ECONOMIC IMPACTS OF RUTGERS ATHLETICS AND FUTURE IMPLICATIONS OF THE BIG TEN

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HIGHLIGHTS AND FINDINGS

- University athletics, particularly revenue sports like football and basketball, serve an important role for the University in attracting and retaining students. National programs and athletic success have been found to correlate with increased applications, higher enrollment, and higher SAT scores. Having a higher quality student body can help improve Rutgers' reputation, and improve university rankings.

- Investment in athletics has also been correlated with athletic success. Having a successful year increases the odds of appearances in football bowl games, or the national basketball tournament "March Madness." Television appearances from these events generate advertising opportunities to nationwide audiences, and have been linked to increases in alumni donations and corporate contributions. These donations help support Rutgers' various athletics programs, and reduce the need for school based subsidies and student fees to fund athletics programs.

- In 2014-15 Rutgers Athletics spent $67 million on its programs and debt service. This figure is anticipated to increase to $85 million by 2021-22. These expenditures comprise of only a small portion of the entire Rutgers budget (~2%), however, they have a significant impact on the economy of New Jersey. **Between 2014 and 2022 the total potential economic impact from athletics spending within the State of New Jersey is between $109 and $139 million, including 920 to 1,180 jobs, and $2.2 million to $2.8 million in taxes (See ES.1).**

- Athletics also serves as an attraction to students, alumni, and members of the community. These groups attend Rutgers sporting events and spend money at local businesses and help stimulate the local and state economy. **Based on 2014-15 football and basketball attendance, Rutgers Athletics' visitors potentially generated $29 million in economic impact, supporting 310 jobs, and $720,000 in taxes to the State. Assuming Rutgers Athletics fills its stadiums to Big Ten levels; total potential economic impact to New Jersey is $32 million, supporting 340 jobs, and $780,000 in taxes (See ES.2).**

- Compared to Rutgers' former conference, the American Athletic Conference, the Big Ten is a more competitive conference with higher quality programs and higher quality athletic facilities. Rutgers administration has identified specific facilities that it would like to improve and increase the seating capacity of. Capital investments in Rutgers' athletic facilities will increase Rutgers' athletics reputation, and generate economic and fiscal impacts to New Jersey. **The impacts from capital investments in athletics facilities will potentially generate $96 to $191 million in economic impact, 660 to 1,320 jobs, and $2.6 to $5.2 million in taxes during the construction period (see ES.3).**

- ***All told, the current economic and fiscal impacts from university and visitor spending include $138 million in output, supporting 1,230 jobs, and $2.9 million in taxes. Potential future economic and fiscal impacts from university and visitor spending include $171 million in output, supporting 1,520 jobs, and $3.6 million in taxes. (see Table ES.4).***

Table ES.1 – Economic and Fiscal Impacts from Rutgers Athletics Spending

	Total Economic Impact	Total Jobs	Taxes to New Jersey
2014-15 Athletics Spending	$109 million	920	$2.2 million
2021-22 Athletics Spending	$139 million	1,180	$2.8 million

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions, Inc. (2014)

Table ES.2 – Economic and Fiscal Impacts from Visitors of Rutgers Athletics Events

	Total Economic Impact	Total Jobs	Taxes to New Jersey
Current Visitor Spending	$29 million	310	$720,000
Future Visitor Spending	$32 million	340	$780,000

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions, Inc. (2014)

Table ES.3 – Economic and Fiscal Impacts from Athletics Related Capital Spending

	Total Economic Impact	Total Jobs	Taxes to New Jersey
Capital Investments $50m	$96 million	660	$2.6 million
Capital Investments $100m	$191 million	1,320	$5.2 million

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions, Inc. (2014)

Table ES.4 – Combined Economic Impacts and Fiscal Impacts from Annual Athletics Spending from the University and its Visitors

	Total Economic Impact	Total Jobs	Taxes to New Jersey
Current Athletic and Visitor Spending	$138 million	1,230	$2.9 million
Future Athletic and Visitor Spending	$171 million	1,520	$3.6 million

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions, Inc. (2014)

1.0 INTRODUCTION & ATHLETICS AS A UNIVERSITY ASSET

1.1 INTRODUCTION

Various interested parties have been promoting the case to have New Jersey's flagship state university, Rutgers University, expand its athletics program to compete in the top tier of national university athletic programs. This would require a significant allocation of additional resources, and both State and University officials have been examining this course of action. The potential costs and benefits of investing in a top tier athletic program are many and varied, and require trade-offs based on experience, assumptions, forecasts, and value-judgments concerning trade-offs. As with most such decisions, reasonable participants differ in their views and assessments on this issue.

Econsult Solutions, Inc. has been asked to identify and, where possible, quantify the potential benefits that could accrue to Rutgers and to the State of New Jersey if the University decides to ramp up its athletics program to the national top tier level.

The success, ranking, and performance of colleges and universities in the United States are measured in a variety of dimensions, all of which are important to the overall quality of the school and many are significantly important to certain audiences, while less so to others. All colleges and universities attempt to strike a balance across their various stakeholder constituencies across all of these dimensions. Some look to adjust the quality and quantity of the various components in efforts to find an optimal overall package to offer to students and other users of university services. As economic conditions force greater competition, financial pressures force more and more colleges and universities to examine the mix and allocation of resources across these various dimensions.

One such dimension is the quality and breadth of sports, both intramural and intercollegiate. There has been great debate over the decades about the appropriate role of sports programs in universities, and this debate will certainly continue well into the future. Our examination of the literature and debate suggests that expanded and higher level athletics programs can generate substantial benefits that could advantage the entire university community, and in the case of large, statewide public universities, could advantage their state's economy, too. We find that a good case can be made that for Rutgers University, such an investment could generate benefits that would minimize the need to shift resources away from other programs, and indeed may well expand the aggregate level resources across the entire school over time.

1.2 FUNCTION OF ATHLETICS

Athletics at the collegiate level have been part of the university experience for nearly 150 years. Sports at the collegiate level like football have grown from purely recreational games to a multibillion-dollar industry. Rutgers, in particular, is credited with playing the first intercollege football game with fellow New Jersey school, Princeton, in 1869.[1] This football tradition has grown from a poorly funded low tier program to competing in a top national conference in just the past 25 years. This ascent opens up new opportunities for Rutgers Athletics, academics, and the University as a whole.

College sports, Division I in particular, serve multiple roles for universities including but not limited to: fostering school spirit, attracting prospective students, generating alumni donations, and as a marketing tool for the image of the school. These functions benefit the student body, alumni, community, and State. Successful programs even generate positive net revenues to the school to fund other operating units. Furthermore, athletic programs create opportunities for students to continue their athletic careers beyond high school/secondary school.

The Division I level offers the highest and most competitive level among amateur sports in the United States. These athletic events attract tens of thousands of fans to their campuses, and millions of television viewers for their games. Nationwide polls have indicated that college basketball and football rank among the top sports for which Americans are fans, and studies have shown that students are keenly interested in college sports programs.[2] These findings support the recognition that collegiate athletics are an important entity within the university fabric, and that the national exposure to college athletics extends beyond the campus.

1.3 CURRENT STATE OF RUTGERS ATHLETICS

Rutgers' foray in major Division I athletics began in 1991 when it joined the Big East Conference. While initially struggling, Rutgers Athletics improved dramatically throughout the 1990s and into the 00s.[3] Most notably, between 2005 and 2014, Rutgers football participated in a bowl game every year but one. The team also finished within the top 15 of the national rankings in 2006. In November of 2012 Rutgers University's Board of Governors accepted an invitation to join the Big Ten Athletic Conference. Rutgers along with the University of Maryland joined as the 13th and 14th members of the Big Ten on July 1st, 2014, and began athletic competition in the Big Ten that fall. Athletic teams from Big Ten schools are regularly contenders for the national championship in football and basketball as well as a variety of other sports including lacrosse, swimming, wrestling, volleyball, and track and field. Rutgers acceptance into the Big Ten came after only one

[1] http://www.scarletknights.com/trads/history.html, accessed April 27, 2015
[2] http://www.gallup.com/poll/4735/sports.aspx, accessed April 27, 2015
[3] http://www.scarletknights.com/trads/history.html, accessed April 27, 2015

season in the American Athletic Conference ("AAC"). This move represents an opportunity for the University to gain national media exposure from television appearances, compete against perennial championship contenders, and receive media and conference revenues that are much higher than those it received in its previous conference.

Joining the Big Ten from a smaller non-Power 5 conference, Rutgers' athletics budget ranked 11th of the 13 public schools in the Big Ten. Furthermore, the athletics programs have received an increasing share of school subsidies and student fees in recent years to help fund Rutgers 27 athletics teams.[4] This practice has drawn criticism, most notably from the Rutgers Senate (see Section 6). Despite this, Rutgers Athletics projects large reductions in university subsidies by 2022 due to increases in contributions, ticket sales, and media revenues. In fact, some sources project media revenue shares to top $45 million by 2018 (see Table 6.4).[5]

Due to the large payouts from the Big Ten, the Big Ten members rank among the highest in the country when it comes to athletics budgets. Nationally successful athletics programs at schools like Pennsylvania State University, University of Michigan, and Ohio State University all spend over $110 million annually on athletics and have football stadiums with capacities of more than 100,000 spectators. Across all Big Ten members, the median athletics budget is $102 million, with a football stadium with a capacity of 65,000, and a basketball arena with a capacity of more than 15,000. In order to compete at the competitive level of the Big Ten, Rutgers would also need to invest in its athletic facilities and its athletic programs.

