

December 2020

Labor Market Analysis

Technical and Communications Writers



Prepared by the Central Valley/Mother Lode Center of Excellence

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COVID-19 Statement: This report includes employment projection data by EMSI. EMSI’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.

If for any reason this document is not accessible or if you have specific needs for readability, please contact us and we will do our utmost to accommodate you with a modified version. To make a request, contact Nora Seronello by phone at (209) 575-6894 or by email seronellon@mjc.edu.

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 technical and communications writers. Six occupations related to technical and communications writers were identified for Taft College: 15-1299, Computer Occupations, All Other; 27-3043, Writers and Authors; 27-3041, Editors; 27-3023, News Analysts, Reporters, and Journalists; 27-3042, Technical Writers; and 43-9081, Proofreaders and Copy Markers.

Key findings:

- **Occupational demand** — Nearly 3,500 workers were employed in jobs related to technical and communications writers in 2019 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is computer occupations, all other with 2,068 workers in 2019, a projected growth rate of 3% over the next five years, and 181 annual openings.
- **Wages** — Technical writers earn the highest entry-level wages, \$26.20/hour in the subregion and \$26.87/hour in the region. The regional entry-level wage of writers and authors is just barely above the region's living wage.
- **Employers** — Employers with the most job postings in the subregion are Anthem Blue Cross, Amazon, and Northrop Grumman.
- **Occupational titles** — The most common occupational title in job postings in the subregion is information technology project managers. The most common job title is data analyst.
- **Skills and certifications** — The top baseline skill is communication, the top specialized skill is SQL, and the top software skill is Microsoft Excel. The most in-demand certification is a driver's license.
- **Education** — All six occupations typically require a bachelor's degree as entry-level education, with three occupations also requiring some form of on-the-job training.
- **Supply** — Analysis of postsecondary completions in the region shows that on average 28 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 278 trained workers in the subregion and 421 workers in the region. The Center of Excellence recommends that Taft College work with the ICT/DM Regional Director, the college's advisory board, and local industry in the development of programs to address the shortage of technical and communications writers workers in the region.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Taft College to provide labor market information for technical and communications writers. The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) 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 South Central Valley/Southern Mother Lode (SCV/SML) subregion is \$10.30/hour.¹

Analysis of the program and occupational data related to technical and communications writers resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 15-1299, Computer Occupations, All Other
- 27-3043, Writers and Authors
- 27-3041, Editors
- 27-3023, News Analysts, Reporters, and Journalists
- 27-3042, Technical Writers
- 43-9081, Proofreaders and Copy Markers

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. O*NET data was not available computer occupations, all other; and writers and authors.

Editors

Job Description: Plan, coordinate, or edit content of material for publication. May review proposals and drafts for possible publication. Includes technical editors.

Knowledge: English Language, Communications and Media, Administration and Management, Clerical, Education and Training

Skills: Reading Comprehension, Writing, Active Listening, Critical Thinking, Speaking

News Analysts, Reporters, and Journalists

Job Description: Narrate or write news stories, reviews, or commentary for print, broadcast, or other communications media such as newspapers, magazines, radio, or television. May collect and analyze information through interview, investigation, or observation.

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

Skills: Active Listening, Reading Comprehension, Speaking, Writing, Critical Thinking

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/>.

Technical Writers

Job Description: Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.

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

Skills: Writing, Reading Comprehension, Active Listening, Speaking, Critical Thinking

Proofreaders and Copy Markers

Job Description: Read transcript or proof type setup to detect and mark for correction any grammatical, typographical, or compositional errors. Includes proofreaders of Braille.

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

Skills: Reading Comprehension, Writing, Speaking, Active Listening, Critical Thinking

Occupational Demand

The South Central Valley/Southern Mother Lode subregion employed 3,455 workers in technical and communications writers occupations in 2019 (Exhibit 1). The largest occupation is computer occupations, all other with 2,068 workers in 2019. This occupation is projected to grow by 3% over the next five years and has the greatest number of projected annual openings, 181.

