SECTOR PROFILE

Early Childhood Education/Education

MAY 2025

CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH
BAY AREA

BACCC BAY AREA
COMMUNITY COLLEGE CONSORTIUM

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Introduction

To support the planning and development of career education programs and provide insights into various sector pathways, the Bay Region Center of Excellence (COE) has developed a series of sector profiles. These profiles highlight labor market trends and postsecondary education and workforce implications within each sector in the Bay Region. They categorize jobs into three skill levels: below middle-skill, middle-skill, and above middle-skill jobs. Middle-skill occupations typically require more than a high school diploma, but less than a bachelor's degree—except in cases where a bachelor's degree is required, but more than one-third of the workforce has less than a bachelor's degree. These occupations play a crucial role in the labor workforce and contribute to the economic vitality of the 12-county Bay Region, which includes Alameda County, Contra Costa County, Marin County, Monterey County, Napa County, San Benito County, San Francisco County, San Mateo County, Santa Clara County, Santa Cruz County, Solano County, and Sonoma County.

The early childhood education/education pathway–hereafter referred to as ECE/EDU or simply education pathway for brevity–summarizes key findings on current and projected workforce demand, hourly wages for occupations within the sector by career pathways, and program information from community colleges in the region that offer training programs in education. This report is intended for use by decision-makers and practitioners to support funding and grant proposals, the development of key courses and pathways, and the alignment of programs between K-12, community colleges, and four-year institutions. Workforce professionals in the sector can also use the data to gain valuable insights into employment trends and educational preparation within these pathways.

What Pathways Make Up the Education Sector?

This profile highlights the labor market for education, focusing on four key career pathways. The labor market data presented in this profile includes in-demand occupations within each pathway that are related to education and training programs offered at community colleges across the Bay Region.

The four education career pathways listed below offer a range of opportunities for employment and advancement across various skill levels. Early childhood education refers to formal and informal education programs for children from birth to the age of five. Elementary education refers to kindergarten through 5th grade, secondary education refers to grades 6th through 12th, and postsecondary education includes community colleges, universities, and other higher education institutions. The specialized/other education pathway includes roles that span multiple educational levels or operate outside traditional academic settings, such as education coordinators, self-enrichment instructors, and administrators. Therefore, it is considered a separate “other” pathway.

Some occupations are not represented within these pathways, and we will explore them further in the section on Beyond Labor Market and Supply Data: Insights and Ideas to Inspire Action (page 20). This section will elaborate on and expand upon the complexities encompassed by the education sector.

	EDUCATION CAREER PATHWAYS
1	Early Childhood and Elementary Education
2	Secondary Education
3	Postsecondary Education
4	Specialized / Other Education

Quick Facts About Education in the Bay Region

Quick facts provide data related to the education sector (see below), featuring labor market projections between 2023 and 2028 in the Bay Region, as well as community college program information for the program years 2020-21 to 2022-23. Enrolled students include all non-special admit students[1] who were enrolled in at least one term of the selected year at a Bay Region community college.

The education sector accounted for over 322,000 jobs in the Bay Region in 2023. Between 2023 and 2028, these jobs are projected to grow by 6%, with a projected 37,960 annual job openings, 84% of which are replacement openings. Please note that all numbers related to labor market data in this report are rounded to the nearest tenth.

Education programs were offered at 26 community colleges in the Bay Region (see Table 8 for the education programs included). More than 20,000 students enrolled in education programs annually, on average, at a Bay Region community college during the program years 2020-21 to 2022-23, and an average of 2,910 students completed a degree or certificate each year. As for demographics, approximately 25% of students who enrolled between program years 2020-21 to 2022-23 were 20 to 24 years old. Females were predominantly represented among students who enrolled in education programs (83%), as well as students who identify as Hispanic (41%) or White (20%).

Bay Region Quick Facts

322,140

Number of Jobs
in Pathways in 2023

6%

5-year Job Growth,
2023-2028

37,960

5-year Avg. Annual
Job Openings, 2023-2028

26

Community Colleges (CC)
Offering Education Programs

20,597

Students Enrolled in
CC Education Programs
(2020-21 to 2022-23)

2,910

CC Degrees/Certificates Awarded on
Average in Education
(2020-21 to 2022-23)

[1] Special admit students are those who are enrolled in both K-12 and community college simultaneously. However, they will be classified as non-special admit if they are enrolled as a non-special admit student for at least one term during the selected academic year.

Industry Employment Demand for Education

The education sector includes sub-sectors and industries classified under North American Industry Classification System (NAICS) codes 61, 62, and 90 (see Appendix A: Methodology for the six-digit NAICS codes used to define the sector). A two-digit NAICS code can represent multiple sub-sectors and industry groups within the broader sector. These codes are used to organize and categorize industries within the job market.

Table 1 shows that the number of jobs in the education sector is projected to grow by 11% in the Bay Region over the next several years (2023-2028). In 2023, approximately 604,700 workers were employed in education related industries in the region, and this number is projected to increase to 668,630 workers by 2028.

Table 1: Projected Industry Jobs for the Education Sector

2023 JOBS	2028 JOBS	JOB CHANGE	% CHANGE
604,710	668,630	63,920	11%

Source: Lightcast, Projected Number of Industry Jobs for Education, 2023-2028 [2025.1].

Occupational Demand for Education Career Pathways

When examining demand for education career pathways, Table 2 summarizes the number of workers employed in each pathway in 2023 and the total projected openings between 2023 and 2028. The specialized/other education pathway had the highest employment in 2023, with 127,940 workers, and is also projected to have the most total openings from 2023 to 2028, with 81,220 total openings across the five-year period.

Early childhood education refers to both formal and informal educational programs designed for children from birth to age five. These programs typically serve preschool-aged children or younger, and most related occupations do not require advanced degrees. Elementary education covers transitional kindergarten through 5th grade and secondary education encompasses grades 6 through 12. Many of these occupations require college degrees. Postsecondary education includes community colleges, universities and other higher institutions. The specialized/other education pathway includes programs that lead to occupations spanning multiple educational levels—such as primary, secondary, and postsecondary—or those not tied to a specific grade level. As such, it is considered a distinct “other” pathway.

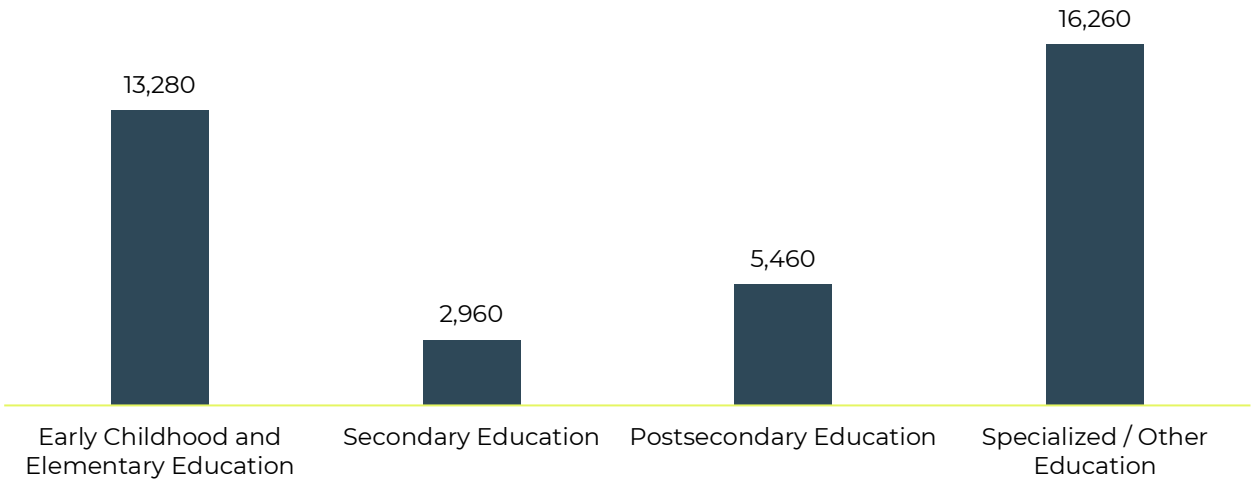
Table 2: Number of Jobs and Total Openings for Education Career Pathways (2023-2028)

