Bioscience

LA REGIONAL PROGRAM ADVISORY

APRIL 24, 2026
12:00 PM – 2:00 PM

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FOR LABOR MARKET RESEARCH
LOS ANGELES

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The LA -19 is leading industry -education partnerships to collaboratively strengthen our region's talent development ecosystem

1. Data-driven research on the supply and demand for talent
2. Industry Councils and Regional Program Advisories
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Current Landscape

For the **Life Sciences - Biotechnology** industry, employment is measured using 4 distinct analytical groupings based on selected 6-digit NAICS national industries.

Biopharmaceuticals

- Therapeutics, biologics, diagnostics manufacturing

Medical Devices and Diagnostics Equipment

- Medical, surgical, analytical, and diagnostic equipment

Research and Lab Services

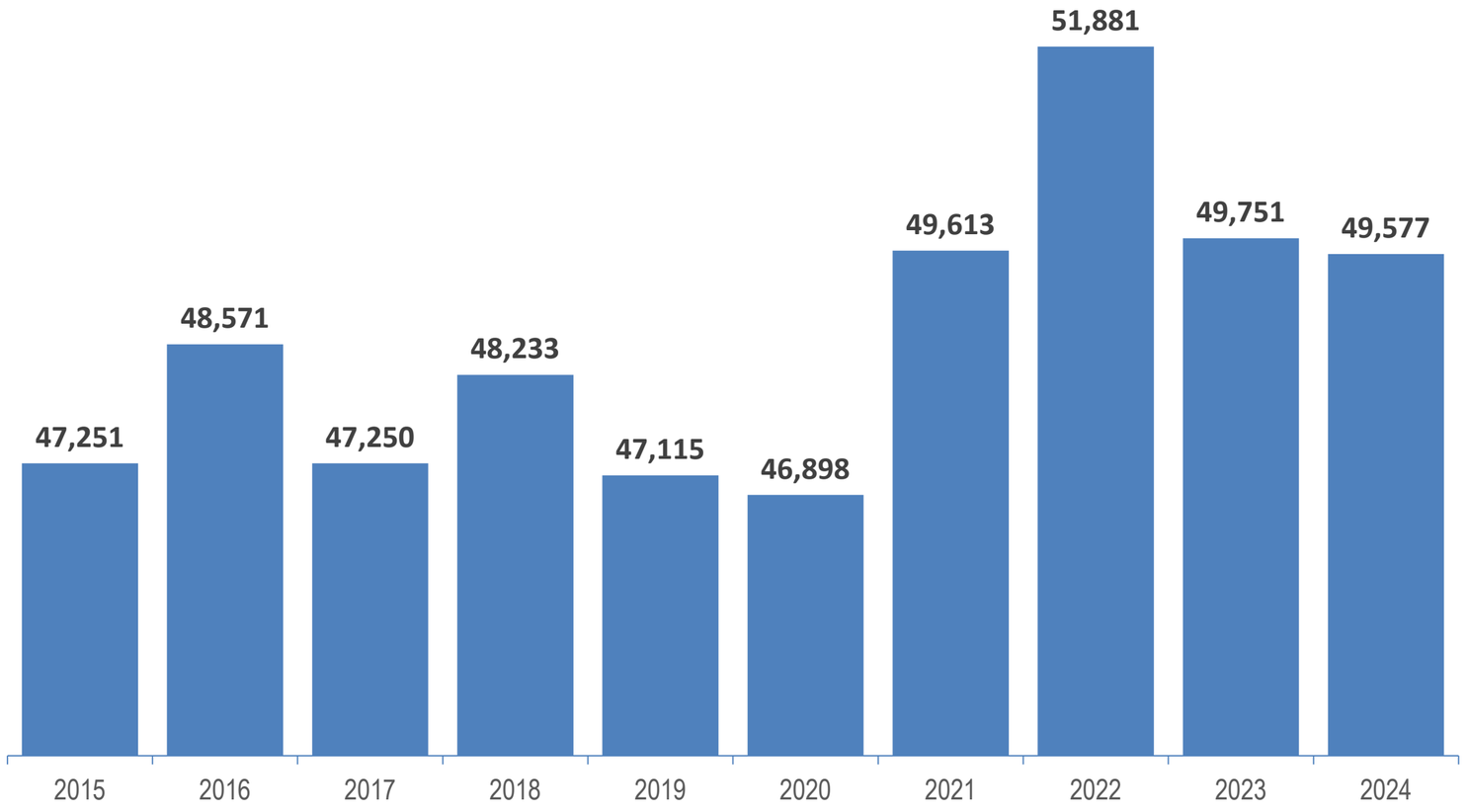
- Testing labs, R&D, medical laboratory services

Agricultural Biotechnology

- Aquaculture, wet corn milling, fertilizer, pesticide, and related agricultural chemical activity

Current Landscape

Life Sciences - Biotechnology Industry Employment
Los Angeles County 2015-2024



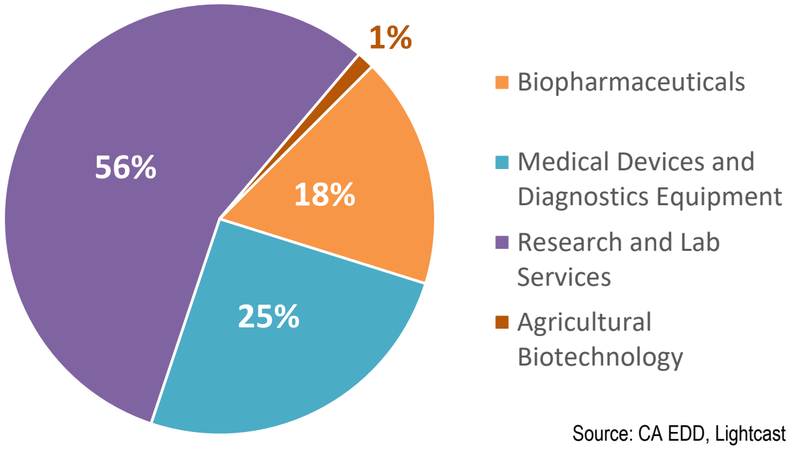
Source: CA EDD, Lightcast

- Industry employed just over 47,000 workers in 2015
- Employment remained relatively stable through 2020, dipping to just under 46,900
- Employment rose to a peak of nearly 51,900 in 2022
- Employment eased to about 49,600 in 2024, still above the 2015 level
- Overall trend points to modest long-term growth with less volatility than many other industries

Current Landscape

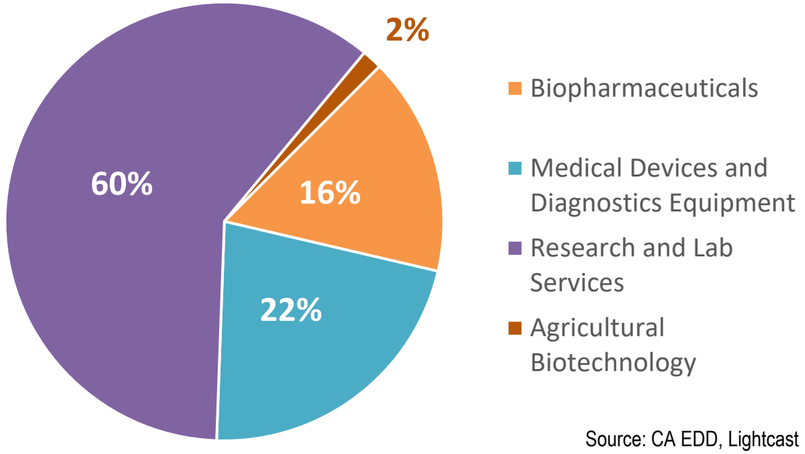
Change in Life Sciences - Biotechnology Industry Employment, Los Angeles County, 2015 - 2024

Los Angeles County, 2015



Source: CA EDD, Lightcast

Los Angeles County, 2024

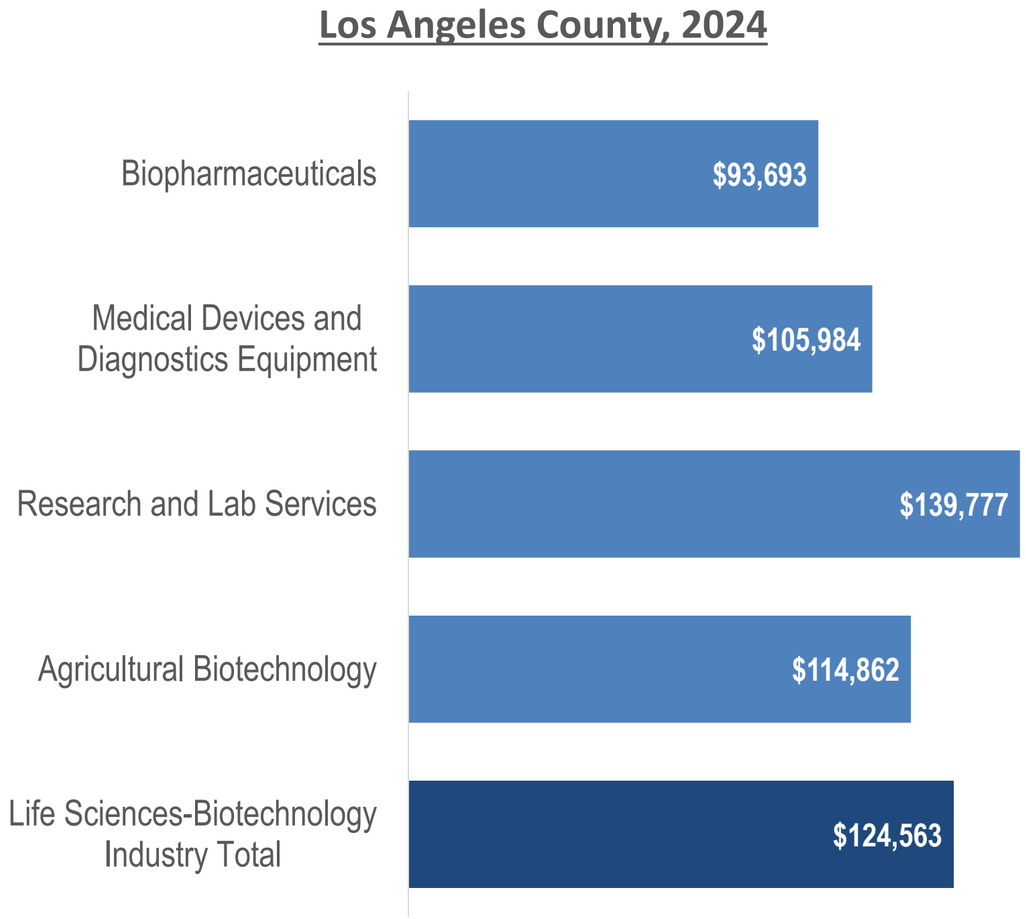


Source: CA EDD, Lightcast

- **Research and Lab Services** remained the largest segment and expanded from **56.0%** to **60.5%** of total employment
- **Medical Devices and Diagnostics Equipment** remained the second-largest segment, but its share fell from **25.3%** to **21.9%**
- **Biopharmaceuticals** declined slightly, from **17.3%** to **16.1%**
- **Agricultural Biotechnology** remained small, increasing from **1.3%** to **1.5%**
- Overall, the county's industry base became more concentrated in research, testing, and laboratory-oriented activity

