



CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

LIFE SCIENCES SECTOR

[bw] RESEARCH
PARTNERSHIP

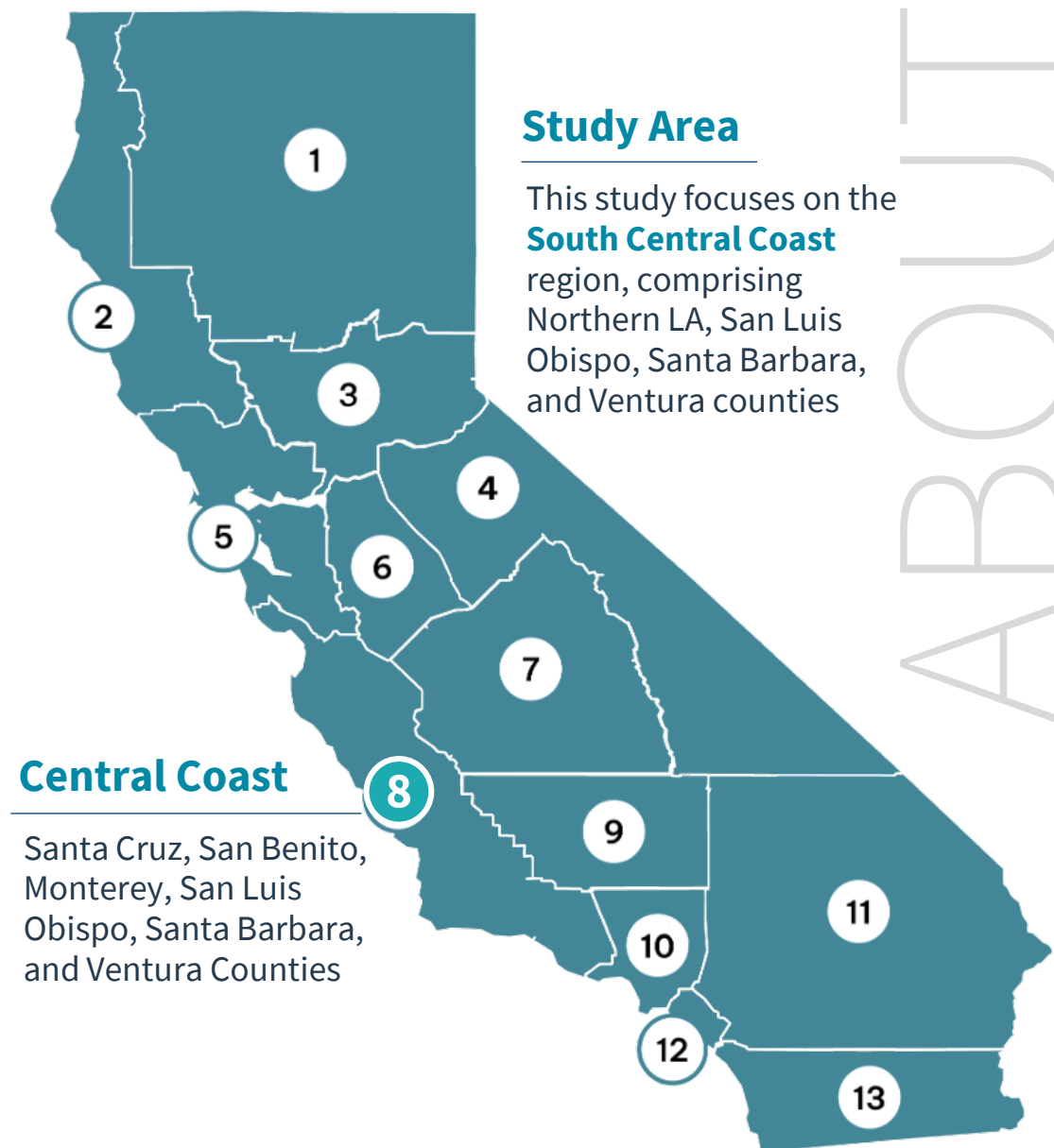
The Life Sciences sector is a priority for the South Central Coast.

The State of California defines 13 **Jobs First** regions based on shared economic ties and local connections.

The **South Central Coast region** includes San Luis Obispo, Santa Barbara, Ventura, and Northern Los Angeles Counties.

Under Jobs First, **Life Sciences** is classified as an “Accelerate” sector, reflecting its strong growth potential and opportunity for targeted investments.

