ROWAN UNIVERSITY'S IMPACT ON ITS HOST COMMUNITIES



FINAL REPORT – April 30, 2015

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ECONSULT SOLUTIONS
economics | policy | strategy

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1.0 INTRODUCTION

1.1 ABOUT ROWAN UNIVERSITY

Rowan University is a thriving public university with a presence in several communities throughout South Jersey, with its main campus located in Glassboro. Founded in 1923 as Glassboro Normal School, the institution became Rowan College of New Jersey as a result of a $100 million gift by Henry and Betty Rowan in 1992.

The school embarked on a period of significant growth, achieving University status in 1997, which continues to this date. Between 1992 and 2013, Rowan's annual operating budget grew six-fold from $63 million to $400 million and research and sponsored project activity levels soared from $100,000 to $24 million, and total enrollment is currently approximately 15,000 students.

One of the four strategic pillars for Rowan set forth by its President, Dr. Ali Houshmand, is that it serves as an economic engine in southern New Jersey. As Rowan has grown in recent years it has deepened and expanded its presence and impact in communities throughout South Jersey. While Rowan has long represented a positive impact on these localities through the contribution of residential demand and commercial spending, recent initiatives reflect an enhanced concentration of investment:

- In Glassboro, home of the University's main campus, Rowan has **catalyzed the $300 million development Rowan Boulevard**, a 1/3 mile mixed-use corridor linking the campus with downtown Glassboro. This transformation began in 2008 and received another boost in early 2015 with Rowan's announcement of their plans to create two arts and culture anchors on High Street, one featuring an art gallery and the other the administrative home of the College of Communication and Creative Arts.

- In Camden, Rowan partnered with Cooper University Health Care in 2012 to **establish the Cooper Medical School of Rowan University**, which continues to grow in enrollment and impact on the community. Rowan is also in the process of restoring the historic First Camden National Bank and Trust Company building in downtown Camden to serve as the new home to its growing Camden Campus, which was first established in 1969.

- In Stratford, University of Medicine and Dentistry of New Jersey was transferred to Rowan in 2013 to become the Rowan University **School of Osteopathic Medicine**. Its physicians provide direct patient care in 20 different municipalities around South Jersey. In addition, nearly 10 acres of contiguous land were transferred to Rowan, allowing for future expansion of the campus.

- In Mantua, just outside of Glassboro, the University launched the **South Jersey Technology Park** at Rowan University in 2008. Rowan has set aside 180 acres of its 600 acre West Campus for the Tech Park, which is projected to grow rapidly as a mix of corporate and academic facilities. Two additional building are currently in design to complement the existing Jones Innovation Center.

1.2 ROWAN UNIVERSITY LOCAL IMPACTS

As Rowan University has grown, so has its positive and significant influence on the localities in which it has a physical presence. This is not by accident: Rowan has enjoyed a long and mutually beneficial relationship with its host communities because it endeavors to be a positive contributor to these jurisdictions and in turn these jurisdictions have worked hard to be an active partner in many shared missions. Indeed, Rowan's current relationship with the localities in which it has campuses can be characterized as the best of town-gown relations: **true partnerships, borne of a sense of shared commitment and shared mission**, in which Rowan benefits from its location with a particular jurisdiction and in turn strives to be a benefit to each jurisdiction and its residents and businesses.

The purpose of this report is to extend the analysis in ESI's 2015 report *The Statewide Economic Impact of Rowan University*, and to consider the extent to which Rowan makes positive contributions at a more localized level. This report articulates (and, where possible, quantifies) the impact of Rowan in the communities in which it resides:[1]

1. Glassboro Borough, home of Rowan's 200-acre main campus, the University's main hub of student activity and operations

2. Camden City**,** site of Rowan University's Camden campus, Cooper Medical School of Rowan University, and the collaborative college of health sciences (with Rutgers-Camden)

3. Stratford Borough, site of the Rowan University School of Osteopathic Medicine

4. Mantua Township, home of Rowan's South Jersey Technology Park.

Universities and health systems are often referred to as "anchor institutions," which bespeaks their long-run presence in and commitment to a physical place. **This permanence creates a compelling incentive to ensure that its interests are aligned with that of its host communities, such that those relationships are cultivated carefully and that win-win arrangements are always sought after**. It is within this incentive structure that Rowan contemplates how to execute its aggressive growth strategy in ways that enrich the localities in which it has a physical presence and that extend its current positive impact on these places.

This report represents the first time that Rowan has ever been systematically assembled and made public the depth and breadth of its service to its host communities. To date, it has not systematically tracked, much less publicized, those efforts. As a result, the numbers here are incomplete and therefore understate the deep investment the University actually makes in its community.

[1] Throughout this report, these four municipalities will be referred to simply as Glassboro, Camden, Stratford and Mantua, unless the discussion pertains specifically to their municipal government entities.

1.3 ORGANIZATION OF REPORT

The positive impacts of Rowan for local communities and residents are many and varied. This report details for categories of impacts in turn:

- Rowan's economic footprint, including capital spending, operations, and student/visitor spending, leads to significant increases in **economic activity and jobs** for host communities (Section 2). The report finds that **annual economic impacts** from Rowan's capital investment, operations and student spending **in Glassboro alone total $108 million annually**:

TABLE 1.1 – ESTIMATED LOCAL ECONOMIC IMPACT IN GLASSBORO

Impact Type	Impact from Capital Investments from FY 2010 to FY 2014	Impact from FY 2015 Operations	Impact from Student Spending Each Year	Annualized Total (per year)
Direct ($M)	$24.6	$55.2	$29.3	$89.4
Indirect ($M)	$1.1	$3.6	$0.4	$4.2
Induced ($M)	$1.5	$14.0	$0.3	$14.6
Total Output ($M)	$27.2	$72.8	$30.1	$108.3
Employment supported (jobs)	245	550	415	1,010

Source: Econsult Solutions, Inc. (2015)

- Rowan also has a significant influence on **local real estate markets** by incentivizing faculty and staff to live in host communities, attracting and enabling private investment, and creating hubs of innovation activity (Section 3).

- Rowan's impact on the real estate market also helps local communities **grow their tax base**, which is supplemented by the University's direct contributions to and partnerships with local municipal governments (Section 4).

- Finally, in the course of fulfilling its institutional mission and providing for its own students and staff, Rowan offers a significant scale of **resources and services to its host communities** and their residents and businesses (Section 5).

1.4 ABOUT ECONSULT SOLUTIONS, INC.

This report was produced by Econsult Solutions, Inc. (ESI). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience.

2.0 LOCAL ECONOMIC IMPACTS

2.1 OVERVIEW

There is a growing awareness of the role of universities as regional economic engines. Known for advancing knowledge and educating students, universities are also often among a region's most prominent initiators of capital projects, its largest employers, and its biggest draws for visitor spending. Their economic footprint in turn supports a wide range of industries and economic activity that grows various local and state tax bases and thus generates local and state tax revenues. And, as institutions anchored in a particular location, universities are often among a community's largest sources of community-serving resources and community-sourced purchasing.

In February 2015, Econsult Solutions, Inc. (ESI) produced *The Statewide Economic Impact of Rowan University*. The report, commissioned by Rowan to update earlier studies from 1997 and 2004, identified, articulated, and quantified the ways in which Rowan University contributes to the state and regional economy. This impact originates from Rowan's significant direct economic footprint, in the form of its capital investments, its annual operations, and the student and visitor spending it draws to its campuses and surrounding areas. **This direct economic activity particularly enriches local economies**: construction activity means employment opportunities for local workers, while a significant portion of spending by Rowan and by its students and visitors goes to local vendors. This section summarizes the findings of Rowan's statewide economic impact report, and identifies and quantifies the portion of those impacts that occur within its host communities. While Rowan University has campuses in many parts of the state, this analysis focuses specifically on total economic impacts and fiscal within Glassboro, home of Rowan's main campus, and local procurement within both Glassboro and Camden.

2.2 STATEWIDE UNIVERSITY ECONOMIC IMPACTS

Institutions of higher education tend to be **significant economic contributors to their host communities** in a number of ways. Universities represent a meaningful amount of direct employment, operating activity, visitor spending, and capital investment, all of which enrich local economies and generate tax revenues for local jurisdictions. Universities also educate and credential students, whose additional earning power associated with their educational advancement benefit the economies in which they participate after graduating.

One of Dr. Houshmand's four stated strategic pillars for Rowan is that it serves as an economic engine in southern New Jersey. ESI's 2015 report *The Statewide Economic Impact of Rowan University* identified and quantified four ways in which Rowan University contributes to the statewide economy. A detailed discussion of ESI's approach to input-output economic modeling is provided as Appendix A to this report.

Statewide impacts were quantified as follows (see Table 2.1):

1. Rowan undertakes major **capital projects** which have represented construction activity and related employment at a time of slack demand. The $210 million in capital projects undertaken in the past five years have produced a $340 million statewide economic impact, supporting 2,700 jobs and generating $9 million in State tax revenues.

2. Rowan represents a significant amount of **operating activity**, and is one of the largest employers and purchasers of goods and services in southern New Jersey. Its annual operating budget of $440 million results in a $900 million statewide economic impact each year, supporting 6,400 jobs and generating $11 million in State tax revenues.

3. Rowan University attracts **students and visitors** to the region and state, whose spending stimulates the regional and state economies. It is estimated that students alone inject over $100 million into the State economy each year, which supports 1,300 jobs and $3 million in State tax revenues.

4. Rowan University **educates and credentials students**, translating into an estimated $140 million in additional household income within the State, helping the State retain residents it has invested primary and secondary education resources in, and producing skilled workers in key industries facing growing demand and labor shortages.

5. All told, on an annualized basis Rowan University produces **$1.23 billion in statewide economic impact, which supports 9,200 jobs and generates $19 million in State tax revenues**.

TABLE 2.1 – SUMMARY OF ROWAN UNIVERSITY'S IMPACT IN THE STATE OF NEW JERSEY

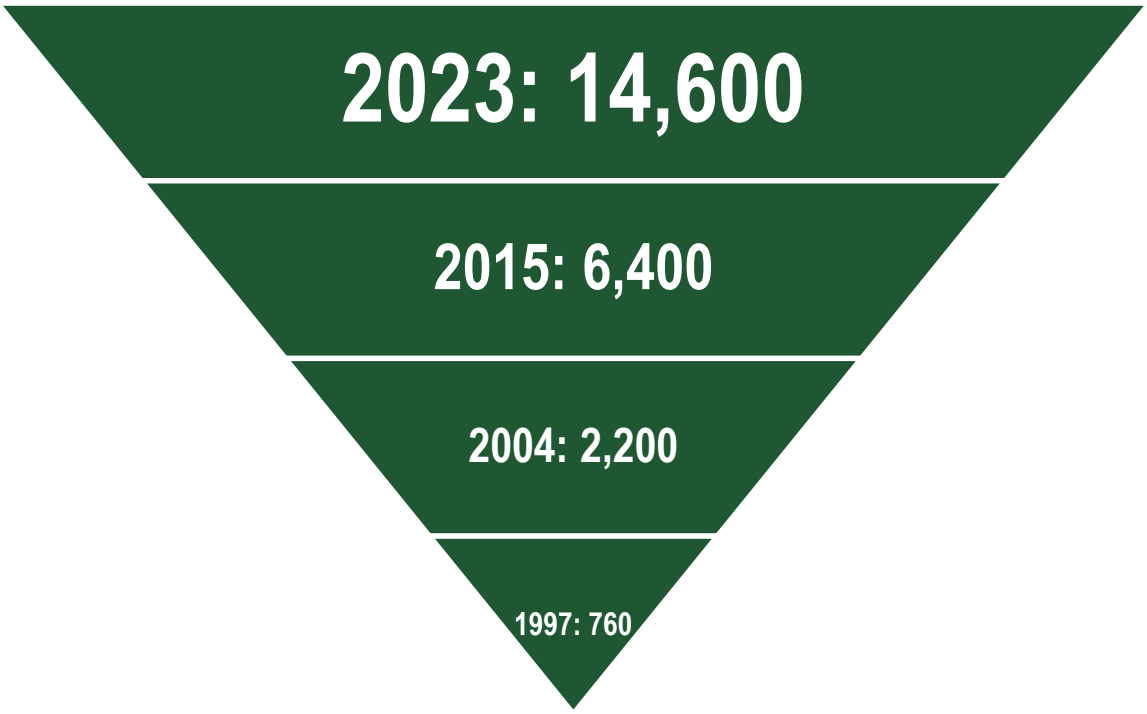
Impact from Capital Investments (FY 2010 to FY 2014)	Impact from Operations (FY 2015)	Impact from Student Spending (per year)	Additional Household Income to Alumni (per year)	Annualized Total (per year)
$211 million in direct investment	**$440 million** operating budget	**$107 million** in annual student spend	**$140 million** more in annual earning power	N/A
$338 million statewide impact	**$907 million** statewide impact	**$115 million** statewide impact	**$138 million** statewide impact	**$1.23 billion** statewide impact
2,700 jobs supported in construction period	**6,400 jobs**[2] supported	**1,300 jobs** supported	**1,000 jobs** supported	**9,200 jobs** supported
$9 million in tax revenues generated	**$11 million** in tax revenues generated	**$3 million** in tax revenues generated	**$3 million** in tax revenues generated	**$19 million** in tax revenues generated

Source: Econsult Solutions, Inc. (2015)

[2] Note that direct jobs associated with operations are Rowan employees, while most of the jobs supported by other impact categories and with indirect and induced economic impacts are not direct employees of Rowan.

