

The Economic Impact of the Hershey Bears versus Wilkes-
Barre/Scranton Penguins on March 27, 2010

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CHAPTER I

INTRODUCTION

When a new sport franchise wishes to enter a community, the main selling point of its presences is the positive economic impact that the franchise will have on the surrounding community. This selling point is something that many may not understand because measuring the economic impact of one sporting event or franchise is a difficult task. The economic impact of a sporting event is defined as the net change in the economy of the community as a result of the sporting event (Lee, 2002, p. 1).

The economic impact of a sporting event is measured through the use of multipliers that show the direct, indirect and induced effects of new income entering the community. The effects caused by the multipliers are felt throughout the community by a process of initial spending followed then by a process of re-spending. This process regenerates the initial spending effects throughout the community which affects the overall economy of the community (Lee, 2002, p. 2).

For this economic impact study we look to evaluate the economic impact of the hockey game, which took place on March 27th, 2010, between the Hershey Bears and the Wilkes-Barre/Scranton Penguins on the surrounding community. The following section will setup the basic information that is needed to understand our economic impact study. This information includes the problem that we plan to explore for within this study. Also it will setup the three sub problems that are directly associated with the main problem. This section will then setup the research questions that will be answered throughout this study, through the use of a survey. It will then define the jurisdiction that this study is based around. Then it will establish the scope of

the study along with presenting the assumptions and limitations that were present throughout this process. Finally it will define the significance of this economic impact study on the jurisdiction itself.

Statement of the Problem

To find the economic impact of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on a ten mile radius surrounding the Giant Center, on Saturday, March 27, 2010.

Sub Problems

Sub Problem #1- Find the direct sales impact on our jurisdiction of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on March 27th, 2010.

Sub Problem #2- Find the direct income impact on our jurisdiction of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on March 27th, 2010.

Sub Problem #3- Find the direct employment impact on our jurisdiction of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on March 27th, 2010.

Research Questions

Research Question #1- What zip code do you currently reside in?

Research Question #2- What is the face value of your ticket?

Research Question #3- How many people, including yourself, are you responsible for paying for today?

Research Question #4- Approximately, how much do you plan on spending inside the stadium/arena today? (Concession, Souvenirs, Stadium parking, etc.)

Research Question #5- Approximately, how much do you plan on spending within a ten mile radius outside the stadium/arena today? (Gas, restaurant, hotel, transportation, off-site parking, etc.)

Research Question #6- Do you spend more, the same or less each time you attend a game?

Research Question #7- How many games do you attend per year?

Operational Definitions

Economic Impact- “The net economic change in the incomes of host residents that results from spending attributed to a sports event or facility. It is used to measure the broader economic benefits that accrue to a community.” (Howard & Crompton, 2004, 105).

Direct Effect- “These are the first-round effects of visitor spending. The amount of money those who received the money spend on goods and services with other industries in the local economy and pay employees, self employed individuals and shareholders who live in the jurisdiction.” (Howard & Crompton, 2004, 117).

Jurisdiction- For this economic impact study our jurisdiction is a ten mile radius around the Giant Center, and includes the following nine zip codes;

- 17028
- 17057
- 17112
- 17033
- 17036
- 17078
- 17111
- 17109
- 17003

Sales Multiplier-“Measures the direct, indirect, and induced effect of an extra unit of visitor spending on economic activity within a host community.” (Howard & Crompton, 2004, 119).

Income Multiplier- “Measures of economic impact reports the direct, indirect, and induced effect of an extra unit of visitor spending on the changes that result in level of personal income in the host community.” (Howard & Crompton, 2004, 119).

Employment Multiplier- “Measures the direct, indirect, and induced effect of an extra unit of visitor spending on employment in the host community” (Howard & Crompton, 2004, 123).

Valid Survey- In order for a survey to be considered valid the person must be from a ZIP code outside our jurisdiction. Also, the survey must be filled out completely, meaning that they must fill out all of the questions on the survey, and the face value of the ticket could not be zero.

Scope of the Study

In this economic impact study, our purpose is to evaluate the affect that the Hershey Bears Hockey Club has on the local economy. In order to accomplish this we set our jurisdiction as ten miles radius, based on zip codes, from their arena, the Giant Center. Within this radius there are nine zip codes that we deemed as being invalid, meaning that participants from those zip codes would be considered as local. This radius includes the small to medium size towns of Hershey, Hummelstown, and Palmyra. Also it includes the townships known as the Paxton and Annville. According to the United States Census Bureau our jurisdiction includes approximately 168,327 citizens (2000).

In order to evaluate our problem we will find and then implement the direct sales multiplier, direct income multiplier and the employment multiplier for the jurisdiction stated

above. In using these multipliers we will be able to calculate the economic effect that the Hershey Bears have on its community in terms of the creation of money and jobs.

The work that will take place to address the problem, as stated above, will take place through the distribution of surveys. These surveys will then be used to calculate the needed results that will illustrate the economic impact of the Hershey Bears on the surrounding community.

Assumptions

- We assumed that the participants answer the survey completely and honestly.
- We assumed that the participants gave the face value of their ticket and not the amount that they paid.
- We assumed that the participants did not include what they paid for their ticket in the amount that they planned to spend inside the arena.
- We assumed that the participants just counted the number of Hershey Bears hockey games they attend a season, not hockey games in general.
- We assumed that the participants only included the amount of money that they spent within a ten mile radius of the arena, not just their travel expenses.
- We assumed that the participants knew the difference between their zip code and their area code.

