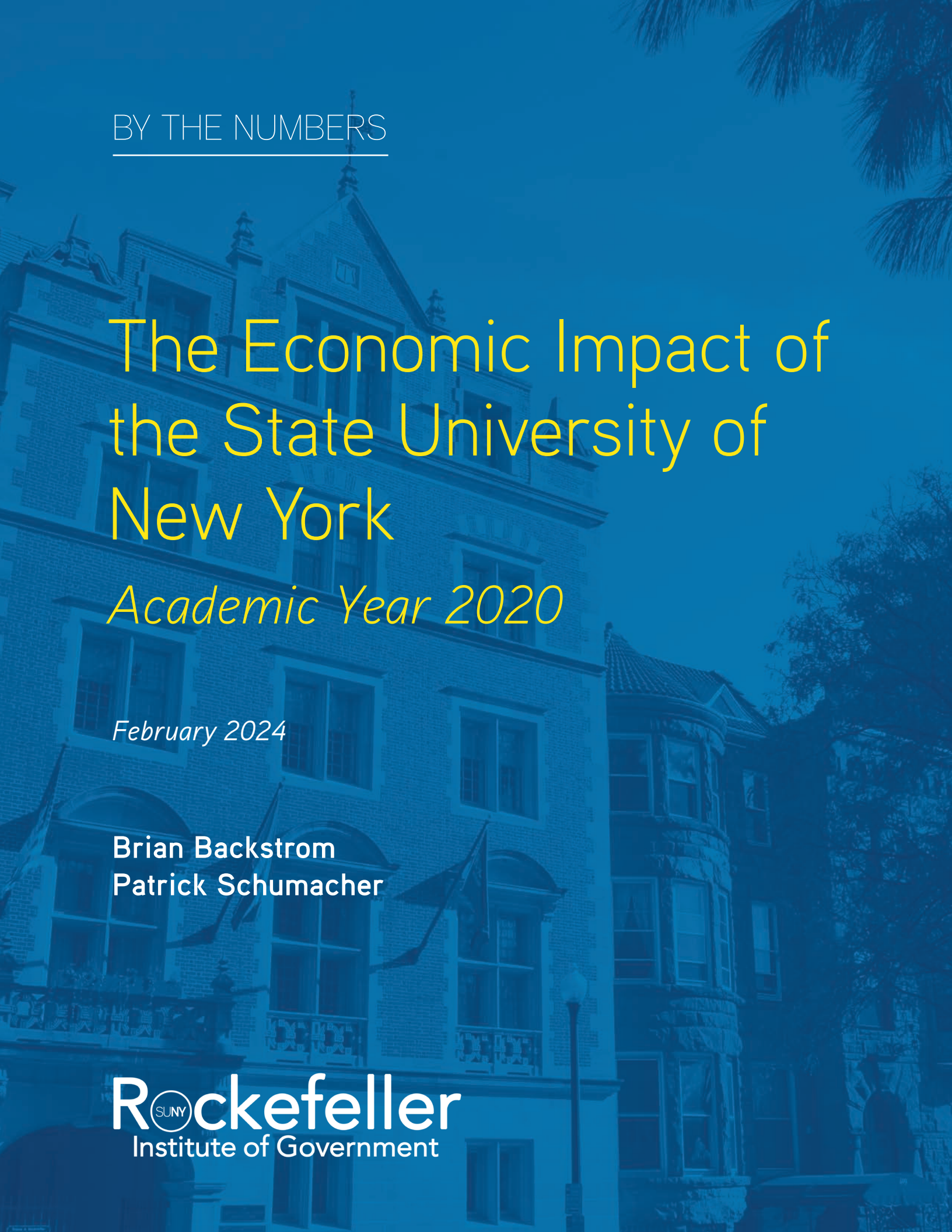

BY THE NUMBERS

# The Economic Impact of the State University of New York

## *Academic Year 2020*

*February 2024*

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# SUNY'S ECONOMIC IMPACT
## *BY THE NUMBERS*

**$31.0B**

IMPACT IN NEW YORK STATE annually, 2020–21

(1.9 percent of gross state product)

**157,600**

DIRECT AND INDIRECT **JOBS**

(1.6 percent of the NYS workforce)

***72,185***

*Full- and part-time SUNY employees*

***85,415***

*Jobs indirectly supported*

**$8.67**

RETURN ON INVESTMENT for every **$1** of state funding[1]

## Introduction

The State University of New York (SUNY) is the largest comprehensive system of higher education in the United States, currently providing affordable, quality higher education to about 1.4 million students across its system of 64 college and university campuses and its entire portfolio of credit– and noncredit–bearing courses and programs, continuing education, and community outreach programs.

SUNY's reach and role as the state's foremost educational system is certainly immense. But what about the economic impact of SUNY as an employer and operator of its college and university campuses, and its four academic health centers, five hospitals, four medical schools, two dental schools, a law school, the country's oldest school of maritime, the state's only college of optometry, and one US Department of Energy National Laboratory? And what is SUNY's overall contribution to the innovation infrastructure and labor force in New York?

