

NYSUNY 2020 Challenge Grant: Binghamton University's Economic Development Plan for New York State

BINGHAMTON
UNIVERSITY
STATE UNIVERSITY OF NEW YORK

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EXECUTIVE SUMMARY

Under the NYSUNY 2020 Challenge Grant plan, the University will have an annual overall regional economic impact of \$800 million and a \$1.1 billion impact on New York state.

Governor Andrew Cuomo and State University of New York Chancellor Nancy Zimpher have confirmed their commitment to New York state's economic development through the NYSUNY 2020 Challenge Grant Program. This landmark legislation recognizes SUNY's unique role as a catalyst for job creation as well as the special importance of the research and academic programs of the University Centers as producers of new knowledge and educators of the state's next generation workforce. The initial phase of this program focuses on the provision of \$35 million in capital funds based on approval of each University Center's long-term economic development and academic enrichment plan. In addition, the plan also provides for enhancements to operating revenues for the campuses based on additional tuition.

Binghamton University is a unique institution. It is driven by its commitment to high-quality undergraduate education and innovative research that addresses real-world challenges that affect our communities and New York state. The University is the primary economic driver for the Southern Tier, a region that has experienced significant economic dislocation over the past two decades. Thus, investments in Binghamton University have a ripple effect that positively impacts virtually everyone in the region.

Binghamton University has laid out an ambitious agenda — the NYSUNY 2020 Challenge Grant — that enables us to leverage the University's academic excellence, cutting-edge research and economic development initiatives to jump-start a new era of powerful and productive returns to the local community and New York state. This plan is essential to both the University's and the region's successes in the knowledge-based economy of the future.

Under the NYSUNY 2020 Challenge Grant plan, the University will have an annual overall regional economic impact of **\$800 million**, and a **\$1.1 billion** impact on New York state. This will include the creation of more than **1,300** new jobs in the region and approximately **1,600** jobs across the state in the next five years.

The key pillars of the NYSUNY 2020 Challenge Grant include:

- **Construct a state-of-the-art Health and Natural Sciences building** that will fuel research, teaching and entrepreneurial activity in the health and natural sciences at Binghamton University. Growth in these disciplines, which was initially articulated in the University's strategic plan, reflects the interests of incoming students, and perhaps most important, is the ideal strategy for driving economic development. Simply put, growth

in research disciplines begets research dollars, thereby producing a self-sustaining and feed-forward effect on job creation. The infusion of \$35 million in capital funding from the governor and SUNY will play a critical role in spurring new building construction, which will serve as the physical incubator of new ideas, new jobs and new companies.

- Expand its academic mission to include enrollment growth of 2,000 students.** Binghamton University currently receives more than 32,000 applications but can only admit 3,200 students each year. The University will increase the number of students by 2,000 by the year 2016. Implicit in this targeted growth plan is an **expansion of the *entire* academic** mission of Binghamton University in a strategic fashion in order to maintain the signature quality that defines our institution. This means that growth in health- and natural sciences-related disciplines will be balanced with growth in the social sciences, humanities, graduate and professional schools, with a keen eye toward driving key performance indicators — including graduate student-to-undergraduate

student ratios, faculty-to-student ratios and time-to-degree — in positive directions. Not only will the NYSUNY 2020 Challenge Grant spur growth at Binghamton University, but it will also add significantly to the revitalization of the surrounding community.

- Strengthen existing partnerships and create new collaborations with industry and other organizations.** Binghamton University has a proven track record of involvement with, and support from, business and industry. Its partnerships are a key source of economic strength and vitality in the region, particularly in the technology field of small-scale system design and integration. These partnerships have resulted in one of the fastest-growing research programs of all SUNY institutions. These partnerships have a real-world benefit for students, as they are the basis of internships and fellowships that give students on-the-job training. As a result, students are better prepared and more competitive as they enter the workforce. Industry values Binghamton's research programs and has invested in their success. Every school at Binghamton works with businesses, industry and community organizations to make them more productive, more effective and better able to meet the needs of our communities. The support we receive through the NYSUNY 2020 Challenge Grant will enable an expansion of these partnerships through new research, new academic programs, and new outreach.
- Make an economic and community impact.** The addition of 2,000 new students into the communities of the Southern Tier will have a significant social, cultural, and economic impact. New students, drawn from a variety of backgrounds, will add to the richness and diversity of the cities and towns around the University. Their involvement in community organizations will help the University forge new partnerships with cultural, artistic, and community service organizations and redefine the Southern Tier as one of New York state's cultural epicenters.

