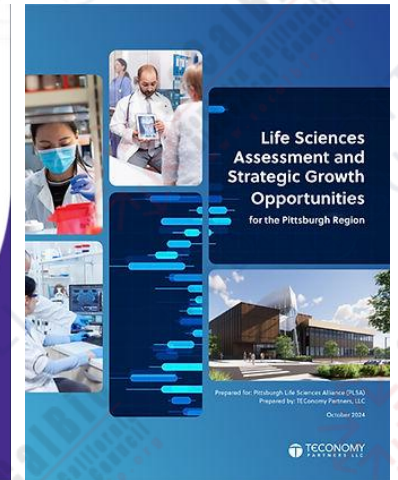
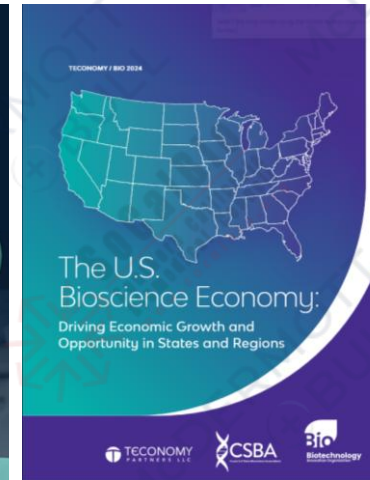


The State of the Bioscience Industry in Greater Los Angeles—with Comparisons to the State, San Diego, and San Francisco

27th Annual SoCalBio Conference
October 2, 2025

TEconomy Partners' Work in the Biosciences

- **National** assessment and thought-leadership projects with BIO, LSWC, PhRMA
 - 11th biennial assessment of the Nation's Bioscience Economy with BIO in 2024
 - Economic impact, STEM education, identifying strategic competitiveness challenges with PhRMA
 - Biennial national life sciences workforce studies with the Life Sciences Workforce Collaborative (LSWC, formerly CSBI)
- **State and Regional** Bioscience strategies, roadmaps, impact analyses, workforce strategies, including for:
 - AZ, CA, GA, IA, IN, MA, MD, NC, OH, WA, WI
 - Charlottesville, Los Angeles, Oklahoma City, Phoenix, Pittsburgh, Tampa



Greater LA Regional Bioscience Industry Overview

- The 6-County region is home to nearly **116,000 bioscience industry jobs spanning 5,318 business establishments**
- **“Specialized” regional concentration in the Medical Device subsector**
- **If the region were a state would rank 6th in industry size (behind CA, MA, TX, FL, and NY)**

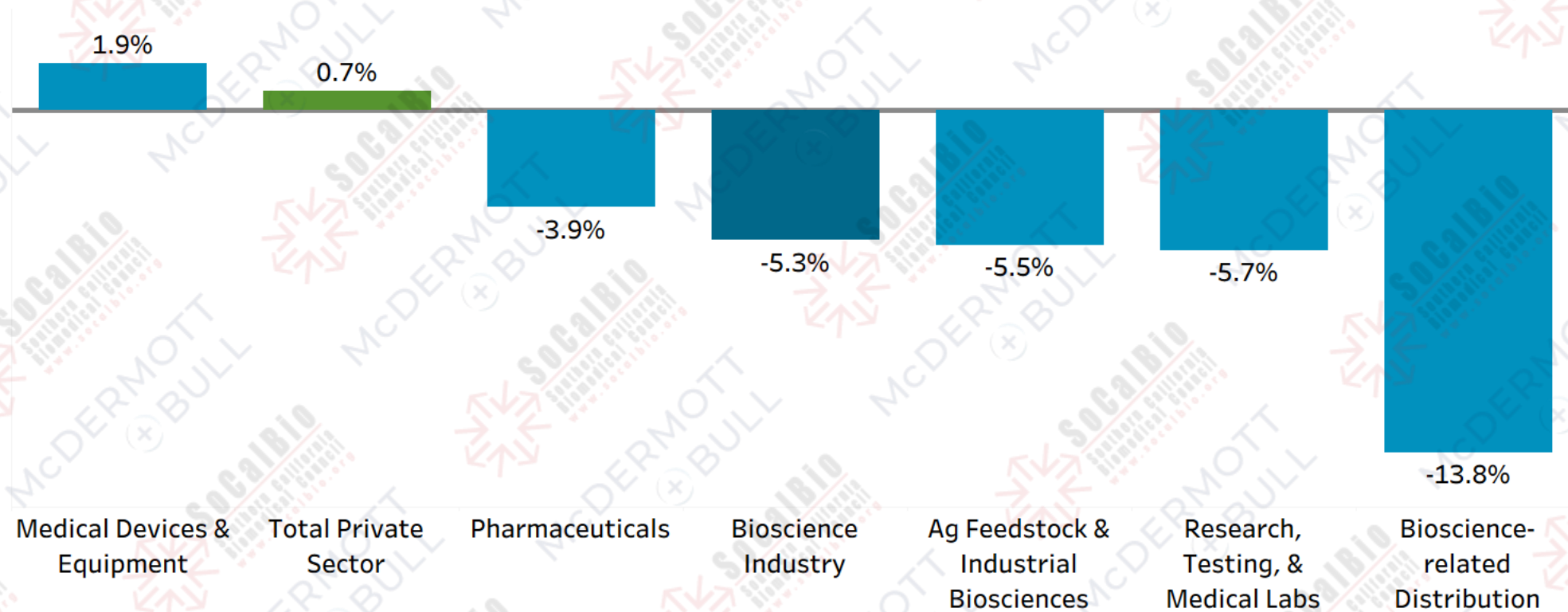


Greater LA Employment & Location Quotient (“LQ”)

Note: Greater LA region includes the following counties: Orange, Los Angeles, Riverside, San Bernardino, Santa Barbara, Ventura.
Source: TEconomy Partners analysis of U.S. Bureau of Labor Statistics, QCEW data from Lightcast (Datarun 2025.3).

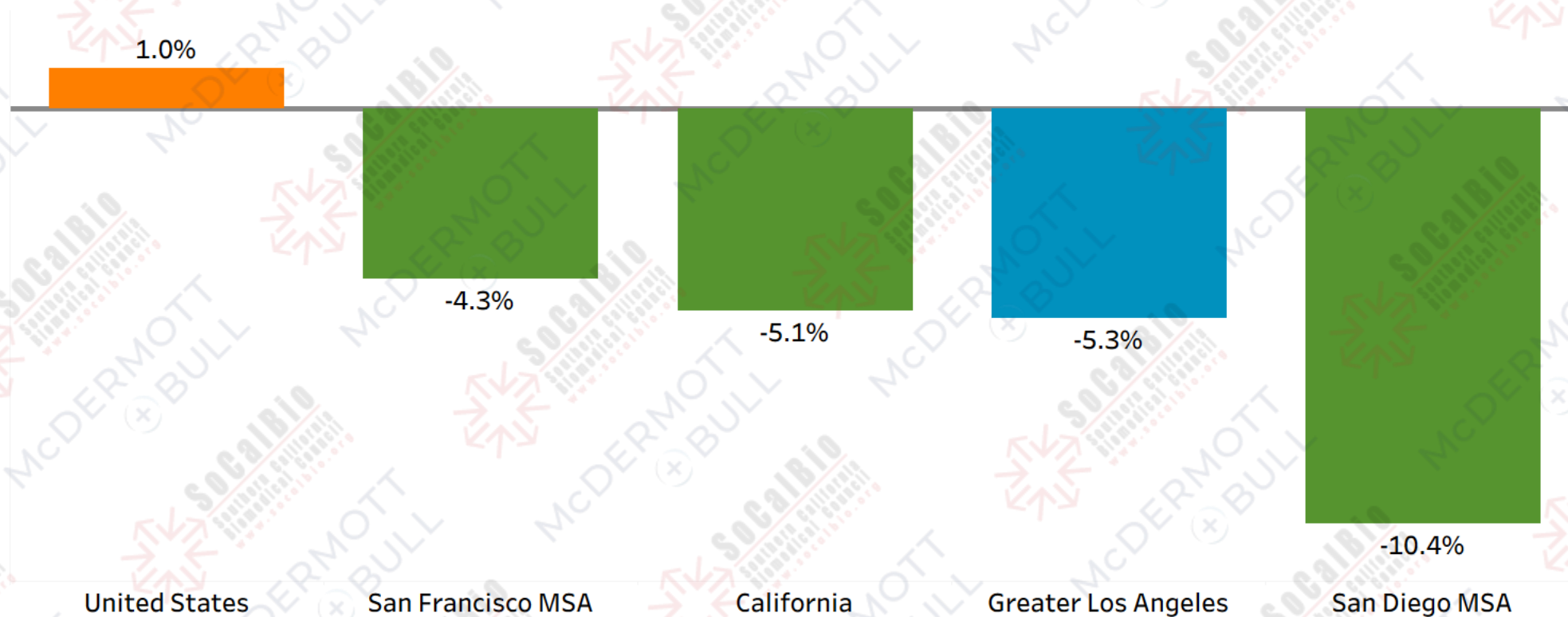
The Biosciences have Lagged Private Sector Job Growth, Driven by Declines in Four of the Major Subsectors – Medical Devices is the Exception, Growing and Offsetting Some of the Declines

