

STATE UNIVERSITY OF NEW YORK

UPSTATE

MEDICAL UNIVERSITY

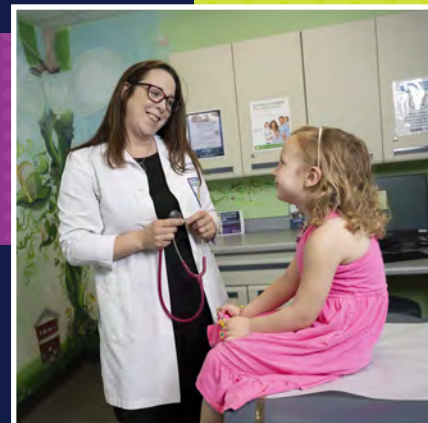


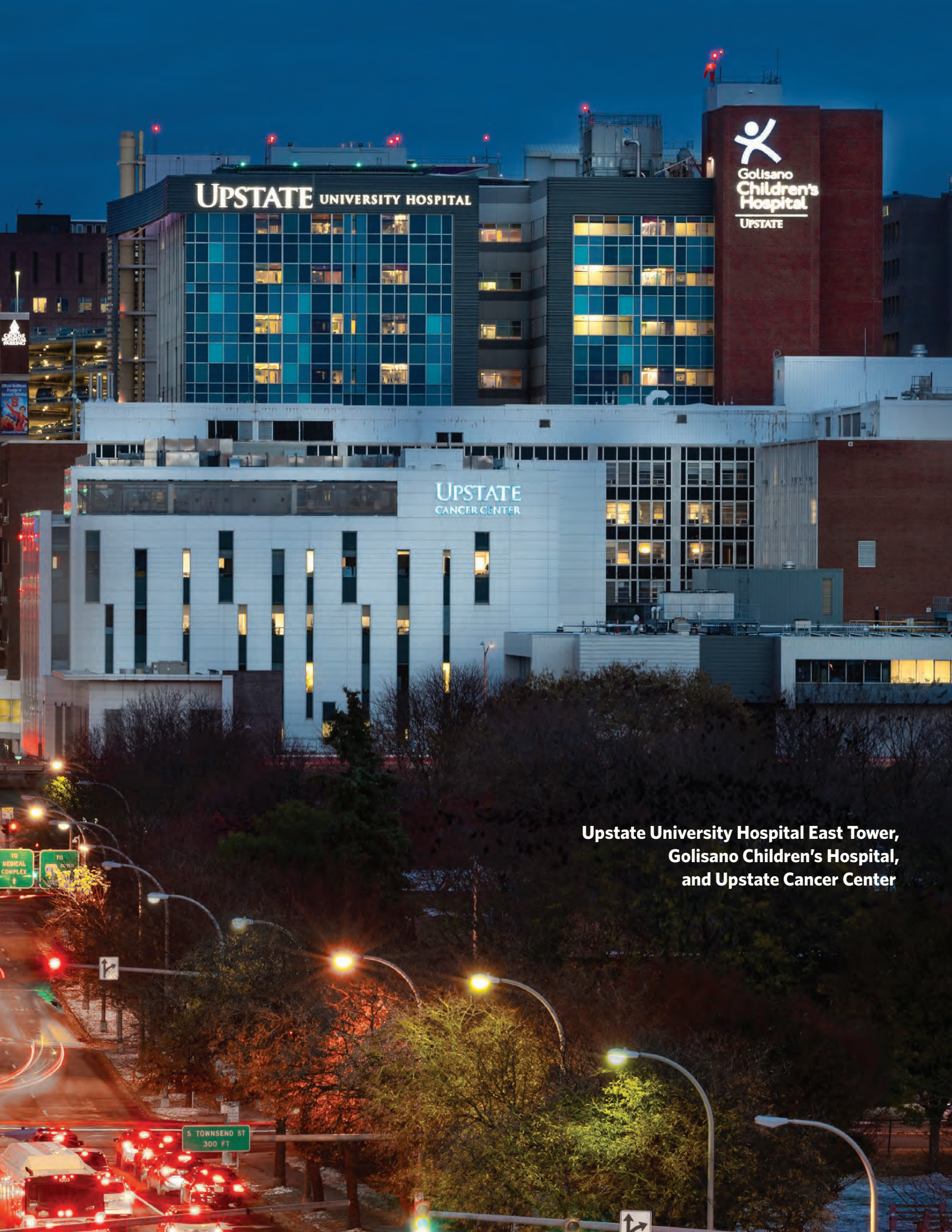
THE ECONOMIC AND COMMUNITY IMPACTS

OF UPSTATE MEDICAL UNIVERSITY

JANUARY 2025

Embargoed copy. Draft for
discussion purposes only.





**Upstate University Hospital East Tower,
Golisano Children's Hospital,
and Upstate Cancer Center**



UPSTATE
MEDICAL UNIVERSITY

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Executive Summary

SUNY Upstate Medical University (Upstate), which started as Geneva Medical College in 1834 and is the nation’s first co-ed medical school, has grown and transformed into a premier academic medical university. Situated in Syracuse, New York, Upstate is a public, comprehensive health sciences institution and the largest employer in Central New York. It plays a pivotal role in the region’s economy and healthcare system, serving an estimated 1.8 million people.

Upstate offers a broad array of services, including education, biomedical research, and clinical care. Through its extensive network of hospitals, clinics, and educational programs, Upstate is committed to advancing healthcare, driving innovation, and improving the quality of life for the communities it serves. This dedication and objective excellence has solidified Upstate’s reputation as a leader in healthcare and medical education, with a mission focused on enhancing the well-being of Central New York and beyond.

The entities analyzed and encompassed as part of Upstate in this report:

- Educational Mission:** The region’s only academic medical university is home to four distinguished colleges: the Norton College of Medicine, the College of Nursing, the College of Health Professions, and the College of Graduate Studies. Each college offers a variety of programs that equip students for impactful careers in healthcare and biomedical sciences. The Norton College of Medicine provides intensive training for future physicians, while the College of Nursing focuses on preparing students to excel in diverse nursing roles. The College of Health Professions features specialized programs in fields such as respiratory therapy, physical therapy, and medical imaging, aligning graduates with the demands of the healthcare industry. The College of Graduate Studies centers on biomedical sciences, fostering research and innovation to advance medical knowledge and treatment. Many of these programs are only available at Upstate.
- Biomedical Research Enterprise:** Upstate’s biomedical research efforts stand at the forefront of addressing some of the most critical health challenges today. Research focuses on prevalent human diseases such as cancer, diabetes, heart disease, nervous system disorders, vision impairment, and infectious diseases. Upstate’s researchers are engaged in groundbreaking studies aimed at understanding these conditions’ underlying causes and developing new treatments and therapies. This research not only contributes to scientific knowledge but also directly impacts patient care, leading to improved outcomes for those affected. To accelerate bringing scientific discoveries to the bedside, Upstate launched Upstate Biotech Ventures, the first venture fund in the SUNY system.
- Upstate University Health System:** The Upstate University Health System is a cornerstone of the region’s healthcare infrastructure, serving a large and diverse population, including many of the most seriously ill and injured patients. The health system comprises several key facilities, including Upstate University Hospital, Upstate University Hospital at Community Campus, Upstate Golisano Children’s Hospital, and the Upstate Cancer Center. These facilities offer a comprehensive range of services, from routine medical care to specialized treatments for complex conditions. Additionally, Upstate’s Clinical Practice Plan, staffed by faculty from the Norton College of Medicine, provides expert care across a wide spectrum of specialties. Numerous satellite sites further extend Upstate’s reach, ensuring that high-quality healthcare is accessible throughout the region.

