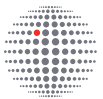




A Decade of Growth: New York's Life Sciences Industry

December 2023



PARTNERSHIP FUND
for New York City

Introduction

New York City's life sciences industry has experienced steady growth over the past decade in response to strategic investments by the public and private sectors.

A catalyst for New York's emergence as a global life sciences hub was a 2016 report published by the Partnership Fund for New York City ([New York's Next Big Industry: Commercial Life Sciences](#)). Subsequently, city and state government have invested \$1.5 billion to accelerate the development of wet lab space, support creation of multiple incubators and accelerators, and attract venture capital investors to the region. Universities and medical research institutions are more actively supporting entrepreneurship of their faculty and students and have extended their focus from basic research to commercialization. The growth of New York's life sciences industry cluster advanced rapidly during the COVID-19 pandemic, when New York-headquartered Pfizer and Regeneron played leading roles in developing the vaccines and therapeutic drugs that ended the pandemic.

As outlined in this report, the life sciences sector has emerged as a meaningful contributor to the state and local economy and to the intellectual capital of New York. The administrations of Governor Kathy Hochul and Mayor Eric Adams are committed to public policies that encourage the private investment and entrepreneurial energy necessary to ensure the industry's continued growth. Looking ahead, the industry's contribution to local employment, economic output, and business formation in the city and region will be increasingly important.

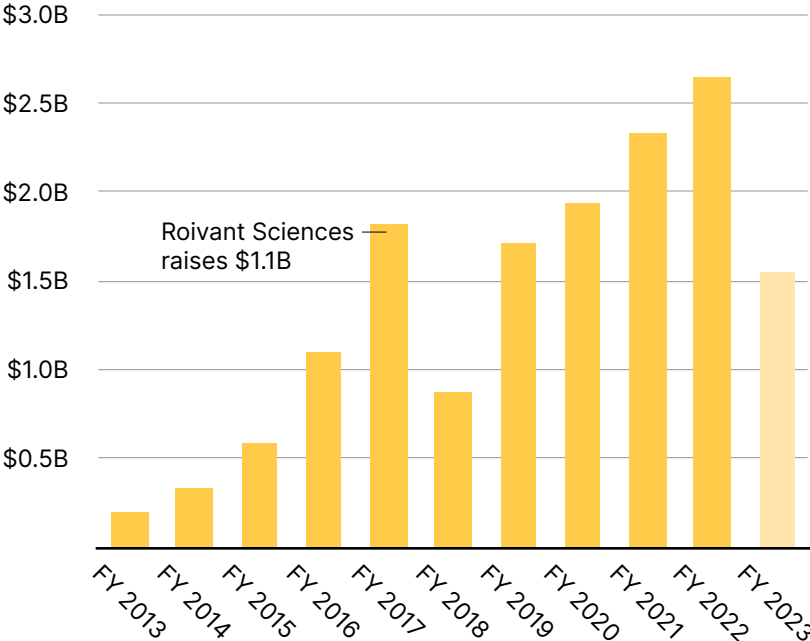
Closing the Investment Gap

Private Investment

Private investors poured a record \$2.6 billion into New York state life sciences companies in federal fiscal year (FY) 2022, up 14% from \$2.3 billion invested the previous year and up more than thirteenfold from \$200 million in FY 2013.¹ Only Massachusetts (\$11.1 billion) and California (\$17.9 billion) attracted more VC funding in FY 2022.