Greater LA Employment Trends, 2022-2024



Recent Declines Within Greater LA Reflect a Similar Picture Across California and the State's Other Major Bioscience Hubs Despite National Net Job Growth Over the Same Time Period

Bioscience Industry Employment Trends, 2022-2024



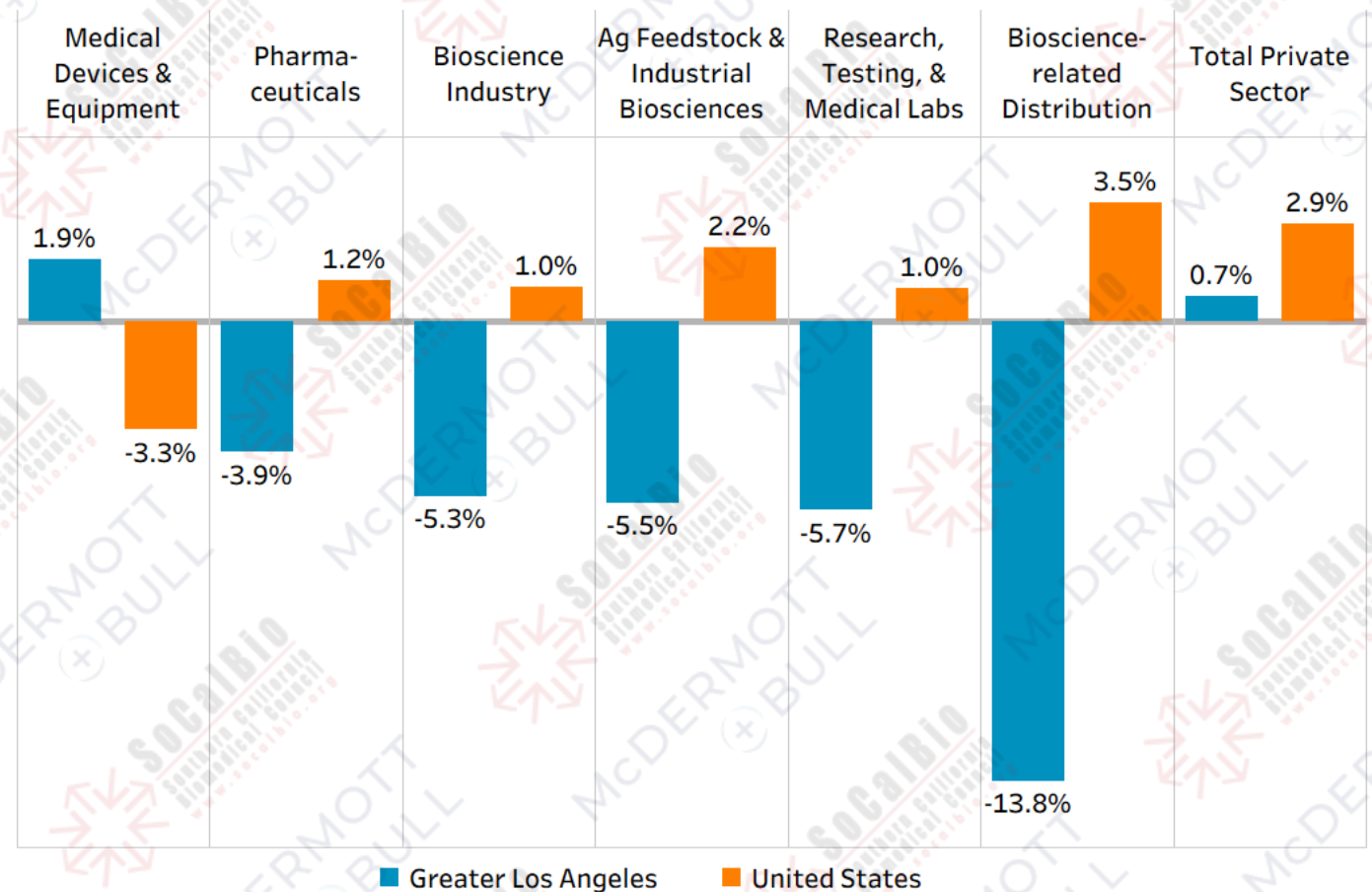
Since 2022, the Nation has Outpaced Greater LA in Bioscience Job Growth Across Most Subsectors

Who's Hiring Over Last 2 years?

Top 15 Companies by Unique Job Posting Totals in Descending Order

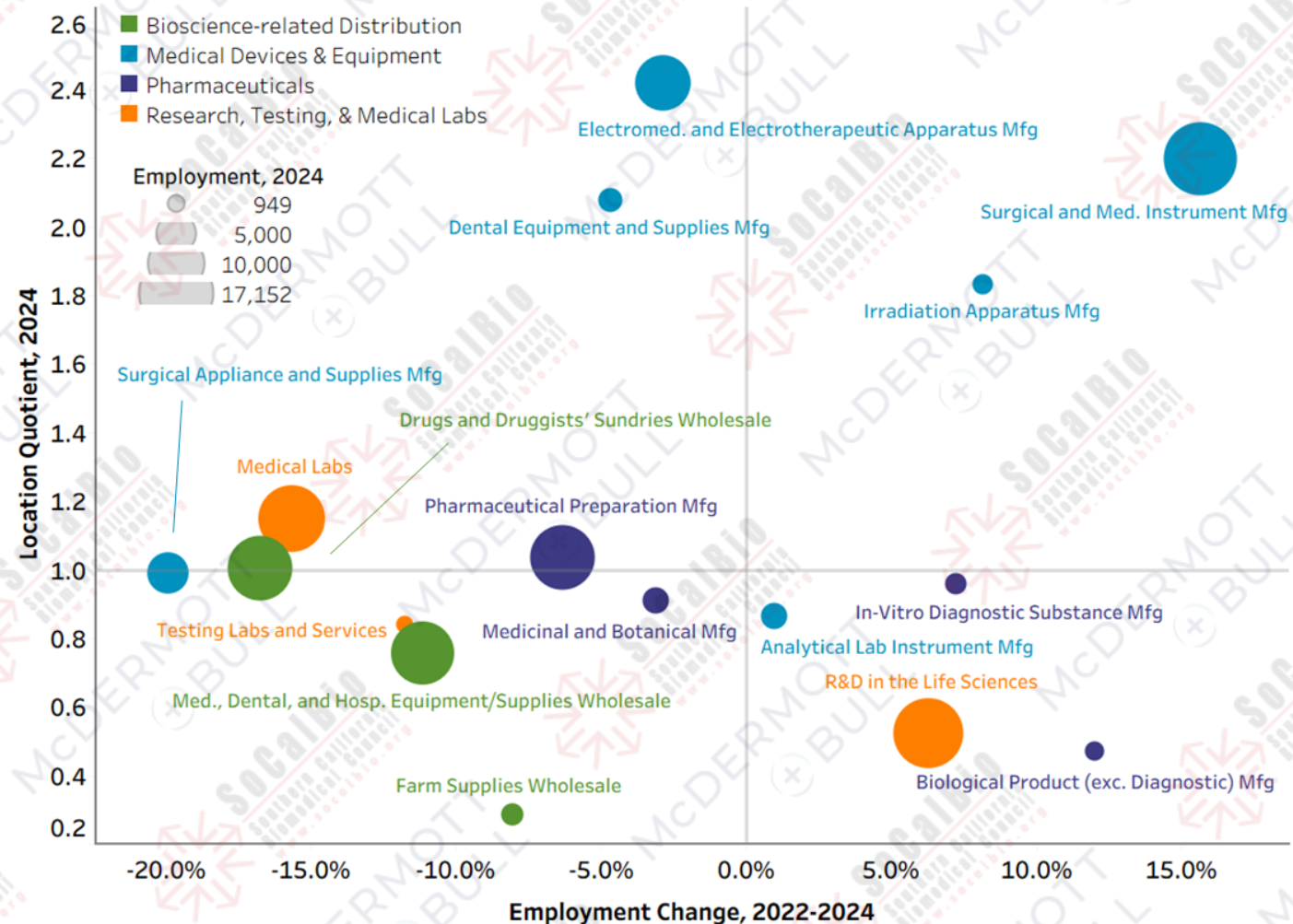
- Amgen
- Quest Diagnostics
- AbbVie
- Medtronic
- Edwards Lifesciences
- Johnson & Johnson
- Abbott Laboratories
- Karl Storz
- Labcorp
- Danaher
- Grifols
- Applied Medical Resources Corporation
- Bausch Health
- Siemens Healthineers
- Thermo Fisher Scientific

