for each county in the subregion: <https://insightccd.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

Occupational Demand

The NCV/NML subregion employed 416 workers in Film, Television and Electronic Media occupations in 2021 (Exhibit 1). The largest occupation is producers and directors with 154 workers. This occupation is projected to grow by 13% over the next five years and has the greatest number of projected annual openings, 19.

Exhibit 1. Film, Television and Electronic Media employment and occupational projections in the NCV/NML subregion

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Producers and Directors	154	174	20	13%	19
Audio and Video Technicians	153	164	11	8%	18
Camera Operators, Television, Video, and Film	57	56	(2)	(3%)	6
Film and Video Editors	52	55	3	5%	6
TOTAL	416	449	33	8%	49

Wages

Exhibit 2a shows the hourly wages of the Film, Television and Electronic Media occupations. Film and video editors earn the highest entry-level wage, \$22.11/hour in the subregion². Please note 10th and 25th percentiles are considered entry-level wages while 75th and 90th are considered experienced wages, either by gained by long term employment, received extra training, etc.

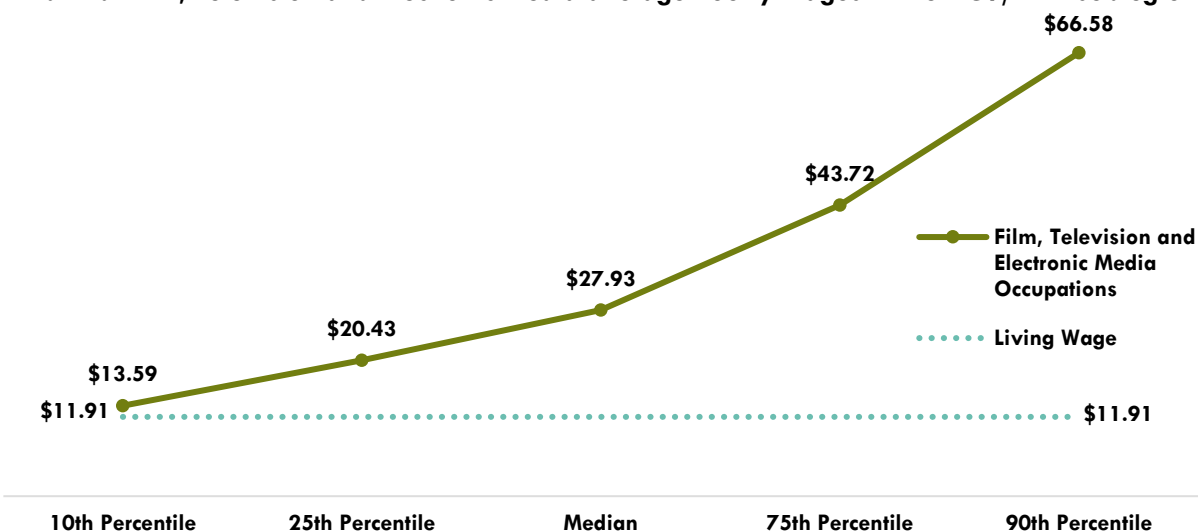
Exhibit 2a. Film, Television and Electronic Media hourly wages in the NCV/NML subregion

Occupation	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings
Film and Video Editors	\$22.11	\$34.13	\$54.56
Producers and Directors	\$21.46	\$34.65	\$56.84
Audio and Video Technicians	\$20.86	\$22.73	\$33.04
Camera Operators, Television, Video, and Film	\$17.29	\$20.21	\$30.45

Exhibit 2b shows the average hourly wages for Film, Television and Electronic Media occupations, the average entry-level wage exceeds the average living wage for the North Central Valley/Northern Mother Lode (NCV/NML) subregion.

² Entry-level wages are derived from the 25th percentile.

Exhibit 2b. Film, Television and Electronic Media average hourly wages in the NCV/NML subregion



Job Postings

There were 33 job postings for the four occupations in the NCV/NML subregion from March 2022 to August 2022.³ The employers with the most job postings are listed in Exhibit 3.