1.4 MULTIDIMENSIONAL BENEFITS OF RUTGERS ATHLETICS TO THE UNIVERSITY

Notwithstanding the costs associated with investment in Rutgers Athletics, the program provides various direct and indirect benefits to the University, community, and State. For the University, athletics serves a selling point to prospective students. Numerous studies including: Borland et. al 1992, Sandy and Sloane 2004, Mixon & Hsing 1994, Pope & Pope 2009, and McCormick & Tinsley 1987, have shown positive connections between higher enrollments and SAT scores with schools that have higher division sports. The McCormick & Tinsley study controlled for numerous other factors including tuition, library volumes, enrollment, and endowment among other variables, and found SAT scores were 30 points higher at schools with major sports programs compared to their non-major sports peers. Additionally, a study by Goff 2004 found enrollment decreases at schools that dropped their football programs (Wichita State University and University of Texas Arlington) during the 1980s. Sloane and Sandy (2004) also found that enrollment was

[4] "Power 5 conferences are: Atlantic Coast Conference "ACC", Big 12, Big 10, Pacific 12 Conference "PAC-12", and Southeastern Conference "SEC"

[5] http://www.cbssports.com/collegefootball/eye-on-college-football/24540002/big-ten-schools-projected-to-get-45-million-with-new-tv-deal, Accessed April 22, 2015

about 2,000 students less and SAT scores were 7 to 51 points lower for institutions affiliated with levels of athletics below the Division I level.

These studies support the assertion that prospective students choose to apply and enroll at schools with top tier athletics programs. Not only do students have a willingness to apply to schools with big name sports programs, but they also have a willingness to pay for them. Osborne (2004) found that athletic expenditures were statistically linked to higher school tuition revenues. Controlling for variables such as the number of students, research spending, and academic spending variables, schools with higher athletic spending, also collected more tuition revenues. Therefore, the costs of athletics could be at least partially passed from the university to the students.

Along with the increase in athletics expenditures resulting from competition in the Big Ten, Rutgers will also collect media revenues significantly larger than it received in the AAC. These funds, along with potential bowl, and other conference bonuses distributed by the Big Ten and NCAA, will reduce the dependence on school subsidized funds, and drive the program toward self-sustainability. For football alone, the new playoff system awards $50 million to each of the Power Five conferences, while the next five weaker (including the AAC) conferences will receive only $13 million.[6] Even if the allocations remain the same when Rutgers becomes a fully vested Big Ten member, Rutgers will receive three times what it would have gotten if it otherwise remained in the AAC.[7,8] The decreased need for university subsidies will allow Rutgers to direct more funds to further its academic, service, and research missions.

A potential spillover from investment in Rutgers Athletics is the success from its various programs. According to Jones (2013) athletic expenditures are strongly correlated with team performance at the Division I Football Bowl Subdivision level.[9] Athletics success can bring unparalleled levels of media exposure that result in essentially free marketing. Further, athletic success has been connected to applications increases including a 2.5% increase for top 20 finishes in the football national rankings, and national championships resulting in a 7-8% increase in applications within one year of the season (Pope & Pope 2009). While the effect of athletic success on applications is only temporary, it shows that prospective students pay attention to the performance of athletic teams.

On the field/court success also is noticed by the alumni. Studies by Baade & Sundberg (1996), and Humphreys & Mondello (2007) have linked athletics post-season play with increases in contributions. The study by Baade & Sundberg in 1996 examined alumni gifts from 167 institutions between 1973 and 1990. The study found that bowl game appearances led to a 40-50% increase in donations, and basketball tournament

[6] http://www.economist.com/blogs/gametheory/2015/01/business-college-football?zid=316&ah=2f6fb672faf113fdd3b11cd1b1bf8a77, accessed April 22, 2015
[7] $50 million / 14 schools = $3.57million, vs. $13 million / 11 schools= $1.19 million
[8] This money does also not include direct payouts to schools that participate in bowls.
[9] The highest collegiate football subdivision which includes Rutgers and the rest of the Big Ten

appearances registered a 35% increase in giving. These contributions increases were statistically significant with a one-year lag after the successful sports season. In the 2014-15 football bowl season 10 of 14 Big Ten members (including Rutgers) appeared in a bowl game. In 2015, 7 of 14 Big Ten schools received an invitation to the men's national basketball tournament.

Athletics contributions may also be affected by the prestige of the conference, as well. Comparing the 2013 contributions to members of the Big Ten to the American Athletic Conference, Big Ten members on average received nearly $22 million in contributions, while AAC members received slightly less than $6 million.[10] From 2005 to 2013, athletics contributions to Big Ten members increased by 80% (see Table 1.1). Even though the AAC has only been in existence since 2013, member schools only saw a 42% increase in contributions between 2005 and 2013. This contributions growth rate is close to Rutgers' 44% growth rate during the same time period. If Rutgers' athletic contributions grow at the Big Ten average experienced between 2005 and 2013, Rutgers would be receiving around $11 million annually by 2020.[11] Rutgers' athletics affiliation with the Big Ten could serve as a point of pride to alumni, companies, and fans across the country that would potentially donate more money to the University's athletic programs.

Table 1.1 – Big Ten Contribution Revenues 2005 to 2013

School	2005 Contributions	2013 Contributions	Percentage Change
Illinois	$9,639,510	$18,861,318	96%
Indiana	$8,129,276	$15,386,722	89%
Iowa	$10,357,165	$30,571,923	195%
Maryland	$11,320,695	$10,730,829	-5%
Michigan	$16,342,620	$31,285,461	91%
Michigan State	$13,271,677	$24,113,610	82%
Minnesota	$4,297,235	$8,537,917	99%
Nebraska	$11,390,228	$12,657,818	11%
Northwestern	Not disclosed	Not disclosed	Not disclosed
Ohio State	$19,829,556	$22,204,606	12%
Penn State	$13,733,690	$24,480,517	78%
Purdue	$13,724,374	$17,187,187	25%
Wisconsin	$20,269,398	$58,907,876	191%
Rutgers	**$4,251,944**	**$6,131,982**	**44%**
Big 10 Average	**$12,042,874**	**$21,619,828**	**80%**

Source: USA Today (2014)

[10] http://sports.usatoday.com/ncaa/finances/, Accessed April 27, 2015

[11] Contributions may vary substantially from year to year and could be affected by athletic team success

1.5 BENEFITS OF ATHLETICS TO THE COMMUNITY AND STATE

Athletics and having successful teams may also generate intangible benefits in terms of school spirit and pride in the community. Empirical evidence suggests a positive correlation between football and basketball success, and the graduation and retention rates for undergraduate students.[12] This results in a gain for University and State through the graduation and retention of more students who will contribute and add tax revenues to the local and New Jersey economy.

The impact of graduates who stay within the State of New Jersey is over and above the impacts of athletics spending on its programs, capital investments, events, and the spending of visitors at Rutgers athletic events. Through the purchases of goods and services from New Jersey businesses, these expenditures can generate indirect and induced impacts through the expansion of New Jersey businesses resulting from Rutgers Athletics' spending (see Section 2, 3, & 4). These impacts add to the economic vitality of the state and create jobs locally and statewide. Increasing Rutgers' investment in athletics would further boost spending within the economy and create jobs for New Jersey residents.

In addition to the expansion of New Jersey businesses, business activity supported by Rutgers Athletics will generate income, sales, and business taxes to the State of New Jersey. Without such spending on travel, equipment, training staff, facilities maintenance, coaches, etc., New Jersey would lose tax revenues from the spending on goods and services by the athletics department.

1.6 CASE FOR CONTINUED INVESTMENT IN ATHLETICS

Based off of the current direct and indirect impacts of Rutgers Athletics, the University, community, and State of New Jersey stand to benefit from Rutgers new membership in the Big Ten. Based on the empirical evidence at other institutions, big time athletics plays a role in attracting more, and higher quality, applicants. Television and media contracts allow the University to access wider markets and better promote its image. Further, the University gains access to the Committee on Institutional Cooperation (CIC), a Big Ten and the University of Chicago based research consortium.

[12] Tucker, I. "A Reexamination of the Effect of Big-Time Football and Basketball Success on Graduation Rates and Alumni Giving Rates." *Economics of Education Review,* 2004

The University also stands to benefit from the revenues from the Big Ten. These revenues will reduce Athletics' dependence on school subsidies to fund its programs. The decline in subsidies to Rutgers Athletics represent freed up University funds that could go to advancing Rutgers' academic, service, and research missions. These media revenues are a result of Big Ten's athletic success stemming from its member's high quality athletic programs. To continue to compete in a conference full of national championship contending programs, Rutgers will need to increase its athletics spending and invest in upgrades for its current facilities. This investment will also generate economic impacts that will support local and statewide businesses that will also contribute tax revenues to the State. In turn, Rutgers Athletics could turn into a real point of pride for the community, State, and the State's flagship university.

