



Labor Market Analysis for Program Recommendation Certificate of Achievement: AI Empowered Instruction Occupations Foothill College

Prepared by the Bay Region Center of Excellence for Labor Market Research

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Recommendation

Based on all available data, there appears to be an “undersupply” of Certificate of Achievement: AI Empowered Instruction workers compared to the demand for this cluster of occupations in the Bay Region and in the Silicon Valley Sub-Region (Santa Clara County). There is a projected annual gap of about 2,878 students in the Bay Region and 722 students in the Silicon Valley Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0860.00 - Educational Technology programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Foothill College and in the region.

This report profiles Certificate of Achievement: AI Empowered Instruction Occupations in the 12 county Bay Region and in the Silicon Valley Sub-Region for Program Recommendation at Foothill College.

- **Education Administrators, Kindergarten through Secondary (11-9032):** Plan, direct, or coordinate the academic, administrative, or auxiliary activities of kindergarten, elementary, or secondary schools.
Typical Entry-Level Educational: Master’s degree
Typical On-the-Job Training: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 12%
- **Education Administrators, Postsecondary (11-9033):** Plan, direct, or coordinate student instruction, administration, and services, as well as other research and educational activities, at postsecondary institutions, including universities, colleges, and junior and community colleges.
Typical Entry-Level Educational: Master’s degree
Typical On-the-Job Training: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 12%
- **Training and Development Specialists (13-1151):** Design or conduct work-related training and development programs to improve individual skills or organizational performance. May analyze organizational training needs or evaluate training effectiveness.
Typical Entry-Level Educational: Bachelor’s degree
Typical On-the-Job Training: None

Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 30%

- **Librarians and Media Collections Specialists (25-4022):** Administer and maintain libraries or collections of information, for public or private access through reference or borrowing. Work in a variety of settings, such as educational institutions, museums, and corporations, and with various types of informational materials, such as books, periodicals, recordings, films, and databases. Tasks may include acquiring, cataloging, and circulating library materials, and user services such as locating and organizing information, providing instruction on how to access information, and setting up and operating a library’s media equipment.

Typical Entry-Level Educational: Master’s degree

Typical On-the-Job Training: None

Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 12%

- **Instructional Coordinators (25-9031):** Develop instructional material, coordinate educational content, and incorporate current technology into instruction in order to provide guidelines to educators and instructors for developing curricula and conducting courses. May train and coach teachers. Includes educational consultants and specialists, and instructional material directors.

Typical Entry-Level Educational: Master’s degree

Training Requirement: None

Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 13%

Occupational Demand

Table 1. Employment Outlook for Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Education Administrators, Kindergarten through Secondary	6,792	7,093	301	4%	2,673	535	\$56	\$67
Education Administrators, Postsecondary	5,108	5,385	277	5%	2,096	419	\$48	\$61
Training and Development Specialists	11,642	12,597	955	8%	5,980	1,196	\$27	\$40
Librarians and Media Collections Specialists	2,867	3,133	266	9%	1,673	335	\$36	\$46
Instructional Coordinators	4,452	4,793	341	8%	2,338	468	\$34	\$47
Total	30,861	33,001	2,140	7%	14,760	2,953	\$39	\$51

Source: Lightcast 2024.3

The Bay Region includes: Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

Table 2. Employment Outlook for Certificate of Achievement: AI Empowered Instruction Occupations in the Silicon Valley Sub-Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Education Administrators, Kindergarten through Secondary	1,513	1,604	92	6%	614	123	\$60	\$75
Education Administrators, Postsecondary	2,367	2,596	229	10%	1,044	209	\$48	\$61
Training and Development Specialists	2,641	2,880	240	9%	1,383	277	\$29	\$45
Librarians and Media Collections Specialists	781	814	34	4%	403	81	\$39	\$49
Instructional Coordinators	942	1,052	109	12%	532	106	\$37	\$48
Total	8,244	8,946	702	9%	3,976	796	\$42	\$56

Source: Lightcast 2024.3

Silicon Valley Sub-Region includes: Santa Clara County

Job Postings in the Bay Region and Silicon Valley Sub-Region

Table 3. Number of Job Postings by Occupation for the latest 12 months

Occupation	Bay Region	Silicon Valley
Education Administrators, Kindergarten through Secondary	2,255	549
Training and Development Specialists	2,168	583
Instructional Coordinators	2,052	564
Education Administrators, Postsecondary	1,818	456
Librarians and Media Collections Specialists	404	116

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Table 4a. Top Job Titles in Job Postings for Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region

Title	Bay	Title	Bay
Instructional Designers	241	Admissions Representatives	45
Education Specialists	153	Curriculum Specialists	42
Directors of Admissions	111	Elementary School Principals	42
Principals	109	Learning Specialists	42
Librarians	107	Mild/Moderate Special Education Teachers	41
High School Assistant Principals	66	Training Coordinators	40
Assistant Principals	63	Curriculum and Instruction Specialists	38
Education Coordinators	62	Middle School Principals	35
Principal Engineers	61	Brand Representatives	34

Title	Bay	Title	Bay
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Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Table 4b. Top Job Titles in Job Posting for Certificate of Achievement: AI Empowered Instruction Occupations in the Silicon Valley Sub-Region

