**Program Recommendation**

This report was compiled by the Los Angeles/Orange County Center of Excellence (COE) to provide regional labor market data for the program recommendation of library technology. This report intends to determine whether there is demand in the local labor market that is not being met by the supply from programs of study.

Based on the data, the COE has determined there is an unmet need for the library technology program in Los Angeles County. Reasons include:

- Library technicians and assistants are forecasted to increase by 8% over the next five years
- On average, only 23 awards (associate degrees and certificates) are conferred each year
- Library technicians typically require a postsecondary award, and 38% of library assistants have completed some postsecondary coursework, signaling relevance for community college students

**Occupation Codes and Descriptions**

Currently, there are two occupations in the standard occupational classification (SOC) system related to the study of library technology. The occupation titles and descriptions, as well as reported job titles are included in Exhibit 1.

**Exhibit 1 – Occupations, description, and sample job titles**

| SOC Code | Title | Description | Sample of Reported Job Titles |
|---|---|---|---|
| 25-4031 | Library Technicians | Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; and by answering questions that require only brief consultation of standard reference. Compile records; sort and shelve books or other media; remove or repair damaged books or other media; register patrons; and check materials in and out of the circulation process. Replace materials in shelving area (stacks) or files. Includes bookmobile drivers who assist with providing services in mobile libraries. | Circulation Clerk, Library Aide, Library Assistant, Library Associate, Library Clerk, Library Media Technician, Library Specialist, Library Technical Assistant (LTA), Library Technician, Page Technician |

| 43-4121 | Library Assistants, Clerical | Compile records, sort, shelve, issue, and receive library materials such as books, electronic media, pictures, cards, slides and microfilm. Locate library materials for loan and replace material in shelving area, stacks, or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials. | Acquisitions Assistant, Cataloging Assistant, Circulation Supervisor, Library Aide, Library Assistant, Library Circulation Assistant, Library Clerical Assistant, Library Clerk, Library Services Assistant, Library Technical Assistant |

Source: O*NET Online

## Current and Future Employment

In Los Angeles County, the number of library technician and assistant jobs is expected to increase by 8% over the next five years. More than 1,000 job opportunities will be available annually for this group of occupations through 2022 due to new job growth and replacement need (e.g., retirements). Exhibit 2 contains detailed employment projections data for this occupation group.

**Exhibit 2 – Five-year projections for library technicians and assistants in Los Angeles County**

| SOC | Occupation | 2017 Jobs | 2022 Jobs | 2017 – 2022 Change | 2017 – 2022 % Change | Annual Openings |
|---|---|---|---|---|---|---|
| 43-4121 | Library Assistants, Clerical | 3,987 | 4,261 | 274 | 7% | 631 |
| 25-4031 | Library Technicians | 3,275 | 3,547 | 272 | 8% | 497 |
| | | 7,262 | 7,808 | 546 | 8% | 1,128 |

Source: Economic Modeling Specialists International (EMSI)

## Earnings

In Los Angeles County, the entry-level average wage for library technicians and assistants ranges from $10.33 to $11.79 per hour, both of which are below the MIT Living Wage[1] estimate of $13.54 per hour for a single adult. The average annual earnings for this occupation group in the region range from $31,221 to $42,515 per year, assuming full-time employment.

Exhibit 3 contains hourly wages and annual average earnings for library technicians and assistants. Entry-level hourly earnings is represented by the 10th percentile of wages, median hourly earnings is represented by the 50th percentile of wages, and experienced hourly earnings is represented by the 90th percentile of wages, demonstrating various levels of employment.

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[1] MIT Living Wage Calculator. http://livingwage.mit.edu/

**Exhibit 3 – Earnings for library technicians and assistants in Los Angeles County, 2017-2022**

| SOC | Occupation | Entry-Level Hourly Earnings | Median Hourly Earnings | Experienced Hourly Earnings | Average Annual Earnings |
|---|---|---|---|---|---|
| 25-4031 | Library Technicians | $11.79 | $20.69 | $28.82 | $42,515 |
| 43-4121 | Library Assistants, Clerical | $10.33 | $13.46 | $23.00 | $31,221 |

Source: Economic Modeling Specialists International (EMSI)

**Employer Job Postings**

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is employing library technicians and assistants, and what they are looking for in potential candidates. To identify job postings, the following standard occupational classification (SOC) codes were used: library technicians (25-4031) and library assistants, clerical (43-4121).

*Top Occupations*

In 2017, there were 131 employer postings in Los Angeles County for occupations related to library technology. Nearly two-thirds of the job postings (66%) were for library assistants, clerical (86 job postings). There were 139 job postings for the same occupations in 2016, and 167 job postings in 2015.

**Exhibit 4 – Top occupations in job postings (n=131)**

| SOC Code | Occupation | Job Postings, Full Year 2017 |
|---|---|---|
| 43-4121 | Library Assistants, Clerical | 86 |
| 25-4031 | Library Technicians | 45 |

Source: Labor Insight/Jobs (Burning Glass)

*Top Titles*

The top job titles for employers posting ads for library technicians and assistants are listed in exhibit 5. Library assistant was mentioned in 44% of all relevant job postings (58 postings).

