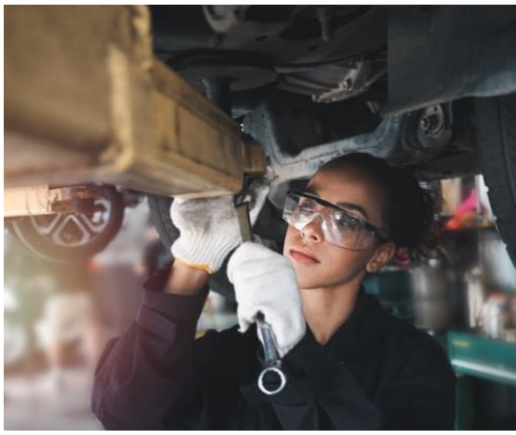
SECTOR PROFILE

Advanced Transportation



JULY 2025

CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH BAY AREA

BACCC BAY AREA COMMUNITY COLLEGE CONSORTIUM

POWERED BY California Community Colleges

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 the 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.

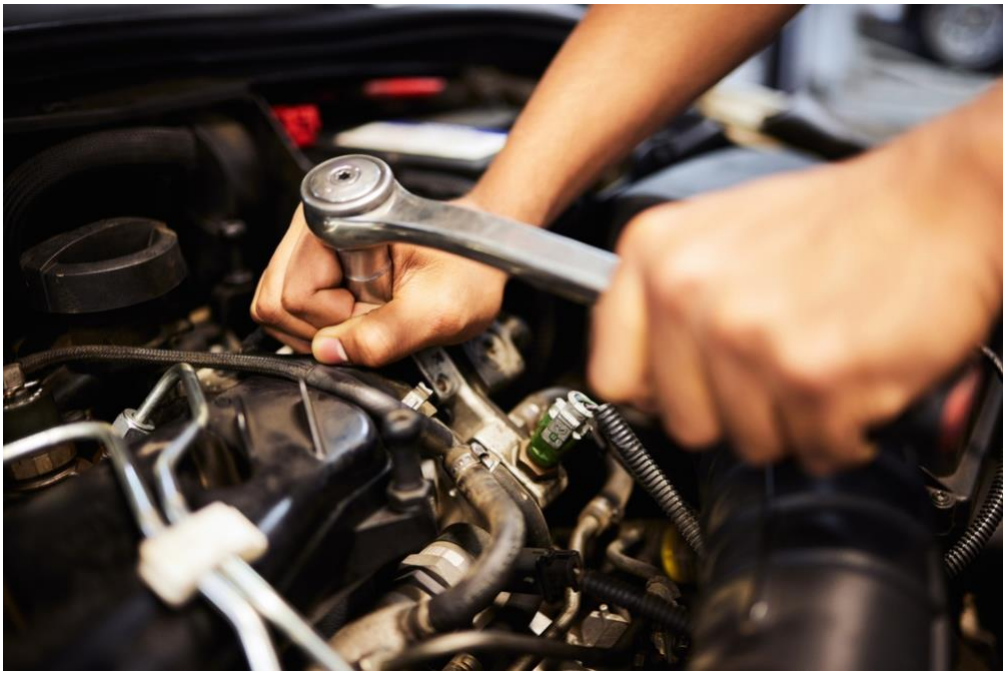
This advanced transportation profile summarizes key findings on current and projected workforce demand, hourly wages for occupations within the sector by career pathway, and program information from community colleges in the region that offer training programs in advanced transportation. This report 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 this pathway.

What Pathway Makes Up the Advanced Transportation Sector?

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

The one advanced transportation career pathway listed below offers a range of opportunities for employment and advancement across various skill levels. Transportation equipment and repair includes occupations such as auto mechanics, diesel engine specialists, and aviation maintenance technicians. Please note that this does not include all occupations within the advanced transportation sector.