Unquestionably, SUNY is a key driver of the economic engine of New York State. SUNY's annual economic impact in New York State was $31.0 billion in the academic year 2020-21 (AY 2020),[2] an 8 percent growth in overall state economic impact since 2016 ($28.6B).[3] This growth in impact has been driven largely by SUNY's expanding hospitals and research activities; indeed, research and development activities system–wide have continued to grow, reaching more than $1.4 billion in 2020, an increase of more than 22 percent from just five years prior.[4]

In AY 2020, the SUNY system educated 394,220 students, employed 72,185 faculty and staff, and had an operating budget supported by $12.95 billion in revenues.[5] To put this in perspective, if SUNY were a private company, it would rank among the 10 largest employers in all of New York. The operations and student expenditures made throughout SUNY in AY 2020 supported a total of 157,600 jobs when counting both direct employment and employment that can be attributed to SUNY indirectly.

This report offers an update and expansion of the calculation of economic impact SUNY had on New York in 2018 made in a previous report by the Rockefeller Institute of Government.[6]

## SUNY Impacts All New York Industries

SUNY's impact flows through 91 percent (499 of 546) of the official industry sector classifications active in New York State's economy. SUNY directly impacts the higher education, scientific research and development (R&D), and hospital industries, where SUNY produces output, employs workers, and generates revenues (Table 1). SUNY's indirect economic impacts are similarly massive. To name just a few:

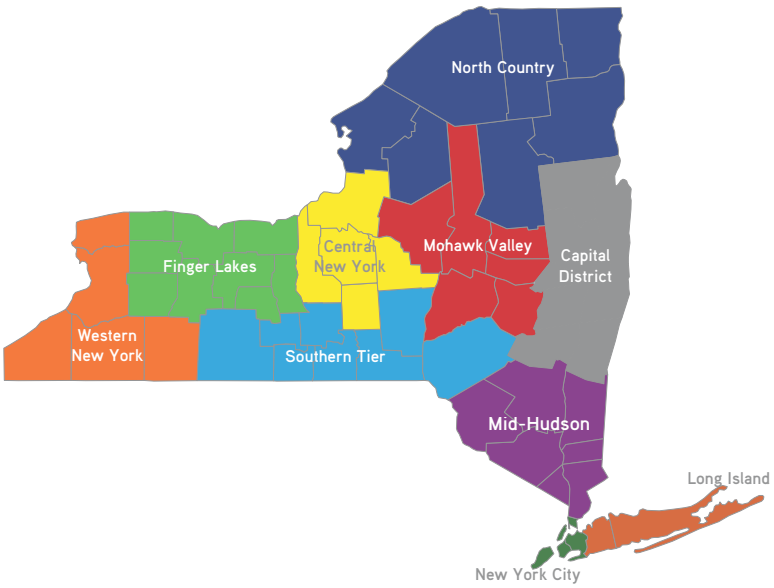
- SUNY employees and students generate $2.4 billion of demand in the real estate industry across the state, supporting almost 12,600 jobs.
- SUNY employees and students spend $736 million in restaurants, supporting an additional 7,117 jobs.
- The SUNY community generates demand at and supports employment in retail stores, doctor's offices, wholesale traders, and hundreds of other industries across New York.

*TABLE 1*. **Annual Economic Impact of SUNY, Jobs and Output, by Industry, 2020–21**

| Description | Employment (# FTE jobs) | Output ($s) |
|---|---|---|
| Junior Colleges, Colleges, Universities, and Professional Schools | 60,076 | $10,760,827,186 |
| Hospitals | 5,660 | $4,195,438,340 |
| Real Estate | 12,580 | $2,356,268,670 |
| Scientific Research and Development Services | 10,053 | $1,337,758,203 |
| Restaurants | 7,117 | $736,218,659 |
| Management of Companies and Enterprises | 1,116 | $661,345,598 |
| Retail—General Merchandise Stores | 3,059 | $288,005,324 |
| Amusement and Recreation | 4,248 | $284,578,215 |
| Offices of Physicians | 1,526 | $245,452,229 |
| Retail—Food and Beverage Stores | 2,691 | $242,473,320 |

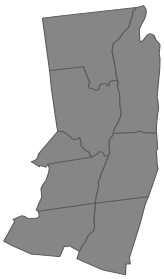
*SOURCE:* IMPLAN Analysis

# TABLE 2. SUNY's Economic Impact by Region



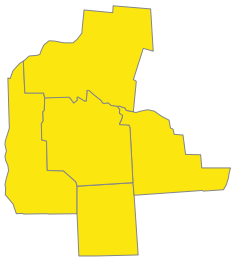

## NEW YORK STATE TOTAL

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 157,600 |
| Direct Employment | 72,185 |
| Indirect Employment | 85,415 |
| SUNY Share of Workforce | 1.6% |
| Output Impact | $31,094,833,813 |
| SUNY % of Regional Output | 1.8% |



## CAPITAL REGION

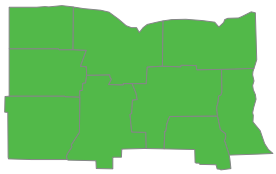
| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 15,485 |
| Direct Employment | 6,886 |
| Indirect Employment | 8,599 |
| SUNY Share of Workforce | 2.7% |
| Output Impact | $3,406,704,703 |
| SUNY % of Regional Output | 4.4% |



## CENTRAL NEW YORK

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 22,220 |
| Direct Employment | 8,055 |
| Indirect Employment | 14,165 |
| SUNY Share of Workforce | 5.7% |
| Output Impact | $5,127,731,941 |
| SUNY % of Regional Output | 10.9% |