Limitations

- A limitation is that participants did not answer the survey completely and honestly.
- A limitation is that participants did not give the face value of their ticket but instead the amount that they paid.

- A limitation is if the participants included what they paid for their ticket in the amount that they planned on spending inside the arena.
- A limitation is if the participants counted other hockey games that they attended during a season as opposed to Hershey Bears hockey games.
- A limitation is if the participants included money that was spent outside the jurisdiction within their answer for spending outside the arena but within the jurisdiction.
- A limitation is if the participants did not know the difference between their zip code and their area code.

Significance of The Study

We conducted this study in order find the economic impact of the March 27th, 2010 Hershey Bears hockey game versus the Wilkes-Barre/Scranton Penguins on the nine zip codes that are within a ten mile radius of the Giant Center. This study measures the impact that the Hershey Bears Hockey club has on its surrounding economy. We will measure this by tracking how one new dollar entering the jurisdiction from non-local patrons, which is defined as patrons residing outside the ten mile radius, affects the overall economy of the jurisdiction.

We will measure this impact by measuring the direct sales of the non-locals that we surveyed, and then translating that information into the direct sales of all the non-locals that attended that game as well as all the non-locals that have attended a Hershey Bears games for the season. We will then use the direct sales to calculate the direct income affect of the group, game and the season on our jurisdiction. This will exhibit how much of each dollar entering the jurisdiction affects the income levels of the residents of the jurisdiction. Finally, we will

calculate the number of new jobs that can be supported by the spending of the group, game and season of non-local patrons.

CHAPTER II

REVIEW OF LITERATURE

This chapter will give the needed background information about the various components that influence this economic impact study. It will include the history of both of the teams involved in the game, the Hershey Bears and the Wilkes-Barre/Scranton Penguins, as well as the history of the jurisdiction that is affected by the outcome of this study. It will then supply the reader with a history of other economic impact studies that have been completed to this jurisdiction and then review economic impact studies in general. It will then provide research on the validity and reliability of surveys as well as their design. Finally, it will provide how the sales multiplier, income multiplier and the employment multiplier were found.

The History of the Hershey Bears

Hockey was first established in Hershey for the 1931-1932 season when the Swathmore A.C. played in front of sold out crowds at the Convention Hall/Ice Place which was located adjacent to Hershey Park. After the success of the Swathmore A.C. team Milton S. Hershey and John B. Sollenberger established the Hershey B'ars, whose colors were maroon and silver designed to model the well known Hershey Bar. Ever since their creation the Hershey B'ars and later Bears have been owned by Milton S. Hershey and later the established Hershey Entertainment and Resorts Company (HERCO). After their creation the B'ars entered the Eastern Amateur Hockey League for the 1933 season. In 1936, the Hershey B'ars were officially renamed the Hershey Bears to remove what the Eastern Amateur Hockey League and local media at the time felt was a too commercial name. On December 19, 1936, the Hershey Bears

were the first team to skate on the ice of the newly built Hershey Sports Arena, now known as HersheyPark Arena. During their time in the Eastern Amateur Hockey League the Hershey Bears earned the Eastern Amateur Hockey League championship in 1935-36, 1936-37 and 1937-38 and in 1937-38 won the National Amateur Championship (Hershey Bears Hockey Club, 2010).

In 1938, the Bears joined the International-American Hockey League (IAHL), which would later become the American Hockey League (AHL), and still to this day remains part of the American Hockey League with its seventy-two years of history. Just nine years after joining the American Hockey League, the Hershey Bears won their first Calder Cup championship in the 1946-47 season. It would not be until the 1957-58 season that the Hershey Bears would earn their second Calder Cup championship, but the wait for number three was short lived when the Hershey Bears earned back-to-back Calder Cup championships by winning in the 1958-59 season. (Hershey Bears Hockey Club, 2010).

The Hershey Bears would go on to win five more Calder Cup championships, in 1968-69, 1973-74, 1979-80, 1987-88, and 1996-96, while playing in the historic HersheyPark Arena. In 2003, the last game was played in the HersheyPark Arena before the Hershey Bears moved across some parking lots into the new state of the art Giant Center, which they call home today. In the seven years that they have played in the Giant Center, the Hershey Bears have earned two more Calder Cup championships, 2005-06 and 2008-2009, making the Hershey Bears the holders of an American Hockey League record ten Calder Cup Championships (Hershey Bears Hockey Club, 2010).

The Hershey Bears have over eight hundred different players wear the Hershey Bears sweater, on their way to careers in the National Hockey League (NHL) or the American Hockey League, but the Hershey Bears have only retired four different numbers in honor of seven players

who helped to contribute to the historic Hershey Bears' success. Those players are Frank Mathers, who is also in the Hockey Hall of Fame, in Toronto, under the builder category, Ralph Keller, Mike Nykoluk, Arnie Kullman, Tim Tookey, Willie Marshall, and Mitch Lamoureux.

Throughout the Hershey Bears' seventy-two years history they have had twelve different periods of affiliation with National Hockey League clubs. The Hershey Bears first National Hockey League affiliation was with the Boston Bruins, which started during the 1967-1968 season and lasted for four seasons. Then starting during the 1971-1972 season the Hershey Bears were affiliated with the Pittsburgh Penguins for six seasons. For the last three seasons of the affiliation with Pittsburgh, the Hershey Bears were also affiliated with the Buffalo Sabres. Then during the 1977-1978 season, the Hershey Bears were affiliated with both the Buffalo Sabres and the Washington Capitals. This dual affiliation lasted for two season before the Washington Capitals took over as the primary affiliation during the 1979-1980 season. After four seasons the Hershey Bears were then involved in another dual affiliation between the Washington Capitals and the Boston Bruins. The next season the Hershey Bears were then affiliated with both the Boston Bruins and the Philadelphia Flyers.