New York State Life Sciences Venture Capital Funding

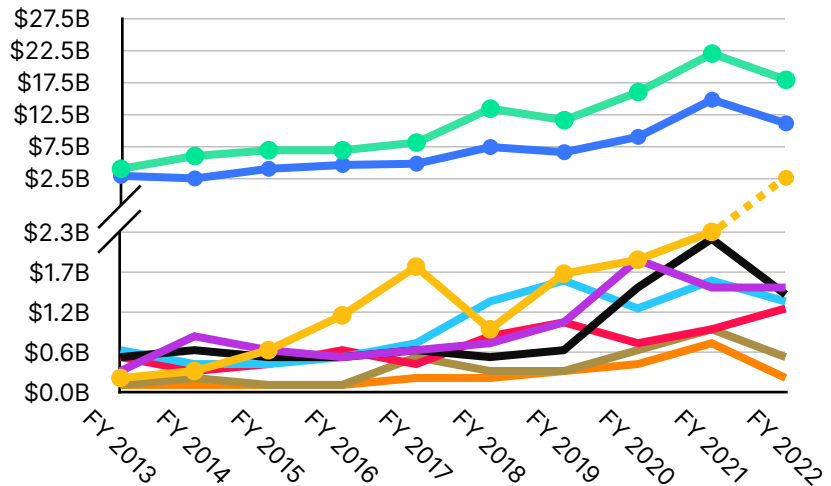
Note: FY 2023 data is preliminary and most recent available through Oct. 12, 2023



Preliminary FY 2023 data indicates New York life sciences funding contracted 42% from FY 2022, reflective of trends that have slowed national VC deal flow (U.S. venture deal value declined 53% across all industries between FY 2022 and 2023). Despite recent tightening, a decade-long view of the state’s life sciences sector illuminates remarkable progress. For the fifth consecutive year, New York is on pace to rank 3rd in life sciences venture capital (VC) dollars among all states in FY 2023, up from 5th in 2018 and 11th in 2013.

Venture Capital Funding in Select States

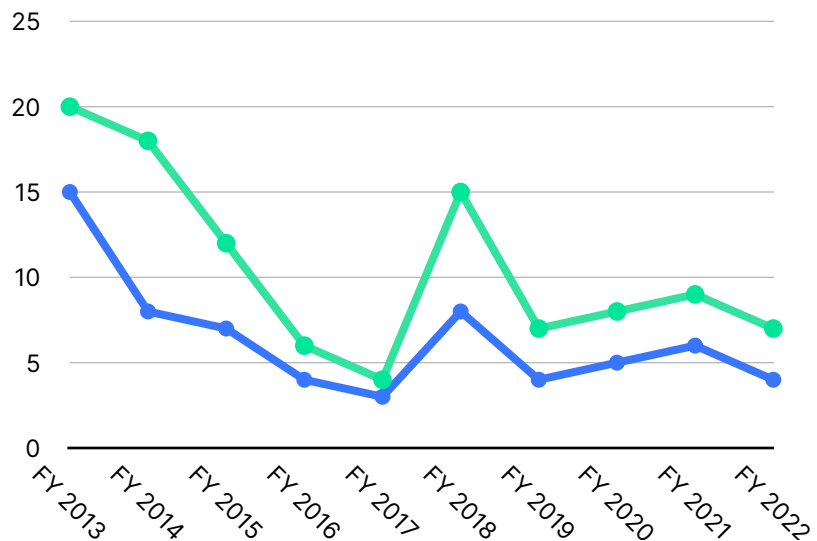
- California
- Massachusetts
- New York
- Washington
- Texas
- Pennsylvania
- New Jersey
- Connecticut
- Utah



Over the decade ending FY 2022, life sciences VC funding in New York grew 33% annually, about double the growth rate in both California (18%) and Massachusetts (16%). As a result, New York is slowly closing what once seemed an insurmountable gap between California and Massachusetts, which in FY 2013 raised 20 times and 15 times as much capital as New York, respectively. In 2022, California raised seven times as much VC funding as New York, while Massachusetts raised four times as much. New York now consistently outraises states that regularly attracted more venture capital in the early 2010s, including New Jersey, Pennsylvania, Texas, and Washington.

Ratio of VC Funding in California and Massachusetts to New York

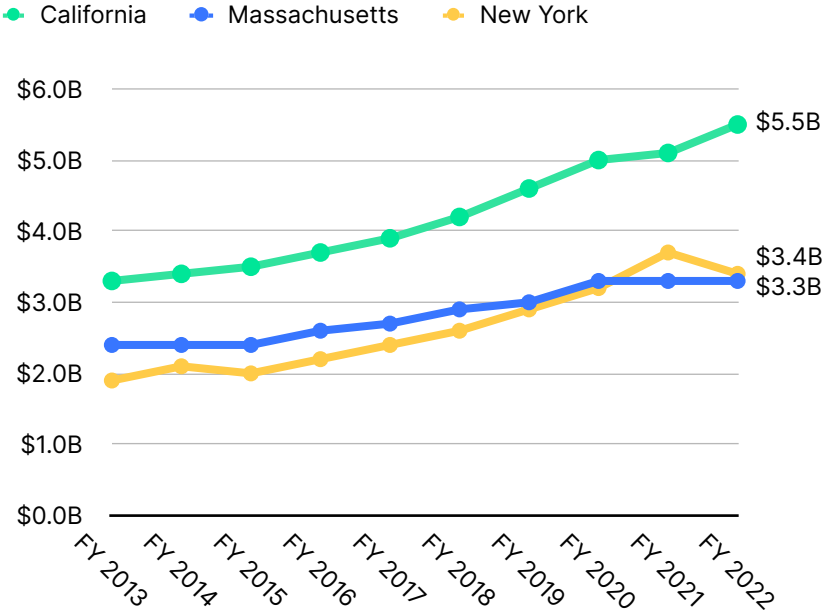
- California
- Massachusetts



Public Funding

New York state’s universities and research institutions attracted \$3.4 billion in public funding in FY 2022, the second highest on record after the \$3.7 billion raised in FY 2021. Much of the life sciences industry has been built on research spun out of universities, many of which receive competitively awarded funding from the National Institutes of Health (NIH). For the first time, New York surpassed Massachusetts in NIH funding in FY 2021 and 2022, ranking behind only California as the second highest among U.S. states. New York had ranked third for over a decade prior to 2021.

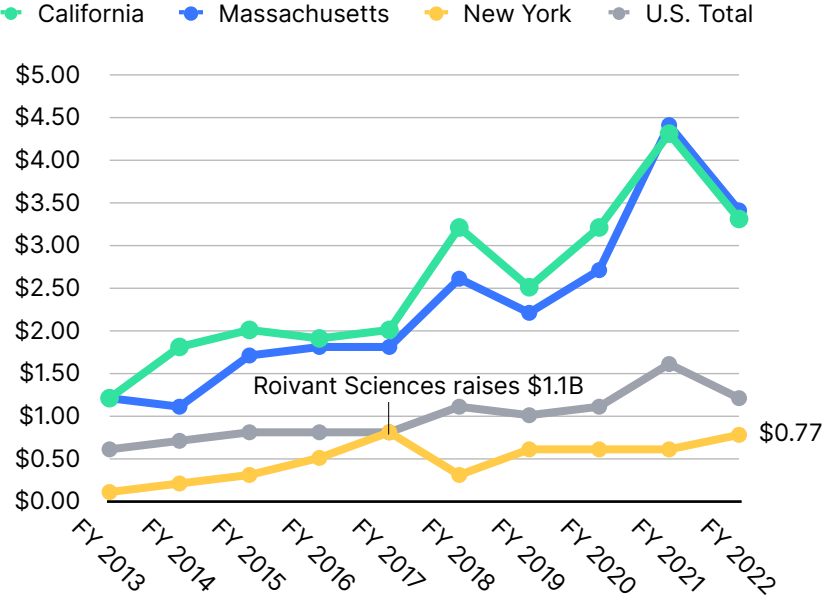
New York Surpassed Massachusetts in NIH Funding in 2021 and 2022



Ratio of Private to Public Investment

Lifted by strong private investment, New York received 77 cents of VC funding for every dollar of NIH funding received in FY 2022, up substantially from 33 cents in 2018 and 10 cents in 2013. While New York still trails Massachusetts and California, which each received over \$3.20 in VC investment for each NIH dollar in 2022, New York’s improvement reflects investors’ outlook on the state as an increasingly attractive hub for promising life sciences companies.

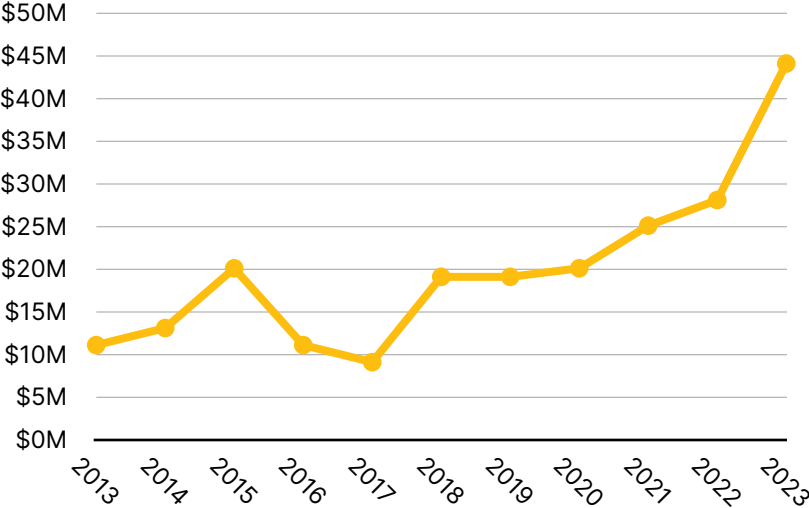
Ratio of Private (VC) Investments to Public (NIH) Funding in Select States



Industry Maturation

The increasing private investment in the state’s life sciences ecosystem is due in part to the presence of more mature life sciences companies. The median pre-money valuation—the value of a company before it receives funding—grew from \$11 million in 2013 to \$28 million in 2022.

Rising Median Pre-Money Valuation of New York Life Sciences Companies



Economic Impact

Strong private and public investment has provided the foundation for the expansion of the state’s commercial life sciences sector, which has produced new highs in employment, economic output, and business creation in recent years.² Growth in the city’s life sciences sector has been particularly robust.

New York City

		2013	2018	2022	2013-2018	2018-2022	2013-2022
Economic Output (GCP)	Life Sciences	\$2.3B	\$2.9B	\$4.9B	5%	14%	9%
	Total NYC	\$771.4B	\$930.7B	\$989.2B	4%	2%	3%
Business Formation	Life Sciences	700	900	1,100	5%	7%	6%
	Total NYC	253,200	272,000	285,100	1%	1%	1%
Employment	Life Sciences	13,300	14,400	21,100	2%	10%	5%
	Total NYC	4.15M	4.69M	4.64M	2%	0%	1%

New York State

		2013	2018	2022	2013-2018	2018-2022	2013-2022
Economic Output (GCP)	Life Sciences	\$14.6B	\$16.7B	\$21.9B	3%	7%	5%
	Total NYS	\$1.4T	\$1.6T	\$1.7T	3%	1%	2%
Business Formation	Life Sciences	2,100	2,500	3,100	3%	6%	4%
	Total NYS	609,600	638,900	682,700	1%	2%	1%
Employment	Life Sciences	72,900	77,000	90,000	1%	4%	2%
	Total NYS	9.3M	10.05M	9.87M	2%	0%	1%