This designation signals **state-level commitment** to expanding Life Sciences industries and workforce pipelines.



However, the Life Sciences sector faces structural challenges.

- The domestic Life Sciences industry faces **competitive pressure** from countries with more favorable tax environments, targeted subsidies, and more streamlined regulatory processes.
- **SCC Medical Devices and Diagnostics** and **Healthcare Services and Labs** industry employment has fallen in the last five years, decreasing by 11 percent and 16 percent, respectively.
- The sector is projected to experience further contraction over the next five years, shrinking overall 1.1 percent, with **Biopharma and Therapeutics** shrinking the most (1.6 percent).
- **Post-pandemic declines in investment**, combined with surrounding regions capturing industry growth, has contributed to employment losses in the SCC region.
- **Orange County** leads in medical devices and diagnostics, while **San Diego** and the **Bay Area** attract firms with stronger industry ecosystems.



The Life Sciences sector spans multiple industry elements.

The Life Sciences sector is **tied to the Healthcare industry** but is driven by specific research platforms and product development cycles in:

- **Biopharma and Therapeutics**, including manufacturing of pharmaceuticals and medicines.
- **Biotech R&D and Platforms**, including research into genomics, bioinformatics, and proteomics.
- **Healthcare Services and Labs**, including medical and diagnostic services.
- **Medical Devices and Diagnostics**, including manufacturing of medical, dental, and hospital equipment, devices, and supplies.

The Life Sciences sector offers high-wage opportunities across the region.

\$6.1B

Life Sciences Sector Contribution
to South Central Coast Gross
Regional Product, 2025