Then during the 198-1986 season, the Hershey Bears began the longest affiliation of their history, a total of eleven seasons, with the Philadelphia Flyers. Then for the 1996-1997 season, the Hershey Bears began a ten year affiliation with the Colorado Avalanche. During their affiliation with the Colorado Avalanche they had minor affiliations with the Florida Panthers (2001-2002) and the Tampa Bay Lightning (2003-2004) (Hershey Bears Hockey Club, 2003, p. 251). After being affiliated with the Colorado Avalanche the Hershey Bears began their affiliation with the Washington Capitals during the 2005-2006 season. They continue to be

affiliated with the Washington Capitals today and have a contract that does not expire until after the 2011-2012 season (Hershey Bears Hockey Club, 2010).

For the 2009-2010 season, the Hershey Bears are coached by head coach Mark French and assistant coach Troy Mann. This season alone the Hershey Bears have set numerous American Hockey League records, including the single-season win record with sixty regular season wins. The Hershey Bears enter the playoffs with a record of sixty wins, seventeen regulation losses, and three shootout losses for a league wide best of one hundred and twenty-three points. The Hershey Bears also led the entire American Hockey League in attendance for the fourth season in a row. Also recently, the Hershey Bears were named the host for the 2011 American Hockey League All-Star Classic that will take place on January 30th and 31st 2010. The Hershey Bears are currently in the second round of the playoffs, against the Albany River Rats, after defeating the Bridgeport Sound Tigers in the first round (Hershey Bears Hockey Club, 2010).

The History of the Wilkes-Barre/Scranton Penguins

The Wilkes-Barre/Scranton Penguins are one of twelve teams within the American Hockey League that is owned by their parent National Hockey League club, the Pittsburgh Penguins (Oklobzua, 2010, p. 64). Prior to the creation of the Wilkes-Barre/Scranton Penguins, the Pittsburgh Penguins had numerous minor league affiliations the first was the Cleveland Lumberjacks of the now extinct International Hockey League (IHL) in the 1990s. The Pittsburgh Penguins then purchased the Cornwall Aces of the American Hockey League in 1996 but the team remained inactive until 1999 when the Wilkes-Barre/Scranton Penguins were established. The Wilkes-Barre/Scranton Penguins were established in Wilkes-Barre Township,

Pennsylvania playing in the Wachovia Arena at Casey Plaza. Eleven years later they still remain the top minor league affiliation for the Pittsburgh Penguins. Throughout their eleven season history, the Wilkes-Barre/Scranton Penguins have not won a Calder Cup Championship. They have however, earned the Eastern Conference title and made it to the Calder Cup finals three times, in 2000-01, 2003-2004 and 2007-08. They are currently playing at the same arena but it has recently been newly named the Mohegan Sun Arena, due to a change in ownership (WBS Hockey LP, 2009).

For the 2009-2010 season, the Wilkes-Barre/Scranton Penguins are coached by head coach Todd Reirden and assistant coach John Hynes. The Wilkes-Barre/Scranton Penguins enter the 2010 playoffs with a regular season record of forty-one wins, thirty-three regulation losses, two overtime losses, and three shootout losses to total eighty-seven points making them ranked fifteenth in the American Hockey League. The Wilkes-Barre/Scranton Penguins post season run ended when they were swept by their opening round opponent the Albany River Rats (WBS Hockey LP, 2009).

The History of the Jurisdiction

As stated above our jurisdiction includes nine zip codes, within these zip codes there are four main regions, which include the towns of Hershey, Hummelstown, and Palmyra, the Paxton region and the region of Annville Township. The first major region is the town of Hershey, Pennsylvania where the Hershey Bears are located. Hershey came into existence as the dream of chocolate maker Milton S. Hershey who was looking to relocate his Lancaster, Pennsylvania based chocolate company and choose the fairly rural area of Derry Township. On March 2, 1903, the construction of Milton S. Hershey's new chocolate factory began and was completed in June

1905. While the chocolate factory was under construction, Milton S. Hershey also worked on his plan to create a community that his workers would be able to call home and invest their future in. He did this by allocating space specifically for industry, a shopping district, recreational facilities and homes. He also established an extensive trolley line to connect Hershey to the surrounding communities to allow the citizens of Hershey to be highly mobile. One of the recreational facilities that Milton S. Hershey designed was Hersheypark which opened in 1907. (Houts & Whitenack, 2000, p. 36).

In 1909, Milton S. Hershey created the Hershey Industrial School for Boys, which was a boarding school for orphaned boys, in order to fulfill the dream of his wife Catherine, who was also known as Kitty. In 1951, the Hershey Industrial School for Boys changed its name to the Milton Hershey School, as it remains known as today. In 1970, the Milton Hershey School began to racially integrate the student population, and in 1977 the Milton Hershey School allowed their first female student to enroll.

Today the Milton Hershey School has about 1,800 students who are attending grades pre-kindergarten through grade twelve. There are an equal number of males to females enrolled in the Milton Hershey School, today. The majority of the students enrolled in the Milton Hershey School are participating in the senior high division. Today the school is ethnically diverse, with forty-five percent of the student body identifying themselves as Caucasian, twenty-nine percent as African-American, thirteen percent Hispanic, less than one percent Asian, Native American, and other. (Milton Hershey School, 2010).

