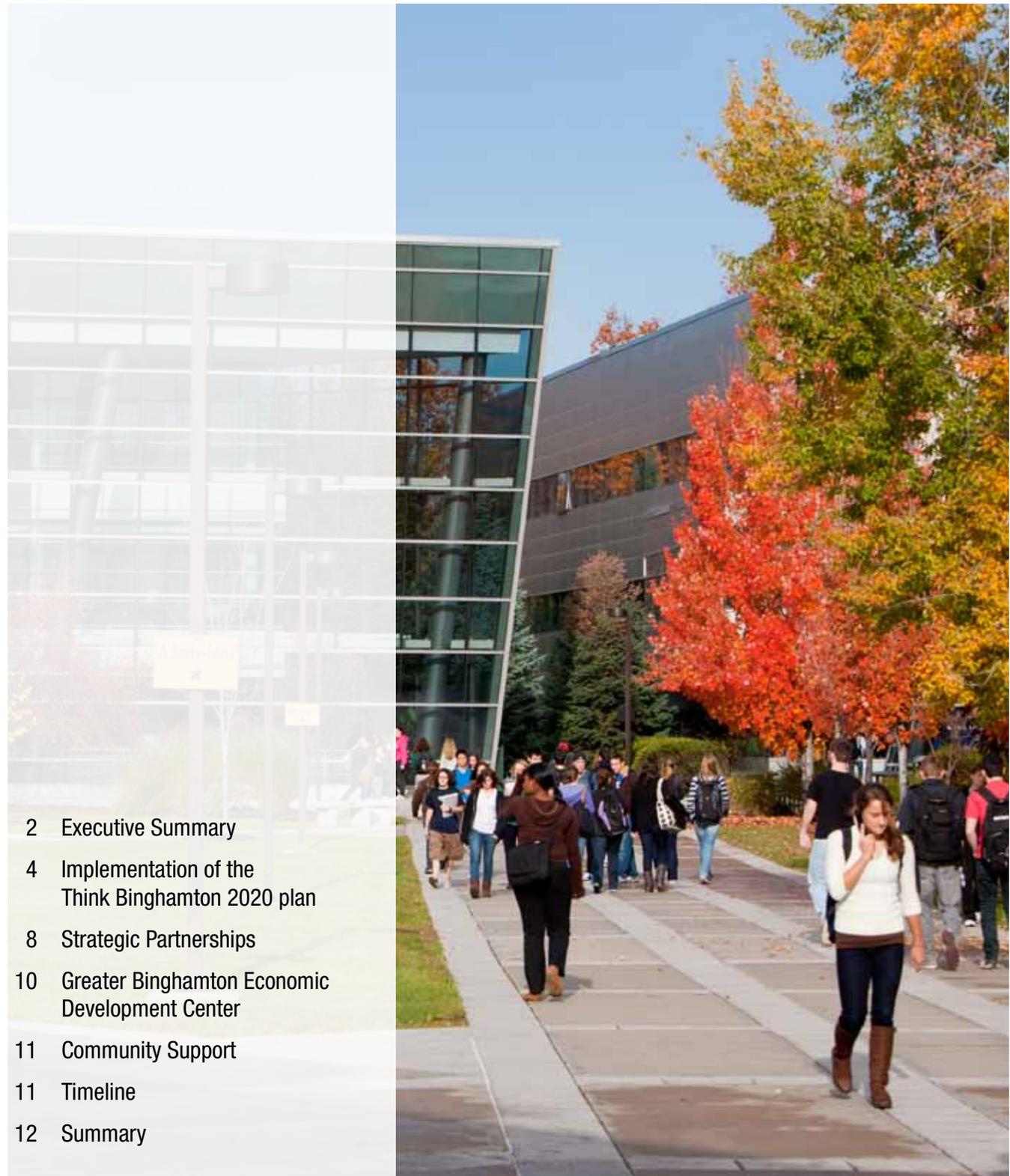


# NY SUNY 2020 Challenge Grant: Binghamton University's Economic Development Plan for New York State



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## EXECUTIVE SUMMARY

Under the Binghamton's NY SUNY 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.