Current Landscape

Average Annual Pay in Life Sciences - Biotechnology Industry

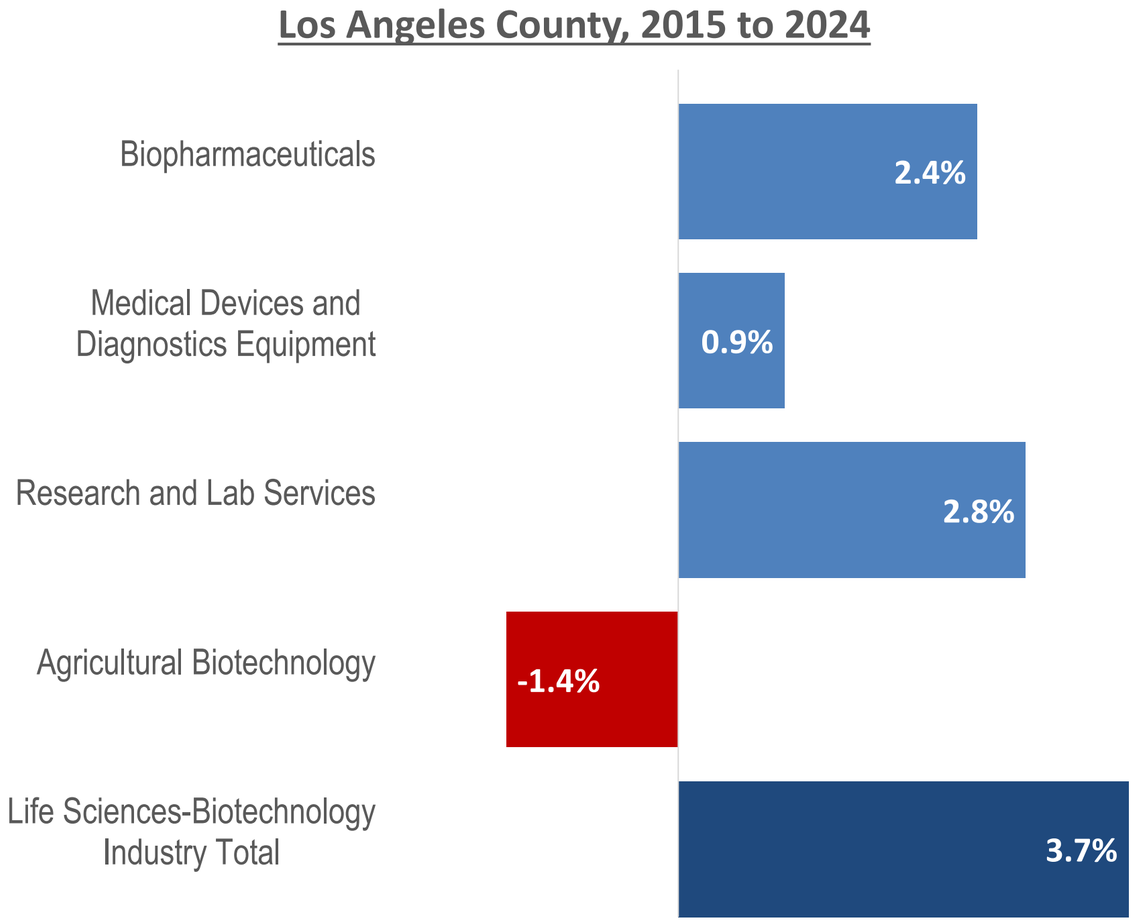


Source: QCEW, Lightcast

- All segments reported average annual pay above the **MIT living wage of $57,845** for a single person in Los Angeles County in 2024
- The highest-paying segment was **Research and Lab Services** at **$139,777**
- In 2024, the average annual wage in:
  - Los Angeles County, $81,350 per year
  - Total **Life Sciences - Biotechnology** Industry, **$124,563** per year
- Three segments exceeded **$100,000** per year
- These wages reflect the specialized scientific, technical, and production-oriented work required across the industry

Current Landscape

Real Wage Growth in Life Sciences - Biotechnology Industry

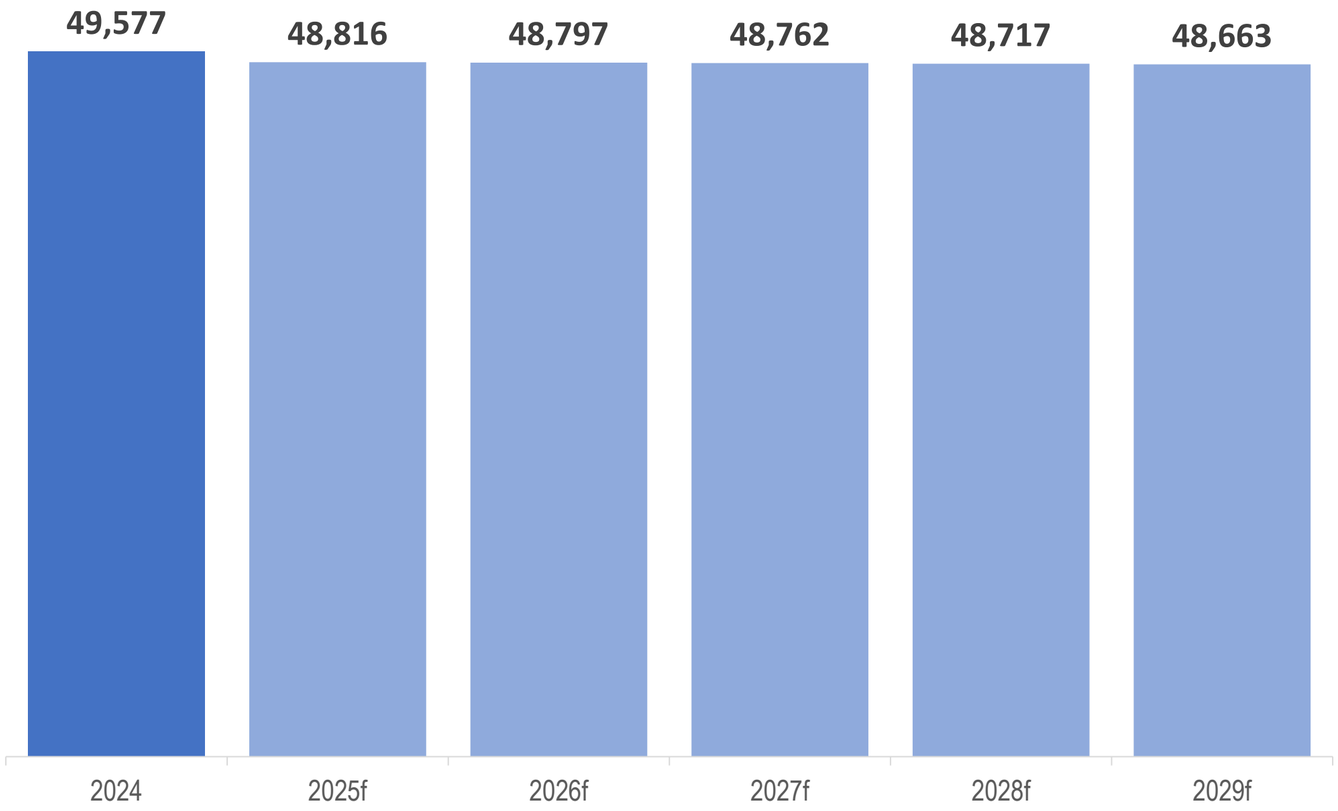


- **Research and Lab Services (+2.8%)** had the strongest real wage growth
- **Biopharmaceuticals (+2.4%)** also posted modest gains
- **Medical Devices and Diagnostics Equipment (+0.9%)** saw limited real wage growth
- **Agricultural Biotechnology (-1.4%)** was the only segment with declining real wages
- **Industry total (+3.7%)** indicates modest positive wage growth overall when adjusted for inflation

Source: QCEW, Lightcast

Looking Forward

Life Sciences - Biotechnology Industry Forecasted Employment in Los Angeles County, 2024-2029



Source: CA EDD, Lightcast

- Industry employment is projected to decline slightly from **49,577** jobs in 2024 to **48,663** in 2029
- Largest job losses are expected in **Research and Lab Services,** at nearly **600** jobs
- **Medical Devices and Diagnostics Equipment** is also projected to lose more than **400** jobs
- **Biopharmaceuticals** is expected to grow modestly, adding just over **100** jobs
- Forecast suggests a stable but slightly softening outlook rather than a major contraction

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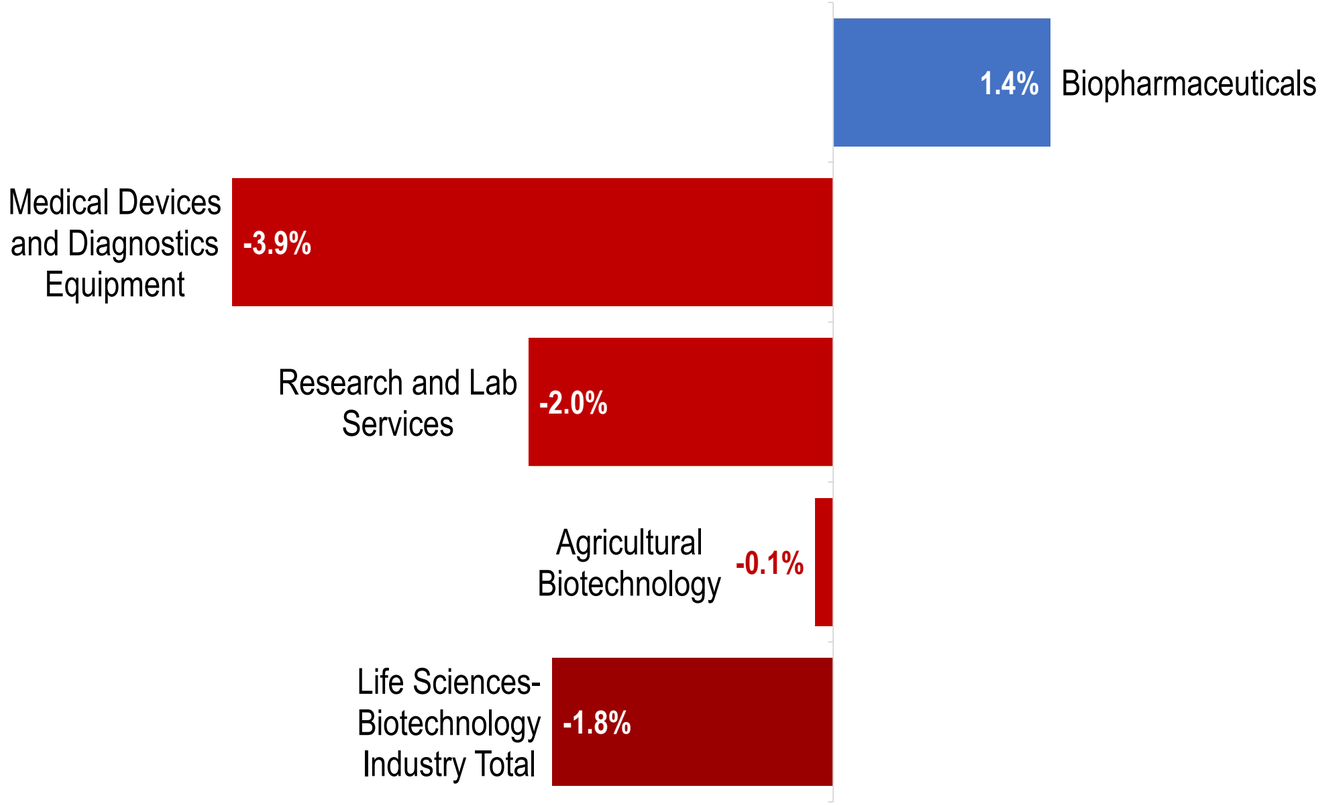
Looking Forward

- **Biopharmaceuticals (+1.4%)** is expected to grow the fastest
- **Medical Devices and Diagnostics Equipment (-3.9%)** is projected to post the steepest decline
- **Research and Lab Services (-2.0%)** is also forecasted to contract
- **Agricultural Biotechnology (-0.1%)** is expected to remain essentially flat
- **Industry total (-1.8%)** suggests slight overall softening, with modest gains in one segment offset by declines in others

Forecasted Employment Growth in Life Sciences - Biotechnology Industry in Los Angeles County, 2024 to 2029



Source: Lightcast

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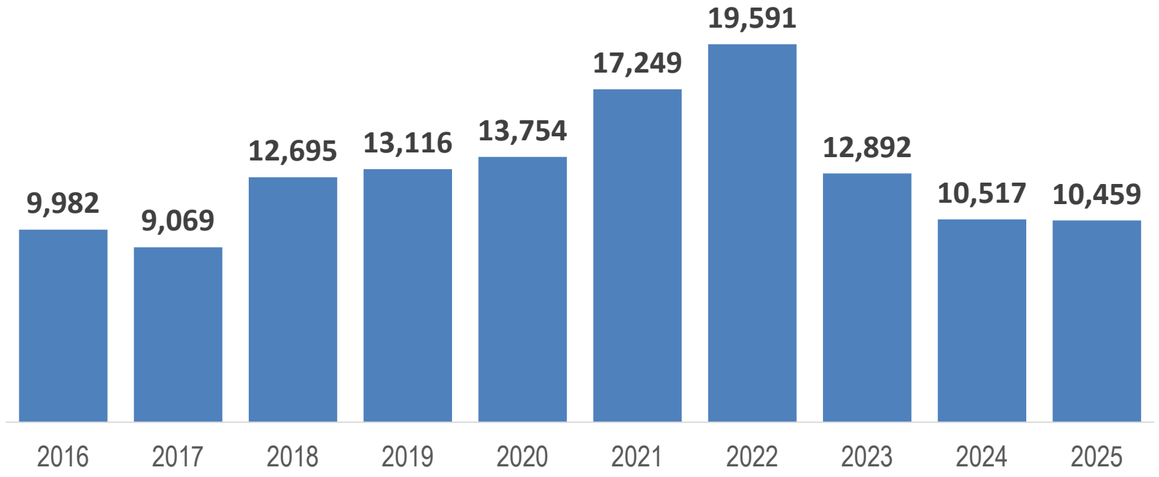
Employer Job Postings