CAMPUS IMPACT

\$1.6 million
in campus based assistance for students

385 new jobs
150 new faculty, 175 professional and support staff and 60 research funded support staff

300 construction jobs
annually for every year of construction

\$11 million +
in total new revenue from research grant income

2,000 more students
over five years

\$259 million
five-year cumulative economic impact

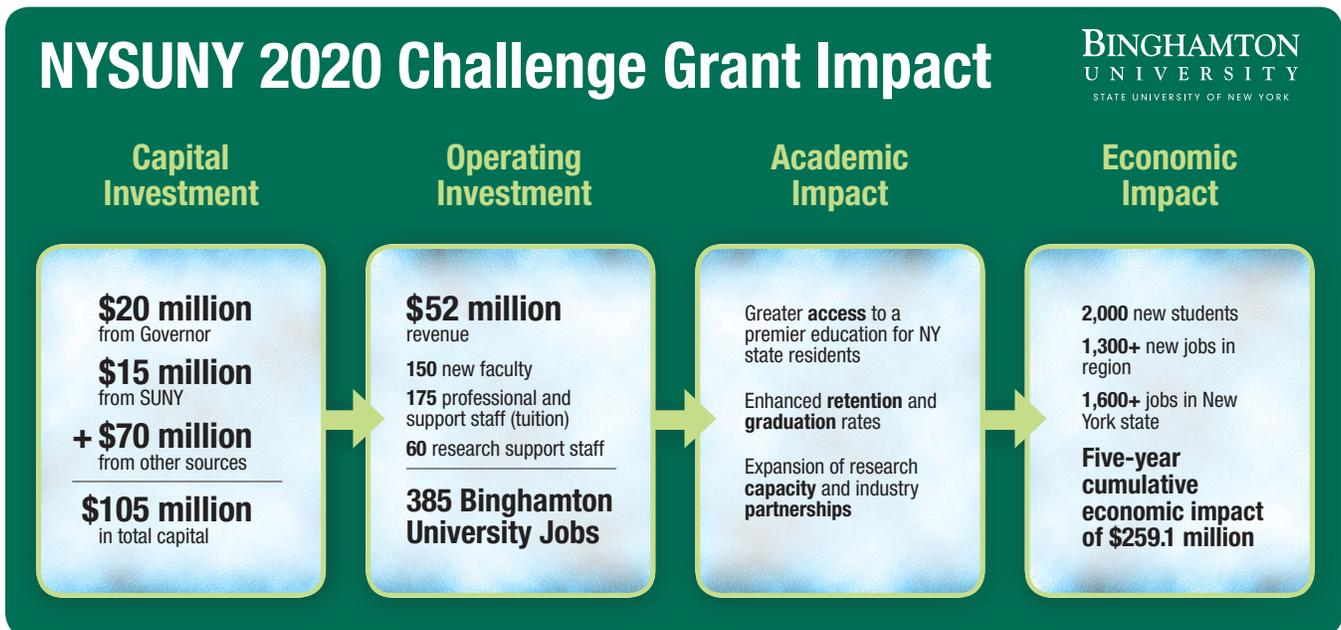
These students will live, work, and recreate in the Southern Tier, contributing their time — and their spending — to the social vitality and economic health of the region. The area will see new development in response to a growing student population, with new housing, restaurants and entertainment venues for our students.

Ultimately, this is what the NYSUNY 2020 Challenge Grant will mean for Binghamton University, the Southern Tier and all of New York state:

- **Increase Binghamton's economic impact by 16%.** The University already accounts for 11 percent of the Southern Tier's economy — and this plan will allow us to increase our impact by 16 percent. The plan will result in a \$130 million recurring increase in the University's regional economic impact, and produce more than \$160 million in recurring annual impact for New York state. For instance, the large number of strategic initiative and critical maintenance projects already underway on

our campus is generating more than \$430 million in economic impact on the local community already.