In order to continue to be successful in the knowledge-based economy of the future, Binghamton University has laid out an ambitious community-oriented, community-driven agenda – the NY SUNY 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.

Under the NY SUNY 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 across the state in the next five years.

Here's what Binghamton University is looking to accomplish over the next decade:

- **Expand its academic mission to include enrollment growth of 2,000 students by 2016, with the infrastructure in place for further growth in subsequent years.** Implicit in this targeted growth plan is an **expansion of the *entire* academic** mission of Binghamton University in a carefully architected 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.
- **Construct a state-of-the-art Health and Natural Sciences Building,** which signals an intent to 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.

Not only will the NY SUNY 2020 Challenge Grant spur growth at Binghamton University, but it will also add significantly to the revitalization of the surrounding community.

- **Enrollment growth means population growth.** Three separate developers have initiated and/or accelerated plans to build student housing in downtown Binghamton, which is expected to increase downtown student-housing occupancy by at least 900 beds. With the new students will come new restaurants, shops and entertainment that will drive a massive revitalization of the communities of the Southern Tier. This goal is not just a twinkle in our eye: Binghamton currently has four new residential halls under construction and this fall opens three new residential halls and a collegiate center on campus, providing on-campus housing in its award-winning residential communities for an additional 1,200 students in the next three years alone. As a result, the combined partnership efforts of Binghamton University and private developers are already on track to provide high-quality living space at a reasonable cost, while at the same time distributing the available residential accommodations between the Vestal-based campus, downtown Binghamton and other surrounding communities. But this is just the beginning: other new development projects are already in the pipeline from other investors who are lining up to build housing, restaurants and entertainment venues for our students.

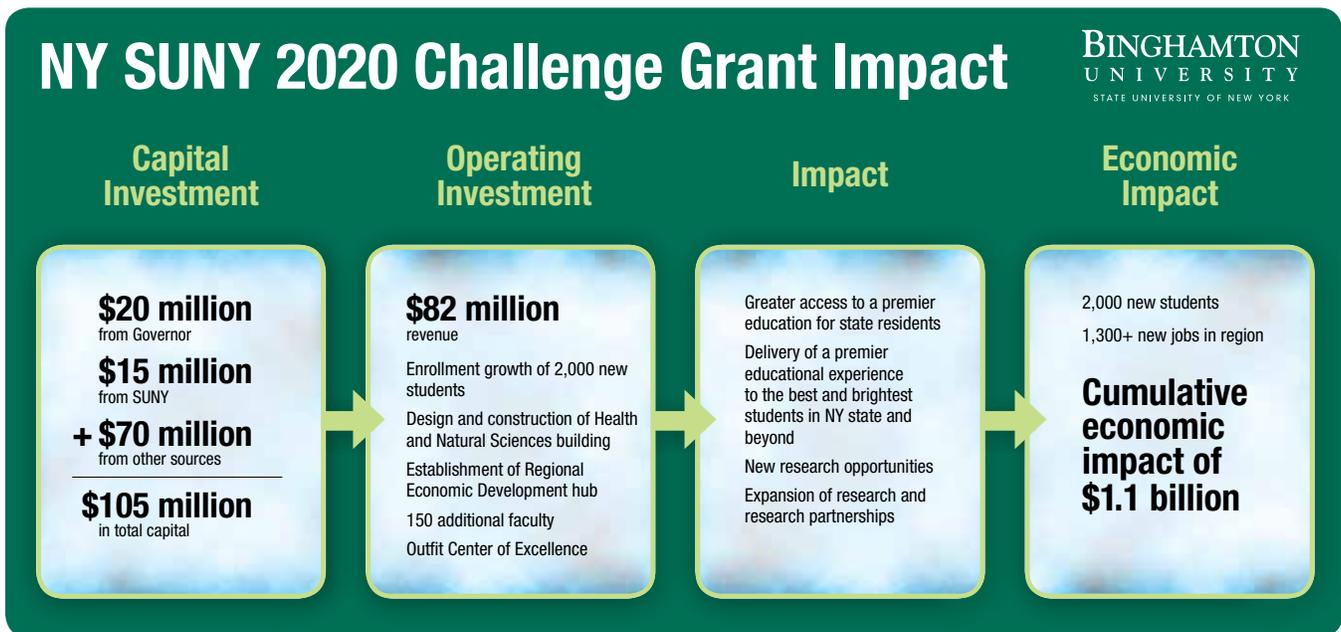
- Establishment of a joint Economic Development Center.** This center will combine several agencies and divisions in Broome County with the economic development initiatives already operating at Binghamton University and serve as a central point of contact for local businesses and aspiring entrepreneurs. This center will be housed in the heart of downtown Binghamton in order to facilitate community interactions. This streamlined and highly effective “one-stop shop” approach will bring economic development opportunities to fruition. A premier example of a public-private partnership, the new center exemplifies how Binghamton University can partner with other local agencies, both public and private, to effect positive outcomes for the community. It will make an ideal location for the Regional Economic Development Council designated for our area.