2.0 ECONOMIC AND FISCAL IMPACTS OF THE RUTGERS ATHLETIC DEPARTMENT

2.1 ATHLETICS AS AN ECONOMIC DRIVER

At $67 million, athletics represents only a small portion of Rutgers' $3.6 billion budget in 2015. Of the spending directly related to athletics, a majority is spent locally in the economy of New Jersey on salaries, equipment, facilities, recruitment expenses, and other campus related activities. These expenditures go on to support the local and statewide economy, as well as generate jobs, and tax revenues.

2.2 ATHLETICS BUDGET PROJECTIONS

With Rutgers' membership in the Big Ten athletic conference, Athletics anticipates expenditures of $85 million, revenues of $82 million (excluding university and student fee support) by 2022. This represents a 25% increase in expenditures and a 91% increase in non-school and student fee supported revenues. As a result of the change in athletic conference, the total economic impact of athletics within the state will increase, while the commitment of University funds will decrease. This will free up University funds to be invested within the campus, and generate additional economic impacts that otherwise would not have been possible if Rutgers did not opt to expand athletics and join the Big Ten (see Table 2.1).

Table 2.1 – Rutgers Athletics Projected Budget 2014-2022

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Direct Institutional Support	$13.26	$12.35	$11.45	$10.55	$9.65	$8.76	$2.97	$3.09
Student Fees	$10.51	$10.72	$10.93	$11.15	$11.37	$11.60	$11.83	$12.07
Other	$43.02	$45.68	$47.94	$50.05	$55.50	$62.07	$69.77	$82.32
Total Revenues	**$66.78**	**$68.74**	**$70.32**	**$71.75**	**$76.53**	**$82.43**	**$84.58**	**$97.48**
Debt Service	$5.63	$5.58	$5.53	$5.48	$5.43	$5.37	$5.32	$5.26
Other	$62.08	$64.52	$66.87	$68.81	$71.34	$73.92	$76.64	$79.41
Total Expenses	**$67.72**	**$70.10**	**$72.40**	**$74.29**	**$76.77**	**$79.29**	**$81.96**	**$84.67**
Net Income	**-$0.94**	**-$1.36**	**-$2.08**	**-$2.54**	**-$0.24**	**$3.14**	**$2.62**	**$12.80**

Source: Rutgers University (2015)

2.3 ECONOMIC IMPACTS OF RUTGERS CURRENT AND 2022 PROJECTED ATHLETIC BUDGET

Total spending by Rutgers Athletics was over $67 million in 2014-15. Athletics makes up about 2 percent of the entire school budget, about one percent lower than the Big Ten average. Excluding the costs of debt service, total program expenses were $62 million. These expenditures represent spending on goods, services, and salaries within the State of New Jersey. Ignoring out-of-state travel expenses, $62 million in athletics program expenses potentially generates $109 in total output supporting about 920 jobs, and $50 million in labor income (see Table 2.2).[13]

Table 2.2 – Economic Impacts Associated with 2014-15 Athletics Spending within the State of New Jersey ($2015)

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	599	$31.0	$62.1
Indirect Effect	114	$7.9	$15.4
Induced Effect	204	$11.2	$31.4
Total Effect	917	$50.1	$108.9

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions (2015)

Total spending by Rutgers Athletics in 2021-2022 (the first year as a fully vested Big Ten member) is projected to be $85 million. Excluding the costs of debt service, total program expenses are anticipated to be $79 million. These expenditures represent spending on goods, services, and salaries within the State of New Jersey. Ignoring out-of-state travel expenses, $79 million in athletics program expenses potentially generates $139 in total output supporting about 1,170 jobs, and $64 million in labor income (see Table 2.3).[14]

[13] Jobs include annual full and part-time jobs.
[14] Jobs include annual full and part-time jobs.

Table 2.3 – Economic Impacts Associated with 2021-22 Athletics Spending within the State of New Jersey ($2015)

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	766	$39.7	$79.4
Indirect Effect	146	$10.1	$19.8
Induced Effect	261	$14.3	$40.2
Total Effect	1,173	$64.1	$139.3

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions (2015)

2.4 FISCAL IMPACTS OF RUTGERS CURRENT AND 2022 PROJECTED ATHLETIC BUDGET

The expenditures associated with annual spending by the Athletics department will generate tax revenues for the State of New Jersey. To be conservative, it was assumed that all purchases (excluding salaries) by the athletics department were tax exempt. Including income, sales, and business taxes, athletics spending potentially generates $2.1 million in 2014-15 and will potentially generate $2.7 million in 2021-22 (see Table 2.3).

Table 2.3 – Economic Impacts Associated with Athletic Budget Spending within the State of New Jersey

Tax Type	2014-15 ($M)	2021-22 ($M)
Income	$1.49	$1.90
Sales	$0.47	$0.61
Business	$0.13	$0.17
Total	**$2.09**	**$2.67**

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions (2015)

3.0 ECONOMIC AND FISCAL IMPACTS OF VISITOR SPENDING

3.1 ATTENDANCE AND SPENDING ESTIMATES

Across Rutgers two main revenue sports (football and basketball), total athletic attendance for home games was 432,442 spectators. In its first season in the Big Ten, Rutgers football averaged over 50,000 attendees for its six home games during the 2014 season. This figure is expected to grow as Rutgers will add a seventh home game in 2015. Men's and women's basketball combined for 128,651 attendees at 31 home games during the 2014-15 campaign (see Table 3.1).

These attendance figures represent students, alumni, faculty, Rutgers fans who support the University and its student athletes. These visitors to Rutgers facilities also contribute to the local and state economy by spending money on concessions, and at local retailers, restaurants, and hotels.

Table 3.1– Rutgers Athletics Home Attendance (2014-15)

Team	Attendance	Games	Average
Football	303,791	6	50,632
Men's Basketball	92,315	16	5,770
Women's Basketball	36,336	15	2,422
Total	**432,442**		

Source: Rutgers University (2015), ESPN.com (2015)

To estimate total spending, attendance by sport was separated into three spending profiles: "student", "day-trip", and "overnight" (see Table 3.2). These profiles account for the estimated spending on accommodations, travel, retail, and food/beverages among attendees.[15] Based on football student ticket allotments by Rutgers University we, assume 25% of attendees would be students.[16] Of the non-student attendees, attendance was based on the location of the Rutgers alumni. With approximately two-thirds of alumni hailing from New Jersey, it was assumed that the majority of non-student visitors would be classified as "day-trippers" (see Table 3.3).[17]

[15] Spending profiles were based on weekend hotel rates near Rutgers New Brunswick Campus. Estimates for transportation, food, and merchandise were based off a similar economic impact study conducted by the University of Oregon in 2012.
[16] http://www.nj.com/rutgersfootball/index.ssf/2014/06/rutgers_football_fans_snatching_up_tickets_for_2014_season.html, accessed April 27, 2015
[17] Due scheduling differences between football and basketball, it was assumed that basketball game attendance consisted of zero overnight visitors

Table 3.2– Estimated Daily Spending by Visitor Type at Rutgers Athletic Events

Visitor Type	Accommodations	Transportation	Food	Merchandise	Total
Student	$0	$0	$25	$0	**$25**
Day-trip	$0	$25	$25	$15	**$65**
Overnight	$60	$25	$33	$25	**$143**

Source: University of Oregon (2012), Hotels.com (2015), Econsult Solutions (2015)

Table 3.3– Estimated Number of Visitors by Spending Profile for Rutgers Football and Basketball 2014-15

Visitor Type	Basketball		Football	
	%	#	%	#
Student	25%	32,163	25%	75,948
Day-trip	75%	96,488	65%	197,464
Overnight	0%	0	10%	30,379
Total		**128,651**		**303,791**

Source: Rutgers University (2015), ESPN.com (2015), Econsult Solutions (2015)

3.2 ECONOMIC IMPACTS OF CURRENT VISITOR SPENDING

Ignoring attendance changes based on team performances, attendees at basketball and football sporting events generate about $26.2 million in visitor spending (see Table 3.4). These expenditures represent direct revenues to local businesses in New Brunswick and Piscataway as a result of Rutgers Athletics. The largest component of visitor spending is in food and beverage sales, which make up 42% of all visitor expenditures. Food and beverage expenditures go to local restaurants, bars, grocery stores, and convenience stores that employ local residents, and students. They also represent economic impacts to the state that would otherwise be much less if Rutgers did not invest in athletics or dropped athletics all together.