# TABLE 2. SUNY's Economic Impact by Region, cont.

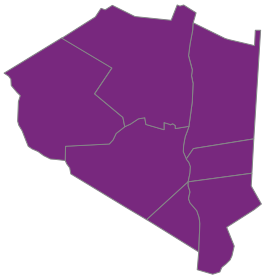


## FINGER LAKES

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 8,270 |
| Direct Employment | 4,354 |
| Indirect Employment | 3,916 |
| SUNY Share of Workforce | 1.3% |
| Output Impact | $1,207,881,390 |
| SUNY % of Regional Output | 1.7% |

## LONG ISLAND

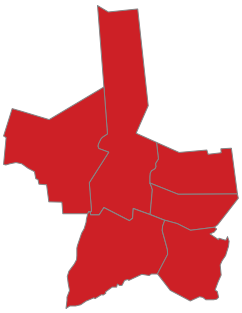
| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 36,420 |
| Direct Employment | 13,557 |
| Indirect Employment | 22,863 |
| SUNY Share of Workforce | 2.4% |
| Output Impact | $8,533,860,537 |
| SUNY % of Regional Output | 4.1% |



## MID-HUDSON

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 11,690 |
| Direct Employment | 6,707 |
| Indirect Employment | 4,983 |
| SUNY Share of Workforce | 1.0% |
| Output Impact | $1,556,625,439 |
| SUNY % of Regional Output | 1.0% |

# TABLE 2. SUNY's Economic Impact by Region, cont.

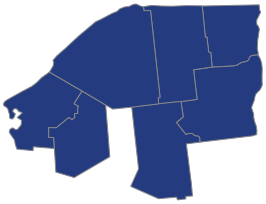


## MOHAWK VALLEY

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 6,036 |
| Direct Employment | 3,068 |
| Indirect Employment | 2,968 |
| SUNY Share of Workforce | 2.6% |
| Output Impact | $941,506,522 |
| SUNY % of Regional Output | 4.4% |

## NEW YORK CITY

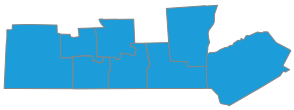
| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 8,263 |
| Direct Employment | 4,207 |
| Indirect Employment | 4,056 |
| SUNY Share of Workforce | 0.2% |
| Output Impact | $1,897,028,786 |
| SUNY % of Regional Output | 0.2% |



## NORTH COUNTRY

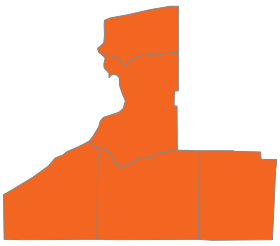
| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 5,085 |
| Direct Employment | 2,674 |
| Indirect Employment | 2,411 |
| SUNY Share of Workforce | 2.6% |
| Output Impact | $753,620,542 |
| SUNY % of Regional Output | 3.7% |

# TABLE 2. SUNY's Economic Impact by Region, cont.



## SOUTHERN TIER

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect) | 18,005 |
| Direct Employment | 9,555 |
| Indirect Employment | 8,450 |
| SUNY Share of Workforce | 5.9% |
| Output Impact | $3,281,743,460 |
| SUNY % of Regional Output | 10.5% |



## WESTERN NEW YORK

| | |
|---|---|
| Total Jobs Supported (Direct + Indirect | 26,127 |
| Direct Employment | 13,122 |
| Indirect Employment | 13,005 |
| SUNY Share of Workforce | 3.8% |
| Output Impact | $4,388,130,393 |
| SUNY % of Regional Output | 5.5% |

## SUNY's Impact by Region

In every region of the state, SUNY's presence and activity plays a critical role in local economies. New York is divided into 10 Regional Economic Development Council (REDC) geographies, and the impact of all SUNY campuses in each of the 10 regions was calculated and is presented in Table 2, a measure of SUNY's relative importance to the regional workforce and output also is presented.

SUNY employment places it among the top 10 largest employers in every region in New York, excluding New York City. SUNY's largest impact is in the Southern Tier, which accounts for 5.9 percent of regional employment and 10.5 percent of total economic output. SUNY is also an important driver in the Central New York economy, accounting for 5.7 percent of employment and 10.9 percent of economic output. Overall, SUNY accounts for 2.7 percent of upstate employment and 4.1 percent of upstate New York output.

SUNY has been deeply involved in the state's economic strategy planning process: campus presidents serve on nine of 10 of the REDC boards and co-chair seven of the board's leadership teams. This is a nod to the critical role campuses play in supporting economic development, activity, and growth at the local and regional level. Campuses train workers, offer resources to emerging and relocating companies, and serve as an important attraction when regional leaders look to plan for the future.

## SUNY as a Research and Commercialization Hub

New York is one of the most impressive states in the country for research discovery and innovation. It ranks second nationwide in the number of science and engineering graduate students, third in PhD recipients, and second in employed doctorates.

In 2020, New York colleges and universities performed $6.78 billion in research, ranking second nationally in academic R&D performance.[7] SUNY campuses reported a record $1.42 billion in research expenditures, or 19.7 percent of New York's total academic R&D across all institutions (Figure 1), tripling its activity level of 20 years ago.