PATHWAY	2023 JOBS	2023 - 2028 TOTAL OPENINGS*
Early Childhood and Elementary Education	99,140	66,340
Secondary Education	38,480	14,820
Postsecondary Education	56,580	27,300
Specialized / Other Education	127,940	81,220
Total	**322,140**	**189,680**

Source: Lightcast, Number of Jobs and Total Openings, 2023-2028 [2024.3].
*2023-2028 total openings are new job openings and replacement job openings across the five-year period. Replacement openings are created as workers switch jobs, retire or leave for other reasons.

In terms of annual openings, Figure 1 presents the projected average annual job openings for each education career pathway. More than 16,000 average annual job openings are projected for occupations in the specialized/other education pathway between 2023 and 2028, followed by over 13,000 average annual job openings in the early childhood and elementary education pathway.

Figure 1: Average Annual Job Openings for Education Career Pathways (2023-2028)



Source: Lightcast, Average Annual Job Openings, 2023-2028 [2024.3].

Occupations and Skill Levels by Education Pathways

When examining specific occupations within education pathways, Table 3 below presents data on employment and projected demand by occupation, grouped by career pathway and skill level. The specialized/other education pathway is the largest, with 15 occupations, followed by the early childhood and elementary education pathway, which has 7 occupations. Please note that the figures in Table 3 are rounded to the nearest tenth, and totals represent the summed averages. On average, 84% of job openings in the pathway are replacement openings. Replacement openings occur when workers switch jobs, retire, or leave for other reasons. Please refer to the Methodology section, in Appendix A, for more information on how the pathways were developed.

SKILL LEVEL LEGEND

• = Below Middle-Skill **•• = Middle-Skill** **••• = Above Middle-Skill**

Table 3: Occupations and Projected Demand by Education Career Pathways (2023-2028)

Skill Level	Occupation	Avg. Annual Openings	2023 Jobs	5-Yr Change	5-Yr % Change	5-Yr Annual Replacement Jobs	Replacements as % of Openings
EARLY CHILDHOOD AND ELEMENTARY EDUCATION PATHWAY							
•	Childcare Workers	8,340	46,980	470	1%	7,780	94%
••	Preschool Teachers, Except Special Education	1,970	15,820	1,090	7%	1,720	87%
••	Kindergarten Teachers, Except Special Education*	240	1,990	100	5%	210	91%
•••	Elementary School Teachers, Except Special Education	2,240	28,350	1,370	5%	1,910	88%
•••	Special Education Teachers, Kindergarten and Elementary School	240	2,860	190	7%	200	86%
•••	Education and Childcare Administrators, Preschool and Daycare	200	2,620	80	3%	180	87%
•••	Special Education Teachers, Preschool	50	520	50	9%	40	77%
	Early Childhood and Elementary Education Total	**13,280**	**99,140**	**3,350**	**5%**	**12,040**	**87%**
SECONDARY EDUCATION PATHWAY							
•••	Secondary School Teachers, Except Special and Career/Technical Education	1,410	18,870	950	5%	1,180	84%

**Note.* The occupation code "Kindergarten Teachers, Except Special Education," includes transitional kindergarten occupations.

SKILL LEVEL LEGEND

• = Below Middle-Skill **• • = Middle-Skill** **• • • = Above Middle-Skill**

Skill Level	Occupation	Avg. Annual Openings	2023 Jobs	5-Yr Change	5-Yr % Change	5-Yr Annual Replacement Jobs	Replacements as % of Openings
• • •	Middle School Teachers, Except Special and Career/Technical Education	1,130	14,450	660	5%	970	87%
• • •	Special Education Teachers, Secondary School	200	2,480	140	6%	170	85%
• • •	Special Education Teachers, Middle School	150	1,870	100	5%	130	88%
• • •	Career/Technical Education Teachers, Secondary School	50	580	60	10%	40	66%
• • •	Career/Technical Education Teachers, Middle School	20	230	10	5%	20	89%
	Secondary Education Total	**2,960**	**38,480**	**1,920**	**6%**	**2,510**	**83%**
POSTSECONDARY EDUCATION PATHWAY							
• • •	Postsecondary Teachers	5,040	51,470	3,160	6%	4,240	78%
• • •	Education Administrators, Postsecondary	420	5,110	280	5%	340	77%
	Postsecondary Education Total	**5,460**	**56,580**	**3,440**	**6%**	**4,580**	**78%**
SPECIALIZED/OTHER EDUCATION PATHWAY							
•	Self-Enrichment Teachers	2,450	18,130	1,050	6%	2,220	89%
•	Personal Care and Service Workers, All Other	660	2,960	460	16%	560	86%
• •	Teaching Assistants, Except Postsecondary	4,120	31,750	1,570	5%	3,770	93%
• •	Training and Development Specialists	1,200	11,670	960	8%	1,010	84%
• •	Library Technicians	370	2,070	80	4%	350	95%
• •	Interpreters and Translators	330	3,080	20	1%	300	90%
• • •	Tutors	1,980	10,750	510	5%	1,860	92%
• • •	Coaches and Scouts	1,490	10,050	840	8%	1,310	87%

SKILL LEVEL LEGEND

• = Below Middle-Skill **• • = Middle-Skill** **• • • = Above Middle-Skill**

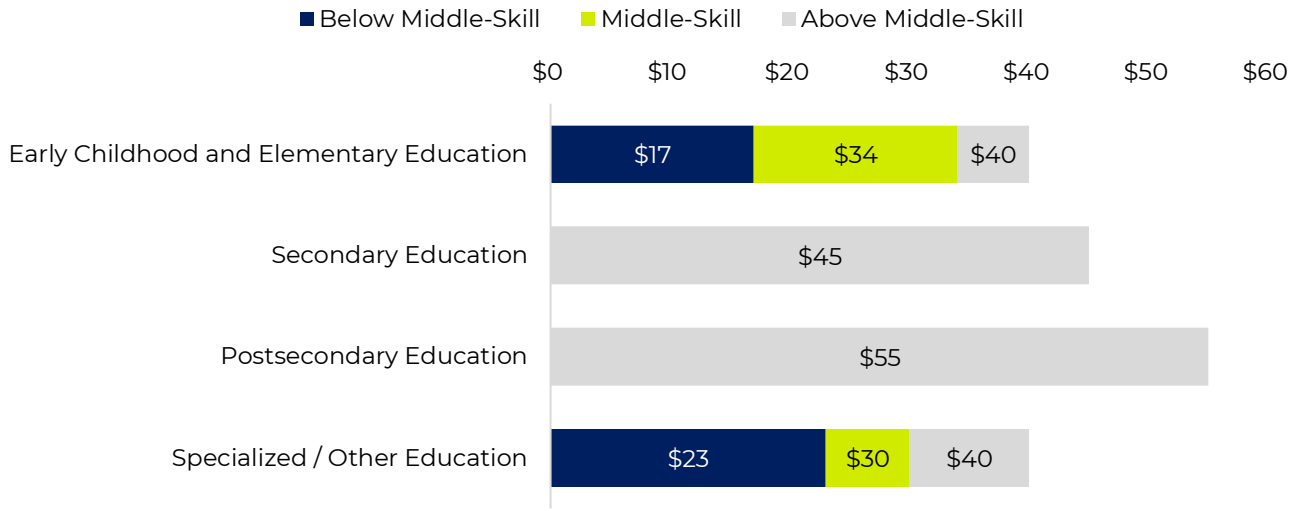
Skill Level	Occupation	Avg. Annual Openings	2023 Jobs	5-Yr Change	5-Yr % Change	5-Yr Annual Replacement Jobs	Replacements as % of Openings
• • •	Teachers and Instructors, All Other	1,030	8,010	220	3%	970	93%
• • •	Educational, Guidance, and Career Counselors and Advisors	880	10,240	620	6%	740	85%
• • •	Education Administrators, Kindergarten through Secondary	540	6,850	300	4%	460	87%
• • •	Instructional Coordinators	470	4,470	340	8%	390	84%
• • •	Librarians and Media Collections Specialists	340	2,870	270	9%	280	85%
• • •	Education Administrators, All Other	280	3,630	150	4%	240	87%
• • •	Special Education Teachers, All Other	120	1,410	90	6%	100	85%
	Specialized / Other Education Total	**16,260**	**127,940**	**7,480**	**6%**	**14,560**	**88%**
	EDUCATION TOTAL	**37,960**	**322,140**	**16,190**	**6%**	**33,690**	**84%**

