STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of Binghamton University for a Declaratory Ruling Waiving or Modifying the Eligibility Criteria for Economic Development Programs Implemented By New York State Electric & Gas Corporation	Case ll-E-

PETITION OF BINGHAMTON UNIVERSITY FOR A DECLARATORY RULING

INTRODUCTION

Binghamton University hereby petitions the New York State Public Service Commission ("Commission"), pursuant to Section 8.1 of the Commission's Rilles and Regulations, 16 N.Y.CRR. § 8.1, for a declaratory ru1ing waiving or modifying the eligibility criteria for the economic development programs administered by New York State Electric & Gas Corporation ("NYSEG") to allow Binghamton University, and other colleges and universities, to participate therein. As detailed below, NYSEG currently considers Binghamton University to be ineligible to participate in the utility's economic development programs.

A. Description of Binghamton University

Binghamton University is a University Center and Doctoral Granting Institution of the State University of New York. Founded over 60 years ago, Binghamton University is a highly-ranked university with approximately 11,700 undergraduate students and 3,000 graduate students. The University's main campus, located in Vestal, New York, is spread over 930 acres near the Susquehanna River. In addition to its academic prowess, Binghamton University is a nationally-recognized research institution with one of the two fastest-growing research programs in New York State.[1]

B. Binghamton University's Role and Contributions in Economic Development Activities

Binghamton University has a substantial, positive impact on the State and local economies. For instance, as detailed **in** a report analyzing the economic impact of Binghamton University during its 2007-08 Fiscal Year ("FY"):

- Binghamton University, its students and its visitors expended $463 million in Broome and Tioga counties in FY 2007-08. The total impact of this spending on economic output in the region was $750 million. The total impact on economic output in New York State was $1 billion.

- Binghamton University's impact on output in the region during FY 2007-08 constituted an estimated 11% of the Gross Domestic Product of Broome and Tioga counties.

- At the time of the report, Binghamton University employed 5,169 full- and part-time employees. **In** Broome and Tioga counties, Binghamton University was responsible for an additional 3,744 secondary jobs. This total of 8,913 jobs means that Binghamton University was responsible for approximately 8% of all jobs in Broome and Tioga counties. Statewide, Binghamton University supported approximately 11,000 jobs.

- For every dollar that New York State invested in Binghamton University, more than six dollars were returned to the economies of Broome and Tioga counties.

A copy of the report, entitled, "The Economic Impact of Binghamton University (FY 2007-08)," is annexed to this Petition as Exhibit A.

Economic development is an important priority for Binghamton University. On its website, Binghamton University indicates that:

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[1] See generally www.binghamton.edu (providing additional background information pertaining to Binghamton University).

> The University's goal is to make information available to economic development professionals and local government representatives regarding economic development activities and issues engaged in by the University. The Office of Economic Development will provide information, technical assistance and problem-solving services to facilitate the implementation of economic development plans and programs in the region. The Office of Economic Development identifies economic development opportunities based on [Binghamton University]'s research, working with companies to determine potential collaborations, attracting funding for economic development initiatives and improving the overall economy of the region.[2]

Binghamton University's focus on research also fuels economic development activities in the region. For instance, the University recently launched construction of its New York State Center of Excellence in Small Scale Systems Integration and Packaging ("S3IP") building. The new $30 million, 114,000-square-foot building will (i) provide space for expansion and consolidation of S3IP and its interdisciplinary, inter-institutional teams of scientists and engineers, (ii) help bridge critical scientific, technology, commercialization and education gaps, and (iii) support partnerships in energy-efficient electronic systems, systems integration and packaging, flexible electronics, autonomous solar power, advanced materials and sensors, and health care/life sciences. The new building is expected to provide approximately $15.9 million in economic impacts annually, and support more than 180 jobs in the region during construction.[3] Importantly, the S3IP building is one of many research initiatives undertaken by Binghamton University this decade that provide substantial economic benefits.

The recent and potential future expansion of Binghamton University – related primarily to growing research and academic activities - has created a pressing need to upgrade the electric-related infrastructure and equipment used for the provision of electric service to the

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2 See http://research.binghamton.edu/EconomicDevelopment.

3 See http://www2.binghamton.edu/news/news-releases/news-release.html?id=1062.

campus. As explained below, Binghamton University has attempted to participate in NYSEG's economic development programs as a means of obtaining much-needed funding to address this pressing need, only to discover that colleges and universities currently are considered ineligible to participate in the programs.

C. Description of Binghamton University's Potential Projects

Binghamton University seeks financial assistance, pursuant to NYSEG's economic development programs, to offset some of the substantial costs of electric-related infrastructure and/or equipment improvements that are necessary to facilitate continued expansion on campus, particularly with respect to research facilities.[4] The growth of research activities at Binghamton University is expected to contribute to substantial electric load growth.

As a result of Binghamton University's success in attracting top researchers and research grants, electric load on campus is growing. For instance, an incremental 4.2 MW of demand is expected to be added during the Surnmer/Fall of 2011, as five new buildings become inhabitable. Additionally, another 2.8 MW of demand is expected to be added during the Surnmer/Fall of 2013, as four more buildings are constructed. Thus, there is approximately 7 MW of new electric load scheduled to be added between now and mid-2013. Importantly, major investments in the electric infrastructure serving Binghamton University is needed to accommodate planned and potential future load growth on campus.[s]

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[4] This Petition addresses Binghamton University's ability to participate in NYSEG's economic development programs, and does not seek a ruling from the Commission regarding any specific request for funding thereunder.

[5] Examples of new research facilities being developed at Binghamton University include the following: (a) the Science V building, targeted for completion in December, 2011, will add 78,000 square feet of neuroscience research laboratories, a vivarium, and other testing support spaces; (b) the Engineering & Science building, completed in January, 2011, adds 130,900 square feet of research space in the Innovative Technologies Complex ("ITC"); (c) a Center of

Binghamton University's need to improve the electric-related infrastructure and equipment that serve the campus relates directly to the expansion of the University, which will provide substantial benefits to the State and local economics. In addition to the creation of numerous jobs related to the construction of nine buildings between now and mid-2013, there will be permanent positions created at the new buildings, including high-tech researchers, faculty positions, maintenance technicians and custodial staff. Some of the planned new buildings also will host additional housing capacity (1,000 or more beds), which will further boost the local economy. Circumstances permitting, Binghamton University expects to invest approximately $300 million over ten years on new buildings, not including an additional $4.5 million investment in a new electrical substation.

Importantly, for Binghamton University to continue to have success attracting and retaining researchers and research grants, the electric infrastructure and service reliability on campus must be as strong as possible. Even temporary interruptions in electric service can jeopardize hundreds - if not thousands - of hours of research and cause critical data to be lost. Such events impair Binghamton University's ability to attract and retain top-flight researchers and research grants. Accordingly, it is essential that the electric infrastructure serving the campus support and facilitate - rather than frustrate - ongoing economic development efforts.

Significantly, however, Binghamton University's ability to fund all of the necessary investments in electric-related infrastructure and equipment is limited, particularly

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Excellence building, targeted for completion in early 2013, also will be located in the ITC and will add 114,000 square feet of research space for, inter alia, Binghamton University's solar technology research program; and (d) ITC Buildings 4 and 5, which Binghamton University plans to complete prior to 2020, each are expected to add over 100,000 square feet of research facilities. Each of the five buildings is expected to result in the consumption of millions of kilowatt-hours of electricity annually and the creation of numerous full-time, part-time and temporary jobs.

given current economic circumstances. Therefore, it is essential that Binghamton University at least have an opportunity to participate in NYSEG's economic development programs. At the appropriate time, Binghamton University is prepared to justify to NYSEG the merit of any project for which it seeks funding under the utility's economic development programs.

D. Description of NYSEG's Economic Development Programs

NYSEG currently administers at least two economic development programs that seemingly would - or should - encompass improvements to the electric-related infrastructure and equipment that serves Binghamton University's campus. A summary compiled by NYSEG of its existing electric economic development programs is annexed to this Petition as Exhibit B.

First, NYSEG administers the Capital Investment Incentive program. This program provides "up to $300,000 per project for capital investments of $1 million or greater to fund electric-related improvements on equipment either owned by NYSEG or the customer." (Ex. B.) In this case, current and potential future improvements by Binghamton University – including but not limited to installation of a new electrical substation and work related to expanding research facilities - exceed the requisite $1 million threshold. Binghamton University also asserts that it is able to satisfy the other requirements of the program (see id.), with one exception addressed below.

Second, NYSEG administers the Utility Infrastructure Investment program. This program provides "up to $400,000 per project for new electric-related infrastructure improvements on either NYSEG-owned or customer-owned ... equipment involving existing or prospective customers ...." (Id.) Similar to the Capital Investment Incentive program, Binghamton University asserts that it is able to satisfy the other requirements of the Utility Infrastructure Investment program with one exception.

As designed currently, NYSEG's economic development programs appear to exclude colleges and universities. For instance, the Capital Investment Incentive program contains the following eligibility criteria:

> Business use must be classified under the following industries: agriculture, forestry, fishing, mining, manufacturing, wholesale trade durable goods, wholesale trade non-durable goods, finance, insurance, real estate and business services.

(Id.) Eligibility for the Utility Infrastructure Investment program similarly is limited to the following industries: "manufacturing, wholesale trade durable goods, wholesale trade non-durable goods, finance, insurance and real estate or business services." (Id.)

Based on this eligibility criteria, NYSEG has advised Binghamton University that it currently is ineligible to participate in the utility's economic development programs, thereby necessitating the filing of this Petition. As detailed below, Binghamton University seeks: (a) a waiver of the eligibility criteria for NYSEG's economic development programs so that it can participate therein; and/or (b) modification of such criteria to include, explicitly, colleges and universities.

ARGUMENT

BINGHAMTON UNIVERSITY – AND COLLEGES AND UNIVERSITIES IN GENERAL - SHOULD BE ELIGIBLE TO PARTICIPATE IN NYSEG'S ECONOMIC DEVELOPMENT PROGRAMS

For numerous reasons detailed below, Binghamton University, and colleges and universities in general, should have the ability to propose projects and participate in NYSEG's economic development programs. In response to this Petition, the Commission should grant Binghamton University a waiver from the eligibility criteria for NYSEG's economic development programs and/or modify such criteria to allow for participation by colleges and universities.