# SUNY Fuels the New York Innovation Economy
*2016 v. 2020 Activity*

## $1.05B in Sponsored Research

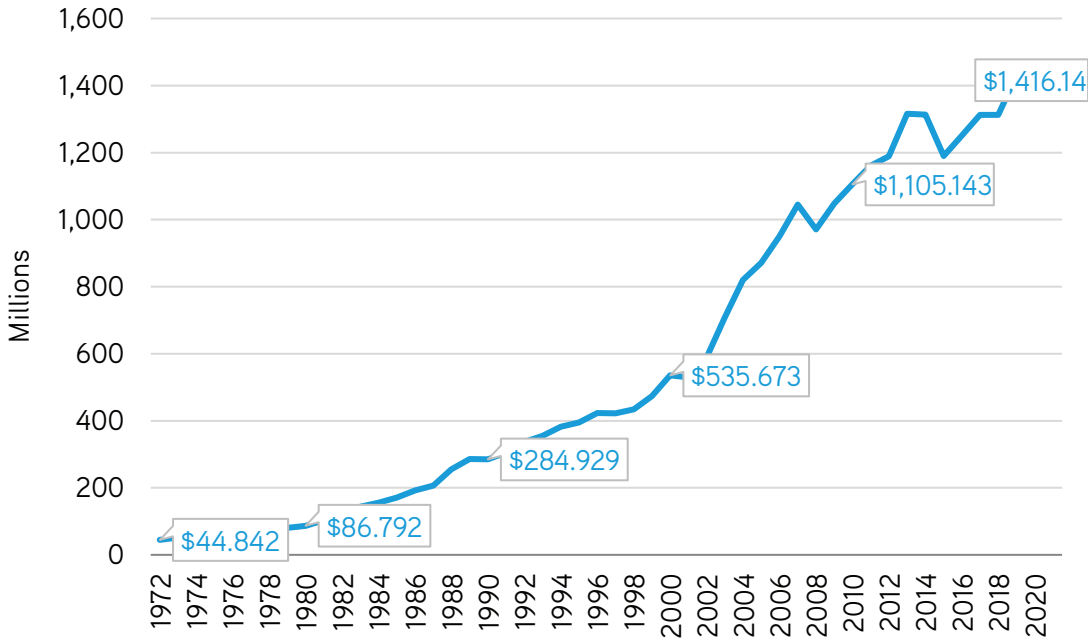
### Generating Discoveries:

| 2016 | 2020 |
|---|---|
| 68 patents awarded | 75 patents awarded |
| 236 patent applications | 231 patent applications |
| 308 invention disclosures | 247 invention disclosures |

### Launching High-Tech Companies:

| 2016 | 2020 |
|---|---|
| 66 licenses executed | 65 licenses executed |
| $10.7M in licensing income | $6.7M in licensing income |
| 13 start-ups and spin-offs created; 93 operational | 13 start-ups and spin-offs created; 121 operational |

*FIGURE 1.* **Total Expenditure on Research and Development of New York (SUNY), AY 2020**




*SOURCE:* National Science Foundation, https://ncsesdata.nsf.gov/profiles/site?method=rankingBySource&ds=herd.

New York ranked third of all states in the country in the amount of space dedicated to academic research: 15,848,000 square feet,[8] and SUNY's robust research, development, and commercialization activities are essential to this key sector of the state's economy. SUNY performs research and training of workers that serve as the foundation of New York's innovation economy. SUNY's research grant arm, the Research Foundation, manages a portfolio of $1.05 billion in sponsored research grants and funding annually, which SUNY turns into economic impact through commercialization.[9]

SUNY campuses actively work to transfer the technology from their labs to the New York economy. SUNY's patent portfolio in FY 2020 includes 247 invention disclosures, 231 patent applications, and 75 patents issued. There were 13 start-up companies created this year, and 121 previous start-up companies remain in operation.[10]

The Research Foundation and campuses actively work with faculty, students, and local entrepreneurs to launch companies, and SUNY actively supports emerging high-tech companies through a portfolio of programs that provide entrepreneurs with access to SUNY innovation resources. Partnerships include StartUP NY, which offers new and expanding businesses the opportunity to operate tax-free for 10 years on or near SUNY campuses. In addition, SUNY's collaboration with NYSTAR (New York State Division of Science, Technology, and Innovation, which is within the public Empire State Development Corporation (ESDC)) catalyzes region-specific economic growth by supporting research and development in fields such as bioinformatics, renewable energy, and nanotechnology. For example, the Center of Excellence in Weather & Climate Analytics at SUNY's University at Albany hosts a network of more than 120 experts focused on practical weather and climate solutions.[11]

Results include internships and job offers for SUNY students, new research collaborations with faculty, and revenue generated for campuses. SUNY campuses are home to seven NYSTAR Centers of Excellence, research centers that foster collaborations between SUNY researchers and New York businesses to help them develop and commercialize new products and technologies. SUNY campuses across the state also assist emerging businesses through six ESDC and four New York State Energy Research and Development Authority (NYSERDA) incubators created to offer early-stage companies assistance with technology, business plan refinement, and business development. For example, in 2020, the Offshore Wind Training Institute was established at Farmingdale State College and Stony Brook University.[12] This $20 million initiative aims to train a specialized workforce for the offshore wind industry and contribute to New York's goal of achieving 9,000 megawatts of offshore wind by 2035.