- **Add 1,600 jobs to New York state.** To keep pace with the growth of enrollment, the plan calls for an increase in faculty and staff hiring on the Binghamton University campus, totaling 385 new jobs. In addition, approximately 900 new jobs will be created or sustained in the Southern Tier, and an additional 300 across the state, for a total increase of 1,600 jobs in New York state.
- **Produce an additional \$6 million in new property tax revenue annually.** The additional students and employees will generate more property taxes on an annual basis, thereby increasing the tax base without increasing the tax burden on individual taxpayers.



CONSTRUCTING A HEALTH AND NATURAL SCIENCES RESEARCH AND INSTRUCTIONAL FACILITY

The centerpiece of Binghamton's five-year NYSUNY 2020 Challenge Grant proposal will be the establishment of a \$105 million, state-of-the-art health and natural sciences facility. It will be constructed at the University's Innovative Technologies Complex, which currently houses our research programs in biotechnology, and electrical, materials, and mechanical engineering. The new facility will allow for innovative research in health and natural sciences by bringing together faculty who will conduct their inquiries in a unique and multi-disciplinary manner.

Not only will this new facility allow the University to attract additional world-class faculty, but it will also increase Binghamton's ability to compete for externally funded, peer-reviewed research grants. It will enable major partnerships with healthcare facilities, such as SUNY Upstate Medical University and its Binghamton Clinical Campus, United Health Services including Wilson Hospital, Lourdes Hospital, Montefiore Hospital System in New York City, the nationally renowned Mayo Clinic

and others. These collaborations provide the opportunity to infuse Binghamton University's multidisciplinary research programs with clinical research and new translational opportunities, many of which are already under development.

University research teams from numerous disciplines in health and the natural sciences will work alongside scientists with ties to industry and to healthcare facilities, acting as a virtual extension of R&D labs. The facility, which will provide academic and research space, will also include incubation space for start-up businesses and industry partners. These incubators will quickly move faculty innovations from the research stage to revenue- and job-creating small businesses. This alignment of academic and industry interests will allow experts to pursue transformational research with significant societal impact and ensure that economic development goes hand-in-hand with first-rate education and training.

For a flyover video of the architect's rendering of the project, please visit go.binghamton.edu/flyover.



Rendering of proposed 226,000 sq. ft. Health and Natural Science facility.

Faculty Research

The nexus between the health sciences and the natural sciences is the place where the world's most forward-looking and innovative University research is found. The Health and Natural Sciences facility promises to connect Binghamton's expertise in the natural sciences with its growing infrastructure in engineering and biotechnology to create new medical and life sciences technologies. The interdisciplinary research conducted in its laboratories will connect faculty from across the University with experienced industrial researchers for life-changing discoveries in a variety of fields and more importantly, translate those discoveries into practical products and processes that will enhance the quality of life for the residents of New York and beyond.

For example, mechanical engineering professor Ron Miles has been collaborating with researchers looking at the *Ormia ochracea*, a small fly whose unique ear structure has led to the development of miniature omnidirectional microphones that are revolutionizing the production of hearing aids. Professor Miles has already received four U.S. patents for his work, with three additional patents pending.

Systems science engineers are reducing waiting times in hospitals and promoting higher-quality medical care by examining the interlinking processes that comprise our modern healthcare system. Other researchers are looking to find ways to address alcohol and drug abuse as well as help ameliorate other chronic neurological disorders. Professors from the University's chemistry, biology, and mechanical engineering programs are collaborating to develop nano-sized mechanical instruments to better regulate glucose in diabetics, and produce nano-scale diagnostic tools that can be swallowed or implanted under the skin. In the same way, faculty involved in biofilm research are finding new ways to fight chronic inflammatory and infectious diseases — but their work has environmental and industrial applications as well — such as helping disperse oil spills and mitigating corrosion in industrial plants. The new Health and Natural Sciences building will



facilitate the faculty's basic research and more importantly, speed the development of practical applications that will address real healthcare needs in New York and the United States. In short, the building's flexible laboratory space and cutting-edge equipment will push Binghamton University into the frontiers of research in the life sciences.