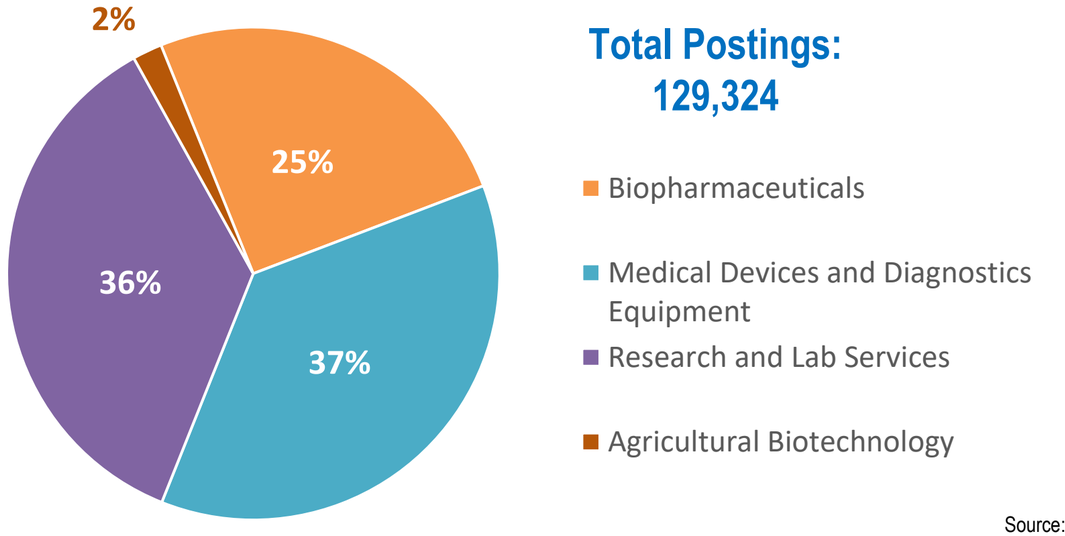
Total Life Sciences-Biotechnology Industry Job Postings, Los Angeles County, 2016 to 2025



Source: Lightcast

- Job postings peaked in 2022 at nearly **19,600** and fell back to about **10,500** in 2024 and 2025
- Total postings from 2016 to 2025 reached **129,324**
- Overall, hiring demand was concentrated primarily in device-related and research/lab occupations

Distribution of Job Postings, Los Angeles County 2016 to 2025



Source: Lightcast

- **Medical Devices and Diagnostics Equipment (36.9%)** accounted for the largest share of postings
- **Research and Lab Services (35.9%)** was a close second
- **Biopharmaceuticals (25.3%)** also represented a substantial share, while **Agricultural Biotechnology (1.9%)** remained limited

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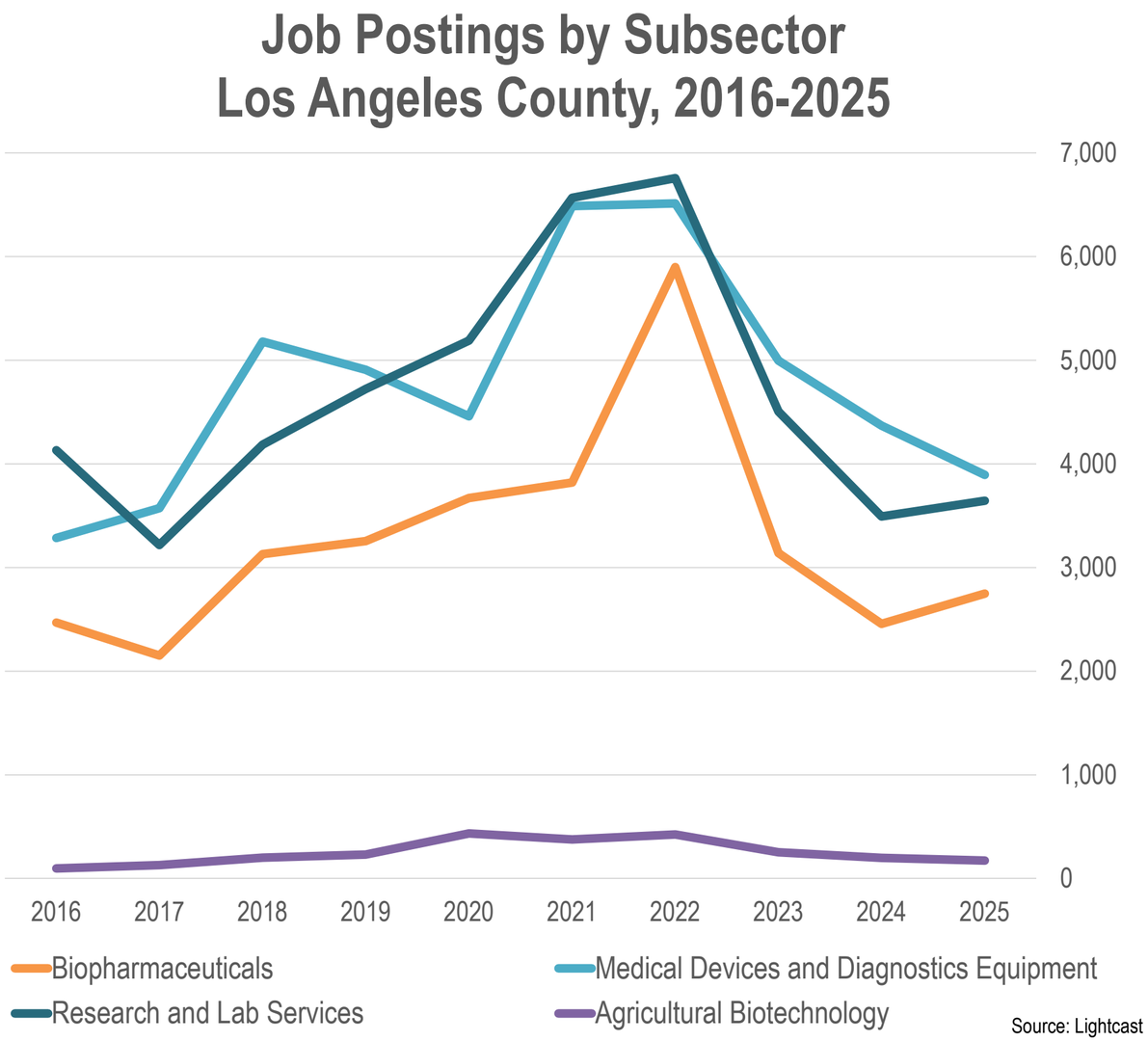
Employer Job Postings



Source: Lightcast

- **Research and Lab Services** peaked at nearly **6,800 postings** in **2022**; fell to **4,500** in **2023** and just under **3,500** in **2024**, with a slight uptick in **2025**
- **Medical Devices and Diagnostics Equipment** reached just over **6,500 postings** in **2022** after already topping **6,400** in **2021**; declined to about **5,000** in **2023**, **4,400** in **2024**, and **3,900** in **2025**
- **Biopharmaceuticals** peaked at nearly **5,900 postings** in **2022**; dropped to **3,140** in **2023** and about **2,460** in **2024**, before edging up slightly in **2025**
- **Agricultural Biotechnology** had the fewest postings throughout the period, and all segments were below earlier peaks by **2024** and **2025**

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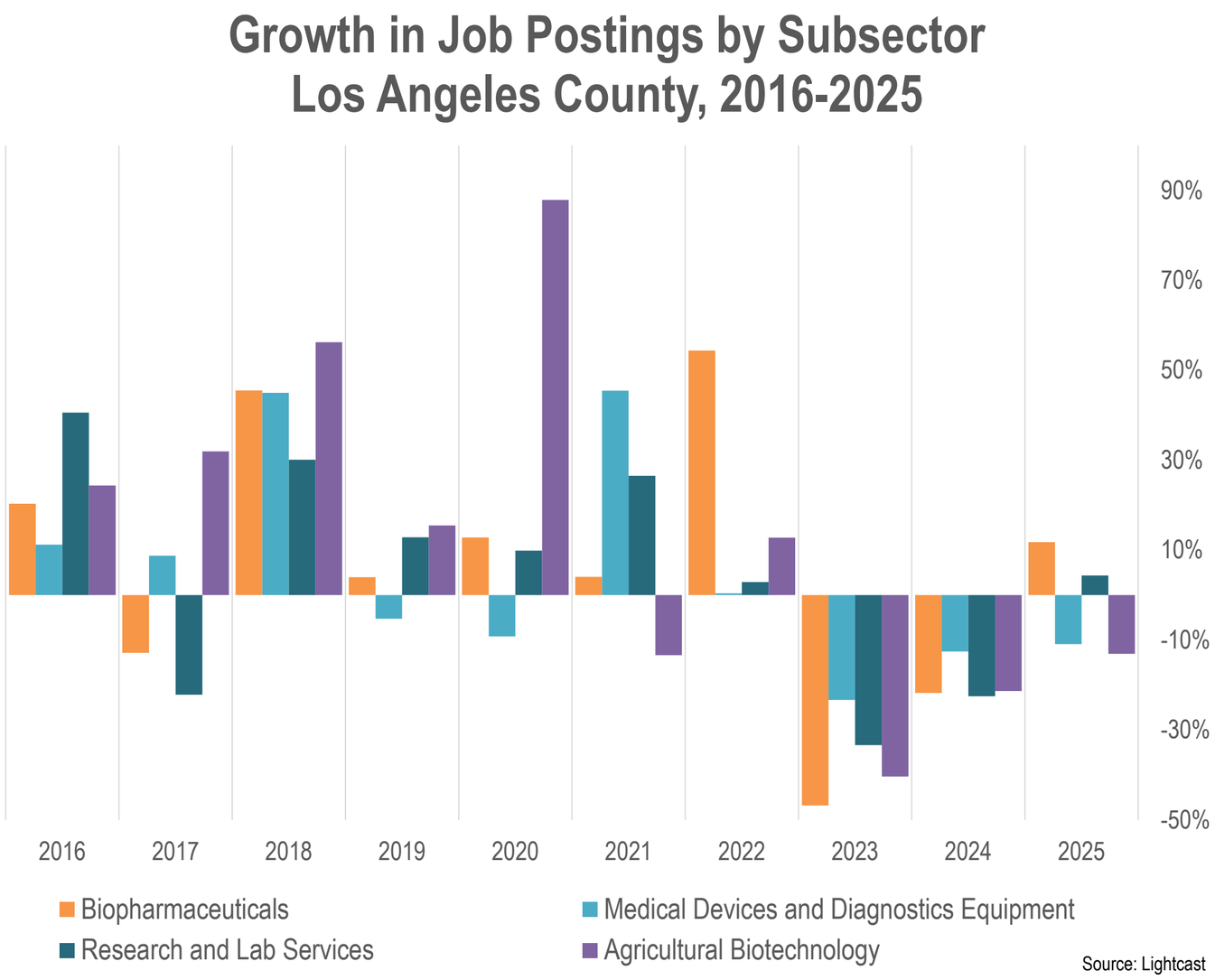
Employer Job Postings



Source: Lightcast

- **Biopharmaceuticals** swung from **+54.4%** in **2022** to **-46.8%** in **2023**, with continued declines in **2024** before a slight rebound in **2025**
- **Medical Devices and Diagnostics Equipment** posted strong gains in **2018** and **2021**, then declined each year after **2022**
- **Research and Lab Services** saw some of the strongest early gains, but fell sharply in **2023** and **2024** before a modest uptick in **2025**
- **Agricultural Biotechnology** was the most volatile segment, ranging from **+87.9%** in **2020** to **-40.3%** in **2023**, though on a much smaller base
- Overall, all segments showed substantial year-over-year swings, with strong gains followed by broad cooling after 2022