One reflection of Rowan's past and projected growth is the rapid increase in jobs throughout the State that are directly and indirectly supported by its ongoing operations. **Between 1997 and 2004, this number tripled from 760 to 2,200. From 2004 to 2015 it will have tripled again to 6,400. By 2023, it will more than double, to almost 15,000** (see Figure 2.1). Hence, with Rowan's growth comes additional positive economic impact for the State as a whole, and an opportunity to play a larger role as an economic engine in southern New Jersey and an innovation hub for the State.

FIGURE 2.1 – INCREASE IN JOBS SUPPORTED BY ECONOMIC IMPACT FROM ROWAN UNIVERSITY OPERATIONS OVER TIME



Source: Econsult Solutions, Inc. (2015)

In addition to these modelable effects on the state economy, universities have a number of additional economic and fiscal impacts on the local communities in which they are situated, which are articulated and, where possible, quantified throughout the course of this report. In general, universities represent a significant amenity for nearby residents, which contributes economic value and increases property values.

- Universities provide services on or near their campus, notably public safety. They also offer unique programming accessible to community residents, whether through athletic or cultural events, conferences, classes, camps and more. All of this makes owning property near universities an attractive proposition, as reflected in local real estate markets.

- Universities are also significant drivers of local business and commercial real estate markets. Their purchasing power and needs attracts supply chain businesses, and their space needs often guarantee tenancy in nearby areas. In addition, their students provide a well-trained and highly skilled workforce for local businesses to access. This contribution

to marketplace demand helps to encourage commercial development, which benefits local communities.

- Universities are stewards of and beneficiaries to their local communities in a number of ways. Universities and their constituent groups organize a significant volume of community service and volunteer activities, which deliver significant economic value when totaled. In addition, universities often interact with local communities as part of their educational program. In the case of Rowan, students deliver significant services to neighboring communities in the areas of health care and education.

2.3 ROWAN'S ECONOMIC IMPACT IN GLASSBORO

Based on ESI's estimates of regional economic impact for Gloucester and Camden counties, an estimate can be developed for the economic impact from Rowan's activities that accrues within Glassboro. Similar albeit smaller impacts accrue to other local communities where Rowan has a physical presence; for the purpose of this section, the only economic impacts that are calculated are for Glassboro where Rowan's main campus and majority of activities are located.

The proportion of direct, indirect and induced economic activity for the two-county region taking place within Glassboro was estimated using known ratios of economic activity between the two-county region and Glassboro. In cases where direct data was available from Rowan, such as the proportion of University spending that accrued to vendors within Glassboro, or the proportion of total faculty and staff payroll paid to Glassboro residents, those direct inputs were used.

Using this approach, we conclude that the economic activity and employment impacts from Rowan University within Glassboro are substantial (see Table 2.2):

- Rowan's **capital investments** (I.e. repairs, renovations, construction) have led to significant construction activity within Glassboro. Economic output within Glassboro over the past five years from these activities is estimated at $27 million, and 245 jobs supported.

- Rowan's **annual operations** are estimated to increase economic output within Glassboro by $73 million a year, and to support 550 jobs.

- **Ancillary spending** by students injects $30 million a year into the economy of Glassboro, and supports an additional 415 jobs.

- All told, on annualized basis Rowan University produces **$108 million in economic impact within Glassboro, which supports more than 1,000 jobs.**

TABLE 2.2 – ESTIMATED LOCAL ECONOMIC IMPACT IN GLASSBORO

Impact Type	Impact from Capital Investments from FY 2010 to FY 2014	Impact from FY 2015 Operations	Impact from Student Spending Each Year	Annualized Total (per year)
Direct ($M)	$24.6	$55.2	$29.3	$89.4
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Induced ($M)	$1.5	$14.0	$0.3	$14.6
Total Output ($M)	$27.2	$72.8	$30.1	$108.3
Employment supported (jobs)	245	550	415	1,010

Source: Econsult Solutions, Inc. (2015) [3]

2.4 LOCAL PROCUREMENT AND SPENDING

One key aspect of Rowan's local economic impact are the **millions of dollars in operating expenditures it spends each year that go to Glassboro and Camden based firms**. These expenditures infuse considerable direct dollars into the local economy, which in turn support additional spending by these firms and their employees, as modeled in Section 2.4.

Table 2.3 below shows the volume and share or total University spending concentrated in Glassboro and Camden over the past five fiscal years, based on vendor spending records provided by Rowan:

- University spending within Glassboro has totaled $29.1 million over five years, growing from $5.3 million in FY 2010 to $7.0 million in FY 2014.
- University spending within Camden has totaled $16.3 million over five years, with a significant spike to $8.3 million in FY 2013 associated with the opening of CMSRU.

[3] It should be noted that this approach to estimating local impact is conservative, since, in the absence of direct inputs, it assumes that economic activity attributable to the University within the two-county region occurs in equal proportion within Glassboro to Glassboro's overall economic footprint within the county. In practice, since that activity originates within Glassboro, it is likely that the local economy in fact captures a higher share of economic activity originating from the University than its share of overall economic activity within the two-county region, a hypothesis supported by categories for which direct Glassboro data is available. Appendix B provides full detail on ESI's methodology for estimating local impact within Glassboro.

TABLE 2.3 – ROWAN VENDOR SPENDING IN GLASSBORO AND CAMDEN. FY 2010-2014

Fiscal Year	Total Vendor Spending	Glassboro	Camden	Glassboro + Camden	Local Share
2010	$113.2 mil	$5.3 mil	$1.8 mil	$7.1 mil	6.3%
2011	$128.3 mil	$5.2 mil	$2.1 mil	$7.4 mil	5.7%
2012	$132.4 mil	$5.2 mil	$1.7 mil	$6.9 mil	5.2%
2013	$180.5 mil	$6.4 mil	$8.3 mil[4]	$14.7 mil	8.1%
2014	$215.8 mil	$7.0 mil	$2.3 mil	$9.3 mil	4.3%
TOTAL	$770.1 mil	$29.1 mil	$16.3 mil	$45.4 mil	5.9%

Source: ESI Analysis of Rowan University Data

Rowan's local spending is distributed across a range of functions and uses. Within Glassboro, physical plant represents $4.6 million in vendor spending over the five year period, supporting the local construction industry. Significant investments in student services and academic support also take place within Glassboro. Instructional spending forms the largest category within Camden at $6.9 million over the five year period. Institutional support and rental expenses also constitute significant spending categories.

Recently, Rowan has taken bold steps to further entrench its commitment to local sourcing. In the summer of 2014, Rowan entered into a 10 year on-campus food service contract with Gourmet Dining LLC, a local firm based in Madison, NJ, that requires the company to promote the use of local food establishments and to buy locally.

- As stipulated in its contract with Rowan, Gourmet has been cross-promoting food service providers on Rowan Boulevard accepting dining dollars, and starting next academic year will offer a block meal plan that provides Rowan Boulevard meal swipes. Gourmet's most recent report estimates that the program will help to infuse more than $700,000 in food spending into Rowan Boulevard within the first year.

- Gourmet reports spending $4.8 million with New Jersey based vendors in their first 10 months of operations, as in on track to exceed its local spend projection of 30%. Gourmet reports that it will expand efforts to feature products from New Jersey farms in coordination with the warmer months of the growing season, and seek out local wine and beer producers to source from for special events.

Rowan also encourages additional local spending by students, faculty and staff by enabling local business partners to accept payment from a RowanCard. Card holders can draw against their Boro Bucks or Dining Dollars account balances, which are connected to their student tuition and meal plan accounts, to make purchases off-campus at more than 70 participating businesses in Glassboro (see Figure 2.2), as well as two in Camden. Total local spending through this program topped $4 million in both FY 2013 and FY 2014, and has already exceeded those total in FY 2015 through April, ten months into the fiscal year (see Table 2.4).

[4] FY 2013 spending in Camden included significant expenditures associated with the establishment of the Cooper Medical School of Rowan University.

TABLE 2.4 – BORO BUCKS AND DINING DOLLARS LOCAL SPENDING BY ROWANCARD HOLDERS, FY 2013-2015

Fiscal Year	Total Spending
2013	$4.2 mil
2014	$4.2 mil
2015 (first 10 months)	$4.8 mil
TOTAL	$13.2 mil

Source: Rowan University

FIGURE 2.2 – OFF-CAMPUS ROWANCARD MERCHANTS IN GLASSBORO

The following off-campus merchants currently accept the RowanCard 'Boro Bucks:

7 Eleven 324 Rowan Blvd. Glassboro, NJ 08028 (856) 881-6027	**Checkers** of Glassboro Collegetown Plaza 701 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-2906	Boro Bucks myrowancard.rowan.edu	**Hibachi Grill** 884 Delsea Dr. Glassboro, NJ 08028 (856) 881-8898	**Ming Lok** 22 Pitman Ave. Pitman, NJ 08071 (856) 589-6161	**Popeye's Chicken** 332 N. Delsea Dr. Glassboro, NJ 08028 (856) 243-2447	**Sun Pay Beauty Supply** 8 High St. Glassboro, NJ 08028 (856) 863-3712
Ale's Auto Service 11 College Drive Glassboro, NJ 08028 (856) 881-6656	**Ms. Chrissy's Sweet Cafe** 38 East High St. Glassboro, NJ 08028 (856) 243-2899	**Friendly's** of Glassboro 1100 N. Delsea Dr. Glassboro, NJ 08028 (856) 589-2488	**Highway Mart & Gas** 705 Mullica Hill Rd. Glassboro, NJ 08028 (856) 589-6868	**Nailzclub** 198 Dalton Dr. Glassboro, NJ 08028 (856) 256-9328	**Posh Nail Spa** 741 N. Delsea Dr. Glassboro, NJ 08028 (856) 243-2296	**Taco Bell** of Glassboro 322 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-1602
All Stop Grocery 116-118 N. Broadway Camden, NJ 08102 (856) 338-0852	**The Cheesesteak Factory** 524 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-9000	**Gino's Pizzeria** 844 N. Delsea Dr. Glassboro, NJ 08028 (856) 307-9000	**Hunan Wok** 323 Mullica Hill Rd. Glassboro, NJ 08028 (856) 881-8981	**New York Italian Deli** 408 N. Delsea Dr. Glassboro, NJ 08028 (856) 442-0202	**Prime Burger** 322 Rowan Blvd. Glassboro, NJ 08028 (856) 243-2191	**Tantini Tanning** 172 Dalton Dr. Glassboro, NJ 08028 (856) 582-0826
Boro Bucks myrowancard.rowan.edu	**Ciconte's Pizza** of Glassboro 323 Mullica Hill Rd. Glassboro, NJ 08028 (856) 881-4412	**Glassboro Bowling Center** 503 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-1011	**Jimmy John's Gourmet Sandwiches** 55 N. Delsea Dr. Glassboro, NJ 08028 (856) 370-0000	**Nick's Pizzeria** of Glassboro 644 N. Delsea Dr. Glassboro, NJ 08028 (856) 307-1100	**Rodeo's Chicken Coop** 20 N. Delsea Dr. Glassboro, NJ 08028 (856) 442-0099	**Think Greek Grill & Yogurt Bar** 21 East High St. Glassboro, NJ 08028 (856) 881-0436
Arby's of Glassboro 1058 N. Delsea Dr. Glassboro, NJ 08028 (856) 582-0024	**The Comic Book Store** 30 N. Main St. Glassboro, NJ 08028 (856) 442-0402	**Glassboro Thrift Village** 169 S. Delsea Dr. Glassboro, NJ 08028 (856) 863-5558	**K-Mart** of Glassboro 779 N. Delsea Dr. Glassboro, NJ 08028 (856) 589-5150	**Papa John's Pizza** of Glassboro 698 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-8383	**Rowan Bookstore Barnes & Noble** of Glassboro 201 Rowan Blvd. Glassboro, NJ 08028 (856) 881-5960	**Tomo Sushi** 806 N. Delsea Dr. Glassboro, NJ 08028 (856) 582-6916
Asian Grill 126 E. High St. Glassboro, NJ 08028 (856) 881-8891	**CVS/Pharmacy** of Glassboro 1050 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-2200	**Goodwill** of Glassboro 818 N. Delsea Dr. Glassboro, NJ 08028 (856) 307-9175	**Landmark Americana** of Glassboro 1 Mullica Hill Rd. Glassboro, NJ 08028 (856) 863-6600	**PB'S Diner & Tap Room** 500 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-1579	**Ry's Bagels** 800 N. Delsea Dr. Glassboro, NJ 08028 (856) 270-2575	**Treasures on Broadway** 227 Rowan Blvd. Glassboro, NJ 08028 (856) 218-1414
AT&T 698 N. Delsea Dr. Glassboro, NJ 08028 (856) 347-3720	**Domino's Pizza** of Glassboro 231 Rowan Blvd. Glassboro, NJ 08028 (856) 881-8100	**Green Zebra** 328 Rowan Blvd. Glassboro, NJ 08028 (856) 226-3850	Boro Bucks myrowancard.rowan.edu	**Peking Buffet** 753 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-4055	**Ry's Bagels On the Boulevard** 330 Rowan Blvd. Glassboro, NJ 08028 (856) 243-5347	**Wendy's** of Glassboro 685 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-3980
Bagel Express 327 Mullica Hill Rd. Glassboro, NJ 08028 (856) 881-4193	**Dunkin Donuts** of Glassboro 658 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-1441	**Grilly Cheese** 22 High St. Glassboro, NJ 08028 (856) 630-4357	**Little Beef's** of Glassboro 114 W. High St. Glassboro, NJ 08028 (856) 863-677	**Pep Boys** 711 N. Delsea Dr. Glassboro, NJ 08028 (856) 256-8000	**Saladworks** of Glassboro 791 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-2203	**YoGo Factory** of Glassboro 300 Rowan Blvd. Glassboro, NJ 08082
Boulevard Salon 235 Rowan Blvd. Glassboro, NJ 08028 (856) 881-2971	**Expo Nails** 808 Delsea Dr. Glassboro, NJ 08028 (856) 218-8818	**Hair 2 There** 7 State St. Glassboro, NJ 08028 (856) 863-3600	**Little Sicily Pizza** 46 N. Main St. Glassboro, NJ 08028 (856) 881-7977	**Pizza Hut** of Glassboro 712 Delsea Dr. Glassboro, NJ 08028 (856) 582-3440	**Samurai Japanese Steak House** 646 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-7788	**Zallie's ShopRite** of Glassboro 201 Dalton Dr. Glassboro, NJ 08028 (856) 863-3700
Bryant's Barber Shop 336 S. Academy St. Glassboro, NJ 08028 (856) 881-9780	**Extravagant Cuts & Styles Barbershop** 640 N. Delsea Dr. Glassboro, NJ 08028 (856) 612-5991	**Hand & Stone Spa** of Glassboro 694 N. Delsea Dr. Glassboro, NJ 08028 (856) 442-0042	**McDonald's** of Glassboro 656 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-2311	**Pizza Hut On the Boulevard** 314 Rowan Blvd. Glassboro, NJ 08028 (856) 307-7488	**Smashburger** 698 N. Delsea Dr. Glassboro, NJ 08028 (856) 229-9393	Boro Bucks mytowancard.rowan.edu
Burger King of Glassboro 410 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-6677	**Forever Young Emporium** 320 Rowan Blvd. Glassboro, NJ 08028 (856)-616-12911	**Heritages Dairy** 2 Glassboro Stores 525 Mullica Hill Rd. (856) 881-7771 & 505 N. Main St. (856) 881-1236 Glassboro, NJ 08028	**Meineke Complete Car Care** 368 N. Delsea Dr. Glassboro, NJ 08028 (856) 881-2063	**Play N Trade** 698 N. Delsea Dr. Glassboro, NJ 08028 (856) 863-8100	**Subway** of Glassboro 757 N. Delsea Dr. Glassboro, NJ 08028 (856) 270-2513	***More to come!***

Source: Rowan University – as of December 2014

3.0 REAL ESTATE IMPACTS

3.1 OVERVIEW

A strong local real estate market is crucial to the fiscal stability of communities in the state of New Jersey, given their reliance on local property tax revenues. Institutions of higher education are key drivers of residential and commercial demand and key investment entities, both through their own operations and through their impact on the private sector.

Rowan's impact on local real estate markets are derived in a number of ways outlined within this section:

- Rowan has a housing incentive program for University employees living in Glassboro, and, as of 2014, the program has been extended to Camden and Stratford. This program provides a stipend for staff to live in local communities, strengthening university ties as well as driving local real estate demand among a desirable group of property owners from a municipal standpoint.

- Rowan has been both the key investor and the driving force behind the $300 million Rowan Boulevard in downtown Glassboro, a mixed use corridor connecting the campus and downtown which provides both desirable amenities for the community and significant tax base growth for the community.

- Rowan has created the South Jersey Technology Park in nearby Mantua, strengthening its influence on private innovation activity, which will result in both short-term and long-term gains in the concentration of knowledge firms located in the surrounding area.

- In addition to these three major initiatives, Rowan reports eight significant satellite operating leases in nearby communities in FY 2014 totaling $1.3 million (see Appendix C).

Taken together, these activities do far more than just supply rental revenue for individual landlords. The virtual guarantee of tenant demand created by the stable (and growing) operations of a major university boosts the entire local commercial real estate market, increasing rents and demand that the market can bear, thereby encouraging development. This development refreshes building stock, making the location relatively more attractive for businesses (whether or not their activities are related to the university) and increasing tax ratables for local municipalities. It also creates construction activity, which bring employment and tax revenue impacts at the local level.

3.2 ROWAN UNIVERSITY HOUSING INCENTIVE PROGRAM

University housing incentive programs encourage home ownership, stabilize local neighborhoods, support local real estate and markets, and strengthen town-gown ties in a variety of ways. Starting in FY 2001, Rowan University offered employees who purchase a home in Glassboro, a $1,500 annual stipend for up to 10 years to be put towards their municipal taxes.

- From FY 2001 to FY 2013, 128 employees participated in the program, including 15 who received the maximum 10 year stipend of $15,000.

- In total, Rowan awarded 663 years of stipend payments from FY 2001 to FY 2013, at a total contribution of $995,000.

Standard economic theory suggests that the benefits of these stipends are not captured only by the employees who receive them. Since the impact of the stipend is to reduce the ten year cost of purchasing and maintaining a home in Glassboro for a Rowan employee by $15,000, homes are functionally "worth" more to university employees than non-university employees, thus increasing what they would be willing to pay for a home. The market impact of this process increases real estate values throughout Glassboro and thus the tax base for the municipality.

In total, nearly 300 of Rowan's employees live within Glassboro. A recent employee engagement survey (sample size of 119) provided insight to their contributions to the the community, such as serving on municipal boards; belonging to cultural/social/religions organizations; being involved in youth sports programs; volunteering in the school district and being a member of civic organizations. Approximately 66 percent volunteered their time; 56 percent lent their expertise on initiatives; and 76 percent regularly donate to Glassboro-based fundraising efforts.

As of 2014, the housing incentive program is now available for faculty and staff purchasing homes in Camden and Stratford as well as Glassboro.

3.3 ROWAN BOULEVARD AND DOWNTOWN GLASSBORO

One of the important impacts from Rowan's significant capital investment has been its ability to simultaneously **stimulate additional nearby investment**. Most notably, physical investments by Rowan made possible the creation of the $300 million mixed-use Rowan Boulevard, in collaboration with Glassboro. This unique public private partnership has transformed a neighborhood of single family housing occupied largely by college rentals into a vibrant downtown through a combination of public will, public policy (including a rezoning of the area by the municipality) and investment (both on the part of Rowan and private developers).

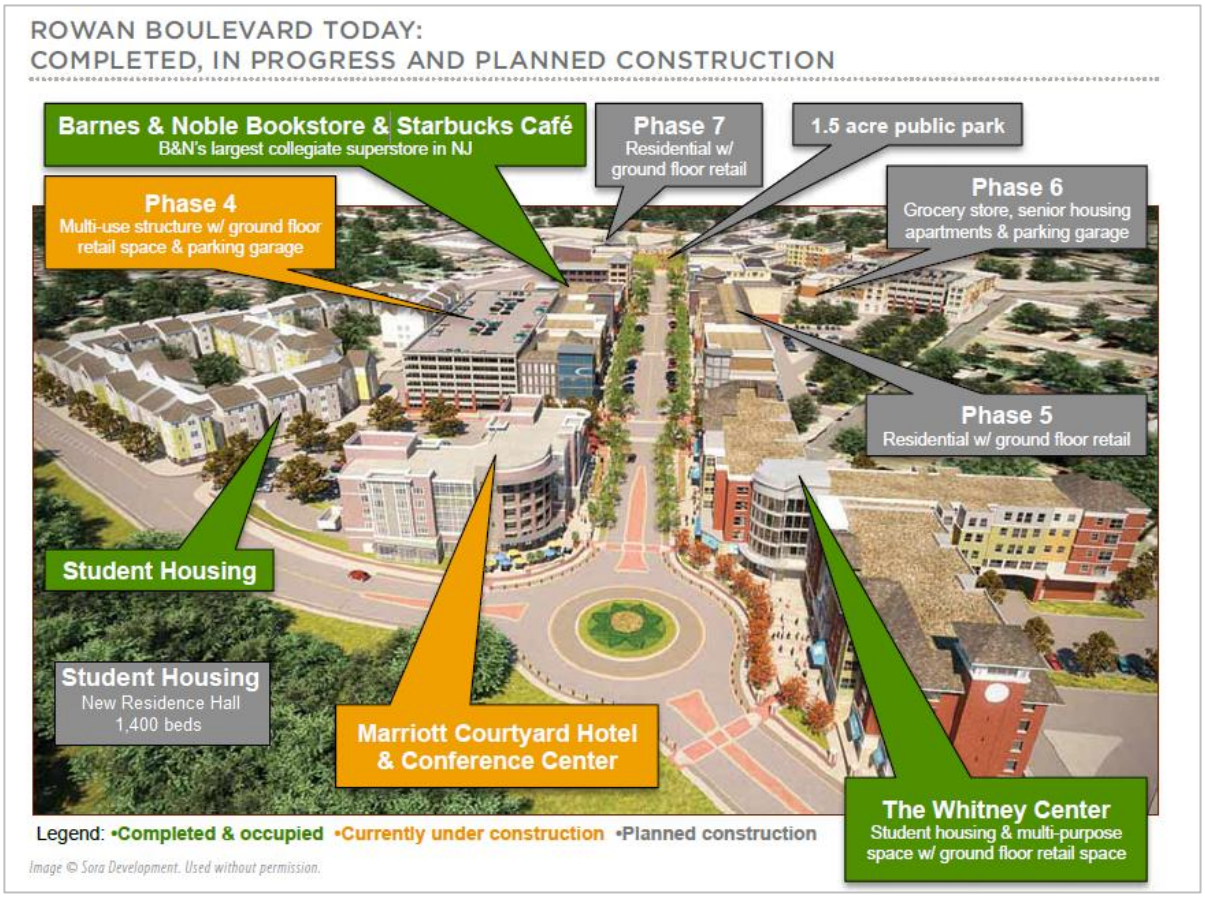
Rowan Boulevard forms a completely new 26-acre, 1/3-mile long corridor from the foot of the university campus to a 1.5 acre town square. In the planning stages since 2004, the project began construction in 2008. Phase I and Phase II, featuring student housing apartments at the foot of the boulevard, were completed in 2010, and in 2011 a Barnes & Noble collegiate superstore was added along with the Whitney Center, a mixed use building featuring retail and university housing.