Economic Impact on the Community and State

The Health and Natural Sciences facility will also catalyze interactions between Binghamton University researchers local industry, and other regional organizations. The facility will:

- Provide incubation space for 10 start-up businesses.
- Attract an additional 60 research faculty, 1,000 undergraduate and 200 graduate students.
- Enhance educational programming related to healthcare.
- Develop regional research and educational partnerships with hospitals, healthcare organizations, and biomedical technology firms across the Southern Tier and New York state.
- During the construction phase, the facility will also provide \$40 million in annual construct economic impact — \$200 million over five years and support more than 300 construction jobs in the region each year.

The Health and Natural Sciences facility will provide \$40 million annually in economic impact during construction — totaling \$200 million over five years — and support more than 300 construction jobs annually.

New York state's continued investment in Binghamton University and the health and natural sciences facility will be a strong investment in the overall economy of the region. Each new researcher will attract, on average, an additional \$186,000 annually to the local economy in federal and other grant support, 11 percent of which is returned as state and local taxes.

that the facilities and resources that will be made available to 60 new research faculty will generate \$11 million annually in research grant funding.

The facility will meet LEED (Leadership in Energy and Environmental Design) standards and incorporate emerging building technologies such as passive solar energy for heating, geothermal technology for heating and cooling, energy-efficient windows and skylights for maximum use of daylight, green roof applications, and the latest technology for heat recovery and humidity control. In addition, it will serve as a learning lab by incorporating interactive computing systems so that faculty, staff, students and visitors can see firsthand the use of sustainable building technologies and energy systems. The facility will incorporate versatile, open laboratory space, faculty and staff offices, graduate student areas, as well as space for instructional departmental support staff. 40% of its space will be dedicated to state-of-the-art instructional space, including multimedia lecture rooms, distance learning capabilities and the latest in industry-standard computer facilities and other technologies so that the campus can meet current and future programmatic needs.

The Health and Natural Science facility will generate \$11 million in additional research grant income annually.

State-of-the-Art Facility

The Health and Natural Sciences building will cover 226,000 square feet of combined research and instructional space, and include more than 150,000 net square feet (NSF), which will be used to optimize the work of the University's interdisciplinary teams of research faculty. The new facility will house research and instructional space that allows for interactions between the two, so that faculty will be better able to highlight their research to undergraduate students as well as introduce those same students to high-level graduate research. The shared spaces and collocation of faculty researchers will expand interdisciplinary research and allow for greater collaboration in both teaching and research. Estimates are

State-of-the-art \$105 million Health and Natural Sciences facility: Funding sources

The facility will be funded by several sources of income, either as lump sums from capital sources, gifts, or by leveraging funds and revenue streams managed by the University. The full funding plan is as follows:

Capital	
Governor's pledge	\$20 million
SUNY capital sources	\$15 million
University gift sources/capital campaign	\$20 million
Corporate and in-kind business support	\$40 million
Binghamton University cash reserves	\$10 million
Total	\$105 million

Support for minority- and women-owned businesses

Binghamton University encourages minority participation in the procurement process and will implement an outreach program to ensure that minority- and woman-owned businesses participate fully in the purchasing process for commodities and services. Our goal is to meet a 20% Minority and Women Owned businesses and enterprises (MWBE) participation rate in our NYSUNY 2020 related contracts.

The University will increase certified minority/woman business (MWBE) participation by encouraging campus support for such enterprises, and to reach out to vendors and help them become MWBE certified. Working with project consultants and managers, the University will encourage participation of known MWBE vendors and will coordinate University mentor

and outreach programs with other organizations to identify and assist MWBE.

In addition, the campus will utilize its economic development outreach offices to maximize collaboration efforts, especially associated with MWBE firms. Tracking and follow-up processes are crucial — we also will adopt a tracking process by which MWBE business enterprises will be utilized whenever possible.

In all our endeavors and partnerships, Binghamton University is committed to transparency and our processes will include the strongest conflict of interest protections. All Binghamton University activities are subject to existing New York state statutes related to conflict of interest, and our plan includes strong anti-conflict-of-interest provisions that are identical as those outlined in the NYSUNY 2020 legislation.

EXPANDING THE ACADEMIC MISSION: IMPLEMENTATION AND IMPACT

Within the SUNY system, Binghamton University is one of the most popular and highly sought after choices for students. On average, Binghamton receives annually more than 32,000 applications for 3,200 undergraduate and graduate seats. However each year, due to funding and space constraints, the University is forced to turn away tens of thousands of outstanding scholars and young leaders. Through the NYSUNY 2020 Challenge Grant, Binghamton University will use the recently passed tuition plan as a base to enroll 2000 more students and hire 150 faculty numbers.

will be maintained. This is essential because graduate students play a key role in the mentoring hierarchy and are key drivers of research productivity and innovation.