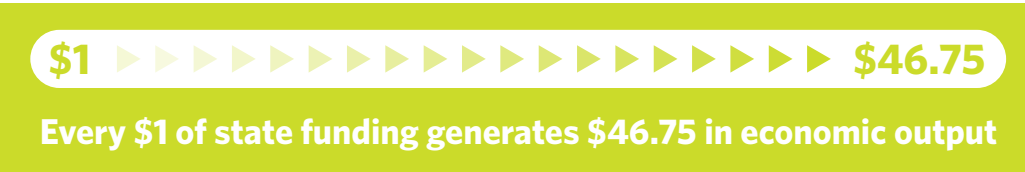
Each year Upstate generates economic impacts and community benefits at the state, regional, and local levels. This report quantifies the impacts and benefits Upstate generated within the state of New York, Central New York, Onondaga County, and City of Syracuse, for Fiscal Year 2024 (FY24).



Economic Impact

In fiscal year 2024, Upstate contributed **\$3.2 billion in economic impact to the state of New York**. Economic impact generates when entities from the network spend funds on capital improvements and provide salaries to employees, who in turn spend their income on housing and services in their communities. Further economic impact to the communities is generated by students, patients, and visitors of Upstate. Over the past 16 years, the economic impact of Upstate has nearly doubled from \$1.7 billion in FY08 to \$3.2 billion in FY24.

In FY24, Upstate received \$65.2 million in direct operational support from the State of New York. **This investment enabled Upstate to generate substantial economic activity, producing an additional \$46.75 in economic output for every \$1 of state funding received.** This remarkable leveraging effect underscores the significant return on investment and highlights Upstate’s vital role in stimulating economic growth and driving the state’s economy.



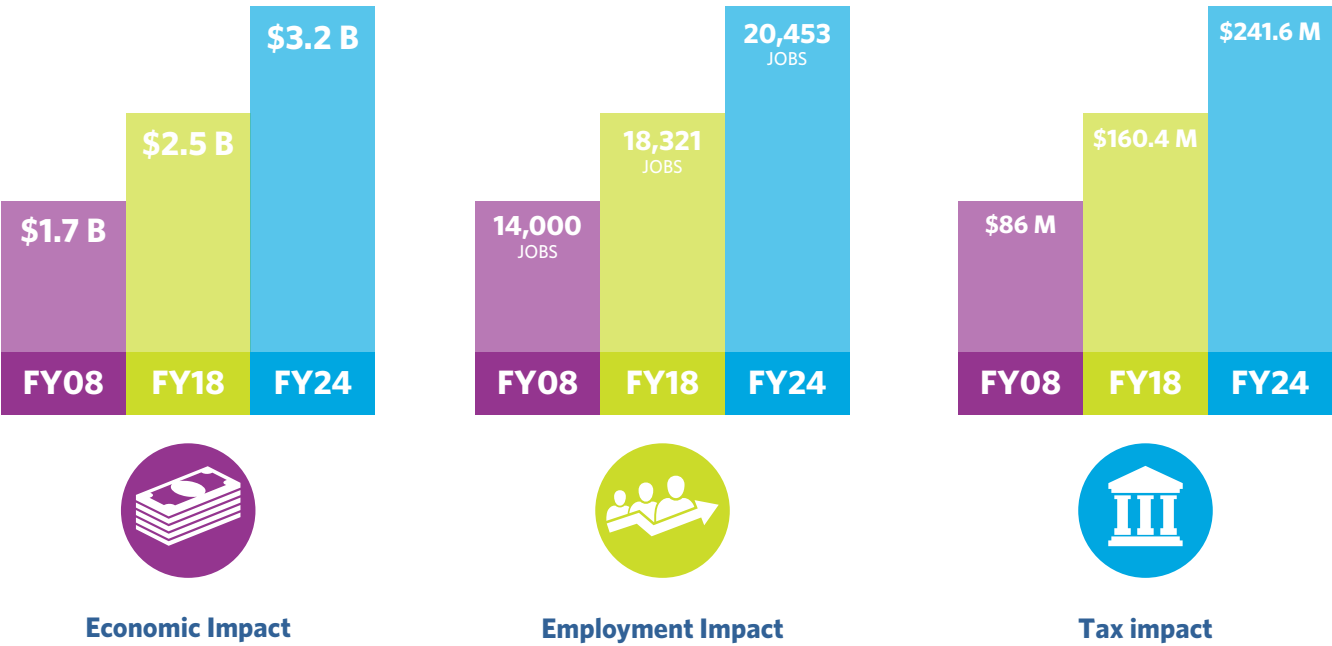
Employment Impact

Upstate is more than just a community asset delivering high-quality and low-cost care and educating healthcare and other medical professionals locally; it also employs thousands of individuals in high-level jobs across the region. Upstate supports 11,531 direct jobs across the multiple locations in New York. In FY24, the combined direct and indirect employment impact of Upstate felt by the state of New York totaled **20,453 jobs**. Since FY08, the employment impact of Upstate has grown by 46%.

Tax Impact

It is often misunderstood that non-profit healthcare providers and educational institutions do not contribute to tax revenue. In reality, institutions such as Upstate drive significant spending in their regions. In fiscal year 2024, Upstate generated **\$241.6 million** in state and local tax revenue through its regional spending. Since FY08, the tax impact of Upstate has nearly tripled.

Increase in Impacts from FY08, FY18, and FY24



Community Impact

Besides these institutional contributions, Upstate employees engage with the community through personal volunteering efforts, donating time and money to local causes. The combined value of these efforts is estimated to provide an additional **\$29.5 million** in community impact during FY24.

Alumni Impact

Upstate alumni across the United States collectively contribute an impressive **\$27.3 billion** annually to the national economy. Of this total, **\$11.1 billion** is generated within New York state, with **\$4.5 billion** directly impacting the Central New York region. In Onondaga County, Upstate alumni add **\$2.8 billion** annually to the local economy, including **\$526 million** in Syracuse alone. These figures highlight the significant economic influence that Upstate alumni have, both in Central New York and across the nation.



Economic Impact Study Background

In summer 2024, Upstate engaged Tripp Umbach to assess and communicate the economic impacts and community benefits generated within New York state, Central New York, Onondaga County, and City of Syracuse. This study measures the direct, indirect, and induced economic, employment, and state and local tax impacts resulting from Upstate’s operations across New York. It provides quantitative data and insights into Upstate’s societal contributions at local, regional, and state levels. The overall economic and fiscal impact that Upstate has on the vitality of the regions and state in which it operates includes the following elements:

- Business volume impacts (capital expenditures, operational expenditures, salary data, and state and regional business volumes).
- Direct, indirect, and induced employment impacts.
- State and local tax impacts.
- The impact of spending by employees and residents/students in the local economy on goods and services.
- Visitor spending and its effects on the economy, including wage premiums and job creation.
- The influence of external research funding on regional and state economic development.
- The economic influence of alumni, including wage premiums and job creation.