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

- Increased revenue for the SUNY campuses will enable Binghamton University, which already accounts for 11 percent of the Southern Tier’s economy and is a leading

employer in Broome County, to play an even stronger role, locally and regionally. For instance, the large number of new construction projects on our campus is making a tremendous impact — directly and indirectly — on the local community. Additionally, to keep pace with the growth of enrollment, the plan also calls for an increase in faculty and staff hiring. Approximately 1,300 new jobs will be created or sustained in the Southern Tier. Across the state, more than 1,600 new jobs will be created.

- The NY SUNY 2020 Challenge Grant will enable the University to generate an additional \$160 million annual impact on New York’s Southern Tier and an additional \$200 million annual economic impact on New York state.
- Together, the additional students and employees will generate more than \$6 million in new property taxes annually, thereby increasing the tax base without increasing the tax burden on individual taxpayers.
- Furthermore, the higher student enrollment numbers will also add \$500,000 worth of volunteer services per year to the community, bringing the total value of student volunteer hours to nearly \$4 million annually.



## IMPLEMENTATION OF THE NY SUNY 2020 CHALLENGE GRANT

The NY SUNY 2020 Challenge Grant, when fully implemented, will position Binghamton University and its partners to reinvigorate the state's economy through innovation and job creation. The first step is to implement SUNY's tuition plan that will provide an adequate and predictable revenue stream and ensure program quality and support for new initiatives. The plan also calls for an aggressive multi-phase economic development plan.

Within the SUNY system, Binghamton University is one of the most popular and highly sought after choices for students. On average, Binghamton receives more than 30,000 applications each year. But 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 NY SUNY 2020 Challenge Grant, Binghamton University will use the present tuition program as a base to enroll more students and increase faculty numbers. In addition, Binghamton will enhance program quality to accept more students and prepare them to meet the challenges that New York state is facing — and will continue to face. The current tuition plan will enable us to implement a multi-year growth strategy.

Binghamton has laid out an ambitious agenda for the NY SUNY 2020 Challenge Grant. This includes expanding enrollment by 2,000 students, of which at least 35 percent will be transfers, many from New York's own community colleges. Binghamton University will continue to draw many of New York state's brightest students, from communities ranging from Montauk to Jamestown, though 10 percent of our students will come from abroad, and we will continue to aggressively recruit the best academic talent from neighboring states. The plan will involve development of infrastructure (buildings, support staff, etc.) and establish a foundation for additional enrollment growth in the future.



The tuition program will generate an estimated \$7 million in tuition revenue for Binghamton in the first year, which by 2016 will grow to \$13.7 million in tuition revenue per year. These funds will be used to hire and support 151 additional faculty. Additionally, it will cost \$131,000 per faculty member in infrastructure support services and \$35,000 in start-up costs per faculty member per year.