Initially, it is worth noting that, similar to other customers, Binghamton University helps fund NYSEG's economic development programs through the electric delivery rates that it pays to the utility. To the extent Binghamton University (i) funds NYSEG's economic development programs, (ii) contributes significantly to economic development efforts within the utility's service territory, and (iii) requires assistance to help fund additional activities that would benefit the region's economy, it should be deemed eligible to participate in NYSEG's economic development programs.

Second, there can be no real dispute that Binghamton University plays a substantial, positive role in the State and local economies. As detailed above, in FY 2007-08, Binghamton University: (a) was responsible for $463 million in expenditures in Broome and Tioga counties; (b) had an impact of $750 million on economic output in the region; (c) had a total impact of $1 billion on economic output in New York State; (d) had an economic impact that constituted an estimated 11% of the Gross Domestic Product of Broome and Tioga counties; (e) had 5,169 full- and part-time employees and was responsible for an additional 3,744 secondary jobs (collectively, approximately 8% of all jobs in Broome and Tioga counties); and (f) returned more than six dollars to the economies of Broome and Tioga counties for every dollar of New York State investment. (See Ex. A.)

Third, colleges and universities in general have a substantial impact on New York State's economic health. In September, 2010, Thomas P. DiNapoli, New York State Comptroller, issued a report entitled, "The Economic Impact of Higher Education in New York State," a copy of which is armexed to this Petition as Exhibit C. As demonstrated by

Comptroller DiNapoli's report, higher education institutions, such as Binghamton University, playa vital and positive role in the State and local economies. Accordingly, it is inappropriate and unjustifiable for colleges and universities to be excluded from participating in NYSEG's economic development programs.

Some of the key findings of "The Economic Impact of Higher Education in New York State" include the following:

- "New York's higher education institutions employed 266,110 people in 2009. New York had the third-largest higher education sector among the 50 states ...."

- "The State Comptroller estimates that in 2009, college and student spending directly and indirectly provided 495,100 jobs and generated $62.2 billion of economic activity in the State."

- "The [higher education] sector has grown rapidly during both good and bad economic times, and has continued to expand during the current **recession."**

- "New York's colleges and universities spent more than $4 billion on science and engineering research - nearly 8 percent of such spending in the nation."

- "New York State provides support to research centers at higher education institutions around the State to help make New York a national leader in high-tech academic research and economic growth."

- "Higher education institutions contribute to the quality of life in their communities .... In many parts of the State, these schools account for a significant portion oflocal economic activity."

- "Higher education institutions also act as catalysts for economic growth."

- "In many counties of New York - primarily upstate - higher education accounted for a much larger share of local employment than it did statewide ...."

- "Higher education plays a significant role in revitalizing and diversifying New York's economy."

- "In FY 2008, there were 12 higher education institutions in New York that each spent more than $50 million on science and engineering research …." Binghamton University was one of those institutions.

(See Ex. C.)

Based on Comptroller DiNapoli's report, it is clear that colleges and universities contribute significantly, and overwhelmingly positively, to the State and local economies. If anything, such contributions – and the State's reliance thereon – have grown during the current economic recession. Under such circumstances, it is counterproductive to exclude colleges and universities from participating in NYSEG's economic development programs. Indeed, Binghamton University is aware that upstate colleges and universities in other utility service territories are eligible for, and have received funding under, their utilities' economic development programs. This inexplicable inconsistency should be remedied by granting Binghamton University a waiver to participate in NYSEG's economic development programs and/or modifying the programs' eligibility criteria to include colleges and universities. Upon information and belief, colleges and universities play just as important a role in the State and local economies – if not a more important role – than some of the industries included explicitly in the eligibility criteria for NYSEG's economic development programs.[6]

To NYSEG's credit, it previously has sought to include colleges and universities in the eligibility criteria for at least one of its economic development programs. In a letter dated August 21, 2007 and addressed to John Calcagni, then Chief Business Advocate at the New York State Department of Public Service, NYSEG requested that the eligibility criteria for its Capital

6 In advancing such a comparison, Binghamton University is not questioning the inclusion of any particular industry in the eligibility criteria for NYSEG's economic development programs, but, rather, is challenging the merit of excluding colleges and universities from participating in those programs, especially given the findings in Comptroller DiNapoli's report.

Investment Incentive program be expanded to include colleges and universities, as well as medical hospitals and laboratories. A copy of the NYSEG's August 21, 2007 letter is annexed to this Petition as Exhibit D.

In justifying the proposed expansion of its Capital Investment Incentive program to include, inter alia, colleges and universities, NYSEG stated that:

> NYSEG is requesting the [changes to the program eligibility criteria], in part, because of its need to be able to adapt to the evolving economic circumstances faced by the region and to provide the flexibility to better promote economic development by attracting desirable projects.

(See Ex. D.) NYSEG also asserted that: "New York State's investment in higher education through innovative technological advancements, research and development and its commercialization into the business sector, is well recognized across the United States." (Id.) Finally, the utility noted that: "Across New York State, there is a variety of research at major universities already underway including: medical imagining, biomedical sciences, biotechnology, and life sciences." (Id.)

To Binghamton University's knowledge, no formal response was issued to NYSEG's August 21, 2007 letter. While NYSEG's arguments for including colleges and universities in at least one of its economic development programs had merit in 2007, the case for such inclusion even is stronger in 2011, as the State continues to experience a very difficult economic climate. As evidenced by the report on Binghamton University's financial impacts, as well as Comptroller DiNapoli's more recent report on the economic impact of higher education institutions in general, the importance of colleges and universities to the State and local economies is undeniably strong and positive, and seemingly has grown during the recession. (See generally Exs. A, C.) Upon information and belief, NYSEG continues to support the proposed inclusion of colleges and universities in the eligibility criteria for at least some of its economic development programs.

Accordingly, Binghamton University's Petition seeking a declaratory ruling should be granted. Binghamton University and/or all colleges and universities in the NYSEG service territory should be allowed to participate in the utility's economic development programs. While NYSEG should base its decisions on which projects to fund based on the merit of the projects proposed, colleges and universities should not be precluded from participating in the programs.

CONCLUSION

For all the foregoing reasons, Binghamton University urges the Commission to issue a declaratory ruling: (a) granting Binghamton University a waiver to participate in NYSEG's economic development programs; and/or (b) modifying the eligibility criteria for NYSEG's economic development programs to include participation by colleges and universities.

Dated: February 8, 2011
Albany, New York

Respectfully submitted,

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EXHIBIT A

BINGHAMTON UNIVERSITY
OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

February 2009

The Economic Impact of Binghamton University (FY2007-08)

EXECUTIVE SUMMARY

Binghamton University impacts the economies of Broome and Tioga county regions in many ways, such as through the impact of its own and others' spending, the creation of jobs, and the generation of human capital. Some relevant facts include:

- Binghamton University, its students, and its visitors expended $463 million in Broome and Tioga counties in FY2007-08. The total impact of this spending on economic output in the region was approximately $750 million. The total impact on economic output on New York State was over $1 billion;
- Binghamton University's impact on output in the region constituted an estimated 11% of the GDP in Broome and Tioga counties;
- Binghamton University employs 5,169 full and part time employees, through faculty and staff positions, and through the employment of federal work study students, student workers, and auxiliary employees. In Broome and Tioga counties, the university was responsible for an additional 3,744 secondary jobs. This grand total of 8,913 in the region means that the university was responsible for 8% of all jobs in Broome & Tioga counties;
- Binghamton University supported approximately 11,000 jobs in all of New York State;
- For every $1 the State of New York invests in Binghamton University, more than $6 were returned to the economies of Broome and Tioga counties;
- Volunteer and community services performed by Binghamton University students in the Greater Binghamton area are valued at more than $7.8 million;
- Binghamton University faculty, students, and staff paid over $24 million in property taxes in FY2007-08;
- Binghamton University students spent an estimated $77 million in the region during FY2007-08;
- Binghamton University alumni generated more than $133 million in state property and sales taxes during FY2007-08;

The university's continued investment in human capital also demonstrates great promise for the region in the form of research and outreach to the Broome and Tioga county communities. Further cuts in state support will adversely affect economic growth and employment in the region.

INTRODUCTION

Overview-Binghamton University

Binghamton University began in 1946 at Triple Cities College, which was founded to serve the needs of veterans returning from World War Two. Originally located in nearby Endicott, the University was renamed Harpur College in 1950 when it became part of the State University of New York system, and relocated to its current location in Vestal, after which it was designated as the State University of New York at Binghamton.

In a little over 60 years, the student body of Binghamton University has grown substantially, from a few thousand to more than fourteen thousand students. 84% of students attending Binghamton were in the top 25% of their high school class, more than 90% return to campus after their first year of study, 10% of all students come from outside the United States, and the remaining students come from all states in the United States.

The University continues to be ranked highly among its peers. In 2009, Binghamton University was ranked #1 as best value among the nation's public colleges for out-of-state colleges, #7 overall in *Kiplinger's Personal Finance, 16th* **in** *Forbes Magazine* among all public universities, and the 8th most selective public university, according to the 2008 *US News and World Report* (please see http://www2.binghamton.edu/features/premier) for a full listing of our rankings.

Binghamton University contains six academic units-the Harpur College of Arts and Sciences, Watson School of Applied Science & Engineering, the School of Education, the Decker School of Nursing, the School of Management, and the College of Community and Public Affairs. All of these units offer programs of study that enable students to engage in their communities of interest, make discoveries, and advance their educational and personal goals in ways that are meaningful to them and which impact the world around them. Our mission and vision statements are as follows:

Binghamton University is a premier public university dedicated to enriching the lives of people in the region, nation and world through discovery and education and to being enriched by its engagement in those communities.

Our mission as a premier public university is to enrich the lives of people in the region, nation and world through discovery, education and engagement. The four overarching strategies below are designed to advance this mission. Pursuing the following actions will preserve the University's heritage, broaden its range of influence, enhance its visibility and acclaim, and ensure its vibrancy and vitality.