This report also quantifies additional community impacts on the region served by the network, including:

- The impact that health network employees have on the community through donations and volunteer work.

Methodology Employed in the Economic Impact Study



Tripp Umbach conducted an operational economic impact analysis of Upstate Medical University for FY24, measuring the direct, indirect, and induced business volume and tax impacts across New York state, Central New York, Onondaga County, and City of Syracuse. The analysis was based on primary data provided by Upstate, including capital expenditures, operational expenditures, employee numbers, payroll and benefits, and taxes paid to local and state governments.

The economic impact was analyzed using the IMPLAN¹ input-output model, which captures the effects of an organization’s spending on the economy. This includes not only the direct economic impact of Upstate’s expenditures but also the additional indirect and induced spending generated throughout the economy. A significant portion of the economic impact comes from visitor and student spending on retail, lodging, dining, and other services, which further supports local jobs.²

Upstate’s total economic impact includes spending on goods and services with vendors; the expenditures of its faculty, staff, students, and visitors; and the resulting business volume within New York state, Central New York, Onondaga County, and City of Syracuse. However, dollars spent outside the state are not included in this impact. The report presents economic impact values generated by direct, indirect, and induced operational spending; capital spending; payroll; and spending by visitors and students within these regions.

Visitor Definitions

Impact analysis aims to quantify the effect of bringing “new” money into a region. Therefore, when considering visitor spending in the impact analysis of a medical campus, only those visitors from outside the region are included. Local residents attending events would have spent their money in the area regardless, so their spending is not considered additional economic input from the organization being analyzed.

For Upstate, the impact analysis focused on the effects across New York state, Central New York, Onondaga County, and City of Syracuse. Only visitors from outside the analyzed region were included in the impact calculations.

Community Benefits

Community benefits provided in this report outline two forms of impact — monetary donations made by employees and students to local non-profits and volunteer hours that are assigned a monetary value.

- Tripp Umbach has conducted survey research to estimate the amount of monetary donations a student, staff, and faculty will spend in a year. This amount differs per individual but ranges from \$500 to \$1,000. Tripp Umbach also understands that not all individuals donate; therefore, this is accounted for in the analysis.
- The value of a volunteer hour has been quantified by Independent Sector to be \$33.49 per individual per hour. Tripp Umbach utilized this value with the understanding (also from survey research) of the average number of hours faculty, staff, and students engage in volunteer activities (estimated 100 hours per year, for 50% of the employees and students).

It is important to note Upstate’s influence on New York state extends far beyond the economic impact outlined in this report. As a leader in academic medicine, Upstate plays a pivotal role in teaching, research, clinical care, and community outreach, serving as a vital resource for healthcare in New York. Additionally, its contributions to developing human capital, fostering civic values, and making other important societal impacts are significant. While these broader effects are recognized, they are not fully captured within the scope of this report.



¹ Minnesota IMPLAN Group Inc. (MIG) is the corporation that is responsible for the production of IMPLAN (IMpact analysis for PLANning) data and software. IMPLAN is a micro-computer-based, input-output modeling system. With IMPLAN, one can estimate input-output models of up to 528 sectors for any region consisting of one or more counties. IMPLAN includes procedures for generating multipliers and estimating impacts by applying final demand changes to the model.

² To remain conservative while calculating visitor spending throughout the state, Tripp Umbach utilized federal per diem rates for New York; <https://www.gsa.gov/travel/plan-book/per-diem-rates>.

Upstate Impact Study – Key Findings

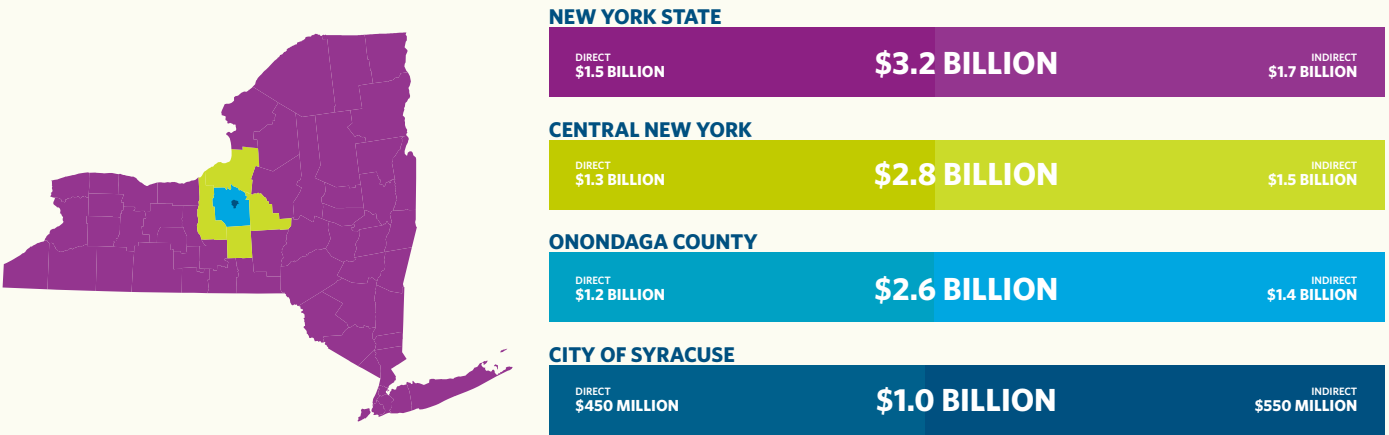


Overall Economic Impact

In FY24, Upstate’s direct spending, combined with the indirect impacts of dollars being re-spent throughout the state, regional, and local economy, generated an overall economic impact of:

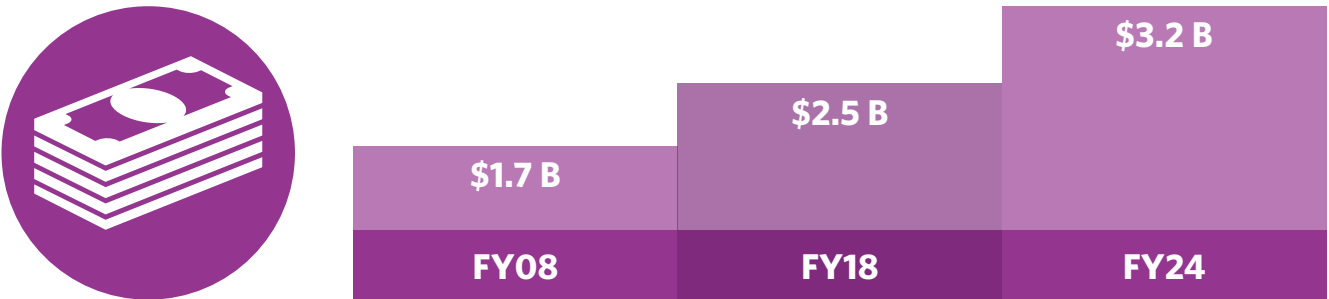
- **\$3.2 billion** in New York State
- **\$2.8 billion** in Central New York
- **\$2.6 billion** in Onondaga County
- **\$1.0 billion** in City of Syracuse

Economic Impacts by Geography



Upstate’s economic impact has grown dramatically since 2008 when Tripp Umbach completed its baseline impact study.