Percent of Total Degrees in New York State Awarded by SUNY in 2020–21:

**15%** of master's degrees

**49%** of associate's degrees

**25%** of doctoral degrees (research/scholarship)

**30%** of bachelor's degrees

**16%** of professional doctoral degrees

## SUNY Alumni in the Workforce

SUNY plays a critical role in the development of talent in New York State. Thirty-four percent of the workers in New York with a postsecondary degree earned a credential from SUNY, and alumni of SUNY who work in New York State earned an estimated $127.3 billion in 2020,[13] amounting to 17 percent of payroll earned by all New York employees that year.

New York has one of the largest and best–educated workforces in the US. With approximately 2,855,000 college-educated residents, New York ranks fourth in the nation for total bachelor's degrees held by state residents.[14] Better-educated workers tend to have higher levels of productivity, a critical element in attracting existing firms and promoting entrepreneurship, and the end result of an educated workforce typically is higher levels of economic output. In 2020, New York had the third-highest gross domestic product (GDP) in the US.[15] To maintain and grow its economic presence, New York must continue to produce and attract highly educated workers.

SUNY plays an important role in growing the the development of the state's workforce by ensuring there is a strong and consistent flow of highly educated workers for businesses to hire. In fact, SUNY holds more than one-third of the share of the state's total higher education sector: in Fall 2020, 35 percent of all college students enrolled in New York were attending SUNY institutions[16] (23 percent of students were enrolled at a City University of New York (CUNY) campus and 43 percent at an independent college or university).

In AY 2020-21, SUNY awarded 91,095 degrees, which translates to 49 percent of associate degrees, 30 percent of bachelor's degrees, 16 percent of master's degrees, and 19 percent of professional and doctoral degrees conferred in New York State (Table 3).[17] Since AY 1949–50, the first full academic year after its founding, SUNY has awarded 4,141,955 degrees, hundreds of thousands of whom remain active in the New York workforce.

Data-sharing agreements have enabled the linking of SUNY administrative records to New York State Department of Labor wage and income data. This allows researchers to answer questions about how SUNY degrees translate to employment in the state

*TABLE 3*. **Percent of Total Degrees in New York State Awarded by SUNY in 2020–21**

| Level | All Students in New York State | SUNY | Percent |
|---|---|---|---|
| Associate's Degree | 59,542 | 29,189 | 49% |
| Bachelor's Degree | 146,064 | 43,382 | 30% |
| Master's Degree | 77,681 | 11,991 | 15% |
| Doctoral Degree (Research/Scholarship) | 4,680 | 1,185 | 25% |
| Professional Degree | 10,492 | 1,618 | 15% |

*SOURCE*: National Center of Education Statistics, Summary Tables. Completions. Degree/certificates, selected years. https://nces.ed.gov/ipeds/summarytables. Data on degrees by type from SUNY obtained from SUNY Institutional Research

Table 4 shows the number of SUNY graduates working in New York by their highest level of educational attainment, and economic modeling estimates that 29 percent of workers in New York with a postsecondary credential earned at least one degree from a SUNY campus.

*TABLE 4*. **SUNY Graduates by Highest Level of Educational Attainment, 2020**

| | Associate's | Bachelor's | Master's | Doctorate | Professional |
|---|---|---|---|---|---|
| SUNY Graduates in New York | 557,548 | 661,494 | 502,711 | 54,534 | 59,219 |
| New York Workforce Total | 1,208,697 | 2,854,930 | 1,625,827 | 218,016 | 414,019 |
| Share with a SUNY Degree | 46% | 23% | 31% | 25% | 14% |
| SUNY's Share of NY Degrees Awarded by all New York Colleges | 49% | 30% | 15% | 25% | 15% |

*NOTE*: New York Workforce Total from American Community Survey. SUNY Graduate in New York estimated using data from SUNY IR and DOL.

To gain a clearer understanding of SUNY's impact on the New York State workforce, the employment status of SUNY graduates within the state is analyzed, two and 10 years post-graduation. The data reveals that, on the whole, 77 percent of SUNY graduates are employed in New York State two years after completing their studies (Table 5).

*TABLE 5*. **Percent of SUNY Graduates Employed in New York State by Years After Graduation**

| | Award Level | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Years After Graduation | First Professional | Graduate Certificate | Doctoral | Masters | Bachelors | Associates | UG Certificates and Diplomas | Total |
| 1 | 65.6% | 87.0% | 44.4% | 78.3% | 80.6% | 83.7% | 86.4% | 80.5% |
| 2 | 61.9% | 84.9% | 37.4% | 74.9% | 77.1% | 81.2% | 83.5% | 77.3% |
| 3 | 62.5% | 82.3% | 35.3% | 71.8% | 74.2% | 79.0% | 81.4% | 74.7% |
| 5 | 57.3% | 79.2% | 32.5% | 67.3% | 69.2% | 74.6% | 75.7% | 70.1% |
| 10 | 47.7% | 79.7% | 29.1% | 63.4% | 60.6% | 67.1% | 66.9% | 62.7% |

*NOTE*: Excludes graduates continuing their studies during wage year. Excludes graduates without an SSN and lower-level degrees when more than one awarded.

*SOURCE:* SUNY Data Warehouse, New York State Department of Labor, and SUNY System Administration Office of Institutional Research and Data Analytics, October 13, 2023.

This includes 81 percent of those with associate degrees, 77 percent of bachelor's degree holders, 75 percent of individuals with master's degrees, and 37 percent of those with doctoral degrees.