Source: Lightcast, Projected Demand for Education Occupations, 2023-2028 [2024.3].

Occupational Wages by Education Pathways

In the Bay Region, the living wage is $46, though it varies by subregion (see Table 12 in the Appendix for details). Figure 2 presents the average median earnings for below middle-skill, middle-skill, and above middle-skill jobs by career pathway. Table 4 provides a summary of wages by the 25th percentile, median, and 75th percentile hourly earnings for each occupation. All earnings represent the median across the 12-counties in the Bay Region. The 25th percentile wage represents entry-level earnings, while the 75th percentile wage reflects the earnings of experienced workers.

Figure 2: Median Hourly Earnings by Education Career Pathways



Source: Lightcast, Median Hourly Wages by Education Career Pathways [2024.3].

Table 4: Hourly Earnings for Occupations by Education Career Pathways

SKILL LEVEL LEGEND

• = Below Middle-Skill **• • = Middle-Skill** **• • • = Above Middle-Skill**

Skill Level	Occupation	25th Pct. Hourly Earnings	Median Hourly Earnings	75th Pct. Hourly Earnings
EARLY CHILDHOOD AND ELEMENTARY EDUCATION PATHWAY				
•	Childcare Workers	$16	$17	$20
• •	Kindergarten Teachers, Except Special Education	$34	$45	$53
• •	Preschool Teachers, Except Special Education	$19	$22	$26
• • •	Elementary School Teachers, Except Special Education	$35	$45	$54

SKILL LEVEL LEGEND

• = Below Middle-Skill **• • = Middle-Skill** **• • • = Above Middle-Skill**

Skill Level	Occupation	25th Pct. Hourly Earnings	Median Hourly Earnings	75th Pct. Hourly Earnings
• • •	Special Education Teachers, Kindergarten and Elementary School	$34	$44	$54
• • •	Special Education Teachers, Preschool	$30	$38	$48
• • •	Education and Childcare Administrators, Preschool and Daycare	$26	$33	$42
	Early Childhood and Elementary Education Total Averages	**$28**	**$35**	**$42**

**Note.* The occupation code "Kindergarten Teachers, Except Special Education," includes transitional kindergarten occupations.

SECONDARY EDUCATION PATHWAY				
• • •	Career/Technical Education Teachers, Secondary School	$40	$50	$57
• • •	Secondary School Teachers, Except Special and Career/Technical Education	$38	$48	$59
• • •	Special Education Teachers, Middle School	$38	$48	$53
• • •	Special Education Teachers, Secondary School	$37	$47	$61
• • •	Middle School Teachers, Except Special and Career/Technical Education	$36	$46	$57
• • •	Career/Technical Education Teachers, Middle School	$26	$31	$39
	Secondary Education Pathway Total Averages	**$36**	**$45**	**$54**
POSTSECONDARY EDUCATION PATHWAY				
• • •	Education Administrators, Postsecondary	$47	$61	$81
• • •	Postsecondary Teachers	$36	$49	$67
	Secondary Education Total Averages	**$42**	**$55**	**$74**
SPECIALIZED/OTHER EDUCATION PATHWAY				
•	Self-Enrichment Teachers	$19	$25	$39
•	Personal Care and Service Workers, All Other	$17	$20	$25
• •	Training and Development Specialists	$27	$37	$51
• •	Interpreters and Translators	$25	$35	$45
• •	Library Technicians	$23	$27	$33
• •	Teaching Assistants, Except Postsecondary	$19	$22	$25
• • •	Education Administrators, Kindergarten through Secondary	$57	$66	$79
• • •	Librarians and Media Collections Specialists	$36	$44	$53

SKILL LEVEL LEGEND

• = Below Middle-Skill **• • = Middle-Skill** **• • • = Above Middle-Skill**

Skill Level	Occupation	25th Pct. Hourly Earnings	Median Hourly Earnings	75th Pct. Hourly Earnings
• • •	Education Administrators, All Other	$35	$47	$66
• • •	Instructional Coordinators	$34	$45	$59
• • •	Special Education Teachers, All Other	$33	$40	$52
• • •	Educational, Guidance, and Career Counselors and Advisors	$31	$39	$51
• • •	Teachers and Instructors, All Other	$26	$37	$49
• • •	Tutors	$19	$21	$28
• • •	Coaches and Scouts	$18	$24	$35
	Specialized / Other Education Total Averages	**$28**	**$35**	**$46**
	EDUCATION TOTAL	**$34**	**$43**	**$54**

Source: Lightcast, 25th pct., Median, and 75th pct. Hourly Earnings for Education Occupations [2024.3].

Job Postings for Education Occupations

Job postings represent the number of jobs advertised online in the Bay Region for occupations in the education pathways specified in this report. Unique online job postings are de-duplicated based on job title, employer, and region. Across occupations in education pathways, there were 60,740 unique online job postings in the Bay Region from January 2024 to December 2024 (see Table 5). Table 6 highlights the top 10 skills sought by employers, categorized into specialized, soft, and technical skills.

Table 5: Unique Online Job Postings for Education Occupations in the Bay Region, 2024

Unique Online Job Postings in the Bay Region
60,740

Table 6: Top Skills in Job Postings for Education Occupations, 2024

Specialized Skills	Soft Skills	Technical Skills
Lesson Planning	Teaching	Microsoft Office
Special Education	Communication	Google Workspace
Child Development	English Language	Zoom
Classroom Management	Management	Learning Management Systems
Preschool Education	Interpersonal Communications	Student Information Systems
Working With Children	Writing	Spreadsheets
Individualized Education Programs	Leadership	Python (Programming Language)
Curriculum Development	Planning	Salesforce
Disabilities	Enthusiasm	SQL (Programming Language)
Student Services	Mathematics	C++ (Programming Language)

Table 7 lists the top employers in the field of education in the Bay Region, which include child care programs, K-12 institutions, community colleges, and higher education institutions.