Tuition Plan

The NYSUNY 2020 Challenge Grant tuition program will generate an estimated \$7 million in tuition revenue for Binghamton in the first year, which by 2016 will grow to \$12.2 million in tuition revenue per year. These funds will be used to hire and support 150 additional faculty. It also provides \$17 million over five years for support cost, such as library funding, academic advisors, graduate assistants, teaching assistants, and \$12 million for TAP support and other assistance.

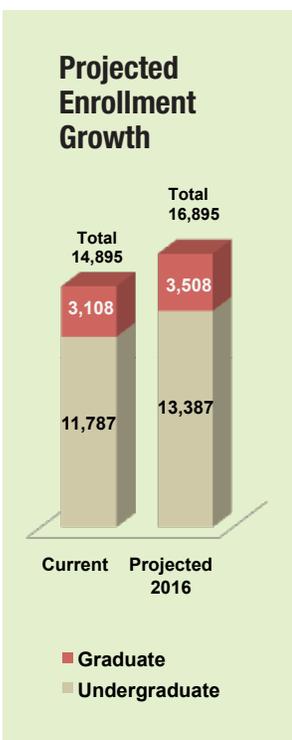
Student Access

Under the NYSUNY 2020 Challenge Grant program, Binghamton will be able to admit an additional 2,000 students by 2016. This will increase the campus's enrollment from our current enrollment of about 15,000 to approximately 17,000. Approximately 35 percent of these students will be transfer students drawn primarily from New York state Community colleges.

Faculty Growth

The influx of additional tuition revenue allows the University to hire 150 additional faculty over the next five years and enable the university to increase enrollment by 2,000 students during that same time frame. These additional funds will vastly improve access to one of SUNY's best educations.

Even with the addition of 2,000 new students, an appropriate undergraduate:graduate ratio



Graduating in 4 years represents a substantial savings for the student and the state.

With the added teaching capacity the University will be able to adequately accommodate demand. Additional faculty means an opportunity for students to be offered a broader range of cutting-edge courses. Because the student:faculty ratio is one of the prime indicators of student success, the University's goal is to lower its faculty: student ratio from 21:1 to 19:1. Not only will the additional faculty offer students expanded course offerings, but they also deliver 400 new undergraduate research opportunities. By improving the faculty to student ratio the university provides greater access to New York residents and the ability to fast-track graduation.

Superior Graduation Rates

Already at the head its class when it comes to graduation rates. Binghamton's 4-year graduation rate is 62%. This places Binghamton ahead of its peer institutions by 30 percentage points already and ranks us in the top 5% nationwide. With a campus wide commitment to seeing students through to commencement, the University hopes to increase its stellar graduation rate by at least another 5%. Reducing time to degree by just one year equates to students paying less tuition and consuming less state aid. Furthermore, by graduating on time, students will make a quicker transition to the workforce, and will become contributors to, rather than consumers of, state revenue.

Student Assistance

Ensuring affordable access to higher education is crucial to the future of New York state. Binghamton University remains committed to this core principle. Therefore, to ensure that all students continue to have access, the University is committing \$1.6 million dollars for assistance based on need and merit (25% of additional tuition revenues) in the first year alone. Over the life of the plan this will equate to \$12 million in support for diversity, need, and merit.

For example, in the first year Binghamton will commit:

- 1) \$700K to offset tuition increases for TAP-eligible undergraduates;
- 2) \$500K to make whole existing commitments to RAs, TAs, and fellowship holders where this cannot be achieved by increases in extramural grant and contract awards; and
- 3) \$400K for scholarships (including EOP) based on a combination of merit, need, and diversity.

We will maintain our 25% commitment to student assistance throughout the life of the plan.

Together, these funds will supplement Binghamton's current aid, support programs offered by the University and ensure that all students get the support they need to attend and succeed. Estimations are that this student assistance will directly affect close to 4,000 undergraduate and graduate students.