Table 3.4– Aggregate Visitor Spending from Rutgers Football and Basketball ($M)

Visitor Type	Accommodations	Transportation	Food	Merchandise	Total
Student	$0.0	$0.0	$2.7	$0.0	$2.7
Local	$0.0	$7.3	$7.3	$4.4	$19.1
Overnight	$1.8	$0.8	$1.0	$0.8	$4.3
Total	**$1.8**	**$8.1**	**$11.1**	**$5.2**	**$26.2**

Source: University of Oregon (2012), Rutgers University (2015), ESPN.com (2015), Econsult Solutions (2015)

The $26 million in visitor spending will also generate economic impacts in terms of indirect and induced spending to other businesses across the state. In other words, the $26 million spent by Rutgers Athletics attendees will trickle through the New Jersey economy to create jobs and tax revenues outside of New Brunswick and Piscataway. Accounting for margins on retail and transportation expenditures, the total direct economic impact to New Jersey from visitor spending is $16.4 million, which supports 230 jobs, and about $7 million in labor income. Including indirect and induced expenditures, the total economic impact from Rutgers Athletics attendees is $29 million in total economic output, which supports 310 jobs, and $11 million in labor income (see Table 3.5)

Table 3.5– Economic Impacts Associated with Visitor Spending within the State of New Jersey

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	233	$6.6	$16.4
Indirect Effect	33	$2.1	$5.9
Induced Effect	46	$2.5	$7.1
Total Effect	**311**	**$11.3**	**$29.4**

Source: University of Oregon (2012), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

3.3 FISCAL IMPACTS OF CURRENT VISITOR SPENDING

The increase in economic activity within the state from visitor spending associated with Rutgers Athletics will also generate fiscal impacts to the State. Based off the $29 million in total economic impact, the expansion of business activity will generate about $720,000 annually from income, sales, and businesses taxes (see Table 3.6). These fiscal impacts serve as an indirect return on the State's investment in Rutgers University, and more specifically the athletics program. If Rutgers decreases its athletics budget it is likely that the total fiscal impact from visitor spending would be much less.

Table 3.6– Fiscal Impacts Associated with Visitor Spending within the State of New Jersey

Tax Type	($M)
Income	$0.36
Sales	$0.28
Business	$0.08
Total	**$0.72**

Source: University of Oregon (2012), The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

3.4 POTENTIAL INCREASE IN VISITOR SPENDING

As a result of Rutgers' full membership in the Big Ten, Athletics will now have high quality and historically successful athletics opponents on its schedule consistently every year. As a result, it is likely that Rutgers will attract more fans to its games. Football attendance is already above the Big Ten average in attendance based on stadium capacity filled, however basketball is not. Assuming basketball reaches the Big Ten average attendance levels, Rutgers will gain an additional 46,000 fans annually (see Table 3.7).

Table 3.7– Estimated Number of Visitors by Spending Profile for Rutgers Football and Basketball Using Big Ten Average Attendance Capacity

Visitor Type	Basketball		Football	
	%	#	%	#
Student	25%	43,770	25%	75,948
Local	75%	131,311	65%	197,464
Overnight	0%	0	10%	30,379
Total		**175,082**		**303,791**

Source: Rutgers University (2015), IMPLAN (2013), NCAA (2015), Econsult Solutions (2015)

Applying the same spending patterns for students, local, and overnight visitors for the increased Rutgers athletic event visitors will potentially generate $28.7 million in spending (see Table 3.8). This is a $2.5 million increase from current levels. This also assumes no increase in seating capacity for Rutgers' athletic facilities. If facilities are expanded it is very likely that visitors and visitor spending will increase over and above these estimates.

Table 3.8– Aggregate Visitor Spending from Rutgers Football and Basketball ($M)

Visitor Type	Accommodations	Transportation	Food	Merchandise	Total
Student	$0.0	$0.0	$3.0	$0.0	$3.0
Local	$0.0	$8.2	$8.2	$4.9	$21.4
Overnight	$1.8	$0.8	$1.0	$0.8	$4.3
Total	**$1.8**	**$9.0**	**$12.2**	**$5.7**	**$28.7**

Source: University of Oregon (2012), Rutgers University (2015), ESPN.com (2015), Econsult Solutions (2015)

The $29 million in visitor spending will also generate economic impacts in terms of indirect and induced spending to other businesses across the state. In other words, the $29 million spent by Rutgers sporting event attendees will trickle through the New Jersey economy to create jobs and tax revenues outside of New Brunswick and Piscataway. Accounting for margins on retail and transportation expenditures, the total direct economic impact to New Jersey from visitor spending is $17.9 million, which supports 260 jobs, and about $7 million in labor income. Including indirect and induced expenditures, the total economic impact from Rutgers sporting event attendees is $32 million in total economic output, which supports 340 jobs, and $1 million in labor income (see Table 3.9)

Table 3.9– Economic Impacts Associated with Increased Visitor Spending within the State of New Jersey

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	255	$7.3	$17.9
Indirect Effect	36	$2.3	$6.5
Induced Effect	50	$2.8	$7.7
Total Effect	**341**	**$12.3**	**$32.1**

Source: University of Oregon (2012), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

The increase in economic activity within the state from visitor spending associated with Rutgers Athletics will also generate fiscal impacts to the State. Based off the $32 million in total economic impact, the expansion of business activity will generate about $780,000 annually from income, sales, and businesses taxes (see Table 3.10). These fiscal impacts serve as an indirect return on Rutgers membership in the Big Ten, and investment in athletics. Had Rutgers stayed in the AAC, or decreased athletics investment, these figures would likely be lower.

Table 3.10– Fiscal Impacts Associated with Increased Visitor Spending within the State of New Jersey

Tax Type	($M)
Income	$0.40
Sales	$0.30
Business	$0.08
Total	**$0.78**

Source: University of Oregon (2012), The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

4.0 ECONOMIC AND FISCAL IMPACTS OF CAPITAL INVESTMENT IN ATHLETIC FACILITIES

4.1 NEED FOR FACILITY UPGRADES

With Rutgers move to the Big Ten, the Rutgers administration has considered several capital upgrades to current facilities, and has proposed new facilities to improve the quality of Rutgers Athletic programs. Currently, Rutgers football stadium and basketball arena rank last or near the bottom in terms of capacity in the Big Ten. Additionally, Rutgers lacks various program specific training facilities that are up to par with the other Big Ten schools. Investment in newer facilities will signal a commitment to Big Ten athletics, help attract higher rated athletes, generate school pride, garner donations, and improve the quality of Rutgers' various sports teams.

Currently, there are no immediate plans for athletic facility upgrades or the construction of new facilities, despite calls for new training facilities for soccer, lacrosse, basketball, and softball. The construction of new facilities and the renovation of existing facilities generate economic impacts to the New Brunswick and Piscataway region, as well as the State of New Jersey. Delaying such improvements may negatively impact the University's athletic success, and harm the school's reputation within the Big Ten.[18]

4.2 ECONOMIC IMPACTS OF CAPITAL INVESTMENT IN ATHLETIC FACILITIES

While construction figures for the various proposed athletic upgrades have not been not been released, various media reports suggest that total upgrades and renovations will be in excess of $50 million.[19] This includes a renovation of the current basketball arena that has a cost figure estimated to be between $30 and $100 million. Using a $50-to-$100 million range for construction related expenditures; athletic facility upgrades will generate $96 to $191 million in total output, supporting 660 to 1,320 jobs, and $45 million to $90 million in labor income over the time period of the projects (see Table 4.1).[20]

[18] Temple University's membership in the Big East Conference was revoked in 2002 for its team performances and low game attendance. http://www.nytimes.com/2001/03/03/sports/plus-college-football-temple-voted-out-of-the-big-east.html, accessed April 27, 2015

[19] http://www.nj.com/rutgers/index.ssf/2015/03/whats_up_with_the_feasibility_study_for_facility_upgrades_rutgers_sports_watch_mailbag.html, accessed April 22, 2015

[20] If the construction projects last over one year, the annualized impact of construction/renovation will be the value of the economic impact divided by the number of years it takes to construct the various facilities.

Table 4.1– Economic Impacts Associated with Capital Investment in Rutgers Athletic Facilities within the State of New Jersey

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	384 - 769	$28.2 - $56.4	$50.0 – $100.0
Indirect Effect	91 - 183	$6.7 - $13.3	$17.6 - $35.2
Induced Effect	182 - 364	$10.0 - $20.0	$28.0 - $55.9
Total Effect	**658 – 1,315**	**$44.8 - $89.7**	**$95.6 - $191.2**

Source: Rutgers University (2015), IMPLAN (2013), Econsult Solutions (2015)

4.3 FISCAL IMPACTS OF CAPITAL INVESTMENT IN ATHLETIC FACILITIES

Total fiscal impacts stemming from the direct, indirect, and induced economic impacts associated with athletic facility upgrades will potentially generate between $2.6 and $5.2 million in income, sales, and business taxes over the construction time period (see Table 4.2). These fiscal impacts will be temporary, as they will only occur during the construction period.