ADVANCED TRANSPORTATION CAREER PATHWAY
Transportation Equipment and Repair



Quick Facts About Advanced Transportation in the Bay Region

Quick facts provide data related to the advanced transportation 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 advanced transportation sector accounted for over 53,000 jobs in the Bay Region in 2023. Between 2023 and 2028, these jobs are projected to grow by 6%, with a projected 5,210 annual job openings, 87% of which are replacement openings. Please note that all numbers related to labor market data in this report are rounded to the nearest tenth.

Advanced transportation programs were offered at 16 community colleges in the Bay Region (see Table 8 for the advanced transportation programs included). More than 3,100 students enrolled in advanced transportation programs annually, on average, at a Bay Region community college during the program years 2020-21 to 2022-23, and an average of 639 students completed a degree or certificate each year. As for demographics, approximately 33% of students who enrolled between program years 2020-21 to 2022-23 were between 20 and 24 years old. Males were predominantly represented among students who enrolled in advanced transportation programs (91%), as well as students who identify as Hispanic (36%) or White (16%).

Bay Region Quick Facts

53,260

Number of Jobs in Pathways in 2023

6%

5-year Job Growth, 2023-2028

5,210

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

16

Community Colleges (CC) Offering Advanced Transportation Programs

3,164

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

639

CC Degrees/Certificates Awarded on Average in Advanced Transportation (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 Advanced Transportation

The advanced transportation sector includes sub-sectors and industries classified under North American Industry Classification System (NAICS) codes 44, 48, 49, and 81 (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 advanced transportation sector is projected to grow by 4% in the Bay Region over the next several years (2023-2028). In 2023, approximately 178,620 workers were employed in advanced transportation related industries in the region, and this number is projected to increase to 185,850 workers by 2028.

Table 1: Projected Industry Demand for the Advanced Transportation Sector

2023 JOBS	2028 JOBS	JOB CHANGE	% CHANGE
178,620	185,850	7,230	4%

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

Occupational Demand for Advanced Transportation Career Pathway

To connect overall industry trends with specific roles, the following section examines occupational demand in more detail. When examining demand for the advanced transportation career pathway, Table 2 summarizes the number of workers employed in this pathway in 2023 and the total projected openings between 2023 and 2028 in the Bay Region. The transportation equipment and repair employed 53,260 workers in 2023, and is also projected to have 25,990 total openings across the five-year period.

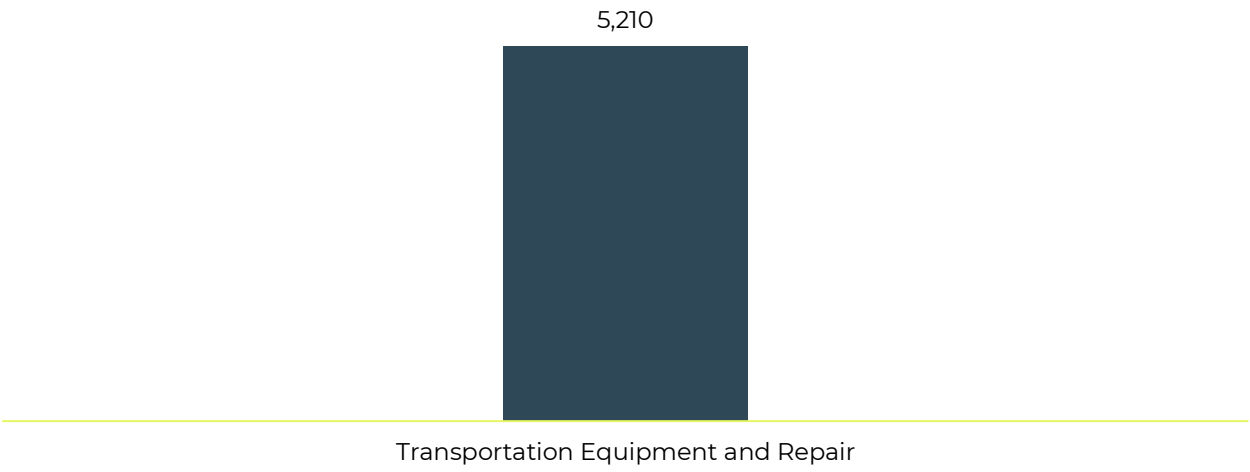
Table 2: Number of Jobs and Total Openings for Advanced Transportation Career Pathway (2023-2028)