To get a sense of how workforce participation varies by field, ten of the most popular fields of study awarded for bachelor's degrees by SUNY were analyzed (Table 6), using the 2011 graduating cohort to provide the opportunity for a 10-year look-back.

Two years after graduation, 77 percent of all 2011 SUNY bachelor's graduates were working in New York State; after 10 years, that number fell, but only to 61 percent. Graduates with education degrees are the most likely still to be in New York immediately after graduation and a decade later (84.8 percent and 75.6 percent, respectively). Graduates of health professions programs are also likely to remain in the state after graduation; alumni with degrees in biology represented those most likely to leave the state, yet still have half still participating in the workforce after a decade.

77 percent of SUNY Graduates are employed in the New York State workforce two years after completing their studies.

*TABLE 6*. **Percent of SUNY Graduates Employed in New York State by Years After Graduation and Selected Program Areas for Degree Year, 2011**

| Program Area | Years After Graduation | |
|---|---|---|
| | Working in New York (Two Years) | Working in New York (10 Years) |
| Education | 84.8% | 75.6% |
| Health Professions and Related Programs | 78.0% | 66.2% |
| History | 75.8% | 65.6% |
| Business, Management, Marketing, and Related Support Services | 78.1% | 63.8% |
| Communication, Journalism, and Related Programs | 78.4% | 61.8% |
| Psychology | 73.8% | 60.1% |
| English Language and Literature/Letters | 73.9% | 59.6% |
| Social Sciences | 70.6% | 58.8% |
| Visual and Performing Arts | 71.3% | 53.9% |
| Biological and Biomedical Sciences | 61.9% | 52.6% |

*NOTE*: Excludes graduates continuing their studies during wage year. Excludes graduates without an SSN and lower-level degrees when more than one awarded.

*SOURCE:* SUNY Data Warehouse, New York State Department of Labor, and SUNY System Administration Office of Institutional Research and Data Analytics, October 13, 2023.

## Impact of COVID-19 and Economic Activity

The SUNY system—like virtually all other higher education institutions around the world—experienced numerous challenges due to the COVID-19 pandemic. Financial strain from reduced auxiliary revenues, such as dining and housing, and dramatically decreased enrollment, particularly from international students, significantly strained coffers. The total economic impact of the crisis on the SUNY system is difficult to quantify and beyond the scope of this analysis; however, in June 2020, SUNY projected that the negative impact of COVID-19 amounted to $400 million, with the potential to reach approximately $1.0 billion.[18]

SUNY's engaged response to the COVID-19 pandemic, however, also lead to several positive impacts for campuses, surrounding communities, and the state. SUNY played a crucial role in the government's response by, among other things, establishing on-site testing facilities and contact tracing programs, allowing for early case detection and containment. At its height, the university system had an overall weekly testing capacity of over 300,000.[19] This testing apparatus was facilitated by the acquisition of additional testing machines by the SUNY System Administration.[20] By April 19, 2021, SUNY had conducted over two million COVID-19 tests for students, faculty, staff, and community members since the beginning of the Fall 2020 semester.

In March 2020, SUNY introduced the COVID-19 Research Seed Grant Program to assist faculty in pursuing external funding opportunities for research projects concerning the novel coronavirus.[21] Specific campuses within the SUNY system also launched their own seed grant programs to combat COVID-19. For instance, Stony Brook University, in partnership with the Institute for Engineering-Driven Medicine, announced a special

COVID-19 Seed Grant Program on March 30, 2020.[22, 23] This program was designed to provide up to half a million dollars in support to Stony Brook University researchers and clinicians responding rapidly to the challenges brought about by the pandemic. In addition, SUNY was a participant in a grant awarded to the New York State Department of Labor (NYS DOL) by the US Department of Education. This grant was a component of the Reimagine Workforce Preparation Training Program, aimed at bolstering workforce training and readiness, thereby enhancing individuals' skills and employability, especially in light of the economic alterations triggered by the pandemic. In addition, SUNY oversaw the distribution of $1.4 billion in federal emergency grants from stimulus bills to students.

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In addition to their public health and other benefits, each of these pandemic-related activities generated economic activity by SUNY to the benefit of New York State.

## SUNY Construction

Each year, SUNY undertakes substantial construction activities on its campuses and other SUNY-owned facilities. These expenditures trigger a series of economic activities, starting with the direct impact on the construction industry, followed by indirect impacts on suppliers and service providers, and finally, induced impacts as the employees in these sectors spend their incomes. To moderate any anomalies (including that a spike in construction occurred during shutdowns amidst the COVID-19 pandemic), a three-year annual average in construction expenditures reported by the New York State Dormitory Authority was used as the basis for calculating economic impact. Total average annual construction expenditures of $51.5 million translated into more than an estimated $85.8 million in economic impact as show in Table 7.

*TABLE 7*. **Statewide Economic Impact of Construction Expenditure at SUNY**

| Impact Type | Employment | Labor Income | Value Added | Overall Impact |
|---|---|---|---|---|
| 1. Direct | 306.84 | $26,871,068.93 | $33,632,664.24 | $51,480,645.00 |
| 2. Indirect | 45.77 | $4,314,499.43 | $7,272,761.65 | $12,497,501.92 |
| 3. Induced | 105.75 | $8,147,832.74 | $14,476,146.81 | $21,851,530.12 |
| TOTAL | 458.36 | $39,333,401.10 | $55,381,572.70 | $85,829,677.04 |

**Direct Impact:** The direct impact stems from the initial spending on construction activities at SUNY. The analysis shows that these direct expenditures amount to $51.5 million, supporting an estimated 307 jobs within the construction industry. This sector benefits from a direct labor income of $26.9 million and contributes $33.6 million in additional value to the state's economy.