Table 4.2– Fiscal Impacts Associated with Capital Investment in Rutgers Athletic Facilities within the State of New Jersey

Tax Type	($M)
Income	$1.44 - $2.89
Sales	$0.9 - $1.79
Business	$0.24 - $0.49
Total	**$2.58 - $5.17**

Source: The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), Econsult Solutions (2015)

5.0 AGGREGATE ANNUAL ECONOMIC AND FISCAL IMPACTS ASSOCIATED WITH RUTGERS ATHLETICS

5.1 ONE-TIME IMPACTS

Given the current debate over expanding or not expanding current athletic facilities, a timeline for improvements does not exist. While certain improvements have been identified, the final cost, scale, and phasing of each could vary. Despite this, the economic impacts of any capital improvements will only be generated during the construction period, and therefore will be temporary in nature. While the construction and renovation of multiple projects may occur over several years, the annual impacts from capital investment will be temporary and are unlikely to be consistent across time.

5.2 CURRENT ONGOING IMPACTS

Including the 2014-15 Rutgers athletic budget and the current estimates for potential visitor spending, the annual direct spending by Rutgers Athletics and its sporting event attendees is nearly $79 million. These expenditures directly contribute to the New Jersey economy and support jobs locally and statewide. These direct expenditures support $139 million in total economic impact, supporting 1,230 jobs, and $61 million in labor income (see Table 5.1)

Table 5.1– Economic Impacts Associated with the 2014-15 Rutgers Athletic Budget and Current Visitor Spending within the State of New Jersey

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	831	$37.7	$78.5
Indirect Effect	147	$10.0	$21.4
Induced Effect	250	$13.7	$38.4
Total Effect	1,228	$61.4	$138.3

Source: University of Oregon (2012), The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

As a result of the economic activity generated by Rutgers Athletics and its sporting event attendees, significant tax revenues are also potentially generated for the State of New

Jersey. Including income, sales, and business taxes, total annual athletics and visitor spending generates approximately $2.9 million (see Table 5.2).

Table 5.2– Fiscal Impacts Associated with the 2014-15 Rutgers Athletic Budget and Current Visitor Spending within the State of New Jersey

Tax Type	($M)
Income	$1.98
Sales	$0.75
Business	$0.20
Total	**$2.93**

Source: University of Oregon (2012), The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

5.3 POTENTIAL FUTURE ONGOING IMPACTS

As Rutgers gets acclimated into the Big Ten, revenues and expenses are both projected to increase by 2022. These revenues are anticipated to come from more ticket sales, contributions, and media shares from the Big Ten and NCAA. These revenues are expected to outstrip the growth in expenditures projected during that time period. Including the projected $85 million budget, and adjusting visitor spending based on Big Ten average attendance (by percentage stadium capacity filled), total direct expenditures could potentially reach $97 million. These expenditures will stimulate economic activity within the State of a New Jersey for $171 million in total economic impact, supporting 1,510 jobs, and $76 million in labor income (see Table 5.3)

Table 5.3– Economic Impacts Associated with the 2021-22 Rutgers Athletic Budget and Increased Visitor Spending within the State of New Jersey

Impact Type	Employment	Labor Income ($M)	Output ($M)
Direct Effect	1,021	$47.0	$97.3
Indirect Effect	182	$12.4	$26.2
Induced Effect	311	$17.1	$47.9
Total Effect	1,514	$76.4	$171.4

Source: University of Oregon (2012), The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

Future spending by Rutgers Athletics and its sports event attendees will also generate tax revenues for the State of New Jersey. Including income, sales, and business taxes, total annual athletics and visitor spending generates approximately $3.6 million (see Table 5.4). This represents a 23 percent gain in tax revenues from 2014-15.

Table 5.4– Fiscal Impacts Associated with the 2021-22 Rutgers Athletic Budget and Increased Visitor Spending within the State of New Jersey

Tax Type	($M)
Income	$2.46
Sales	$0.91
Business	$0.25
Total	**$3.62**

Source: University of Oregon (2012), The State of New Jersey (2014), Rutgers University (2015), IMPLAN (2013), ESPN.com (2015), Econsult Solutions (2015)

6.0 REVIEW AND ANALYSIS OF THE RUTGERS SENATE REPORT ON THE FUTURE OF RUTGERS ATHLETICS

6.1 INTRODUCTION

In March of 2015, the Rutgers University Senate released a report setting recommendations for Income, Expenses, and Deficit related to the Rutgers Athletics Department ("Rutgers Athletics"). The report details various figures such as the $36 million in student fees and university support allocated to Athletics in 2013-14, as well as highlights future projected Athletics deficits at the New Brunswick/Piscataway campus. The report then makes several recommendations to improve department transparency, set strict budgetary guidelines, treat subsidies from the University as loans to be repaid, and block any facility expansion until budget neutrality has been reached. Most of these recommendations would likely harm the University's reputation within the Big Ten Athletic Conference ("Big Ten"), alienate alumni, and discourage future contributions to the University.

The following critique underscores several shortcomings of the report that fail to recognize the value of the Rutgers Athletics as a key function within the University. Among these shortcomings, the Senate report fails to consider the timing of the University's entrance to Big Ten athletics, the scale of Big Ten athletics and the revenues they generate, the marketability of the Big Ten brand, student sentiment towards athletics, the indirect benefits of athletics, and the value of capital improvements. These aspects of athletics tell a much more positive story, but are largely overlooked in the Senate report. Consequently, any judgment decisions on the future of Rutgers Athletics should consider these points.

6.2 TIMING

The most glaring error in the report is its nearsightedness. The report focuses on the current state of Rutgers' athletic expenses while largely ignoring the future impact of Big Ten revenues to the University. The timing of this report comes less than one year after Rutgers joined the Big Ten on July 1, 2014. At this juncture, Rutgers is currently paying off the remaining portion of the $11.5 million exit fee to the American Athletic Conference ("AAC"), while receiving only a small portion of the Big Ten media revenues that all other full Big Ten Institutions receive.[21] This transitional period between moving from a smaller regional conference to a nationally recognized "Power Five Conference" brings about more immediate costs before revenues are realized.

[21] Nebraska and Maryland are not yet fully vested Big Ten members

Signaling its intent to withdraw from the AAC and move to the Big Ten in November 2012, it is no surprise that Rutgers most heavily subsidized year was 2012-13 when it received $47 million in student fees and university support. The Senate report largely glances over this key fact, and instead focuses on the aggregate deficit accumulated during Rutgers' transition period in the Big 10. While this move to a more competitive conference will usher in additional costs, revenue growth though the Big Ten media shares, ticketing, and contributions are anticipated to outpace the growth in expenditures. These revenue gains will be realized closer to the end of the current 2013-2022 financial plan, and the Senate report places too heavy of an emphasis on projected subsidies to Rutgers Athletics in the short run.

6.3 SCALE

According to the financial data reported to the NCAA cited in the Senate report, Rutgers ranks last among Big Ten in non-university sources.[22] Moreover, revenues from ticket sales, contributions, and media/NCAA distributions to Rutgers are roughly two–thirds less than the average of its Big Ten peers. These revenues were even below other conference newcomers, Nebraska and Maryland. Particularly in revenues and expenses there is a wide gap between the "Power 5" conferences (Atlantic Coast Conference "ACC", Big 12, Big 10, Pacific 12 Conference "PAC-12", and Southeastern Conference "SEC"), and the rest of the Division I athletic conferences. Using 2013 data obtained from 230 NCAA Division I schools, average athletic revenues for the Power Five conferences was 479% higher, and school subsidies to athletic departments were less than half (46%) of those of the non-Power Five conferences (see Table 6.1). On average, non-Power Five conference members relied on school subsidies for 64% of their athletic revenues compared to 6% for Power Five conference members.

Rutgers' foray into Power Five conference athletics is only in its first year, and the department has not yet been able to reap the full rewards of media exposure that the Power Five conferences garner. Secondly, unlike Maryland (ACC) or Nebraska (Big 12), Rutgers did not move from one the Power Five conferences to another. The AAC is not considered one of the Power Five conferences and on average received only 52% of the revenues received by the Power Five conference members, and school subsidies represented about 42% of their athletic revenues compared to the 6% on average in the Power Five conferences (see Table 6.2).[23] Over time, non-school subsidized revenues will likely converge closer to the Big Ten average, and Rutgers Athletics will require fewer

[22] Northwestern was the only Big Ten member that did not have financial information in its athletics department publically available.

[23] The Big East Conference effectively split in 2013, creating a new separate Big East Conference and the American Athletic Conference ("AAC"). Rutgers was a member of the Big East Conference from 1991-2012 and subsequently joined the newly formed AAC in 2013, before moving to the Big Ten in 2014.

subsidies to maintain its programs. Consequently, the school will have more money at its disposal to share with Rutgers' other operating units including academics.