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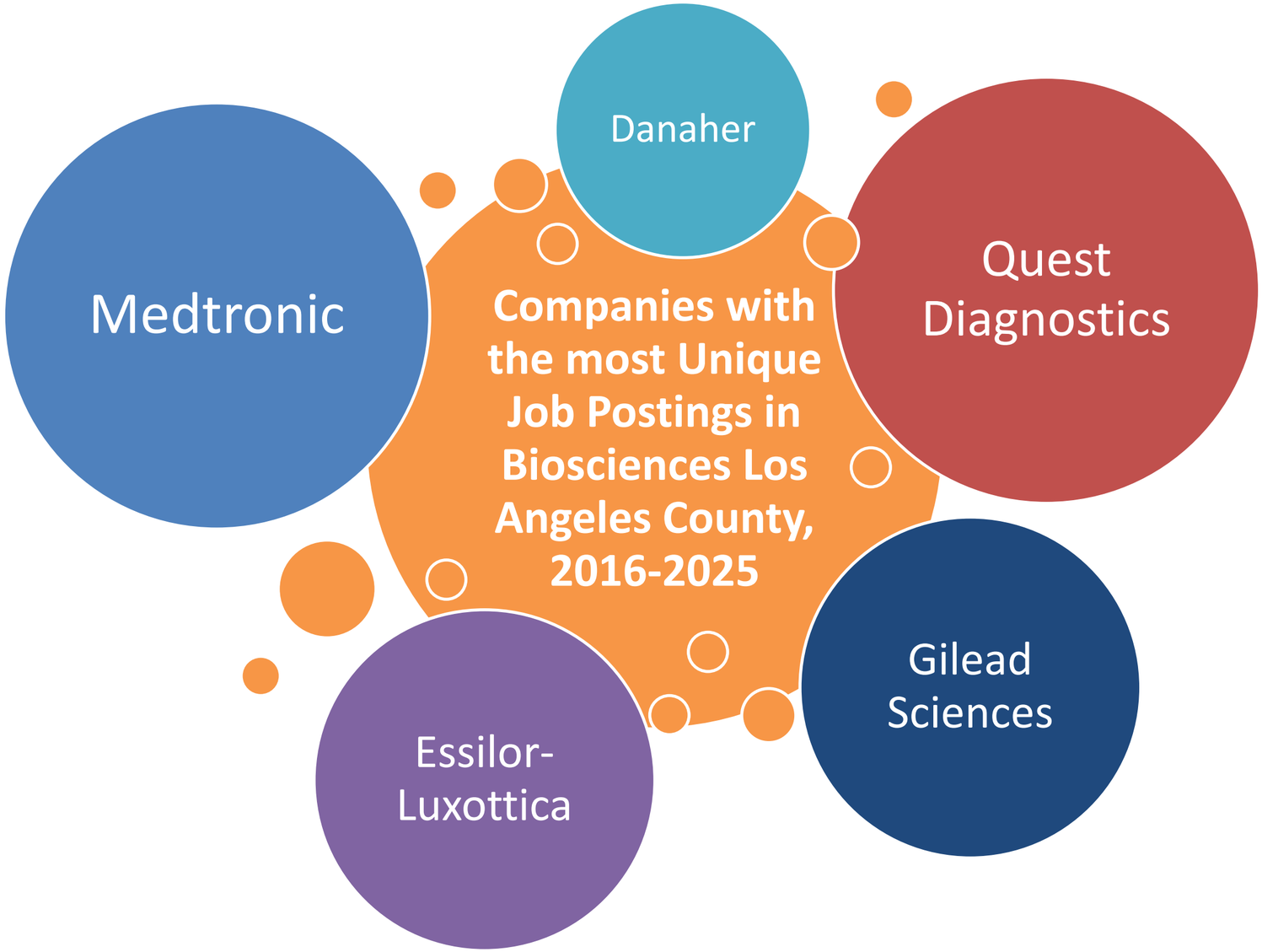
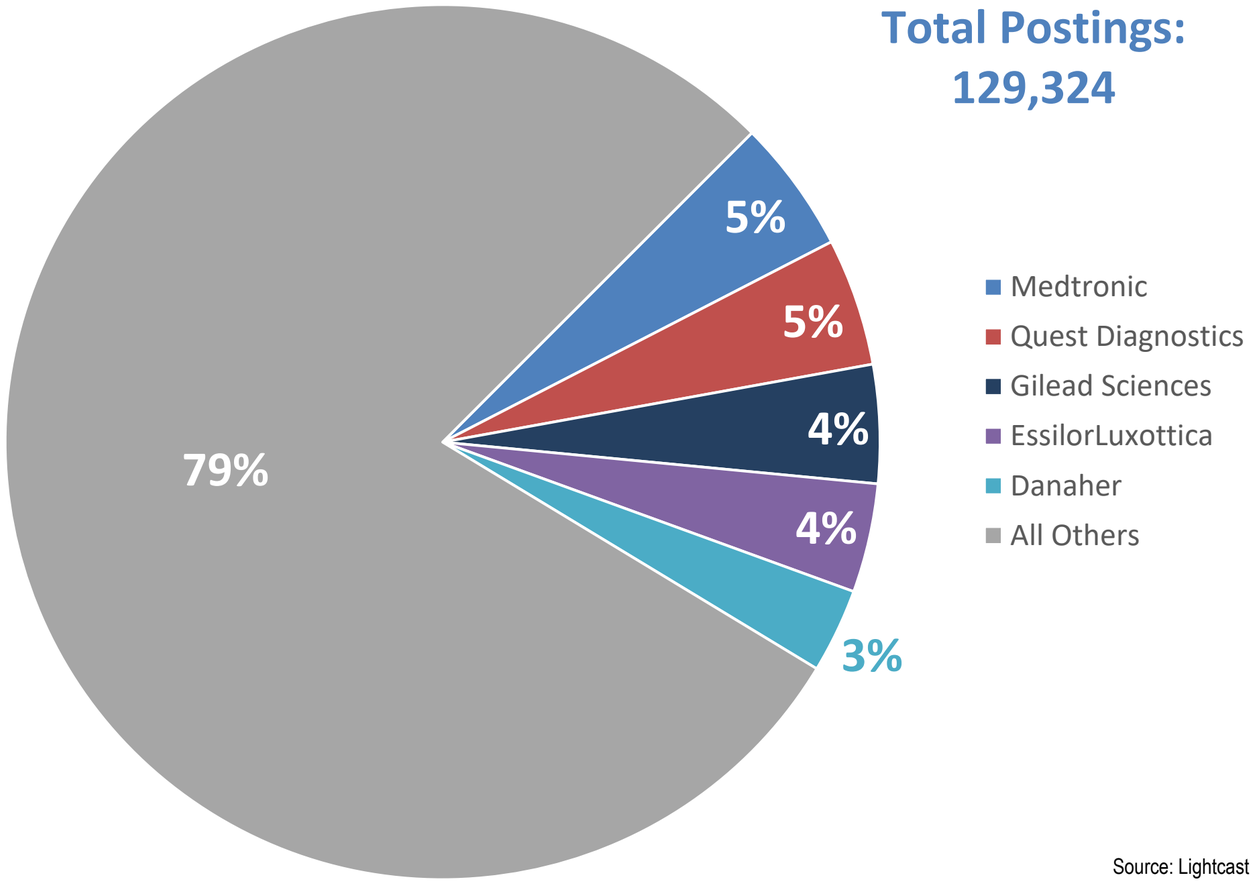
Employer Job Postings



Job Postings: Concentration in Top 5

Top Companies by Job Postings in Industry
Los Angeles County, 2016 to 2025

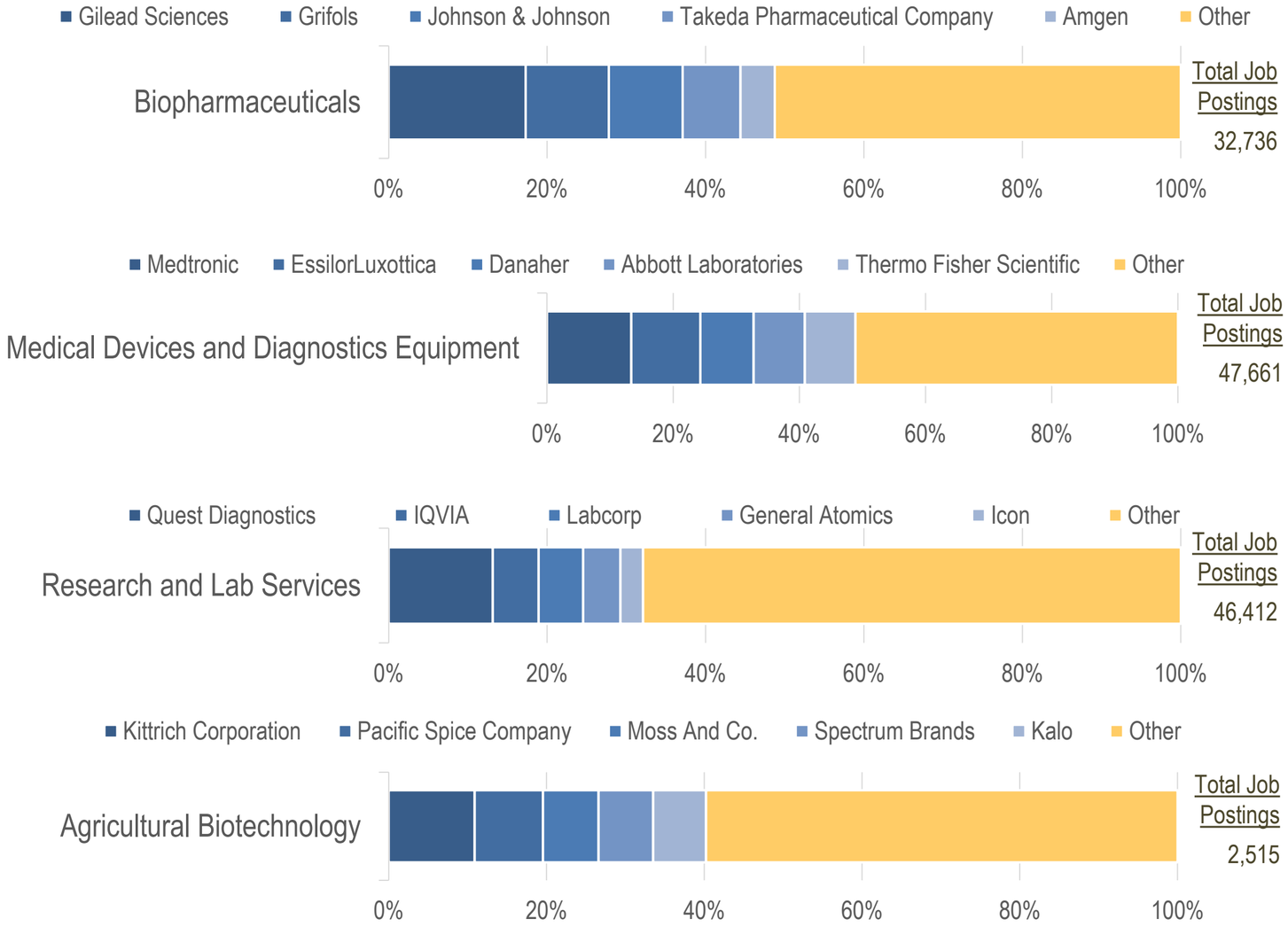


Source: Lightcast

- Between 2016 and 2025, the top 5 companies accounted for about **21%** of all job postings in the **Life Sciences-Biotechnology** industry
- **Medtronic** and **Quest Diagnostics** each accounted for **5%** of postings
- **Gilead Sciences** and **EssilorLuxottica** each represented **4%**, while **Danaher** accounted for **3%**
- The remaining **79%** of postings came from a broad mix of other employers
- Overall, hiring demand is relatively dispersed across the industry rather than dominated by a small number of firms

Job Postings: Concentration in Top 5

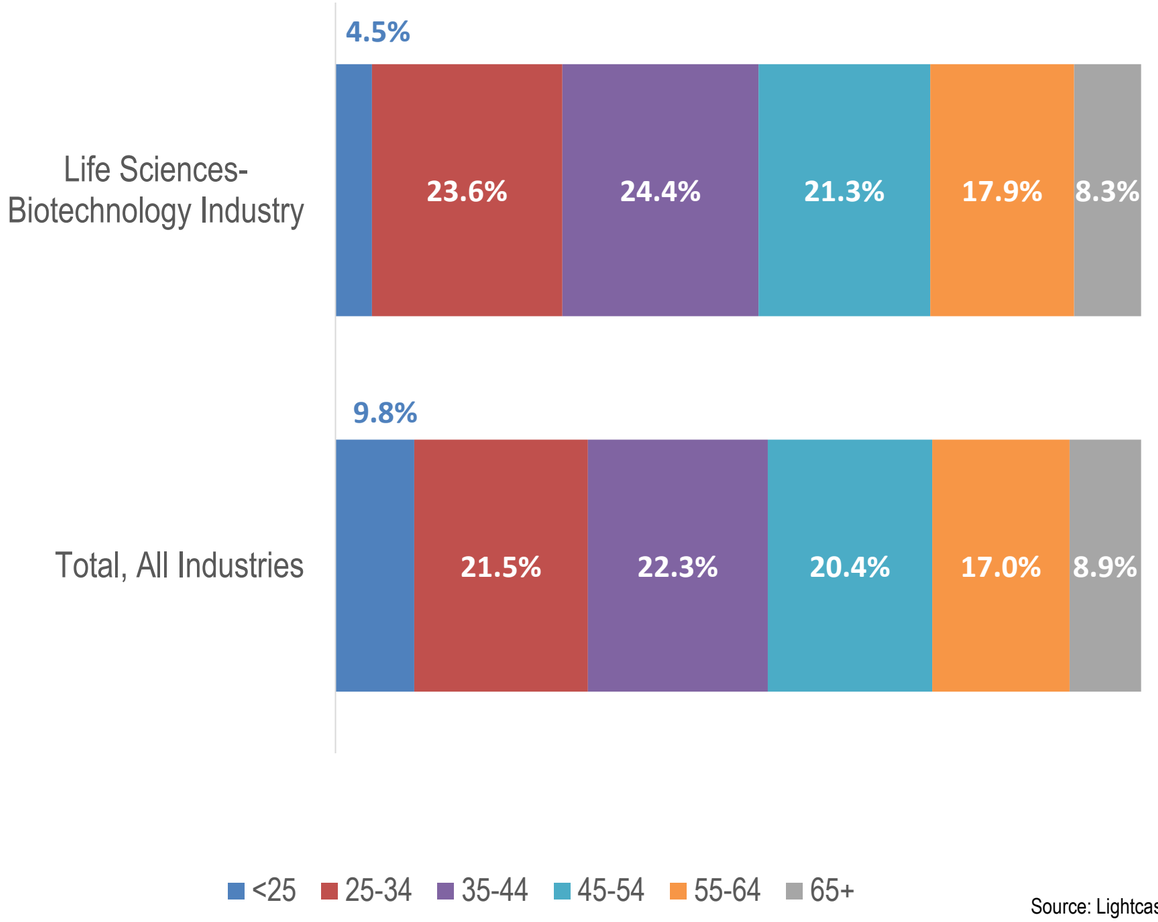
Concentration of Hiring Among the Top 5 Companies by Job Postings by Segment, Los Angeles County, 2016-2025



