PENN STATE FOOTBALL

The Economic Impact and Community Benefit of Penn State Football on Pennsylvania and Centre County 2009

Executive Report
Table of Contents

Penn State Football Executive Report  2
   Introduction                      2
   Project Overview                 2
   Study Goals                      3
   Study Methodology                3

Economic Impact of Penn State Football on the State of Pennsylvania and Centre County  5
   Employment Impact (2009)         9
   Government Revenue Impact (2009) 10

Community Benefits of Penn State Football on the State of Pennsylvania and Centre County  11

Appendix A: Glossary of Terms  14

Appendix B: Linear Cash Flow Methodology  15
Penn State Football Executive Report

Introduction

As a member of the Big Ten Conference, Penn State Football has been an important part of the spirit and culture of State College, Pennsylvania since it began more than a century ago. Over the years the Penn State Nittany Lions, under the leadership of Joe Paterno, have won two National Championships, three Big Ten Titles and 26 Bowl Games. With a football program so rich in tradition and loyalty, Penn State Football fans and alumni travel from all over central Pennsylvania and beyond to attend games at Beaver Stadium and tailgate with family and friends. As the second largest stadium in the nation, Beaver Stadium, with a seating capacity of 107,282, is filled to near capacity for many home games.

Few realize the significance of the Penn State Football program as an economic engine for the state of Pennsylvania and Centre County. This economic engine is driven in large part by those who come to Happy Valley because of the Penn State Football program; attendees to home football games, opposing team players and coaching staff, the media contingent present at each game, attendees to the annual football-related camps and clinics, visitors to football staff, and attendees to football conferences and meetings. Penn State Football is an important contributor to the business volume, employment, and government revenue of the Commonwealth of Pennsylvania and Centre County.

Project Overview

To accurately measure its economic impact and community benefit on the Commonwealth of Pennsylvania and Centre County, the Pennsylvania State University retained the services of Pittsburgh-based Tripp Umbach. The data were collected for the 2008 – 2009 Fiscal Year.

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1 Tripp Umbach is a Pittsburgh-based research firm and the leading provider of customized economic impact studies for universities and academic medical centers throughout the United States. Tripp Umbach regularly calculates the economic impact of university-related and medical tourism for its clients. Tripp Umbach has extensive experience in calculating the impact of tourism and cultural events for clients such as: Susan G. Komen Race For the Cure (40 markets), Thrift Drug Classic Professional Bicycle Race, Pittsburgh Steelers Stadium Games, Red Bull (national), Wood Choppers Village West Virginia, Pittsburgh Convention & Visitors’ Bureau: Pittsburgh Pirate Packages, Pittsburgh Convention Center, Conventions & Meetings, Pittsburgh Cultural Trust: Visitor Economic
Study Goals

Tripp Umbach was commissioned by the Pennsylvania State University to perform economic impact research and analysis to measure the business volume, employment, and government tax revenue impact of Penn State Football on Pennsylvania and Centre County operations and to quantify the community benefit of various programs associated with Penn State Football.

Study Methodology

Penn State Football is a significant generator of economic impact in the state of Pennsylvania and, as such, a significant generator of personal income for state residents. Businesses operating within Pennsylvania in the wholesale, retail, service and manufacturing sectors benefit from the direct expenditures of the organization and its staff, and visitors. Tripp Umbach uses economic impact (also referred to as business volume impact) multipliers recommended by the American Council on Education (ACE). The indirect impacts represent the re-spending which takes place in the study areas. Tripp Umbach utilizes a state business volume multiplier of 2.3 and a county business volume multiplier of 1.8 for this study.

This economic impact analysis measures the direct and indirect business volume and government revenue impacts for Penn State Football. The methodology employed in the calculation of these impacts is derived from the standard set of impact research tools developed by the American Council on Education (ACE) for the measurement of college and university economic impact. The ACE-based methodology is well established, having been used in hundreds of impact studies throughout the United States. The ACE methodology employs linear cash-flow modeling to track the flow of organization-originated funds through a delineated spatial area. For the Penn State Football impact analysis, computerized spreadsheet models were developed to measure the impact on the state and county economies and government revenues.

By using this economic impact model, the Tripp Umbach research team has been able to provide Penn State Football with a detailed quantification of the total direct and indirect impact of Penn State Football on the state economy and Centre County. The impact models provide measures of

Impact, 84 Lumber Classic, Minneapolis Home & Garden Show, Forest Festival, FIU Football, Three Rivers Regatta, and Pennsylvania Botanical Garden.
business volume and state government revenues allocable to Penn State Football, together with breakouts of the individual categories of spending that comprise the total impact (e.g., organizational capital spending, goods and services spending, staff spending, etc.). Please see Appendix B for more details regarding the methodology used in this study.