This positive progress toward athletics budget self-sustainability is overshadowed in the report by its repeated calls for immediate budget cuts. In 2014, operating expenditures for Rutgers Athletics were ranked 11th lowest of 13 public schools in the Big Ten (Northwestern is private). Further cuts by more than $4 million dollars would see the school ranked last in Big Ten, and would severely impact the quality of the athletic teams. This could potentially jeopardize Rutgers place in the Big Ten. If Rutgers' membership in the Big Ten would be terminated, there are several schools in other conferences with similar academic and athletic credentials that would readily take Rutgers' place. This expulsion could result in numerous negative direct and indirect effects to Rutgers Athletics and Rutgers University as a whole. More drastically, Goff 2004 shows that cutting a football program has a statistically significant negative impact on enrollment.[24]

Table 6.1 – Public Division I University Athletic Revenues, Expenses, and School Provided Subsidies

Conference	Count	Revenue	Expenses	Subsidy	Subsidy %
ACC	8	$77,890,645	$75,566,783	$8,296,568	11%
Big 12	8	$94,964,423	$85,859,355	$2,875,041	3%
Big Ten	13	$99,908,816	$96,269,048	$6,739,139	7%
PAC-12	10	$73,076,176	$71,124,791	$6,943,820	10%
SEC	13	$99,770,871	$92,147,289	$3,428,700	3%
Power 5 Total	52	$90,566,120	$85,616,719	$5,596,019	6%
All other Conferences	178	$18,926,289	$18,837,266	$12,101,678	64%
Power 5/All Other Percent Difference		479%	455%	46%	

Source: USA Today (2014)

Table 6.2 – Power 5 Conferences Compared to the American Athletic Conference in University Athletic Revenues, Expenses, and School Provided Subsidies

Conference	Count	Revenue	Expenses	Subsidy	Subsidy %
Power 5 Conferences	52	$90,566,120	$85,616,719	$5,596,019	6%
American	7	$47,959,488	$47,908,470	$20,166,806	42%
Power 5/American Percentage Difference		189%	179%	28%	

Source: USA Today (2014)

[24] Goff, Brian "Effects of University Athletics on the University: A Review and Extension of Empirical Assessment", *Economics of College Sports,* 2004.

6.4 REVENUE GROWTH POTENTIAL

Rutgers Athletics' record of budget deficits is targeted in Table 5 of the Senate report. While the annual subsidy has increased at rate of about $2 million per year since 2004, the football team has been invited to a bowl game nine times during that period. These performances were likely part of the reason why Rutgers was invited to join the Big Ten. As a result, the athletics program will receive greater revenue distributions that will likely reduce the dependence on school-subsidized funds. For football alone, the new playoff system awards $50 million to each of the Power Five conferences, while the next five weaker conferences will receive only $13 million.[25] While Rutgers is not immediately eligible to receive its share of the $50 million, the allocations represent the growing disparity between the Power Five conferences, and the rest of Division I athletics. Even if the allocations remain the same, Rutgers would receive three times what they would have gotten, if they otherwise remained in the AAC.[26,27]

Excluding football revenues, the Big Ten also distributes a portion of the gross media revenues to Rutgers. In 2015, Rutgers is anticipated to get $10 million from the Big Ten, which is greater than the $8.5 million it received from the AAC.[28] The 2015 Big Ten revenue shares to Rutgers represent only a portion of what is paid out to fully vested Big Ten members. Full shares are several times larger than what is currently paid the AAC, and what is currently paid to Rutgers (See Table 6.3).

The Senate report does acknowledge that Big Ten media revenues received by Rutgers during their 2014-2022 financial plan are expected to rise and may in fact be conservative.[29] Instead of taking this in to account, they show different scenarios where annual expenditures grow at a higher rate, yet leave revenues unchanged. These scenarios project $180 to $250 million in school subsidies and student fees to Rutgers Athletics between 2014 and 2022. With Big Ten media rights up for contract negotiation in 2016-17, Big Ten member schools could see payouts approaching $45 million by 2018.[30] Assuming Rutgers receives $45 million in conference distributions in 2021 (the year Rutgers becomes a full vested Big Ten Member); Rutgers Athletics would generate

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[25] http://www.economist.com/blogs/gametheory/2015/01/business-college-football?zid=316&ah=2f6fb672faf113fdd3b11cd1b1bf8a77, accessed April 22, 2015

[26] $50 million / 14 schools = $3.57million, vs. $13 million / 11 schools= $1.19 million

[27] This money does also not include direct payouts to schools that participate in bowls.

[28] http://www.nj.com/rutgersfootball/index.ssf/2014/09/rutgers_projects_166_percent_increase_in_athletics_revenue_over_next_year.html, accessed April 22, 2015

[29] Rutgers Senate report Table 9

[30] http://www.cbssports.com/collegefootball/eye-on-college-football/24540002/big-ten-schools-projected-to-get-45-million-with-new-tv-deal, Accessed April 22, 2015

a $7 million in profit without the need of any school subsidies (see Table 6.4).[31] Even if expenditures grew at the 5% rate cited in the Senate report, Rutgers Athletics would only require $8 million in subsidies, or roughly 7% of total athletics revenue. This represents a 77% decrease from the annual subsidy required in 2013-14 (see Table 6.5). Had Rutgers stayed in the AAC, Rutgers Athletics would still require a $27 million annual subsidy assuming expenditures grew at 2.92% and AAC distributions grew at 5% from $8.5 million.

Table 6.3 – Revenues by Type and Operating Expenditures among Big Ten Members 2013-2014

School	Ticket Sales	Contributions	Media and NCAA/ Distributions	Operating Expenditures
Illinois	$17.01	$16.91	$30.97	$83.11
Indiana	$17.03	$16.79	$30.07	$80.39
Iowa	$25.89	$30.36	$30.46	$102.28
Maryland	$13.44	$11.23	$19.04	$72.95
Michigan	$53.27	$35.27	$29.27	$142.55
Michigan State	$24.08	$29.73	$32.49	$107.42
Minnesota	$28.50	$10.33	$28.61	$106.18
Nebraska	$40.45	$11.83	$18.59	$90.94
Northwestern	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Ohio State	$56.00	$28.20	$30.60	$113.94
Penn State	$38.01	$24.17	$27.77	$117.44
Purdue	$14.42	$16.28	$28.93	$74.61
Wisconsin	$27.56	$38.46	$38.28	$125.10
Rutgers	$10.47	$8.11	$9.27	$76.66
Big 10 Average	**$28.16**	**$21.36**	**$27.26**	**$99.50**
Rutgers Rank	**13**	**13**	**13**	**11**

Source: Reports to NCAA 2013-14, Rutgers University Senate report (2015)

[31] Assumes that expenditure growth is 2.92% as projected in the Athletics long term financial plan

Table 6.4 – Rutgers Athletics Long Term Financial Plan 2014-2022 (Adjusted for higher Big Ten Revenue Share) ($Millions)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Revenues									
Direct Institutional Support	$22.21	$13.26	$12.35	$11.45	$10.55	$9.65	$8.76	$2.97	$3.09
Student Fees	$10.30	$10.51	$10.72	$10.93	$11.15	$11.37	$11.60	$11.83	$12.07
Conference/NCAA Distributions	$7.56	$10.04	$10.87	$11.21	$11.58	$14.97	$19.38	$25.00	$45.00
Other	$27.18	$32.98	$34.81	$36.73	$38.47	$40.54	$42.68	$44.77	$46.79
Total	**$67.25**	**$66.78**	**$68.74**	**$70.32**	**$71.75**	**$76.53**	**$82.43**	**$84.58**	**$106.95**
Expenses	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Debt Service	$5.73	$5.63	$5.58	$5.53	$5.48	$5.43	$5.37	$5.32	$5.26
Other	$61.52	$62.08	$64.52	$66.87	$68.81	$71.34	$73.92	$76.64	$79.41
Total Expenses	**$67.25**	**$67.72**	**$70.10**	**$72.40**	**$74.29**	**$76.77**	**$79.29**	**$81.96**	**$84.67**
Operating Revenue (loss)	**$0.00**	**-$0.94**	**-$1.36**	**-$2.08**	**-$2.54**	**-$0.24**	**$3.14**	**$2.62**	**$22.28**
Direct Institutional Support	$22.21	$13.26	$12.35	$11.45	$10.55	$9.65	$8.76	$2.97	$3.09
Student Fees	$10.30	$10.51	$10.72	$10.93	$11.15	$11.37	$11.60	$11.83	$12.07
Net Income	**$0.00**	**-$0.94**	**-$1.36**	**-$2.08**	**-$2.54**	**-$0.24**	**$3.14**	**$2.62**	**$22.28**
Net Subsidy Required	**$32.51**	**$24.70**	**$24.42**	**$24.45**	**$24.24**	**$21.27**	**$17.23**	**$12.19**	**-$7.12**

Source: Rutgers University Senate report (2015), Econsult Solutions (2015)