Faculty hiring at Binghamton University will result in tremendous revenue and job growth for the Southern Tier through 2018, and, in the process, will generate:

- \$11 million in additional annual research grant income
- 10 new start-up companies
- 200 new research-funded jobs
- 1,300 total new jobs in the region

As part of its plan, Binghamton University will commit 25 percent of the additional tuition revenue to provide scholarships for the most economically-disadvantaged students and provide revenue for TAP support and scholarships. Together, these funds will supplement Binghamton's current aid, support programs offered by the University and ensure that all our students get the support they need to attend and succeed.

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## BINGHAMTON UNIVERSITY 2020 FUNDING PLAN

2011-2018 \$ 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
<i>Faculty Salaries</i>	\$2.2	\$2.8	\$3.1	\$3.3	\$3.6	\$15.0
<i>Support Costs</i>	\$3.6	\$4.8	\$5.2	\$5.4	\$5.6	\$24.6
<i>Start-up Costs</i>	\$0.7	\$0.9	\$0.9	\$1.1	\$1.3	\$4.9
<i>Student Assistance</i>	\$0.7	\$0.9	\$1.0	\$1.1	\$1.2	\$4.9
<i>Escalation</i>	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$2.5
Faculty FTE Growth	22	28	31	33	36	150

**The tuition program is crucial to the expansion of our academic mission.**

The tuition program is crucial to the expansion of our academic mission. By delivering substantial resources to the campus, it will allow Binghamton University to hire the faculty we need to strengthen the curriculum, thereby easing access to classes and helping us to maintain and enhance completion and 4-year graduation rates that are already among the highest in the nation.

These additional funds will vastly improve access to one of SUNY's best educations. With more than 30,000 applications for just over 3,000 seats, Binghamton is unable to adequately accommodate demand, and our ability to fully participate in SUNY mobility initiatives is similarly limited by lack of space.

Even with a higher tuition, the growth we project would actually enhance access on the Binghamton campus, where space is a more sensitive issue than price.

The additional revenue of the current tuition plan will fuel the lion's share of Binghamton's enrollment growth and enhance our ability to build the infrastructure to support enrollment growth, especially in the hiring of faculty and staff. Thus, tuition will provide a necessary source of revenue — and ultimately job growth in our region — to energize the Health and Natural Sciences Building, educate 2,000 more students and rebuild the state economy.

**For every \$1 the state invests in Binghamton University, more than \$7 is returned to the Southern Tier.**

### Launching a Health and Natural Science Research and Instructional Facility

As part of the five-year strategy laid out in the NY SUNY 2020 Challenge Grant, Binghamton University will launch a state-of-the-art health and natural sciences facility.

This 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. In addition to being able to catalyze interactions between Binghamton University researchers and local industry, the facility is expected to:

- enhance industrial and academic partnerships.
- provide incubation space for 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.

- result in a regional economic impact of additional faculty, staff and students that would surpass \$12.3 million per year. In addition, during the construction phase, the facility will also provide \$40 million in annual economic impact and support more than 300 jobs in the region.
- establish Binghamton University, the region and New York state as the center for research on healthcare innovations.

In addition, for every \$1 the state invests in Binghamton University, more than \$7 is returned to the Southern Tier, making New York's continued investment in Binghamton University and the health and natural sciences facility one of the best investments in the overall economy of the region. Each new researcher attracts a minimum of 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.

This new facility will provide state-of-the-art laboratory space in which exciting new collaborations can take root and capitalize on research at the intersection of natural and life sciences and technology. The \$154 million, five-story building will become the gateway to Binghamton University's Innovative Technologies Complex, joining facilities focused on biotechnology, electronics packaging, and engineering and science.