Exhibit 3. Top employers of Film, Television and Electronic Media by number of job postings

Employer	Job Postings	% Job Postings
C&S Wholesale Grocers	1	6%
California State University Stanislaus	1	6%
Ej Gallo Winery	1	6%
Freshbooks	1	6%
Gannett Company Incorporated	1	6%
Ignite Now Media	1	6%
Professional Auto Stereo & Security	1	6%
Safeway Incorporated	1	6%
San Joaquin County	1	6%
Skillshow Incorporated	1	6%

Exhibit 4 shows how job postings for the targeted occupations in the NCV/NML subregion are distributed across six O*NET OnLine occupations. The occupational title Camera Operators, Television, Video, and Motion Picture is listed in 12 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include Audio Technician in three job postings, Order Selection in three job postings, and Videographer in three job postings.

³ Other than occupation titles and job titles, the categories below can be counted one or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted in two different skill types, and an employer can indicate more than one education level.

Exhibit 4. Top occupational titles in job postings for Film, Television and Electronic Media

Occupational Title	Job Postings	% of Job Postings
Camera Operators, Television, Video, and Motion Picture	12	36%
Producers	9	27%
Audio and Video Equipment Technicians	5	15%
Talent Directors	4	12%
Program Directors	2	6%
Film and Video Editors	1	3%

Salaries

Exhibit 5 shows the “Market Salaries” for Film, Television and Electronic Media occupations. These are calculated by Burning Glass using a machine learning model built off of millions of job postings every year. This accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

Exhibit 5. Salaries for Film, Television and Electronic Media occupations

Market Salary Percentile	Salary Amount
10th Percentile	\$28,812
25th Percentile	\$32,714
50th Percentile	\$40,276
75th Percentile	\$50,168
90th Percentile	\$81,769

Education

Of the 33 job postings, 12 listed an education level preferred for the positions being filled. Among those, 58% requested a bachelor’s degree, 50% requested high school or vocational training, and 17% requested a doctoral degree (Exhibit 6). A job posting can indicate more than one education level. Hence, the percentages shown in the chart below may total more than 100%.

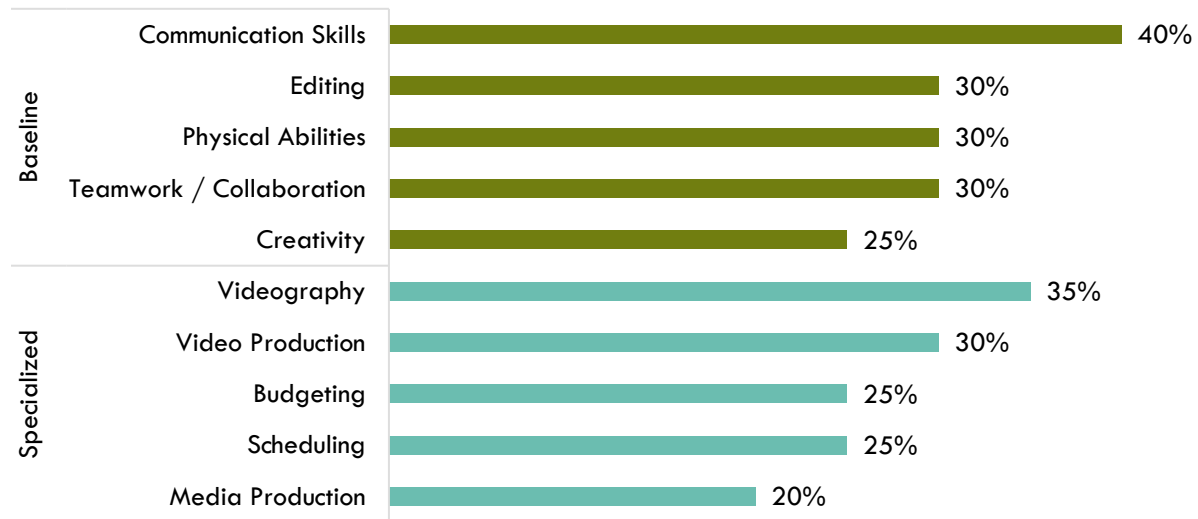
Exhibit 6. Education levels requested in job postings for Film, Television and Electronic Media

Education Level	Job Postings	% of Job Postings
Bachelor’s degree	7	58%
High school or vocational training	6	50%
Doctoral degree	2	17%
Master’s degree	1	8%

Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are communication skills, 40% of job postings, editing, 30%, and physical abilities, 30%. The top three specialized skills are videography, 35% of job postings, video production, 30%, and budgeting, 25%.