To complete this study, specific assumptions were made about the type and level of spending within the local economy as a result of Penn State Football games. These assumptions are based upon previous research conducted for other tourist-driven events and the evaluation of other studies completed in the state of Pennsylvania. Tripp Umbach chose to be very conservative in the assumptions about the size of the group visiting the area, as well as the number of nights spent in the area, in order to avoid overestimating the impact of Penn State Football.

**Tripp Umbach made the following assumptions:**

1) Based upon secondary data research, it is assumed that 15% of all Penn State Football program visitors are from out-of-state.

2) Based upon secondary data research, it is assumed that for each out-of-state attendee that comes to a Penn State Football game, 1.5 people will accompany the attendee on the trip but did not purchase tickets for the game.

3) Based upon primary data research and survey data collected, it is assumed that each “group” traveling to the game will spend an average of 2.5 days in the state.

4) Based upon US General Services Administration published per diem rates, it is assumed that the average cost of a hotel room in Centre County per night will be $88.00 and meals and incidentals will be $44.00 per day.²

² Source: http://www.gsa.gov/portal/category/100120
Economic Impact of Penn State Football on the State of Pennsylvania and Centre County

Universities are, by nature, major tourism destinations. Students, faculty and staff visit universities on a regular basis for conferences and meetings. Parents and friends visit students frequently and the general public travels to universities for sporting events, conferences, cultural events and sports camps. The economic impact models created by Tripp Umbach for Penn State Football calculate the net impact of spending within the state of Pennsylvania from out-of-state visitors. The tourism impact of Penn State Football represents millions of dollars annually in the flow of "fresh" dollars (dollars attracted from out-of-state) into the state's economy. The state model does not include spending by visitors within Pennsylvania who travel to State College to watch a Penn State Football game.

According to a 2007 study by Global Insight, visitor spending generates more than $352 million annually for Centre County. In addition, almost 17 percent of the Centre County work force supports tourism within the county; this equates to more than 7,000 jobs annually.⁴


Direct and Indirect Expansion of the State and Centre County Economies Attributable to Penn State Football

With a business volume impact in 2009 of $161.5 million on the state, the annual operations of Penn State Football have a truly substantial economic impact not only on the state, but also on the county. Penn State Football has a significant direct impact on the state, and the benefits of these initial expenditures ripple through the state economy providing economic benefits, through the multiplier effect, to many Pennsylvania residents.

Penn State Football’s direct economic impact stems from the spending by Penn State Football for capital improvements and goods and services; the spending of Penn State Football staff; and the spending of out-of-area visitors who attend all football related events and programs and those

⁴ http://www.centredaily.com/2010/08/01/2125668/support-for-visitor-bureau-strengthens.html#ixzz0ymAbMoiz
who visit staff. In addition, these direct, first-round expenditures, received as income by businesses and individuals in the state, re-circulate through the economy in successive rounds of re-spending. The end result is the total impact of Penn State Football’s presence and its spending patterns.

_The results of this analysis include:_

1. **Total Business Volume Impact**

In 2009, Penn State Football had a business volume impact on Pennsylvania of $161.5 million. This economic impact was comprised of $70.2 million in direct state business volume impact and a further $91.3 million in indirect state impacts accruing to the economy through the multiplier (see Table 1).

<table>
<thead>
<tr>
<th>TABLE 1: PENN STATE FOOTBALL BUSINESS VOLUME IMPACT BY GEOGRAPHY (2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State of Pennsylvania</strong></td>
</tr>
<tr>
<td>Total Business Volume Impact</td>
</tr>
<tr>
<td>Direct Business Volume Impact</td>
</tr>
<tr>
<td>Indirect Business Volume Impact</td>
</tr>
</tbody>
</table>
The direct business volume impact is comprised of the following components:

a. **Direct spending by Penn State Football for capital improvements, goods, services and supplies**

This category of impact includes the in-state and in-county spending by Penn State Football for capital equipment and improvements, and goods and services made with contractors and vendors located in Pennsylvania and Centre County (the average spent over the five year period 2005-2009 was used for the 2009 impact). Goods and services may include a broad range of purchases such as food and beverage supplies, administrative supplies, computer consulting, etc. Penn State Football spent nearly $16.4 million on capital improvements and goods and service in the state of Pennsylvania in 2009 (see Table 2).