Table 6.5 – Rutgers Athletics Long Term Financial Plan 2014-2022, 5% Growth in Expenditures (Adjusted for higher Big Ten Revenue Share) ($Millions)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Revenues									
Direct Institutional Support	$22.21	$13.26	$12.35	$11.45	$10.55	$9.65	$8.76	$2.97	$3.09
Student Fees	$10.30	$10.51	$10.72	$10.93	$11.15	$11.37	$11.60	$11.83	$12.07
Conference/NCAA Distributions	$7.56	$10.04	$10.87	$11.21	$11.58	$14.97	$19.38	$25.00	$45.00
Other	$27.18	$32.98	$34.81	$36.73	$38.47	$40.54	$42.68	$44.77	$46.79
Total	$67.25	$66.78	$68.74	$70.32	$71.75	$76.53	$82.43	$84.58	$106.95
Expenses	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Debt Service	$5.73	$5.63	$5.58	$5.53	$5.48	$5.43	$5.37	$5.32	$5.26
Other	$61.52	$62.08	$64.52	$66.87	$68.81	$71.34	$73.92	$76.64	$79.41
Total Expenses	$67.25	$70.61	$74.14	$77.85	$81.74	$85.83	$90.12	$94.63	$99.36
Operating Revenue (loss)	$0.00	-$3.83	-$5.40	-$7.53	-$9.99	-$9.30	-$7.69	-$10.05	$7.59
Direct Institutional Support	$22.21	$13.26	$12.35	$11.45	$10.55	$9.65	$8.76	$2.97	$3.09
Student Fees	$10.30	$10.51	$10.72	$10.93	$11.15	$11.37	$11.60	$11.83	$12.07
Net Income	$0.00	-$3.83	-$5.40	-$7.53	-$9.99	-$9.30	-$7.69	-$10.05	$7.59
Net Subsidy Required	**$32.51**	**$27.59**	**$28.47**	**$29.91**	**$31.69**	**$30.33**	**$28.05**	**$24.86**	**$7.57**
Subsidy % Change from 2013-14		**-15%**	**-12%**	**-8%**	**-3%**	**-7%**	**-14%**	**-24%**	**-77%**

Source: Rutgers University Senate report (2015), Econsult Solutions (2015)

6.5 FACULTY VERSUS STUDENT UTILITY

The emphasis of the Senate report balances the merits of athletics versus the University's academic mission. However, it fails to recognize student demand for athletics. In the increasingly competitive landscape among higher education institutions for students, institutions must offer the best aid packages, campus amenities, academics programs, facilities, and athletics. While academics are typically the main factor in students' college choice, the extent and quality of athletic programs are also significant factors. This is evidenced in a study (Osborne 2004) that shows a statistically significant connection between athletics spending and university tuition revenues.[32] This suggests that students inherently value college athletics and have a marginal willingness to pay for them. While the Senate report concludes that spending on college athletics is a drain to the University's resources, this evidence suggests that athletic spending helps maximize University revenues. These revenues are used to support the University's academic, service, and research missions.

6.6 BIG TEN BRAND

While the Senate report argues that athletics are a drain on the University's resources, it undervalues the gains from Big Ten membership. The Big Ten is an athletic and academic conference comprising of 11 state flagship universities, two public land grant institutions, and a private university. Thirteen of the fourteen Big Ten schools are Association of American University (AAU) members, and twelve have endowments over $1 billion.[33] This puts Rutgers in an elite group of public land-grant universities that are recognized nationally for their athletics and academics.

The athletics portion of the conference has several national television deals that broadcast live and previously recorded Big Ten collegiate events nationwide. In the 2013 regular season, Big Ten football games averaged 2.9 million viewers across 82 games (second only to the Southeastern Conference). Meanwhile the AAC averaged 971,000 viewers across 60 games (seventh overall).[34] In 2013 total payouts from the NCAA and Big Ten based on football bowl and NCAA basketball tournament success alone totaled $70 million. This is not including Big Ten television contracts that have an annual value of

[32] Osborne, Evan (2004) "Motivating College Athletics", *Economics of College Sports*

[33] http://www.nacubo.org/Documents/EndowmentFiles/2014_Endowment_Market_Values_Revised.pdf , accessed April 22, 2015

[34] http://www.goodbullhunting.com/2013/12/17/5216550/college-football-tv-ratings-2013-regular-season-final-sec , accessed April 22, 2015

$250 million.[35] Combined, this represents $320 million in total revenue. In Rutgers last year with the AAC, the conference only collected $72 million from television contracts, football bowls, and the NCAA basketball tournament combined. For Rutgers, joining the Big makes economic sense since it now has access to revenues from a pie that is five times larger.

While the Big Ten athletics brand can be loosely valued based on its media value, the prestige gained from its new academic affiliations is less quantifiable. Big Ten academics can gain added value from media exposure of their athletic programs. Beyond media exposure, the most significant effect on Rutgers' academics is its newfound membership in the Committee on Institutional Cooperation (CIC). This prestigious collaborative organization consisting of Big 10 members, and the University of Chicago boasts a research portfolio of over $10 billion, which is greater than that of that of the University California system and the Ivy League.[36] The senate report does mention this organization *in a footnote*, but grossly downplays its potential as an asset to the University. Membership in this organization will open the door to new collaborative efforts between other Big Ten schools to compete for research grants, generate cost savings, sponsor peer-reviewed research, and attract top-tier students and faculty.[37]

While these affiliations present the University with additional marketing opportunities to prospective students, the actual impact remains to be seen. Enrollment and SAT metrics shown in the University Senate report would not show the impact of joining the Big Ten. However, after Nebraska joined the Big Ten in 2011, it saw a 12% uptick in applications between 2010 and 2013. During the same time period, Rutgers only saw a 4% increase in applications.[38]

6.7 INDIRECT BENEFITS

Beyond the added revenues that the Big Ten will bring Rutgers Athletics, the University will also benefit from greater national exposure due to investment in athletics. Appendix C of the Senate report goes into detail questioning the non-monetary benefits generated by Rutgers Athletics. The report does not fully reject the potential for a net positive impact, but questions whether the cost of the prolonged athletics deficit is justified. The section also does not fully address the positive impacts of the University joining the Big Ten for athletics. The report cites Rutgers' and comparable schools' median SAT scores from 2001 to 2009, and enrollment data from 2002 to 2013. While it is not deniable that

[35] http://www.forbes.com/sites/chrissmith/2014/04/15/the-most-valuable-conferences-in-college-sports-2014/ , accessed April 22, 2015

[36] http://www.cic.net/docs/default-source/reports/cic-annual-reportfeb2014.pdf, accessed April 22, 2015

[37] The CIC annual report cites $11.7 in library and research savings to member institutions. Membership dues are about $200,000 on average.

[38] National Center for Education Statistics (NCES), 2010-2013

Rutgers has lagged behind its Big Ten peers in SAT score growth, applications growth, and selectivity, Rutgers received 25% more applications; acceptance rate went down 3%, and the 1st and 3rd quartile SAT scores increased 1% and 2% respectively. This growth is correlated with Rutgers investment in its Division I football program and its athletic facilities. Various studies such as (Mixon & Hsing (1994), McCormick and Tinsley (1987)) support the link between Division I athletics, application growth, and SAT score growth.

With athletic success strongly correlated with athletics spending, it is no surprise that the Power Five conference members are regularly contenders for national championships across most Division I sports, including football (Jones 2013). Athletic events represent a goldmine for advertisers and the University to boost exposure, and appearances in national title games, the NCAA tournament, and other nationally broadcasted games give the University a national platform to display itself. A study by Pope and Pope in 2009, showed a temporal connection between successful athletics seasons. Appearances in the NCAA tournament increase applications by 1%, while top-20 finishes in football boost applications by 2.5%. National championships for each sport increase applications by 7-8%. These impacts are only experienced for the year after the successful sports season. Therefore, any lasting impacts depend on consistent success in athletics.

This success has also been linked to increases in giving to university athletics. A prominent study by Baade & Sundberg in 1996 examined alumni gifts from 167 institutions between 1973 and 1990. The study found that bowl game appearances led to a 40-50% increase in donations, and basketball tournament appearances registered a 35% increase in giving.[39] Getz and Siegfried (2010) notes that appearances in post season play serve an advertising function, allowing to University to tap into a larger donations market.[40] Like applications, these boosts in giving are related to temporal success. Furthermore, these donations may crowd out other donations that would otherwise have gone to University academics. However, increased contributions to Rutgers Athletics decrease the amount of subsidy required to fund it. Therefore, increases in alumni donations to Rutgers Athletics would result in a gain for academics as well.

Athletic success may also generate intangible spillovers in terms of school spirit and pride in the community. Empirical evidence suggests a positive correlation between football and basketball success and the graduation and retention rates for undergraduate

[39] Baade R. & Sundberg J. (1996) Fourth Down and Gold to go? Assessing the Link between Athletics and Alumni Giving *Social Science Quarterly*

[40] Getz, Malcom & Siegfried, John (2010). What Does Intercollegiate Athletics Do To or For Colleges and Universities? Vanderbilt University Department of Economics Working Papers 1005, Vanderbilt University Department of Economics

students (Tucker 2004).[41] This results in a gain for University as well as the state, as it will gain more college graduates that will contribute to the overall workforce.

Finally, Appendix C in the Senate report emphasizes specific negative impacts such as traffic due to athletic events. The senate report fails to acknowledge the indirect spending generated by spectators that travel to New Brunswick/Piscataway to attend Rutgers Athletics. In its first year of Big Ten athletics, Rutgers football, men's basketball, and women's basketball drew 432,442 attendees. Football alone saw attendance reach 96.5% capacity, well above the Big Ten average of 90.2%.[42] A significant portion of athletic event attendees travel from outside of the Central New Jersey region and make purchases on goods and services including food and beverages, hotels, and Rutgers merchandise. These expenditures contribute to the local economy, generating jobs and tax revenues to the State.