- **Biopharmaceuticals:** top 5 companies accounted for about **49%** of postings
- **Medical Devices and Diagnostics Equipment:** top 5 companies also accounted for about **49%**
- **Research and Lab Services:** top 5 companies accounted for about **32%**, indicating a broader employer base
- **Agricultural Biotechnology:** top 5 companies accounted for about **40%**
- Segment-level hiring is more concentrated than overall industry hiring, especially in **Biopharmaceuticals** and **Medical Devices and Diagnostics Equipment**

Industry Demographics

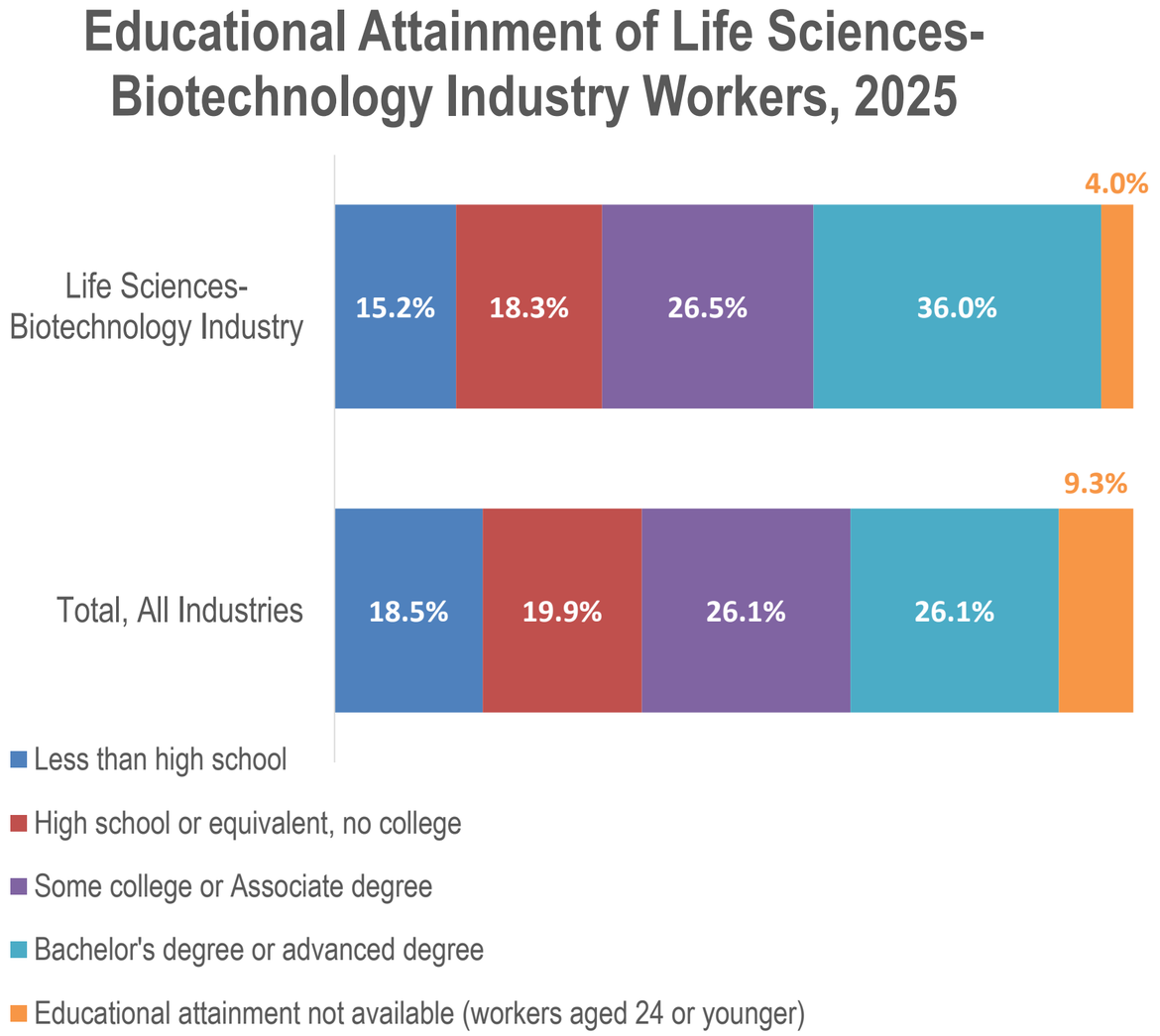
Age Distribution of Life Sciences-Biotechnology Industry Workers, 2025



Source: Lightcast

- Nearly **48%** of workers are ages **25 to 44**, above the countywide average of **43.8%**
- Only **4.5%** are under age 25, versus **9.8%** across all industries
- Workers ages **45 to 64** make up **39.2%** of the workforce, slightly above the all-industry share
- Workers **65 and older** account for **8.3%**, close to the countywide figure of **8.9%**
- The industry has fewer early-career workers and a somewhat stronger concentration in prime working ages

Industry Demographics

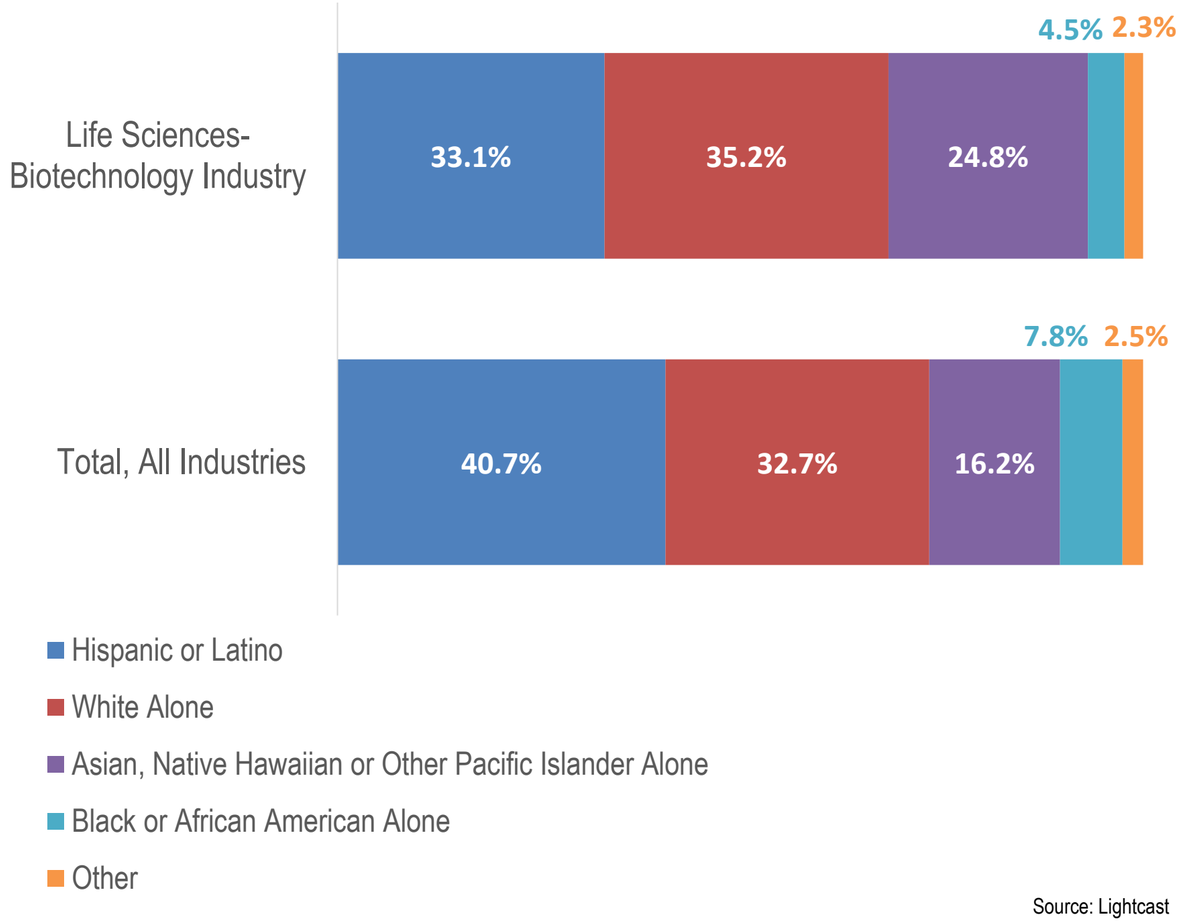


Source: Census QWI

- **36.0%** of workers hold a **Bachelor's degree** or **advanced degree,** well above the **26.1%** county average
- **26.5%** have some college or an associate degree, about in line with the county average
- **33.5%** have a high school diploma or less, below the **38.4%** all-industry average
- Only **15.2%** have less than a high school diploma, versus **18.5%** countywide
- The industry relies more heavily on workers with postsecondary education than the broader workforce

Industry Demographics

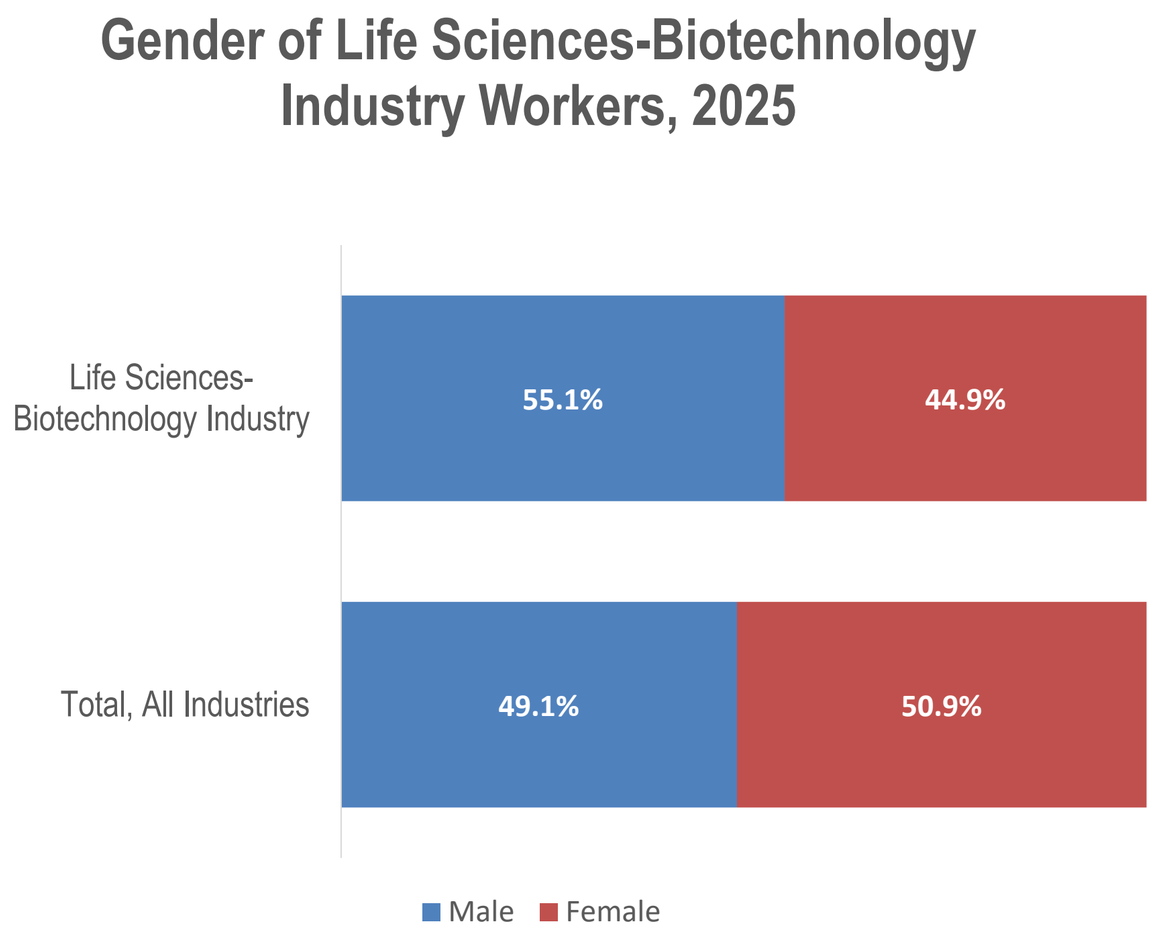
Race / Ethnicity of Life Science-Biotechnology Industry Workers, 2025