BINGHAMTON UNIVERSITY 2020 FUNDING PLAN

2011-2016 \$ in millions (non-cumulative)

	11/12	12/13	13/14	14/15	15/16	Total
Tuition Revenue	\$7.7	\$9.9	\$10.7	\$11.4	\$12.2	\$51.9
Expenses	\$7.7	\$9.9	\$10.7	\$11.4	\$12.2	\$51.9
Faculty Salaries	\$2.2	\$2.8	\$3.1	\$3.3	\$3.6	\$15.0
Support Costs	\$3.6	\$4.8	\$5.2	\$5.4	\$5.6	\$24.6
Start-up Costs	\$0.7	\$0.9	\$0.9	\$1.1	\$1.3	\$4.9
Mandated (TAP) Support	\$0.7	\$0.9	\$1.0	\$1.1	\$1.2	\$4.9
Escalation	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$2.5
Faculty FTE Growth	22	28	31	33	36	150

STRATEGIC PARTNERSHIPS

Strategic partnerships are at the heart of Binghamton University's research and economic development plan

Binghamton University has a proven track record of successful partnerships. The collaborations our faculty have with industry and other organizations have helped establish Binghamton's research programs as leaders in their respective fields, while generating significant outside support for scientific exploration and productive innovation. Over the last five years, our research growth has been the largest by percentage in SUNY, growing by more than one-third. With around 18 percent of the University's total research drawn from industry — as compared to a national average of 7 percent — Binghamton already conducts more research funded by industry than most universities. Binghamton is the place where exciting research is happening, and our partners are excited about what we are doing.

The key to Binghamton's success has been our ability to leverage our historical strengths in areas such as computer science in order to move into exciting new realms of scientific discovery, such as sensor design, materials research, and biomedical technology. At the same time, it is important that our research has real-world applications that can assist local and state industries through the sharing of expertise, technology transfer, business incubation and job creation.

Building on Success

One of Binghamton's organized research centers, the Small Scale Systems Integration and Packaging Center (S³IP), conducts high-impact research that supports the translation of economically significant microelectronic innovations to United States industry. S³IP is a proven innovation leader and, since 1996, has generated more than \$800 million in economic impact and 1,556 in new and retained jobs to New York state through partnerships with national and international industries on collaborative, competitive research in such areas as energy-efficient electronic systems, electronics



packaging, flexible electronics, autonomous solar power, advanced materials and sensors, and supportive systems integration to national industry sectors. By providing private industry access to world-class, high-tech infrastructure, the university has created an environment that catalyzes public-private partnerships, which significantly lowers the cost of bringing new technologies to market and enables sustainable economic growth in New York.

Faculty in our Watson School of Engineering, as well as from a variety of disciplines across the campus — materials science, chemistry, and physics, to name just a few — are working with many national and global partners, including: Analog Devices International, Texas Instruments, Microsoft, Intel, Samsung, Xerox, AMD, and ASE. Binghamton also has important partnerships with such regional firms as Endicott Interconnect Technologies, through the University's Center for Advanced Microelectronics Manufacturing, to move research into production. Significantly, this firm recently

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announced that it has received more than \$100 million in defense department contracts for computing systems and hardware sustainment, areas in which University research has had an impact. Binghamton University also is collaborating with Emerson Power Electronics in Binghamton to build a laboratory that is a fully functional data center at the Emerson facility, which will serve as a cutting-edge lab dedicated to power reduction and energy efficiency optimization in data centers across New York state and the nation. In addition Binghamton University also works closely with dozens of small and mid-sized companies. These projects are generally for New York state-based companies and result in New York state jobs.

Notably, Binghamton University is a founding partner in the SUNY Entrepreneurial Innovation Inc. Accelerated Fund, which was created to identify entrepreneurial opportunities and provide grants to support the further development of technologies that align with existing and emerging market opportunities. And last year Binghamton University established BCET (a nonprofit entity related to the Research Foundation), which will provide the infrastructure for quick development of industry partnerships.

Involving the entire University

Importantly, each of Binghamton's six schools and colleges is involved in partnerships that contribute materially to the economic, and

social well being of the community. Many of these have a healthcare component that will be strengthened through the development of the new Health and Natural Sciences initiative.