**Exhibit 5 –Job titles (n=131)**

| Title | Job Postings, Full Year 2017 |
|---|:---:|
| Library Assistant | 58 |
| Library Media Technician | 16 |
| Library Technician | 14 |
| Library Aide | 9 |
| Library Clerk | 4 |

Source: Labor Insight/Jobs (Burning Glass)

*Top Employers*

Exhibit 6 lists the major employers hiring professionals in the field of library technology. Top employers postings job ads included the California State Universities, City of El Segundo, and the University of La Verne. The top worksite cities in the region for these occupations were Los Angeles, Culver City, El Segundo, Torrance, and Whittier.

**Exhibit 6 – Top employers (n=109)**

| Employer | Job Postings, Full Year 2017 |
|---|:---:|
| California State University | 6 |
| City of El Segundo | 5 |
| University of La Verne | 5 |
| Baldwin Park Unified | 4 |
| Beverly Hills Unified | 4 |
| El Camino College | 4 |

Source: Labor Insight/Jobs (Burning Glass)

*Advertised Education Levels*

Exhibit 7 displays the education level requested by employers in online job ads. The majority of employers were looking for a candidate with a high school degree or vocational training. Approximately 39% of job postings did not specify a level of education.

**Exhibit 7 – Advertised education requirements for library technicians and assistants (n=80)**
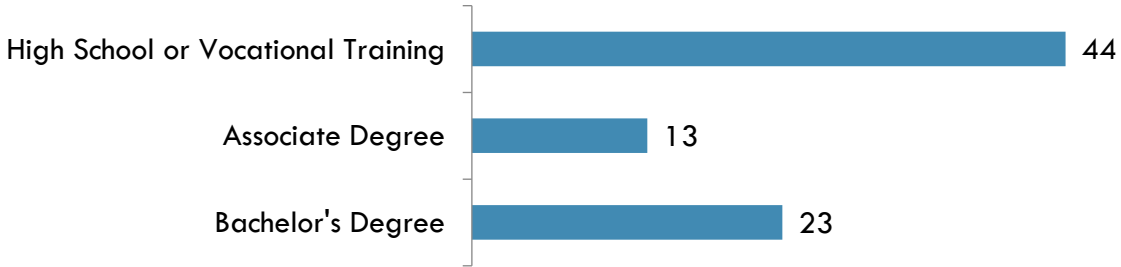


Source: Labor Insight/Jobs (Burning Glass)

**Education and Training**

Exhibit 8 shows the typical entry-level education requirement for the occupations of interest, along with the typical on-the-job training, and percentage of workers in the field who hold a community college award or have completed some postsecondary courses. Approximately 26% of library technicians and 38% of library assistants have completed some community college education as their highest level of education.

**Exhibit 8 – Education and training requirements**

| SOC | Occupation | Typical entry-level education | Typical on-the-job training | % of Community College Award Holders or Some Postsecondary Coursework |
|-----|-----------|-------------------------------|----------------------------|----------------------------------------------------------------------|
| 25-4031 | Library Technicians | Postsecondary nondegree award | None | 26% |
| 43-4121 | Library Assistants, Clerical | High school diploma or equivalent | Short-term on-the-job training | 38% |

Source: Economic Modeling Specialists International, Bureau of Labor Statistics Employment Projections (Educational Attainment)

In Los Angeles County, two community colleges have conferred awards in programs that train students for library technology. Between 2013 and 2016, there was an average of 23 community college awards conferred annually across one program: Library Technician (Aide) (TOP Code: 1602.00). It is important to note that an award is not equivalent to a single person in search of a job opening, since a student may earn more than one award (e.g. an associate degree and a certificate).

**Exhibit 9 – CCC Student Awards (by TOP and College)**

| TOP Code | Program | College | 2013-2014 Awards | 2014-2015 Awards | 2015-2016 Awards | 3-Year Award Average |
|---|---|---|---|---|---|---|
| 1602.00 | Library Technician (Aide) | Long Beach | 13 | 2 | 6 | 7 |
| | | Pasadena | 19 | 20 | 18 | 16 |
| | | | **32** | **22** | **24** | **23** |

Source: California Community Colleges Chancellor's Office MIS Data Mart

## Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from exiters of the Library Technician (Aide) program (TOP Code: 1602.00) in Los Angeles County for the 2015-16 academic year.

- The median annual wage after program completion is $14,431
- 45% of students are earning a living wage
- 87% of students are employed within six months after completing a program

Source: CTE LaunchBoard

## Sources

O*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), MIT Living Wage Calculator, Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard, Statewide CTE Outcomes Survey, Employment Development Department Unemployment Insurance Dataset

**Notes**

Data included in this analysis represents the labor market demand for positions most closely related to library technology. Standard occupational classification (SOC) codes were chosen based on the national education level required for employment (associate degree and postsecondary certificate) as well as the proportion of current workers who hold a community college award or have had some community college training. This selection process narrows the labor market analysis to the most relevant employment opportunities for students with community college education and/or training.

Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and should not be used to establish current job openings, because the numbers may include duplicate job postings or postings intended to gather a pool of applicants. Real-time labor market information can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions.