



New York State Comptroller
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Economic and Policy Insights

Economic Impact: Higher Education

September 2024

Introduction

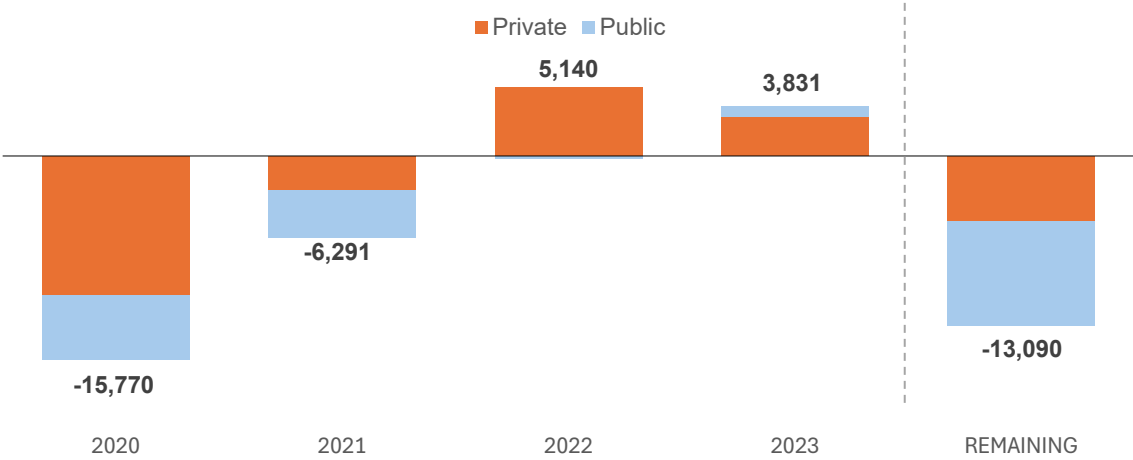
Higher education is an important contributor to New York’s economy. New York’s 290 degree-granting postsecondary institutions¹ employed more than 296,000 people with total wages of around \$27 billion in 2023. In addition, consumer spending on higher education in New York totaled \$15.7 billion and spending on research and development totaled \$8.3 billion in 2022. In an increasingly competitive economy, continuing to attract and retain students is important not only to sustain local institutions and economies, but to continue to foster economic growth, innovation and social mobility.

Employment and Wages

Higher education institutions in New York contribute significantly to both the State economy, as well as the local economies in which they reside. In 2023, employment at the State’s colleges and universities totaled more than 296,000.² Private colleges and universities provide nearly 2 in every 3 jobs in this sector. New York leads the nation in private higher education employment, over 50 percent higher than second-ranked California.

During the COVID-19 pandemic, employment at the State’s colleges and universities fell by more than 22,000 jobs, or 7.1 percent from 2019 levels (see Figure 1). In 2023, this sector had yet to recover all the jobs lost, with employment still being 13,090 jobs below 2019 levels. Jobs at public institutions remained 8,000 below 2019 levels at the end of 2023, while private institutions were 5,100 below.

Figure 1
Annual Change in Employment, 2020 – 2023



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

In past recessions, employment in the higher education sector demonstrated a countercyclical pattern; jobs grew at private institutions as workers returned to education to enhance skills and improve their marketability, requiring institutions to bolster staffing.³ The pandemic-induced recession presented unique challenges as institutions were closed during the economic shutdown and capacity restrictions followed as the economy reopened.

From 2000 to 2020, total wages paid in the higher education sector realized average annual growth of 4.6 percent, increasing even during the previous recessions. However, in 2020, total wages grew only 1.4 percent, due in part to the large decrease in employment that year. As job recovery occurred over the next three years, total wages increased, growing by 19.4 percent from 2020 to 2023, to a total of \$26.5 billion.⁴ This was slower than total wage growth statewide over the same period, 21.2 percent.

In 2023, average annual wages paid by the State’s colleges and universities were \$73,396 compared to average annual wages of \$91,320 for all sectors statewide.⁵ Wages at public institutions, \$72,200, were slightly lower than those at private institutions, \$75,100.

Regional Impact

There are 240 higher education institutions (not including satellite campuses) in New York, ranging from 83 institutions in New York City to 8 in the North Country region. The distribution of higher education institutions correlates closely with regional population numbers, indicating accessibility for all population centers in the state.⁶ It also provides sizable employment in many areas across New York, and changes in this employment can affect local economies. New York City has the greatest number of jobs, and the Southern Tier has the highest share of higher education employment, 7.9 percent, as it contains over a dozen of postsecondary institutions, including large centers such as Cornell and Binghamton universities.