- *Invest in academic excellence, innovation, growth, and diversification*
- *Enhance engagement and outreach*
- *Create an adaptive infrastructure to support our mission*
- *Foster a campus culture of diversity, respect and success*

In order to fulfill its mission and vision, the university includes a number of residential learning communities that enhance student engagement and learning, and which enable students to gain access to well-trained and renowned faculty. Faculty masters have their offices at these different learning communities, enabling students to have access to faculty in their own living spaces. On many occasions, students are able to take linked classes (e.g., a combination of two courses that unite both the social sciences and humanities). The recent opening of the University Downtown Center, in downtown Binghamton (and three miles from the main campus) also enables the university to enrich communities outside of its main campus, and to help students gain access to community resources in programs such as social work and public administration. Recent results from the 2008 National Survey of Student Engagement (NSSE), a survey in which hundreds of institutions participate, show that first-year and senior Binghamton University students of different races and ethnicities converse with one another to a significantly higher degree than students at Binghamton's peer institutions, an indication of the university's commitment to engaging everyone within a community of learning.

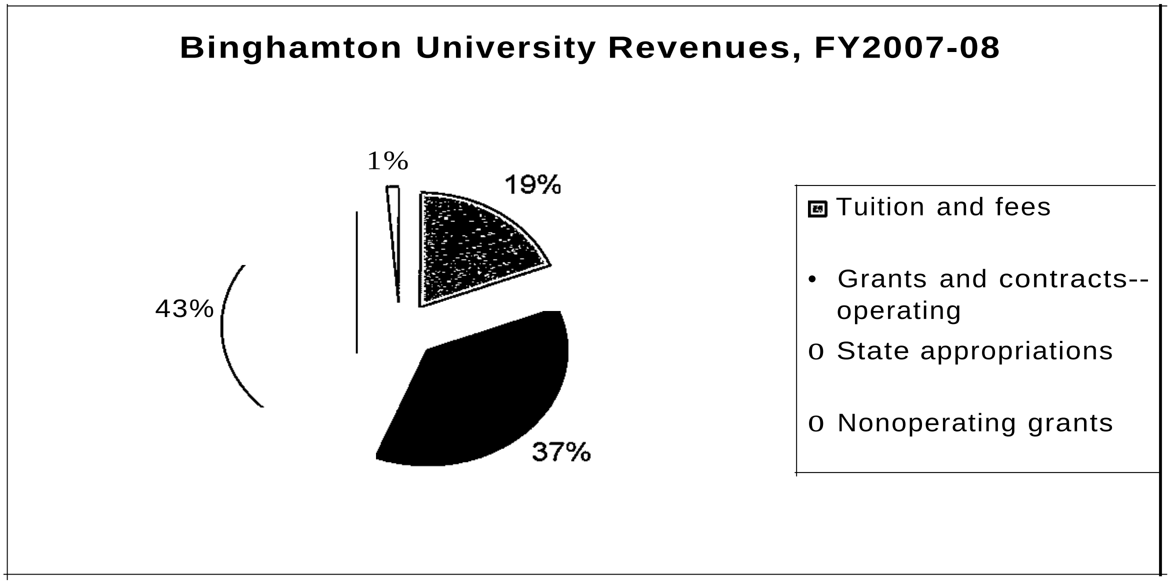
Some additional facts about what students achieve as a result of a Binghamton University education include:

- 40% of students graduatin¥ from Binghamton attend graduate school after they receive their baccalaureate degree
- 50% seek employment after graduation[2]
- 83% of Binghamton University's senior applicants were accepted into law school, compared to 71% nationally.[3]
- 63% of Binghamton University medical school applicants were accepted in medical school, compared to 48% nationally4

Revenues

Binghamton University received well over $300 million in revenue during FY2007-2008, the majority of which (57%) came from non-state appropriations as shown in the chart below:

1 **http://oirp.binghamton.edu, under the tab, "College Portrait"**
2 Ibid.
3 http://www2.binghamton.edu/news/inside/news.html?issue=2008feb07&id=1
4 http://www.binghamton.edu/home/academic/prehealth.html



Still, as the above pie chart indicates, the university relies a good deal on state appropriations to assist students in their educational pursuits, faculty in their research efforts, and staff to reach out to the Broome and Tioga county communities. The Binghamton University Downtown Center supports programs such as the Center for Applied Community Research and Development (CACRD), which brings partners together to engage in high-quality, collaborative community-based research to enhance localized community development and economic improvement. The Decker School of Nursing supports nursing clinics to help deliver health care to patients in the outside community. Thus, the 43% appropriation from the state helps the university fulfill its mission and vision to enrich the lives of people in the region, helps students and faculty engage in these communities, and enables the university to positively impact the Tioga and Broome economies by enhancing economic growth and creating jobs, as the following sections demonstrate.

Purpose **of this Document**

Well-recognized as the "premier public university in the Northeast," Binghamton University serves not only its students, but also the wider Binghamton Metropolitan Service Area (MSA) by serving as a source of income and growth. Currently, the university employs over 5,000 full-time and part-time employees (this includes auxiliary employees not directly paid by the State University of New York), who spend more than $128 million dollars in their disposable income (after taxes and benefits) in the local and regional economies.[S] The purpose of this white paper is to document and explain direct and indirect impacts that Binghamton University has on the

s Information supplied by Binghamton University's Office of Auxiliary Services and Office of Institutional Research & Planning. In determining spending for the above categories, we took the total FTE for Binghamton University and BU-affiliated employees, and divided it into the total disposable income. We assume that most **employee expenditures are spent in Broome and Tioga counties; the percentages are based on the Bureau** of Labor Statistics Consumer Expenditure Survey (http://www.bls.gov/cex)--the latest survey collection period was 2004-**2005. Other universities have used the measure as well--see Stanford University's Economic Impact Study available in Binghamton's Office of Institutional Research & Planning**

[redacted]

Binghamton area and New York state economies, and is organized in the following ways[6]. First, we present total relevant revenues and expenditures associated with the university, and demonstrate the total direct impact (defined as initial expenditures received and spent by the university). Second, we present total indirect impacts, which include student and visitor spending. Third, we demonstrate the total impact that such spending has on Broome and Tioga counties and New York State, including the university's impact on jobs in the region and state. Fourth, we estimate Binghamton University's impact on human capital in the region. We then conclude with identifying some of the implications of this impact for the future of these communities and Binghamton University in general.

A few notes about the methodologies employed in this report are warranted. For the most part, all figures supplied by this reports have been carefully sourced in footnotes found throughout the report. In some cases, we provide estimates-especially with regard to visitor and student spending-but we use conservative estimates for each of these. In all cases, the data supplied by this report are provided by divisions and offices within Binghamton University, but are sourced carefully. We have consulted with various offices within the university to ensure accuracy.

Binghamton University's Expenditures

Direct Expenditures

When measuring the impact of Binghamton University on the Broome County and New York State economies, we focus on two types of spending, direct and indirect spending. Direct expenditures are spent by the university for its own purposes, primarily in Broome and Tioga counties. Indirect expenditures are those involving student and visitor spending in the Broome and Tioga county communities which surround the Binghamton University campus.[7]

Binghamton's direct expenditures are included in three categories --- (I) salaries, wages, and fringe benefits; (2) purchases of goods and services, and (3) construction projects and capital outlay purchases. We explain each in turn.

(1) Salaries, Wages & Fringe Benefits

Salaries and wages are reported by the university through a number of methods, most notably through the Integrated Post Secondary Data System (IPEDS) data submission process (F IA Survey, FY2007-08). For the purposes of this report, direct impact on the local and regional economies is usually measured by calculating the disposable income of the more than 5,000 full and part-time employees directly employed by Binghamton University as faculty, staff, student

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[6] **For the purposes of this report, we define the "Binghamton area" to mean the Binghamton Metropolitan Service** Area (MSA), which includes both Broome and Tioga counties.

[7] We choose to adopt what is called the "likely substitution" rule in this analysis, meaning that we adopt two **decision rules in deciding which expenditures to include-first, expenditures are included if it is assumed that they would take place outside the Binghamton University community, but within NY state; and, second, it is reasonably** certain that such expenditures would not be easily substituted for other expenditures. See: John W. Siegried, Allen **R. Sniderrnan, & Peter McHenry, "The economic impact of colleges and universities, *Change*, MarchiApril, 2008,** pp.25-29

workers, federal work study students, as well as those indirectly employed through auxiliary enterprises such as the Binghamton University-affiliated Barnes & Noble bookstore, Sodexo food services, M&T Bank, and child care services.[8] Total wages, salaries, and fringe benefits are in the areas of instruction, research, public service, academic support, student services, institutional support, operation and maintenance of the central plant, and scholarships and fellowships expenses (excluding discounts and allowances), and auxiliary enterprises. After summing these numbers and subtracting taxes taken out of the state and not re-invested in the area, we estimate that total salaries, wages, and benefits that constitute disposable income equals $231.9 million in FY2007-08.[9]

(2) Purchases of Goods and Services

In the areas of instruction, research, public service, academic support, student services, institutional support, operation and maintenance of the central plan, and scholarships and fellowships expenses (excluding discounts and allowances), and auxiliary enterprises, we estimate total purchases of goods and services to be $84.8 million.[10]

(3) Capital Costs & Outlays

In this category, we include funds expended through the State University Construction Fund,[11] and the Dormitory Authority of the State of New York.[12] We also include funds such as equipment and other purchases. The total for this category is $57.1 million.[13]

The total expenditures for FY 2007-08, are summarized in Table 1 below. The total amount of expenditures for this time period was $373.8 million.