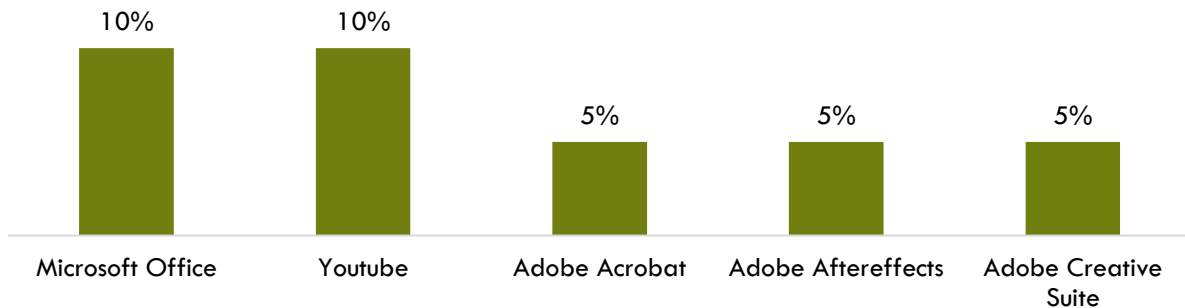
Exhibit 7. In-demand Film, Television and Electronic Media baseline and specialized skills



Software Skills

Analysis also included the software skills most in demand by employers. Microsoft Office and YouTube were the top two software skills identified in job postings (Exhibit 8).

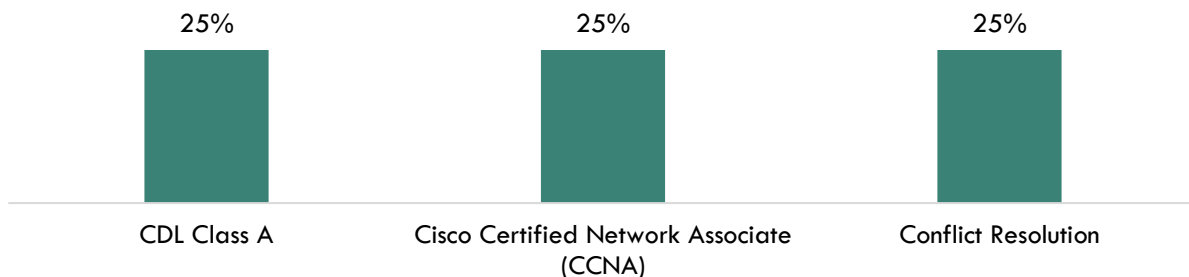
Exhibit 8. In-demand Film, Television and Electronic Media software skills



Certifications

Of the 33 job postings, 4 contained certification data. Among those, 25% indicated a need for a CDL Class A. The next top certifications are Cisco Certified Network Associate (CCNA) and conflict resolution (Exhibit 9). Please note 50% requested a driver' license, but it is not a certification. (Due to the low number of job postings with certifications listed, the chart below may not be representative of the full sample.)

Exhibit 9. Top Film, Television and Electronic Media certifications requested in job postings



Education, Work Experience & Training

A postsecondary nondegree award is typically required for audio and video technicians. A bachelor's degree is typically required for producers and directors, camera operators, television, video, and film, and film and video editors (Exhibit 10).

Exhibit 10. Education, work experience, training, and Current Population Survey results for Film, Television and Electronic Media occupations⁴

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Producers and Directors	Bachelor's degree	Less than 5 years	None	17.7%
Audio and Video Technicians	Postsecondary nondegree award	None	Short-term	36.9%
Camera Operators, Television, Video, and Film	Bachelor's degree	None	None	27.4%
Film and Video Editors	Bachelor's degree	None	None	27.4%

Supply

Analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) included the TOP codes and titles: 060400 - Radio and Television and 060420 - Television (including combined TV/Film/Video). Analysis of the last three years of data shows that, on average, 13 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