Title	Silicon Valley	Title	Silicon Valley
Instructional Designers	97	Assistant Principals	18
Directors of Admissions	41	High School Assistant Principals	17
Principal Engineers	34	Epic Instructional Designers	16
Principals	27	Learning Experience Designers	16
Education Specialists	26	Admissions Associates	14
Education Coordinators	25	Brand Representatives	14
Faculty Affairs Coordinators	24	Admissions Representatives	13
Librarians	24	Curriculum and Instruction Specialists	13
Student Services Officers	19	School Principals	12

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Industry Concentration

Table 5. Industries Hiring for Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2023)	Jobs in Industry (2028)	% Change (2023-28)	% Occupation Group in Industry (2023)
Elementary and Secondary Schools (Local Government)	6,606	6,986	6%	21%
Colleges, Universities, and Professional Schools	3,261	3,571	9%	11%
Elementary and Secondary Schools	2,631	2,741	4%	8%
Colleges, Universities, and Professional Schools (State Government)	2,446	2,457	0%	8%
Local Government, Excluding Education and Hospitals	1,416	1,526	8%	5%
Colleges, Universities, and Professional Schools (Local Government)	1,151	1,190	3%	4%
Web Search Portals and All Other Information Services	1,010	1,171	16%	3%
Corporate, Subsidiary, and Regional Managing Offices	495	731	48%	2%

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2023)	Jobs in Industry (2028)	% Change (2023-28)	% Occupation Group in Industry (2023)
Custom Computer Programming Services	652	733	12%	2%
Educational Support Services	524	599	14%	2%

Source: Lightcast 2025.1

Table 6. Top Employers Posting Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region and the Silicon Valley Sub-Region

Employer	Bay	Employer	Silicon Valley
Stanford University	242	Stanford University	234
University of California-Berkeley	205	Clarity Consultants	55
Oakland Unified School District	172	Foothill-De Anza Community College District	44
University of California-Merced	120	Amazon	39
University of California-San Francisco	101	Kipp Public Schools Northern California	37
Kipp Public Schools Northern California	91	Santa Clara University	35

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Educational Supply

There are two community colleges in the Bay Region issuing 75 awards on average annually (last 3 years ending 2021-23) on TOP 0860.00 - Educational Technology. In the Silicon Valley Sub-Region, there is one community college that issued 74 awards on average annually (last 3 years) on this TOP code.

Table 7. Community College Awards on TOP 0860.00 - Educational Technology in the Bay Region

College	Subregion	Low unit Certificate	Total
Foothill	Silicon Valley	74	74
Merritt	East Bay	1	1
Total	-	75	75

Source: Data Mart

Note: The annual average for awards is 2020-21 to 2022-23.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 2,953 annual openings for the Certificate of Achievement: AI Empowered Instruction occupational cluster and 75 annual (3-year average) awards for an annual undersupply of 2,878 students. In the Silicon Valley Sub-Region, there is also a gap with 796 annual openings and 74 annual (3-year average) awards for an annual undersupply of 722 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0860.00 - Educational Technology

Metric Outcomes	Bay All CTE Program	Foothill College All CTE Program	State 0860.00	Bay 0860.00	Silicon Valley 0860.00	Foothill College 0860.00
Students with a Job Closely Related to Their Field of Study	74%	88%	96%	95%	94%	94%
Median Annual Earnings for SWP Exiting Students	\$53,090	\$73,174	\$94,575	\$102,842	\$104,014	\$98,643
Median Change in Earnings for SWP Exiting Students	24%	42%	8%	7%	8%	6%
Exiting Students Who Attained the Living Wage	54%	66%	78%	83%	82%	84%

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region

Skill	Posting	Skill	Posting
Project Management	1,086	Adult Education	466
Curriculum Development	1,032	Google Workspace	444
Marketing	912	Workflow Management	416
Student Services	861	Continuous Improvement Process	388
Instructional Design	796	Lesson Planning	380
Special Education	701	Psychology	350
Learning Management Systems	589	Conflict Resolution	347
Data Analysis	571	Disabilities	339
Individualized Education Programs (IEP)	481	Educational Technologies	338
Office Equipment	467	Auditing	327

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Table 10. Certifications in Job Postings for Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region

Certification	Posting	Certification	Posting
Valid Driver's License	954	CDL Class C License	65

Certification	Posting	Certification	Posting
Cardiopulmonary Resuscitation (CPR) Certification	328	Automated External Defibrillator (AED) Certification	67
Teaching Certificate	123	Project Management Professional Certification	29
Basic Life Support (BLS) Certification	74		

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Table 11. Education Requirements for Certificate of Achievement: AI Empowered Instruction Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	1,065	12%
Associate degree	614	7%
Bachelor's degree & higher	6,865	80%

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Note: 35% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

Methodology

Occupations for this report were identified by use of job descriptions and skills listed in O*Net. Labor demand data is sourced from Lightcast occupation and job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CCCC Data Mart and CTE Launchboard.

Sources

O*Net Online
 Lightcast
 CTE LaunchBoard www.calpassplus.org
 Statewide CTE Outcomes Survey
 Employment Development Department Unemployment Insurance Dataset
 CCCC Data Mart

Contacts

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