Table 7: Top Employers in Job Postings for Education Occupations, 2024

Top Employers

- Oakland Unified School District
- Euro School Of Tennis
- Swing Education
- Calex Sports
- ATX Learning
- Foothill-De Anza Community College District
- University of California-Berkeley
- KinderCare Education
- Vallejo City Unified School District
- Stanford University

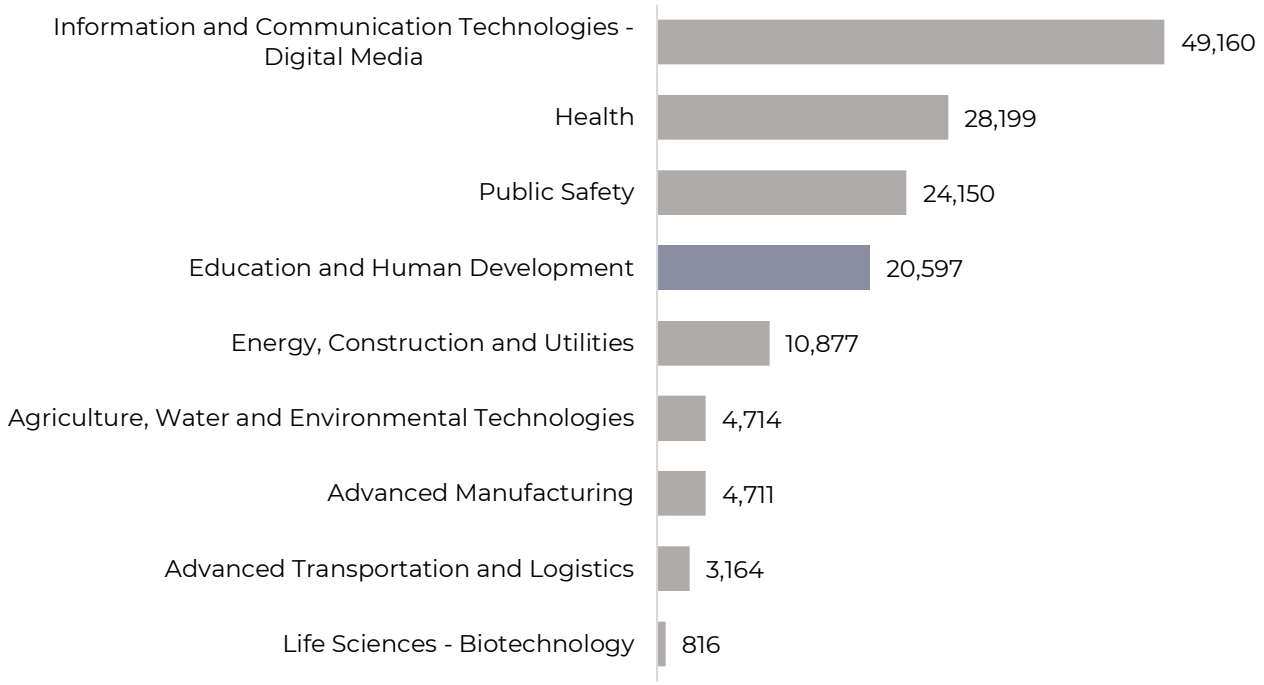
Source: Lightcast, Job Posting Analytics, January 2024-December 2024 [2025.1].

Education Community College Programs

California community colleges offer a variety of programs in education, training students for career pathways in early childhood and elementary education, secondary education, postsecondary education, and specialized/other education. Colleges combine classroom instruction on campus, online, or through external work experiences. Of the 28 community colleges in the Bay Region, 26 offer a program related to education. These community colleges include College of Alameda, Berkeley City College, Cabrillo College, Cañada College, Chabot College, City College of San Francisco, Contra Costa College, De Anza College, Diablo Valley College, Evergreen Valley College, Foothill College, Gavilan College, Hartnell College, Las Positas College, Los Medanos College, College of Marin, Merritt College, Mission College, Monterey Peninsula College, Napa Valley College, Ohlone College, San Jose City College, Santa Rosa Junior College, Skyline College, Solano College, and West Valley College.

Figure 3 shows the number of students enrolled by each of the Bay Region's nine sectors. These sectors refer to the priority sectors identified by the California Community Colleges Chancellor's Office, along with additional clusters that represent other common career and technical education program groupings. During program years 2020-21 to 2022-23, an average of more than 20,500 students enrolled in education programs each year. For more information about the selection of programs and data sources for student outcomes see Appendix A: Methodology.

Figure 3: Students Enrolled* by Sector (3-YR Average, 2020-21 to 2022-23)



Source: Data Vista. Program Years 2020-21 to 2022-23, Bay Region Community Colleges.
*All students who were enrolled as a non-special admit student in at least one term of the selected year.

Fourteen (14) Taxonomy of Program (TOP) codes related to education are presented in Table 8, and there are 13 TOP codes with active or approved programs prior to October 2024 in Bay Region community colleges. This is based on information reported to the California Community Colleges Chancellor's Office Curriculum Inventory (COCI).

Table 8: Education Programs at Community Colleges in the Bay Region

TOP6	TOP6 Program Title	# Colleges w/Programs
130500	Child Development/Early Care and Education	24
130520	Children with Special Needs	10
080200	Educational Aide (Teacher Assistant)	8
130590	Infants and Toddlers	7
089900	Other Education	6
130580	Child Development Administration and Management	6
130550	The School Age Child	4
083560	Coaching	3
130540	Preschool Age Children	3
080900	Special Education	2
085010	Sign Language Interpreting	2
086000	Educational Technology	2
083610	Recreation Assistant	1
130560	Parenting and Family Education	0

Source: California Community Colleges Chancellor's Office Curriculum Inventory (COCI). This list includes the programs under the TOP code that were currently active or approved in Bay Region community colleges prior to October 2024.

Tables 9 and 10 summarize educational supply by analyzing the number of certificates and degrees awarded in related TOP and Classification of Instructional Programs (CIP) codes, respectively. According to TOP data, an average of 2,910 certificates or degrees were awarded at Bay Region community college between program years 2020-21 and 2022-23 (Table 9). The average number of degrees and certificates awarded in programs may include students who earned multiple degrees or certificates.

Table 9: Certificates and Degrees at Community Colleges in the Bay Region (2020-21 to 2022-23)

TOP6	TOP6 Title	Certificate	Associate Degree/ Associate for Transfer	Noncredit Award	Total Awards
080200	Educational Aide (Teacher Assistant)	20	0	5	25
080900	Special Education	4	3	0	7
083560	Coaching	1	1	0	2
085010	Sign Language Interpreting	10	13	0	23
086000	Educational Technology	76	0	0	76
089900	Other Education	37	1	0	38
130500	Child Development/Early Care and Education	1,668	637	9	2,314
130520	Children with Special Needs	94	6	0	100
130540	Preschool Age Children	54	0	4	58
130550	The School Age Child	21	0	0	21
130580	Child Development Administration and Management	73	0	0	73
130590	Infants and Toddlers	161	0	7	168
130800	Family Studies	6	0	0	6
	Total Awards	**2,225**	**661**	**25**	**2,911**

Source: CCCCO Datamart. Program Years 2020-21 to 2022-23 Annual Awards, by TOP6 Code, Bay Region Community Colleges.

According to CIP data (Table 10), non-community college institutions in the Bay Region conferred an average of 1,054 awards each year between program years 2019-20 and 2021-22. The total number of awards for a given CIP code is calculated as a three-year average and summed across award types. Please note that these figures were not rounded.