Source: Lightcast

- **White workers** make up **35.2%** of the workforce, slightly above the county average
- **Hispanic or Latino workers** account for **33.1%**, below their **40.7%** countywide share
- **Asian, Native Hawaiian, or Other Pacific Islander workers** represent **24.8%**, well above the county average of **16.2%**
- **Black or African American workers** account for **4.5%**, below the county average of **7.8%**
- The clearest demographic imbalance is the underrepresentation of **Hispanic and Black workers** relative to the broader workforce

Industry Demographics



- **55.1%** of workers are male and **44.9%** are female
- This differs from the countywide workforce, which is **49.1%** male and **50.9%** female
- Women remain underrepresented relative to the broader workforce
- The imbalance is especially relevant in technical, manufacturing, and scientific roles
- Expanding access for women could strengthen long-term talent pipelines across the industry

Source: Lightcast

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Industry Segment Profiles

Metric		Biopharma-ceuticals	Medical Devices and Diagnostics Equipment	Research and Lab Services	Agricultural Biotechnology	All Industries
Gender	Male	58.2%	56.5%	53.1%	**77.2%**	49.1%
	Female	41.8%	43.5%	**46.9%**	22.8%	50.9%
Education	Less than HS	**22.0%**	18.6%	12.0%	19.6%	18.5%
	High School	21.3%	19.8%	16.9%	**23.4%**	19.9%
	Some College / Associates	26.8%	27.5%	26.0%	**30.1%**	26.1%
	Bachelor's degree or advanced degree	25.8%	31.2%	**40.8%**	24.0%	26.1%
	Educational attain. N/A (workers aged 24 or younger)	4.1%	3.0%	**4.4%**	2.9%	9.3%

Gender

- Most male-dominated: **Agricultural Biotechnology (77.2%)**
- Most female representation: **Research and Lab Services (46.9%)**

Education

- **Research and Lab Services** is the most highly educated segment (**40.8%** holding a bachelor's degree or above)
- **Agricultural Biotechnology** has the lowest bachelor's degree attainment (**24.0%**) and the highest share with some college or an associate degree (**30.1%**)
- **Biopharmaceuticals** has the largest share of workers with less than a high school diploma (**22.0%**)

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Industry Segment Profiles

Metric		Biopharma-ceuticals	Medical Devices and Diagnostics Equipment	Research and Lab Services	Agricultural Biotechnology	All Industries
Age	<25	4.6%	3.6%	**4.9%**	2.1%	9.8%
	25-34	23.6%	19.7%	**25.2%**	17.7%	21.5%
	35-44	24.2%	21.9%	**25.3%**	23.4%	22.3%
	45-54	21.9%	24.0%	20.1%	**25.0%**	20.4%
	55-64	18.5%	21.7%	16.2%	**22.6%**	17.0%
	>65	7.1%	9.2%	8.3%	**9.3%**	8.9%
Race	Hispanic	**48.9%**	37.8%	26.8%	47.2%	40.7%
	White	21.7%	29.6%	**41.1%**	33.4%	32.7%
	AANHPI	23.5%	**26.0%**	25.0%	11.1%	16.2%
	Black	4.1%	4.5%	4.6%	**6.6%**	7.8%
	All Others	1.7%	2.1%	**2.6%**	1.7%	2.5%

Age

- **Agricultural Biotechnology** has the oldest workforce, with **31.9%** age 55+
- **Research and Lab Services** has the largest concentration of workers ages **25 to 44** at **50.5%**

Race/Ethnicity

- **Hispanic workers** are most prevalent in **Biopharmaceuticals** and **Agricultural Biotechnology**
- **Research and Lab Services** has the highest **White** share at **41.1%**
- The clearest demographic imbalance across segments is the underrepresentation of **Hispanic and Black workers,** especially in **Research and Lab Services** and **Medical Devices and Diagnostics Equipment**

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Key Takeaways

Employment Trends

- Employment remained relatively stable over the past decade and reached about **49,600 jobs** in 2024
- **Research and Lab Services** increased its employment share and now accounts for over **60%** of total industry jobs
- Near-term forecasts point to a slight employment decline through 2029 rather than major contraction

Job Market & Wages

- Over **129,000** job postings were recorded from 2016 to 2025, peaking in 2022
- **Medical Devices and Diagnostics Equipment** and **Research and Lab Services** accounted for the largest shares of postings
- Average annual wage reached about **$124,600**, well above the county average
- Real wage growth was strongest in **Research and Lab Services** and **Biopharmaceuticals**

Workforce Demographics

- The workforce is more educated than the county average and somewhat more concentrated in prime working ages
- The industry remains **male-dominated** and has fewer younger workers entering the pipeline
- The most notable demographic imbalance is the underrepresentation of **Hispanic and Black workers**, especially in research and medical device-related segments

Top Employers

- Overall employer demand is relatively dispersed, with the top 5 companies accounting for only about **21%** of postings
- Segment-level hiring is more concentrated in **Biopharmaceuticals** and **Medical Devices and Diagnostics Equip.**
- **Research and Lab Services** has a broader employer mix than the other major segments

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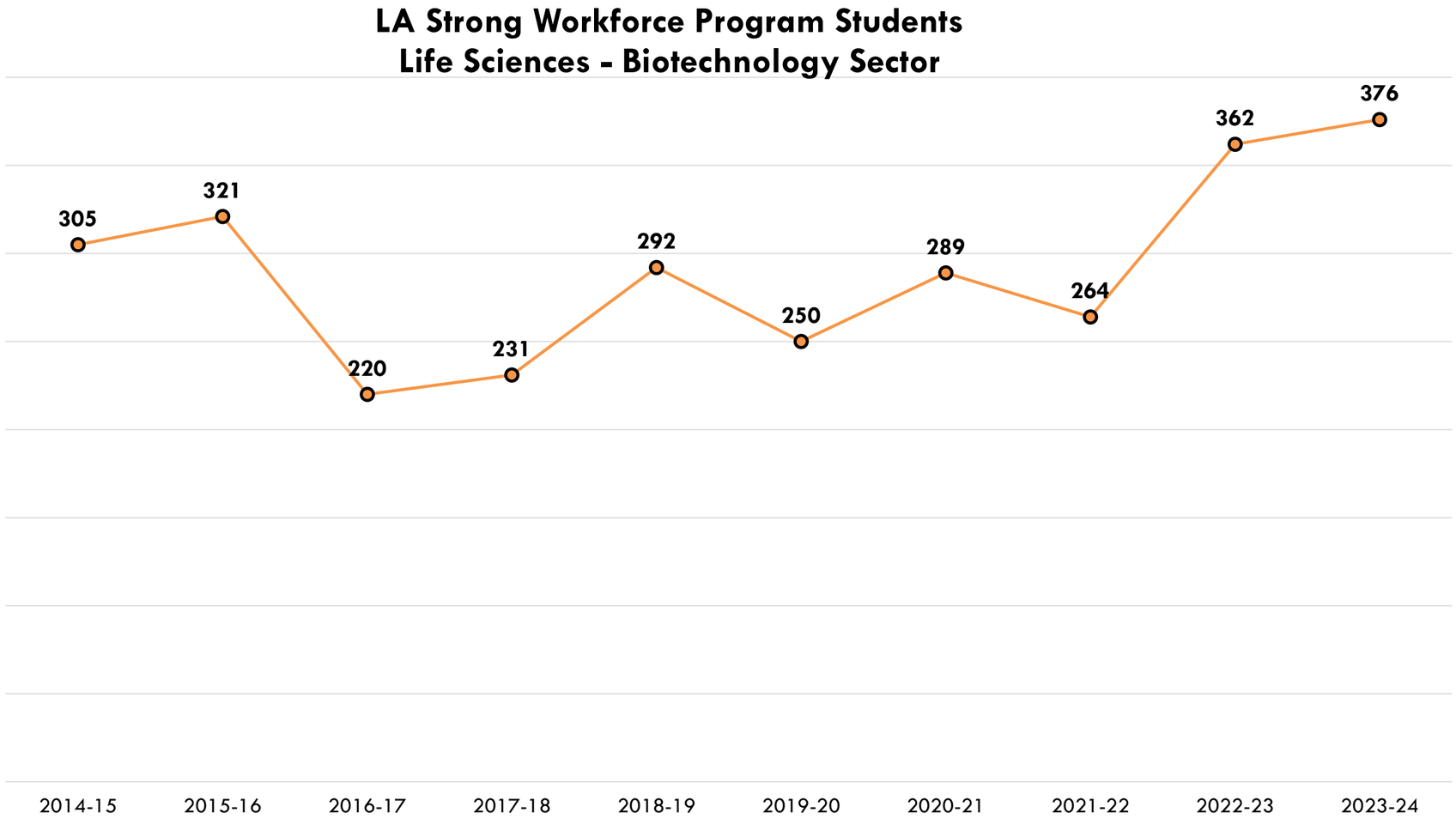
LUKE MEYER
DIRECTOR

Los Angeles Center of Excellence for Labor Market Research
hosted at MT. SAN ANTONIO COLLEGE

Community College Talent Supply

BIOTECHNOLOGY

Community College CTE programs that provide education and career preparation related to the theories, operations, and technical skills used to assist researchers and engineers engaged in developing or manufacturing biological, biotechnical, or medical systems or products.



Source: California Community Colleges Chancellor's Office Management Information Systems Data Mart & The California Community Colleges Chancellor's Office Curriculum Inventory System (COCI)

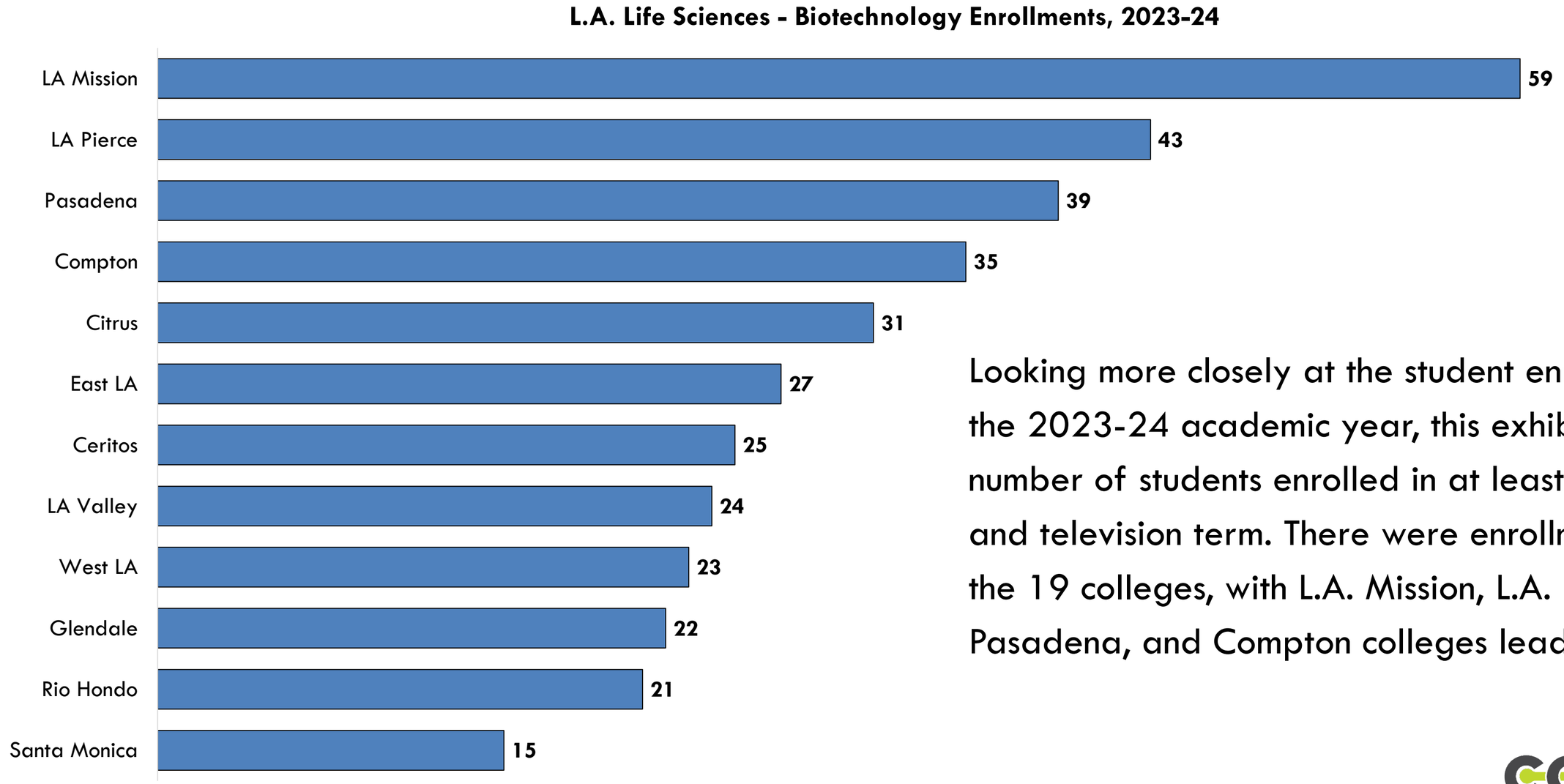
Community College Talent Supply

The number of degrees and certificates awarded have increased 20% over this three-year period.