Rowan Boulevard is currently 70% complete, with two additional buildings expected in the next five years. Upon completion, the mixed use corridor is expected to offer (see Figure 3.1):

- 60 new retail stores, including a dozen restaurants, featuring 185,000 square feet of retail space;
- 40,000 square feet of office space;
- 307,000 square feet of residential space;
- A Marriott Courtyard hotel and conference center with more than 100 rooms and an adjacent 6,000 square foot restaurant.

The full project, which is currently under the direction of Glassboro, is anticipated to boost the local economy by $48 million annually when completed. Rowan Boulevard thus has represented a large infusion of private investment into Glassboro, a significant expansion in the local tax base, and a major enhancement in the commercial opportunities and public amenities available to neighboring communities. It also provides an example of a private-public collaboration redefining the area and the community around the university, creating an amenity that improves quality of life in Glassboro and strengthens its identity as a "quintessential college town."

FIGURE 3.1 – ROWAN BOULEVARD PLAN



Source: Rowan University

The buildings constructed on Rowan Boulevard to date include a mix of private and public management arrangements, which benefits both the University and the local economy:

- *Rowan Boulevard Apartments* is privately owned and operated by SORA Holdings but managed by Rowan Housing Staff, and houses 884 students.
- *Barnes & Noble Collegiate Superstore* is leased from SORA Holdings by Rowan and subleased to Barnes & Noble.
- *Enterprise Center* is privately owned and operated by Nexus Properties, and contains retail, a parking garage and classrooms.
- *220 Rowan Boulevard* is privately owned and operated by Nexus Properties as Rowan "affiliated" housing. It will open in fall 2015 with a medical facility, retail and restaurants. It will be home to 456 students and also features market rate housing for non-students.
- *Marriot Courtyard and Conference Center* is privately owned and operated by Marriott, featuring 129 beds and conference facilities.
- *Whitney Center* is privately owned and operated by Kinsley Group, but managed by Rowan Housing staff. It features retail on the first floor and housing in the balance of the building and is home to 280 students (see Figure 3.2).

FIGURE 3.2 – WHITNEY CENTER ON ROWAN BOULEVARD



Source: Rowan University

Rowan's support for Rowan Boulevard has taken a number of forms. First, Rowan is a direct tenant for some of the spaces, including the book superstore (which it sub-leases to Barnes and Noble) and the new Art Gallery on High Street described below. More broadly, however, Rowan supplies the market demand that makes the private development and investment possible. The office space needs of the university itself provide a market for office development, while the

concentration of students creates the demand for student housing. Together, the university, students and associated visitors create the density of demand that supports retail establishments, particularly on the ground floor of residential and office buildings. The private development associated with this mixed-use environment clearly would not be possible without Rowan as the central guarantor of tenancy and demand.

In addition, Rowan is currently adding a 1,400 bed resident hall on the east end of campus across the street from Rowan Boulevard through a unique private public partnership (see Figure 3.1). Private developer University Student Living is financing construction of the $129 million project and will manage the building when it opens in Fall 2016. This project adds major private sector economic activity directly on the Rowan campus.

3.3.1 HIGH STREET INVESTMENT

In recent months, Rowan has also announced additional activity deepening its partnerships with Glassboro. In February 2015, Rowan announced plans to purchase and remodel a three-story building on High Street in downtown Glassboro, adjacent to Rowan Boulevard, at a cost of more than $5 million. The building will serve as the new home for Rowan's art gallery, as well as classroom and office space. Just blocks away on High Street, Rowan has leased the former First National Bank to serve as home to the College of Communication & Creative Arts. This concentration of arts and culture amenities in the historic downtown, situated alongside the developing commercial corridor of Rowan Boulevard, further enhances the offerings of the downtown for both residents and students and deepens Rowan's ties to the community.

3.4 SOUTH JERSEY TECHNOLOGY PARK

The recently created South Jersey Technology Park (SJTP) is a major initiative of Rowan University and has the potential to grow into **a major source of private business activity** driven by the University and benefitting local economies. Located 1.5 miles west of the main campus on Rowan's 600-acre "west campus" just outside of Glassboro in Mantua, SJTP is projected to grow rapidly from the current Samuel H. Jones Innovation Center (see Figure 3.3), home to 16 sponsored research labs, to a 180 acre campus with protected greenspace and wetlands incorporated into the design (see Figure 3.4). Two additional buildings are currently in design, and an RFP for development and construction of one has already been issued.

SJTP is designed to accommodate research related facilities for mature technology companies and government agencies, and to serve as a hub for Rowan's Rohrer College of Business Incubator. Its tenants will have the ability to tap into the research, development and commercialization expertise of Rowan's faculty and students to enhance private sector activity in the region. This concentration of innovation activity holds the promise for spillover real estate investment in nearby localities, both from entities seeking to be physically proximate to the technology park and from spinoff ventures that choose to locate nearby. The Tech Park is also home to Rowan's virtual reality lab, where faculty and students take on privately funded projects.

In March 2014, Rowan and Lockheed Martin announced an innovative, strategic partnership to develop new technologies for a range of radar system applications in support of national defense,

with research activities based out of SJTP. Students and faculty within the College of Engineering will be working with Lockheed Martin on radar prototyping and testing, as well as radar engineering curriculum and sustainability models. This strategic partnership holds long-term potential for additional growth and serves as a key economic development component for the South Jersey region, in which Lockheed Martin is one of the largest private employers.

FIGURE 3.3 – SAMUEL H. JONES INNOVATION CENTER AT SOUTH JERSEY TECHNOLOGY PARK



Source: Rowan University

FIGURE 3.4 – SOUTH JERSEY TECH PARK NORTH CAMPUS RENDERING



Source: Rowan University

4.0 LOCAL FISCAL IMPACTS

4.1 OVERVIEW

Localities in the State of New Jersey generally do not directly receive sales, personal income, or business income tax revenues, but rather such tax revenues are aggregated at the statewide level and then shared down to local municipalities in a formulaic manner. Thus, while Rowan University's statewide economic impacts translate to higher State tax bases and therefore more State tax revenues, its local economic impacts do not translate to higher local tax bases in the same way. However, in addition to the extensive real estate impacts from development stimulated by the university discussed in section 3, Rowan **stabilizes and increases property values** near its campuses, resulting in higher property tax revenues for host localities, and also makes **direct financial contributions** as well as service partnerships each year. Therefore, in addition to enriching local economies, Rowan directly supports the financial health of local municipal governments.

4.2 LOCAL PROPERTY VALUE IMPACTS

As the famous axiom "location, location, location" suggests, real estate values are about more than the physical characteristics of a residential property. Nearby amenities, like parks and playgrounds, or disamenities, like landfills or high-crime areas, can have a significant impact on property values. Statistically, with sufficient data, it is possible to isolate the incremental impacts of any one of these characteristics on the value of a home, holding all other attributes (including both physical characteristics like size and number of bathrooms and other location related characteristics) constant. Universities have been a frequent topic of this type of analysis, and have been shown to **generate additional property value in nearby neighborhoods**.

For example, in 2009, Amanda Lockshiss studied the effect of Institutions on local housing prices and on locality tax bases.[5] This study attempted to account for both positive and negative impacts. On the one hand, Institutions can represent a significant amount of operating activity and provide a range of amenities for nearby residents, thus boosting a locality's economic base and pushing property values upward. On the other hand, Institutions can also represent clusters of disruptive student residents who have negative effects on neighborhoods, and Institutions themselves are tax exempt entities so do not pay property taxes like non-exempt property owners do. Lockshiss found that for the majority of Institutions, the positives significantly outweigh the negatives: the cultural and recreational amenities offered by each university, along with the considerable open space protected and maintained by schools, generally generate property value appreciation in nearby residential areas.

In addition, an analysis by researchers from Rutgers University of the property value impacts of New Jersey Institutions found that towns that had four-year Institution campuses within their borders had property values that were over 13 percent higher than towns that did not have an

[5] "The Effect of a College on Housing Prices and the Tax Base," The College of New Jersey (April 2009).

Institution campus, all else being equal.[6] In other words, the presence of an institution of higher education conferred a property value premium all through the town and not just on geographically proximate locations. This suggests that there is an overall town-wide value-enhancing effect from having an Institution within one's borders.

ESI performed a similar analysis in 2014 of property values around three institutions of higher learning in Radnor Township, Pennsylvania: Villanova University, Eastern University, and Cabrini College[7]. Using housing data from the Township, ESI isolated the distance from campus of any of the three institutions as a discrete characteristic, and estimated the property value premium associated with this proximity. The results indicated that proximity to one of the Institution campuses has a positive impact on the prices of houses located nearby. This statistical relationship was confirmed by the observed behavior or realtors in the vicinity of the institutions, who frequently point out proximity to campus to emphasize the attractiveness of a house, and by bond rating agencies that cited the universities as a stabilizing force in evaluating the credit of the Township and School District.

4.2.1 ESTIMATING PROPERTY VALUE IMPACTS IN GLASSBORO

The higher real estate values for houses located near one of the campuses not only benefits individual property owners (who see an important asset on their personal balance sheets go up in value) but also the municipal government and the School District (which see their property tax base go up, resulting in more property tax revenues per year).

As in Radnor Township, realtors in Glassboro cite proximity to campus as a positive amenity for nearby properties marketed as single-family, rather than student, housing. These listings suggest that the property value impacts documented near other Universities are likely present in the case of Rowan as well. Local realtors also cite proximity to the redeveloped Glassboro downtown as a positive, the impact of which will be discussed in greater detail in Section 4.

- One local listing advertising a residential property as "within 5 min drive to Rowan University and the beautiful new downtown Glassboro."
- Another advertises a downtown Colonial as "conveniently located around the corner from Rowan University in the redevelopment district."
- A third advertises that "this parcel is located within ½ mile of Rowan Campus/Blvd and is a perfect opportunity to ride the wave of the University's and town's expansion."

These realtor descriptions suggest that **proximity to Rowan is a selling point for a residential location, and that the reasons for this positive association (amenities, economic activity) will only increase over time as Rowan grows**.

[6] "Town versus Gown: The Effect of a College on Housing Prices and the Tax Base," *Growth and Change*. (2012).

[7] "The Community and Economic Impact of Institutions of Higher Education to Radnor Township," Econsult Solutions for Villanova University, Eastern University and Cabrini College (August 2014).

Using residential housing data from the American Community Survey, significant property value was identified within close proximity of the Rowan campus.

- 447 residential properties were identified within a ½ mile of the center point of the Rowan main campus, representing an estimated aggregate property value of $82 million in 2014.

- 1,944 residential properties were identified within one mile of the center point of the Rowan main campus, representing an estimated aggregate property value of $385 million in 2014.

It is not possible within the scope of this study to identify a specific property value impact from proximity to Rowan's campus, as has been done in the studies cited in Section 3.2. It is possible, however, to apply the proximity relationships established for other universities to approximate the potential property value impacts on nearby neighborhoods for Rowan.