For example:

- Binghamton's School of Nursing plays a key role in the health and well-being of the Southern Tier and beyond. Its academic programs at both the graduate and undergraduate levels are helping prepare New York state's nursing professionals. The school has clinical affiliations with 400 hospitals and other healthcare organizations, ranging from hospitals in Binghamton and Johnson City to the Arnot Ogden Medical Center in Elmira and the Delaware County Public Nursing Service. The school also houses the Elder Services Center, which provides support for patients, families and other caregivers in addressing healthcare issues common to the elderly, with a special focus on Alzheimer's disease. The school will expand its Doctorate in Nursing Practice Program, which prepares nurse practitioners and clinical nurse specialists in a range of specialties, including rural healthcare and psychiatric nursing. These disciplines are experiencing high demand in New York state and address healthcare challenges for some of the state's most underserved and stigmatized populations. In addition, Binghamton houses a unique rural health research program conducted through the O'Conner Office of Rural Health Studies.
- In an effort to further develop research and academic collaborations, Binghamton University and SUNY Upstate Medical University leaders recently signed an articulation agreement that links the two institutions academically in new ways, and a memorandum of understanding for shared course offerings in their neuroscience graduate programs. The articulation agreement will allow for exceptional Binghamton University students to be automatically admitted into SUNY Upstate Medical's Summer Undergraduate Research Fellowship (SURF) program, and reserves, at minimum, one slot per year for an exceptional student to enroll in SUNY Upstate



An in-kind gift from Siemens/UGS of \$25.9 million dollars worth of specialized software is already being used in real-world applications by students and faculty.

Medical University's College of Graduate Studies to pursue a PhD in the biomedical sciences. The MOU provides for shared courses in the neurosciences to diversify the curriculum and minimize redundancy at both schools. Already, faculty from the two campuses have received a \$9 million grant for an alcohol research center funded by the National Institutes of Health. In addition, researchers from Binghamton's Watson Institute for Systems Excellence (WISE) have been working to improve medical care delivery in operating and emergency rooms at the Upstate hospitals.

- The College of Community and Public Affairs also has a number of research and educational programs that address economic development and healthcare issues. Its Center for Applied Community Research and Development (CACRD) recently conducted a survey to provide local development organizations with information to support their economic development initiatives. Among the several indicators they tracked was a category related to health. The survey produced data that will be useful for analyzing community trends in health status, including information about birth outcomes, cardiovascular health, asthma, and mortality.

Philanthropic Support

Binghamton's outreach and partnerships are fully supported by the industry and the philanthropic community.

Donor support has been particularly strong for university research and outreach that involves healthcare and healthcare related issues. For example, Siemens/UGS has provided a \$25.9 million gift-in-kind of specialized NX and TeamCenter computer-aided design and engineering tools, which assist faculty and students in designing ergonomic products and processes. Faculty in the Systems Engineering program have used this software to redesign operating rooms and testing processes at local hospitals such as UHS and Lourdes. This grant advances the Watson School's CAE and CAD instruction efforts into new areas, including

healthcare research, and exposes our students to multiple tools that will make them more marketable and provide an edge in the highly competitive job market of today's economy. This software and others is being made available in a new computer-aided engineering instructional laboratory facility fully equipped with software tools for modeling, simulation, validation and optimization of products.

One of the most significant sources of support for the University's healthcare initiatives has been the Dr. G. Clifford and Florence B. Decker Foundation, which has provided more than \$6.4 million in support for a variety of health-related programs on campus. These include The Decker School of Nursing, the Decker Fellowship in Nursing, the Decker Chair in Community Health Nursing, support for the School of Management and the Decker School, the Decker Chair in Rural Health Nursing, and most recently, the Decker Student Health Services Center.

We expect the Health and Natural Sciences initiative to lead to more and greater support just like that provided by Siemens and the Decker Foundation.