PATHWAY	2023 JOBS	2023 - 2028 TOTAL OPENINGS*
Transportation Equipment and Repair	53,260	25,990

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 shows the projected average annual job openings for the advanced transportation career pathway. More than 5,200 average annual job openings are projected for occupations in the transportation equipment and repair pathway between 2023 and 2028.

Figure 1: Average Annual Job Openings for Advanced Transportation Career Pathway (2023-2028)



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

Occupations and Skill Levels by Advanced Transportation Pathway

When examining specific occupations within the advanced transportation pathway, Table 3 below presents data on employment and projected demand by occupation, grouped by career pathway and skill level. The transportation equipment and repair pathway includes 14 occupations. Please note that the figures in Table 3 are rounded to the nearest tenth, and totals represent the summed averages. On average, 87% 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 for Advanced Transportation (2023-2028)

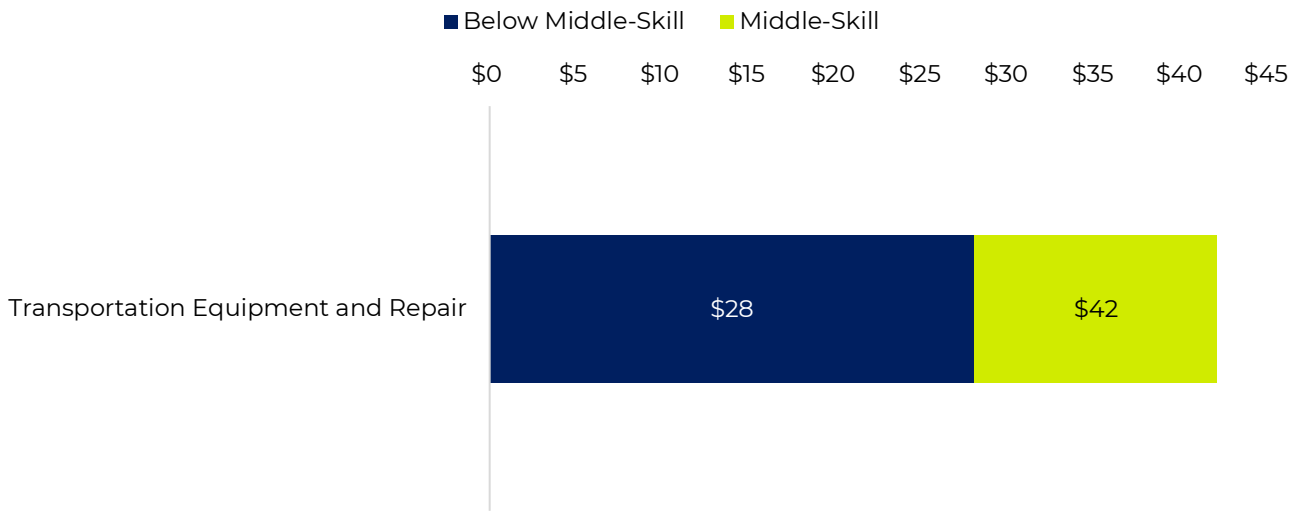
Skill Level	Occupation	Avg. Annual Openings	2023 Jobs	5-Yr Change	5-Yr % Change	5-Yr Annual Replacement Jobs	Replacements as % of Openings
TRANSPORTATION EQUIPMENT AND REPAIR PATHWAY							
•	Tire Repairers and Changers	240	2,170	-50	-2%	240	96%
•	Subway and Streetcar Operators	60	590	30	6%	60	90%
•	Automotive Glass Installers and Repairers	20	150	20	12%	10	76%
• •	Automotive Service Technicians and Mechanics	1,380	14,690	460	3%	1,250	92%
• •	First-Line Supervisors of Mechanics, Installers, and Repairers	1,140	11,580	780	7%	980	86%
• •	Transportation, Storage, and Distribution Managers	580	6,580	270	4%	520	89%
• •	Bus and Truck Mechanics and Diesel Engine Specialists	470	4,800	310	6%	410	85%
• •	Automotive Body and Related Repairers	390	3,610	290	8%	320	88%
• •	Mobile Heavy Equipment Mechanics, Except Engines	390	4,120	190	5%	350	86%
• •	Aircraft Mechanics and Service Technicians	240	2,560	150	6%	190	79%
• •	Commercial Pilots	180	1,330	100	7%	150	88%
• •	Avionics Technicians	60	520	40	7%	50	86%
• •	Transportation Inspectors	40	390	30	7%	40	84%
• •	Recreational Vehicle Service Technicians	20	170	10	2%	20	88%
ADVANCED TRANSPORTATION TOTAL		**5,210**	**53,260**	**2,630**	**6%**	**4,590**	**87%**