Employment Trends vs. Nation, 2022-2024



Detailed Bioscience Industries Reveal Varied Regional Strengths, Emerging Segments, and Highlights in Medical Devices

Position & Performance of Detailed Biosciences Industries* in Greater LA:
Employment Size (Size of Bubble), Growth, & Relative Concentration, 2022-2024



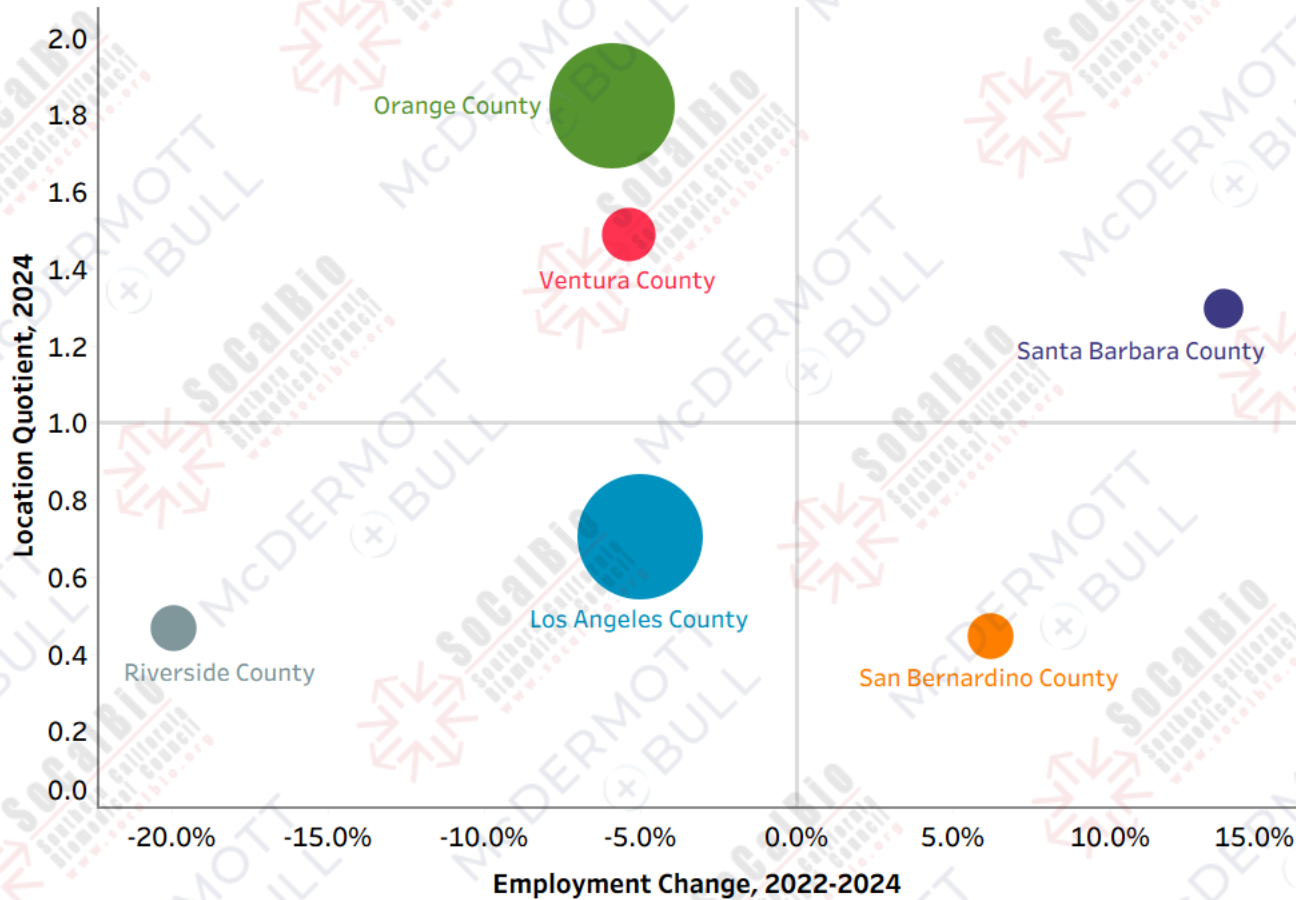
*Industries shown here limited to those with 900+ employment in Greater LA Region in 2024.

Source: TEconomy Partners analysis of U.S. Bureau of Labor Statistics, QCEW data from Lightcast (Datarun 2025.3).

Santa Barbara and San Bernardino Counties Lead Biosciences Job Growth; Several Distinct County-level Specializations, Including Two New Areas Highlighted

Greater LA Counties	Bioscience Employment, 2024	Specialized Subsector Concentrations
Los Angeles County	47,050	
Orange County	46,554	Medical Devices; Bio Distribution
Ventura County	7,325	Pharmaceuticals; Bio Distribution; Medical Devices
Riverside County	5,586	
San Bernardino County	5,393	
Santa Barbara County	3,989	Medical Devices; Pharmaceuticals