Table 10: Awards* for Non-Community College Programs in the Bay Region (2019-20 to 2021-22)

CIP - CIP Program Title	Certificate	Associate Degree	Bachelor's Degree	Total Awards
13.0501 - Educational/Instructional Technology	0	0	6	6
13.1210 - Early Childhood Education and Teaching	0	1	459	460
13.9999 - Education, Other	0	0	111	111
19.0701 - Human Development and Family Studies, General	0	0	332	332
19.0706 - Child Development	0	0	15	15
19.0709 - Child Care Provider/Assistant	5	0	0	5
31.0101 - Parks, Recreation, and Leisure Studies	0	0	102	102
31.0504 - Sport and Fitness Administration/Management	0	0	22	22
Total Awards	**5**	**1**	**1,047**	**1,053**

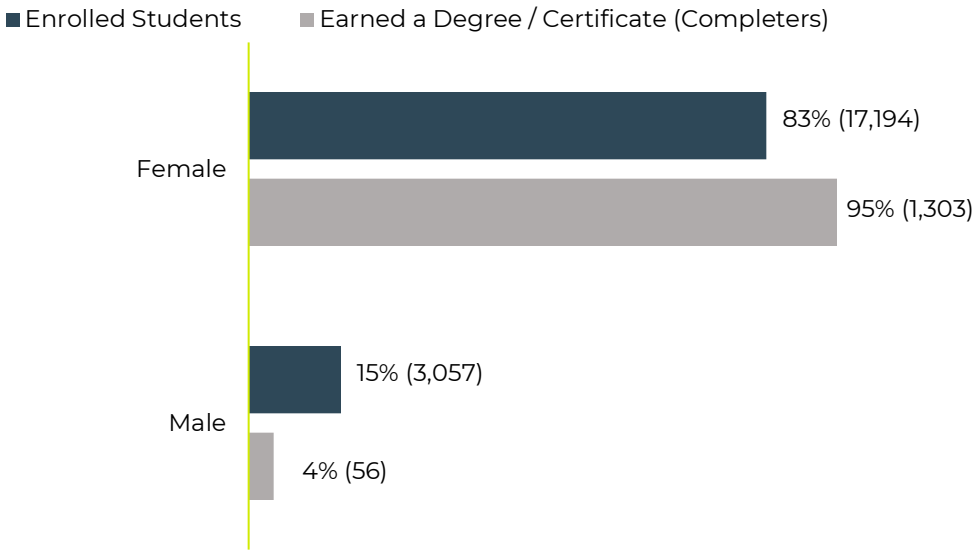
*Total awards do not include degrees higher than a bachelor's degree.
Source: Integrated Postsecondary Education Data System (IPEDS). Program Years 2019-20 to 2021-22 Annual Awards, by CIP Code, Bay Region Non-Community College Institutions.

Demographic Profile of Students in Community College Education Programs

This sector profile also summarizes the demographics of community college students who enroll in and complete a degree or certificate in education programs. Figures 4 through 6 present data on students by gender, race/ethnicity, and age. Enrolled students include all non-special admit students[2] who were enrolled in at least one term of the selected year at a Bay Region community college. In terms of earned a degree or certificate attainment, it represents the number of students who earned one or more of the following: Chancellor's Office approved certificate, associate degree, or non-credit awards.

On average, more female students enrolled (83%) and earned awards (95%) in education programs than male students (15% and 4%, respectively). The large number of female students in the sector has important implications for the growth of registered apprenticeships. In alignment with Governor Gavin Newsom's goal of reaching 500,000 apprentices in California by 2030, the expansion of apprenticeship pathways in this non-traditional sector—ECE/EDU—in the Bay Region is especially noteworthy (Lumina, 2024). As of 2025, there are 96,000 registered apprentices in California, but only about 10% are female (Lumina, 2024). The development of 27 new apprenticeship pathways in the Bay Region, along with continued growth statewide in this sector, will help increase female representation and diversify critical "earn-and-learn" opportunities (Lumina, 2024).

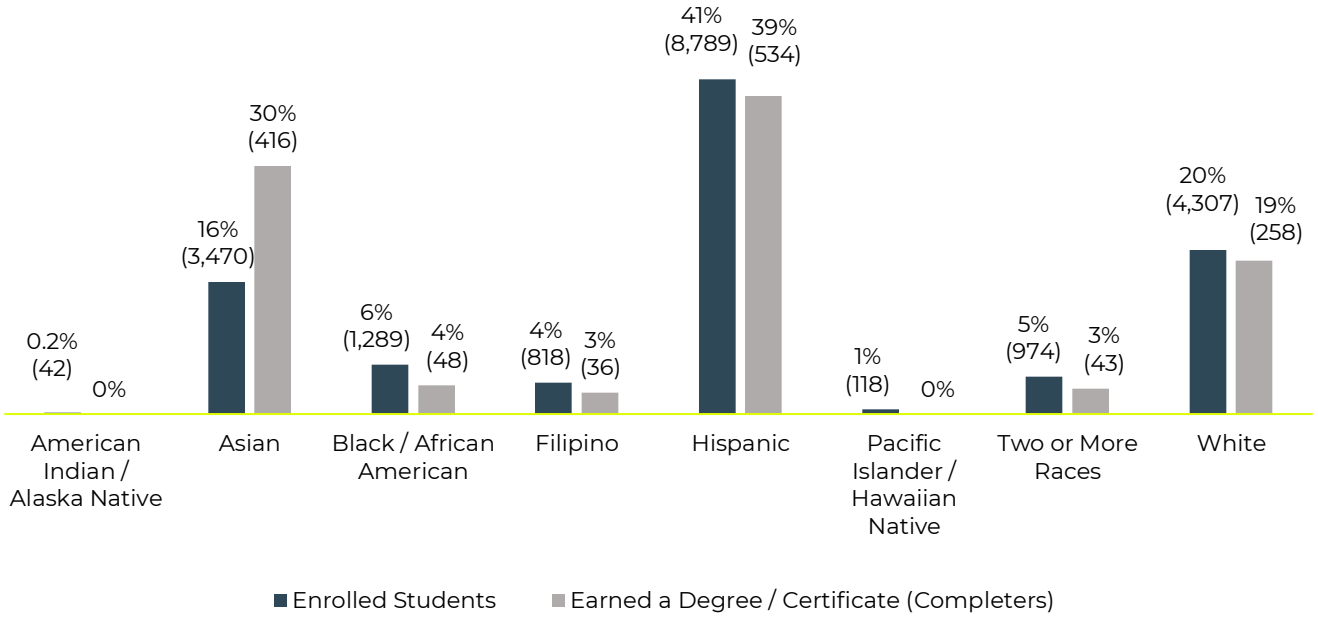
Figure 4: Gender of Students in Education Programs in the Bay Region (2020-21 to PY 2022-23)



Note: May not total 100% due to non-respondent/non-binary.
Source: Data Vista. Program Years 2020-21 to 2022-23 Programs, Bay Region Community Colleges.