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

Occupational Wages by Advanced Transportation Pathway

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 Advanced Transportation Career Pathway



Source: Lightcast, Median Hourly Wages by Advanced Transportation Career Pathway [2024.3].

Table 4: Hourly Earnings for Occupations by Advanced Transportation Career Pathway

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
TRANSPORTATION EQUIPMENT AND REPAIR PATHWAY				
•	Subway and Streetcar Operators	$38	$42	$44
•	Automotive Glass Installers and Repairers	$18	$23	$20
•	Tire Repairers and Changers	$18	$19	$53
• •	Transportation, Storage, and Distribution Managers	$42	$57	$79
• •	Avionics Technicians	$41	$46	$58

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
• •	First-Line Supervisors of Mechanics, Installers, and Repairers	$35	$46	$54
• •	Aircraft Mechanics and Service Technicians	$34	$41	$54
• •	Commercial Pilots	$34	$66	$73
• •	Mobile Heavy Equipment Mechanics, Except Engines	$31	$36	$48
• •	Transportation Inspectors	$30	$40	$42
• •	Bus and Truck Mechanics and Diesel Engine Specialists	$28	$37	$49
• •	Recreational Vehicle Service Technicians	$23	$29	$28
• •	Automotive Body and Related Repairers	$22	$30	$34
• •	Automotive Service Technicians and Mechanics	$21	$29	$36
Advanced Transportation Total Averages		**$30**	**$39**	**$48**

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

Job Postings for Advanced Transportation Occupations

Job postings represent the number of online jobs advertised in the Bay Region for occupations in the advanced transportation pathway specified in this report. Unique online job postings are de-duplicated based on job title, employer, and region. Across occupations in the advanced transportation pathway, there were 15,850 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 Advanced Transportation Occupations in the Bay Region, 2024

Unique Online Job Postings in the Bay Region
15,850

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

Specialized Skills	Soft Skills	Technical Skills
Automotive Services	Communication	Microsoft Office
HVAC	Customer Service	Inventory Control Systems
Supply Chain	Management	SAP Applications
Warehousing	Operations	Warehouse Management Systems
Inventory Management	Leadership	Inventory Management System
Hand Tools	Detail Oriented	Spreadsheets
Project Management	Problem Solving	Google Workspace
Preventive Maintenance	Planning	SQL
Suspension (Vehicle)	Troubleshooting	Dashboard
Brakes	Lifting Ability	Tableau

Table 7 lists the top employers in the advanced transportation sector in the Bay Region, which include automotive dealers, auto part companies, auto body and collision services, and retailers.