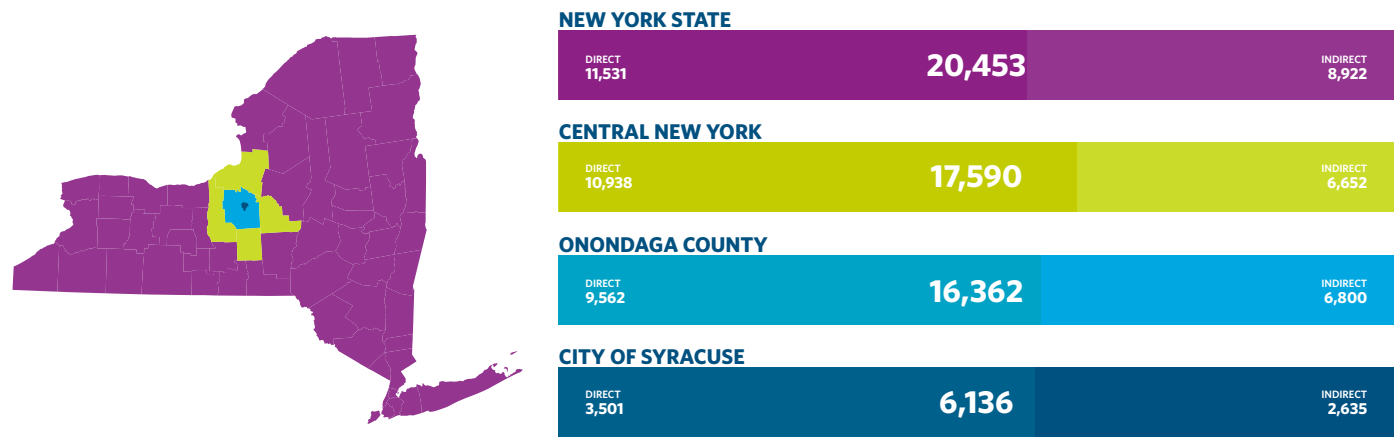
Increase in Statewide Economic Impact of Upstate (FY08-FY24)



Overall Employment Impact

Upstate is a critical force in sustaining employment across a wide range of sectors in New York state, including construction, business and professional services, restaurants and hotels, information technology, security, and healthcare. In FY24, Upstate supported **20,453 jobs statewide**. This figure encompasses **11,531 direct jobs** at Upstate, along with an additional **8,922 indirect and induced jobs** sustained by the spending of Upstate employees, students, patients, and visitors.

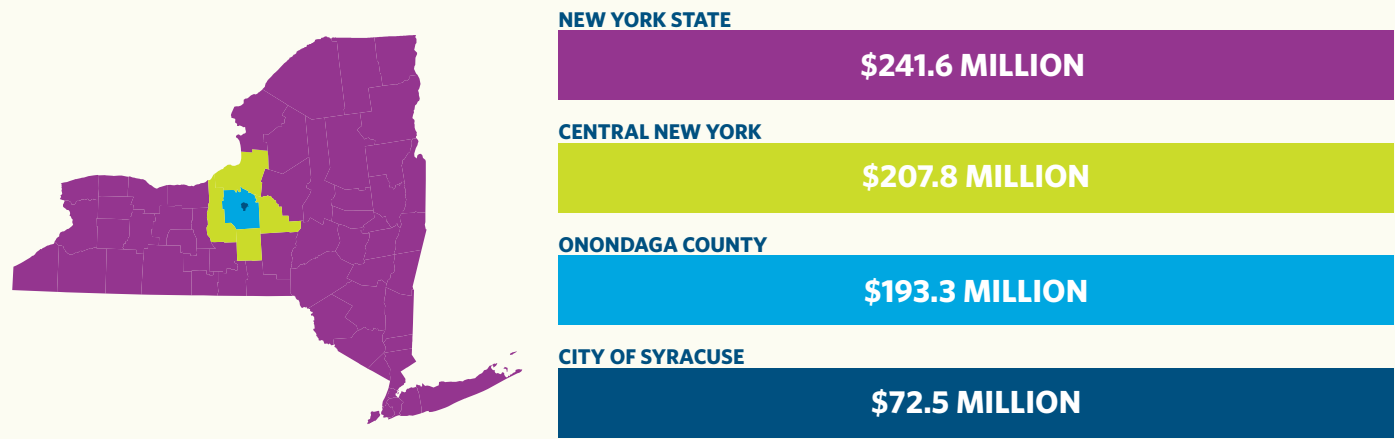
Employment Impacts by Geography (Number of Jobs Supported)



Overall Tax Impact

Besides its role in job creation, Upstate significantly impacts tax revenue at the state and local levels. In FY24, Upstate contributed **\$241.6 million** in state and local tax revenue. By driving local spending and supporting a wide array of jobs, Upstate plays an essential role in stabilizing and strengthening the regional and statewide tax base.

Tax Impacts by Geography



As a cornerstone of New York’s economy, Upstate generates substantial tax revenue, employment opportunities, and overall economic activity, underpinning the financial health of the communities it serves.

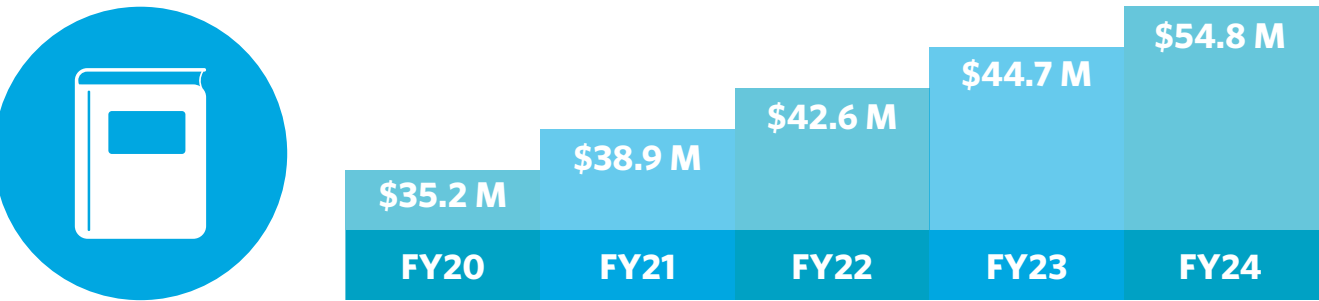
Research Impacts of Upstate

Research is central to Upstate’s mission and is a cornerstone of its substantial economic impact at the state and national levels. As the largest public academic medical center in Central New York, Upstate leads pioneering efforts in biomedical research, with particular strengths in cancer biology, neuroscience, infectious diseases, and vision. Through its involvement in numerous clinical trials, Upstate offers patients access to cutting-edge experimental treatments, advancing the development of therapies that have the potential to transform healthcare.