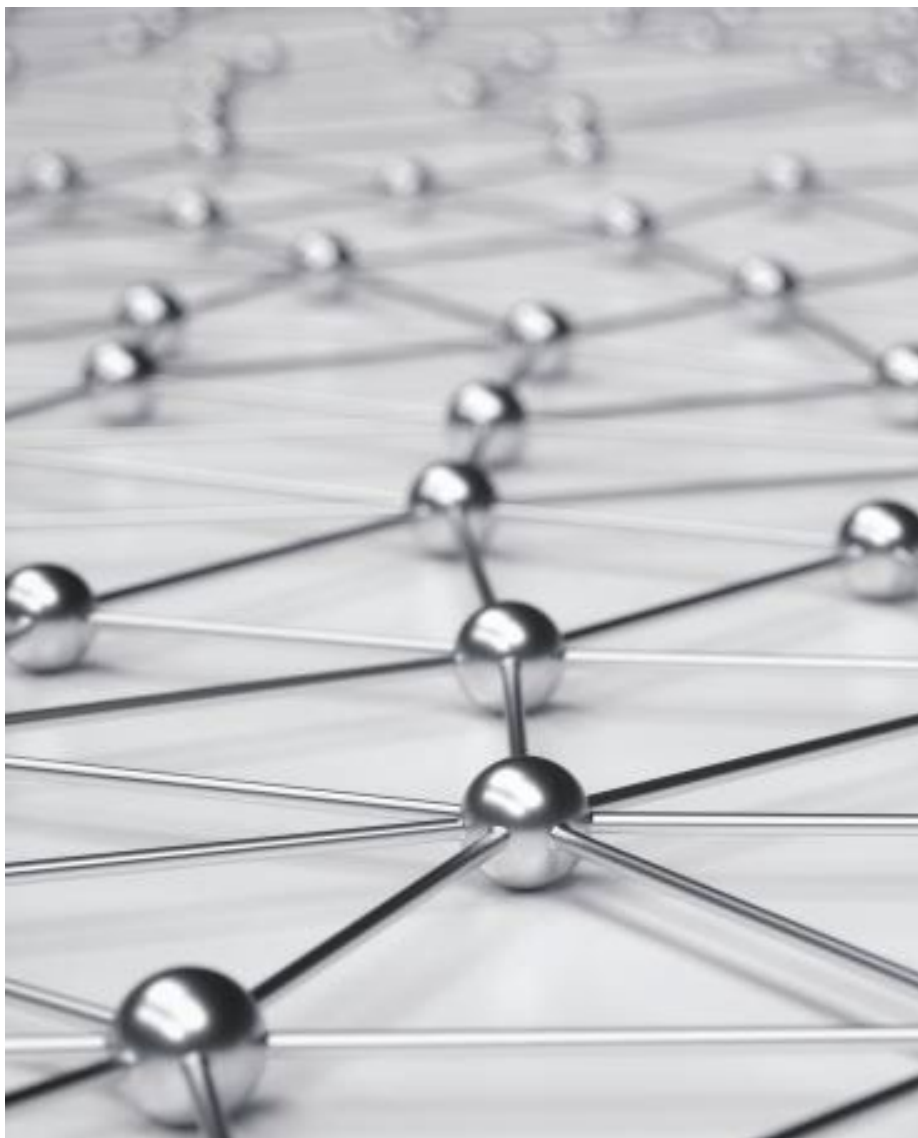
14,738

Life Sciences Jobs in the
South Central Coast,
2025

\$128K

Average Annual Wages of Life
Sciences Jobs in the South
Central Coast, 2025

- Life Sciences is a high-growth sector with significant **local R&D and education assets** (e.g., UC Santa Barbara's biotech, neuroscience, and stem cell research programs and Cal Poly's CIE incubator program).
- Approximately 26% of Life Sciences jobs are highly likely to be **impacted by automation**, versus a regional average of 20% across all industries.



The South Central Coast region has an established Life Sciences employer ecosystem.

Biopharma and
Therapeutics



Biotech R&D and
Platforms



**Agilent
Technologies**

Healthcare Services and
Labs



Medical Devices and
Diagnostics



Employers listed are illustrative of major regional activity; list is not intended to be exhaustive.

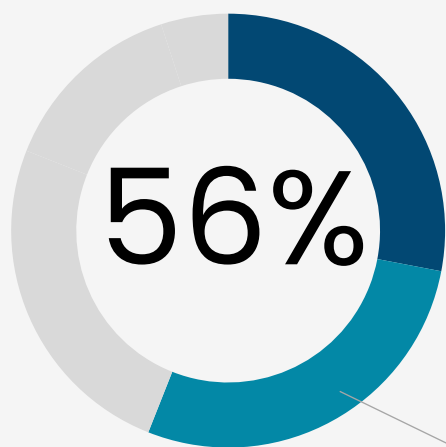
The Life Sciences and High-Tech industries are closely interconnected.

- The interconnections between the two industries create a **mutually reinforcing innovation and workforce ecosystem**.
- Stakeholders highlighted the **industry partnerships** that occur across the two sectors.
- **Biomedical technology** represents a major intersection between the region's Life Sciences and High-Tech sectors.
- The concentration of biomedical and technology-related activity strengthens **regional competitiveness** and supports **industry growth**.



Life Sciences employers expect to add jobs over the next 12-36 months.

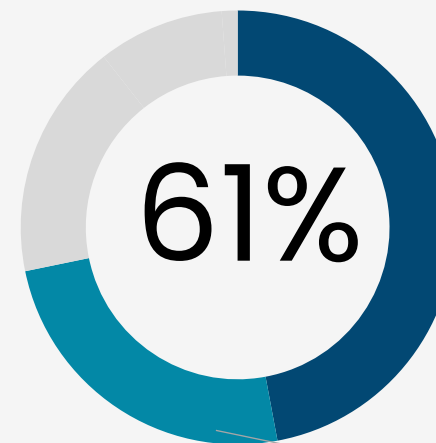
12-MONTH GROWTH EXPECTATIONS



Large Increase (10% and up) Predicted in 12-Month Headcount, 28%

Small Increase (<10%) Predicted in 12-Month Headcount, 28%

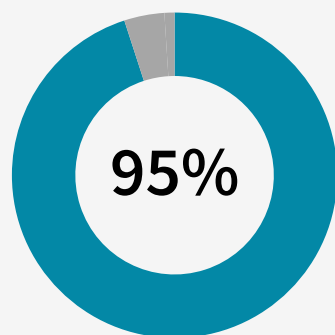
3-YEAR GROWTH EXPECTATIONS



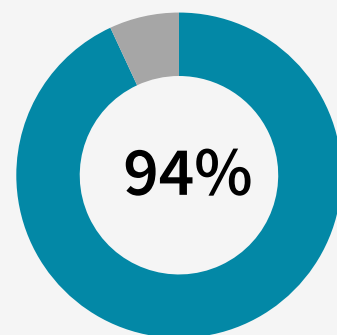
Large Increase (10% and up) Predicted in 3-Year Headcount, 47%

Small Increase (<10%) Predicted in 3-Year Headcount, 25%

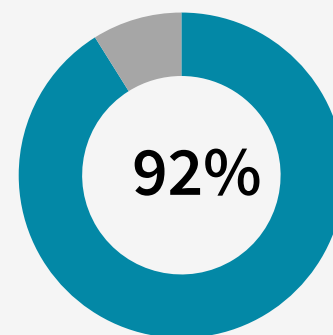
Employers express high levels of interest in apprenticeship, job readiness, technical bootcamps, and internship programs.