Bioscience Industry Performance by County, 2022-2024

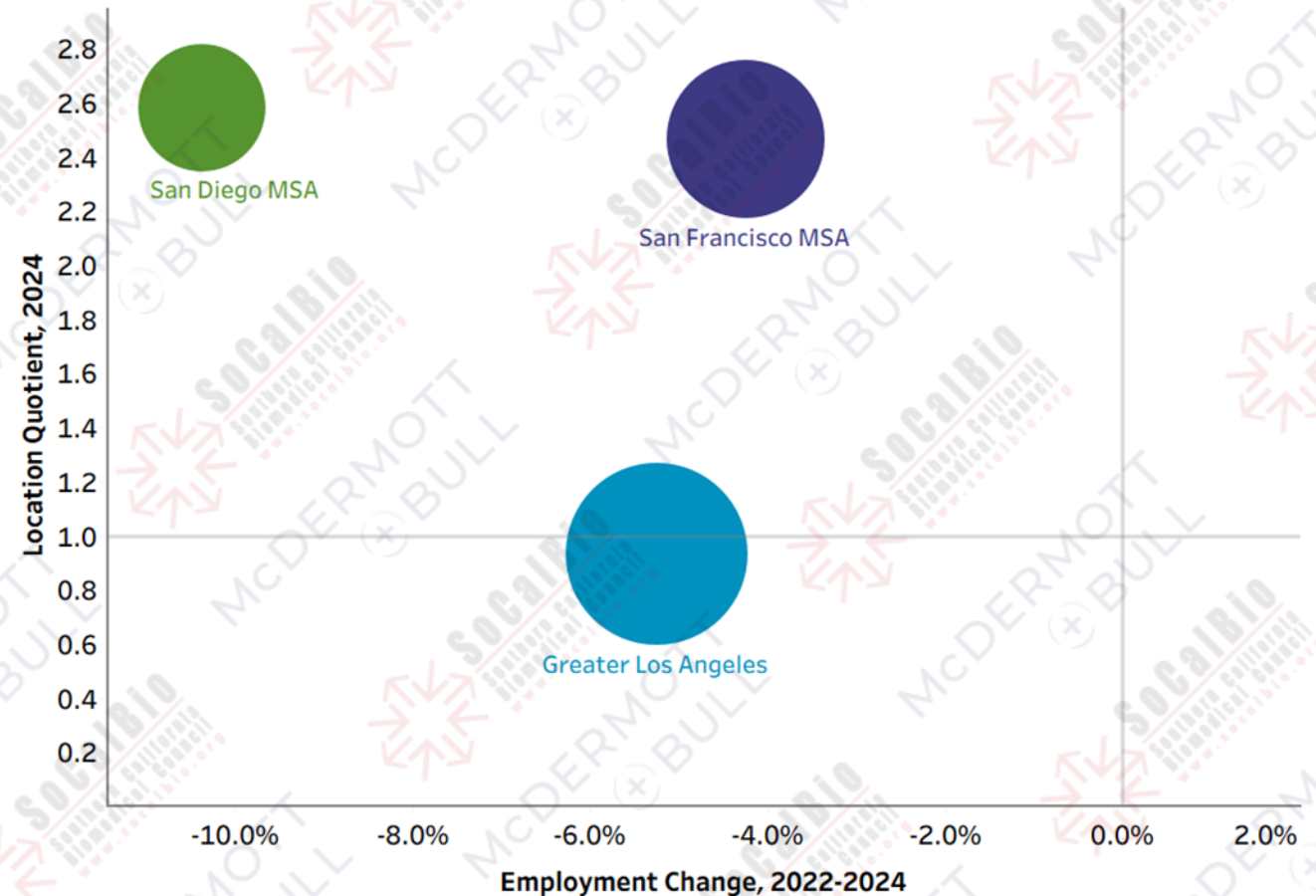


Note: Ventura County (Amgen), Orange County (Allergan), and regional data have been adjusted by TEconomy to account for admin and HQ operations classified in the Corporate HQs industry NAICS code rather than the Pharmaceuticals sector.
Source: TEconomy Partners analysis of U.S. Bureau of Labor Statistics, QCEW data from Lightcast (Datarun 2025.3).

Greater Los Angeles Remains Less Specialized in Overall Biosciences than San Diego and San Francisco, Though its Employment Base is the Largest of the Three Regions

Metro Areas	Bioscience Employment, 2024	Specialized Subsector Concentrations
Greater Los Angeles	115,897	Medical Devices
San Francisco MSA	87,446	Research and Testing; Medical Devices; Pharmaceuticals
San Diego MSA	56,649	Research and Testing; Medical Devices; Pharmaceuticals

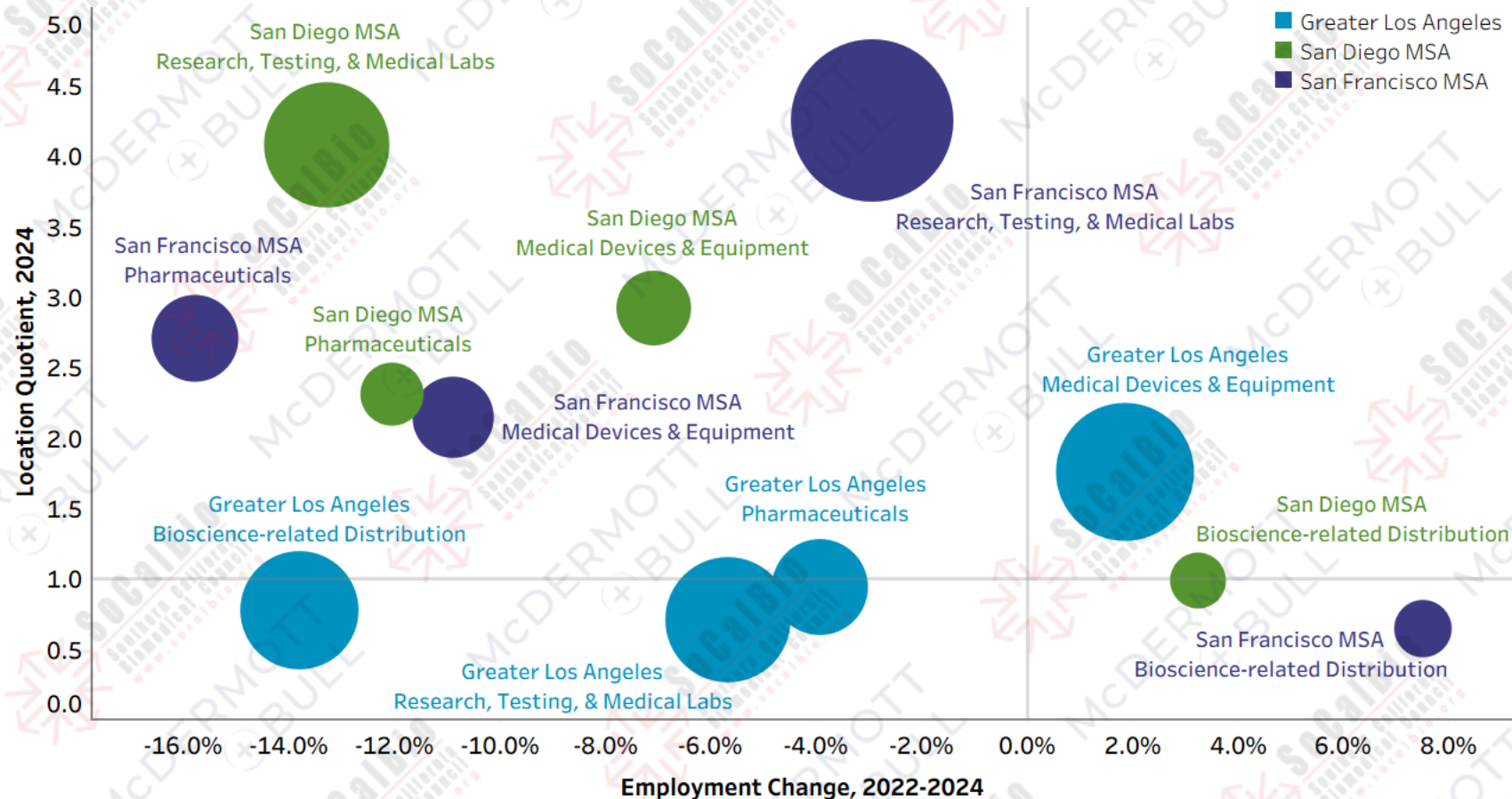
Bioscience Industry Performance by Metro Area, 2022-2024



Note: Ventura County (Amgen), Orange County (Allergan), and regional data have been adjusted by TEconomy to account for admin and HQ operations classified in the Corporate HQs industry NAICS code rather than the Pharmaceuticals sector.
Source: TEconomy Partners analysis of U.S. Bureau of Labor Statistics, QCEW data from Lightcast (Datarun 2025.3).

Greater LA Medical Devices is the Only Specialized Subsector to Grow Among the Three Major Regions; However, Greater LA is Also the Only Region to Have Just One Specialized Subsector

