



Labor Market Analysis for Program Recommendation Research Laboratory Technology Occupations North Bay Subregion

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 Research Laboratory Technology workers compared to the demand for this cluster of occupations in the Bay Region and in the North Bay subregion (Marin, Napa, Solano, Sonoma counties). There is a projected annual gap of about 1,733 students in the Bay Region and 179 students in the North Bay subregion.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0955.00 - Laboratory Science 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 subregion in the state and region.

This report includes middle-skill occupations that require a certificate, or an associate degree, or it may require a bachelor’s degree, but 33% or fewer of current workers in these roles hold one.

This report profiles Research Laboratory Technology Occupations in the 12 county Bay Region and in the North Bay subregion.

- **Biological Technicians (19-4021):** Assist biological and medical scientists. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, collect data and samples, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.
Typical Entry-Level Educational: Bachelor’s degree
Skill Level: Middle-Skill
Work Experience Required: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 26%
- **Chemical Technicians (19-4031):** Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.
Typical Entry-Level Educational: Associate’s degree
Skill Level: Middle-Skill
Work Experience Required: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 36%

- Clinical Laboratory Technologists and Technicians (29-2018): NA**
 Typical Entry-Level Educational: Bachelor's degree
 Skill Level: Middle-Skill
 Work Experience Required: None
 Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: NA%
- Chemical Equipment Operators and Tenders (51-9011):** Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.
 Typical Entry-Level Educational: High school diploma or equivalent
 Skill Level: Middle-Skill
 Work Experience Required: None
 Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 35%

Occupational Demand

Table 1. Employment Outlook for Research Laboratory Technology 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
Biological Technicians	5,230	5,511	282	5%	3,599	720	\$27	\$35
Chemical Technicians	2,121	2,145	24	1%	1,293	259	\$24	\$31
Clinical Laboratory Technologists and Technicians	7,523	8,192	669	9%	3,167	633	\$29	\$37
Chemical Equipment Operators and Tenders	1,366	1,273	-94	-7%	677	135	\$23	\$28
Total	16,240	17,121	881	5%	8,736	1,747	\$27	\$35

Source: Lightcast 2025.1

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 Research Laboratory Technology Occupations in the North Bay Subregion

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Biological Technicians	302	306	3	1%	203	41	\$26	\$33
Chemical Technicians	361	370	9	3%	228	46	\$22	\$25
Clinical Laboratory Technologists and Technicians	818	821	2	0%	270	54	\$27	\$38
Chemical Equipment Operators and Tenders	369	336	-33	-9%	189	38	\$22	\$29
Total	1,850	1,833	-17	-1%	890	179	\$25	\$33

Source: Lightcast 2025.1

North Bay subregion includes: Marin, Napa, Solano, Sonoma Counties

Job Postings in the Bay Region and North Bay Subregion

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

Occupation	Bay Region	North Bay
Clinical Laboratory Technologists and Technicians	3,917	573
Chemical Technicians	301	16
Chemical Equipment Operators and Tenders	299	27
Biological Technicians	90	23

Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Table 4a. Top Job Titles in Job Postings for Research Laboratory Technology Occupations in the Bay Region

Title	Bay	Title	Bay
Laboratory Technicians	737	Cytotechnologists	77
Clinical Laboratory Scientists	633	Technicians	70
Laboratory Assistants	213	Medical Technologists	63
Chemical Technicians	114	Polysomnographers	58
Medical Laboratory Technicians	112	Laboratory Technologists	55
Histology Technicians	88	Laboratory Analysts	53
Travel Medical Technologists	82	Polysomnographic Technologists	53
Histotechnologists	80	Formulation Technicians	45
Travel Cath Lab Technologists	80	Clinical Laboratory Technicians	44

Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Table 4b. Top Job Titles in Job Posting for Research Laboratory Technology Occupations in the North Bay Subregion

Title	North Bay	Title	North Bay
Laboratory Technicians	107	Histotechnologists	13
Clinical Laboratory Scientists	90	Medical Technologists	13
Polysomnographers	47	Histology Laboratory Assistants	11
Laboratory Assistants	21	Polysomnographic Technicians	10
Histology Technicians	19	Chemists	9
Laboratory Analysts	19	Laboratory Technologists	9
Histology Technologists	18	Travel Medical Technologists	9
Medical Laboratory Technicians	15	Microbiology Laboratory Technicians	8
Travel Cath Lab Technologists	14	Fish and Wildlife Technicians	7