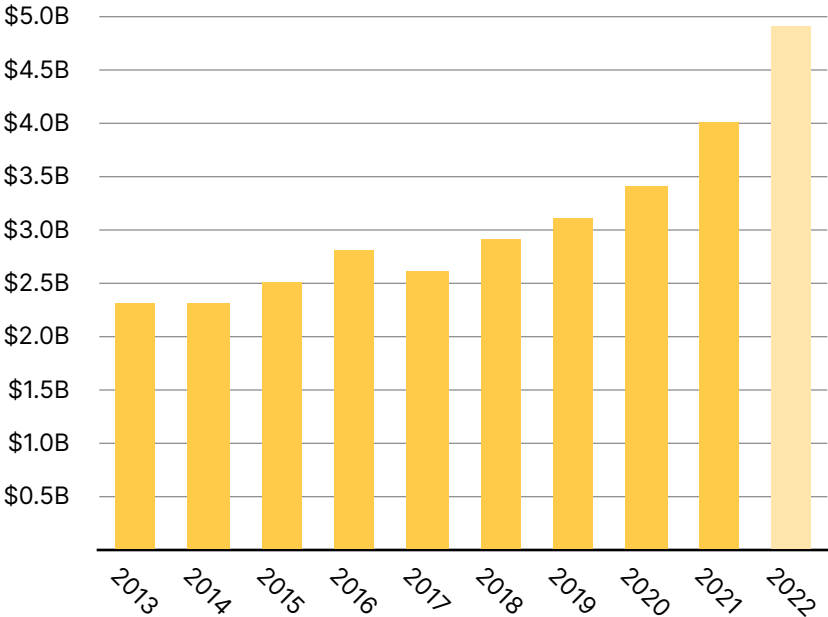
Note: Data reflect compound annual growth rates; economic output defined as gross city product (GCP) inflation adjusted to 2017 dollars using the Bureau of Economic Analysis’ implicit price deflator. Estimates of 2022 GCP are preliminary.

Contribution to Gross City Product

The city’s life sciences industry—which had already expanded steadily outside of a downturn in 2017—experienced rapid growth during the pandemic. Real gross city product (GCP) from the city’s life sciences industry grew 10% in 2020 and 16% in 2021. Preliminary estimates for 2022 suggest GCP expanded over 20%. Output expanded 78% from \$2.3 billion in 2013 to \$4 billion in 2021.

New York City Life Sciences Gross City Product

Note: Estimates of 2022 GCP are preliminary.



New Business Formation

Life sciences businesses are forming at an increasing rate, signaling growing confidence in the city as a destination for life sciences activity. The number of life sciences companies in the city has increased 67% since 2013, with most of the new businesses added since 2017. The city gained an average of 69 life sciences companies per year beginning in 2018 through 2022—up from an average of 23 per year from 2013 through 2017.

Employment

New York state life sciences companies added 17,000 jobs over the last decade.

Statewide employment climbed from 72,900 in 2013 to 90,000 in 2022. About 16,000, or 94%, of the new jobs were added after 2017.

Employment in the city's life sciences industry began accelerating in 2018:

- After declining slightly between 2001 and 2010, employment in the city's life sciences sector has increased 59% since 2013 to 21,100 in 2023, due in part to pandemic-era job gains.
- New York City life sciences companies added over 5,000 jobs in 2021 and 2022 alone.

Endnotes

- 1 Prior Partnership reports relied on venture capital data from PwC and CB Insights' MoneyTree™ report, which PwC retired in 2021. The Partnership now relies on Pitchbook for life sciences VC data and has modified its definition of life sciences. The Partnership's new definition encompasses all companies tagged by Pitchbook as primarily operating in the "pharmaceuticals and biotechnology" or "health care devices and supplies" industry groups. These companies account for 95% of all U.S. companies the Partnership classifies as life sciences. The remaining 5% of companies included in the Partnership's new definition have a secondary Pitchbook tag to either "pharmaceuticals and biotechnology" or "health care devices and supplies" and were determined by the Partnership as operating in the life sciences industry. Examples of companies excluded from this latter group include those that provide consulting services to health care clients or providers of technology that supports hospital operations. Examples of companies included in this group include contract development and manufacturing organizations that produce lab equipment or raw materials used in drug development and providers of clinical decision support systems to aid health care providers in diagnoses and early detection of disease. Venture capital funding includes completed venture capital or private equity growth/expansion deals.
- 2 Economic impact data based on Lightcast data for the following sectors.

NAICS	Description
325411	Medicinal and Botanical Manufacturing
325412	Pharmaceutical Preparation Manufacturing
325414	Biological Product (except Diagnostic) Manufacturing
541714	Research and Development in Biotechnology (except Nanobiotechnology)
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
621511	Medical Laboratories
621512	Diagnostic Imaging Centers

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