Bioscience Industry Performance by Metro Area and Industry Subsector, 2022-2024

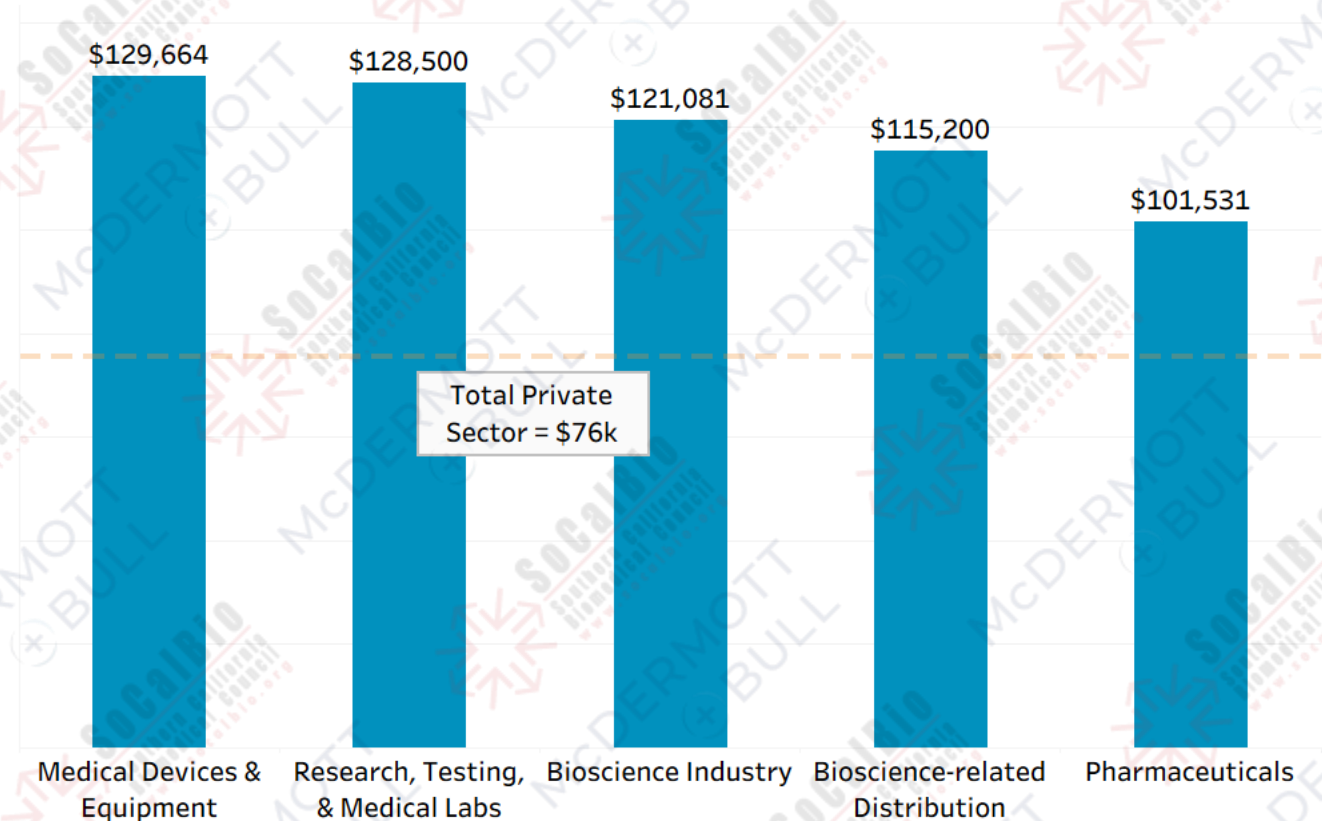


Note: Ventura County (Amgen), Orange County (Allergan), and regional data have been adjusted by TEconomy to account for admin and HQ operations classified in the Corporate HQs industry NAICS code rather than the Pharmaceuticals sector.
Source: TEconomy Partners analysis of U.S. Bureau of Labor Statistics, QCEW data from Lightcast (Datarun 2025.3).

The Biosciences Generate High-Quality Jobs, Outsized Impacts Fueled by Demand for High-Skills, STEM-Intensive Workforce

- Average wages in Greater LA's Bioscience industry exceed \$121K, a **60% premium above that for overall private sector**
- Since 2022, average industry wages have increased by nearly 12%

Avg. Wages in Greater LA by Bioscience Subsector, 2024



TEconomy-LSWC National Life Sciences Workforce Trends Report—Key Talent Themes Identified

Four themes have emerged from these inputs and this latest assessment:



1



The U.S. Life Sciences industry is experiencing lower hiring volumes and a modest overall contraction, though the situation remains mixed across companies, with segments of the industry continuing to grow and announcing major new investments. Implications of slower growth and changing demand dynamics include a focus on strategic hires, targeted cost reductions, and investments in existing employees' skills and career development as well as automation. Companies are reporting greater ease in filling key roles.

2



AI, machine learning, and industrial automation are creating both disruptive opportunities and challenges for the industry, with significant implications for workforce and talent. Large and leading life sciences companies are more widely integrating these technologies, ahead of their small- and mid-sized counterparts.

3



Companies are placing a major emphasis on incumbent worker upskilling, reskilling, and other skills training and development in response to ongoing digital transformations and regulatory changes across and throughout the industry's value chain spanning R&D, production, and distribution.

4



Companies are placing a major and increasing emphasis on engaging students early, supporting STEM education programming, and informing career pathways and connections at all student levels. Work-based learning plays a central role in employer-student connections at postsecondary levels.

TEconomy-LSWC National Life Sciences Workforce Trends Report: Employers Continue to Emphasize Skills & Competencies; Skills Differ by Industry Subsector

Specialized Skills on the Rise for Life Sciences ...

Leading Skills Ranked by
Increase in Use/Reference
in Job Postings from 2021
to 2024

Ag Feedstock & Industrial Biosciences

- Good Manufacturing Practices
- Systems Engineering
- Quality Control
- Process Control
- Product Quality (QA/QC)
- Process Engineering
- Predictive Maintenance
- Power BI
- Systems Design

Medical Devices & Equipment

- Data Management
- Data Governance
- Python (Programming Language)
- SQL (Programming Language)
- Data Architecture
- Data Warehousing
- Microsoft Azure

Pharmaceuticals

- Project Portfolio Management
- Artificial Intelligence
- Clinical Trials
- Data Science
- Good Clinical Practices (GCP)
- Continuous Improvement Process
- Cross-Functional Collaboration

Research, Testing, & Medical Labs

- R (Programming Language)
- Continuous Improvement Process
- Root Cause Analysis
- Continuous Integration/Continuous Delivery
- Patient Safety
- Artificial Intelligence
- PostgreSQL
- SAP Applications

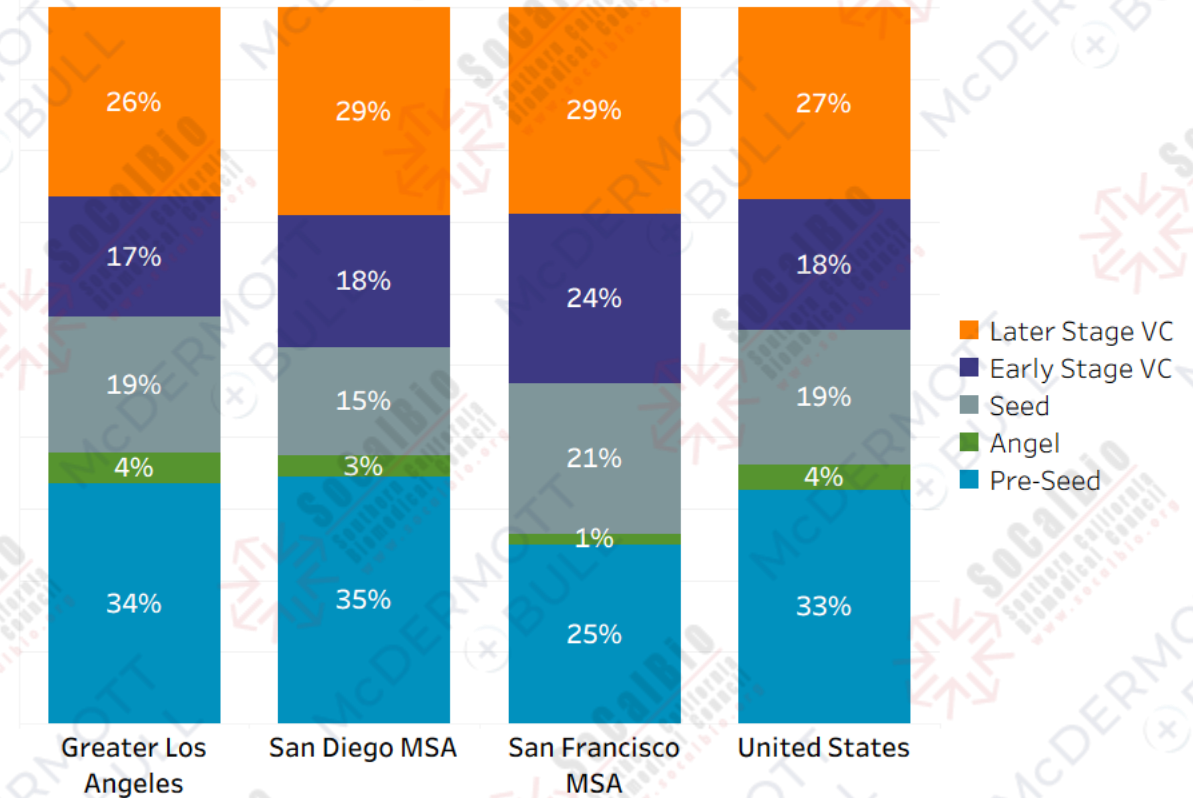
Regional Bioscience-related VC, Angel Investments and NIH Funding