6.8 CAPITAL NEEDS

Since joining the Big Ten, Rutgers Athletics and its administration has identified several improvements to athletic facilities to reach the standard set by other Big Ten schools.[43,44,45] Currently, Rutgers' football stadium ranks 11th out of 14 Big Ten schools, and the basketball arena ranks last in the Big Ten in terms of capacity.[46] To cater to the crowds attracted by Big Ten sports, improve athletic program competitiveness, and attract top-tier athletes, current facilities would need to be upgraded to compete with Rutgers' new Big Ten peers. Most recently High Points Solutions Stadium, the Rutgers football stadium, was upgraded and expanded between 2008 and 2010 for $102 million. The Rutgers Athletics long-term budget for 2014-2022, does not include any allocations for athletic facility upgrades.

While official figures for proposed upgrades have not been released, any spending would likely require significant outside funding, including financing and private donors. Additional debt service in the short term would increase school-based subsidies for Rutgers Athletics in the short term. These investments could be leveraged against future revenues from Big Ten media shares once Rutgers becomes a fully vested member in the Big Ten.

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[41] Tucker, I. (2004) A Reexamination of the Effect of Big-Time Football and Basketball Success on Graduation Rates and Alumni Giving Rates. *Economics of Education Review*

[42] ESPN.com attendance estimates during the 2014-15 football, men's and women's basketball seasons

[43] http://www.nj.com/rutgersfootball/index.ssf/2015/04/rutgers_officials_discussing_plan_to_upgrade_the_h.html , accessed April 22, 2015

[44] http://www.nj.com/rutgersbasketball/index.ssf/2015/04/rutgers_officials_expected_to_present_plan_for_bas.html , accessed April 22, 2015

[45] http://www.northjersey.com/news/big-ten-may-mean-big-costs-for-rutgers-1.1039383?page=all , accessed April 22, 2015

[46] The Big Ten has three of the top four football largest stadiums in the country.

Investment in new facilities will also generate impacts to the local economy through construction expenditures, and the indirect and induced expenditures of those working on the project.

6.9 CONCLUSION

The recommendations issued by the Senate report propose to cut the athletics budget by significant amounts to reduce the amount of school subsidies spent towards non-academic units. Despite Rutgers' athletic expenditures ranking among the lowest in the Big Ten, the report offers few suggestions on how to increase revenues beyond raising ticket prices. Nor does the Senate report suggest methods to become less dependent on school subsidies without cutting expenditures. The report's nearsightedness ignores Rutgers Athletics' long term financial plan of cutting subsidies by two-thirds, and instead suggests a five year horizon to cut all financial losses. If implemented, this recommendation could cause foster negative consequences on enrollment, school pride, future donations, research grants, and Rutgers' future as a Big Ten and CIC member. As such, the long term negative implications to the university from curtailing athletics spending could prove to be more costly than investing more into athletics.

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APPENDIX B – ECONOMIC IMPACT MODEL THEORY

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, any economic activity can be described in terms of the total output generated from every dollar of direct expenditures. 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 expenditures*.

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 expenditures*. In addition, these direct and indirect expenditures 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 outputs 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 earnings), 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 earnings 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.[47]

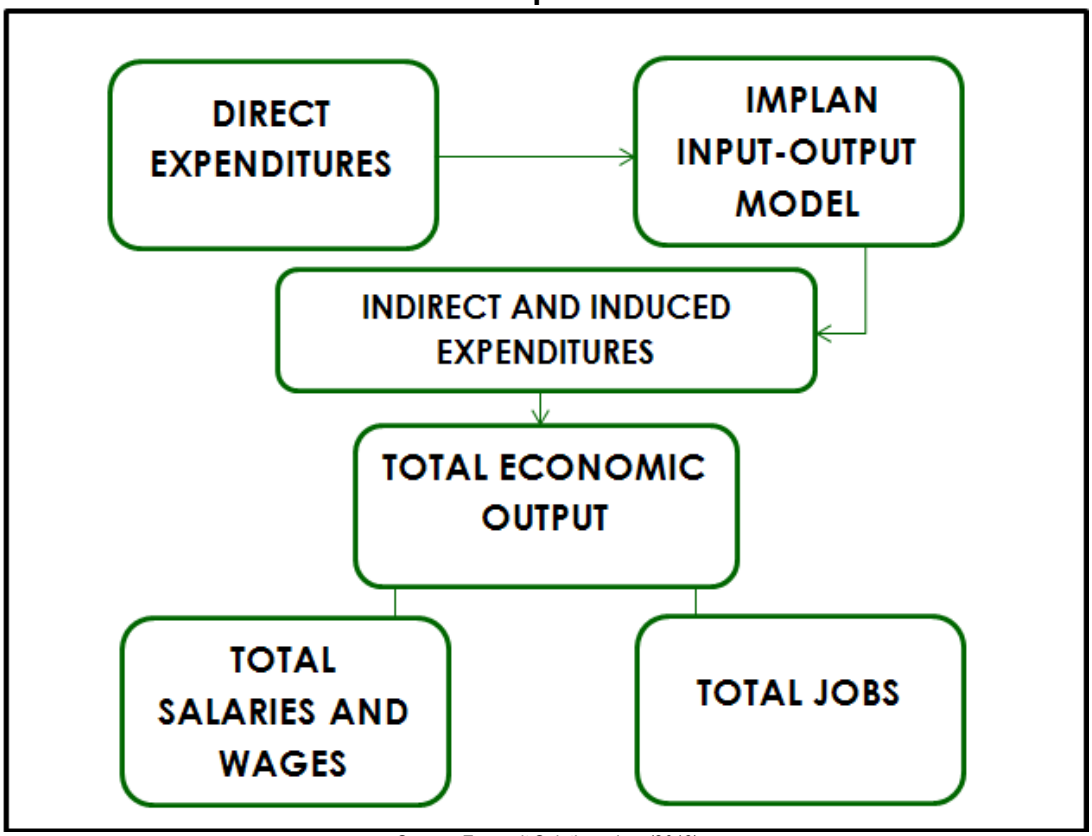
Part of the total expenditure effect is actually the increase in total wages and salaries (usually referred to as labor income), which the model can separate from the expenditure

[47] In the input-output model, the estimate of increased employment will always be in terms of the employment required for a given level of production, usually referred to as *person-years* of employment. As such, these estimates cannot be interpreted as specifying *permanent jobs.*

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 B.1 and Table B.1).

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



Source: Econsult Solutions, Inc. (2013)

Table B.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.

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 annualized fulltime and part-time jobs associated with the direct output.

Direct Labor income – the salaries and wages (including benefits and payroll taxes) 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 annualized fulltime and part-time jobs associated with the indirect output.

Indirect Labor income – the salaries and wages (including benefits and payroll taxes) 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, indirect, and induced employment.

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

Source: Econsult Solutions, Inc. (2014)

APPENDIX C – IMPLAN MULTIPLIERS

Table C.1 – IMPLAN Output Multipliers for the State of New Jersey (2011)

Sector	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Construction of other new nonresidential structures	1.00	0.34	0.54	1.88
Retail Stores - Gasoline stations	1.00	0.30	0.42	1.73
Retail Stores - Clothing and clothing accessories	1.00	0.37	0.43	1.81
Hotels and motels, including casino hotels	1.00	0.45	0.43	1.88
Food services and drinking places	1.00	0.35	0.43	1.78

Source: IMPLAN (2013)

Table C.2 – IMPLAN Employment Multipliers for the State of New Jersey (2011)

Sector	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Construction of other new nonresidential structures	8.09	1.92	3.83	13.85
Retail Stores - Gasoline stations	11.18	1.93	3.02	16.13
Retail Stores - Clothing and clothing accessories	13.27	2.39	3.10	18.76
Hotels and motels, including casino hotels	8.72	2.96	3.08	14.76
Food services and drinking places	17.58	2.04	3.06	22.68

Source: IMPLAN (2013)

Table C.3 – IMPLAN Value Added Multipliers for the State of New Jersey (2011)

Sector	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Construction of other new nonresidential structures	0.58	0.19	0.34	1.10
Retail Stores - Gasoline stations	0.71	0.20	0.27	1.18
Retail Stores - Clothing and clothing accessories	0.65	0.25	0.27	1.17
Hotels and motels, including casino hotels	0.56	0.28	0.27	1.12
Food services and drinking places	0.55	0.22	0.27	1.04

Source: IMPLAN (2013)

Table C.4 – IMPLAN Labor Income Multipliers for the State of New Jersey (2011)

Sector	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Construction of other new nonresidential structures	0.55	0.13	0.20	0.88
Retail Stores - Gasoline stations	0.43	0.11	0.15	0.70
Retail Stores - Clothing and clothing accessories	0.42	0.14	0.16	0.71
Hotels and motels, including casino hotels	0.36	0.19	0.16	0.71
Food services and drinking places	0.42	0.13	0.16	0.70

Source: IMPLAN (2013)