By 1910, HersheyPark, the town's park, had expanded to an amusement park, which included a free zoo, pool, band shell, and a bowling alley. This park continued to grow into the nationally known amusement park, HersheyPark, which now includes over sixty rides and

stretches over one hundred and twenty-one acres (Houts & Whitenack, 2000, p. 37). On May 26th, 1933, Milton S. Hershey opened Hotel Hershey that provided four hundred guests with dinner and dance. Since Hotel Hershey's grand opening a nine-hole golf course, indoor pool, outdoor pool, spa, skating rink, and newly refurbished cabins have been added (Hershey Entertainment and Resort Company, 2010).

Milton S. Hershey died on October 13, 1945, but his legacy still continues to live as the town of Hershey continues to grow and change (Houts &Whitenack, 2000, p. 89). Throughout his life, Milton S. Hershey established numerous attractions that have become a mainstay for the town of Hershey. These include the Hershey Museum, which later moved and was renamed the Hershey Story, the Hershey Rose Gardens, and the Hershey Country Club. (Houts & Whitenack, 2000, p. 72). In 1963, the Milton S. Hershey Medical Center of The Pennsylvania State University, which took the place of the old Hershey Hospital, was founded with the use of a \$50 million award from the Milton Hershey School Trust Fund for its construction. Since its creation it has become one of the best medical centers not just for patients but also for future medical professionals developing their medical skills (Hershey Entertainment and Resort Company, 2010).

Next, there is the adjacent town of Hummelstown, Pennsylvania which was founded on October 26, 1762, by Frederick Hummel. For the town's first couple years of existences it was known as Frederickstown. During the American Revolution, Hummelstown acted as a deposit for arms and ammunition for the rebel cause. The growth and establishment of Hummelstown came from the work provide by the Hummelstown Brownstone Company, from 1867 until 1929, which was the largest brownstone producer on the East Coast (Everts & Stewart, 1985, p. 31).

Within our jurisdiction there is the region know as the Paxton Townships which includes the areas of, Middletown, Lower Swatara, Swatara, East Hanover, West Hanover and South Hanover . Within this region there are two major towns. The first is the town of Linglestown, which was founded in 1765 by Thomas Lingle, and was first known as St. Thomas. Yet, many referred to it as Lingle’s Town, which later morphed into Linglestown as it is know today (Everts & Stewart, 1985, p. 30-31). The second town within this region is the town of Middletown, which was founded in 1755, before this; from 1715 until 1755 it was known on maps as “A Susquehannock Indian Town”. Middletown’s first settlers were Presbyterians from Scotland who left due to religious prosecution. Due to its location and the influence of trade Middletown grew quickly after its settling by European immigrants (Middletown Borough, 2010).

The next region within our jurisdiction is located in Lebanon County and includes the town of Palmyra and the township of Annville. The land that is known as the town of Palmyra was first settled by Europeans around 1650; prior to this the land was inhabited by the Lenape and Susquehannock Indian Tribes. As the need for transportation grew so did Palmyra, which was named Palmstown in 1804 to honor Johannes Palm. It is also in 1804 that records show Palmstown being referred to as Palmyra. After the Civil War ended various new businesses were established within the Palmyra area, which included a grain warehouse, a slaughterhouse, and a lumber mill. Palmyra continued to grow as Hershey and the chocolate company grew due to its close proximity (Bowman, 2010).

The History of Economic Impact Studies

The increase of economic gain began to process in the late 1950's and has been on an upward trend ever since. There have been huge growth processes in revenue from attendance, broadcasting, and concessions with no signs of a downward trend anywhere in the future. Inversely, the amount of money needed from attendance revenue has declined due to the growing demand of state and local governments to subsidize the facilities. Due to this, the out of pocket money from owners and individuals within the community will decrease in amount. As this continues to happen, professional and collegiate sports teams will continue to gain revenue in ridiculous amounts as well as gain an increase in economic gain from money being spent inside of and outside of the stadium.

Back before the days of elite corporate sponsorship and personal branding on everything imaginable throughout stadiums and communities it was considered an extreme burden to host a major athletic events. In 1976, the Montreal Summer Olympics lost six hundred million dollars from hosting the games in the country. The previous Summer Olympics in Munich, Germany also were very unsuccessful netting the city more than one hundred million dollars in debt. When hope seemed to be diminished, Los Angeles decided to host the Summer Olympic games a few years later in 1984 with little expectations for profit or for that matter the ability to break even. Imagine their surprise when they manage to earn about two hundred million dollars in net gain from hosting the Summer Olympics (Gratton, 2000). The net profit that Los Angeles gained from the 1984 Olympic Games paved the way for all other sporting events to focus on the economic gain from hosting major events and the benefit of having high quality facilities. The sporting event industry went from being an industry based around nothing more than pure entertainment to an industry centered on economic gain and profit developed from the fans and their activities

in the areas surrounding the sport facility. The shift was from a burden that no team wanted to shoulder to a fierce competition not only between the events, but for the rights to host the events as well.

Before the intense corporate sponsorship and naming rights of facilities that we have today, major stadiums, for the majority, were publicly owned. In 1991, before corporate sponsorship developed to the level it is today, sixty-five of eighty-four (seventy-seven percent) were publically owned facilities (Crompton, 1995). In the National Football League now, there is only one remaining publically owned sports team, because it is a trend that can no longer be supported as well as it could be before. The Green Bay Packers are the only team remaining that uses the publically owned operating system primarily because they are not in a market that could support the high contracts of players and stadium operating expenses otherwise.