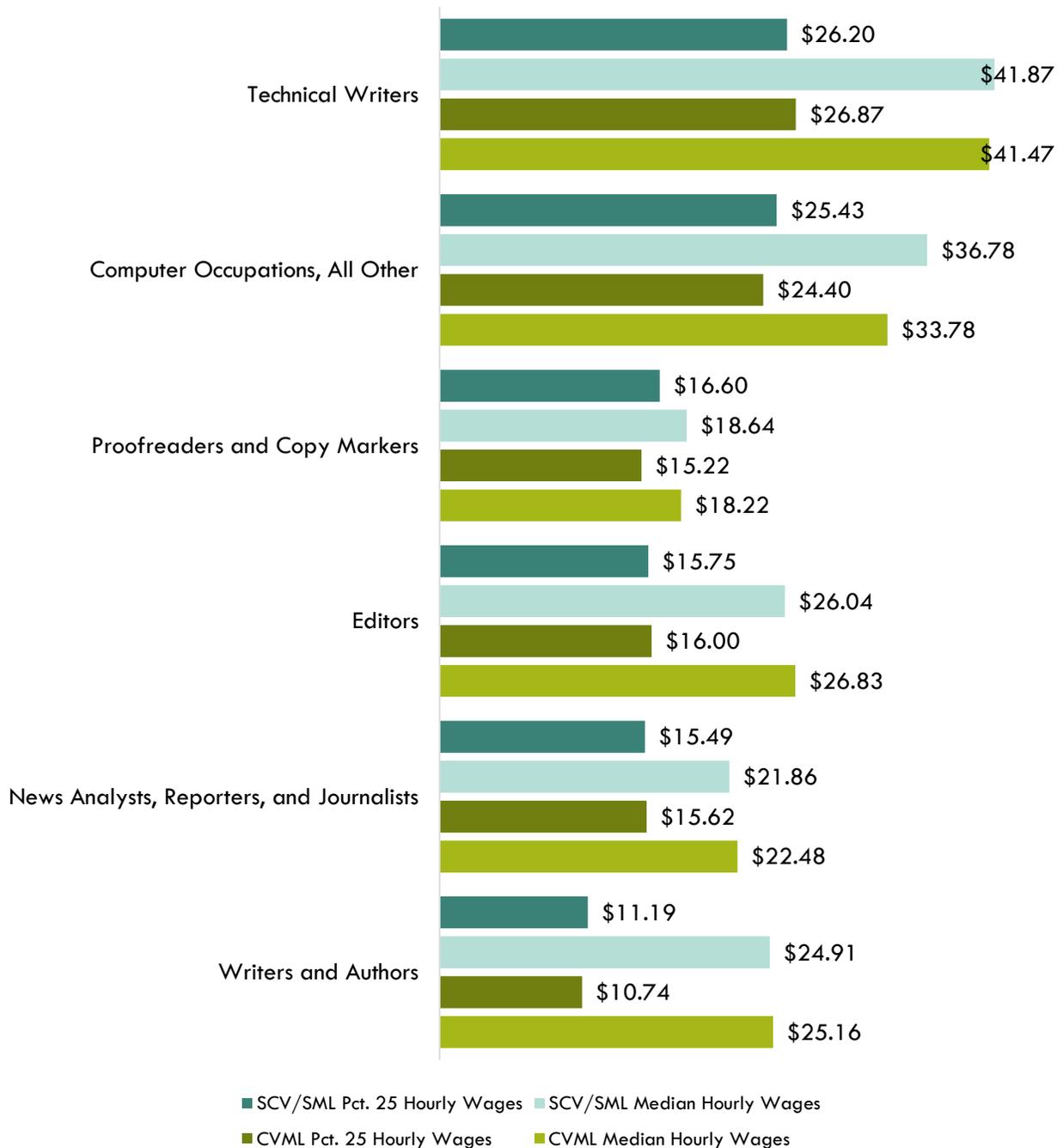
Exhibit 1. Technical and communications writers employment and occupational projections in the SCV/SML subregion

Occupation	2019 Jobs	2024 Jobs	5-Year Change	5-Year % Change	Annual Openings
Computer Occupations, All Other	2,068	2,141	72	3%	1,088
Writers and Authors	583	613	29	5%	414
Editors	336	332	(4)	(1%)	229
News Analysts, Reporters, and Journalists	286	264	(22)	(8%)	190
Technical Writers	129	134	5	4%	84
Proofreaders and Copy Markers	53	54	1	2%	46
TOTAL	3,455	3,537	82	2%	2,052

Wages

Exhibit 2 compares the entry-level and experienced wages of the technical and communications writers occupations. Technical writers earn the highest entry-level wages, \$26.20/hour in the subregion and \$26.87/hour in the region. The regional entry-level wage of writers and authors is just barely above the region's living wage.

Exhibit 2. Entry-level and experienced wage comparison in the SCV/SML subregion and region



Job Postings

There were 988 job postings for the six occupations in the SCV/SML subregion from May to October 2020.² The employers with the most job postings are listed in Exhibit 3.

Exhibit 3. Top employers of technical and communications writers by number of job postings

Employer	Job Postings	% Job Postings
Anthem Blue Cross	118	56%
Amazon	15	7%
Northrop Grumman	15	7%
The Save Mart Companies	15	7%
American Consumer Panels	14	7%
Dcs Corporation	14	7%
Tribune Company	14	7%
Humana	13	6%
Save Mart Supermarkets	10	5%
The Boeing Company	10	5%

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across 10 O*NET OnLine occupations. The occupational title information technology project managers is listed in 202 job postings. Note how a higher proportion of job postings are for this occupational title and for computer systems engineers/architects. Common job titles in postings include data analyst in 15 job postings, systems engineer in 15 job postings, and in-home usage tester in 13 job postings.