For example, applying the 3 percent property value increase within a half-mile of campus calculated by ESI for the universities in Radnor Township to the aggregate property value above and the current property tax rates for Glassboro's municipal government and school district yields the following conservatively estimated impacts:

- $2.5 million in additional household wealth for neighborhood residents due to increased property values (this represents a $5,000 gain for the median home valued at $167,000).

- $60,000 in additional property tax revenues for Glassboro's municipal government and school district

The estimates above represent just a fraction of the University's likely total property value impact, since studies have shown impacts well beyond ½ mile from the center of other campuses. Thus, the number of houses, and the aggregate property value increase and attendant gain in annual property tax revenues, is likely much larger than is calculated here.

It is important to note, of course, that not all property owners share equally in the benefits of increasing property values. For long-time residents who intend to stay in their homes, the balance sheet accumulation in wealth from value increases are to some degree off-set by increasing property tax bills on an annual basis. From a fiscal standpoint, however, they do represent a direct benefit to the municipal government in the form of increased property tax base.

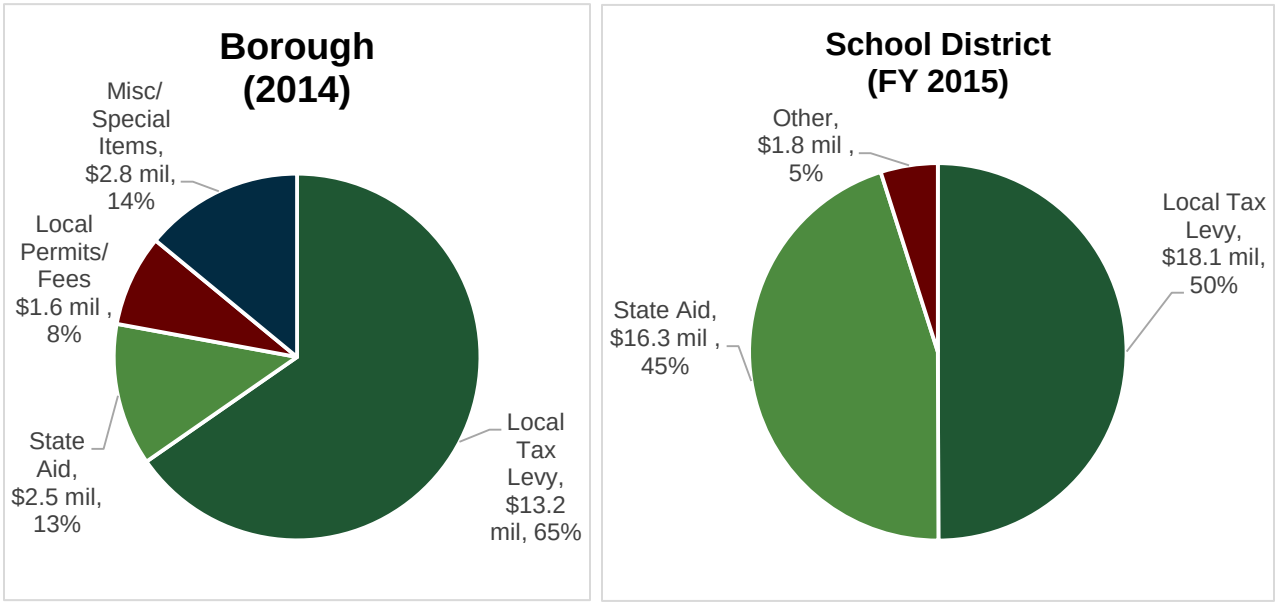
4.3 LOCAL TAX REVENUES

New Jersey's system of municipal government and local school district funding makes the local property tax base a crucial determinant of the resources available to a local government. In general, with the exception of local permits and fees related to construction, the local economic impacts described in Section 2.4 increase tax bases that generate tax revenue for the State rather than local municipalities, such as sales tax and personal and business income taxes. While the State of New Jersey returns significant dollars to local municipalities and district, the level of aid is set by the legislative appropriations process, and the distribution of this aid by legislatively enacted formulas. As a result, a local municipality is unlikely to realize a direct revenue benefit

from increases in state tax bases within its jurisdiction; for example, Glassboro received identical state aid contributions in FY 2012, 2013 and 2014. In 2014, Glassboro received $135 in state aid per capita, below the state average of $169.

Within this framework, the key revenue driver for municipal and educational services is the local property tax base. Figure 4.1 below shows the primary revenue sources for the Glassboro Borough and the Glassboro School District for the most recent year available. Local property taxes represent 65 percent of municipal revenues and 50 percent of school district revenues.

FIGURE 4.1 – REVENUE SOURCES FOR GLASSBORO BOROUGH AND GLASSBORO PUBLIC SCHOOLS



Source: Glassboro Borough and Glassboro Public Schools

The importance of the residential property value impacts of Rowan University discussed in Section 4.2, and the real estate market impacts discussed in Section 3 is thus magnified by the local funding structure in New Jersey, which emphasizes the property tax as the primary revenue driver. It should be noted that property value increases that do not require additional town services (such as those produced by proximity to a self-servicing amenity like a university) may in practice result in a reduction in property tax rates, rather than an increase in government revenue. From an economic standpoint, this does not represent a diminution in value, but simply a resource transfer from the municipality to property owners in the township, who would see the direct monetary benefits. In other words, if Rowan is helping increase the local property tax base, this either translates into more property tax revenues for municipalities and school districts (if rates are held constant and are applied to a higher base of property values) or into lower property tax bills for residents (if the higher property values enable a reduction in property tax rates).

4.4 MUNICIPAL PARTNERSHIPS AND CONTRIBUTIONS

Rowan makes **direct contributions to local municipalities in the areas of economic development and public safety**. Since 2005, Rowan has supplied a voluntary downtown economic development grant to Glassboro, based on a Memorandum of Understanding between the University and municipality. In 2014, that award totaled $175,000 supporting four projects, including marketing, events and activities, signage, and planning for an arts entertainment district. Prominent past projects have included business attraction programs and land use and transportation planning efforts. In sum, payments have totaled more than $1 million dollars since the initiation of this voluntary contribution in 2005.

In addition, Rowan now makes annual direct contributions of $180,000 to Camden and $50,000 to Stratford. In total, therefore, Rowan currently provides $405,000 annually in voluntary direct contributions to host municipalities (see Table 4.1).

TABLE 4.1 – ROWAN VOLUNTARY ANNUAL CONTRIBUTIONS TO HOST MUNICIPALITIES

Municipality	Annual Contribution
Glassboro Borough	$175,000
Camden City	$180,000
Stratford Borough	$50,000
Total	$405,000

Source: Rowan University

Rowan also makes direct financial contributions to pay for local law enforcement coverage in Camden and Glassboro. The University contributes $400,000 annually toward the external security of the CRMSU area, a contribution that is matched by Cooper Hospital, to retain Off-Duty Camden County Sherriff's Officers. Rowan also makes a contribution of $41,525 annually in partnership with Glassboro to provide eight part-time Special Law Enforcement Officer Class II (SLEO II) officers to provide extra patrols on weekend nights to address off-campus student behavior.

Thus, as delineated above, Rowan makes direct payments to localities for various public services for which it partially relies on those localities to provide. As will be discussed in Section 5, Rowan is a direct provider of many services that are often thought of as public services and are normally provided by localities. This service provision extends not only to Rowan's campus and its students, faculty, and staff, but also to peripheral areas and to local residents not directly affiliated with Rowan.

5.0 PUBLIC SERVICES RENDERED AND COMMUNITY RESOURCES OFFERED

5.1 OVERVIEW

As Rowan has grown in size, scope and depth, it has ensured that host communities benefit from the rich array of civic, social and cultural offerings associated with the university. Rowan provides a wide variety of community-serving resources and services in the course of fulfilling its institutional mission and taking care of its own students and staff. To begin with, as an anchor institution dedicated to specific physical locations, Rowan directly provides or funds various public services, such as green space, public safety, and streetscape enhancements, which enrich not only its own students and staff but also provide benefit to its surrounding community. Furthermore, in the dual service of fulfilling its educational mission and being a good neighbor, Rowan provides numerous community-serving resources, such as education, medical care, arts and culture, and environmental stewardship. Rowan students, faculty, staff, and administration are also devoted providers of volunteer services through a wide range of charitable efforts, totaling thousands of hours of service per year.

5.2 COMMUNITY RESOURCES AND SERVICES

Universities, in the exercise of their academic mission and as responsible stewards, are significant contributors to their local communities.

- Rowan's academic approach is embedded with service learning opportunities and responsibilities within South Jersey, particularly in the areas of K-12 education and medical care.
- Rowan's campus represents a hub of resources accessible to local residents, including green space, athletic facilities, and arts and cultural programs.
- Rowan's specialized degree programs educate students on public issues impacting South Jersey and prepare them for public sector leadership.

These significant contributions mean the local residents have access to positive quality of life resources without local municipal governments bearing the cost burden of providing them. Sections 5.2.1 – 5.2.5 elaborate on five major areas of focus for Rowan's contributions to South Jersey: K-12 education, medical care, arts and culture, on campus community amenities, and local stewardship. Above and beyond the specific offerings detailed below, Rowan's presence in South Jersey adds a significant layer of character to the region and fosters a sense of pride in it for residents.

5.2.1 LOCAL K-12 EDUCATION

Rowan University makes a significant commitment in local communities through a variety of programs to **improve the quality of K-12 education**. These efforts include both direct teaching and mentoring programs involving Rowan students and staff and broader efforts to improve teacher quality and retention, particularly in urban districts like Camden, and therefore have a meaningful effect on the quality of services and overall attractiveness of these localities.

- The **Urban Teacher Residency Program** in the Garden State Partnership for Teacher Quality serves urban districts, including Camden, and works to improve the academic achievement of K-12 students in high-need urban schools.

- Every Rowan education major completes **Teaching in Learning Communities I**, an introductory-level course, in a school in the City of Camden.

- Project ENERGY (Exploring New Energy-alternatives Relevant to Generation Y) partnered with CHAMP to **teach high school students how green technologies are developed** and what it means for society when those technologies enter the market place.

- BREATH Profs (Biomedical Research Engagement Activity Toward the Health Professions) partnered with CHAMP to teach about medical technologies and participated in the CMSRU **Junior Urban Medical Pioneers High School Academy** program.

- RowanSOM students, through the link with the New Jersey Area Health Education Centers, participate at the Dr. Charles E. Brimm Medical Arts High School in a program of "pipeline" activities to **attract disadvantaged and minority students into health careers**.

- During the 2013-2014 academic year, CMSRU students launched **CAMP (Cooper After-school Mentoring Program**), a program for Camden and Pennsauken high school students that offers help with school work, science enrichment and one-on-one mentoring.

- **Project REACH (Revitalizing Education and Advancing Camden's Health)**, established in 2009 by RowanSOM students to mentor students from East Camden Middle School, expanded in 2012 to include student volunteers from Rutgers-Camden and added Camden's Sumner Elementary School as a project site.

- The **Rowan Urban Teacher Academy** gives rising high school juniors an introduction to teaching in high-needs disciplines, with most of the curriculum is presented in Camden.

- The **Aim High Science and Technology Academy** run by the College of Education provides STEM instruction and college readiness courses to high school juniors and seniors who are from low socio-economic backgrounds or who are first-generation college students.

- Rowan Camden partners with Rutgers-Camden through the Woodrow Wilson Foundation to **develop STEM teachers to serve South Jersey.**

- A grant from the American Association of Colleges for Teacher Education funds a study at the College of Education into **teacher persistence in Camden** and other urban districts.

- Rowan Camden offers **pre-college programs for high school students**. The largest is CHAMP/GEAR UP, which serves nearly 500 high school students in the city annually.