In the minor league systems things are different. With minor league baseball being played in well over two hundred communities, over ninety percent of them are publically owned teams. The reason for the huge difference in numbers is because publically owned franchises of minor league teams usually make their money back because of the money being spent on goods and services outside and inside facilities. In a survey conducted to all of the city managers in areas where minor league baseball teams exist, results showed that over eighty-five percent of them agreed that having a publically owned minor league baseball team brought in greater amounts of economic benefit than they originally had prior to the construction and insertion of the facility and team (Crompton, 1995).

The economic impact of a sport franchise became a major factor in the 1980's. It was still existent before this, but the time that it became something of importance and a relatively smart thing to study after events was in the late 1970's to early 1980's (Gratton, 2000). One of the

earliest areas of study for economic impact analyses was from the Grand Prix raceways in the mid-eighties. A few years later, during the 1988 Calgary Olympics there was an extensive follow up done based on the economic impact of those games. While it is mentioned that hosts of events such as these usually bring about strong economic profit, they stress that there are certainly no guarantees in the business of hosting events like these. Often money is lost in the original investment for the event, but it is reimburse from the amount of outside spending and spending within the arena. An example of this was in 1994 with the Brisbane World Masters Games costing roughly \$2.8 million to put on but generated later profits greater than \$50 million (Gratton, 2000). Other examples include the 1985 Grand Prix which was an original financial loss of \$2.6 million but a later economic impact of \$26.7 million. Seven years later, in the 1992 Grand Prix, there was an original loss of \$4 million, but a later economic impact of \$37.4 million (Gratton, 2000).

Economic impact studies are designed to measure not only how much money is being spent at and outside the facility, but also to determine the amount of new jobs opened up because of the facility and the money it produces. Basically, economic impact studies since they first came to be have focused on the benefits that arise from having a stadium or facility. Dennis R. Howard, author of *Financing Sport*, goes on to say that the local economy is improved in four ways from professional or collegiate sports teams and facilities. First, the facility creates new jobs for construction. Second, attendants or employees of the game create new spending throughout the community that would otherwise not be there if it were not for the facility. Third, the teams attract tourists and fans from other parts of the country as well as companies which further increases local spending and jobs. Finally, all the spending that was opened up because of

the stadium has a multiplier effect because of even more local spending from the team and facility (Howard & Crompton, 2004).

John L. Crompton, a professor at Texas A & M University, states in his article *Economic Impact Analysis of Sports Facilities and Events* that sports facilities and teams are business investments both for the individual entrepreneurs and for the communities that host the event for the public. The economic gain received from investing tax dollars into facilities of collegiate and professional sports teams is an extremely greater return than the original investment they put into it. It opens up new never before seen streams of greater wealth supplied by outsiders that otherwise would never be in the community. This is where we gather the term “new money” from economic impact studies. This is how economic impact studies can gather information to ultimately make the decision on whether stadiums and local teams are beneficial both for an economic standpoint and an entertainment standpoint. This leads to city managers and officials pleading they’re case that facilities would bring about a very high economic value and be an asset to the community.

One specific study in San Francisco in 1992 on the Giants moving out of Candlestick Park, does a great job of demonstrating how city managers and officials did what they could to persuade local citizens to vote, based on an economic gain, for the Giants to be granted a new stadium to play home games in. The debate was on the Giants moving out of San Francisco to play in San Jose, which is a relatively smaller market than San Francisco. Basically the city’s budget director took estimates of financial gains from the move from San Francisco to San Jose to try and persuade voters to agree with keeping the team in San Francisco and against making the move to San Jose. While it was believed that voters would be persuaded, not by economic reasons but unrelated issues, it ended up failing in the end. The city budget manager of San

Francisco managed just under \$300 million in public funds where they agreed that the number in the San Jose economy would be significantly lower, and ultimately break down the franchise (Crompton, 1995).

Within funding of a stadium, a specific debate usually arises about the “merits of investing substantial public dollars into relatively discretionary projects such as major sports facilities, and invariable economic impacts will be a central element in the debate” (Howard & Crompton, 2004). Basically some see the way we fund stadiums, teams, and other money necessary projects as a less than responsible way for funding to be incorporated into the composition of new stadiums and facilities.

Economic impact studies have helped rationalize relocation of teams and creation of new facilities afterwards. Some examples of this are the money deprived Seattle Supersonics of old relocating to Oklahoma City and taking on the name of the Thunder and flourishing now in terms of economic impact for the city. Also, in Major League Baseball eight years ago the Montreal Expos were forced to relocate because of bankruptcy and relocated to Washington where they are now the Nationals. In this particular instance the results are intriguing. Teams often move so that they can have more money and have a better chance to compete, especially in Major League Baseball where there is no salary cap. However since the move the Washington Nationals have yet to finish anywhere except last place in the National League East. The reason why executives justify the move into Washington is because of the information coming through based on other economic impact studies. The Washington Nationals, despite not having any competitive players, are making money very quickly and have no signs of struggle. Due to this, it is tough to raise any debate on this topic.

Caused by the relocation process, there are several cities always willing to obtain a new team in the community because they realize the gain that can come with these facilities and players. Since franchises are fully aware of the other cities waiting for any slight mix-up or mistake that can cause problems, franchises must always perform economically at their best.