**Indirect Impact:** Indirect impacts are the ripple effects that flow to suppliers and service providers as a consequence of the construction projects. The indirect contribution includes 46 jobs with a labor income of $4.3 million. The value-added output from indirect activities is estimated at $7.2 million, leading to a total output of $12.5 million.

**Induced Impact:** Induced impacts occur as employees in the construction and related industries spend their incomes, leading to further economic activity. Results indicate an induced effect on the employment of 106 jobs, a labor income of $8.1 million, and a value-added output of $14.5 million. This translates to a total induced output of $21.9 million in the economy.

**Overall Impact:** Combining these three aspects, the total economic impact of the construction expenditures at SUNY is substantial. It supports a total of 458 jobs across all sectors and generates a total labor income of $39.3 million. The total value-added output is calculated at $55.4 million, with an overall output effect of $85.8 million.

SUNY's responsibility is the maintenance and growth of physical structures at 64 college and university campuses, four academic health centers, executive headquarters, and other buildings. Construction activity is ongoing and substantial each and every year. In the last three years alone, the New York State Dormitory Authority has supported construction activity ranging from $102.8 million to $389.9 million each year.[25]

# Conclusion

SUNY's economic reach stretches far beyond its 64 campuses, hospitals, and research centers. Indeed, in 2020-21, SUNY economic activity affected virtually every one of New York's active industry classifications, with a total estimated impact of $31.0 billion, that is equivalent to 1.9 percent of our total gross state product, and total direct and indirect employment of 157,600 workers, equaling 1.6 percent of the total workforce in the state. SUNY has tripled its research activity level of 20 years ago, exceeding $1.4 billion by 2020. And, incredibly, more than one-third of all college students in New York are enrolled at a SUNY institution, and 34 percent of the state's workforce with a college degree earned it from SUNY.

Public investment in SUNY is good for New York's economy: for every dollar of state funding SUNY receives, SUNY produces nearly nine times that in economic activity.


# APPENDIX

# Methodology

The goal of this 2020 SUNY Economic Impact Analysis is to update the analysis included in the similar 2018 report, which itself updated information conveyed in the 2011 report, *How SUNY Matters*. As with those previous reports, an analysis of this nature requires extensive assumptions not often included in published reports. Used throughout this report was the IMPLANS economic projection software programs.

The data used and assumptions made when generating the estimates used in this report are detailed below.

## Measuring Campus Operations

### Data

When performing multiplier analysis, the software requests data on output, employment, and employee compensation. As with the previous analysis, relevant data was collected from the federal National Center for Education Statistics (NCES) IPEDS website. Data was available for nearly all of SUNY's campuses.

**Total revenues**—As part of the financial survey, schools report revenues related to tuition and fees, grants and contracts, sales and services, appropriations, and gifts. Since a campus' impact is comprised of all of these activities, total revenue was used to represent the campus' total output.

**Full-time and part-time staff**—The count of employees was collected in the human resources survey. It is a sum of full-time and part-time employees with no adjustment made to convert to full-time equivalent. The total headcount was used as input.

**Employee compensation**—IMPLAN defines compensation as the sum of salary and wages and the value of the benefits. The appropriate input is salary + fringe. IPEDs offer two measures of payroll. The first is from finance and represents the campus' spending during the financial year. The second is from human resources and is the sum of all employment contracts. It does not take into consideration employees on leave and actual expenditures. The financial data used was further broken down into purpose (instruction, research, public service, academic support).

### Industrial Classification

The impact associated with economic activity is highly dependent on the type of industry, and software packages for projecting economic impact are based on Bureau of Economic Analysis Industry Input-Output tables. The vast majority of SUNY activity was classified under the classification of "Junior colleges, colleges, universities, and professional schools." This appropriately describes and categorizes the outputs and activities undertaken at a majority of the SUNY campuses.

There were two exceptions to this classification rule. The first was campuses with large research portfolios (Buffalo, Binghamton, Stony Brook, Albany, SUNY Polytechnic Institute, and Upstate and Downstate medical centers). In these cases, a share of the revenue, employment, and compensation were classified in the scientific R&D industry. The share was based on the percentage of expenditures dedicated to research functions (data available from IPEDS). The second exception was for hospital operations. SUNY reported hospital operations and expenditures at the two medical centers, Stony Brook and Buffalo. In these cases, hospital-based revenue, compensation, and employment were classified in the hospital's industry.

### Geography

As with the 2011 and 2018 reports, regional analysis was based on the state's 10 Regional Economic Development Council areas. Ten separate models were created, comprising the counties in the REDCs. Complimentary models were also created for each of the REDCs, including all of the counties not in the REDC. A campus's impact was calculated first on the REDC and then on New York State as a whole. The impact of SUNY on a REDC was determined by including all campus expenditures and research foundation payroll (see below). The impact of SUNY activity on the REDC and the state as a whole was calculated, and no measurable difference was found.

The one exception to the rule was SUNY Polytechnic Institute. Its campuses are in the Mohawk Valley and Capital District REDCs. From my personal experience, I know that the bulk of instruction occurs in Utica, and the majority of research occurs in Albany. For simplicity, I allocated all of SUNY Polytechnic Institute's instructional activities to the Mohawk Valley and all of the research activities to Albany.