Upstate’s commitment to research is evident in its significant growth in research spending, which has risen from \$35.2 million in FY20 to \$54.8 million in FY24 — a 56% increase over five years and 23% increase this past year. This research activity generates considerable economic benefits at the state, regional, and local levels, fueled by the spending and employment of research faculty, staff, and students. In FY24 alone, Upstate’s research expenditures contributed **\$111.5 million** to the statewide economy. Collaborative partnerships with affiliated hospitals further amplify the impact of Upstate’s research initiatives. The research enterprise supported **627 jobs** in FY24, with 382 positions directly employed at Upstate’s Syracuse campus. Additionally, these research activities generated **\$5.7 million** in state and local tax revenue, benefiting communities across Central New York.

Upstate’s investment in research is just the beginning of a broader, expanding ecosystem. Although not included in this study, the long-term economic impact of Upstate’s research activities is substantial. This growing ecosystem includes companies in the biomedical, advanced manufacturing, information technology, and bioscience sectors, contributing significantly to the economic vitality of the state, region, and county each year. Upstate is dedicated to facilitating collaboration with other institutions and providing direct support to emerging bioscience companies, through its recently launched Upstate Biotech Ventures fund, further solidifying its role as a catalyst for innovation and economic growth in New York State.

Increase in Research Expenditures from FY20, FY21, FY22, FY23, and FY24



Central New York Biotech Accelerator (CNYBAC)

The Central New York Biotech Accelerator (CNYBAC) at Upstate Medical University plays a crucial role in nurturing biotech startups, making a significant impact on the regional and state economies. From April 2023 to May 2024, CNYBAC’s 26 client companies reported impressive economic contributions, showcasing their success in securing funding, creating jobs, and driving innovation. During this period, these companies generated a total economic impact of **\$26.7 million**, which includes **\$3.3 million** in federal grants and **\$21.9 million** in non-government funding. Additionally, these companies saw an increase in revenues totaling **\$851,194** and achieved cost savings of **\$193,600**. Client companies also demonstrated their commitment to growth by investing **\$505,808** in capital expenditures.

The success of these biotech startups within the CNYBAC underscores their substantial economic value through job creation and by attracting significant federal and non-government funding, which bolsters the local biotech ecosystem. These achievements highlight CNYBAC’s vital role in advancing the biotech sector and driving economic growth in Central New York.

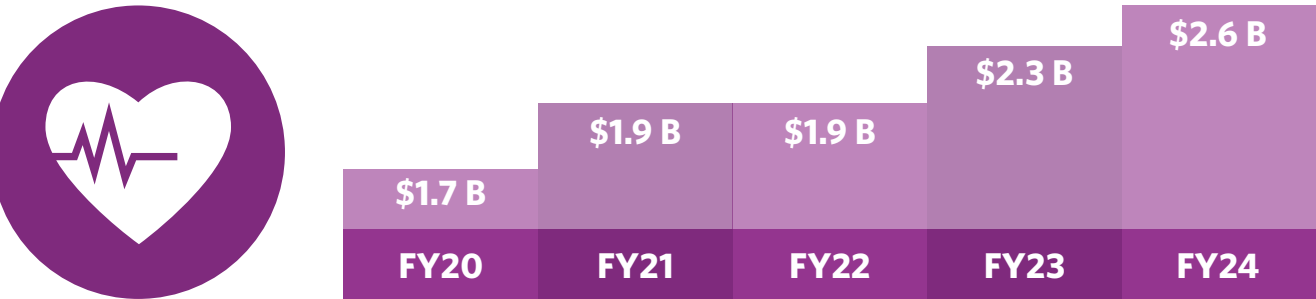
To accelerate bringing scientific discoveries to the bedside, Upstate launched Upstate Biotech Ventures, the first venture fund in the SUNY system. Upstate Biotech Ventures (UBV) is a partnership of Empire State Development, Upstate Medical University, the SUNY Research Foundation and Excell Partners. The UBV fund invests in a diversified portfolio of high-growth life sciences ventures, utilizing the clinical and research excellence of the Upstate NY ecosystem, led by Upstate Medical University.

Clinical Mission

Upstate’s clinical mission is centered on delivering high-quality, patient-centered healthcare to Central New York and beyond. As a public academic medical center, Upstate Hospitals and its physicians serve the immediate healthcare needs of a diverse population while also shaping the future of healthcare through robust educational programs. The university’s hospitals and clinics provide specialized care in critical areas, including cancer treatment, neurology, pediatrics, and cardiovascular services, ensuring that comprehensive healthcare is accessible, particularly for underserved communities.

Reflecting its growth and expanding influence, Upstate’s clinical services revenue increased significantly from **\$1.7 billion** in FY20 to **\$2.6 billion** in FY24. This **53% rise** demonstrates the Upstate clinical system’s growing capacity to meet the region’s healthcare needs while continuing to lead in healthcare innovation and medical education.

Increase in Clinical Services Revenue from FY20, FY21, FY22, FY23, and FY24



Education Mission

A critical component of Upstate’s mission is the education and training of future healthcare and other medical professionals. Upstate offers 41 degree programs. Norton College of Medicine offers three programs, College of Graduate Studies offers 11 programs, College of Health Professions offers 15 programs, and the College of Nursing offers 12 programs. Through the 52 comprehensive residency and fellowship programs, Upstate provides hands-on clinical experience across a wide range of medical specialties, ensuring that students, residents, and fellows are well-equipped for the evolving demands of modern healthcare. Many of these healthcare and other medical professionals remain in Central New York post-graduation, helping to meet the region’s increasing need for medical providers.

Reflecting its expanding educational impact, Upstate has increased its number of residents and fellows from 672 in FY22 to 691 in FY24, highlighting its essential role in healthcare education and regional workforce development. Total student enrollment has experienced a slight decrease, from 1,592 students in FY22 to 1,442 in FY24 as Upstate transitions some programs.



Community Impacts

Every day, Upstate employees, students, and volunteers live the university’s mission to improve community health through acts of kindness, professionalism, and service. Community service is deeply ingrained in Upstate’s culture. For 20 years, Team Upstate has fostered volunteerism, significantly impacting Central New York. Rooted in values of compassionate care, responsive service, and active community involvement, Upstate collaborates with public and private organizations through its Office of Community Relations. These partnerships enhance education, research, patient care, and community health, with a focus on health equity, trauma care, follow-up services, and violence prevention.

Central to Upstate’s mission is its dedication to reducing health disparities and promoting diversity and inclusion. The university’s outreach programs, health education efforts, and partnerships with local organizations work to improve health outcomes, particularly in underserved rural areas. Upstate provides essential services such as health education, screening programs, and preventive care, addressing critical public health issues such as chronic disease management, maternal and child health, and substance abuse prevention.

In FY24, Upstate’s faculty, staff, and students collectively generated **\$29.5 million** in charitable donations and volunteer services, according to Tripp Umbach. This includes **\$12.4 million** in direct charitable contributions and **\$17.1 million** in volunteerism and time donations by Upstate’s community, highlighting the institution’s deep-rooted commitment to improving Central New York’s well-being.

As a public hospital, Upstate provides numerous community benefits, including:

- Direct financial assistance to patients (free care).
- Subsidized programs, including unreimbursed costs of educating health professionals, mental health services, and covering the shortfall in government programs like Medicare.
- Community programs such as health screenings, free clinics, in-kind donations, and staff dedicated to community health improvement.