As of 2023, no regions demonstrated full employment recovery in the higher education sector. The most challenged was the Mid-Hudson region, where employment at the end of 2023 was 12.1 percent below 2019 levels. The Southern Tier fared the best but was still 3.6 percent below 2019 employment at the end of 2023.⁷

Figure 2
Regional Comparison of Higher Education Employment and Recovery, 2019 – 2023

Regions	Total IHEs	2019 IHE Employment	2023 IHE Employment	Total Employment	IHE Employment as percentage of Total	IHE Employment Growth 2019-2023
New York City	83	138,836	125,931	4,483,927	2.8%	-9.3%
Finger Lakes	19	29,267	27,451	541,423	5.1%	-6.2%
Long Island	17	29,247	26,582	1,288,044	2.1%	-9.1%
Central New York	13	21,940	20,748	335,222	6.2%	-5.4%
Mid-Hudson	30	23,524	20,666	933,784	2.2%	-12.1%
Southern Tier	13	20,150	19,433	246,099	7.9%	-3.6%
Capital District	22	19,641	17,623	519,035	3.4%	-10.3%
Western New York	24	19,145	17,456	614,457	2.8%	-8.8%
Mohawk Valley	11	6,158	5,737	180,971	3.2%	-6.8%
North Country	8	5,404	4,788	147,348	3.2%	-11.4%

Note: Employment numbers for 2023 are preliminary and contain disclosures. Regional employment data will not add up to total state level reported above. This is due to some regions lagging in data collection. Total IHEs do not include satellite campuses.

Source: New York State Department of Labor, from zipped file: 2023 and 2019 QCEW using NAICS codes 611210: Junior Colleges and 611310: Colleges and Universities. IHE regional count is from NYSED.

Since 2021, six private higher education institutions have closed, resulting in 2,235 permanent job losses, of which, 1,964 occurred in 2023 and 2024;⁸ with average wages in the sector around \$75,100, the total payroll impact has been \$167.8 million. Albany and Madison counties have been particularly affected, bearing more than half of the total impact in employment and payroll loss. These closures also have negatively impacted businesses in the areas around these institutions, such as entertainment venues and restaurants.

Figure 3
County Employment and Payroll Loss Resulting from IHE Closures, 2021 – 2024

County	Employment Loss	Direct Payroll Loss	Closing Year
Albany	693	\$52,044,300	2024
Madison	552	\$41,455,200	2023
Erie	419	\$31,466,900	2023
Westchester	271	\$20,352,100	2021
New York	159	\$11,940,900	2023
Cayuga	141	\$10,589,100	2024
TOTAL	2,235	\$167,848,500	

Note: Direct payroll loss is OSC analysis.

Source: New York State Department of Labor WARN Notices 2021-2024

Consumer Spending

The more than 1.1 million students at the State’s colleges and universities contribute to the State economy not only through the payment of tuition and fees but also through discretionary spending while they are enrolled. Consumer spending on total costs for higher education in New York totaled \$15.7 billion in 2022.⁹ These costs include tuition and university fees (\$11.9 billion), boarding (\$2.6 billion), and food services (\$1.2 billion). New York consumers rank third nationally in total spending, behind California and Texas. Total spending increased 12.2 percent from the previous year and 5 percent in 2021 after decreasing 16.2 percent in 2020.

Figure 4
Top States by Consumer Higher Education Spending, in Millions, 2012 – 2022

State	2012	2022	Change 2012-2022	2022 Per Capita
California	\$27,535.1	\$35,890.9	30.3%	\$919.32
Texas	\$14,845.7	\$18,964.2	27.7%	\$631.51
New York	\$13,350.4	\$15,693	17.5%	\$797.68
Illinois	\$11,144.1	\$13,148.3	18.0%	\$1,044.97
Florida	\$9,634.7	\$11,881.3	23.3%	\$534.10
United States	\$206,355	\$261,839	26.9%	\$785.66

Sources: U.S. Bureau of Economic Analysis, "SAPCE3 Personal consumption expenditures (PCE) by state by type of product 1" and "Table 2.4.5U. Personal Consumption Expenditures by Type of Product."

Continuing to attract students is essential for the future of higher education and the local economies that rely on these institutions. A positive factor for the State’s economy is that New York ranks 11th among the states and the District of Columbia for attracting more out-of-state

students than it sends elsewhere. Between 2012 and 2022, the Fall enrollment of out-of-state students in New York increased by 13.4 percent.¹⁰ Out-of-state enrollments constitute a quarter of total first-time students in 2022, growth of 26.5 percent since 2012.