### SUNY-Supported Institutions

SUNY supports four colleges at Cornell University and one at Alfred University. IPEDS do not have data distinguishing these units from those two private institutions as a whole. SUNY's Office of Institutional Research provided a state employee headcount at Cornell and Alfred, and SUNY's share of total employees was used to allocate the appropriate portion of the institution's total revenue and employee compensation.

### Research Foundation Data

The Research Foundation (RF) is the nonprofit SUNY affliate that manages sponsored projects and external campus funding. Employment in support of externally-funded initiatives is managed by the RF. For example, post-doctorate and graduate research assistants are employees of the RF instead of SUNY and are not to be included in the IPEDS data.

At SUNY, a unique employment structure exists where some individuals work at the university but receive their compensation through the Research Foundation (RF), a private, nonprofit affiliate. This arrangement plays a role in managing external funding and sponsored projects across SUNY campuses. The number of people employed through the RF at SUNY and their compensation was determined from data sourced

from the RF human resources department covering the period from July 1, 2020, to June 30, 2021. This data included the specific campuses where each individual worked, enabling us to match employees with the respective regional economic development council (REDC). Our analysis focused on individuals earning over $3,000, excluding those likely to receive stipends for one-time activities. We identified 8,600 employees, with a total compensation of $356,868,187.

Where possible, individuals were allocated to specific campuses based on employee affiliation data; 58 percent of all employees could be directly allocated. The remaining unallocated individuals were put into three categories: medical school employees, departmental employees, and administrative employees. All employees with affiliations, such as surgery, family medicine, pediatrics, etc., were summed. The headcount and employee compensation were distributed evenly across the four medical schools. departmental descriptions such as chemistry, physics, and computer science were summed and distributed across the four research centers. These individuals are likely graduate assistants or faculty earning summer salaries. The remaining employees were in administrative roles, such as the president's office, human resources, etc., on administrative rolls, such as the president's office, human resources, etc, and were summed and distributed across all campuses.

There could be problems with this approach. Some RF employment could be double counted with SUNY; for example, faculty members often receive summer salary from their grants managed by the RF, or a faculty member could be an employee of SUNY and the RF. While total compensation would be accurate, the headcount could be incorrect. The impact of any of these likely rare instances on the total calculations, however, will be minimal.

### Student Spending

SUNY generates economic impact when students spend money to support the pursuit of their education. There are two challenges in creating an estimate of students spending. The first is to avoid double counting student spending and campus revenues. For example, a student may pay $7,000 for tuition and $12,500 a year to their institution for room and board. These expenditures have already been accounted for in campus revenues. Care was taken to identify spending that occurs off-campus as accurately as possible.

A second challenge is removing expenditures that would have been incurred even if the student hadn't been pursuing an education. Consider a student who commutes to a local college while living with their parents, and assume if they hadn't enrolled in the school, they would have lived at home and worked full-time. The housing expenses they incurs at their parents' house would have been incurred whether or not they were pursuing education. Therefore, it should not be included in the analysis. A student who leaves home to attend an institution but lives off campus is spending money on rent and food solely to pursue their education at a particular institution. This expenditure can be directly attributed to their status as a student and should be included in the analysis.

Student spending data was collected from the SUNY Net Price Cost Calculator. It provides campus-level estimates for expenditures on room and board, books and supplies, personal expenses, and transportation. These expenditures are based on full-time enrollment and are calculated for three categories of students: living with parents, living on campus, and living off campus. The share of students in each category was taken from the website collegedata.com. Student spending was then distributed into five categories: off-campus room and board are distributed into housing and groceries; personal expenses are allocated between restaurants, retail, and entertainment.

### Student Spending: Assumptions

**Community college students**—All students attending community colleges were assumed to be living at home and therefore no room and board expenses were included in the analysis.

**Four-year undergraduate students**—Undergraduate students were distributed into three categories: living with parents, living on campus, and living off campus. Students were allocated based on two statistics: the share of freshmen living on campus and all students living on campus. Almost all SUNY four-year schools require students to live in student housing during their freshman year, and exceptions are granted for students who will live with their parents. Thus, if, for example, 93 percent of freshmen live on campus, it is assumed that 7 percent of the total student body will be living at home for the duration of their education. Subtracting the number of students living at home and those living on campus from the total students leaves the remainder as a total of students living off campus. Off-campus spending for each category was calculated as follows:

- Living at home—Books and supplies + personal expenses + off-campus transportation
- Living on campus—Books and supplies + personal expenses + on-campus transportation
- Living off campus—Off-campus room and board + books and supplies + personal expenses + off-campus transportation.

**Graduate students**—Graduate student spending was not included in this analysis. Off–campus costs part-time graduate students incur to pursue additional education are relatively minimal, and their housing and food costs would have been incurred regardless of their student status and should not be included. Their books, supplies, and transportation costs are relatively small and not estimated. A large number of full-time graduate students are university employees as research assistants or graduate assistants, and their spending is already accounted for in the analysis of the university's operations as induced impacts. A relatively small number of full-time graduate students are not employed by the university (medical and law students). There is no publicly available data which allows the count of full-time, unpaid graduate students. This relatively miniscule additional spending of this relatively small population of unfunded graduate students, however, will not impact the results of this study.

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