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 graduating from Binghamton attend graduate school after they receive their baccalaureate degree
- 50% seek employment after graduation
- 83% of Binghamton University’s senior applicants were accepted into law school, compared to 71% nationally.
- 63% of Binghamton University medical school applicants were accepted in medical school, compared to 48% nationally

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:

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1 [http://oirp.binghamton.edu](http://oirp.binghamton.edu), under the tab, “College Portrait”
2 Ibid.
4 [http://www.binghamton.edu/home/academic/prehealth.html](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. The purpose of this white paper is to document and explain direct and indirect impacts that Binghamton University has on the

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5 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
Binghamton area and New York state economies, and is organized in the following ways. 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 report 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.

Binghamton’s direct expenditures are included in three categories --- (1) 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 (F1A 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. Sniderman, & Peter McHenry, “The economic impact of colleges and universities, Change, March/April, 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. 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.\(^8\)

(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.\(^9\)

(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 form 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 F1A Survey (GASB), FY 2007-08, p. 4

\(^10\) FY2005-06 expenditures in this area were $95.3 million


\(^12\) 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

**Binghamton University Expenditures, FY2007-08**

- $231.90, 62%
- $84.82, 23%
- $57.10, 15%

**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

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 1—Spending on Binghamton University Visits (Non-Student and Non-Binghamton University staff and faculty only)

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

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 Students, On and Off Campus

<table>
<thead>
<tr>
<th></th>
<th>Number of students</th>
<th>Monthly amount spent</th>
<th>Months of local residency</th>
<th>$ Amount (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Students</td>
<td>6396</td>
<td>228</td>
<td>10</td>
<td>$14.58</td>
</tr>
<tr>
<td>Off-Campus Students</td>
<td>5119</td>
<td>693</td>
<td>10</td>
<td>$35.48</td>
</tr>
<tr>
<td>Off-Campus Graduate Students</td>
<td>2708</td>
<td>816</td>
<td>12</td>
<td>$26.52</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14223</td>
<td></td>
<td></td>
<td>$76.57</td>
</tr>
</tbody>
</table>

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 (download date: January 22, 2009) are available in the Office of Institutional Research & Planning at Binghamton University; see also Zoe O. Ambargis & Rebecca Bess, “RIMS II workshop,” http://74.125.47.132/search?q=cache:3tKRNNJhVWYJ:www.auber.org/conf/Pensacola07/presentations/AUBER%2520RIMS%2520Presentation.ppt+RIMS+II+workshop&hl=en&ct=clnk&cd=3&gl=us downloaded, January 27, 2009
The charts below are the results of the RIMS II multiplier supplied by the U.S. Bureau of Economic Analysis (2006):

**Impact on Broome County and New York State through Direct and Indirect Expenditures**

![Bar chart showing Binghamton University's Impact](chart)

Binghamton University's Impact

<table>
<thead>
<tr>
<th>Total Binghamton University Spending (in millions)</th>
<th>Broome &amp; Tioga County Impact (in millions)</th>
<th>New York State Impact (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$462.8</td>
<td>$748.6</td>
<td>$1,020.9</td>
</tr>
</tbody>
</table>

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:

![Circle chart showing relationships](chart)
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

<table>
<thead>
<tr>
<th>Retirees</th>
<th>Total retirees</th>
<th>Average retirement income</th>
<th>Total Income Earned by BU retirees</th>
<th>Additional FT &amp; PT Jobs Supported in Binghamton MSA</th>
<th>Additional FT &amp; PT Net Jobs supported in NY state</th>
</tr>
</thead>
<tbody>
<tr>
<td>297</td>
<td>$14,698</td>
<td>$4,365,306</td>
<td>83.28</td>
<td>15.48</td>
<td></td>
</tr>
</tbody>
</table>

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](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 of 3,661 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)

<table>
<thead>
<tr>
<th></th>
<th>Number working in New York State</th>
<th>Aggregate earnings (in millions)</th>
<th>State income tax paid (in millions)</th>
<th>State sales taxes paid (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree</td>
<td>42,626</td>
<td>2,032.9</td>
<td>65.1</td>
<td>40.7</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>8,309</td>
<td>461.1</td>
<td>15.0</td>
<td>9.2</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>671</td>
<td>38.0</td>
<td>1.26</td>
<td>1.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>51,606</td>
<td>2,532.0</td>
<td>81.4</td>
<td>51.2</td>
</tr>
</tbody>
</table>

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:

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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 of Internship and Volunteer Opportunities on the Broome and Tioga County Regions

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

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. 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% of these supervisors would want to hire them if a hypothetical opportunity existed for them to hire Binghamton University students.

**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. 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.

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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://quickfacts.census.gov/qfd/states/36/36007.html; Also, D. Jardine, “The economic impact of Binghamton University…”
22 As above, the homeowner rate of 68% 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.\(^{24}\)


\(^{24}\) 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 information from the IPEDS F1A 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