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[8] **Disposable income equals the total salaries, wages, and fringe benefits minus an estimate of funds not returned to** the area in the fonn of unspent fringe benefits and taxes. It is estimated that New York state residents receive 81.8% **in disposable income after taxes. Total Binghamton University wages and salaries before adjustment equals** $151,167,236; after this adjustment is applied, total disposable income before fringe benefits equals $128,292,206 (a total of$27,512,437 is taken away in taxes B. Adebeyo,"A study of the economic impact of Central Missouri State University on the local/state economies," 2006). In addition, it is estimated that 85.8% of state and federal taxes are returned in some form to residents of New York state, so of this $27.5 million, $23,605,671 is returned. Therefore, the total is $147,260,470. We therefore estimate that total salaries, wages, and benefits, equals $147,260,470. Also see *The Economic Impact of Michigan State University*, Anderson Economic Group, LLC, May 7, 2008, **http://www.AndersonEconomicGroup.com. downloaded on January 17,2009, p. 23; Appendix B-1, B-2.**

[9] IPEDS FIA Survey (GASB), FY 2007-08, p. 4

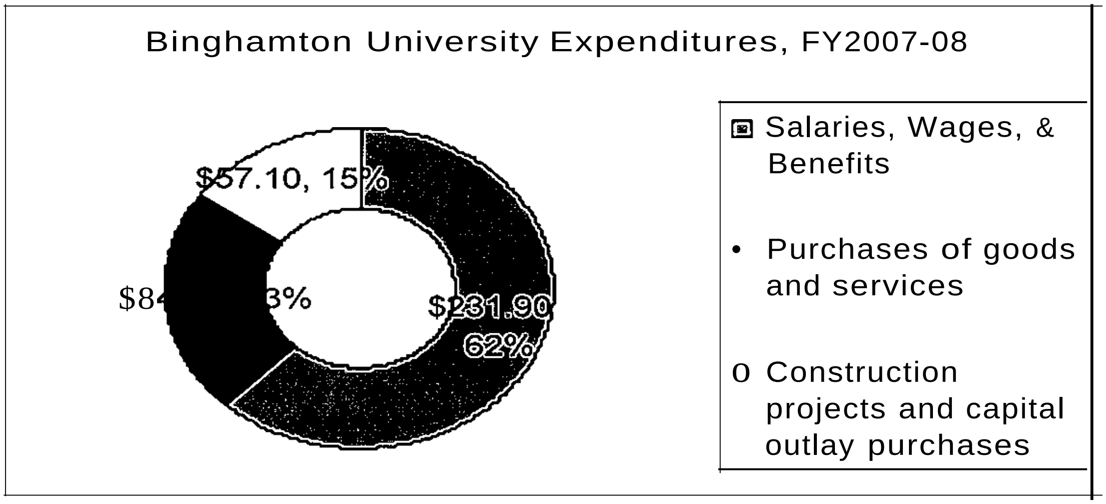
[10] FY2005-06 expenditures in this area were $95.3 million

[11] SUCF report, faxed to Office of Institutional Research & Planning, December, 2008.

[12] DASNY spreadsheet, emailed to the Office of Institutional Research & Planning, December, 2008

[13] FY2005-06 expenditures were $40.2 million in this area

Binghamton University's Direct Expenditures-FY2007-2008



Indirect Spending

Binghamton University's impact can also be felt through the spending of its own students and visitors to campus. Because the campus is situated in an enclave distinct from both the cities of Binghamton and Vestal, and is therefore not surrounded by stores and shops strictly within the boundaries of the university, we assume for the purposes of this white paper that on-campus students often shop off campus. The university supports student transport off campus through its off-campus commuter (OCC) bus system, and has special arrangements with the Broome County Transit Authority so student travel to shopping centers off campus is well-facilitated. In addition, when visitors come to campus, there are few formal dining venues on campus (other than the Student Union eateries). It is therefore assumed that visitors to campus (e.g., for visits to the Admissions Office, visits for commencement exercises, etc.) often frequent restaurants and shopping areas off campus when (and after) they come to campus.

Visitor Spending

Visitor spending can be broken down by the nature of the event. The first kind of visit occurs when relatives and friends of Binghamton University students come to campus. The second kind of visit occurs when students' relatives and alumni come to special events, such as graduation and parent's weekend, etc. The third kind of visit occurs when athletic teams come to visit. The fourth kind of visit occurs when people (non-students) are drawn to campus by conferences, tournaments, campus tours, and so forth.[14]

Estimating the amount expended by such visitors is challenging because this requires us to estimate the number of non-students who stay for the night at hotels, the amount they expend

[14] Jardine, D. (2006). "The economic impact of Binghamton University (FY2004-05), Office of Institutional Research & Planning, Binghamton University; "Economic impact of the University of North Alabama on Colbert & Lauderdale counties, Center for Public Policy and Economic Research, University of North Alabama, July, 2008.

on transportation, food, and shopping, etc., at various times during the year. In order to arrive at an accurate estimate of visitor expenditure, we therefore asked for attendance figures for events held during FY2007-08 from the Events Center, Admissions Office, West Gym, Conference Center, and Anderson Center, which sponsor most of the events on campus. For each event, we then estimated the number of students who attended (whose spending is not included in the visitor's expenses calculated for this report), the number of local visitors, the number of non-local attendees not requiring a hotel stay, and the number of non-local attendees requiring a hotel stay (times the number of nights required to stay for the event). We then used a conservative estimate of how much money each visitor spent on food, transportation, and shopping. We also took an average of hotel room rates by consulting surveys, and on-line discount web services' estimates of cost, and took the median rate, and applied these to the database listing of events and attendees:

Table I-Spending on Binghamton University Visits (Non-Student and Non-Binghamton Universitv staff and faculty only)

	Total visits	$ Spent on Hotels (in thousands $)	$ Spent on food, transportation, shopping, etc. (in thousands $)	$ Total (in thousands $)
Admissions events	33,000	375.00	660.00	1035.00
Alumni events	650	0.70	65.00	65.7
Anderson Center events	20,820	412.61	1401.00	1813.61
Athletic events	20,992	229.63	1.049.60	1279.23
Conference center events	1,622	94.41	141.62	236.03
Graduation events	20,500	107.90	1025.00	1132.9
Visits to students	9,900	1801.1	5081.35	6882.49
TOTALS	$107,934	$3021.38	$9423.57	$12444.95

The results show that over $12 million dollars is spent in Broome and Tioga counties by non-student visitors to the Binghamton area.

Student Spending

Over 14,000 students attend Binghamton University, most of who live either on-campus or off-campus in the Broome County area. Based on survey results, students who live on campus spend $228 per month on items such as entertainment, clothing, transportation, and other items beyond what they would otherwise spend on campus, and so the 6,396 undergraduate students who live on campus spend approximately $14.6 million in the local community. In addition, over 5,000 off-campus undergraduates and over 2,700 graduate off-campus students spend over $60 million off campus. The estimated total amount students spend in the local area, as summarized by Table 2, is over $76 million.

Table 2-Spending by Binghamton University Stndents, On and Off Campns

	Number of students	Monthly amount spent	Months of local residency	$ Amount (in millions)
On-Campus Students	6396	228	10	$14,58
Off-Campus Students	5119	693	10	$35.48
Off-Campus Graduate Students	2708	816	12	$26,52
TOTAL	14223			$76.57

Total Impact of Direct and Indirect Spending

Binghamton University's total impact is the total of the above-described direct and indirect spending, times certain multipliers. From the above totals, we have determined that total direct and indirect spending amounts to approximately $462.8 million.

The U.S. Bureau of Economic Analysis publishes multipliers that can be used by various sectors in the economy to estimate the impact of direct and indirect spending on regions and states in the United States. For the purposes of this white paper, we accessed multipliers for the Binghamton Metropolitan Service Area (MSA), which includes Broome and Tioga counties, and the multipliers for the State of New York. [15]

The Bureau of Economic Analysis estimates the impact of spending outside the Binghamton University campus on outlying areas, in this case the Binghamton MSA (Broome and Tioga counties) and New York State. As such, these estimates can be used as statements of the additional impact of spending outside a specific core economic area, including spending that captures all inter-institutional transfers, including household spending that occurs beyond the core economic area. Therefore, such calculations estimate, if such spending were to disappear, the economic effects of such an economic change. [16] For the Binghamton MSA, the "colleges, universities, and junior colleges" sub-item's multiplier (under the general category "educational services") is 1.6175, meaning for every one dollar in direct and indirect spending associated with Binghamton University, the Binghamton MSA incurs an additional economic effect of $0.6175. In addition, the RIMS II multiplier for New York State under this item is 2.206, meaning that every dollar of direct and indirect spending associated with Binghamton University yields a total of$1.206 of impact, including impact on the Binghamton MSA.

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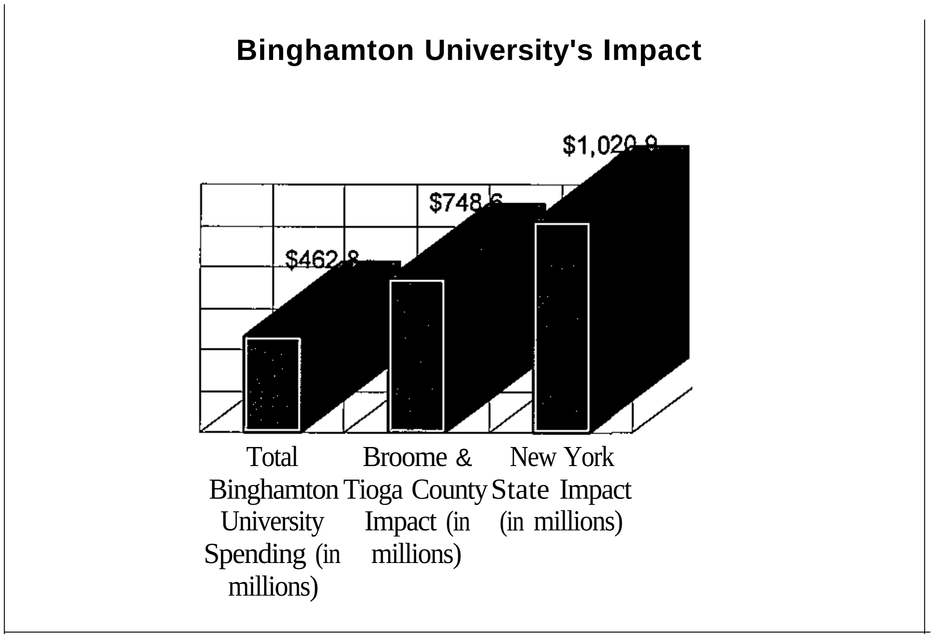
[15] RIMS II multipliers downloaded from the Bureau of Economic Analysis (dnwnload date: January 22, *2009)* are available in the Office of institutional Research & Pianning at Binghamton University; see also Zoe O. Ambargis & **Rebecca Bess, "RIMS II workshop,"** http://74.125.47.132/search?g-cache:3tKRNNJhVWYJ:www.auber.org/conf/Pensacola07/presentations/ADBER%2520RIMS%2520Presentation.ppt+RIMS+II+workshop&hl=en&ct=clnk&cd=3&gl=us downloaded, January 27, *2009*