| TABLE 2: DIRECT SPENDING BY PENN STATE FOOTBALL FOR CAPITAL IMPROVEMENTS, GOODS AND SERVICES BY GEOGRAPHY (2009) |
|-------------------------------------------------|-------------------------------------------------|---------------|
| State of Pennsylvania | Centre County |
| Direct Impact | $16,364,216 | $13,909,584 |

b. **Direct spending by Penn State Football staff and game day employees**

While university football programs such as Penn State spend a substantial amount of money in the state on capital improvements and goods and services, one of their most important benefits to the economy is their direct payroll. The majority of this goes to Pennsylvania residents who spend the majority of their disposable income in the state. Adjusting for payroll to football staff and game day employees residing out-of-state, savings and taxes, the total payroll from Penn State Football generates $2.7 million in direct impact through staff and game day employees spending (see Table 3).
c. **Direct spending by out-of-area visitors**

Throughout the year, thousands of people from Pennsylvania and other states visit State College because of the Penn State Football program. Visitors from out-of-state bring with them out-of-area dollars to the state and local economies for accommodations, souvenirs, food, services, entertainment and other items during their stay (does not include spending at Beaver Stadium). Out-of-area visitors include: attendees to football games, opposing football teams and their coaching staff, the media, attendees to summer football camps, Fantasy Camp, and coaches clinics, visitors to football staff, and attendees to football conferences and meetings.

In 2009, out-of-state visitors to Penn State Football spent nearly $51.1 million in the Pennsylvania economy, and approximately $34.1 million within Centre County (see Table 4). The majority of this direct spending is attributable to those attending Penn State Football games.

### TABLE 3: DIRECT SPENDING BY PENN STATE FOOTBALL STAFF AND GAME DAY EMPLOYEES BY GEOGRAPHY (2009)

<table>
<thead>
<tr>
<th></th>
<th>State of Pennsylvania</th>
<th>Centre County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Impact</td>
<td>$2,727,707</td>
<td>$2,005,561</td>
</tr>
</tbody>
</table>

### TABLE 4: DIRECT SPENDING BY VISITORS BY GEOGRAPHY (2009)

<table>
<thead>
<tr>
<th></th>
<th>State of Pennsylvania</th>
<th>Centre County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Impact</td>
<td>$51,135,183</td>
<td>$34,091,046</td>
</tr>
</tbody>
</table>
Employment Impact (2009)

The Direct and Indirect Employment in the State and Centre County Attributable to Penn State Football

In 2009, a total of 2,147 direct and indirect jobs were generated as a result of Penn State Football’s presence in the state of Pennsylvania. This employment number is comprised of 1,130 direct jobs which include office administration, coaching staff and assistants, box office, concessions, ushers, parking, advertising and media, and 1,017 indirect jobs which provide support services to the Penn State Football program. The indirect jobs are generated based on the spending of out of-area visitors at hotels, restaurants, and vendors, and are proportionate to the service needs of the Penn State Football program and its related populations (employees and visitors). The business volume generated by Penn State Football creates jobs in a broad range of sectors throughout the state and county economies (see Table 5).

<table>
<thead>
<tr>
<th>Employment Category</th>
<th>State of Pennsylvania</th>
<th>Centre County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Jobs</td>
<td>1,130</td>
<td>1,018</td>
</tr>
<tr>
<td>Indirect Jobs</td>
<td>1,017</td>
<td>713</td>
</tr>
<tr>
<td>Total</td>
<td>2,147</td>
<td>1,731</td>
</tr>
</tbody>
</table>
Government Revenue Impact (2009)

**Tax Revenues to the State of Pennsylvania and Centre County Allocable to Penn State Football**

Tripp Umbach estimates that $5.7 million in government tax revenue was generated by Penn State Football in 2009 for the state of Pennsylvania. This total state tax revenue includes direct taxes, which are paid to the state by Penn State Football, and indirect taxes which are calculated through the linear cash flow model based on the volume of direct spending by the Penn State Football program and its related populations. The amount of income tax paid directly to the state of Pennsylvania on nearly $4.4 million in payroll equals $134,000 and the indirect state government revenue generated equals $5.6 million. In addition, Penn State Football generated $690,000 in total taxes for Centre County.
Community Benefits of Penn State Football on the State of Pennsylvania and Centre County

The Penn State Football program, along with other Penn State intercollegiate programs, provides much more to the surrounding communities in which it operates than just the business volume, government revenue, and employment impacts generated through its operations. The entire Penn State Athletic Program, including the coaching staff, administrative staff and student-athletes, contribute to the local community through their volunteerism and donations. Approximately 280 individual student-athletes volunteered a total of 700 hours to community-related events.