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

Top Employers

- Crash Champions
- Tesla
- Bridgestone Corporation
- CarMax
- Aerotek
- Penske Automotive Group
- Walmart
- Amazon
- Toyota Motor
- GPAC
- Randstad
- Caliber Collision

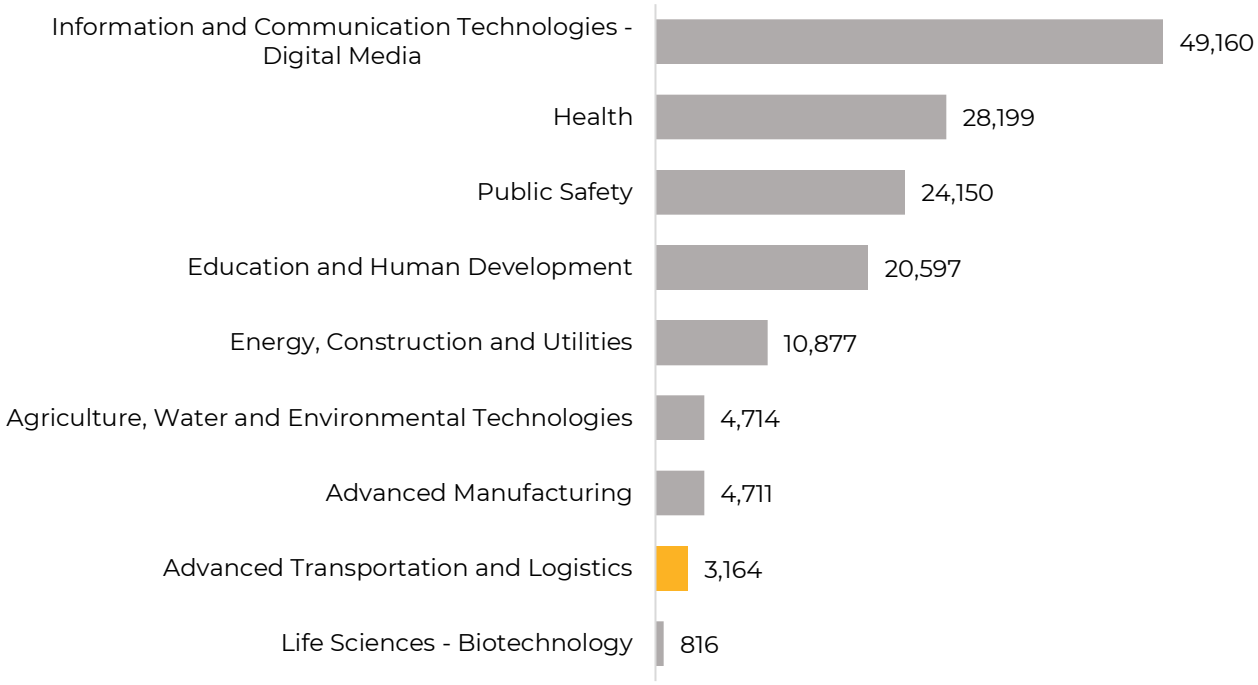
Source: Lightcast, Job Posting Analytics, January 2024-December 2024 [2025.1].

Advanced Transportation Community College Programs

California community colleges offer a variety of programs in advanced transportation, training students for a career pathway in Transportation Equipment and Repair. Colleges combine classroom instruction on campus, online, or through external work experiences. Of the 28 community colleges in the Bay Region, 16 offer a program related to advanced transportation. These community colleges include Chabot College, City College of San Francisco, College of Alameda, College of Marin, Contra Costa College, De Anza College, Evergreen Valley College, Gavilan College, Hartnell College, Las Positas College, Los Medanos College, Mission College, Monterey Peninsula College, Santa Rosa Junior College, Skyline College, and Solano 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 3,000 students enrolled in advanced transportation programs each year. For more information about the selection of programs and data sources for student outcomes see the 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.