*For a flyover video of the architect's rendering of the project, please visit [go.binghamton.edu/flyover](http://go.binghamton.edu/flyover).*



Covering 260,000 square feet of combined research and instructional space, the health and natural sciences facility includes more than 150,000 net square feet (NSF), which will be used to showcase the University's interdisciplinary teams of research faculty. In addition to housing research and instructional space in a synergistic arrangement, the new facility will provide opportunities for faculty to highlight their research to undergraduate students as well as introduce those same students to high-level graduate research.

Featuring in-house design, planning and construction management, 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, and graduate student areas along with associated research, instructional departmental

support staff and food service to support the entire ITC. It will provide 40 percent of NSF (65,000 NSF) in state-of-the-art instructional space for the campus to meet current and future programmatic needs.

The University will provide \$15 million from its \$35 million capital program to outfit the New York State Center of Excellence, which is currently under construction as part of the ITC, and to purchase research instrumentation which will enable the exploration of a broad range of topics at the intersection of the healthcare sciences and technology in areas including chemistry, biochemistry, physics, health and life sciences technologies, psychology, advanced materials and sensor technologies, computing and systems research.

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 life 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. 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](http://go.binghamton.edu/flyover).



## Capital Plan

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:

<b>Capital</b>	
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
<b>Total . . . . .</b>	<b>\$105 million</b>

## STRATEGIC PARTNERSHIPS

**Binghamton University is perfectly positioned to take a major leap forward by virtue of the revenue and opportunities that would be made accessible through NY SUNY 2020.**

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

Binghamton University is perfectly positioned to take a major leap forward by virtue of the revenue and opportunities that would be made accessible through NY SUNY 2020. Working with the other SUNY campuses and with the resources and capability provided through NY SUNY 2020, Binghamton University will be a leader in the governor's Economic Council proposal. We are well positioned to be the catalyst for action in the region, as well as in other areas of New York state.

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.

Key to Binghamton University's research growth is its New York State Center of Excellence in Small Scale Systems Integration and Packaging (S<sup>3</sup>IP), which conducts high-impact research that supports the translation of economically significant microelectronic innovations to United States industry. S<sup>3</sup>IP 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, precompetitive 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.

Through S<sup>3</sup>IP, the University is able to work closely on cutting-edge research related to electronic systems integration and packaging, with many national and global partners, including:

- Analog Devices International
- Texas Instruments
- Microsoft
- Intel
- Samsung
- Xerox
- AMD
- ASE

By providing private industry access to world-class, high-tech infrastructure, S<sup>3</sup>IP 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.

Other notable research initiatives include:

- Binghamton University collaborates with Endicott Interconnect Technologies, through the University's Center for Advanced Microelectronics Manufacturing, to move research into production.
- Binghamton University 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.
- Binghamton University and the University of Buffalo are founding partners 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 marketing opportunities.
- Binghamton University last year established BCET (a nonprofit entity related to the Research Foundation), which will provide the infrastructure for quick development of industry partnerships.

The University has strong partnerships in the Southern Tier and New York state, including with:

- IBM
- General Electric
- Lockheed Martin
- BAE
- Corning
- Kodak

In addition to these full partners, 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.

These relationships, and many others, benefit the local community since they enable partnerships between these companies and those located in the Southern Tier and across the state.

Binghamton University encourages minority participation in the procurement process and will implement a remedial outreach program to ensure that minority- and woman-owned businesses participate fully in the purchasing process for commodities and services. The University's intent is to increase certified minority/woman business (C/MWBE) participation by encouraging campus support for such enterprises. The University will work to provide for the entry of new and diversified C/MWBE into our marketplace and to develop procedures to identify commodities, contractual services and other related services that could be provided by these firms to attain our goals. Additionally, we will adopt a tracking process by which C/MWBE business enterprises are not rejected as unqualified without sound rational reasons based upon a thorough investigative process.

Our objective is to adopt rules and do all things necessary and convenient to guide Binghamton University's departments toward making procurements and expenditures for commodities, contractual services, construction and construction-related services with certified minority/woman business enterprises in accordance with SUNY C/MWBE goals.