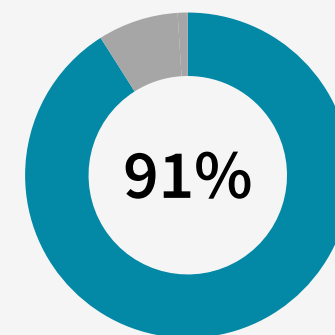
**APPRENTICESHIP
PROGRAMS**



**JOB READINESS
PROGRAMS**



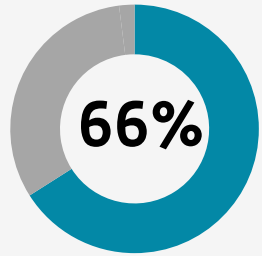
**TECHNICAL
BOOTCAMPS**



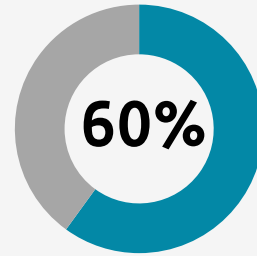
**INTERNSHIP
PROGRAMS**

Share of Surveyed Life Sciences Employers Expressing Interest in Partnerships

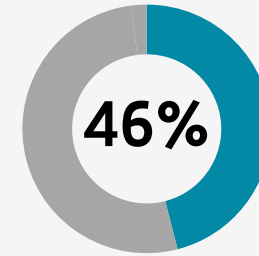
Less than half (46%) of employers surveyed work with community colleges to recruit, hire, or train.