- **“Penn” Pal Program** – Penn State student-athletes annually host fourth, fifth and sixth graders from area schools. Activities include a discussion of the importance of teamwork, communication and cooperation, as well as sports demonstrations.

- **Lunch with Lions** - Through the "Lunch with the Lions" program, student-athletes meet with LifeLink PSU participants once or twice a semester to have lunch and socialize. LifeLink PSU provides 18 to 21 year old students with special needs the opportunity to attend classes and experience college life.

- **Special Olympics** – For the 22nd consecutive year, one of the largest annual events is the Special Olympics Summer Games held at Penn State University. Coach Paterno and his wife have been very supportive of Special Olympics. This June, the event attracted more than 2,000 athletes and 750 coaches from communities across Pennsylvania, as well as more than 50 PSU student-athletes volunteers who represented 10 varsity teams.

- **Uplifting Athletes** – The Penn State Football Uplifting Athletes organization is a chapter of the national nonprofit organization which aligns current college football players with raising national awareness of rare diseases. Penn State Football players organize and participate in events that raise funds for research, education, outreach and advocacy as well as providing these student-athletes with an opportunity to gain practical job skills while learning how to leverage their assets and abilities to make a positive and lasting impact. Some of the events hosted by Uplifting Athletes include:
• **Charity Video Game Tournament** which provided Penn State Football fans the opportunity to buy a ticket to watch many of their favorite players compete against each other in a popular college football video game. This new event was in recognition of Global Rare Disease Day.

• The **Dunk Tank Fundraiser** was held outside Beaver Stadium. Ten current players participated in the event to raise funds for the Kidney Cancer Association.

• The Seventh Annual Uplifting Athletes “Lift for Life” event attracted thousands of Penn State Football fans and raised a record amount of more than $81,000 for Kidney Cancer Association. This event included an 11-exercise endurance and weight lifting competition among 24 four-man teams.

• **THON** - THON is the largest student-run philanthropy in the world and is a yearlong effort to raise funds and awareness for the fight against pediatric cancer. THON has 15,000 student volunteers and, since 1977, has raised more than $69 million which benefits The Four Diamonds Fund at Penn State Children’s Hospital. The culmination of their annual efforts to raise millions of dollars is the Penn State IFC / Panhellenic Dance Marathon in which 700 dancers participate. Other THON fundraisers include: THON Make a Wish; THON Pep Rally; THON Carnival; THON Athlete Hour; and THON Auction.

• **Second Mile Holiday Party** - Each December, student-athletes donate money and clothing to host a holiday party for youth who are part of the Second Mile Program. Student-athletes buy and wrap gifts, and host a party in one of the athletic facilities where there are refreshments, gifts are distributed and the student-athletes and Second Mile students create holiday cards and crafts for local nursing care residents.

• **Shadow Day** - Approximately 50 fifth and sixth graders from Central and Western Pennsylvania schools participate in Student-Athlete Shadow Day which provides the youth with an opportunity to experience a portion of a typical day for a Penn State student-athlete, as well as a tour of University academic and athletic facilities. Each student is paired with a student-athlete and attends at least one class, has lunch at the McElwain Dining Commons, and tours various buildings and facilities on campus, including the Pattee and Paterno Libraries, and the Morgan Academic Support Center for Student-Athletes.
• **Game Night at the Village** - Student-athletes are given the opportunity to interact with residents of "The Village at Penn State" retirement community one evening per semester. Activities include: card games; Scrabble; Apples to Apples; and Wii.

• **Donated Football Memorabilia** – Approximately 2,500 items are donated which include: photos, posters, equipment, and apparel with a financial worth of $15,000.

• **Autographs** - Fan requests for autographs from football team players and coaches – the majority of the 5,000 requests are for Coach Paterno. Athletic department staff and players volunteer 80 hours to the administration and fulfillment of memorabilia donations.

• **Speaking Engagements** - Various members of the Penn State Football program speak at numerous events throughout the year.

• **Beaver Stadium Recycling Program** - With a 13-year-old recycling program, the Penn State Beaver Stadium has diverted nearly 30 tons of recyclables annually from local landfills. A new initiative to promote recycling in the stadium’s tailgating area has helped Penn State more than triple its old recycling record, collecting 112 tons in 2008. The proceeds from the sale of the recycled materials are donated to the local United Way - more than $54,000 to date.