TOP6 - Program Title	2022-23	2023-24	2024-25	Latest 3 Yr Avg
0430.00 - Biotechnology and Biomedical Technology	106	135	156	**132**
1205.00 - Medical Laboratory Technology	26	23	14	**21**
0934.60 - Biomedical Instrumentation	22	15	10	**16**
0954.00 - Chemical Technology	1	7	7	**5**
0955.00 - Laboratory Science Technology	2	4	2	**3**
Total	**157**	**184**	**189**	**177**

Source: California Community Colleges Management Information Systems Data Mart

Enrollments by College



Looking more closely at the student enrollments from the 2023-24 academic year, this exhibit displays the number of students enrolled in at least one radio and television term. There were enrollments at 12 of the 19 colleges, with L.A. Mission, L.A. Pierce, and Pasadena, and Compton colleges leading the way.

Source: DataVista

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Programs by College

College	Local Program Title
Cerritos	• Biotechnology I: Basic Web Lab Skills & Biotechnology II: Biomanufacturing
Citrus	• Biotechnology & Biomanufacturing
Compton	• Biomanufacturing Technician & Biotechnology Laboratory Assistant
East L.A.	• Biotechnology
El Camino	• Biotechnology Laboratory Assistant & Biotechnology Technician
Glendale	• Biotechnology Research Lab Assistant & Biotechnology Research Lab Technician
L.A. Harbor	• Biotechnology Lab Assistant & Biotechnology Research Lab Assistant
L.A. Mission	• Biomanufacturing, Biotechnology Lab Assistant, Biotechnology Research Lab Assistant & Cell and Gene Therapy
L.A. Pierce	• Biomanufacturing Technician, Biotechnology Lab Assistant, Biotechnology Research Lab Assistant & Career Exploration: Biotechnology Careers
L.A. Trade Tech	• Biotechnology
L.A. Valley	• Electronics: Biomedical Instrumentation
Mt. San Antonio	• Histotechnology, Applied Laboratory Science Technology & Histotechnician Training
Pasadena City	• Biological Technology - Stem Cell Culture, Biological Technology – Stem Cell-Based Biomanufacturing, Biological Technology - Computational Biology, Biological Technology - Laboratory Assistant & Biological Technology – Laboratory Skill
Rio Hondo	• Biotechnology
Santa Monica	• Biotechnology/Life Sciences Laboratory Assistant, Biotechnology & Cell Science Laboratory Technician & Chemical Technician Skills
West L.A.	• Biotechnology Lab Technician

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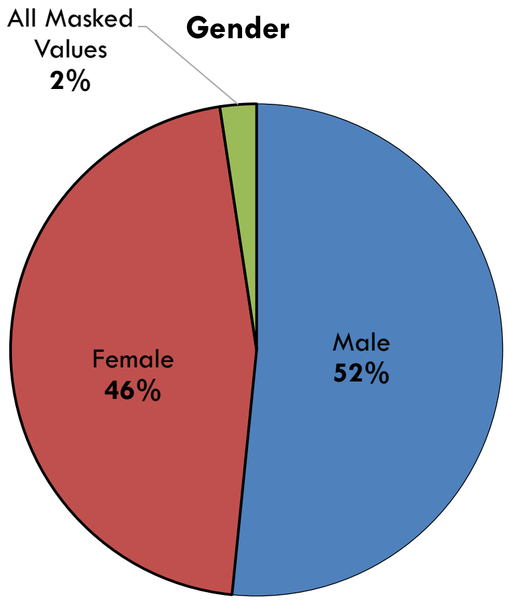
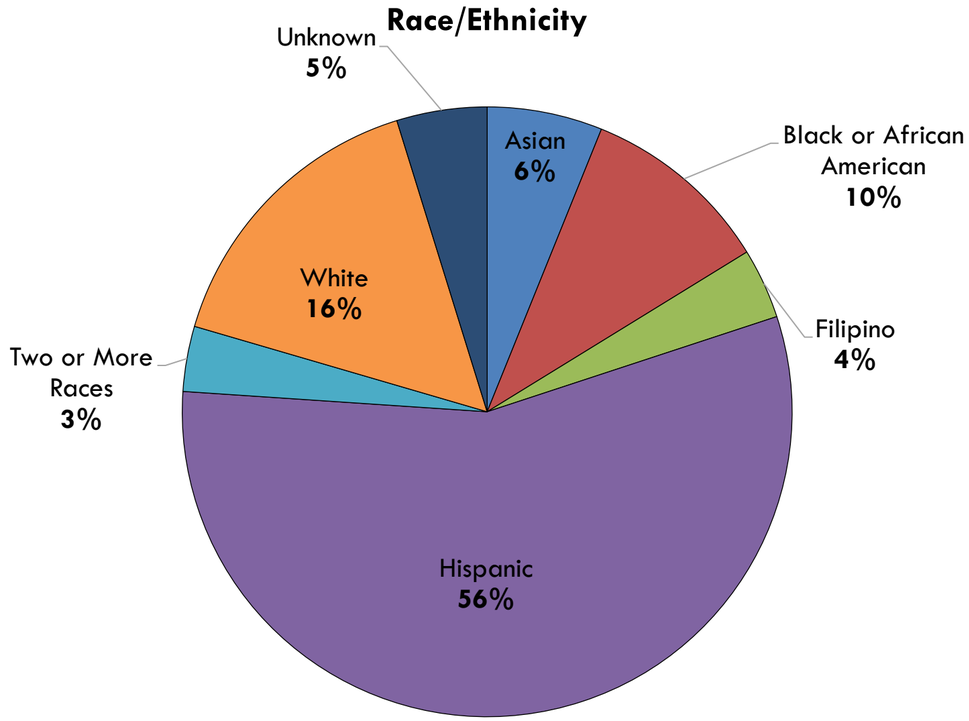
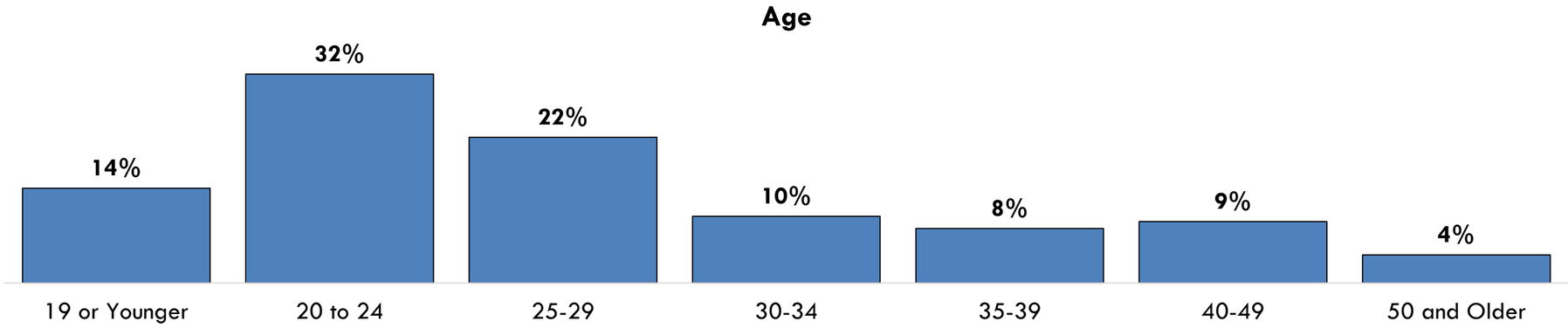
Student Demographics



Just over half of bioscience students at the L.A. community colleges are male, over half identify as Hispanic, and 46% are 24 years old or younger.