- CRMSU also provides a range of additional **educational enrichment programs in Camden**, including:

    - JUMP (Junior Urban Medical Pioneers), a free Saturday enrichment program for high achieving high school students from underrepresented minority backgrounds held multiple times per year;
    - Tutor Time, a 4-day-per-week program launched by students at the Riletta Cream Branch of the Camden County Library (Ferry Ave.) providing free tutoring and mentorship to children ranging from pre-school through high school who come to the library after school;
    - PUP (Primary Urban Partnership) in which students spend time each week with a local classroom of grammar school children they've "adopted" for the year, offering enrichment and mentorship;
    - Tutoring and mentorship to students at the Brimm Medical Arts High School, from which two of CRMSU's current first-year medical students graduated.
    - Science lessons for Camden high school students on Saturday mornings throughout the year, taught by students in partnership with Rowan staff in the Upward Bound for English Language Learners program. The lessons explore such areas as physics, chemistry and biology, including two sessions dedicated to a dissection.

- Rowan also offers **bridge programs**, including Rowan's STEAM (Science, Technology, Engineering, Arts and Mathematics) Ahead summer enrichment program and other academies. These are an integrated system of higher education which allow students to earn college credits while in high school.

FIGURE 5.1 – JUNIOR AIM HIGH SCIENCE AND TECHNOLOGY ACADEMY PARTICIPANTS



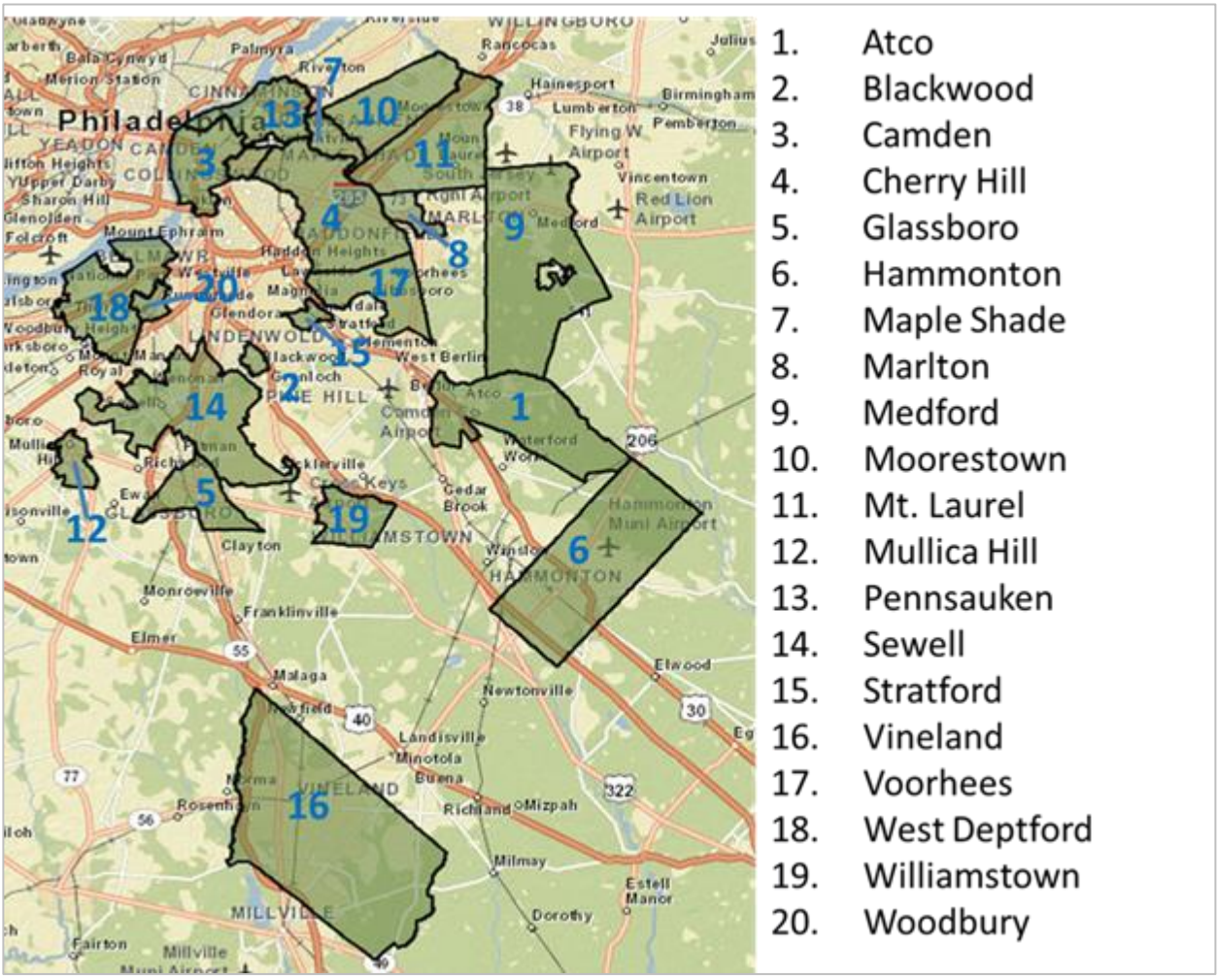
Source: Rowan University

5.2.2 MEDICAL CARE

Students at Rowan's CMRSU in Camden and SOM in Stratford provide a significant volume of **direct medical care** as part of their medical training program. These programs are a perfect example of the nexus between Rowan's core missions and the needs of the residents its host localities In structuring these programs, Rowan makes a direct effort to reach out to underserved communities, including underserved and underinsured citizens who struggle to access quality care.

For the School of Osteopathic Medicine alone, **164 physicians and other professionals provide direct patient care in 57 medical offices in 20 municipalities around South Jersey** (see Figure 5.1)

FIGURE 5.2 – SOUTH JERSEY MUNICIPALITIES IN WHICH SCHOOL OF OSTEOPATHIC MEDICINE PROVIDES PATIENT SERVICES



Source: Rowan University

FIGURE 5.3 – COOPER MEDICAL SCHOOL AT ROWAN UNIVERSITY



Source: Rowan University

- CMSRU students provide free primary care, three days per week, at a year-round **medical clinic at 3 Cooper Plaza.**

- RowanSOM physicians and residents provide patient care at **Our Lady of Lourdes Medical Center (OLLMC)** and also work with the underserved in OLLMC clinics.

- Managed by RowanSOM students, the **Camden Saturday Health Clinic** (CSHC) provides primary and preventative health care to area residents in collaboration with physicians from the departments of Family Medicine and Internal Medicine

- **St. Luke's Catholic Medical Services**, a joint venture with the Camden Diocese, provides primary medical care for uninsured and underinsured Camden residents. St. Luke's also offers home visits, individualized health education programs and preventive health care with a focus on cancer screening and immunizations.

- For over 30 years, as part of a federal initiative to bridge community service and medical education, RowanSOM has sponsored New Jersey's only **Area Health Education Centers (AHEC)**. Located in Bridgeton/Vineland, Camden City, and Atlantic City, the **AHECs provide health services to at-risk populations**, while concurrently offering inter-professional, community-based educational experiences to RowanSOM students.

- The **Chateau Gardot Music Medicine Program** is a student-run program that exposes patients to music for relaxation and to treat pain. This free program pairs RowanSOM students with patients for both group and individual music therapy sessions through RowanSOM's Neuromusculoskeletal Institute.

- At the **Community Osteopathic Manipulative Medicine Clinic**, RowanSOM students work under the supervision of the medical school's faculty to provide free osteopathic manipulative treatment to area residents on the first and third Saturdays of every month.

5.2.3 ART AND MUSIC

Rowan's Glassboro campus offers a range of **low-cost arts and culture programming** for community residents, allowing local residents to benefit from the unique mix of performing arts expertise and facilities present within the University. This represents a significant concentration of cultural amenities for residents of Glassboro, at no cost to the municipality itself.

- **Rowan Prep**, the College of Performing Arts' community school of music now in its fifth year, offers opportunities for music students of all ages and levels. These include on-going private and group instruction in a variety of instruments, the Suzuki string program, one-day workshops and festivals, recitals and more.

- **Rowan Youth Orchestra**, now in its 31st year, is a full orchestra including all the major string, woodwind, brass and percussion instruments. Orchestra members come from middle schools and high schools throughout southern New Jersey and the Philadelphia area. The orchestra performs a series of concerts each year in Rowan's Pfleeger Concert Hall to showcase the participating musicians.

- The **Saturday Morning Art (smART)** program has been offering quality visual arts classes since 1970. The program is a non-profit community outreach program for the visual arts serving the families of the southern New Jersey region. SmART sessions engage children, grades K - 12, in artistic learning through a variety studio activities involving drawing, painting, ceramics, sculpture, printmaking, digital and mixed media discoveries for younger ages.

- Rowan University's departments of Music and Theatre & Dance host **specialized summer music camps** throughout the summer. Each July, young musicians have the opportunity to participate in either Band, Choral, Jazz, or String camp experiences. Each comprehensive program engages students in ensembles, chamber music, and master classes, coupled with evening concerts by students and faculty. The Theatre & Dance camp offers participants a chance to devise and perform new work during a five-day camp featuring work in improvisation, movement exploration, contemporary performance techniques and theatre composition, as well as essential physical and vocal techniques.

- A collaboration with the Glassboro School District, the **Glassboro Fine and Performing Arts Academy** has been heralded as the only high school arts program in New Jersey

allowing participating students to engage with college students through classes at a university. Eligible Academy students in grades 11 and 12 may enroll in music, art, or dance classes at Rowan University. They participate in specialized classes and ensembles at the high school and at the university through a cooperative dual credit program. Additionally, younger Academy students focusing on music are provided weekly individual lessons through Rowan Prep.

- **Rowan University Art Gallery** is open to the public and serves as a premier cultural destination for the region. The gallery is a center for contemporary art by emerging and established professional artists from the region, nation and global community, and is committed to showcasing all forms of visual expression and new media. In February 2015, Rowan announced that it would be re-locating the gallery to High Street in downtown Glassboro, where it will serve as an anchor arts and culture institution.

5.2.4 ON-CAMPUS COMMUNITY RESOURCES

The Rowan campus and the activities that take place there serve as an amenity to the broader community in a number of ways. Rowan's facilities host numerous concerts, lectures and events that are open to the public. Rowan's athletic events are well-attended by community members. Further, cultural offerings like Rowan's art Gallery and Planetarium are frequented by local residents and school children. Rowan also makes its playing fields available for local high school competitions. This concentration of educational, cultural and recreational opportunities serves as a significant free amenity to members of the Glassboro community and South Jersey region.

The campus itself also serves as a community resource through the control, preservation, and maintenance of a sizable amount of open space. This green space is an amenity for local communities in a variety of ways. Most notably, it increases property values due to the willingness of property owners to pay a premium to live in proximity to protected open space, increasing Glassboro's property tax base. In addition, it provides ecological value in the form of naturally occurring environmental processes, including flood mitigation, water supply, and air pollution removal. Localities often value green space so highly that they are willing to expend significant government resources to secure and maintain it so that it is available to its residents. Thus, by keeping and providing open space on campus, Rowan is bearing an expense for the benefit of local residents that does not need to be borne by its host communities and their taxpayers.

FIGURE 5.4 – FREDERIC AND JEAN EDELMAN PLANETARIUM



Source: Rowan University

FIGURE 5.5 – PFLEEGER CONCERT HALL



Source: Rowan University

5.2.5 LOCAL STEWARDSHIP

Rowan is committed to making quality higher education accessible to people living in its host communities. This commitment is demonstrated by an increasingly broad range of degree programs focused around **public sector issues** impacting South Jersey, preparing the leaders of tomorrow to address issues critical to local communities and thus strengthening the organizational capacity of these localities.

- **Specialized degree programs** prepare students to work in public sector roles in urban communities:
  - A new bachelor's degree program in Human Services at Rowan Camden is designed for those who want to work with diverse populations in an urban setting;
  - The new Disaster Preparedness and Emergency Management Program focuses on biomedical preparedness, civil safety, public administration and civic leadership;
  - A doctoral program offered with the College of Education focuses specifically on urban education.

- The **Rowan University/Rutgers-Camden Board of Governors** was created by the *New Jersey Medical and Health Sciences Education Restructuring Act* to oversee a College of Health Sciences that offers collaborative degree programs around biomedical research, allied health and population health.

- Engineering researchers in the South Jersey Technology Park worked under a $424,962 grant from the United States Economic Development Administration on virtual reality initiatives to **address flooding conditions** in Camden and Vineland.