Eleven (11) Taxonomy of Program (TOP) codes related to advanced transportation are presented in Table 8, and there are 11 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: Advanced Transportation Programs at Community Colleges in the Bay Region

TOP6	TOP6 Program Title	# Colleges w/Programs
094800	Automotive Technology	14
094700	Diesel Technology	5
094840	Alternative Fuels and Advanced Transportation Technology	5
094900	Automotive Collision Repair	5
095020	Aviation Powerplant Mechanics	5
095010	Aviation Airframe Mechanics	4
051000	Logistics and Materials Transportation	2
094740	Railroad and Light Rail Operations	1
094750	Truck and Bus Driving	1
094830	Motorcycle, Outboard and Small Engine Repair	1
095900	Marine Technology	1

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 639 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
094700	Diesel Technology	13	2	0	15
094800	Automotive Technology	313	108	54	475
094830	Motorcycle, Outboard and Small Engine Repair	4	1	0	5
094840	Alternative Fuels and Advanced Transportation Technology	20	1	0	21
094900	Automotive Collision Repair	11	5	2	18
095010	Aviation Airframe Mechanics	40	11	0	51
095020	Aviation Powerplant Mechanics	45	9	0	54
	Total Awards	**446**	**137**	**56**	**639**

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 83 awards each year between program years 2019-20 and 2021-22. The total number of awards for a given TOP or 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
15.0806 - Marine Engineering Technology/Technician	0	0	22	22
47.0603 - Autobody/Collision and Repair Technology/Technician	0	1	0	1
47.0604 - Automobile/Automotive Mechanics Technology/Technician	13	0	0	13
49.0205 - Truck and Bus Driver/Commercial Vehicle Operator and Instructor	47	0	0	47
Total Awards	**60**	**1**	**22**	**83**

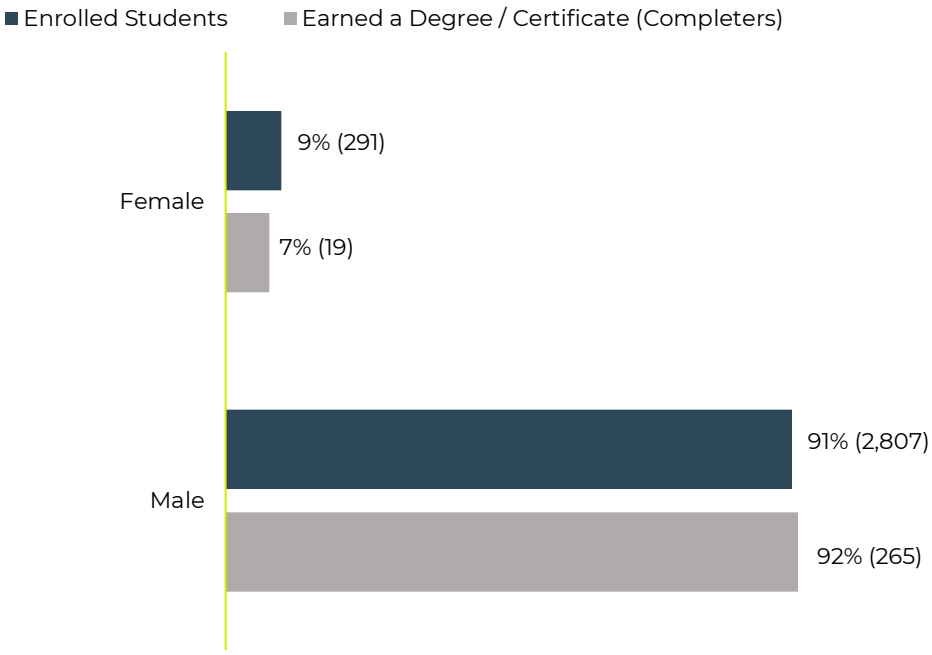
*Total awards do not include degrees higher than a bachelor's degree.
Source: Integrated Postsecondary Education Data System (IPEDS). Program Years 2019-20 to 2021-22 Annual Awards, by CIP Code, Bay Region Non-Community College Institutions.