The State is also the second highest destination for international students, with 126,800 enrollments, second behind California. Academic year 2023 brought in 13,100 international students, the highest compared to all previous years and triple the growth in California.¹¹ Twenty-one institutions enrolled 1,000 or more students, representing 82.6 percent of the total. New York University (NYU) and Columbia University hold the first and third spot, respectively.¹² According to the Institute of International Education, international students' expenditures contribute \$5.8 billion to the State's economy.¹³

Attending college is a good indicator of initial employment and residence after schooling. Five years after graduation, 85 percent of City University of New York (CUNY) graduates, 70 percent of State University of New York (SUNY) graduates, and 65 percent of private institution graduates stay in New York,¹⁴ leading to continued contributions to the State's economy.

Economic Development and Higher Education

New York's colleges and universities also perform research and development (R&D), spending \$8.3 billion in 2022.¹⁵ The State has programs, including the Center of Excellence (COE) and Center of Advanced Technology (CAT) programs, which provides monetary support for this R&D and act as a conduit for translating such R&D into new products and businesses.

The COE program fosters collaboration between the academic research community and business sector to develop and commercialize new products and technologies and to create and expand technology-related businesses and employment.¹⁶ Similarly, the CAT program supports applied research, development, and technology transfer in multiple technological areas in collaboration with private industry.¹⁷ The State provides funding to 16 COEs operating at 14 colleges and universities and 15 CATs at 13 institutions across the New York. According to Empire State Development, these programs had an economic impact of \$3.2 billion from 2019 to 2022 (see Figure 5).

Figure 5
Reported Economic Outcomes from Both Centers Program, 2019 – 2022

	2022	2021	2020	2019	TOTAL
Economic Impact	\$946,625,430	\$571,377,581	\$637,201,017	\$1,022,349,090	\$3,177,553,118
Job Procurements	767	1217	1571	1264	4819
Student interns	973	1132	388*	N/A	2493
Companies served	933	903	471*	N/A	2307
Companies formed	26	44	18	16	104
Patents	129	153	154	185	621

Note: "Student Interns" and "Companies Served" for 2020 only included data from COE, while 2019 had data from neither program.

Source: Empire State Development

Other programs that foster economic development through the State's higher education institutions are the Business Incubator and Innovation Hot Spot and START-UP NY programs.

The Business Incubator program provides support to early-stage and start-up businesses through access to physical space, staff, and mentoring or networking; 14 of the State's colleges and universities partner with incubators throughout the State. The START-UP NY program provides tax incentives to new and/or expanding businesses that locate at or near the State's higher education institutions, allowing for collaboration between the entities.

More recently, the Governor established the Empire Artificial Intelligence AI Consortium grouping seven of New York's institutions including SUNY, CUNY, Cornell, Columbia, NYU, RPI and Flatiron Institute to coordinate research and development. Investment for the consortium from the public and private sector is projected to total \$400 million.¹⁸

Conclusion

The higher education sector brings tremendous value to the State and regional economies through spending by students, as well as the employment and wages the institutions provide. In addition, the sector fosters long-term economic growth by cultivating a skilled workforce and furthering innovation. Overall, 40 percent of New Yorkers are college educated with a bachelor's degree or higher in 2022, one of the highest rates in the nation. According to projections by the U.S. Bureau of Economic Analysis, positions requiring higher education are projected to increase by 5.5 percent from 2022 to 2032.¹⁹ It is essential that New York attract and retain the students necessary to fill these positions in firms that can be started or grown in New York.

However, enrollment in New York's institutions has decreased by nearly 150,000, or 11.9 percent, between academic year 2014-2015 and 2021-2022.²⁰ Furthermore, higher education institutions will continue to face challenges, as a projected decline in the college-age population may produce an "enrollment cliff," as detailed in the Office of the State Comptroller's report, [Higher Education in New York](#). These dynamics present challenges to a full employment recovery for the sector, but maintaining a vibrant higher education system is critical to New York's future.