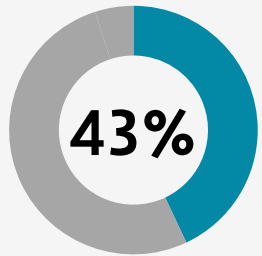
**FOUR-YEAR
COLLEGES OR
UNIVERSITIES**



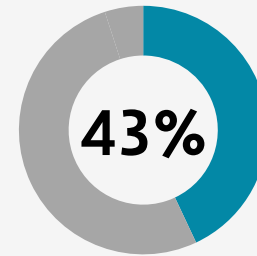
**HIGH SCHOOL,
TECHNICAL, OR
VOCATIONAL SCHOOLS**



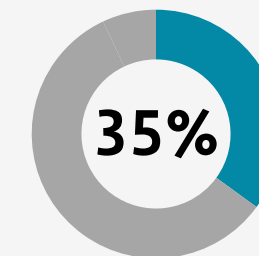
**COMMUNITY
COLLEGES**



**UNIONS OR JOINT
APPRENTICESHIP AND
TRAINING CENTERS**



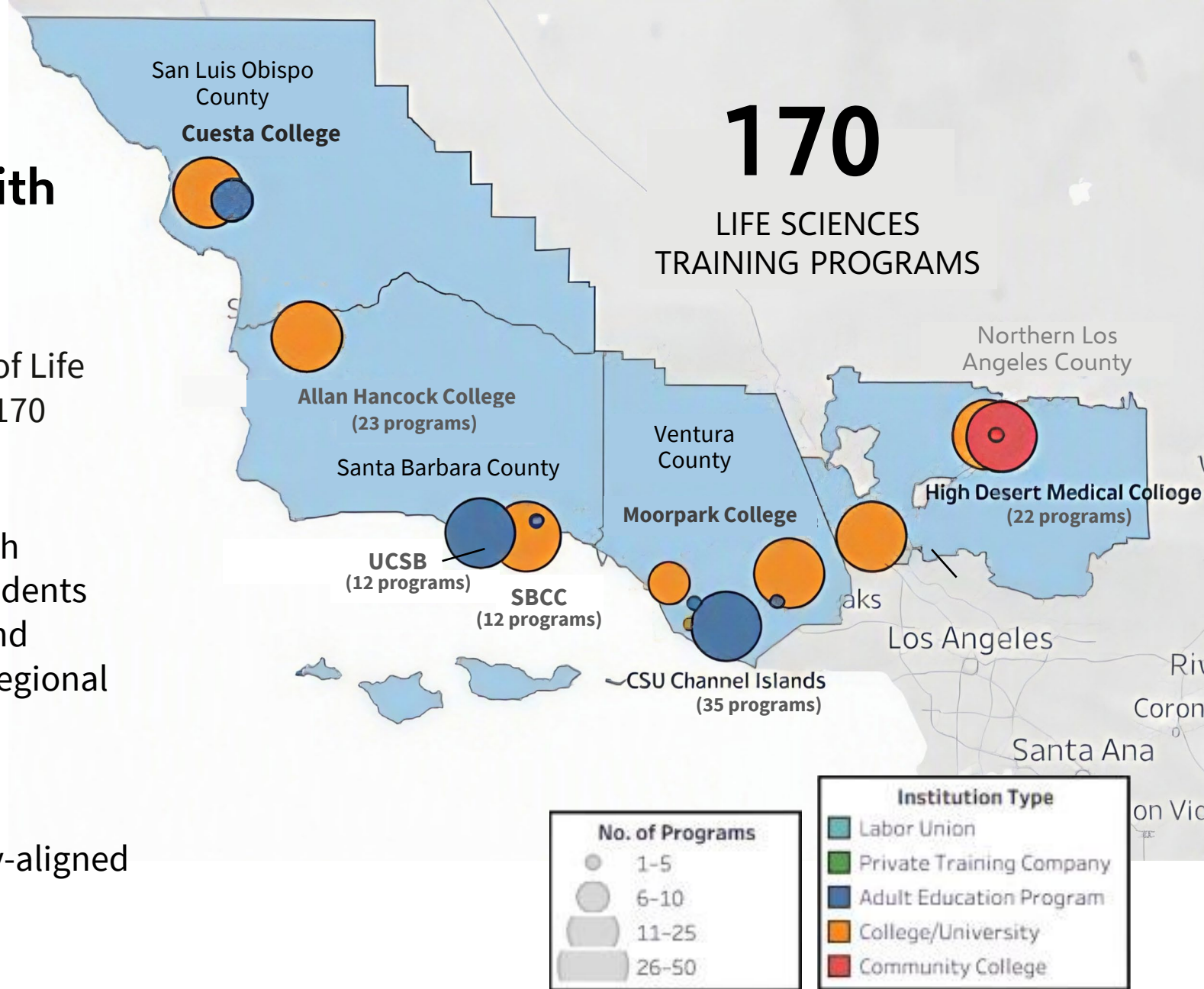
**WORKFORCE
DEVELOPMENT
BOARDS**



**NONPROFITS OR
COMMUNITY
ORGANIZATIONS**

Life Sciences education programs already align with key occupations.

- Community colleges administer **59%** of Life Sciences education programs (100 of 170 programs).
- Community colleges often partner with employers, like **Amgen**, to provide students with technical training, internships, and apprenticeship opportunities tied to regional needs.
- Moorpark College's** biotechnology partnerships is an example of industry-aligned workforce development.



Community colleges support key Life Sciences occupations.

Occupation	Purpose	CC Programs	Advancement Potential*	Automation Potential**	Skills Change***
Medical Assistants	Support healthcare through clinical and administrative tasks	24	Moderate	Moderate	Medium
Registered Nurses	Support healthcare through vital patient care	15	*	Low	Medium
Biochemists and Biophysicists	Support life sciences through research in laboratories	14	*	Low	High
Medical Secretaries and Administrative Assistants	Perform clerical and administrative tasks to support day-to-day operations	11	High	Moderate	High

* BW's Job Advancement Index measures workers' potential to advance to higher-paying job opportunities. Advancement potential is not applicable for occupations that already pay high wages.

** BW's Job Automation Index measures the proportion of skills and tasks that can be automated within a particular occupation. The most automatable occupations are characterized by high automation potential, while the least automatable occupations are characterized by low automation potential.

*** Skills change level based on % of surveyed employers indicating that an occupation exhibited "considerable" skills change over the last 12 months. However, since survey responses were limited, these findings should be interpreted directionally rather than as strict quantitative findings.

Core Life Science occupations with strong advancement potential or high wages have little to no regional training supply.