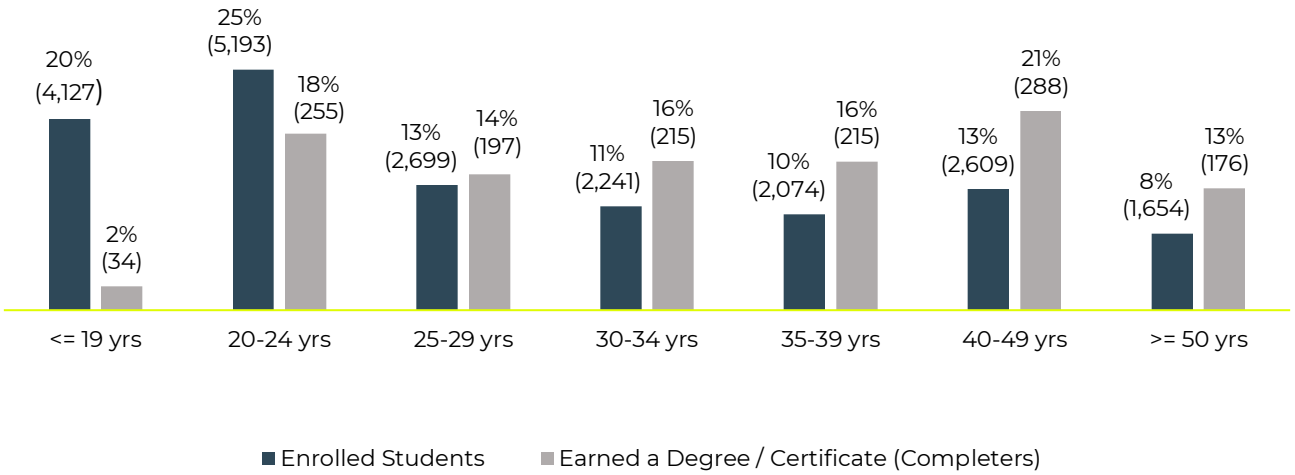
[2] Special admit students are those who are enrolled in both K-12 and community college simultaneously. However, they will be classified as non-special admit if they are enrolled as a non-special admit student for at least one term during the selected academic year.

Figure 5: Race/Ethnicity of Students in Education Programs in the Bay Region (2020-21 to 2022-23)



Note: May not total 100% due to non-respondent/unknown.
Source: Data Vista. Program Years 2020-21 to 2022-23 Programs, Bay Region Community Colleges.
Students who identified as Hispanic (41%) and White (20%) represented the two largest racial/ethnic groups among enrolled students, while students who identified as Hispanic and Asian were the largest groups that earned degrees (39% and 30% respectively).

Figure 6: Ages of Students in Education Programs in the Bay Region (2020-21 to 2022-23)



Note: May not total 100% due to non-respondent/unknown.
Source: Data Vista. Program Years 2020-21 to 2022-23 Programs, Bay Region Community Colleges.
Students aged 20 to 24 were the most represented age group among those who enrolled (25%), while 18% of degree earners also fell within this age range.

Beyond Labor Market and Supply Data: Insights and Ideas to Inspire Action

The purpose of this section is to provide additional insights beyond the labor market and supply data presented in this report. Our goal is to spark new ideas by highlighting various sources, including the CCCCO's Vision 2030 plan (California Community Colleges Chancellor's Office, 2023), and the Governor's Education Master Plan for Career Education (Echelman, 2025). The intent is to inspire action based on this expanded information.

The education sector is complex and multifaceted. We encourage readers to reflect on these nuances as they consider developing new community college programs or expanding and revising existing ones. By offering this additional statewide context, we aim to deepen readers' understanding of the challenges, opportunities, and evolving needs within the education sector.

While 322,140 jobs were identified in the education sector in the region in 2023, and 1,376,300 across California, existing occupational classifications may not fully capture the full range of roles contributing to educational services. As a result, the size of the education workforce is likely underestimated. Below are examples of nuanced positions not captured within standard occupational categories, offering additional insight into the demand for education workers.

In addition to workforce considerations, it is important to examine the broader policies and systemic factors shaping the education sector. Vision 2030 prioritizes equity in success, equity in access, and equity in support; however, achieving these goals requires a deeper understanding of how best to support those working in the sector. This context is critical to ensuring that new and existing programs meet labor market demand and also advance educational equity and opportunity.

Family Child Care

Approximately 24,700 licensed family child care providers operate across California, each caring for up to 14 children per facility (Whitebook, McLean, Austin, & Edwards, 2020; California Department of Social Services, 2022). These providers often hire additional support staff who may not be accounted for in traditional labor market data. Furthermore, licensed family child care providers can be categorized by job code as small business owners or entrepreneurs, since they offer child care services within their own homes. As a result, they may not be recognized as part of a traditional career pathway in the education sector. Nonetheless, owning and operating a licensed family child care business can be a financially rewarding career option.

In addition to licensed providers, many families rely on informal child care arrangements. In California, an estimated 26% of parents with children under age three and 29% of parents with children ages three to five depend on a family, friend, or neighbor caregiver (Austin & Edwards, 2021). And 12% of parents with children under age three and 9% of parents with children ages three to five hire nannies, participate in nanny shares, or engage au pairs to provide child care (Austin & Edwards, 2021). Not all child care providers, particularly those working in private homes and paid in cash or volunteering, are fully captured in traditional labor market data.

Care providers, also known as Family, Friend or Neighbor (FFN) care, who typically work in a child's home, whether paid in cash or serving on a volunteer basis, play important roles by caring for infants, toddlers, multiple children within a family, or providing care during nontraditional hours or in areas with limited access to licensed child care. These roles may also include a range of household responsibilities, and compensation can vary widely. Accurately counting these roles requires a deeper understanding of how caregiving functions within individual communities.

After School and Summer Programs

Before- and after-school programs provide vital "wraparound" care for working parents whose schedules do not align with standard school hours. According to the California AfterSchool Network (2023), California has three primary funding streams to support Expanded Learning programs: the After School Education and Safety (ASES) program, the 21st Century Community Learning Centers (21st CCLC) program, and the recently established Expanded Learning Opportunities Program (ELOP). ELOP is a major initiative funded through Proposition 98, which mandates a minimum level of state spending on K–12 education (California Department of Education, 2022). ELOP provides funding to school districts and charter schools to offer before-school, after-school, and summer enrichment programs for students in transitional kindergarten through sixth grade, with a particular focus on those eligible for free and reduced-price lunch. In 2023–24, ELOP funding reached $4 billion, in addition to $900 million allocated for ASES and 21st Century funds (California AfterSchool Network, 2023). Additionally, some local governments, Local Educational Agency (LEA's), and private entities also fund or subsidize after-school services within local communities. This increase in budget will create even more after-school opportunities across California schools. This expansion and increased funding will drive workforce demand in the near future and create opportunities to develop new programs, pathways, apprenticeships, and services at community colleges to support the emerging workforce. Building stronger linkages to teacher preparation and degree pathways will also be essential as career opportunities in this field continue to grow.

One specific example is Extended Learning (EXL), which employed over 30,000 professionals statewide prior to the COVID pandemic (California AfterSchool Network, 2023) through the provision of CDE funding. Most EXL roles are part-time during the school year and full-time during the summer. However, despite sharing similar duties with roles in the education sector, demand for this workforce is difficult to assess due to the absence of an established occupation code that captures their specific responsibilities in the education field.

Transitional Kindergarten

Transitional Kindergarten (TK) in California public schools represents a new grade level for incoming 4-year-olds. By 2025, TK will be fully implemented statewide, meaning every public school district will offer TK classes for children who turn 4 by September 1 of each year (California Department of Education, 2025). Although TK and Kindergarten are not compulsory, both are highly popular, with many communities experiencing waiting lists that exceed available spaces. Since 2022, TK classrooms have been phased in, and teacher qualifications have evolved to meet the developmental needs of younger students. The Preschool to Grade 3 (P–3) credential is increasingly available, as the California Commission on Teacher Credentialing continues to approve new training

programs. TK teachers are typically compensated at the same level as K–5 teachers within their district and are required to hold a bachelor's of arts degree or a bachelor's of science degree along with postgraduate certification—either the new P–3 credential or a Multiple Subjects credential with early childhood education coursework.