Greater LA Bioscience VC Investments Total \$7.7B Across 589 Companies Over Latest 4-Year Period

VC Investments by Company Stage, 2022 – Q3:2025

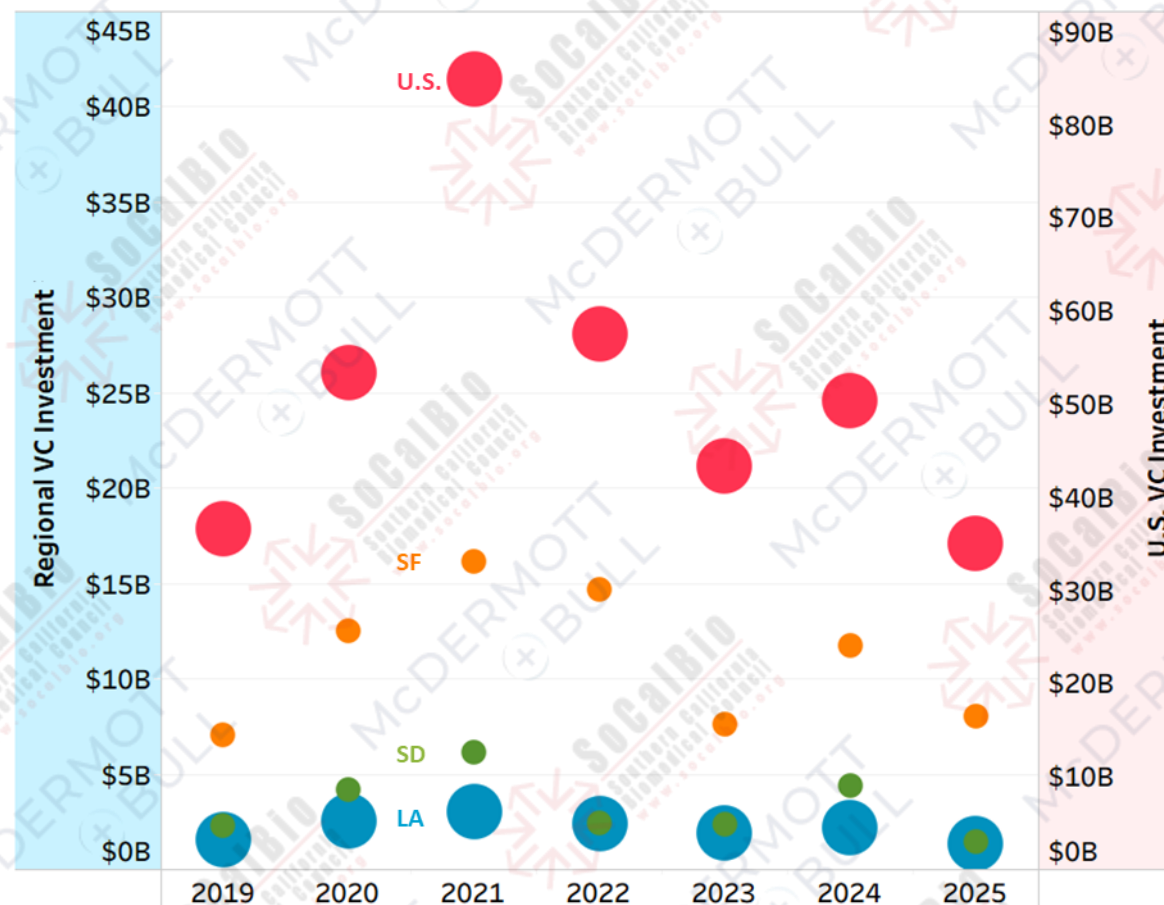
Company Stage	Companies	Deals	Investments (\$ Millions)
Pre-Seed	234	314	\$72.41
Angel	38	40	\$28.65
Seed	154	177	\$542.54
Early Stage	135	157	\$1,450.10
Later Stage	185	247	\$5,637.28
Total	589	935	\$7,730.98

Bioscience VC Deals



Greater LA Sees Comparable Levels of VC Investments to San Diego, Lags Bay Area; After Massive Peak in 2021, Region has Seen Similar Downward Trend in Bio Investments as Nation, Other CA Regions

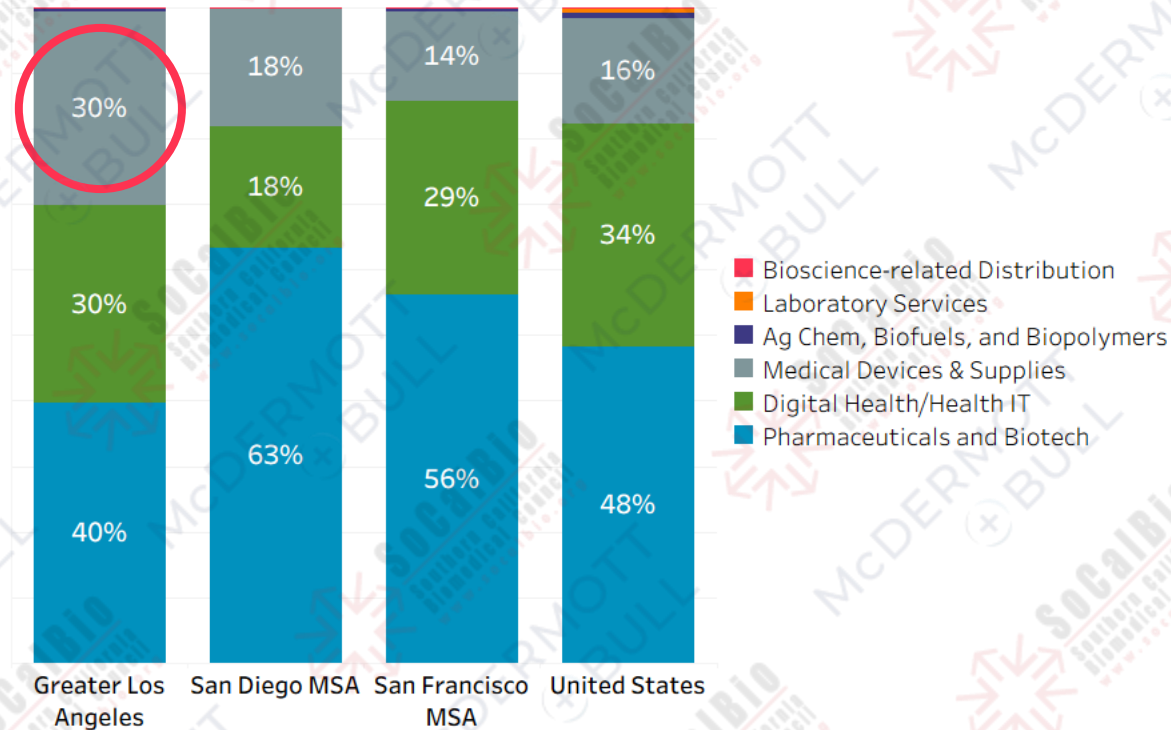
Regional and National Bioscience-related VC Investments, 2022-Q3:2025 (\$ in Billions)