Upstate provided a comprehensive array of social support programs designed to meet the diverse needs of children, teens, and adults across Central New York. These initiatives were tailored to promote well-being, health education, and community relations, reflecting Upstate’s commitment to serving the region.

- 1. Educational & Social Support Programs:**
Upstate facilitated programs aimed at enhancing educational opportunities and providing social support for individuals of all ages. These programs focused on academic enrichment, life skills development, and empowering social connections, helping participants build confidence and achieve personal growth.
- 2. Health Outreach Programs for Adults:**
Upstate’s outreach programs targeted adults in the community, offering services that addressed critical health concerns. These programs included preventive care initiatives, screenings, and health promotion activities designed to empower adults with the knowledge and resources necessary to maintain their health and well-being.
- 3. Health Outreach Programs for Children:**
Recognizing the unique health needs of younger populations, Upstate provided specialized outreach programs for children. These programs focused on preventive health measures, early intervention, and education, aiming to establish healthy habits from a young age and ensure that children receive the care and support they need to thrive.
- 4. Health Seminars and Education:** Upstate hosted a variety of health seminars and educational workshops for the community. These events covered a wide range of topics, from chronic disease management to mental health awareness, equipping participants with valuable information to make informed decisions about their health. The seminars also served as a platform for fostering dialogue and raising awareness about important health issues.
- 5. Patient Support Services:** Upstate offered robust patient support services to assist individuals navigating their healthcare journeys. These services included counseling, assistance with managing chronic conditions, and resources for caregivers. The aim was to provide holistic support that addressed not only the physical but also the emotional and psychological needs of patients and their families.

Through these programs, Upstate demonstrated its deep commitment to improving the health and quality of life for the communities it serves, offering vital resources and support across the lifespan.

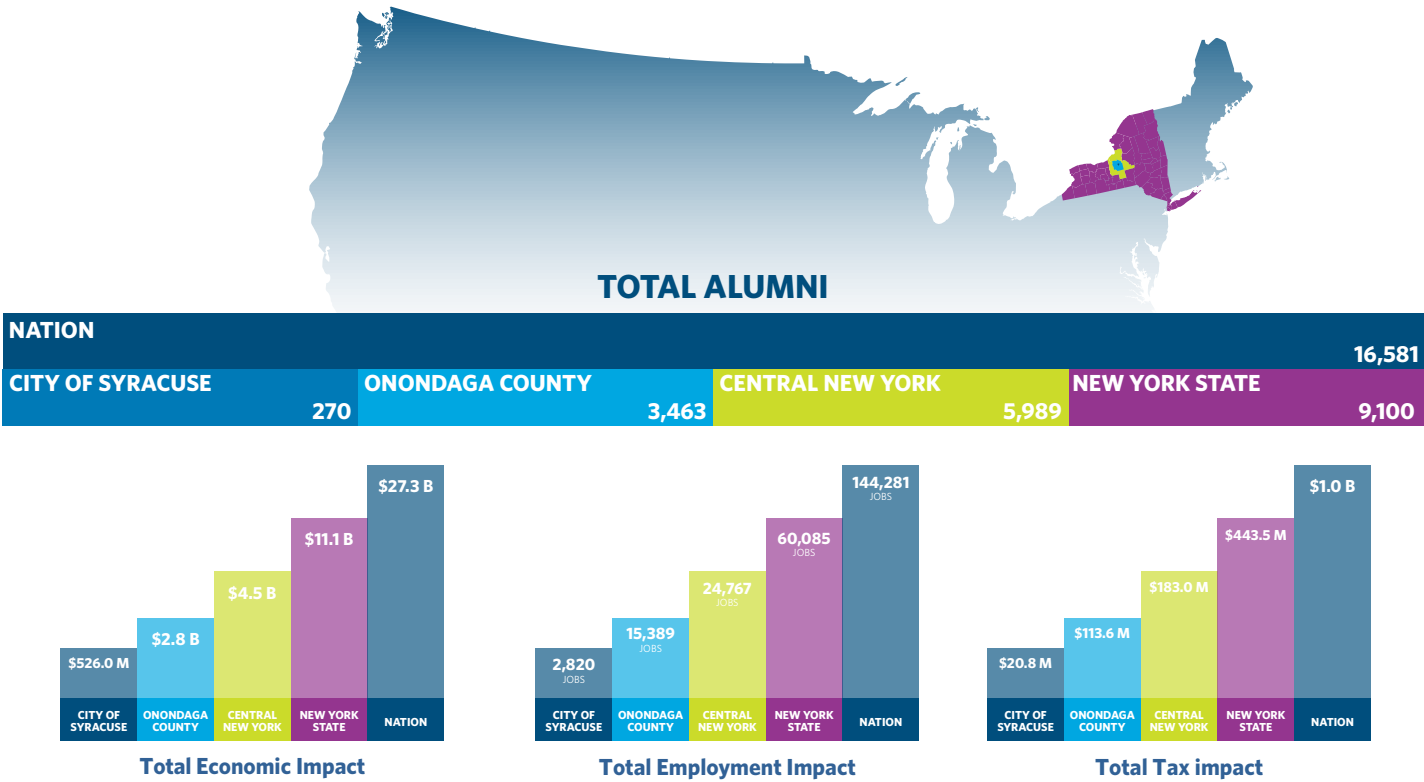
Alumni Impacts



Alumni Impacts

Upstate boasts a national alumni network of **16,581 healthcare providers and other medical professionals**. In FY24, these alumni collectively contributed **\$27.3 billion** in wage impact to the national economy, in addition to Upstate’s **\$3.2 billion** economic impact for the same fiscal year. The extensive physician network plays a crucial role in shaping the medical profession on a national, state, and regional level. Notably, more than half of Upstate’s alumni choose to remain in New York to practice, further strengthening the state’s healthcare landscape and economic vitality.

Alumni Economic Impacts by Geography



By educating and training healthcare and other medical professionals who often choose to remain in Central New York after graduation, Upstate plays a critical role in sustaining a well-educated workforce that meets the region’s healthcare demands. The university’s educational programs not only produce highly skilled healthcare providers but also enhance social mobility by offering opportunities to students from diverse backgrounds. Upstate’s commitment to diversity and inclusion ensures that its graduates are well-equipped to serve a broad spectrum of communities, reflecting the diversity of the population they care for.

Upstate’s influence extends beyond education and into the realm of public health, where faculty, staff, and students work collaboratively to address health disparities and improve the overall health of the community. The university’s initiatives in vaccination campaigns, chronic disease prevention, and health education have a lasting, positive impact on public health outcomes, contributing to the well-being of Central New York residents. These efforts underscore Upstate’s role in shaping a healthcare workforce that is highly trained and compassionate but also prepared to lead in an emerging global economy.

Norton College of Medicine Alumni Impact

In FY24, **8,209 Upstate alumni physicians** were licensed across the United States. Tripp Umbach estimates that these alumni generated **\$26.7 billion** in economic activity, supporting **140,374 jobs** nationwide. Consequently, Upstate alumni physicians contributed **\$1.0 billion** in taxes annually in FY24. **This impact is in addition to the broader economic contributions of Upstate’s operations.**

New York State

Upstate alumni physicians have a significant impact within New York state. In FY24, **3,357 Upstate-trained physicians** practicing in the state generated **\$10.7 billion** in economic activity. These physicians also supported **57,405 jobs** and contributed **\$423.4 million** in state and local taxes.