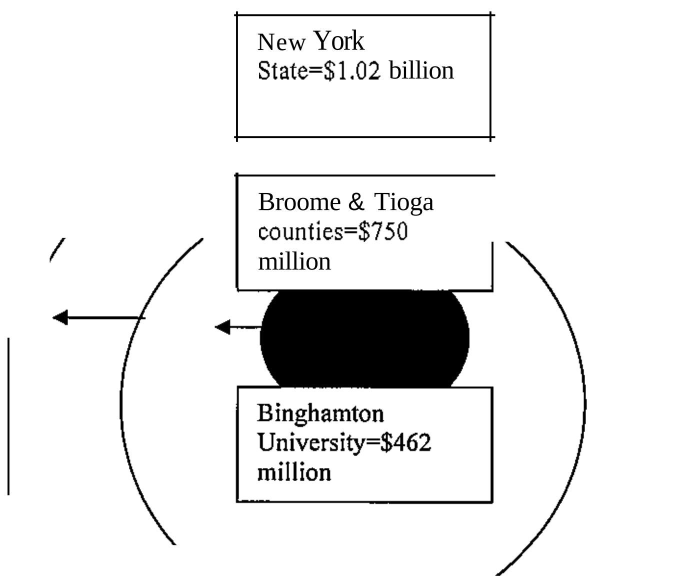
[16] Cynthia Tori, "Valdosta State University Economic Impact Study, FY2006," pp. 1-16.

The charts below are the results of the RlMS II multiplier supplied by the U.S. Bureau of Economic Analysis (2006):

Impact on <u>Broome County and New York State through Direct and Indirect Expenditures</u>



This means that total direct and indirect spending of $463 million associated with Binghamton University, yields a regional economic impact of $749 million (including Binghamton University-associated spending), and a New York State impact of over $1 billion. Another way to look at the relationship between the three bars in the graph above is to place each amount in a chart of successive circles, as below:



Thus, direct and indirect expenditures associated with Binghamton University have a net impact of $286 million on both Broome and Tioga counties, and beyond that, a net impact of $558 million on the economy of the state of New York (including Broome and Tioga counties). *Although more detailed economic analysis is required to estimate the effects of further budget cuts to Binghamton University, the implication of the above calculations should be clear; any budget cuts to Binghamton University are likely to have equally pronounced, but negative (reversed) impacts on the economies of Broome and Tioga counties, as well as on the State of New York.*

Binghamton University's **Impact on** Jobs

Employment Impact through Direct and Indirect Spending

Binghamton University is one of the largest employers in the Binghamton MSA, with over 5,100 full and time employees when we count faculty, staff, graduate and research assistants, auxiliary employees, student workers, and student work study workers. The U.S. Bureau of Economic Analysis also provides RIMS multipliers that estimate that for every $1 million in spending associated with the university, 22.63 jobs are created in New York state, 19.08 of which are created in Broome and Tioga counties.

Using these multipliers, we estimate that more than $462 million in direct university, visitor, and student spending results in 3,661 additional jobs in Broome and Tioga counties, and an additional 5,302 jobs in all of New York State, after subtracting the 5,169 jobs that already exist at Binghamton University.

Impact of Retirees on Local & State Jobs

Because Binghamton University employs a substantial portion of employees within both Broome and Tioga counties, there are also a good number of retirees that still live in the state. The Office of Institutional Research & Planning contacted the university's retirement services coordinator, who reported that of the 809 Binghamton University retirees, 688 live in New York State, and of those, 297 live in the Broome County area. If we count only those who still live in the area, assuming the average retiree takes home $14,698 in disposable income per year, 83 additional jobs are created in Broome and Tioga counties, and 16 net jobs (beyond what is created in Broome and Tioga counties) are created in New York State.

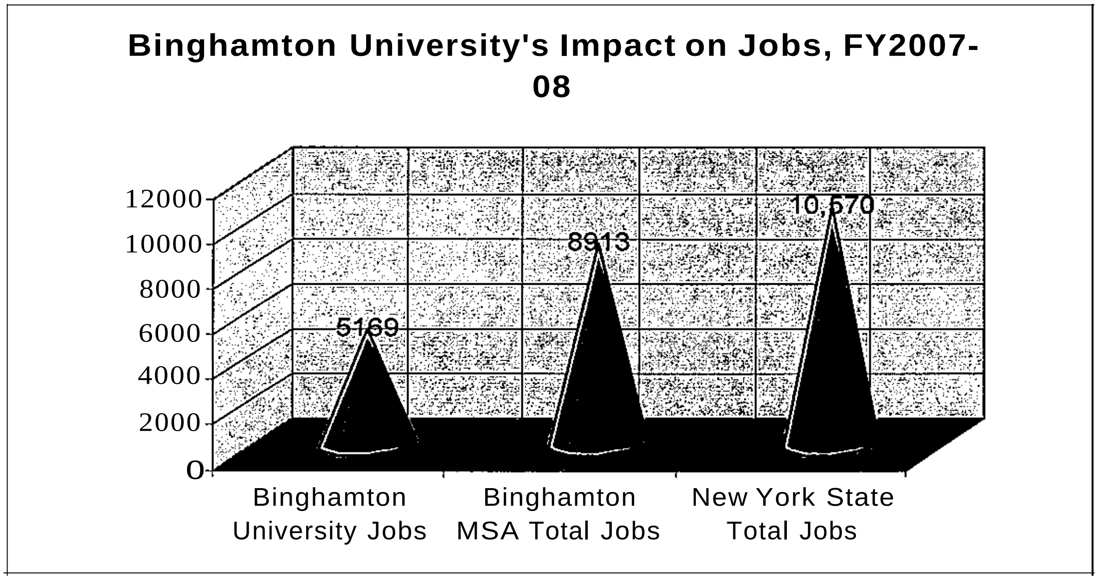
Table 3-Binghamton University Retirees and their Economic Impact[17]

Total retirees	Average retirement income	Total Income Earned by BU retirees	Additional FT & PT Jobs Supported in Binghamton MSA	Additional FT & PT Net Jobs supported in NY state
297	$14,698	$4,365,306	83.28	15.48

17 Average retirement income for the Broome County, New York region ($14,698) is the lower-bound (low estimate) reported by the U.S. Census Bureau, http://factfinder.census.gov (downloaded January 21, 2009).

Total Impact on Jobs

The following chart depicts the impact of Binghamton University on jobs in Broome & Tioga counties and New York State:



As the above chart indicates, 10,570 jobs are associated with Binghamton University's presence in New York State; of these, 5,169 are at Binghamton University (for a net impact of 5,305 jobs). In Broome and Tioga counties, 8,913 jobs are supported by Binghamton University (for a net impact of3,661 jobs). Therefore, for every one of the 5,169 jobs associated directly with Binghamton University, 2.05 jobs are created in the larger Binghamton MSA and New York State.

Human Capital

The university also plays an important role with regard to investment in Broome and Tioga counties, as well as in the state of New York. We began this white paper with a discussion of Binghamton University's mission to "enrich the lives of people in the region, nation and world through discovery and education and to being enriched by its engagement in those communities." It accomplishes this mission through the research and teaching efforts of its students, faculty, and staff, through alumni who continue to play enriching and vital roles in the local and state economy, through student volunteerism, and through the operations and contributions of the Binghamton University Research Foundation, which continues to serve the community in various ways.

Alumni

The University Office of External and Parent Relations reports that an estimated 50,000 BU graduates of working age live in New York State. In order to understand the impact that Binghamton University alumni have on the state's economy, we collected U.S. Census Bureau data about the relationship between education attainment and income, and also estimate state income taxes and sales taxes paid. Because BU graduates often attend graduate school outside of the state before returning here to live, the estimates in Table 4 most likely over-estimate the number of alumni receiving only baccalaureate degrees and underestimate the number of students receiving higher degrees elsewhere.

Table 4-Earnings and taxes of Binghamton University alumni living in New York State (FY2007-08)[18]

	Number working in New York State	Aggregate earnings (in millions)	State income tax paid (in millions)	State sales taxes paid (in millions)
Bachelor's degree	42,626	2,032.9	65.1	40.7
Master's degree	8,309	461.1	15.0	9.2
Doctoral degree	671	38.0	1.26	1.3
TOTAL	51,606	2,532.0	81.4	51.2

New York-based Binghamton University alumni therefore earn incomes in excess of $2.5 billion, resulting in over $81 million in state income taxes and $51 million in total sales taxes, a total of approximately $133 million in taxes for the state of New York.

Student Volunteerism
Binghamton University encourages its students to participate in volunteer and internship opportunities through the university's Career Development Center (CDC), through various internship offices, and the Decker School of Nursing. The results from the 2007 National Survey of Student Engagement (NSSE) also revealed that 64% of Binghamton University students plan to or have completed community service or volunteer work. Table 5 indicates our estimates, and the value, of Binghamton University students' volunteer and community work in FY2007-08:

[18] Alumni data were supplied by the Office of Alumni and Parent Relations. We estimate the number of bachelor's, **master's and doctoral alumni based on trends in prior OIRP white papers. As in prior studies, data in this table are** based on information supplied by the U.S. Bureau of the Census.