Source: DataVista

**Other includes unknown/non-respondent, multiple values reported, and non-binary*

FOR LABOR MARKET RESEARCH

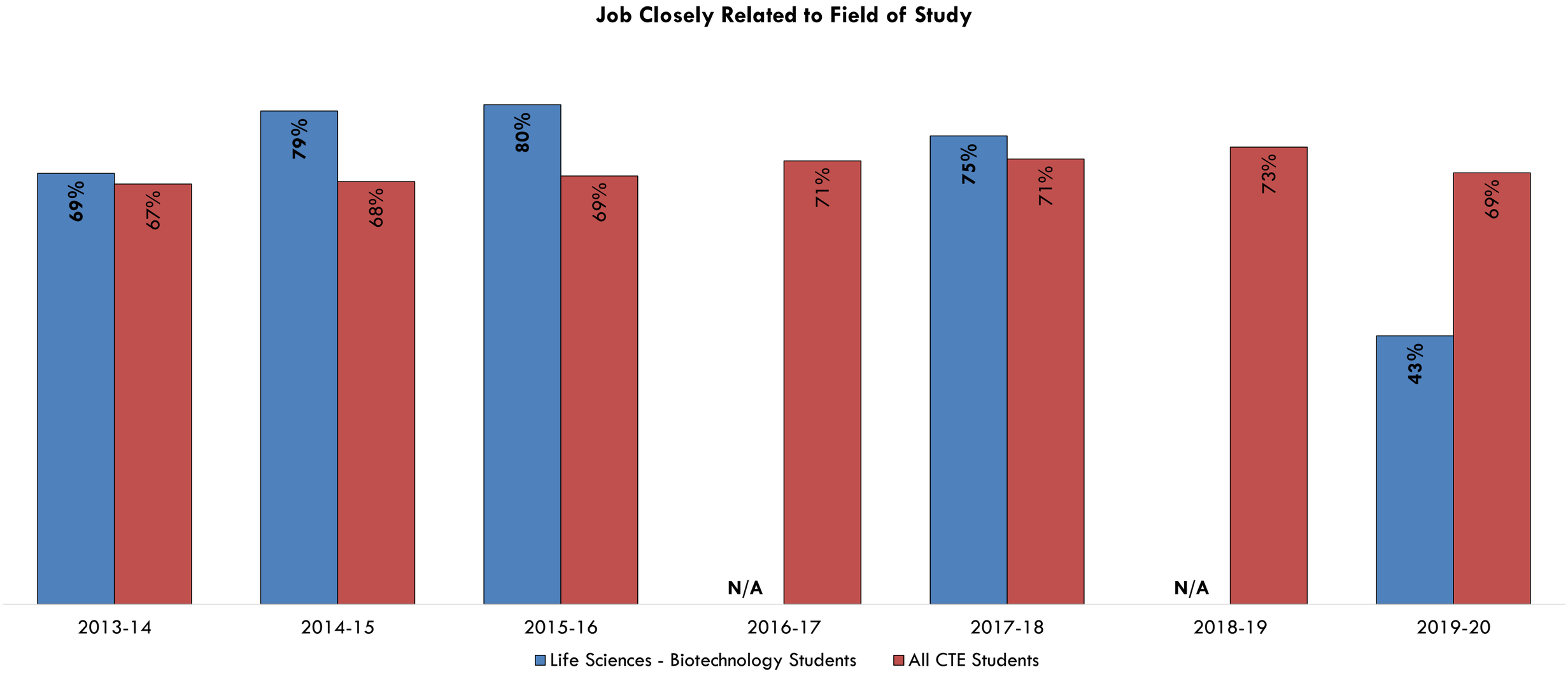
LOS ANGELES

LAEDC

Bioscience

REGIONAL PROGRAM ADVISORY

Student Employment Outcomes



Source: DataVista

FOR LABOR MARKET RESEARCH

LOS ANGELES

LAEDC

Bioscience

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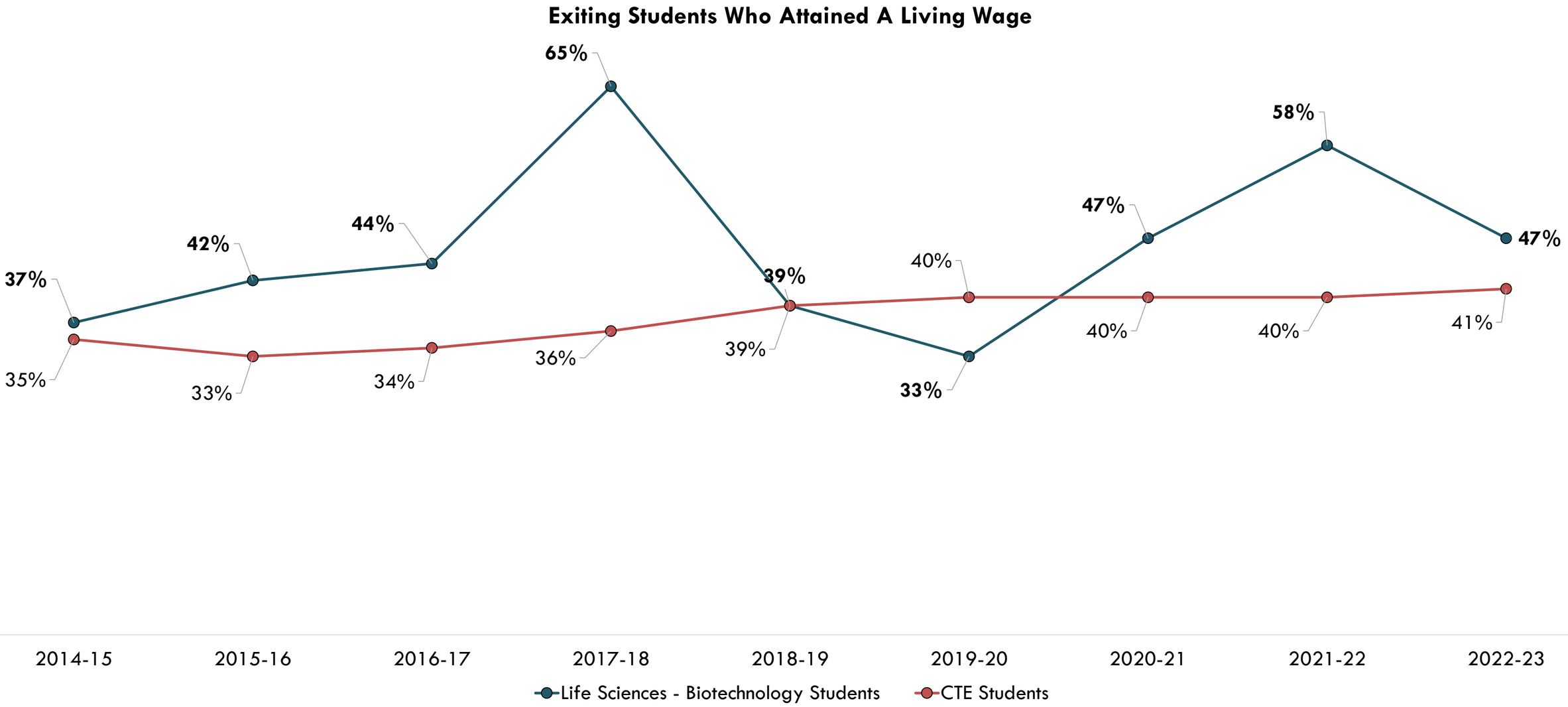
Student Employment Outcomes



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FOR LABOR MARKET RESEARCH
LOS ANGELES

Bioscience

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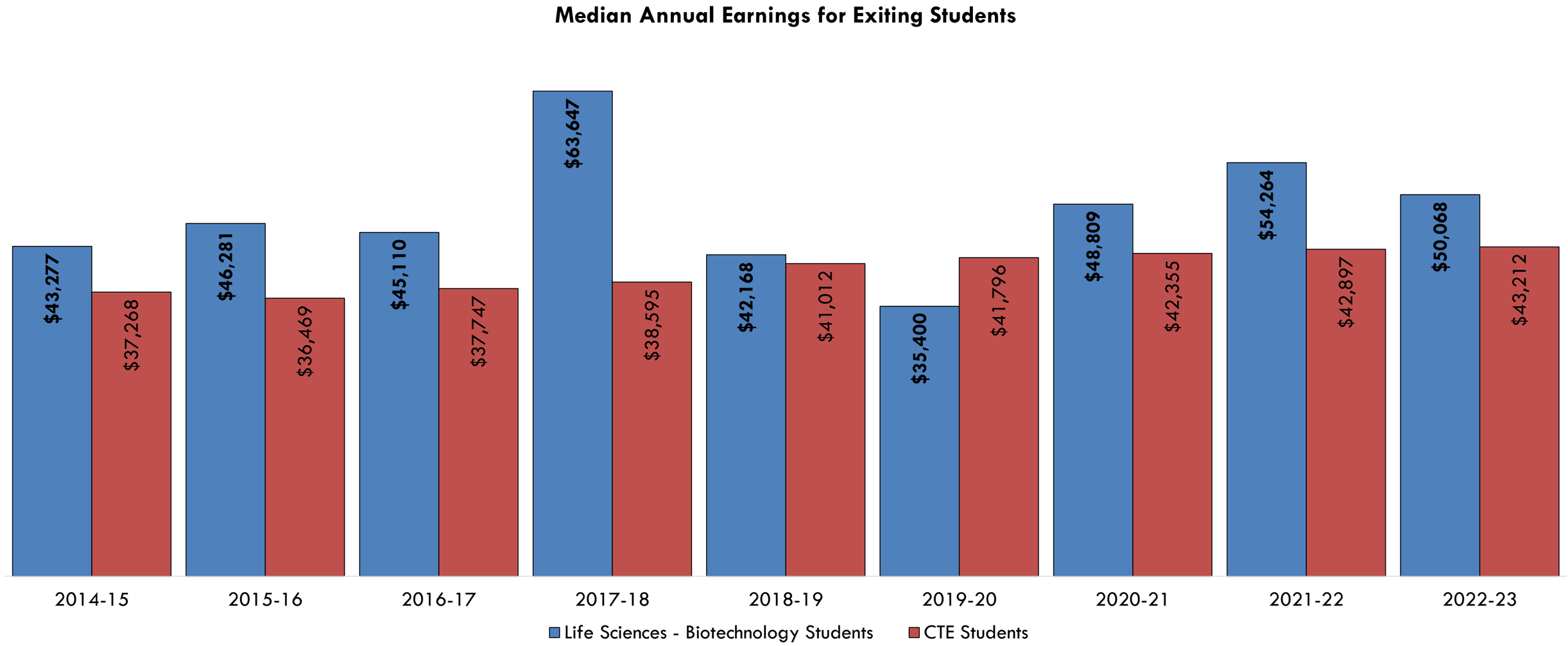

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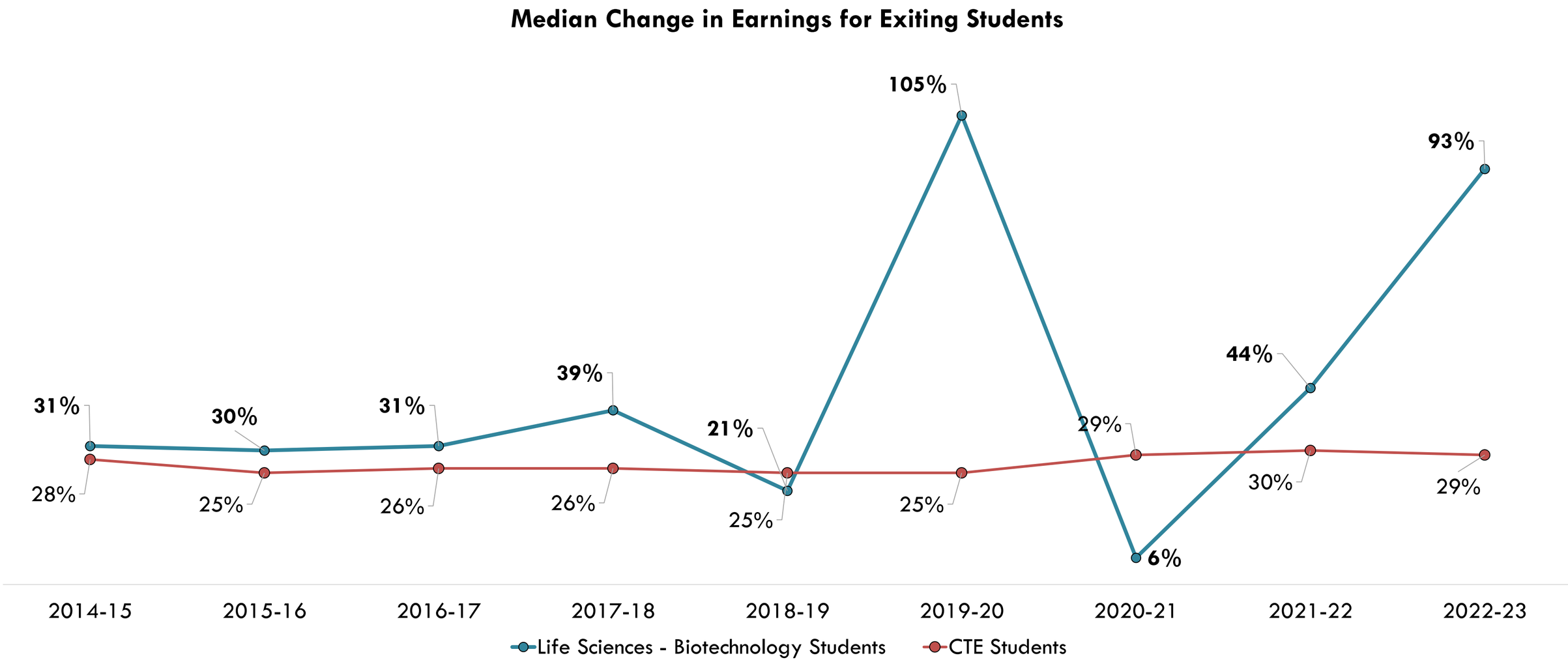
FOR LABOR MARKET RESEARCH

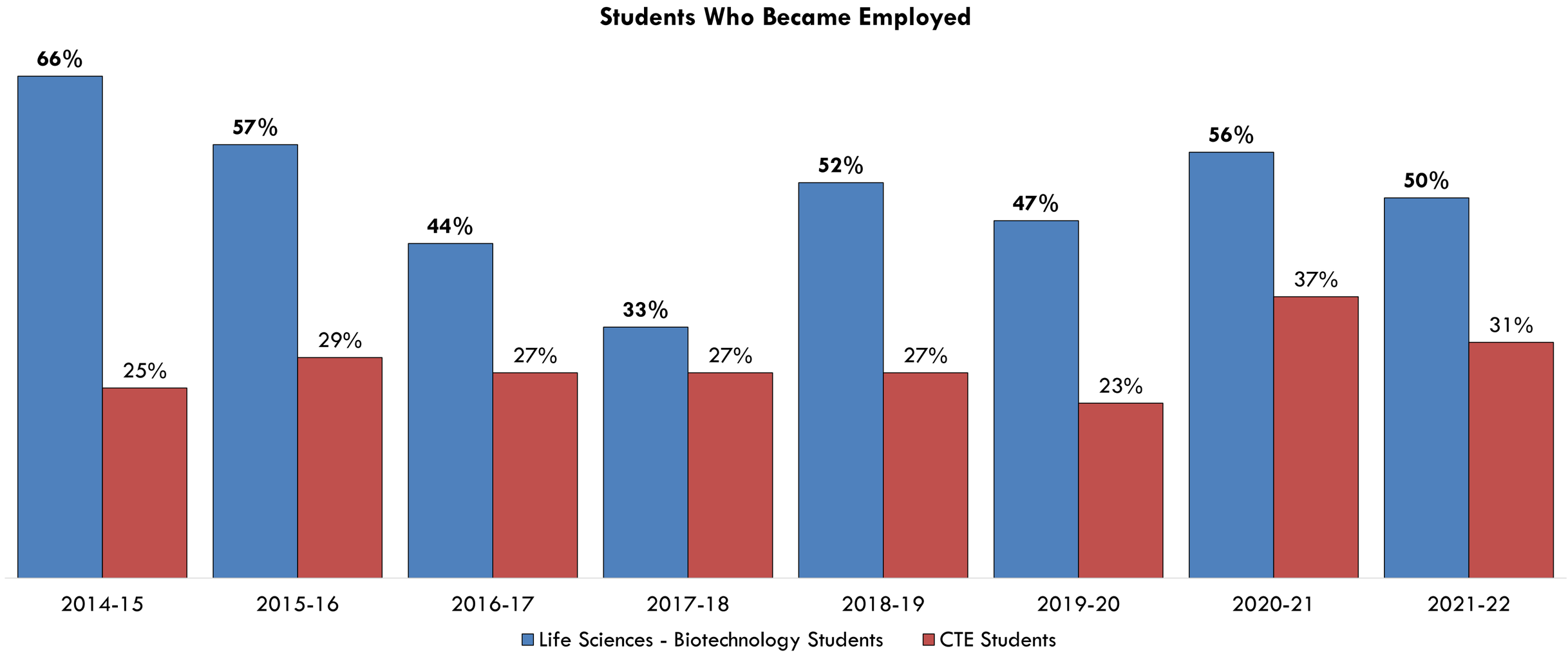
LOS ANGELES

Student Employment Outcomes



Source: DataVista

Student Employment Outcomes



Source: DataVista

CONTACT INFORMATION

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ROUNDTABLE DISCUSSION

- Mute yourself throughout discussion
- Submit questions through the chat box
- 15-20 minutes of discussion per topic
- Discussion will be followed by Q&A

Regan Gabrillo

Senior Talent Acquisition Partner
Grifols

Amanda Osterman

Talent Acquisition Partner
Medtronic

Dan St. Peter

Site Director

Nexspring Health

Lor en Ornales

Manager, Biomanufacturing Center
Cedars -Sinai

FEEDBACK POLL AND NEXT STEPS

William Powles

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THANK YOU!

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