- The Engineers without Borders team helped **develop community rain gardens** in the city, including the Center for Environmental Transformation's gardens and the installation of irrigation systems in the city's Waterfront South section.

5.3 VOLUNTEER WORK

Beyond the significant community contributions related to the academic activities of Rowan described above, the students, faculty and administration of the University represent a significant block of **volunteer hours, performing services that enrich local residents and helping alleviate the financial burdens localities bear to provide these resources**.

Rowan's office of Volunteerism, Community Engagement and Commuter Services coordinates and tracks efforts across campus, including those that involve the Student Government Association, Greek Affairs, Athletics, Student Life and any academic departments that choose to report their numbers. Annual hours reported below therefore should be regarded as a baseline, rather than comprehensive estimate of the total contribution.

- Total number of documented projects: 550

- Total number of involved students: 7,762

- Total number of documented hours: 24,957

The great majority of these efforts are focused on Gloucester County and surrounding counties. Table 5.1 catalogs university participation in nine specific volunteer programs that serve Glassboro, which combine to total nearly 3,000 documented volunteer hours donated per year.

TABLE 5.1 – VOLUNTEER PROGRAMS IN GLASSBORO, FY 2014

Community Partner	Name of Project	# of Projects	# of Volunteers	# of Hours	Student Group (If Applicable)
Big Brothers Big Sisters @ Bullock Elementary	BBBS	49 matches	49	465	SLVCE
Glassboro Family Success Center	Community Programming	2	22	44	ROSCO
Glassboro Child Development Center	Daycare	7	34	34	SLVCE
Glassboro Boys & Girls Club	After School Programming	5	66	140	PhiPsi, PIKE, Cinema Club, and SGA
Glassboro Boys & Girls Club	Birthday Parties	5	32	64	SLVCE
Gloucester County Habitat For Humanity	Habitat Builds	7	43	131	Habitat Club
Post House Assisted Living	Men's Poker	5	20	20	FIJI
Glassboro Cub Scouts	Troop	1	15	120	FIJI
Glassboro Community	Voluntary Income Tax Assistance	N/A	N/A	300+	College of Business - Margaret VanBrunt
TOTAL		82	1,101	2,958	

Source: Rowan University Office of Volunteerism, Community Engagement and Commuter Services

In addition to activities affiliated with the main campus, Rowan contributes significant volunteer services from its other locations, particularly in Camden. In particular, as documented in Section 5.2.2, students at CMSRU provide free care and medical services to the community as part of their training. And, in addition to this medical contribution, CMSRU students undertake 40 hours each of non-health care related community service in Camden per academic year. This contribution totaled more than 5,000 individual service hours in Camden during the 2013-14 academic year.

A national study by *The Independent Sector* valued volunteer time at approximately $22 per hour. Applying this rate to the 2,958 documented volunteer hours in Glassboro yields a value of $65,000 annually, and the 5,000 estimated volunteer hours in Camden yields a value of $110,000. Note that these contributions are above and beyond the extensive community resources and services described in Section 5.2, and likely do not represent a full accounting of volunteer hours by Rowan students, faculty and staff.

6.0 GROWING TOGETHER

As articulated in this report, Rowan University has a positive influence on its host localities in varied manners. Its **direct economic footprint** represents jobs and business activity at the local level. It makes **direct and indirect contributions to local tax bases**. It **strengthens local real estate markets**. And, it provides **numerous community-serving resources** to localities and their residents. It is worth noting again that this report represents Rowan's first attempt to collect and quantify these varied impacts, and as such it understates the true magnitude of many of the impacts described.

In turn, Rowan benefits greatly from its presence in these communities, and is a recipient of the public services and partnership opportunities they provide. These town-gown relationships are a true partnership of equals, with a shared permanence in a particular place and a shared motivation to see that place flourish.

As Rowan grows in size and influence statewide, it also intends to continue to cultivate these town-gown relationships. It is mindful that as it grows its physical footprint and volume of on-campus activity, this will produce economic and social gains for localities but also create additional burdens to be borne by these host communities. Most of all, Rowan's present and future growth represent opportunities for additional investment – of resources, attention, and organizational bandwidth – in extending the benefits identified in this report. Doing so is a fulfillment of, and not a diversion from, the lofty aims Rowan seeks to achieve as an institution. As an anchor institution, its incentives are aligned with that of its host communities, to maintain a strong working partnership and to see these localities and their residents flourish.

APPENDIX A – ECONOMIC AND FISCAL IMPACT METHODOLOGY

A.1 History

The theory behind input-output modeling stretches as far back as the mid-17th century, when Sir William Petty described the interconnectedness of "production, distribution, and wealth disposal." While Perry can be credited with noticing links between economies, input-output modeling did not begin to take true form until the mid-18th century, when French physician François Quesnay created the Tableau Économique. His work de tailed how a landowner spends his earnings on goods from farms and merchants, who in turn spend their money on a host of goods and services. Over the course of the century, an algebraic framework was added by Achille-Nicholas Isnard. Robert Torrens and Léon Walras refined the model by establishing the connections between profits and production.

The modern input-output system can be attributed to Wassily Leontief. In his thesis, "The Economy as a Circular Flow" (1928), he outlined the economy as an integrated system of linear equations relating inputs and outputs. This framework soon gained popularity, and became a widely accepted analytical tool. In 1936, Leontief produced the first input-output analysis of the US. Leontief's work became the US Department of Commerce's Bureau of Economic Analysis's (BEA) standard benchmark for US production in the 1950's. Leontief received a Nobel Prize for his work in 1973.

In 1976 the USDA Forest Service became required to submit five year management plans to the federal government concerning the socio-economic effects of resource use. Through extensive surveying, the impacts of each industry could be determined at local levels. This directly resulted in the creation of IMPLAN software for measuring economic impacts. By the late 1980's the University of Minnesota began to offer the software to a wider audience. Seeing the need to update economic databases and improve the existing software, the Minnesota IMPLAN Group (MIG) was formed in 1993. Using a similar methodology to the USDA Forest Service, MIG was able to provide a quality input-output modeling software to a wider range of users with frequent database updates.

A.2 Application

The use and application of multipliers are fairly basic and intuitive. Multipliers, in their most basic form, are the result of an algebraic analysis expressing how two inputs are interconnected in the production of an output. The result of the equation generates a multiplier that is broken down into direct, indirect, and induced effects. In a generalized example: if the multiplier for good "X" to good "Y" is 3, then the direct of good "X" on "Y" is 1, with indirect and induced effects of 2. Essentially, every unit of good "X" supports 2 units of good "Y".

When implemented on a large complex scale, such as that of the US economy or any subsection of it, multiplier effects across industries can be complicated. However, the same general concept comes into play. Each industry has largely different and varied inputs into other industries. The

quantity of the output is largely decided by the scale and efficiency of the industries involved. As a result, the sum of those inputs equates to an output product plus a value added/component. By arranging these inputs and outputs by industry in a matrix, and performing some algebra to find the Leontief inverse matrix, each industry's effect on final demand can be estimated. Additionally, the direct, indirect, and induced effects can also be determined. Direct effects include direct purchases for production, indirect effects include expenses during production, and induced effects concern the expenditures of employees directly involved with production. Using building construction as an example, the direct effects would include materials, brick, steel, and mortar, the indirect effects would involve the steel fabrication, concrete mixing, and the induced effects would consider the construction workers purchases from their wages. While impacts vary in size, each industry has rippling effects throughout the economy. By using an input-output model, these effects can be more accurately quantified and explained.

IMPLAN is one of several popular choices for regional input-output modeling. Each system has its own nuances in establishing proper location coefficients. IMPLAN uses a location quotient to determine its regional purchase coefficient (RPC). This represents the proportion of demand for a good that is filled locally; this assessment helps determine the multiplier for the localized region. Additionally, IMPLAN also accounts for inter-institutional transfers (eg. firms to households, households to the government, etc…) through its social account matrix (SAM) multipliers. IMPLAN takes the multipliers and divides them into 440 industry categories in accordance to the North American Industrial Classification System (NAICS) codes. A comprehensive breakdown of a region's multipliers by industry can be shown.

Despite the usefulness of input-output modeling, there are some shortcomings to the system. Notably, input-output models ignore economies of scale. Input-output models assume that costs and inputs remain proportionate through different levels of production. Further, multipliers are not generally updated on a timely basis; most multipliers are prone to be outdated with the current economy. If the multipliers are sourced from a year of a recession economy, the multipliers may not accurately represent the flows from an economic boom period. Additionally, the multipliers may not capture sudden legal or technological changes which may improve or decrease efficiency in the production process. Regardless, I-O models still serve as the standard in the estimation of local and regional impacts.

A.3 Economic Impact Model

The methodology and input-output model used in this economic impact analysis are considered standard for estimating such expenditure impacts, and the results are typically recognized as reasonable and plausible effects, based on the assumptions (including data) used to generate the impacts. In general, one can say that any economic activity can be described in terms of the total output generated from every dollar of direct output. If an industry in a given region sells $1 million of its goods, there is a direct infusion of $1 million into the region. These are referred to as *direct output*.

However, the economic impact on the region does not stop with that initial direct expenditure. Regional suppliers to that industry have also been called upon to increase their production to meet the needs of the industry to produce the $1 million in goods sold. Further, suppliers of these same suppliers must also increase production to meet their increased needs as well. These are

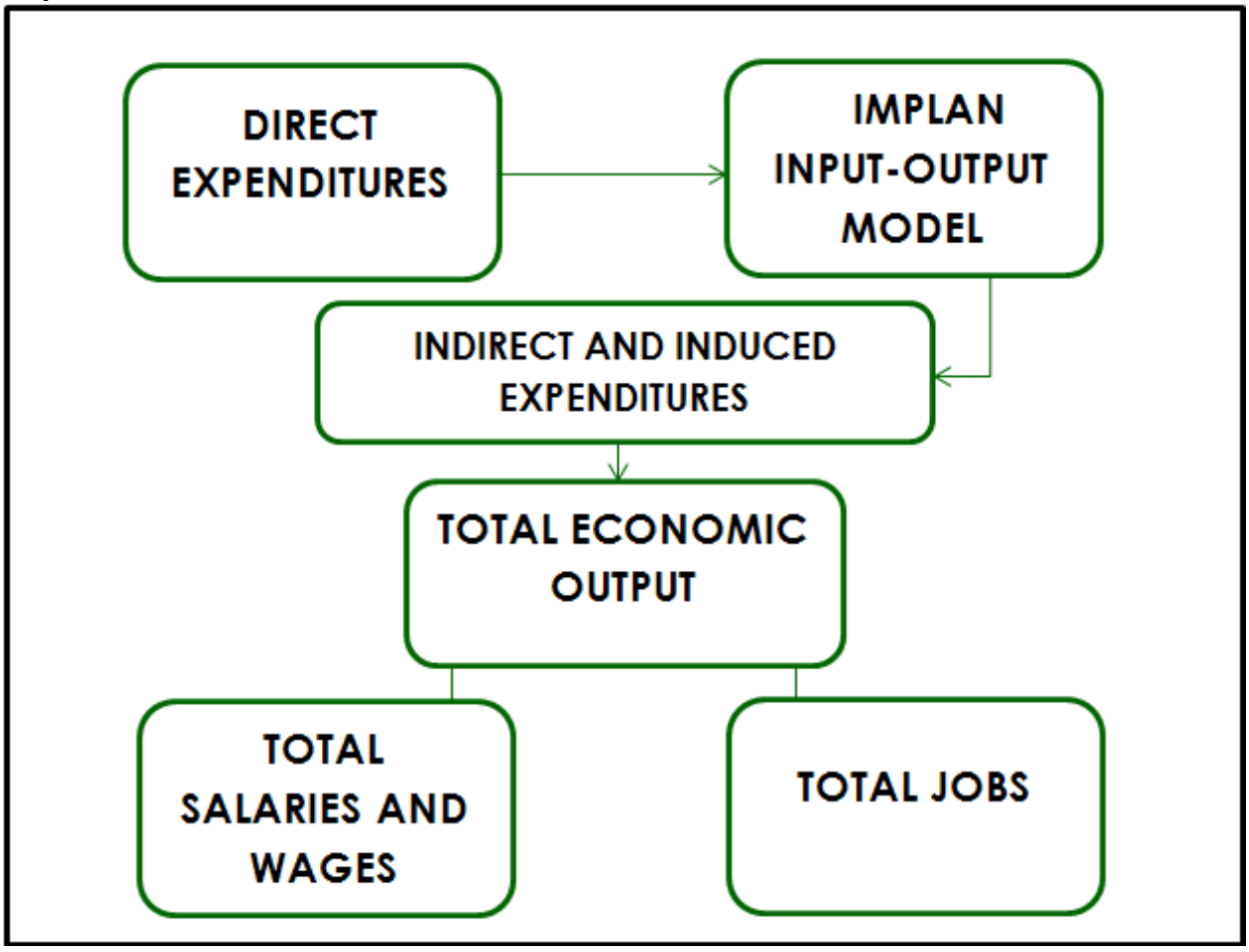
referred to as *indirect output*. In addition, these direct and indirect output require workers, and these workers must be paid for their labor. These wages and salaries will, in turn, be spent in part on goods and services produced locally, engendering another round of impacts. These are referred to as *induced expenditures*.