Endnotes

- ¹ New York State Education Department, Information Reporting Services, Higher Education Reports, [admission-and-academic-prep—2013—to—2023](#).
- ² U.S. Bureau of Labor Statistics (BLS), 2023 Quarterly Census of Employment and Wages (QCEW) by Industry level in annual levels using NAICS codes 6112: Junior Colleges and 6113: Colleges and Universities.
- ³ New York State Department of Labor (DOL), [Current Employment Statistics \(CES\)](#) from 2000 to 2024, subsector “65611300: Private Colleges, Universities, and Professional Schools”. While CES data differs slightly from QCEW, the purpose of this source is to showcase growth during recessions, not exact amounts. Quarterly changes were OSC analysis.
- ⁴ NYS DOL, 2023 QCEW using NAICS codes 611210: Junior Colleges and 611310: Colleges and Universities.
- ⁵ Statewide average annual wages are influenced by wages paid in the finance and insurance sector which are significantly higher than other industry sectors in the State.
- ⁶ Correlation of 0.96 between regional population and location of higher education institutions.
- ⁷ NYS DOL, 2023 QCEW using NAICS codes 611210: Junior Colleges and 611310: Colleges and Universities.
- ⁸ Closures and dates include Concordia College, 2021 at [WARN | Concordia College Phase \(1\), \(2\), \(3\), \(4\), \(5\), \(6\)](#); Medaille University, 2023 at [WARN | Medaille University](#); Alliance University, 2023 at [WARN | Alliance University](#); Cazenovia College, 2023 at [WARN | Cazenovia College](#); College of St. Rose, 2024 at [WARN | College of St. Rose](#); Wells College, 2024 at [WARN | Wells College](#). Additionally, ASA College is labelled as “Potential Closure” as the United States Department of Education considers ASA College closed but the institution has not confirmed to NYSED of its closure, thus it was not included in the report.
- ⁹ U.S. Bureau of Economic Analysis, “SAPCE3 Personal consumption expenditures (PCE) by state by type of product 1” and U.S. Bureau of Economic Analysis, [Table 2.4.5U. Personal Consumption Expenditures by Type of Product](#). While PCE by state contains spending on tuition and fees, it does not contain detailed spending on room and board. These figures were obtained by calculating the percentage of these two nested expenditures on parent expenditures from national totals. These percentages were then multiplied by the parent expenditures found in state totals, providing a close estimate.
- ¹⁰ U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), [Fall Enrollment component](#), Spring 2023 (provisional data) and Spring 2013, [Fall Enrollment component](#).
- ¹¹ “Fast Facts,” *Open Doors 2023 Fast Facts* at [IIE Open Doors / International Students](#).
- ¹² Institute of International Education, “Table 17: Institutions Hosting 1,000 or More International Students, 2022 – 2023,” *Open Doors 2023 International Student Census Tables*, [International Student Census Tables](#).
- ¹³ “State Fact Sheets New York,” *Open Doors 2023 State Facts and Figures*, [IIE Open Doors / State Fact Sheets](#).
- ¹⁴ City University of New York (CUNY), “Spotlight: CUNY and the New York City Economy,” at [Spotlight: CUNY and the New York City Economy : Office of the New York City Comptroller Brad Lander \(nyc.gov\)](#); Rockefeller Institute, “The Economic Impact of the State University of New York,” at [SUNY-Economic-Report-AY2020.pdf \(rockinst.org\)](#); and Commission on Independent Colleges & Universities in New York (CICU) analysis using CICU Fall 2023 Preliminary Enrollment and Workforce Survey and Johnathon G. Conzelmann, et al., “Grads on the Go: Measuring College-Specific Labor Markets for Graduates,” National Bureau of Economic Research at [w30088.pdf \(nber.org\)](#).
- ¹⁵ National Science Foundation, National Center for Science and Engineering Statistics, [Rankings by total R&D expenditures](#).
- ¹⁶ Division of Science, Technology, and Innovation, Empire State Development, *Centers of Excellence 2023 Report*, <https://esd.ny.gov/sites/default/files/media/document/2023-Center-of-Excellence-AnnualReport.pdf>
- ¹⁷ Division of Science, Technology, and Innovation, Empire State Development, *2023 Program Report Centers for Advanced Technology Academic Year July 2021 through June 2022*, <https://esd.ny.gov/sites/default/files/2023-NYSTAR-CAT-Report.pdf>.
- ¹⁸ Governor Kathy Hochul, press release (Launch of Empire AI Consortium), <https://www.governor.ny.gov/news/governor-hochul-launches-empire-ai-consortium-make-new-york-global-leader-artificial>

¹⁹ BLS, Table 1.7 Employment Projections program, at [Occupational projections and worker characteristics : U.S. Bureau of Labor Statistics](#). To calculate percent growth for each degree level, averaging of “employment change, percent, 2022-2032” was done.

²⁰ New York State Education Department, [2023 NY STATE Higher Education Enrollment Data | NYSED Data Site](#) and [2015 NY STATE Higher Education Enrollment Data | NYSED Data Site](#).

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