In all our endeavors and partnerships, Binghamton University is committed to transparency. All partnerships that Binghamton University develops, both currently and in the future, do and will conform to both the spirit and letter of existing New York state statutes related to conflict of interest.

Many opportunities for partnership, however, have had to be cut short because of lack of funding. The resources and flexibility articulated in NYSUNY2020 will greatly improve Binghamton's ability to take advantage of these opportunities and drive true economic growth and jobs for New York state.

## SOUTHERN TIER ECONOMIC DEVELOPMENT CENTER

**Binghamton's plans for the NY SUNY 2020 Challenge Grant also include \$2 million to support a new regional economic development center to be housed in downtown Binghamton.**

Binghamton's plans for the NY SUNY 2020 Challenge Grant also include \$2 million to support a new regional economic development center to be housed in downtown Binghamton. This facility will provide economic development resources and expertise for businesses and organizations throughout the Southern Tier and the I-81 and I-86 corridors.

The center will join University initiatives such as the Small Business Development Center (SBDC), the Trade Adjustment Administration Center (TAAC) and the Strategic Partnership for Industrial Resurgence (SPIR), with a broad range of regional resources, including the Greater Binghamton Chamber, the Broome County IDA, the nine-county Alliance for Manufacturing and Technology, along with entrepreneurship programs in local and regional high schools, Broome Community College and Binghamton University, in a unprecedented regional collaboration that will be located under one roof. In addition, the center will draw on the resources and expertise offered through the University's Office of Entrepreneurship and Innovation Partnerships, which already provides the community with opportunities for technology transfer as well as access to Binghamton faculty and students in specific technology areas.

The new center will be able to shepherd businesses from the Southern Tier as well as from New York state as they navigate through the different needs they face during the various stages of growth. By being located in downtown Binghamton, this centrally situated economic development "hub" will be easily accessible to the community and to the gamut of resources available through Binghamton University.

New York's Southern Tier has a long tradition of innovation and creativity and the new regional economic development center will build on this tradition by bringing University researchers and entrepreneurs together to develop strategies for speeding good ideas and products to market. The synergy created in the community with the addition of the Southern Tier Economic Development Center will make

it an ideal choice as the home of the governor's new Regional Council.

The center will:

- offer short programs on product development, market development, marketing, venture funding, state and federal loans, and grants.
- feature a variety of flexible incubator spaces to nurture new ventures and help them get to the next level. Entrepreneurs in the incubator will be able to take advantage of the full range of expertise available in the center.
- incorporate a new mentoring program that will connect business leaders in the region to budding entrepreneurs and companies seeking to expand or relocate to the region, while offering them access to a range of available incentives under one roof.

This exciting new space will be an anchor in the redevelopment of downtown Binghamton. It will create new opportunities for University faculty, students, economic developers and citizens to work together on a new vision for the future of the region. This vision will incorporate increasing access to venture funding and stronger partnerships with New York City and Philadelphia, and will help develop new initiatives with companies in the Toronto/Montreal corridor in Canada. The Southern Tier's central location and affordability make it the perfect location for the businesses of tomorrow.



## COMMUNITY SUPPORT

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Since its very beginning, Binghamton University has been able to draw upon the strength of its connection to and support from the local community, and the strategic vision that the NY SUNY 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 NY SUNY 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

## TIMELINE

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<b>Year:</b>	<b>Milestones:</b>
2011–2012 . . . . .	Procure capital resources Launch an aggressive, multi-year faculty hiring campaign Enter design phase for new Health and Natural Sciences Building Consolidate economic development efforts at the Southern Tier Economic Development Center
2012–2013 . . . . .	First major wave of new student enrollment Downtown housing projects completed by private developers Complete design phase for new Health and Natural Sciences Building
2013–2014 . . . . .	Center of Excellence opens 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 with an average salary of \$131,000
2016–2017 . . . . .	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-young institution bring their global vision, creative minds and entrepreneurial spirit to the workforce of New York state.

Gov. 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.