In his book, Roger Noll, *Sports, Jobs, and Taxes*, explains the stages of stadium life as a process of three, sometimes four, steps. First, a site is required for the stadium with any unnecessary existing facilities destroyed. Second, the stadium and supporting infrastructure is built. Third, repair, maintenance, and operations activities are found to help run the stadium or facility. Fourthly, and this is only sometimes, the stadium may be razed for some other use (Noll, 1997). These are all things that people lose sight of in the case of funding being needed for stadium and facility management. However, economic impact studies can do a good job of factoring this information in and creating an accurate financial statement of the monetary gain of the facility as well as surrounding community. The teams and the people of the community are both responsible for the construction and costs of the facility which is usually a long process in itself. After this revenue sharing, maintenance cost, and operations management must all be factored into the financial planning (Noll, 1997).

From the 1950's all the way until the 1980's economic impact was looked at solely as an internal aspect of facilities and teams. It was centered solely on concessions, ticket sales, and even some publications. In the 1970's, broadcasting shot up as a major form of revenue from within stadiums of professional sports teams. Even with all this, ticket sales sat at the top as the sole powerhouse of the economic gain from facilities and teams. This causes revenue sharing came into play in an attempt to help the economic gain of visiting teams that play in smaller markets. Revenue sharing takes a portion of the home team's monetary gain from ticket sales and

broadcasting and gives that percentage to the visiting team at the games end. Due to this, some teams that usually would be losing money at a very rapid rate are able to stay afloat and continue to make money or at least break even in their economic plans (Noll, 1997).

It was not till the 1980's where teams began to look at things with more of an open mind and take into account money being spent outside the stadium as well as money spent inside stadium walls. Along with this, concessions inside the stadium grew at rates previously unheard of. The main change though was economic impact studies and even just an overall view of the monetary affect of stadiums being looked at as all of the things externally in a community. Food sales outside the stadiums began to skyrocket because of the huge crowds that games would attract. Also, with fans taking large trips to come and visit games they often did not want to drive all the way back to where they reside at the games end. As a result of this, hotels began to see sales grow extensively. It became well known that when sports teams, minor or major, arrived in a new city or community that several hotel chains, restaurants, gas stations, and other attractions were sure to multiply at previously unheard of rates (Gratton, 2000).

Due to the major growing concern of economic impact and monetary increases for stadiums and teams companies are beginning to wipe out all pure names such as Yankee Stadium, Wrigley Field, and Fenway Park and turning them into corporate investments. A prime example of this is the Miami Dolphins stadium which has been purchased several times in the last few years but is now constant as Landshark Stadium. This is viewed as a win-win situation for both parties involved. Stadiums and teams receive extremely large amounts of money in order to place their logo as the name of the stadium or facility. And, in turn, the logo of the company is being viewed each and every day by not only all of the patrons of the game but also by anyone who might pass by the stadium at all, and maybe will later persuade someone to get

out there and try the product or service being displayed. Monetary influences from stadium naming are ranging right now anywhere from \$20 million to \$50 million for some of the stadiums that provide better marketing value.

Dennis Coats, a sports management professor from the Maryland area, discusses the rising trends in economic impact of contests just within the postseason in different sports leagues. He states that "...real per capita income in cities with professional sports teams from 1969 to 1997 shows that postseason appearances are not associated with any change in the level of real per capita income in these cities" (Coats, 2002). He does later go on to state however that the city that is home to the winning super bowl team, per capita income usually builds up to about \$140 million. Local economic development and planning agencies working for the government gathered information through economic impact studies to help with this survey of postseason play. While every single dollar amount is in the positives like you would think, there are some other numbers here that do seem rather unusual. For example the Super Bowl of 1995 in Miami had an economic impact of over \$350 million where as a year before in Atlanta the economic impact was only \$135 million. Something else that is interesting from the research is the value of a Super Bowl market compared to that of a World Series market. Listed in the research are two World Series events, both in New York, and neither was able to pass \$50 in economic impact (Coats, 2002).

The general rule in terms of sports is that when something comes to the postseason no matter what the situation, anything of monetary value seems to skyrocket. Since all games are under the spotlight franchises and owners are aware that in order to get the highest economic value out of there commodity they must sell it to the best of their ability. This is something that is often not done very well. Another reason for the strong monetary buildup in the postseason is

because it is relatively obvious that the season is nearing its end, this encourages people to do whatever they can to go out and build a connection with the sport before it is over and then have to wait till next year.

A Review of Economic Impact Studies in Jurisdiction

With Hershey today being recognized by those outside of Pennsylvania as a place being more well known for the entertainment they provide through their well known theme park, HersheyPark, it is not a place often documented about their sports teams. With that being said, the Hershey Bears are slowly creating that image for them today and helping build upon it to hopefully get the word out more than it already is. It would be interesting to know if Hershey could handle another sports team of the same stature.

Michael Leeds, author of *The Economics of Sport*, discusses very, very briefly about a survey that was never quite finished, but created a certain buzz throughout the community of Hershey. The debate was whether Hershey could add a minor league baseball team to their facilities and how positive of an economic impact would it actually provide. He said that both the Pittsburgh Pirates and the Washington Nationals were two teams that may have openings in a few years for teams in A or AA minor league divisions and people were curious to see if Hershey would be able to provide as a community for one of these teams. Like I said the study did not receive much attention because it was never finished, but many people still think Hershey should have a minor league baseball team somewhere in their facility.

If you compare it to the economic impact and success that is being achieved now with the Hershey Bears, it would be tough to say this is not a good idea. A big positive to the addition would be Hershey recruiting new patrons to their amusement park at different times since hockey

and baseball are played in different seasons. We are sure something that had yet to be covered was the construction of a stadium to play legitimate minor league baseball games in on a consistent basis. Supporters argued that the fans that would be attracted to the games would be loyal for a baseball season that is significantly longer than that of a hockey season.