Currently, Kindergarten and TK teachers share the same occupation code, making it difficult to accurately assess the size and specific demand of the TK workforce. Despite this data limitation, the expansion of TK presents significant career opportunities for preschool and child care professionals looking to transition into the public education system. Since 2019, TK enrollment has grown by 70% (Legislative Analyst's Office, 2024). In 2023–24, 151,500 students were enrolled statewide, with a goal of ultimately serving 400,000 children across nearly 6,000 elementary schools (Legislative Analyst's Office, 2024).

However, this rapid expansion brings challenges, including limited funding to renovate classrooms for 4-year-olds and ongoing difficulties in recruiting qualified staff (Legislative Analyst's Office, 2024). The Commission on Teacher Credentialing projects a shortage of 8,700 TK teachers and 11,000 teacher aides by 2025–26. Additionally, the Learning Policy Institute (2021) estimates more than 300,000 children will enroll in TK by 2025–26. To meet this growing demand, districts will need to hire between 11,900 and 15,600 additional lead TK teachers by 2025–26, on top of the 4,100 teachers already needed in 2019–20. California will also need between 16,000 and 19,700 assistant TK teachers by 2025–26 (Learning Policy Institute, 2021).

Permits in Early Education Workforce

An important credentialing mechanism for the early education workforce (including private child care, preschool programs, and state-funded preschools) is the California Child Development Permit. This system offers six levels of certification: Assistant, Associate Teacher, Teacher, Master Teacher, Site Supervisor, and Program Director. These permits establish a structured pathway for career advancement and play a critical role in maintaining the quality and preparedness of the early childhood education workforce. Permit holders are authorized to provide care, development, and instruction for children aged five and younger in child care and development programs, as well as provide services such as supervise and coordinate curricula (California Commission on Teacher Credentialing, 2023).

The Child Development Training Consortium supports this credentialing system by publishing a Permit History Report, which tracks the number of permits issued annually by type of permit from August 1, 1996, to June 30, 2021—offering valuable insights into permit distribution across the country (California Commission on Teacher Credentialing, 2023). In 2023–2024, the Commission issued 6,503 new permits in California (a 26% increase over the previous academic year) and renewed 5,409 permits (a 4% increase over the prior year).

Currently, the California Commission on Teacher Credentialing reports permit data only at the state level and county-level data is not publicly accessible. This lack of localized data presents challenges for assessing workforce readiness and planning region-specific education and training initiatives. The absence of detailed regional data underscores the need for stronger local data accessibility and reporting practices.

Post-Covid Pandemic Impacts on the Education Sector

The COVID-19 pandemic significantly disrupted the education sector in California, and its impacts continue to be felt. As schools closed and delayed reopening, child care services were also affected. Widespread retirements and career changes among teachers and staff strained the ECE/EDU workforce, many left the field due to challenging working conditions, health concerns, and job instability. Families hesitated to send children back to schools or child care centers, contributing to a rise in homeschooling and a continued decline in group enrollment through 2025. These trends, combined with California's declining birth rate, have disrupted workforce planning and hiring.

We continue to feel the impacts of the pandemic in the post-COVID era. While children's needs have grown, many pandemic-related funding sources—particularly federal and state support for schools and child care providers—are set to expire in 2025 (Lambert, 2024). Additionally, increased "work-from-home" flexibility has further complicated child care needs, as families now seek care closer to home or in-home, rather than near workplaces or along commuting routes. The pandemic has also shifted staffing demands in schools and early childhood programs. There is now a heightened need for mental health professionals and counselors to support children affected by isolation, illness, and anxiety, as well as for special education teachers and aides to address delayed diagnoses and unmet needs resulting from prolonged school closures (California Department of Education, 2021). Creating positive group learning environments for children who missed early socialization opportunities also requires a workforce trained in emotional development and specialized support.

Insight – A Point of Reflection

- Loss of funding, combined with declining enrollment in some communities, has led to budget shortfalls and, in some cases, teacher and staff layoffs. Additionally, recent federal actions, such as the dismantling of the U.S. Department of Education and the resulting uncertainty around program continuity, have created further instability and concern within the workforce. These overlapping and ongoing challenges continue to impact recruitment, retention, and long-term sustainability in the education sector.
- California continues to propose initiatives to expand access to mental health and social-emotional support in schools, yet the expiration of pandemic-era funding has made it difficult to sustain these positions. Continued investment is needed to ensure schools can provide the wraparound services that students continue to require to thrive.

Disrupting a Cycle of Teacher Shortages

Teacher shortages directly impact the quality of educational experiences and children's preparedness at every stage of their academic journey. High-quality teaching at all levels helps students thrive, yet numerous barriers discourage individuals from entering the education profession.

In 2025, California community colleges increasingly launched "non-traditional" apprenticeships in education, supported primarily by California Apprenticeship Initiative grants and the California Youth Apprenticeship (COYA). Apprenticeships offer a powerful "earn and learn" model for developing the ECE/EDU workforce. This growing sector offers future educators a no-cost education paired with paid field experience. While 45 states already offer registered teacher apprenticeships TK–12 educators, California is still in the process of building the infrastructure for such models (The Education Trust, 2025), but supported by Vision 2030.

Severe teacher shortages in critical fields—including STEM, special education, early childhood education, high-demand career and technical education (CTE), and emerging sectors—are constraining workforce development pipelines and limiting employers' ability to hire skilled workers (California Health and Human Services Agency, 2020; Echelman, 2025). According to Lambert (2025) EdSource article, California issued 17,328 new K-12 teaching credentials during the 2023-24 school year, an 18% increase. However, at the beginning of this school year, district officials estimated they needed about 25,000 new teachers to fill their classrooms and a troubling trend

Call to Action

- To improve compensation and promote workforce sustainability, it is critical to ensure that educators in contracted programs receive prevailing wages, and that reimbursement rates for subsidized child care reflect both the cost of living and the qualifications required. Programs administered by the California Department of Education (CDE) and the California Department of Social Services (CDSS) must ensure that child care teachers and staff are fairly compensated.
- Additional work is needed to develop high school pre-apprenticeships that align to community college apprenticeships and then teacher apprenticeships at the 4-year college level. State and federal funding is available to expand apprenticeships, including efforts to increase the participation of women. These initiatives not only provide income while training but also function as "grow your own" workforce pipelines. For maximum impact, apprenticeships at the high school, community college, and workplace levels should be intentionally aligned with credentialed teacher pathways to create seamless and accessible career pipelines.
- Due to years of limited job availability in arts education, the pipeline for preparing future arts educators has diminished. There is growing concern that some districts are using Prop 28 funds to backfill existing positions rather than expand programs. Hiring contractors or assigning arts instruction to existing staff may undermine the initiative's intent.

showed a drop of enrollment in teacher candidate programs by more than 3,000 teacher candidates between 2019-20 and 2023-2024. Additionally, at least 5% of the current teaching workforce in CA is not qualified to teach the subjects they are teaching (Lambert, 2025). While the state provided over 1 billion between 2018 and 2024 in teacher recruitment dollars, none went to the CA community college.

Hiring challenges are especially acute in dual-enrollment programs due to differing minimum qualifications for high school and community college instructors (Echelman, 2025). These misalignments hinder coordination across high schools, community colleges, and four-year institutions. Addressing CTE teacher shortages will require coordinated solutions that involve employers, higher education institutions, unions, and policymakers.

New legislative initiatives have also contributed to workforce pressures. Proposition 28, which funds arts education in California, has significantly increased the demand for credentialed teachers in art, music, drama, dance, and physical education (Aguilera, 2023). The lack of credentialed arts teachers and qualified professionals has made it difficult to scale these programs effectively. It is estimated that thousands of teachers in arts, dance, and related subjects will be needed statewide due to Prop 28.