Demographic Profile of Students in Community College Advanced Transportation Programs

This sector profile also summarizes the demographics of community college students who enroll in and complete a degree or certificate in advanced transportation 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, male students comprised 91% of enrollees and 92% of award earners, compared to 9% and 7% of female students, respectively. 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). 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. The figures below provide greater detail on the demographic profiles of students who enrolled in and completed advanced transportation programs in the Bay Region.

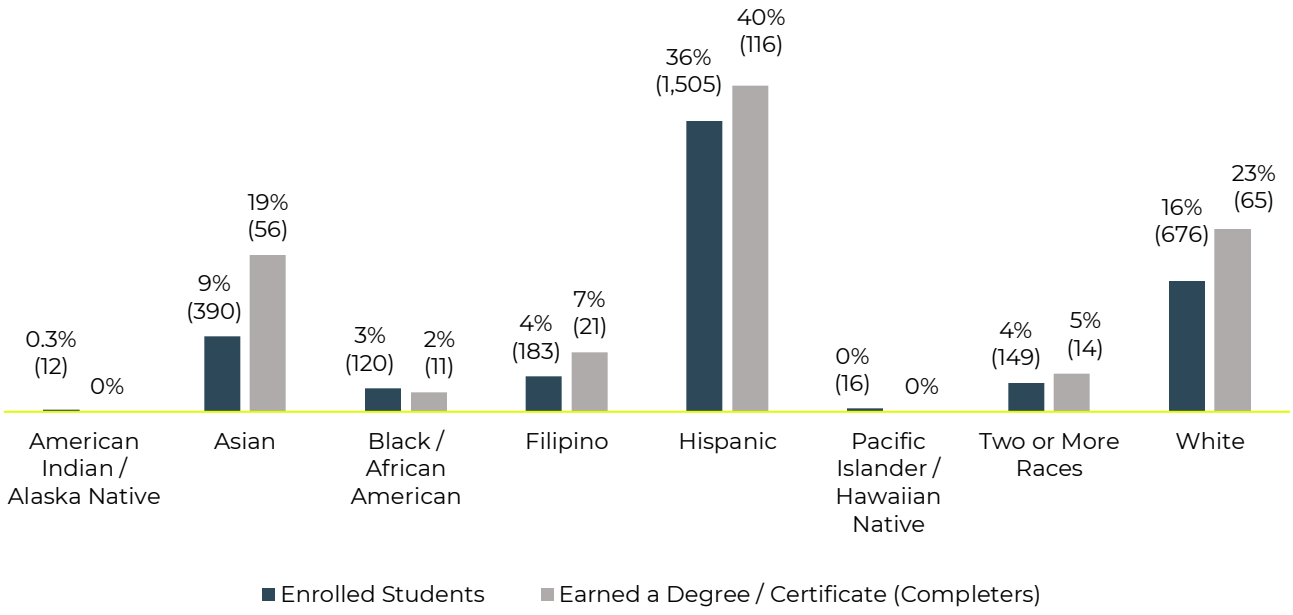
Figure 4: Gender of Students in Advanced Transportation Programs in the Bay Region (2020-21 to PY 2022-23)