Central New York

In Central New York, **1,321 Upstate alumni physicians** are practicing. In FY24, these physicians generated **\$4.2 billion** in economic activity. Their presence also supported **22,589 jobs** and contributed **\$166.7 million** in local taxes.

Onondaga County

Within Onondaga County, **828 Upstate alumni physicians** are practicing. In FY24, these physicians generated **\$2.6 billion** in economic activity. They also supported **14,159 jobs** and contributed **\$104.4 million** in local taxes.

City of Syracuse

Within the City of Syracuse, **162 Upstate alumni physicians** are practicing. In FY24, these physicians generated **\$518.4 million** in economic activity. They also supported **2,770 jobs** and contributed **\$20.4 million** in local taxes.

These figures illustrate the profound economic and social impact of Upstate alumni physicians at local, state, and national levels, highlighting their crucial role in supporting jobs, generating tax revenue, and driving economic growth across regions.

College of Graduate Studies, College of Health Professions, and College of Nursing Alumni Impact

When evaluating the broader economic impact of Upstate Medical University’s alumni who work as healthcare providers in New York state, excluding physicians, the contribution to the state’s economy is considerable. Tripp Umbach estimates that the economic value generated by these alumni extends well beyond the university, as their knowledge and skills create significant economic benefits across the state and nation.

In FY24, **8,372 Upstate alumni healthcare providers and other healthcare professionals** (excluding physicians) were licensed throughout the United States. With an average salary of \$70,000 for these healthcare providers, Tripp Umbach estimates that these alumni generated **\$586.0 million** in economic activity during FY24. Additionally, these professionals support or employ **3,907 jobs** and contribute **\$46.8 million** in state and local taxes. This impact is in addition to the contributions of graduating physicians and the broader economic influence of Upstate’s operations.

New York State

Upstate’s alumni healthcare providers (excluding physicians) who practice in New York have a substantial economic impact. The **5,743 healthcare providers** practicing in the state generated **\$402.0 million** in economic activity. These alumni also support or employ **2,680 jobs** and contribute **\$20.1 million** in state and local taxes.

Central New York

In Central New York, **4,668 Upstate alumni healthcare providers** (excluding physicians) are practicing, generating **\$326.7 million** in economic activity in FY24. These alumni support or employ **2,178 jobs** and contribute **\$16.3 million** in local taxes.

Onondaga County

Within Onondaga County, **2,635 Upstate alumni healthcare providers** (excluding physicians) are currently practicing. In FY24, Tripp Umbach estimates that these healthcare providers generated **\$184.5 million** in economic activity. These alumni also support or employ **1,230 jobs** and contribute **\$9.2 million** in local taxes.

City of Syracuse

Within the City of Syracuse, **108 alumni healthcare providers** (excluding physicians) are currently practicing. In FY24, these physicians generated **\$7.6 million** in economic activity. They also supported **50 jobs** and contributed **\$380,000** in local taxes.

Appendix A

Definition of Terms

Study Year

The fiscal year 2023-2024.

Total Economic Impact

The total economic impact of an institution includes the direct and indirect impacts generated in the economy as a result of the institution.

Direct Economic Impact

The direct impact includes institutional, employee, and visitor spending on the institution.

Indirect Economic Impact

Indirect impact, also known as the multiplier effect, includes re-spending dollars within the local economy by vendors/suppliers and households.

Multiplier Effect

The multiplier effect is the additional economic impact created by the institution’s direct economic impact. Local companies that provide goods and services to an institution increase their purchasing by creating a multiplier.

Direct Tax Payments

An institution makes direct tax payments to a unit of government.

Indirect Tax Payments

Governmental units collect government revenue in addition to those paid directly by an institution, including taxes paid directly by employees of the institution, visitors to the institution, and vendors who sell products to the institution.

Direct Employment

The total number of employees at the institution is based on total jobs.

Indirect Employment

Indirect employment is the additional jobs created by the institution’s economic impact. Local companies that provide goods and services to an institution increase their employees as purchasing increases, thus creating an employment multiplier.

Appendix B

Technical Appendix

Methodology Definitions

IMPLAN Methodology – Upstate’s economic impact was estimated using IMPLAN (IMPact Analysis for PLANning), an econometric modeling system developed by applied economists at the University of Minnesota and the U.S. Forest Service. The IMPLAN modeling system has been in use since 1979 and is used by more than 500 private consulting firms, university research centers, and government agencies. The IMPLAN modeling system combines the U.S. Bureau of Economic Analysis’ input-output Benchmarks with other data to construct quantitative models of trade flow relationships between businesses and between businesses and final consumers. From this data, one can examine the effects of a change in one or several economic activities to predict its effect on a specific state, regional, or local economy (impact analysis). The IMPLAN input-output accounts capture all monetary market transactions for consumption in a given period. The IMPLAN input-output accounts are based on industry survey data collected periodically by the U.S. BEA and follow a balanced account format recommended by the United Nations.

IMPLAN’s Regional Economic Accounts and the Social Accounting Matrices were used to construct state- and CSA-level multipliers, which describe the economy’s response to a change in demand or production caused by Upstate’s activities and expenditures. Each industry that produces goods or services generates demand for other goods and services, and this demand is multiplied through a particular economy until it dissipates through “leakage” to economies outside the specified area. IMPLAN models discern and calculate leakage from local, regional, and state economic areas based on workforce configuration, the inputs required by specific types of businesses, and the availability of both inputs in the economic area. Consequently, economic impacts that accrue to other regions or states because of a change in demand are not counted as impacts within the economic area.

The model accounts for substitution and displacement effects by deflating industry-specific multipliers to levels well below those recommended by the U.S. Bureau of Economic Analysis. In addition, multipliers are applied only to personal disposable income to obtain a more realistic estimate of the multiplier effects of increased demand. Importantly, IMPLAN’s Regional Economic Accounts exclude imports to an economic area, so the calculation of economic impacts identifies only those impacts specific to the economic impact area. IMPLAN calculates this distinction by applying Regional Purchase Coefficients (RPC) to predict regional purchases based on an economic area’s characteristics. The RPC represents the proportion of goods and services purchased regionally under normal circumstances based on the area’s economic characteristics described in terms of actual trade flows.

Appendix B

Technical Appendix

Methodology Definitions

IMPLAN Methodology – Upstate’s economic impact was estimated using IMPLAN (IMpact Analysis for PLANning), an econometric modeling system developed by applied economists at the University of Minnesota and the U.S. Forest Service. The IMPLAN modeling system has been in use since 1979 and is used by more than 500 private consulting firms, university research centers, and government agencies. The IMPLAN modeling system combines the U.S. Bureau of Economic Analysis’ input-output Benchmarks with other data to construct quantitative models of trade flow relationships between businesses and between businesses and final consumers. From this data, one can examine the effects of a change in one or several economic activities to predict its effect on a specific state, regional, or local economy (impact analysis). The IMPLAN input-output accounts capture all monetary market transactions for consumption in a given period. The IMPLAN input-output accounts are based on industry survey data collected periodically by the U.S. BEA and follow a balanced account format recommended by the United Nations.