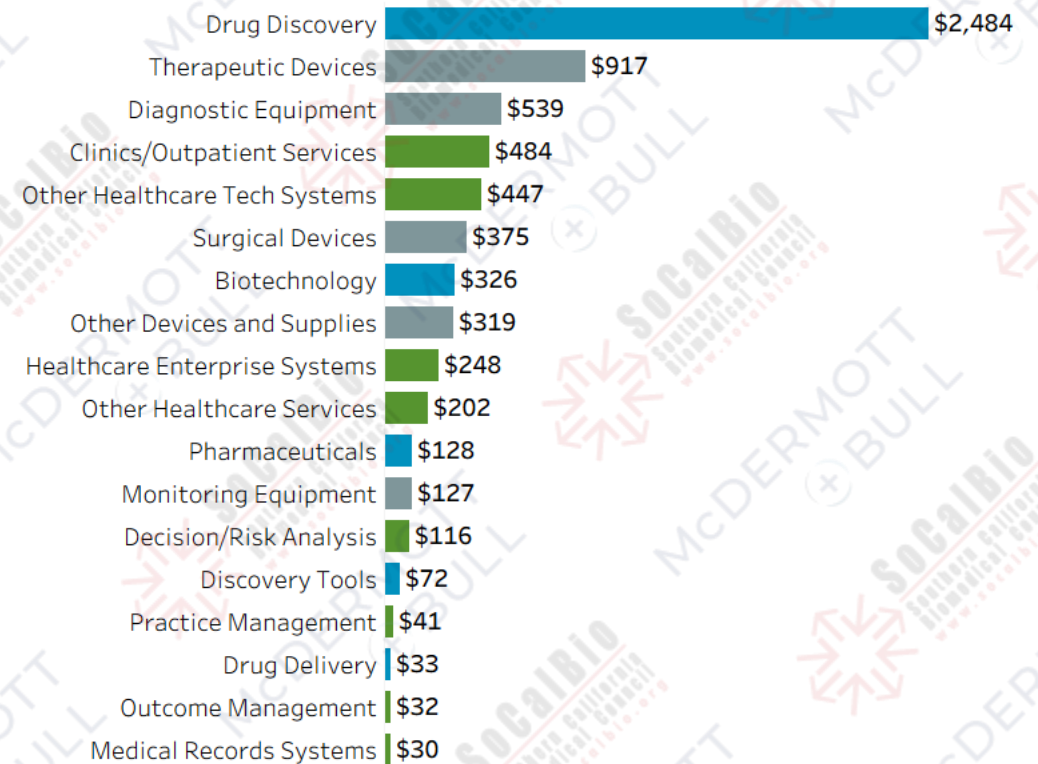
Source: TEconomy Partners analysis of PitchBook data.

Greater LA VC Investments More Concentrated in Medical Device Companies Relative to U.S. and Other CA Regions

Share of Regional and National VC Investments by Industry Segment, 2022-Q3:2025

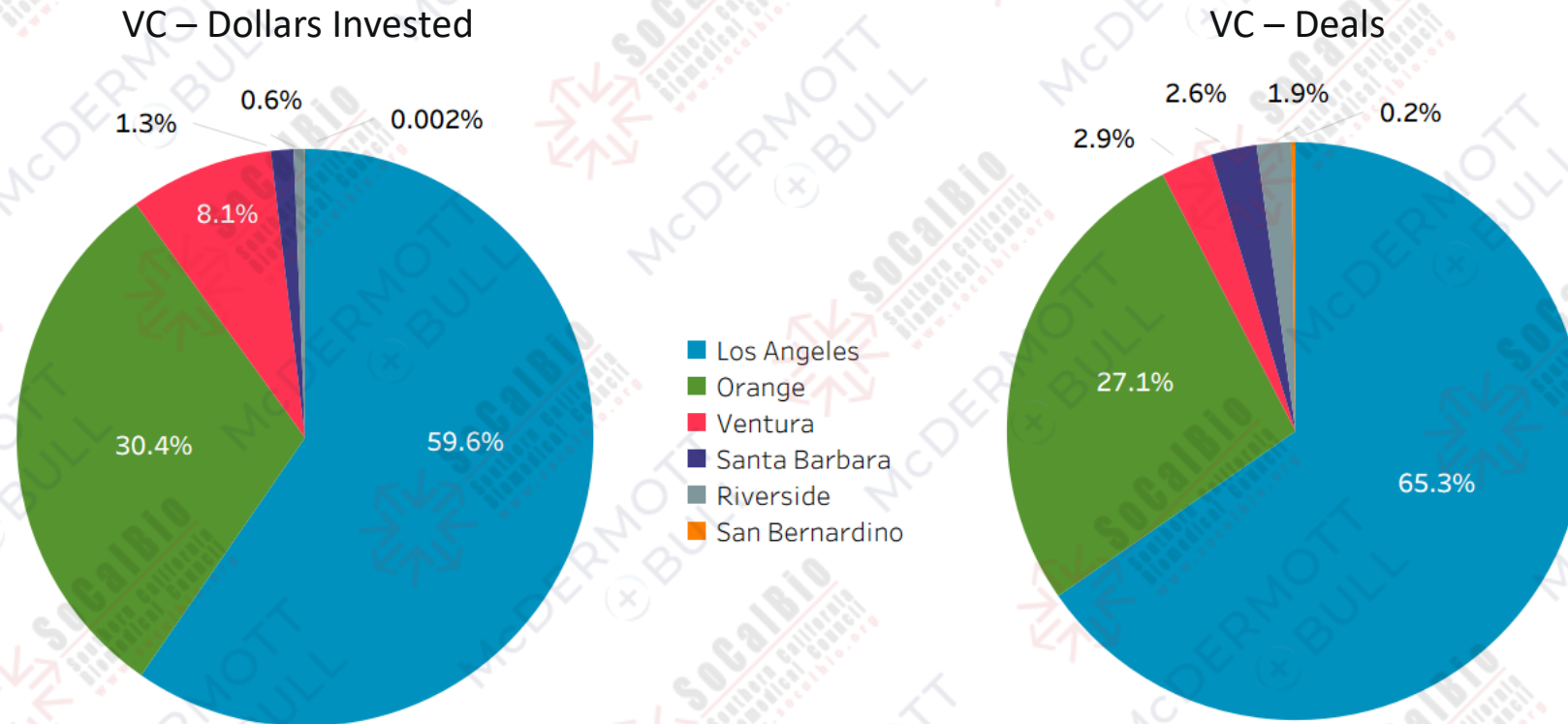


Greater LA—Leading Segments (\$ in Millions)



LA, Orange Counties Account for 9 of 10 VC Deals and Dollars Cumulatively Invested Since 2022

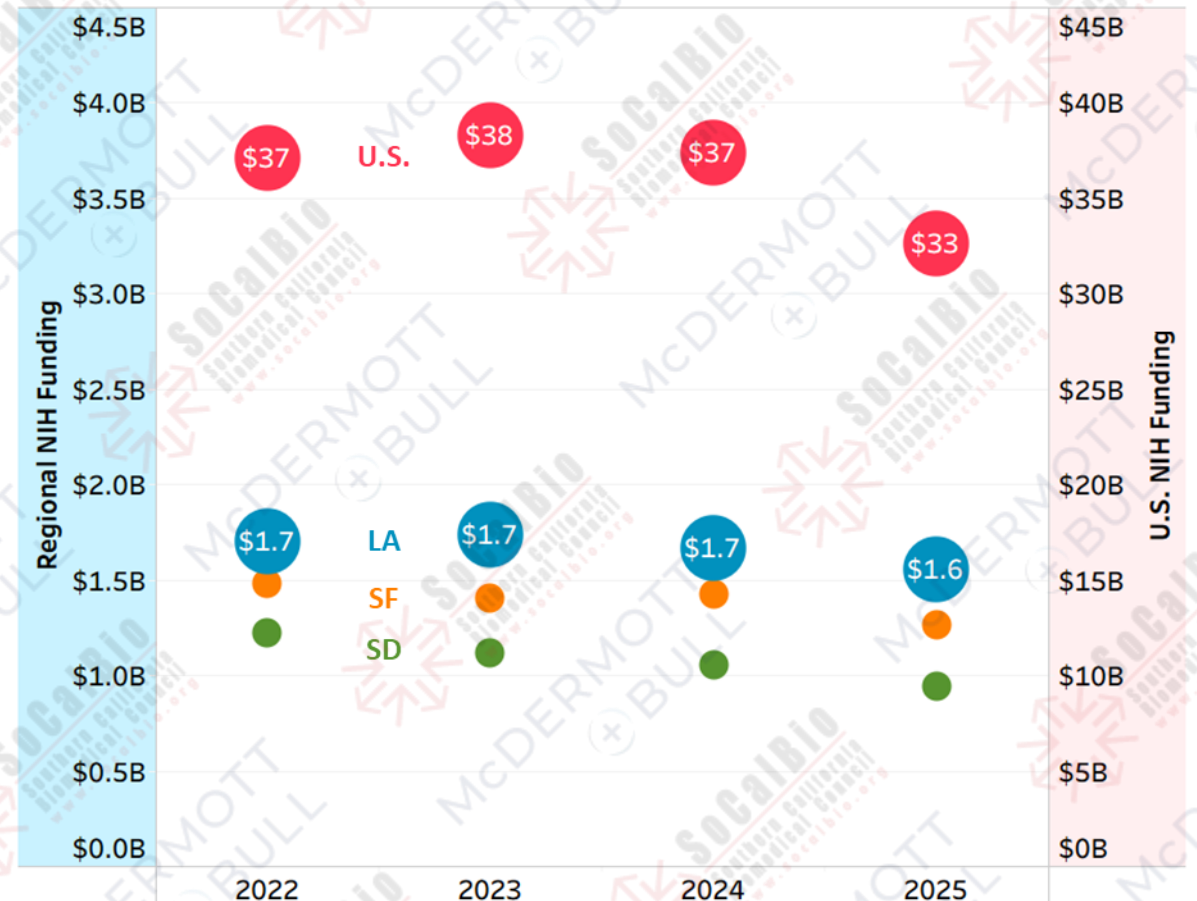
Regional Bioscience-related VC Distribution by County, 2022-Q3:2025