Table 5---Value ofluternship and Volunteer Opportunities on the Broome and Tioga County Regions

	Total Students	AMOUNTIHR.	Value
Undergraduate volunteers/interns, arranged through Career Center	731	18.04	$1,582,469
Graduate volunteers/interns	189	18.04	$409,149
Undergraduate nursing clinicals	212	18.04	$2,592,997
Graduate nursing clinicals	45	18.04	$243,540
Other undergraduate/volunteer service	8,295	18.04	$2,992,838
TOTALS	9,472		$7,820,989

Table 5 demonstrates that if we assume that the hourly value of volunteer time is $18.04 for every hour of volunteer time, then student volunteer efforts equate to more than a $7.8 million impact on the Binghamton MSA economy.[19] In addition, it appears that student volunteer efforts have a positive impact in engaging Broome and Tioga county employers in the education of Binghamton University students. Over 99% of internship supervisors state that they would recommend their student volunteers for employment and over 95% ofthese supervisors would want to hire them if a hypothetical opportunity existed for them to hire Binghamton University students.[20]

Property Taxes Paid

The U.S. Census reports that the homeownership rate for Broome County is 68%. On average, employees pay $4,000 annually in property, school, and other taxes associated with where they live.[21] Students who live off campus also indirectly pay taxes through the rent they pay. Our estimates therefore show that Binghamton University students, auxiliary employees, staff, and faculty pay approximately $24 million in property taxes each year.[22]

19 See D. Jardine, "The economic impact of Binghamton University (FY2004-05), Binghamton Office of Institutional Research & Planning *(2006);* "The value of volunteer time," *The Independent Sector (2004)*

20 Interns who complete *120* hours of service through the Career Development Center (CDC) are evaluated by their **internship supervisors, who the submit evaluation forms back to the CDC after the internship is completed. Data** supplied by the Office of Curriculum, Instruction, & Assessment *(2009).*

21 **http://guickfacts.census.gov/gfdlstates/36/36007.htmI; Also, D. Jardine, "The economic impact** of Binghamton **University..."**

22 As above, the homeowner rate of68% I applied to 3, 867 faculty, staff, and auxiliary employees, which equals *2,630* homeowners. We estimate that the average property and associated taxes equal *$4000,* and that real estate tax on rental properties is approximately *$4,000* for every *$8,000* in rent paid.

Intellectual Impact
The University continues to pursue its central efforts to engage in research and to supply students with the best education possible. With regard to student learning, the university continues to be recognized as one of the most prominent state universities in the United States, including high rankings in the *U.S. News and World Report, Fiske Guide,* and *Peterson's Guide.* Students wishing to attend law and medical schools after graduation are accepted at rates much higher than the national average. The university also participates in national initiatives in which it systematically assesses students learning, and is one of only a few institutions in the United States which has been identified as an early participant in the "voluntary system of accountability." The University continues to be recognized as an institution that takes evaluation of student learning seriously. And while many of these efforts are difficult to quantify, it is also clear through recent assessments, that students are impacted through the teaching efforts of its faculty.

Binghamton University continues to focus as well on its research mission. Many of these efforts have the potential to impact the future economy of Broome and Tioga counties. Some examples include the establishment of research centers such as the Center for Autonomous Solar Power (CASP), the Small Scale Systems Integration and Packaging Center, and the Center for Integrated Watershed Studies. Efforts to expand and extend research efforts often involve working with industry, community leaders, and local businesses, to ensure that the Broome and Tioga county regions enjoy the impact of promising research areas.

Conclusion

The purpose of this white paper has been to demonstrate the economic impact of Binghamton University on Broome and Tioga counties, as well as on the state of New York. From this analysis, we can conclude the following:

- Binghamton University, through its own expenditures, and through the expenditures of visitors and students, spent a little less than $463 million in FY2007-08. Through the use of multipliers supplied by the Bureau of Economic Analysis, the total impact of this spending on economic output in Broome and Tioga counties is approximately $750 million. The total impact on economic output on New York State is over $1 billion.
- Given that Broome and Tioga counties have a combined gross domestic product of $6.83 billion, Binghamton University's economic impact on output in the region constitutes an estimated 11% of the GDP of the region.[23]
- The effect of university and university-affiliated output of $463 million is approximately $282 million in additional earnings of households employed in all industries in Broome and Tioga counties.[24]

23 Source:Bureau of Economic Analysis, http://www.bea.gov/regionaUgdpmetro.action.cfm
24 The RIMS II multiplier for amount of additional earnings per household for the Binghamton MSA is 0.6091. We therefore multiplied that number times Binghamton University's output of $463 million.

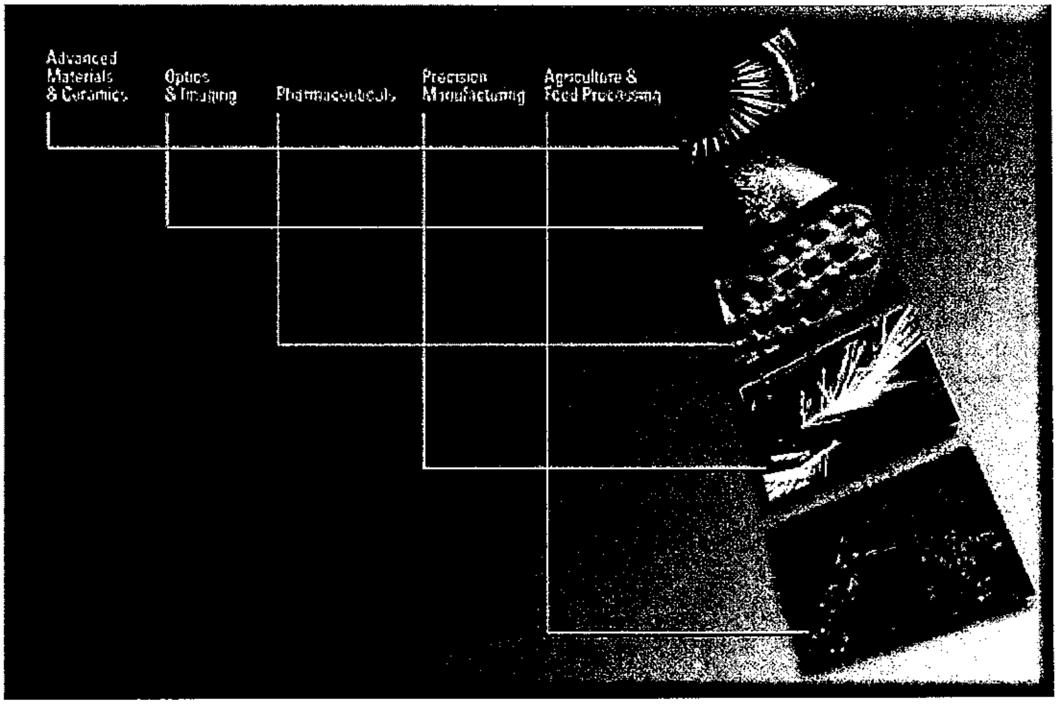
- Binghamton University employs 5,169 full and part time employees, through faculty and staff positions, through the employment of federal work study students, student workers, and auxiliary employees. In Broome and Tioga counties, the university is responsible for a net increase of 3,661 secondary jobs. This grand total of 8,830 primary and secondary jobs means that the university is responsible for approximately 8% of all jobs in Broome & Tioga counties.
- Of every one taxpayer dollar dispensed to Binghamton University by the state, $6 impact the economies of Broome and Tioga counties[25];

A decrease in funding to the university would have the reverse impact. While it can be difficult to estimate the full extent of these impacts, the above data support the argument that reductions in state financial support can only frustrate the university's mission to positively impact the Broome and Tioga county economies, jobs in the region, and the university's efforts to include regional business, research, and other leaders in a collective effort to serve the people of the area. For example, given that for every $1 million of revenue expended by the university, 19 jobs are created in Broome and Tioga counties (including jobs created at Binghamton University), it is also fair to say that the reverse it true--every $1 million reduction in revenue expended by the university could result in up to 19 jobs being lost in the region, and the negative impact on Broome and Tioga counties increases from that point on.

[25] In making this conclusion, we accessed infonnation from the IPEDS FIA survey (GASB), FY 2007-08, p.3. The total state appropriations were $146.3 million. Consultations with the State Comptroller's Office revealed that approximately $20 million

EXHIBITB

ECONOMIC DEVELOPMENT



Funding Assistance Programs

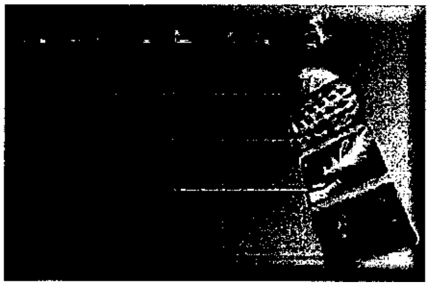
Look Upstate NY

NYSEG

New York State Electric & Gas Corporation

IBERDROLA USA

Funding Assistance Progral11ls



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Brownfield/Building Redevelopment

NYSEG WI71 provide funding assistance up to $500.000 perproject for electric-related infrastructure improvements on either the NYSEG-owned or customer-owned (as directed by NYSEG) equipment and other costs necessary for the redevelopment of a brownfield site or vacant building.

- The funds may be utilized for up to 10% of the redevelopment costs.
- Funding cannot exceed the estimated cost aftha electric delivery-related infrastructure improvements.
- Project must hold NYSEG harmless in regard to any contaminant liability.
- Site/facility must be located within the NYSEG service area.
- Applicant must demonstrate that financial assistance from this program will be a benefitto attracting new investment activity.
- Applicant mustbe the owner or leaseholder of the facility and current in payments to NYSEG (existing customers).
- Project must demonstrate the ability to retain and/or attract new employment.
- Business use must be classified under the following industries: manufacturing, wholesale trade durable goods, wholesale trade non-durable goods, finance, insurance and real estate or business services.
- Applicant must demonstrate a viable reuse strategy forthe site, facility or company operation.

Utility Infrastructure Investment

NYS£6 will invest up to $400,000 per project for new electric-related infrastructure improvements on either NYSEG-ownedorcustomer-owned (as directed by NYSEG) equipment involving existing or prospective customers, either stand alone or in a business or industlial park.

- Projectmust involve capital investment in facility and/or equipment purchases which total more than $1 million.
- The monthly incremental electric demand after capital investment must be at least 100 kilowatts.
- Project must hold NYSEG harmless in regard to any contaminant liability.
- Applicant must demonstrate that financial assistance from this program will be a benefit to attracting new investmentactivity.
- Facility must be located within the NYSEG service area.
- Applicant mUst be the owner or leaseholder of facility and current in payments to NYSEG {existing customersl.
- Project must demonstrate the ability to retain and/or attract new employment.
- Applicant must demonstrate efforts to obtain state and/or local economic development incentives.
- Business use must be clasSified under the following industries: manufacturing, wholesale trade durable goods, wholesale trade non-durable goods, finance, insurance and real estate or bUSIness servIces.