Exhibit 4. Top occupational titles in job postings for technical and communications writers

Occupational Title	Job Postings	% of Job Postings
Information Technology Project Managers	202	84%
Computer Systems Engineers/Architects	197	82%
Business Intelligence Analysts	161	67%
Software Quality Assurance Engineers and Testers	75	31%
Reporters and Correspondents	67	28%
Document Management Specialists	65	27%
Database Architects	60	25%
Geospatial Information Scientists and Technologists	48	20%
Data Warehousing Specialists	25	10%
Technical Writers	21	9%

Salaries

Exhibit 5 shows the “Market Salaries” for technical and communications writers occupations that are calculated by Burning Glass which uses a machine learning model built off of millions of job postings every

² 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.

year, and accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

Exhibit 5. Salaries for technical and communications writers

Market Salary Percentile	Salary Amount
10th Percentile	\$35,458
25th Percentile	\$49,399
50th Percentile	\$73,600
75th Percentile	\$98,373
90th Percentile	\$118,527

Education

Of the 988 job postings, 164 listed an education level preferred for the positions being filled. Of those, 329% requested a bachelor’s degree, 84% requested high school or vocational training, and 77% requested a master’s degree (Exhibit 6). A job posting can indicate more than one education level. Hence, the percentages shown in the chart below total more than 100%.

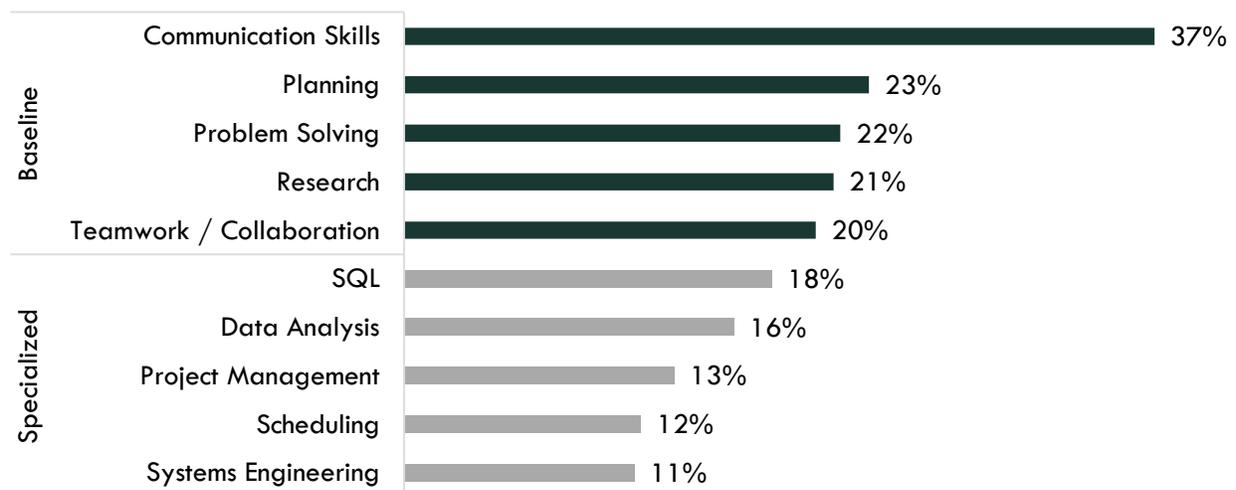
Exhibit 6. Education levels requested in job postings for technical and communications writers

Education level	Job Postings	% of Job Postings
Bachelor's degree	539	329%
High school or vocational training	138	84%
Master's degree	127	77%
Associate degree	51	31%

Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The top three baseline skills are communication, 37% of job postings, planning, 23%, and problem solving, 22%. The top three specialized skills are SQL, 18% of job postings, data analysis, 16%, and project management, 13%.