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Economic Impact Value Definition

The overall economic impact values provided in this report include the following impact values that were broken out as sub-analyses:

- Organizational spending – capital and operational.
- Student, faculty, and staff spending.
- Visitor spending.

The following impacts are in addition to the economic impact of the spending categories listed above:

- Commercialization of research and innovation.
- Community benefit impacts.
- Charitable donations and value of voluntary services.
- Alumni impacts.

Employment Definitions

IMPLAN analysis measures jobs/positions (part-time or full-time), not full-time equivalents (FTEs). Full-time and part-time employees impact the economy and support additional indirect and induced employment throughout the region. Employment data was provided as an output of all individuals who receive a paycheck from Upstate. This includes all full-time, part-time, and employed faculty, staff, students, and independent contractors.

Tax Impact Definition

State and local tax impacts generated in the current FY24 study included all taxes paid by Upstate to the state of New York (i.e., payroll, property, sales, unemployment, income, and any other taxes paid to the state and local government). Any federal taxes paid by the institution (i.e., FICA payments) were not included in the state and local tax impacts.

Visitor Definitions

Impact analysis aims to quantify the impact of attracting “fresh” dollars to a region. Therefore, when including visitor spending in the impact analysis of a university, health system, or other organization, the analysis will include only those visitors coming to a region from outside of the region. Visitors to events who also live in the region would have spent their dollars in that region otherwise; therefore, this dollar was not attracted to the region because of the organization being analyzed. This impact analysis looked at impacts on New York state, Central New York, Onondaga County, and the City of Syracuse. Visitors to the institution were counted only if they were from outside the region being analyzed.

Visitor Spending

Tripp Umbach employs federal per diem rates to approximate the spending of visitors in a specific area. The use of per diem rates is considered a conservative measure, with visitors typically spending more than these rates in any given area.

The rates specifically applied for this analysis include:

- State of New York: \$116 for lodging; \$64 for meals and incidental expenses

Community Benefits

Community benefits in this report outline two forms of impact — monetary donations made by employees and students to local nonprofits and volunteer hours valued at a monetary value.

- Tripp Umbach conducted survey research to estimate the monetary donations an individual (student, staff, faculty, or physician) is likely to make in a year. While this amount varies per person, it generally falls in the range of \$500 to \$1,000. Adjustments were made to account for individuals who do not donate.
- Independent Sector has established the value of a volunteer hour at \$33.49 per individual per hour. Tripp Umbach applied this value, considering the average number of hours faculty, staff, and students spend on volunteer activities (estimated at 100 hours per year for 50% of employees and students).

Research Impact Definition

The impact of research was measured as the yearly effect of its expenditures in FY24. The analysis examines the expenditures made during FY24 to estimate the annual impact of Upstate’s research on the state economy.

Appendix C

FAQs Regarding Economic Impact Assessment

What is economic impact?

Economic impact begins when an organization spends money. Economic impact studies measure the direct economic impact of an organization’s spending, plus additional indirect and induced spending in the economy as a result of direct spending. Direct economic impact measures the dollars that are generated within New York because of the presence of Upstate. This includes not only spending on goods and services with vendors across the state and the spending of its employees, patients, and visitors, but also the business volume generated by businesses within New York that benefit from spending by Upstate. It is important to remember that not all dollars spent by Upstate stay in New York. Dollars that go out of the state in the form of purchases from out of state vendors are not included in the economic impact that Upstate makes on the state of New York.

The total economic impact includes the “multiplier” of spending from companies that do business with Upstate. Support businesses may include lodging establishments, restaurants, construction firms, vendors, temporary agencies, etc. Spending multipliers attempt to estimate the ripple effect in the state economy where the spending occurs. For example, spending by Upstate with local vendors provides these vendors with additional dollars that they re spend in the local economy, causing a multiplier effect.

What is the multiplier effect?

Multipliers are a numeric way of describing the secondary impacts stemming from the operations of an organization. For example, an employment multiplier of 1.8 would suggest that for every 10 employees hired in the given industry, eight additional jobs would be created in other industries, such that 18 total jobs would be added to the given economic region. The multipliers used in this study range from 1.8 to 2.0.

The Multiplier Model is derived mathematically using the input-output model and Social Accounting formats. The Social Accounting System provides the framework for the predictive Multiplier Model used in economic impact studies. Purchases for final use drive the model. Industries that produce goods and services for consumer consumption must purchase products, raw materials, and services from other companies to create their products. These vendors must also procure goods and services. This cycle continues until all the money is spent outside of the specified region’s economy. Three types of effects are measured with a multiplier: the direct, the indirect, and the induced effects. The direct effect is the known or predicted change in the local economy that is to be studied. The indirect effect is the business-to-business transactions required to satisfy the direct effect. Finally, the induced effect is derived from local spending on goods and services by people working to satisfy the direct and indirect effects.

- **Direct effects** take place only in the industry immediately being studied.
- **Indirect effects** concern inter-industry transactions. Because Upstate is in business, it has a demand for locally produced materials needed to operate.
- **Induced effects** measure the effects of the changes in household income. Employees of Upstate and suppliers purchase from local retailers and restaurants.
- **Total Economic Impacts** are the total changes to the original economy as a result of the operations of Upstate (i.e., Direct effects + Indirect effects + Induced effects = Total Economic Impacts).

What methodology was used in this study?

IMPLAN (IMpact analysis for PLANning) data and software were used. Using classic input-output analysis in combination with regional specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model for its users. The IMPLAN database contains county, state, ZIP code, and federal economic statistics, which are specialized by region, not estimated from national averages, and can be used to measure the effect on a regional or local economy of a given change or event in the economy’s activity.

What is employment impact?

Employment impact measures the direct employment (employees, staff, physicians, administration) plus additional employment created in the economy as a result of the operations of Upstate.

Indirect and induced employment impact refers to other employees throughout the region that exist because of the university’s economic impact. In other words, these are jobs related to the population – city services (police, fire, EMS, etc.), employees at hotels and restaurants, clerks at retail establishments, or residents employed by vendors used by Upstate.

What is the difference between direct and indirect taxes?

Direct tax dollars include sales taxes and net corporate income taxes paid directly by the institution to the state, while indirect taxes include taxes paid to the state by vendors that do business with Upstate and individuals (employees, patients, and visitors).

Is this a one-time impact, or does the impact repeat each year?

The results presented in the Upstate economic impact study are generated on an annual basis. The economic impact in future years can be higher or lower based on number of employees, patients, visitors, capital expansion, increases in external research, and state appropriations.

Appendix D

Tripp Umbach Qualifications

Established in 1990 in Pittsburgh, PA, Tripp Umbach stands as one of the well-established and highly regarded private consulting firms in the United States. Renowned for its expertise in economic and community development, the firm collaborates with healthcare, education, government, and corporate clients to enhance the economic, social, and physical well-being of communities globally. With a history spanning over 30 years, Tripp Umbach has partnered with more than 1,000 organizations, delivering services such as community assessment, economic impact assessment, and economic development strategies. The firm has successfully completed more than 500 economic impact studies in the past three and a half decades.



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