Capital Investment Incentive

NYSEG will provide funding assistance up to $300,000 per project for capital investments of $1 million or greater to fund electric-related improvements on equipment either awned by NYSEG or the customer (as directed by NYSEG).

- The monthly incremental electric demand after capital investment must be at least 100 kilowatts.
- Project must hold NYSEG harmless in regard to any contaminant liability.
- Applicant must demonstrate that financial assistance from this program will be a benefit to attracting new investment activity.
- Facility must be located within the NYSEG service area.
- Applicant must be the owner or leaseholder of an eligible facility and current in payments to NYSEG (existing customers).
- Applicant must demonstrate efforts to obtain state and/or local economic development incentives.
- Project must demonstrate the ability to retain and/or attract new employment and capital investment to the eligible facilities.
- Business use must be classified under the following industries: agriculture, forestry, fishing, mining, manufacturing, wholesale trade durable goods, wholesale trade non-durable goods, finance, insurance, real estate and business services.

NOTE: Please contact a NYSEG economic development represelltative to check on availability of funding for these assistance programs.

Agriculture Capital Investment Incentive

NYSEG will provide funding assistance up to $100,000 per project for smaller farms toward electric-related infrstnJc-ture improvements on either NYSEG-owned or customer-owned (as directed by NYSEG) equipment. Each project must mvolve cap/tal Investment of at least $50,000 and have a monthly Incremental electric demand after capital invest-ment of at least 25 kilowatts.

Look Upstate NY®

EXHIBIT C

The Economic Impact of Higher Education in New York State

Thomas P. DiNapoli
New York State Comptroller

New York's education

gest
50 accounting percent

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percent
(65 percent)

New York research

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research
growth.

University
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research

In New York State, higher education is a major industry. The State's 269 degree-granting colleges and universities employed 266,I10 people and paid out $13.2 billion in wages in 2009. This was the third-largest higher education sector among the 50 states, accounting for 7.7 percent of all such employment in the nation. Including the impact of student spending, higher education directly and indirectly (through multiplier effects) generated $62.2 billion in economic activity in New York in 2009. The sector has grown rapidly during both good and bad economic times, and has continued to expand during the current recession.

Total enrollment in New York's higher education institutions exceeded 1.2 million students in the fall of 2009-an increase of 21.4 percent since the fall of 2000. New York ranked third among all states for total enrollment in colleges and universities, and had the highest enrollment in private institutions. Nearly one-fifth of the students in New York were enrolled in advanced degree programs (including graduate, law, medical, and theological degree students), one of the largest concentrations in the country.

Higher education institutions contribute to the quality of life in their communities, providing services such as medical facilities, research centers, libraries, sports, arts, and cultural events. In many parts of the State, these schools account for a significant portion of local economic activity.

Higher education institutions also act as catalysts for economic growth. By fostering environments that are intellectually stimulating and diverse, colleges and universities fuel the creation of new technologies and ideas, and help build a skilled workforce. Through partnerships with private companies and investors, schools also seek to convert their research into new products and businesses that generate jobs and income for their communities.

Employment

New York's education sector is a major source of jobs. Combined, the State's public and private colleges and universities provided 266,110 jobs in 2009, or 3.2 percent of all employment in the State. Employees include faculty, administrators, nonteaching professional staff, and technical, clerical, and maintenance staff.

Among the states, New York had the third-largest higher education employment in the nation, accounting for 7.7 percent of all such jobs nationwide in 2009 (see Figure I).

New York has the largest private higher education sector in the nation. The State's private colleges and universities provided 167,450 jobs in 2009-over 40 percent more than second-ranked California. Nationwide, 14.4 percent of all private higher education jobs are in New York.

New York State also has significant employment at its public colleges and universities. In 2009, New York's public higher education sector provided 98,650 jobs, which ranked third among all states and accounted for 4.3 percent of all jobs at the nation's public colleges and universities.

Figure 1
Higher Education Employment in 2009
Top Ten States

State	Rank	Total Jobs	Private Higher Ed. Jobs	Public Higher Ed. Jobs
Califomia		421,550	116,950	304,610
Texas	2	269,130	41,190	227,940
New York	3	266,110	167,450	98,650
Pennsylvania	4	164,350	112,560	51,790
Illinois	5	155,850	65,640	90,210
Florida	6	138,440	45,390	93,060
Massachusetts	7	119,980	87,490	32,490
North Carolina	8	119,100	30,430	88,670
Michigan	9	118,030	20,540	97,490
Ohio	10	111,810	36,880	74,930

Sources: U.S. Bureau of Labor Statistics; ase analysis

The number of jobs in higher education has been growing more rapidly than employment in the rest of the economy. During the 2003-2007 economic expansion, higher education employment in New York grew by 4.8 percent, compared to job growth of 4 percent in the rest of the economy.

Higher education employment has also been less affected by economic downturns. Demand for educational services remains strong during recessions, as workers seek to learn new skills and students who cannot find jobs remain in school to earn advanced degrees. During the 2001-2003 recession, higher education employment rose by 5.8 percent in New York while jobs in the rest of the State's economy declined by 2.6 percent. The State's growth in higher education exceeded the nation's (5 percent) during that period. More recently, higher education employment in New York grew by 2,7 percent between 2007 and 2009.

Most of the growth in higher education employment this decade has been at private colleges and universities. Between 2001 and 2009, total higher education employment in New York increased by 32,470 jobs, of which 27,990 jobs were in private colleges and universities (a gain of 20.1 percent). Employment in public higher education rose by 4,480 jobs (4.8 percent) during this period. A similar pattern occurred nationwide: private higher education employment rose by 23.4 percent during this period, compared to a gain of 11.9 percent for public education jobs.

In many counties of New York-primarily upstate-higher education accounted for a much larger share of local employment than it did statewide (see Figure 2). In Tompkins County (home to Cornell University, Ithaca College, and Tompkins-Cortland Community College), one-third of all jobs were at higher education institutions, the highest concentration of any county in the State.

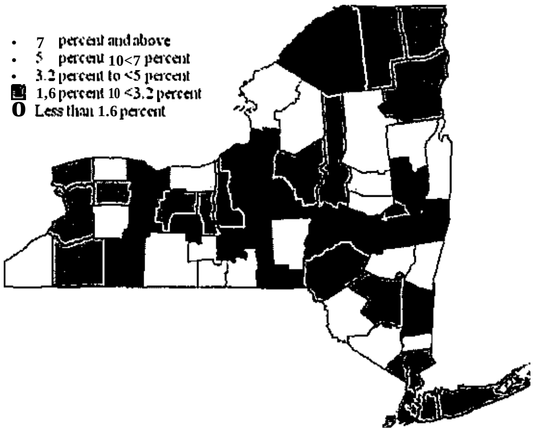
The next highest concentrations-just over 10 percent-were in Allegany and Madison counties (home to SUNY Alfred, Alfred University, Houghton College, Morrisville State College, Colgate University, and Cazenovia College). In three other counties-Rensselaer, St. Lawrence, and Cortland-higher education accounted for more than 7 percent of local employment (large institutions in these counties include Hudson Valley Community College, Rensselaer Polytechnic Institute, SUNY Potsdam, Clarkson University, and SUNY Cortland).

In six additional counties (Dutchess, Monroe, Onondaga, Otsego, Schoharie, and Yates), higher education accounted for more than 5 percent of all local jobs.

The largest absolute number of higher education jobs-nearly 68,000-were located in Manhattan (New York County) in New York City,

Figure 2

Higher Education Employment as a Sha.-e of Total **Emllloyment**



Sources: New York State Department of Labor; OSC analysis

Wages and Salaries

Between 2001 and 2009, total wages paid by colleges and universities in New York rose by 38.5 percent to reach $13.2 billion. This exceeded the wage growth in the rest of the economy (22.3 percent). As with employment, wage growth in New York during this period was driven by gains at private institutions.

The average wage for all higher education jobs in New York (including administrators, faculty, and nonprofessional staff) grew from $40,860 in 2001 to $49,675 in 2009. The increased use of lower-paid part-time faculty has slowed the growth in average salary. In 2009, the average salary for higher education jobs in New York ranked 13th in the nation.

Economic Development

Higher education plays a significant role in revitalizing and diversifying New York's economy. Higher education spending-both on and off college campuses, for staff, capital projects, research, medical facilities, arts and cultural events, equipment, food, and supplies-produces direct and indirect benefits (through multiplier effects) for local communities. In addition, higher education provides long-term benefits, such as the value of learned skills that enable students to increase their lifetime earning potentials.

In 2009, spending by higher education institutions directly supported 266,110 jobs, $13.2 billion in wages, and $21.3 billion in economic activity in New York State's economy. In addition, students contribute to the local economy when they rent off-campus housing; dine out and socialize; or purchase electronics, books, clothing, and other supplies (student spending on tuition, room, and board is accounted as an input that becomes part of the spending by the educational institutions). Similarly, family and friends who come to visit generate additional spending in local communities. Using information from a College Board study, the State Comptroller estimates that direct off-campus spending by college students and visitors totaled $17.6 billion in New York State in 2009.

Direct spending by higher education institutions, students, and visitors generates additional benefits for the State's economy-through expanded production by businesses to provide products and services to colleges and universities and their students, as well as through increased household incomes and higher personal spending due to the creation of additional jobs to provide those services. Using IMPLAN, a well-established economic input-output model, the State Comptroller estimates that college, student, and visitor spending in 2009 directly and indirectly provided a total of 495,I00 jobs that paid wages of $23.5 billion-generating a total of $62.2 billion of economic activity in New York.

Studies of the economic impact of higher education institutions around the State have found they have similar direct and indirect impacts on their regional economies. A study by the University at Buffalo of the 22 higher education institutions in Western New York found that through multiplier effects, $2 billion in combined direct spending by the schools, students, and visitors generated $3.2 billion in economic activity and more than 32,000 jobs in FY 2006. Similarly, a study by Cornell University found that $898 milIion in direct payroll and construction spending upstate generated $1.7 billion in regional economic activity and 20,160 jobs in FY 2007.