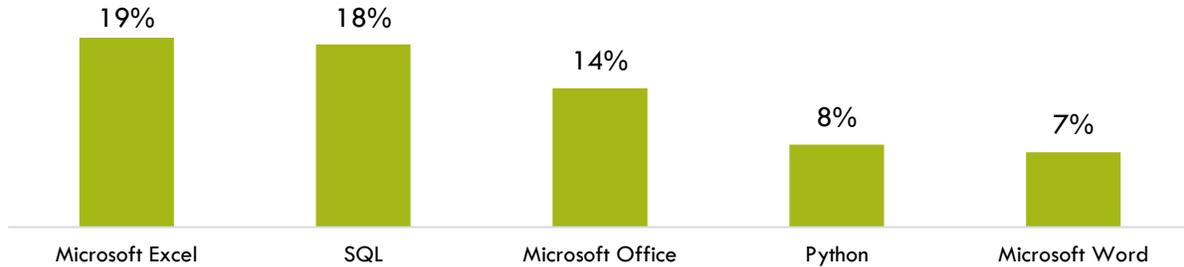
Exhibit 7. In-demand technical and communications writers baseline and specialized skills



Software Skills

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

Exhibit 8. In-demand technical and communications writers software skills



Certifications

Of the 988 job postings, 235 contained certification data. Among those, 37% indicated a need for a driver's license. The next top certifications are security clearance and typing certification (Exhibit 9). (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 technical and communications writers certifications requested in job postings



Education, Work Experience & Training

All six occupations typically require a bachelor's degree as entry-level education, with three occupations also requiring some form of on-the-job training (Exhibit 10).

Exhibit 10. Education, work experience, training, Current Population Survey, and Bureau of Labor Statistics results for technical and communications writers occupations³

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS	BLS
Computer Occupations, All Other	Bachelor's degree	None	Moderate-term	34.7%	36.0%
Writers and Authors	Bachelor's degree	None	Long-term	13.5%	45.0%

³ "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS	BLS
Editors	Bachelor's degree	Less than 5 years	None	12.3%	0.0%
News Analysts, Reporters, and Journalists	Bachelor's degree	None	None	11.8%	
Technical Writers	Bachelor's degree	Less than 5 years	Short-term	16.4%	51.0%
Proofreaders and Copy Markers	Bachelor's degree	None	None	28.1%	35.0%

Supply

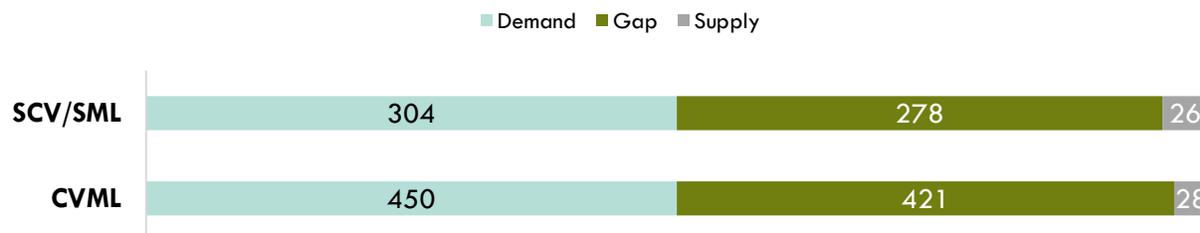
Analysis of program data from the California Community Colleges Chancellor's Office Data Mart included the TOP code: 060200-Journalism. Analysis of the last three years of TOP code data shows that, on average, 28 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

Exhibit 11. Postsecondary supply for technical and communications writers occupations in the region

TOP Code - Title	Colleges	Associate Degree	Associate for Transfer Degree	Subtotal
060200 - Journalism	Bakersfield	0	8	9
	Fresno City		11	11
	San Joaquin Delta		2	2
	Sequoias	0	5	5
	Taft	1		1
TOTAL		1	27	28

There is an undersupply of 278 technical and communications writers workers in the SCV/SML subregion and 421 workers in the region (Exhibit 12).

Exhibit 12. Technical and communications writers workforce annual demand and supply in the SCV/SML 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 technical and communications writers. There were 29 journalism students who received a degree, certificate or attained apprenticeship journey status, and 99 transferred. Half of students reported attaining a job closely related to their field of study, and 45% attained a living wage.

Exhibit 13. Regional metrics for the TOP code related to technical and communications writers

Metric	Journalism 060200
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	29
Number of Students Who Transferred	99
Job Closely Related to Field of Study	50%
Median Change in Earnings	34%
Attained a Living Wage	45%
* denotes data not available.	

Conclusion

The entry-level wages of the six occupations exceed the SCV/SML subregion’s average living wage. There were 988 job postings in the past six months for occupations related to technical and communications writers in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication, and the top specialized skill is SQL.
- The top software skill is Microsoft Excel.
- The top certification is a driver’s license.

There is an undersupply of trained workers, a shortage of 278 in the SCV/SML subregion and 421 in the region.

Recommendation

Based on these findings, it is recommended that Taft College work with the ICT/DM Regional Director, the college’s advisory board, and local industry in the development of programs to address the shortage of technical and communications writers 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. (EMSI). EMSI occupational 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: 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: onetonline.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. (EMSI) 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.