• **Nittany Lion Club** – Its members primarily support grant-in-aid for Penn State student athletes, but also provide operational, academic, medical, individual endowment, and capital project support for student-athletes. The total support given by members in 2009 was $27.1 million.
### Appendix A: Glossary of Terms

<table>
<thead>
<tr>
<th><strong>Business Volume Model</strong></th>
<th>Calculates capital account, goods and service, staff, and out-of-area visitor spending.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government Tax Revenue Model</strong></td>
<td>Calculates the amount of tax (e.g., income, sales) received by the Commonwealth of Pennsylvania from Penn State Football-related businesses and populations.</td>
</tr>
<tr>
<td><strong>Total Business Volume Impact</strong></td>
<td>Direct impact multiplied by indirect impact multiplier (state multiplier = 2.3, county multiplier = 1.8).</td>
</tr>
<tr>
<td><strong>Direct Business Volume Impact</strong></td>
<td>Sum of total expenditures for capital, goods and services, staff, and visitor spending.</td>
</tr>
<tr>
<td><strong>Indirect Business Volume Impact</strong></td>
<td>Standard multiplier as recommended by American Council on Education representing the re-spending taking place in the study area (2.3 times direct impact for state, 1.8 times direct impact for county).</td>
</tr>
<tr>
<td><strong>Capital Account Expenditures</strong></td>
<td>A five-year average of spending on equipment, buildings and land.</td>
</tr>
<tr>
<td><strong>Goods, Services and Supplies Expenditures</strong></td>
<td>Total non-capital and non-payroll spending for the 12-month period of the study (2009).</td>
</tr>
<tr>
<td><strong>Total Expenditures by Staff</strong></td>
<td>Sum of spending for rental housing and non-housing items by those residing in the area and general spending in-area by those not residing in the area.</td>
</tr>
<tr>
<td><strong>Total Employment Impact</strong></td>
<td>Direct plus indirect jobs.</td>
</tr>
<tr>
<td><strong>Direct Employment Impact</strong></td>
<td>Employees who work directly for Penn State Football.</td>
</tr>
<tr>
<td><strong>Indirect Employment Impact</strong></td>
<td>Employees who work for businesses that provide support services to Penn State Football.</td>
</tr>
<tr>
<td><strong>Pennsylvania State Model</strong></td>
<td>Calculates the impact on the entire state of Pennsylvania.</td>
</tr>
<tr>
<td><strong>Centre County Model</strong></td>
<td>Calculates the impact on Centre County.</td>
</tr>
<tr>
<td><strong>Study Period</strong></td>
<td>2009.</td>
</tr>
</tbody>
</table>
Appendix B: Linear Cash Flow Methodology

Impact on State Business Volume and Government Tax Revenue

Penn State Football is a major employer in the Commonwealth and, as such, a major generator of personal income for state residents. Businesses operating within Pennsylvania in the wholesale, retail, service and manufacturing sectors benefit from the direct expenditures of Penn State Football and its staff, and visitors. In addition, many of these direct expenditures are re-circulated in the economy as recipients of the first-round of income re-spend a portion of this income with other businesses and individuals within the state. This re-spending is termed the "multiplier" or "indirect" effect.

This economic impact analysis measures the effect of both direct and indirect business volume and government tax revenue impacts of Penn State Football. The methodology employed in the calculation of these impacts is derived from the standard set of impact research tools developed by the American Council on Education (ACE)\(^4\) for the measurement of institutional impact. The ACE-based methodology is well established, having been used in hundreds of impact studies throughout the United States.

The ACE methodology employs linear cash flow modeling to track the flow of institution-originated funds through a delineated spatial area.\(^5\) For Penn State Football’s impact analysis, spreadsheet models were developed for the organization as a whole, with the models measuring impact on the state and county economies and government revenues. Figure 1 (below) shows the general structure of the impact models used.

By using this economic impact model, the Tripp Umbach research team has been able to provide Penn State Football with a detailed quantification of the total direct and indirect impacts of the organization on the economies of Pennsylvania and Centre County. The impact models provide measures of business volume and government tax revenues allocable to Penn State Football,


\(^5\) The ACE methodology is highly adaptable to different geographic scales. It is suitable for measuring impact on neighborhoods, municipalities, counties, states, regions or nations. In the study reported herein for Penn State Football, the impact of the organization is measured at the state and county scales.
together with breakouts of the individual categories of spending that comprise the total impact (e.g. institutional capital spending, staff spending, visitor spending, etc.).

**Figure 1**

**Economic Impact**

**Impact on Employment**

The research used for this study measures the direct employment impact of Penn State Football. In addition, the research quantifies the indirect employment generated at state and county businesses by expenditures originating from Penn State Football. A state employment multiplier of 1.9 and a county employment multiplier of 1.7 were generated by Tripp Umbach for the Penn State Football study.