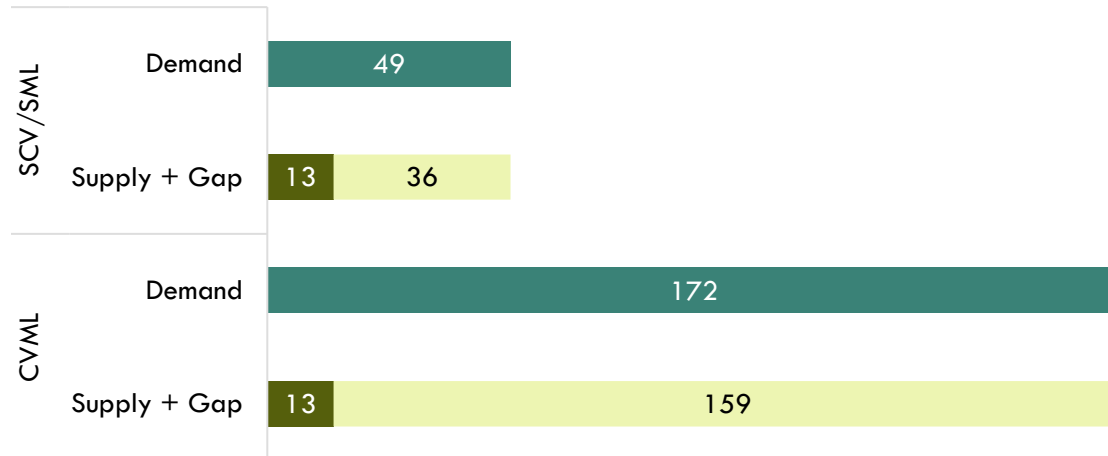
Exhibit 11. Postsecondary supply for Film, Television and Electronic Media occupations in the region

TOP/ CIP Code- Title	College	Associate Degree	Certificate 16 < 30 Semester Units	Certificate 30 < 60 Semester Units	Certificate 6 < 18 Semester Units	Subtotal
060400 - Radio and Television	San Joaquin Delta	10				10
060420 - Television (including combined TV/Film/Video)	Modesto Junior				0	0
	San Joaquin Delta		0	2		3
TOTAL		10	0	2	0	13

⁴ "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

There is an undersupply of 36 Film, Television and Electronic Media workers in the NCV/NML subregion and 159 workers in the region (Exhibit 12).

Exhibit 12. Film, Television and Electronic Media workforce demand (annual job openings), postsecondary supply of students (awards), and additional students needed to fill gap in the NCV/NML subregion and region



Student Outcomes

Exhibit 13 summarizes employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for the TOP code related to Film, Television and Electronic Media. Of note, 15 radio and television students received a degree or certificate or attained apprenticeship journey status; 11 students transferred; 31% had a median change in earnings; and 46% of students attained a living wage.

Exhibit 13. Regional metrics for the TOP code related to Film, Television and Electronic Media

Metric	Radio and Television	Television (including combined TV/Film/Video)
	060400	060420
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	15	*
Number of Students Who Transferred	11	*
Job Closely Related to Field of Study	*	*
Median Change in Earnings	31%	*
Attained a Living Wage	46%	*
* denotes data not available.		

Conclusion

The entry-level wages of the four occupations exceed the NCV/NML subregion's average living wage. There were 33 job postings in the past six months for occupations related to Film, Television and Electronic Media in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication skills, and the top specialized skill is videography.
- The top software skill is Microsoft Office.
- The top certification is a CDL Class A.

There is an undersupply of trained workers, a shortage of 36 in the NCV/NML subregion and 159 in the region.

Recommendation

Based on these findings, it is recommended that Modesto Junior College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Film, Television and Electronic Media workers in the region.

Appendix A: Methodology & Data Sources

Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor’s Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

Data Type	Source
Labor Market Information/Population Estimates and Projections/Educational Attainment	Economic Modeling Specialists, Intl. (LIGHTCAST). LIGHTCAST occupational employment data are based on final LIGHTCAST industry data and final LIGHTCAST 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 LIGHTCAST earnings by industry: economicmodeling.com.
Typical Education Level and On-the-job Training	Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: https://www.bls.gov/emp/tables/educational-attainment.htm .
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov .
Job Posting and Skills Data	Burning Glass: burning-glass.com/ .
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: ononline.org .

Key Terms and Concepts

Annual Job Openings: Annual openings are calculated by dividing the number of years in the projection period by total job openings.

Education Attainment Level: The highest education attainment level of workers age 25 years or older.

Employment Estimate: The total number of workers currently employed.

Employment Projections: Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (LIGHTCAST) formula that includes historical employment and economic indicators along with national, state and local trends.

Living Wage: The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

Occupation: An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

Percent Change: Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

Replacements: Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

Total Job Openings (New + Replacements): Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

Typical Education Requirement: represents the typical education level most workers need to enter an occupation.

Typical On-The-Job Training: indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.