Title	North Bay	Title	North Bay
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Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Industry Concentration

Table 5. Industries Hiring for Research Laboratory Technology 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)
Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	2,352	2,546	8%	13%
General Medical and Surgical Hospitals	1,904	2,030	7%	12%
Medical Laboratories	1,850	1,997	8%	11%
Research and Development in Biotechnology (except Nanobiotechnology)	1,603	1,753	9%	9%
Pharmaceutical Preparation Manufacturing	1,181	904	-24%	6%
Hospitals (Local Government)	791	923	17%	5%
HMO Medical Centers	571	717	26%	4%
Colleges, Universities, and Professional Schools (State Government)	614	543	-12%	3%
Testing Laboratories and Services	559	518	-7%	3%
Offices of Physicians (except Mental Health Specialists)	421	483	15%	3%

Source: Lightcast 2025.4

Table 6. Top Employers Posting Research Laboratory Technology Occupations in the Bay Region and the North Bay Subregion

Employer	Bay	Employer	North Bay
Sutter Health	128	Providence	19
Stanford Health Care	125	Actalent	15
Kaiser Permanente	106	Kaiser Permanente	15
Kelly Services	103	Adventist Health	14
Actalent	71	Sutter Health	14
Stanford University	64	Kelly Services	13

Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Educational Supply

There are two community colleges in the Bay Region which issue 14 awards on average annually (last 3 years ending 2023-24) on TOP 0955.00 - Laboratory Science Technology. In the North Bay subregion, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

There are no other CTE educational institutions in the Bay Region issuing awards on average annually (last 3 years ending 2022-23) on CIP 41.0301- Chemical Technology/Technician.

Table 7. Community College Awards on TOP 0955.00 - Laboratory Science Technology in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Noncredit award	Total
Berkeley City	East Bay	2	3	0	5
Cabrillo	SC-Monterey	0	0	9	9
Total	-	2	3	9	14

Source: Data Mart

Note: The annual average for awards is 2021-22 to 2023-24.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 1,747 annual openings for the Research Laboratory Technology occupational cluster and 14 annual (3-year average) awards for an annual undersupply of 1,733 students. In the North Bay subregion, there is also a gap with 179 annual openings and no annual (3-year average) awards for an annual undersupply of 179 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0955.00 - Laboratory Science Technology

Metric Outcomes	Bay All CTE Program	State 0955.00
Students with a Job Closely Related to Their Field of Study	74%	NA
Median Annual Earnings for SWP Exiting Students	\$53,090	\$12,110
Median Change in Earnings for SWP Exiting Students	24%	NA
Exiting Students Who Attained the Living Wage	54%	NA

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

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Research Laboratory Technology Occupations in the Bay Region

Skill	Posting	Skill	Posting
Biology	1,026	Inventory Management	370
Laboratory Equipment	951	Laboratory Procedures	368

Skill	Posting	Skill	Posting
Chemistry	938	Histology	350
Medical Laboratory	938	Laboratory Safety	331
Clinical Laboratory Science	782	Hematology	323
Laboratory Experience	661	Specimen Processing	305
Laboratory Testing	492	Automation	281
Standard Operating Procedure	474	Phlebotomy	278
Microbiology	408	Pathology	276
Workflow Management	380	Data Entry	263

Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Table 10. Certifications in Job Postings for Research Laboratory Technology Occupations in the Bay Region

Certification	Posting	Certification	Posting
American Society For Clinical Pathology (ASCP) Certification	352	Phlebotomy Certification	38
Basic Life Support (BLS) Certification	284	Forklift Certification	23
Advanced Cardiovascular Life Support (ACLS) Certification	64	Neonatal Resuscitation Program Certification (NRP)	22
American Medical Technologists (AMT) Certification	60		

Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Table 11. Education Requirements for Research Laboratory Technology Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	1,092	29%
Associate degree	895	24%
Bachelor's degree & higher	1,751	47%

Source: Lightcast 2025.4; "Job Posting Analytics." Oct. 2024 - Sep. 2025

Note: 39% 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 CCCCO 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
CCCCO Data Mart

Contacts

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