NIH Funding has Averaged \$1.66B to Greater LA Institutions in Recent Years ... Pending Recent Funding Cuts; LA Leads the Other Regions in Overall Funding Levels and Experienced a Smaller Decline from 2024 to 2025 than the Nation*

Leading Recipient Organizations	Total Funding, 2022-25 (\$ in Millions)
University of California, Los Angeles	\$2,161
University of Southern California	\$1,370
University of California, Irvine	\$896
Cedars-Sinai Medical Center	\$406
Beckman Research Institute/City of Hope	\$316
California Institute Of Technology	\$251
University of California, Riverside	\$153
Rand Corporation	\$137
Children's Hospital of Los Angeles	\$130
University of California, Santa Barbara	\$94
Hungry Heart Media, Inc.	\$70
The Lundquist Institute	\$57
Loma Linda University	\$33
Charles R. Drew University of Med and Sci	\$32
Chapman University	\$25

Regional and National NIH Funding Growth, 2022-Q3:2025* (\$ in Billions)



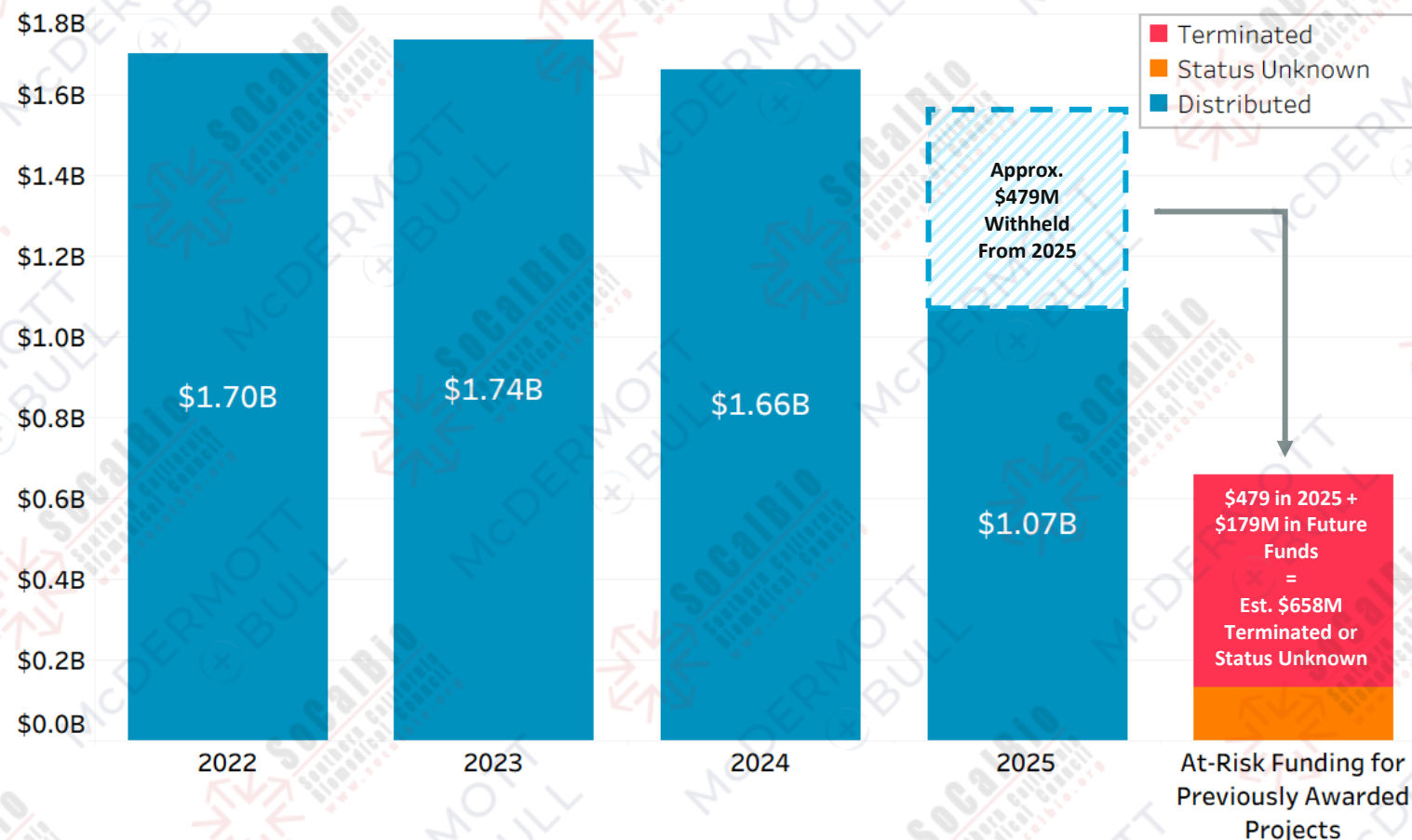
*Data for 2025 Q1-3 reflect currently published NIH records on award funding and do not necessarily reflect the disbursed totals after accounting for recent cuts.

Source: TEconomy Partners analysis of NIH RePORTER data.

Greater LA is Poised to Experience a Substantial Loss in Biomedical Research Volume with Federal Terminations of NIH Funding

- Collecting data from federal publications, researchers, and other sources, **Grant Witness estimates that the Greater LA Region has nearly \$658 million in NIH funding at risk**, including:
 - 513 projects with **terminated funding** totaling \$527M
 - 93 projects flagged as “possibly reinstated” (i.e., **status unknown**) with funding totaling \$131M
 - 1 project with **frozen funding** totaling \$0.88M (included within the “Terminated” bar in the graphic)
- With \$658M that has been terminated or withheld, **Greater LA institutions have lost access to the equivalent of about 10% of total NIH funding awarded 2022-2025.**

Estimated Regional NIH Funding Growth*, 2022-Q3:2025 (\$ in Billions)



*Because NIH does not publish anticipated future disbursement on a yearly basis, the chart presented here is for illustrative purposes only. The distribution of at-risk funds was calculated by taking the average remaining funding per project across the years remaining on said project.

Sources: TEconomy Partners analysis of <https://grant-witness.us/> and NIH RePORTER data.

To Recap Findings ... and to Look Ahead

- **Region (and CA more broadly) remains a bioscience leader but is facing real challenges:**
 - **Employment has declined from recent hiring peak in 2022**, beginning to diverge from national growth trends.
 - VC funding stabilized and grew in 2024 following declines in 2022 and 2023; however, **in 2025 investments are on pace to come in lower than last year.**
 - **Significant share of NIH funding is “at risk”**, expected to decline significantly.
- **However bright spots and opportunities persist:**
 - **Region represents one of the largest hubs of bioscience industry activity in the U.S.** ... industry remains a major economic driver for Greater LA generating large numbers of high-quality jobs.
 - **Greater LA is a national leader in medical device manufacturing, which continues to grow and to attract venture funding.** Pockets of biotech and biologics manufacturing continue to grow and add jobs.
 - **Industry continues to grow its economic output** (GRP, up 3.9% since '22) **and productivity levels** (up 9.6% since '22) significantly; suggesting robust growth despite shedding jobs.
 - **Greater LA is home to an exciting stable of emerging companies to fuel region’s next stages of growth** with 189 companies receiving at least \$5M in Angel or VC Funding from 2022-present.



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