It is tough to argue either way, but certainly makes you wonder why a study like this has not happened or been discussed sooner. The Hershey Bears were able to get there arena sponsored by Giant and it is very likely a minor league baseball team would be able to do something very similar to this. When trying to come up with reasons why expansion has not happened, they are limited, but there are certainly some potential reasons why this has not been further looked into. For one, seventy-five home games a year would create a lot of congestion throughout the park for other patrons. Also, possibly Hershey did not want to expand and make renovations and auditions to the park in case of later failure. This is especially true in baseball where teams relocate so frequently.

Ultimately it is tough to see another sports team in Hershey, be it baseball or something else, have not a similar level of success that the Bears have now. Especially when we take into account the short lived run of the professional A-league soccer team, Hershey Wildcats, who only lasted for five season (SoccerTimes, 1997-2000). Even though the Bears are a great team and that adds to their fan base, there is no saying that another team will not share a very similar, if not the same, fan base.

Some evidence that would support the possible expansion to create more sports teams in the Harrisburg area is the rookie season of the Harrisburg Stampede. In a sport such as football it is tough to host events because of the National Football League's lack of a minor league system of any kind. This has resulted in markets who often hope to field competitive teams are out of

luck. Recently however, football has been expanding. There is now the United Football League, but they really only supply teams to cities with larger markets. There are only four teams currently in that league and they are located in New York, California, Florida, and Las Vegas. Due to the success of programs like these and past programs, city managers and football officials have begun to realize the ever growing revenue stream from having a football team within one's community. That brings us to the American Indoor Football League. This is a very new league as we have stated, just going into its sophomore season this year. With last year having decent numbers for a rookie season, there is a lot to talk about regarding the upcoming year and whether the team can stay afloat. They will have no trouble doing so simply because people like to watch live football, and at a cheap price, so with tickets only being ten dollars they are likely to have decent attendance throughout the eight home games in the season. While the popularity of football will usually result in a positive economic impact, the only downside is that there are only eight home games each year, so how ever solid your numbers are you are guaranteed that for only eight games where as hockey, basketball, and baseball there are significantly more games.

Another interesting subject would be an economic impact study of a basketball team at Hershey. In the professional levels, several hockey and basketball teams from the same city play in the same arena to save time, space, and money. This could easily be a similar case for minor league systems or developmental league teams. With the greatest record ever in basketball being obtained in the old HersheyPark Arena as a neutral site, one hundred points scored in a single game by Wilt Chamberlain, you would think that buzz would continue to generate around the subject and possibly open a few doors to why this would help the city. Combine this with the fact that both are arena sports, share similar fan bases at the professional level, and that both are fast

paced sports would likely attract not only new fans, but also have a very good amount of carry over fans from the Hershey Bears to the possible new team.

In conclusion to this, the economic impact study we did outside the stadium of the Hershey Bears has made me extremely confident that another team could easily be supported and help gain monetary value in this community. I think that since it is not well known as a city or community with a great sports background it will already be followed with disbelief and several doubters, but ultimately when and if it did actually arrive would flourish in the Hershey community. Several commuters attended the Bears so nothing says the same will not happen again.

Survey Research

Surveys are one of the most common methods of quantitative social research. It involves using surveys or questionnaires to gather information. It entails any asking of questions in order to get a precise measurement. A survey can include anything from a short pencil interview or an in depth verbal interview (Creative Research Systems, 2009). Survey research included the development of the two step flow of communication as well as the configuration of quantitative research. This method originated in the 1930s and 1940s by sociologist Paul Lazarsfeld. Paul Lazarsfeld was the founder of Columbia's Universities' applied social science research (Schramm, 1997).

Paul Lazarsfeld was born in Vienna, Austria where he received a doctorate in mathematics. Through his expertise in mathematics and quantitative methods, Paul Lazarsfeld became interested in sociology. He participated in several quantitative studies, including the first scientific survey of radio listeners. Paul Lazarsfeld immigrated to America securing a job at the

University of Newark. While at Newark, Paul Lazarsfeld was head of a mass media communication project in 1940. In 1941, he was appointed professor in the department of sociology at Columbia University where, together with Robert K. Merton, he founded the Bureau for Applied Social Research. He remained a professor at Columbia until 1970 (Paul Lazarsfeld, 2008).

In 1940, there was a study commissioned by Franklin Delanor Roosevelt in which was focused on the influence of the media on voters' choices. Paul Lazarsfeld became leader of a group of researchers to find out how much influence the mass media had over the presidential elections. A search was started in Ohio, where they examined the media's role in the election between the Democrat candidate, Franklin D. Roosevelt, and the Republican candidate, Wendell Willkie (Paul Lazarsfeld, 2008). After the conclusion of the study, it was found that most of the people questioned relied heavily on other people for the information they used to make their voting decisions (Lazarsfeld, 1996). These “other people,” were individuals who were the ones who contained the information that people wanted.

Paul Lazarsfeld's two-step flow theory stated that the process of communication from mass media is received by opinion leaders whom the message was directly given to and then these people transmit the message to less active members of the society. According to the two-step model, the mass media influences certain individuals, and these individuals personally influence others (Paul Lazarsfeld, 2008). The only problem with this is that some people did not know if they were leaders or not, which contains a role-status conflict. This error was an important factor in the theory, and was a constant feature in other studies. Even though the definition of leaders is still not understand, the method is still in use with the help of the informants' rating method and the self-designating method (Paul Lazarsfeld, 2008).