Direct output are fed into a model constructed by Econsult Solutions and based on IMPLAN data. The model then produces a calculation of the total expenditure effect on the regional economy. This total effect includes the initial direct expenditure effect, as well as the ripple effects described, the indirect and induced expenditure effects.

Part of the total expenditure effect is actually the increase in total wages and salaries (usually referred to as labor income), which the model can separate from the expenditure estimates. Direct payroll estimates are fed into the "household' industry of the input-output model. Impacts of this industry are estimated using the personal consumption expenditure breakdown of the national input-output table and are adjusted to account for regional consumption spending and leakages from personal taxes and savings. The direct, indirect, and induced labor income represent a component of the total economic impact attributable to wages and salaries. Finally, the model calculates the total expenditures affecting the various industries and translates this estimate into an estimate of the total labor (or jobs) required to produce this output.

In short, the input-output model estimates the total economic activity in a region that can be attributed to the direct demand for the goods or services of various industries. This type of approach is used to estimate the total economic activity attributable to the expenditures associated with various types of spending in the region (see Figure A.1 and Table A.1).

Figure A.1 – Flowchart of Input-Output Methodology for Estimating Economic Impact



Source: Econsult Solutions, Inc. (2013)

Table A.1 – Glossary of Terms for Input-Output Models

Multiplier Effect – the notion that initial outlays have a ripple effect on a local economy, to the extent that direct output lead to indirect and induced output.

Economic Impacts – total expenditures, employment, and labor income generated.

Fiscal Impacts – local and/or state tax revenues generated.

Direct Output – initial outlays usually associated with the project or activity being modeled; examples: one-time upfront construction and related expenditures associated with a new or renovated facility, annual expenditures associated with ongoing facility maintenance and/or operating activity.

Direct Employment – the full time equivalent jobs associated with the direct output.

Direct Labor income – the salaries and wages earned by employees, contractors, and proprietors as part of the direct output.

Indirect Output – indirect and induced outlays resulting from the direct output; examples: vendors increasing production to meet new demand associated with the direct output, workers spending direct labor income on various purchases within the local economy.

Indirect Employment – the full time equivalent jobs associated with the indirect output.

Indirect Labor income – the salaries and wages earned by employees, contractors, and proprietors as part of the indirect output.

Total Output – the sum total of direct output and indirect output.

Total Employment – the sum total of direct employment and indirect employment.

Total Labor income – the sum total of direct labor income and indirect labor income.

Source: Econsult Corporation (2009)

A.4 Fiscal Impact Model

The IMPLAN model provides estimates of the economic impact of a new project or program on the regional economy. It does provide only a rough estimate of the combined fiscal impact of the increased economic activity on state and local governments. Consequently, Econsult has constructed a model that takes the output from the IMPLAN model and generates detailed estimates of the increases in state and local tax collections that arise from the new project. Those revenues are in fact a part of the total economic impact of a new project that is often ignored in conventional economic impact analyses.

The IMPLAN model provides estimates of direct, indirect, and induced expenditures, labor income, and employment within the defined region. The Econsult fiscal impact model combines the IMPLAN output with the relevant tax types and tax bases associated with the jurisdiction or jurisdictions for which fiscal impact is being modeled. Specifically, the estimated labor income

supported by the direct, indirect, and induced expenditures generated by the model are used to apportion the net increase in the relevant tax bases and therefore in those tax revenue categories. The resulting estimates represent the projected tax revenue gains to the jurisdiction or jurisdictions as a result of the increased business activity and its attendant indirect and induced effects.

A.5 Sources

Miller, Ronald E., and Peter D. Blair.*Input-output Analysis Foundations and Extensions*. Cambridge, UK: Cambridge UP, 2009. Print.

Lahr, Michael. "Input-Output Analysis: Technical Description and Application." Rutgers University Edward J. Bloustein School of Planning and Public Policy

"Researching IMPLAN Data." Minnesota IMPLAN Group LLC, 2012.

APPENDIX B – LOCAL IMPACT METHODOLOGY

As noted in Section 2.4, estimates of the economic and employment impact of Rowan University's capital spending, operations activity and ancillary student spending are based on a proportional approach to ESI's estimates for Rowan's impact in those categories in economy of Gloucester and Camden counties in 2014's *The Statewide Economic Impact of Rowan University.* The methodology below details known ratios of economic activity between this two-county region and Glassboro, as well as direct data from Rowan where available, that were used to estimate the proportion of direct, indirect and induced economic activity attributable to Rowan in the two-county region that takes place in Glassboro. Table B.1 below shows the direct, indirect and induced economic activity and employment at the two-county region that served as the starting point for the local impact estimate.

TABLE B.1 – ROWAN ECONOMIC IMPACT IN GLOUCESTER & CAMDEN COUNTIES

Impact Type	Capital Investments (5 year - in mil)	Operations (annual- in mil)	Ancillary Student Spending (annual- in mil)
Economic Output			
Direct	$182.5	$410.0	$70.3
Indirect	$47.9	$157.7	$16.7
Induced	$81.6	$226.3	$17.7
Total	$311.9	$794.1	$104.6
Employment supported			
Direct	1,688	3,227	981
Indirect	297	977	114
Induced	615	1,703	133
Total	2,599	5,907	1,228

Source: Econsult Solutions, Inc. (2014)

Table B.2 presents the known ratios and direct inputs used to estimate the proportion of two-county activity represented in Table B.1 taking place in Glassboro. Letters (*A*) through *(E)* correspond with ratios described below the table.

TABLE B.2 – ESTIMATED PROPORTION OF TWO-COUNTY ECONOMIC ACTIVITY IN GLASSBORO

Impact Type	Capital Investments (5 year - in mil)	Operations (annual- in mil)	Ancillary Student Spending (annual- in mil)
Economic Output			
Direct	13.5% *(A)*	13.5% *(A)*	41.9% *(E)*
Indirect	2.3% *(B)*	2.3% *(B)*	2.3% *(B)*
Induced	1.8% *(C)*	6.2% *(D)*	1.8% *(C)*
Employment supported			
Direct	13.5% *(A)*	*421 jobs (D)*	41.9% *(E)*
Indirect	2.3% *(B)*	2.3% *(B)*	2.3% *(B)*
Induced	1.8% *(C)*	6.2% *(D)*	1.8% *(C)*

Source: Econsult Solutions, Inc. (2015)

- *(A):* Proportion of 2-County University spending within Glassboro: ESI conducted a zip-code based analysis of University spending data provided by Rowan for FY 10 – FY 14. Over this five year period, $29.1 million was spent in Glassboro (as discussed in section 2.5), 13.5 percent of the $216.2 million spent in Camden and Gloucester Counties. This ratio is used to estimate the proportion of direct capital and operational expenditures within the two-county region, as well as the proportion of direct employment supported by capital investments, that takes place within Glassboro.

- *(B):* Proportion of 2-County employment within Glassboro: Longitudinal Employer-Household Dynamics (LEHD) data from the U.S. Census provides both employment and employee counts at specified geographies. This data shows that in 2011, 6,800 people worked in Glassboro, 2.3 percent of the 298,000 that worked in Camden and Gloucester Counties. This ratio generally tracks with the proportion of economic activity in the two-county region that takes place within Glassboro, and is thus used to estimate the proportion of indirect (supply chain) activity and employment from capital, operations and student spending that accrues within Glassboro.

- *(C):* Proportion of 2-County employees within Glassboro: LEHD data on the residential location of employees (rather than their employment location, as described above) shows that in 2011, 6800 workers lived in Glassboro, 1.8% of the 375,000 that lived in Camden and Gloucester Counties. This ratio serves as a proxy for the location of induced economic impact (secondary spending by the employees supported by direct spending) that takes places within Glassboro, and is thus used to estimate the proportion of induced economic activity and employment from capital and student spending that accrues within Glassboro.

- *(D):* Direct count of faculty/staff residing in Glassboro and proportion of 2-County direct labor income attributable to Rowan paid to faculty/staff residing in Glassboro: Direct data was provided by Rowan University on payroll by location for faculty and staff. For FY 14, payroll for 421 University employees living in Glassboro totaled $18 million, 6.2 percent of the total direct university labor income impact of $291 million. This direct count of 421 jobs

is used for direct employment impact within Glassboro, while the proportion is used to estimate the proportion of induced economic activity and employment from operations that takes place within Glassboro.

- *(E):* Estimated proportion of main campus student spending taking place in Glassboro. Student spending was modeled by ESI for the *Statewide Impact of Rowan University* study for three different student types (on-campus, commuters living at home, commuters not living at home) and four different spending categories (transportation, room, board and other) based on national student spending patterns. To estimate the proportion of this spending taking place in Glassboro, students enrolled in programs outside of the main campus were deducted from the commuter student count, with all on-campus students assumed to be at the main campus. It was then estimated that 50 percent of spending by students at the Glassboro campus takes place within the town, yielding an estimated 41.9 percent of all student spending accruing within Glassboro. This ratio is used to estimate the proportion of direct economic activity and employment impact at the 2-County level that takes place within Glassboro.

Applying the proportions of activity and employment estimated to accrue in Glassboro presented in Table B.2 to the economic activity and employment estimates at the 2-County level presented in Table B.1 yields estimates of Rowan's economic impact within Glassboro (Table 2.2 and B.3).

TABLE B.3 – ESTIMATED LOCAL ECONOMIC IMPACT IN GLASSBORO

Impact Type	Capital Investments (5 year - in mil)	Operations (annual- in mil)	Ancillary Student Spending (annual- in mil)
Direct	$24.6	$55.2	$29.3
Indirect	$1.1	$3.6	$0.4
Induced	$1.5	$14.0	$0.3
Total Output	$27.2	$72.8	$30.1
Employment supported	245	548	416

Source: Econsult Solutions, Inc. (2015)

As noted in Section 2.4, this methodology represents a conservative approach to estimating the proportion of 2-County economic activity associated with Rowan that accrues within Glassboro because it functionally assumes, when direct data is not available, that this economic activity is divided throughout the region in the same proportion as general activity. Proportions determined through this ratio analysis (such as proportions (B) and (C) above) are therefore lower than proportions used when direct data on spending and payroll are available (such as proportions (A) and (D) above), due to the natural tendency for spending to cluster to some degree around its origin point (the University), rather than to spread evenly throughout a regional economy.

APPENDIX C – SIGNIFICANT LOCAL OPERATING LEASES IN NEW JERSEY

TABLE C.1 –SIGNIFICANT ROWAN SATELLITE OPERATING LEASES IN NEW JERSEY (IN $000S)

Location	FY 2014 Lease Expense
Washington Township	$431
Voorhees	$396
Cherry Hill	$160
Sewell	$136
Stratford	$51
Mt. Laurel	$50
Hammonton	$40
Hainesport	$30
TOTAL (in $000s)	**$1,294**

Source: Rowan University