An Outstanding Partner

Other significant sources of healthcare related support through competitive awards include:

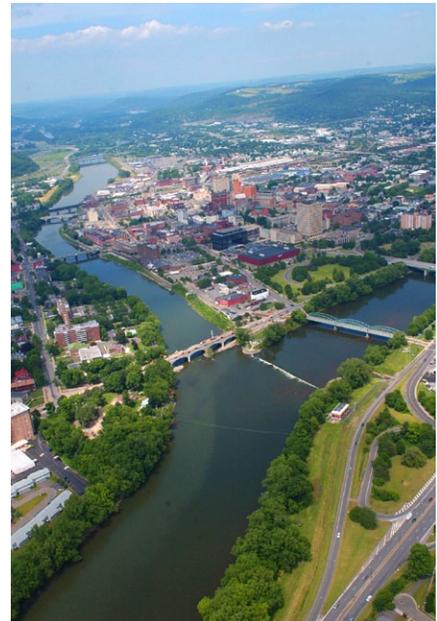
- Hope for Depression Research Foundation (HDRF)
- Michael J. Fox Foundation (MJFF; Parkinson's Disease)
- Whitehall Foundation (biomedical research)
- National Alliance for Research on Schizophrenia and Depression (NARSAD)
- Alcoholic Beverage Medical Research Foundation (ABMRF)

These and many other private foundations have invested in the scholarship and research emanating from Binghamton University. Clearly, Binghamton has had significant success in developing partnerships with industry, donors, and other organizations in order to support healthcare research and outreach. Because of this support, more than 30 percent of all university research involves some component of healthcare. Nonetheless, we see greater opportunities ahead. The NYSUNY 2020 Challenge Grant is crucial to enabling the University to allow our research partnerships to reach their full potential and will enable us to greatly improve our ability to drive economic growth and jobs for New York state.

COMMUNITY SUPPORT

Binghamton University draws upon the strength of its connection to and support from the local community, and the strategic vision that the NYSUNY 2020 Challenge Grant brings to both the University and the surrounding region is no exception. The plan's ambitious agenda for the University, the region and the state has captured the imagination of supporters and leaders from throughout the Southern Tier and from all walks of life — political, business and community — who have pledged their support for Binghamton University's plans for the NYSUNY 2020 Challenge Grant, including:

- the Broome County executive
- the Greater Binghamton Chamber of Commerce
- the Alliance for Manufacturing & Technology
- the Broome County Industrial Development Agency
- the Broome County Department of Planning & Economic Development
- Binghamton Giant Markets, Inc.
- Corporate Care Management
- Newman Development Group, LLC
- Hinman, Howard & Kattell, LLP
- M&T Bank
- As well as many others in the Southern Tier



TIMELINE

Year:	Milestones:
2011–2012	Procure capital resources Launch an aggressive, multi-year faculty hiring campaign Enter design phase for new Health and Natural Sciences building
2012–2013	First major wave of new student enrollment Complete design phase for new Health and Natural Sciences building
2013–2014	Final phase of East Campus housing project opens to accommodate new students
2014–2015	Begin construction of Health and Natural Sciences building Enrollment growth and faculty hiring continue
2015–2016	Enrollment rises to 17,000 students, each of whom are living, learning, volunteering, working and fueling economic revitalization in the Southern Tier region. 150 new faculty hired
Dec. 2016	Health and Natural Sciences building opens 1,300 new jobs in the Southern Tier and 1,600 new jobs across New York state

SUMMARY

Academic excellence has been and continues to be the signature of Binghamton University. Through the students educated, the scientists trained and the professionals shaped, more than 100,000 graduates of this 60-year-old institution bring their global vision, creative minds and entrepreneurial spirit to the workforce of New York state.

Governor Andrew Cuomo has made it clear that he expects Binghamton University and the other SUNY research universities to play a major role in revitalizing the economies of our respective communities. Binghamton University is most assuredly up to the challenge.

Not only have we proven our effectiveness in moving research and economic growth initiatives forward, both rapidly and successfully, and in providing access to a high-quality

education, but we have also established a strong track record of generating groundbreaking research and scholarship — all of which allows us to contribute substantially to the economic development of the region and the state. The expansion of research opportunities will greatly enrich the educational experience of both our undergraduate and graduate students, making them more competitive and productive as they seek jobs in the state and beyond.

SUNY can help the state succeed in this knowledge-based economy of the future and, for its part, Binghamton University is very well positioned and primed to be at the center of this vibrant, high-tech movement. All that Binghamton University needs right now are the resources and flexibility to maximize our potential.

Sources: Bureau of Economic Analysis of the U.S. Department of Commerce, U.S. Department of Labor
Methodology: Standard use of economic multipliers for New York state and the Binghamton region (including Broome and Tioga counties).