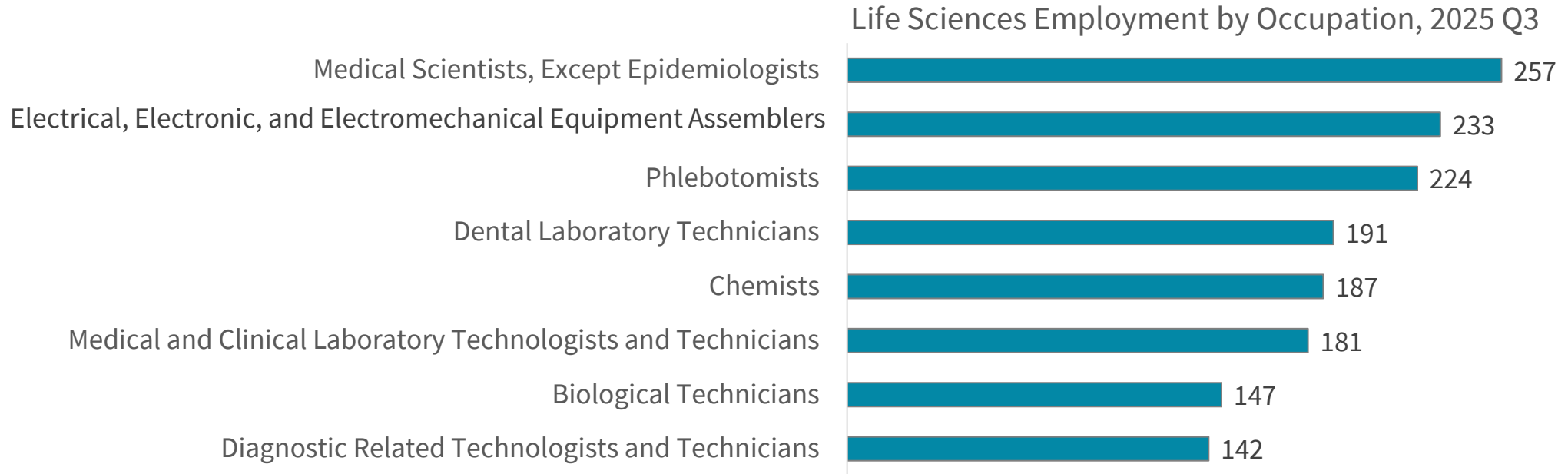
Occupation	Purpose	CC Programs	Advancement Potential*	Automation Potential**	Skills Change***
Medical Equipment Repairers	Install, maintain, test, and repair medical devices	0	High	Moderate	High
Medical Scientists, Except Epidemiologists	Conduct research dealing with human diseases	0	*	Low	High
Bioengineers and Biomedical Engineers	Support life sciences by applying engineering to biology and medicine	1	*	Moderate	High
Medical Appliance Technicians	Construct, maintain, and repair medical supportive devices	1	High	Moderate	High
Medical and Clinical Laboratory Technologists and Technicians	Perform medical laboratory tests for diagnosis and treatment	1	*	Moderate	High

* BW's Job Advancement Index measures workers' potential to advance to higher-paying job opportunities. Advancement potential is not applicable for occupations that already pay high wages.

**BW's Job Automation Index measures the proportion of skills and tasks that can be automated within a particular occupation. The most automatable occupations are characterized by high automation potential, while the least automatable occupations are characterized by low automation potential.

*** Skills change level based on % of surveyed employers indicating that an occupation exhibited "considerable" skills change over the last 12 months. However, since survey responses were limited, these findings should be interpreted directionally rather than as strict quantitative findings.

High-employment (100+) Life Sciences occupations and emerging needs define regional priorities.



Stakeholder-reported emerging occupations include:

- Phlebotomists
- Bioengineers and Biomedical Engineers
- Medical Appliance Technicians
- Chemists
- Biochemists and Biophysicists
- Compliance Officers

Community colleges can accelerate Life Sciences workforce growth in key middle-skill occupations.

High-Priority Community College Occupations

- Dental Laboratory Technicians
- Medical and Clinical Laboratory Technologists and Technicians
- Phlebotomists

These occupations have **moderate to high demand** (175+ workers), **high advancement potential**, and are priority occupations for the Life Sciences sector.

Medium-Priority Community College Occupations

- Medical Appliance Technicians
- Medical Secretaries and Administrative Assistants

These occupations have **moderate demand** (50+ workers), **high advancement potential**, and represent a priority for the Life Sciences sector.