Lastly, all workforce pathways depend on the availability of qualified educators, including those at the community college level. The issue is even more pronounced in high-wage sectors such as healthcare, information technology, and artificial intelligence, where teaching salaries are often uncompetitive with industry wages. This situation impacts community college and high school pathways especially, as students in CTE programs need teachers with specific sector knowledge and experience.

Appendix A: Methodology

The Bay Region COE selected the occupations in this profile by examining job descriptions and skills listed in O*Net. Labor market and job postings data was sourced from Lightcast [data 2024.3 and 2025.1]. Online job postings included all unique job postings from January 2024 to December 2024 in the 12-county Bay Region for occupations in the education pathways specified in this report. To evaluate industry data, the education sector included industries classified under North American Industry Classification System (NAICS) six-digit codes in Table 11.

Table 11: NAICS codes for the Education Sector

NAICS	Description
611110	Elementary and Secondary Schools
611210	Junior Colleges
611310	Colleges, Universities, and Professional Schools
611410	Business and Secretarial Schools
611420	Computer Training
611430	Professional and Management Development Training
611511	Cosmetology and Barber Schools
611512	Flight Training
611513	Apprenticeship Training
611519	Other Technical and Trade Schools
611610	Fine Arts Schools
611620	Sports and Recreation Instruction
611630	Language Schools
611691	Exam Preparation and Tutoring
611692	Automobile Driving Schools
611699	All Other Miscellaneous Schools and Instruction
611710	Educational Support Services
624110	Child and Youth Services
624120	Services for the Elderly and Persons with Disabilities
624190	Other Individual and Family Services
624210	Community Food Services
624221	Temporary Shelters
624229	Other Community Housing Services
624230	Emergency and Other Relief Services
624310	Vocational Rehabilitation Services
624410	Child Day Care Services
902611	Elementary and Secondary Schools (State Government)
902612	Colleges, Universities, and Professional Schools (State Government)
902619	All Other Schools and Educational Support Services (State Government)
903611	Elementary and Secondary Schools (Local Government)
903612	Colleges, Universities, and Professional Schools (Local Government)
903619	All Other Schools and Educational Support Services (Local Government)

The Bay Region COE selected education programs based on Data Vista's Mapping of Taxonomy of Program (TOP) Codes to Sectors.[3] To evaluate active or approved programs in Bay Region community colleges we examined data reported to the California Community Colleges Chancellor's Office Curriculum Inventory (COCI). This report included active or approved programs prior to October 2024. Educational supply data was retrieved from Data Mart for TOP data and Integrated Postsecondary Education Data System (IPEDS) for CIP data. The total number of degrees awarded for a given TOP or CIP code was calculated as a three-year average.

The four pathways were developed to organize the wide range of occupations in the education sector and are based on our expertise in the Bay Region. Early childhood education occupations include childcare workers, preschool teachers (excluding special education), education and childcare administrators (preschool and daycare), and preschool special education teachers. Elementary education occupations include transitional kindergarten, kindergarten teachers (excluding special education), elementary school teachers (excluding special education), and special education teachers for kindergarten and elementary grades.

The secondary education pathway is more straightforward, as the occupation titles typically include the terms "secondary" or "middle school." This pathway includes roles in special education, career technical education, and more.

The postsecondary education pathway includes both teachers and administrators who work in higher education. We included these occupations because they are part of the broader education system. However, the educational requirements for these positions are typically not in education; instead, faculty members earn degrees in their specific areas of expertise. We included them in this report to highlight the demand for faculty. Furthermore, their role directly impacts all other sectors that rely on these educators to prepare the future workforce.

The final pathway, specialized/other education, includes occupations that span across multiple education levels. For example, self-enrichment teachers often work independently and teach individual students or small groups a specific skill. They may work with students at the elementary, secondary, or postsecondary level. We also included the occupation, personal care and service workers, all other, which is not traditionally categorized as an education occupation but rather a business occupation. However, this role often represents small business owners who operate home-based child care services, and therefore plays a key role in the early education ecosystem.

[3] https://datavista.cccco.edu/resources/16

Definitions

Average Annual Job Openings: In Lightcast, average annual job openings refer to the estimated number of job openings in a given occupation or group of occupations within a specific geographic area during the course of a year. When calculating this metric for more than a year, the average across those years is determined by adding the annual job openings over the period and dividing the total by the number of years (e.g., for a five-year period, this means adding the total openings across those five years and dividing that number by 5).

This metric is calculated based on:

- New Growth: Openings that arise due to the creation of new jobs as a result of industry or economic growth.
- Replacement Needs: Openings that occur because of workers leaving the occupation (e.g., due to retirement, career changes, or other factors).

Together, these components provide a comprehensive view of the total demand for workers in a specific role or field each year.

Average Annual Replacement Jobs: Average annual projected number of replacement job openings during 2023-2028.

CIP code: The Classification of Instructional Programs (CIP) is a taxonomic coding scheme, developed by the U.S. Department of Education's National Center for Education Statistics (NCES), used to classify and categorize academic programs for federal surveys and reporting of institutional data. Program data from CIP codes comes from the Integrated Postsecondary Education Data System (IPEDS). CIP codes are used to facilitate the alignment of similar programs offered by 2- and 4-year postsecondary institutions with the needs of the labor market.

Living wage: The living wage is the hourly rate that an individual in a household must earn to support themselves and/or their family, working full-time, or 2,080 hours per year. In the Bay Region the living wage is calculated as $46 per hour for one adult and school-aged child using the average median wages across the 12 counties in the Bay Region (Table 12).[4]

Table 12. Living Wage for an Adult + School-Aged Child by County

County	Living Wage	County	Living Wage
Alameda County	$46	San Francisco County	$50
Contra Costa County	$46	San Mateo County	$57
Marin County	$55	Santa Clara County	$51
Monterey County	$44	Santa Cruz County	$59
Napa County	$44	Solano County	$39
San Benito County	$42	Sonoma County	$42

[4] "Self-Sufficiency Standard," Center for Women's Welfare, University of Washington, 2023, accessed May 9, 2025, https://selfsufficiencystandard.org/California/.

NAICS codes: North American Industry Classification System (NAICS) codes are used to organize and categorize industries within the job market for this sector. A single two-digit NAICS code can represent multiple sub-sectors and industry groups within the broader sector.

Replacements as Percent of Openings: Percent of replacements of all job openings during 2023-2028.

Skill Level: Occupations are categorized into three skill levels: below middle-skill, middle-skill, and above middle-skill jobs. Classification is based on the typical entry-level education below.

Table 13. Skill Level Definition

Skill Level	Entry-Level Education
Below Middle-Skill	No formal education required
	High school diploma
Middle-Skill	Some college, no award
	Postsecondary certificate (non-degree award)
	Associate degree
	Bachelor's degree (selected occupations where ~33% or greater of positions are held by workers with less than a bachelor's degree)
Above Middle-Skill	Bachelor's degree (All other occupations not identified as middle-skill)
	Advanced degree

TOP code: The Taxonomy of Programs (TOP) is a system of codes used by the California Community College Chancellor's Office to compare differently named academic programs with similar outcomes across community colleges. Programs and courses offered by Community Colleges are assigned a TOP code to identify similar programs and their alignment with the labor market.

Unique Job Postings: Lightcast's deduplication process involves identifying duplicate job postings and counting them as a unique posting. The unique job posting count is the number of postings after the deduplication process has taken place. For example, multiple postings could list the same job, from the same company, and in the same region, and these multiple postings would be reduced to one unique job posting.

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Chancellor's Office Management Information Systems (MIS) Data Mart
Data Vista
Integrated Postsecondary Education Data System (IPEDS)
Lightcast
O*Net Online

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