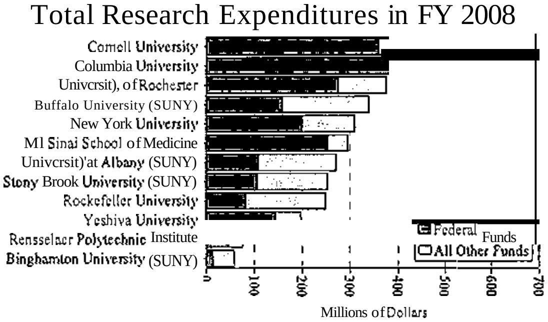
Research and Innovation

Colleges and universities provide research faci.lities that create new technologies and busmesses. The National Science Foundation's FY 2008 Survey of Research and Development Expenditures at Universities and Colleges found that New York's higher education institutions spent more than $4 billion on science and engineering research-nearly 8 percent of all such expenditures in the nation. The majority of this spending (65 percent) was used for research in the life sciences, followed by engineering (14 percent) and the physical sciences (8 percent). The balance was in math and computer sciences, environmental SCiences, and social sciences.

In FY 2008, there were 12 higher education institutions in New York that each spent more than $50 million on science and engineering research (see Figure 3). Combined, these 12 schools spent $3.6 bIllIon on research-accounting for nearly 90 percent of all higher education science and engineering research spending in the State. More than 60 percent of the research was funded by the federal government; the balance carne from the schools, State and local governments, and business partnerships.

Figure 3

New York Institutions With the Highest Total Research Expenditures in FY 2008



Note: These institutions each spent more than SSO million on research in 2008.
SOUrces: National Science Foundation; OSC analysis

Public and private partnerships are a means to promote economic development through applied research and innovation. New York, through the New York State Foundation for Science, Technology, and Innovation (NYSTAR), has created programs and initiatives at research centers around the State with specializations in computer science, electronic devices and information technology; environmental and'energy systems; life sciences; materials and material processing; nanotechnology and microelectronics; and optics, photonics, imaging, and sensors. The goals of these centers are: to help businesses become more competitive through technology, to leverage public and private partnerships for technology development, to enhance the research capabilities of the State's schools, to support the development of a skilled workforce, and to recommend policies to take advantage of the State's technology and research assets.

NYSTAR reports that New York has more than 80 business incubators, with one-third of these facilities located at higher education institutions. Significant incubators are operated by the Rensselaer Polytechnic Institute, the Polytechnic Institute of NYU, Columbia University, the Rochester Institute of Technology, and SUNY. Within SUNY, major technology-related incubators are located at the Albany, Buffalo, and Stony Brook campuses.

Research conducted at higher education institutions helps develop new technology, products, and services. Schools then patent new products and license them to companies, which brings in licensing income.

According to a survey conducted by the Association of University Technology Managers (AUTM), New York's higher education institutions had 1,622 license agreements that generated more than $380 million in licensing income (Le., from the rights to drugs, medical devices, and other intellectual property) during FY 2008. Overall, New York schools have received more than 27 percent of the cumulative licensing income earned by universities nationwide from 1999 through 2008. In 2008, New York schools were also issued 262 new patents, or 9 percent of the total issued to higher education institutions in the nation.

In FY 2008, the AUTM reported that 42 start-up companies were formed to use technology licensed from New York schools-representing 8 percent of start-ups formed at schools nationwide. Two-thirds of these start-ups had their primary place of business in New York. New York consistently ranks among the top three states in the nation across most of the AUTM's measures of how higher education institutions leverage technology to create economic growth, such as the creation of start-up companies.

EXHIBITD

NYSEG RGE

August 21, 2007

Mr. John Calcagni, Chief Business Advocate
Office of Consumer Services
161 Delaware Avenue
Delmar, NY 12054

Re: Request of New York State Electric & Gas Corporation for Authorization to Modify its Non Rate Incentive Program

Dear Mr. Calcagni:

As provided for in the Commission's "Order Adopting Recommended Decision with Modifications", issued and effective August 23, 2006 (the "August 2006 Order") and consistent with the Company's submittal dated November 9,2006, NYSEG is authorized to revise the eligibility criteria for its Non Rate Incentive Program upon submittal of new guidelines for review by the Director of Office of Economic Development and Policy Coordination ("OEDPC"). With the submittal herein and further described below, the Company is requesting a modification to its Capital Investment Incentive Program of the Company's Non-Rate Incentive Program as presented on November 9, 2006.

The Company's Non-Rate Programs were modified in the context of Case No. 05-E-1222 to be more closely aligned to the Non-Rate Incentive Programs in the current RG&E Economic Development Plan, with some revisions based on RG&E's experience under its Non-Rate Incentive Program.

The Company proposes to modify its Capital Investment Incentive Program to include additional types of industries that can qualify for the Non-Rate Incentive program. Consistent with RG&E's application of the Capital Investment Incentive Program, NYSEG is proposing to add Colleges and Universities and Medical Hospitals and Laboratories to its list of Minimum Eligibility Requirements as a qualifying business use. Please refer to Attachment A for a description of the Capital Investment Incentive Program criteria containing the proposed changes.

NYSEG is requesting the above changes, in part, because of its need to be able to adapt to the evolving economic circumstances faced by the region and to provide the flexibility to better promote economic development by attracting desirable projects. The above requested changes should enhance the general welfare of the State of New York and NYSEG's service territory in particular.

New York State's investment in higher education through innovative technological advancements, research and development and its commercialization into the business sector, is well recognized across the United States.

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Subsequent to a discussion and positive feedback from Staffin May, 2007, NYSEG has been in discussions with a major university that would like to expand its science and engineering areas. The capital investment for this project is approximately $100 million for Central New York.

Across New York State, there is a variety of research at major universities already underway including; medical imaging, biomedical sciences, biotechnology, and life sciences. As a result, there is on-going collaboration between these universities and major hospitals to generate innovative ideas to foster new business development. The recent announcement of the Rochester Bio Enterprise Center by the University of Rochester Medical Center is an example of this collaborative effort where discoveries can be transformed into new business opportunities and employment for New York State.

To compete in a global economy, NYSEG's ability to be a valuable partner in providing critical assistance in the area of infrastructure improvements to these sectors should have very positive benefits as New York State keeps pace with the escalating trends in the health care industry.

NYSEG maintains a rigorous process when evaluating and approving customer applications for non-rate funding assistance, as well as follow-up confirmation from customers that assistance was used in the manner intended under the application process.

I[the OEDPC were to deny the requested modifications, NYSEG's ability to sustain certain sectors of economic development in its service territory could be negatively imp·acted. Moreover, without the requested modifications, NYSEG may have to forego capital investment assistance for certain non-manufacturing enterprises that could also increase jobs in our service territory and have beneficial multiplier impacts on the State of New York. Therefore, NYSEG respectfully requests that the OEDPC expeditiously review and authorize the addition of Colleges and Universities and Medical Hospitals and Laboratories to the list of qualifying business uses under its Capital Investment Incentive Program, as allowed in the August 2006 Order, and provide NYSEG with written documentation stating its approval of this change request.

If you have any questions, please call me at (607) 762-7341.

Sincerely,

Christine M. Stratakos
Manager- Pricing & Analysis
Rates & Regulatory Economics

Enclosures
cc: Ron Vcro, NYS Staff

3. Capital Investment Incentive Program *(Existing RG&E Program, New for NYSEG)*

There are a variety of economic development projects that result in job creation and capital investment that are generally eligible for a wide range of public assistance from New York State Empire State Development and/or local industriai development agencies. These projects may not reside in particular sites such as Empire Zones or Brownfields, but nevertheless are extremely important to a business and to its regional economy.

NYSEG will invest up to $300,000 per project for electric-related infrastructure improvements on either NYSEG owned or customer owned equipment (as directed by NYSEG) for electric infrastructure for certain projects that involve major capital Investment In plant and equipment.

Minimum Eligibility Requirements:

- Project must involve capital investment in facility and/or equipment purchases which total more than $1 million
- The monthly incremental electric demand after capital investment must be at least 100 kilowatts (kW)
- Project must hold NYSEG harmless in regard to any contaminant liability
- Recipient must demonstrate that financial assistance from this Program for either NYSEG-owned and/or customer-owned electric infrastructure will be a benefit to attracting new investment activity
- Facility must be within the NYSEG service area
- Recipient must be the owner or leaseholder of facility and current in any outstanding payments to NYSEG (existing customers)
- Project must demonstrate the ability to retain and/or attract new employment
- Recipient must demonstrate efforts to obtain state and local economic development incentives
- Business use must be classified under the following industries: Agriculture, Forestry, Fishing, Mining, Manufacturing, Wholesale trade-durable goods, Wholesale trade non-durable goods, Finance, Insurance, and Real Estate, Business Services, Medical Hospitals and Laboratories, or Colleges and Universities,
- Recipient must demonstrate the ability to retain and/or attract jobs and capital investment to the eligible facility

3a, Agriculture Capital Investment Incentive Pilot Program *(New for NYSEG)*

In NYSEG's service territory, there are many smaller farms that would like to expand their businesses. Many times, these require upgrades In electric infrastructure (e.g., upgrading service capacity and converting service voltage from single-phase service to three-phase service). This pilot program would allow NYSEG to provide financial assistance up to $100,000 toward electric-related infrastructure improvements on either NYSEG-owned or customer-owned (as directed by NYSEG). The Company would establish levels of financial assistance based on incremental electric load and capital investment.

Minimum Eligibility Requirements:

- Project must involve capital investment of at least $50,000 toward facility and/or equipment purchases
- The monthly incremental electric demand after capital investment must be at least 25 kilowatts (kW)

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- Project must hold NYSEG harmless in regard to any contaminant liability
- Recipient must demonstrate that financial assistance from this Program for either NYSEG-owned and/or customer-owned eiectric infrastructure will be a benefit to attracting new investment activity
- Facility must be within the NYSEG service area
- Recipient must be the owner or leaseholder of facility and current in any outstanding payments to NYSEG (existing customers)