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

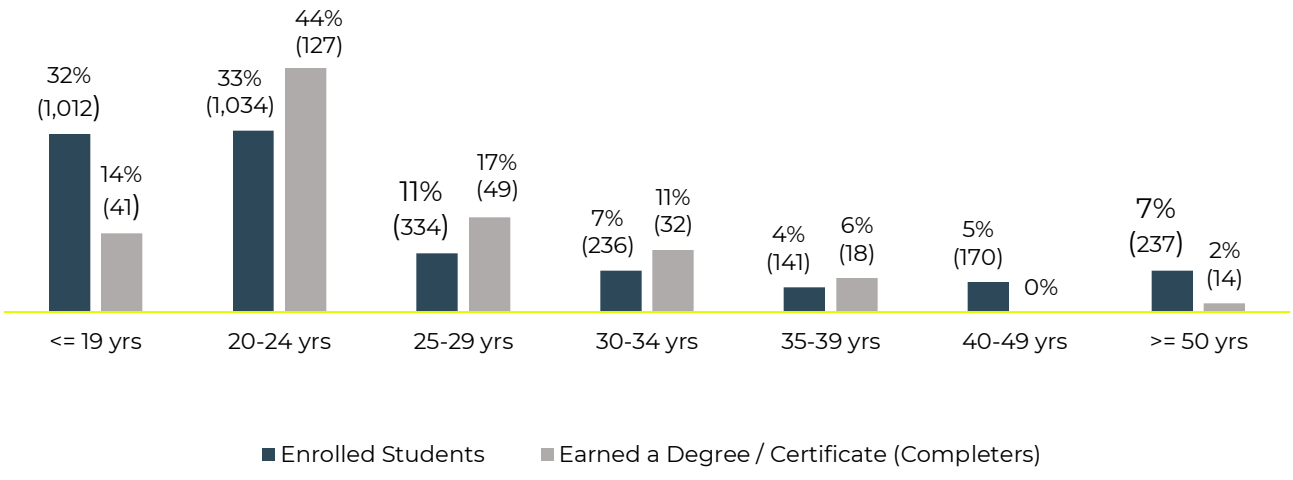
[2] Special admit students are those who are enrolled in both K-12 and community college simultaneously. However, they will be classified as non-special admit if they are enrolled as a non-special admit student for at least one term during the selected academic year.

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



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

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



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

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 advanced transportation pathway specified in this report. To evaluate industry data, the advanced transportation sector included industries classified under North American Industry Classification System (NAICS) six-digit codes in Table 11. The COE selected these NAICS codes using inverse staffing patterns to determine the industries in which the occupations in this report were employed, and included industries related to advanced transportation.

Table 11: NAICS codes for the Advanced Transportation Sector

NAICS	Description
441110	New Car Dealers
441120	Used Car Dealers
441210	Recreational Vehicle Dealers
441222	Boat Dealers
441227	Motorcycle, ATV, and All Other Motor Vehicle Dealers
441330	Automotive Parts and Accessories Retailers
441340	Tire Dealers
481111	Scheduled Passenger Air Transportation
481211	Nonscheduled Chartered Passenger Air Transportation
481219	Other Nonscheduled Air Transportation
482110	Rail transportation
483111	Deep Sea Freight Transportation
484110	General Freight Trucking, Local
484121	General Freight Trucking, Long-Distance, Truckload
484122	General Freight Trucking, Long-Distance, Less Than Truckload
484210	Used Household and Office Goods Moving
484220	Specialized Freight (except Used Goods) Trucking, Local
485113	Bus and Other Motor Vehicle Transit Systems
485410	School and Employee Bus Transportation
485991	Special Needs Transportation

NAICS	Description
485999	All Other Transit and Ground Passenger Transportation
487990	Scenic and Sightseeing Transportation, Other
488119	Other Airport Operations
488190	Other Support Activities for Air Transportation
488210	Support Activities for Rail Transportation
488320	Marine Cargo Handling
488330	Navigational Services to Shipping
488410	Motor Vehicle Towing
488490	Other Support Activities for Road Transportation
488510	Freight Transportation Arrangement
492110	Couriers and Express Delivery Services
492210	Local Messengers and Local Delivery
493110	General Warehousing and Storage
811111	General Automotive Repair
811114	Specialized Automotive Repair
811121	Automotive Body, Paint, and Interior Repair and Maintenance
811122	Automotive Glass Replacement Shops
811191	Automotive Oil Change and Lubrication Shops
811198	All Other Automotive Repair and Maintenance
811210	Electronic and Precision Equipment Repair and Maintenance

The Bay Region COE selected advanced transportation 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.

[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.

Sources

California Community Colleges Chancellor's Office Curriculum Inventory (COCI)
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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