Supporting Community College Occupations

- Medical Assistants

This occupation offers **medium advancement potential** and **entry-level healthcare jobs** which stakeholders noted need more advancement pathways.

The region faces an overall shrinking Life Sciences sector.

- **Strong regional competition** from established regions with Life Science sectors that have specializations in Medical Devices & Diagnostics limits regional growth.
- **Shrinking Los Angeles/Ventura County employment** driven by layoffs and post-pandemic industry restructuring.
- **Misalignment** between employer needs and workforce training programs weakens Life Science workforce pipelines.
- **High costs of lab equipment, specialized training infrastructure, and faculty recruitment and retention challenges** constrain sector growth.
- **Regulatory and compliance requirements** impact product development timelines and increase operational costs for regional firms.

The Life Sciences sector could benefit from additional investments in several areas.

- **Strengthen career pathways** to help entry-level healthcare workers access higher-paying laboratory and technical roles.
- **Expand Biotech R&D and Platforms training capacity** to support the region's growing research ecosystem and emerging biomedical technologies.
- **Improve alignment between training programs and employer needs** to help ensure workforce pipelines for priority Life Sciences occupations remain responsive to rapid technological change.



Improved communication can better meet employer demands.

- **Create a regional Life Sciences advisory network** to align training programs with employer needs across Life Science industries.
- **Coordinate employer engagement for specialized technical and laboratory roles** to ensure consistent feedback on skills, required certifications, and competencies.
- **Expand shared lab and training infrastructure** by connecting community colleges with university research centers and industry partners to support hands-on learning.



Community colleges can better support priority occupations.

- **Continue to scale high-value training programs** to support the growing Life Sciences industry and future talent needs, building on existing phlebotomy and technician pathways to support occupations with strong employer demand and high advancement potential.
- **Close skills gaps through work-based learning** to help address cross-cutting foundational and technical skills gaps across Life Sciences industries.
- **Facilitate the regional advisory structure** to deepen educator-employer alignment across the region.



SUMMARY

The Life Sciences sector benefits from **strong partnerships** between community colleges and employers across the region. **Strengthening communication** can better align training programs with priority occupations and workforce needs. Community colleges can play a key role in supporting emerging industries and addressing areas of employment declines through **targeted program development**.



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**THANK
YOU.**

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Appendix: Methodology

Occupational Prioritization Criteria

Advancement Potential

- **High** – Occupations **most likely** to provide higher-paying job opportunities
- **Moderate** – Occupations that are **somewhat likely** to provide higher-paying job opportunities
- **Low** – Occupations **least likely** to provide higher-paying job opportunities

BW's Job Advancement Index measures **workers' potential to advance to higher-paying job opportunities** using longitudinal worker advancement data from [the U.S. Census Bureau's Current Population Survey \(CPS\) \(2000-2025\)](#).

Advancement potential is not applicable for occupations already paying high wages.

Automation Potential

- **High** – Most automatable occupations with the **highest proportion** of skills and tasks that can be automated
- **Moderate** – Somewhat automatable occupations with **some proportion** of skills and tasks that can be automated
- **Low** – Least automatable occupations with the **lowest proportion** of skills and tasks that can be automated

BW's Job Automation Index measures **the proportion of skills and tasks that can be automated within a particular occupation** using detailed knowledge, skills, and abilities (KSA) and work activity data from [O*NET OnLine, 30.0 Database \(2025\)](#).

Skills Change

- Skills change levels derived from employer survey responses indicating whether occupations had experienced “considerable,” “some,” or “little to no” skills change over the last 12 months.
- Occupations were grouped into high, medium, and low tertiles based on **relative reported levels of skills change**.

Skills change level is based on the percentage of surveyed employers indicating that an occupation exhibited **“considerable” skills change** over the last 12 months.

However, since survey responses were limited, these findings should be interpreted **directionally** rather than as strict quantitative findings.

Life Sciences Employer Survey

Method	Online Survey (Email and Panel Respondents)
Universe	5,913 establishments in Santa Barbara, San Luis Obispo, Ventura, and Los Angeles Counties
Number of Respondents	98 total completes by Life Sciences firms in Santa Barbara, San Luis Obispo, Ventura, and Los Angeles Counties
Average Length	Online Survey – 17 minutes
Field Dates	April 15, 2026 through May 11, 2026