The "informants' rating" method uses key members of the group instead of a random sample. The key members of the group have their point of view about who in the community is influential in terms of opinion leadership (Lazarsfeld, 1969). This method seems to be an accurate method however it is somewhat inconvenient when one has to find the key members. It is more suitable for using small groups than for using large groups. The "self-designating" study is based on the method used by Paul Lazarsfeld, in which one has to classify who is an opinion leader or a follower (Lazarsfeld, 1969).

“Paul Lazarsfeld is considered one of the most influential sociologists of the twentieth century. Some call him a pioneer in the field of mass communications research and in market research. As the founder of Columbia University's Bureau of Applied Social Research, he exerted a tremendous influence over the development of techniques and the organization of such research” (Lazarsfeld, 1996). "It is not so much that he was an American sociologist," one colleague said of him after his death, "as it was that he determined what American sociology would be." (Paul Lazarsfeld, 2008).

Survey Design

When designing a survey, the first step one needs to go about is to establish the goals of the product. You need to define what you want to learn and get out of the survey. The second step you need to do is to figure out who you will interview. The third step is to understand how you will interview. Will you give out a survey, will you administer the questions, will you fill out the paper or will they? You then need to create the questionnaire- defining and writing down what you will be asking the subjects. Once you have created the questions, test them out. Ask others who you will be conducting the survey with. If the questions could be asked multiple

ways then the questions need to be worded differently. The last two steps are to conduct the interviews and get answers to the questions that were asked. After you have received feedback you need to analyze what you found (Creative Research Systems, 2009).

When you are deciding what you want to learn you have to think of specific goals. If you think of goals that are not very clear then you will have results that are not very clear. There are many subjects that people want to learn more about such as employee attitudes, ratings of a product or service and the potential market for a new product. These goals are specific and if asked the right questions you will be able to find the answers to the questions (Creative Research Systems, 2009).

The second step is to select the sample of people in which you are going to give the survey to. The interviewer needs to figure out the target population. What kind of people you need to ask the questions to in order for you to receive the answers you need. If you are asking questions about a new product then you have to ask people who use new products or those who are familiar with the product (Creative Research Systems, 2009). If you need to find information on sports, you should find a population that likes sports and goes to games. One also needs to figure out how many people need to be interviewed in order to find the information you need (Creative Research Systems, 2009). The more people you interview the more correct your answers are. If there is a specific number of people you need to interview one have to make sure they have that number of people to interview. The people interviewed cannot be bias.

Once the sample population is determined, how the survey will be administered is the next step. One needs to figure out what kind of interview method they want to conduct. There are seven ways that one can administer a survey; personal interview, telephone survey, mail survey,

computer direct interview, email survey, web page survey and scanning questionnaires (Creative Research Systems, 2009).

When designing the survey, one of the first things the interviewer should do is make a cover sheet. Not only will this make the survey look professional but it will tell them who the survey is for, information about the company or oneself, and say what will happen with the results. There should also be contact information if one wants to find out any more relevant information. There should also be a section on how the surveys will remain anonymous and that the information will only be used solely for the purpose of the study and the answers will not be put anywhere else. This will make the subject feel more comfortable about the survey (Creative Research Systems, 2009).

Personal Interview is when the interviewer asks the questions face to face. They can take place anywhere. The advantages to taking a personal interview include: the interviewee seeing, feeling or tasting a product, subjects may talk longer if they are face to face with the interviewer. The disadvantages are: they are sometimes more expensive because if you are traveling to the subject, and each location brings its own clientele in which could lead this people to have certain distinguishing characteristics. Face to face is one of the most popular ways to conduct a survey. It is also very accurate because you are asking the survey whether it be handing out a survey and asking the person directly. You are standing there to watch or ask the questions while they are being answered. A face to face survey cannot be time consuming; it has to be quick questions. You also do not want to ask questions that people may not want to answer or that will embarrass them. The questions that you ask when being face to face must be to the point as well as not humiliating or making the interviewee feel uncomfortable (Creative Research Systems, 2009).

Telephone surveys are a very popular interview method. There are many advantages to taking surveys over the phone. People can be contacted faster using the phone, CATI Software can make complex questionnaires practical by offering logical options. This system can check consistency of answers and perform calculations. Skilled interviewers can find complete answers from people that they normally would not write if they had to fill out a survey. Some disadvantages include telemarketers have a bad name and most people have blocked telemarketers, growing number of working women mean that there is no one at home, and you cannot sample products from home over the phone (Creative Research Systems, 2009).

Mail surveys are a very inexpensive way to conduct a survey. The questionnaire can include photos, you only need to know participants addresses, and the subjects can answer any time at their leisure. The disadvantages of mail surveys are that they take longer to fill out. Many people may not even fill them out and you will not get them. If it is a population with low literacy levels, the survey may not even be valid. With lower education, this would throw out immigrants who actually are substantial markets (Creative Research Systems, 2009). Some things you can do in order to make people send back the questionnaire is to send follow up post cards telling people to send back the survey. Use of incentives to make the person want to fill out the survey such as sending them money or free product with the questionnaire. If you are using the mail system you will need to send out over 10% of the population that you want to get. If you need 100 valid surveys, you need to send out 1000 surveys (Creative Research Systems, 2009).

Computer direct interviews are interviews over the computer in which people type their answers directly into the computer. One can fill this out anywhere on the computer, in malls, at schools, and in offices. There are many advantages to this approach such as eliminating costs, you will get more accurate answers to sensitive questions. People are more likely to give

responses to sensitive questions online, because people feel that if they type it up, they are not saying it out loud and that it does not mean as much if it is typed. Another advantage is that it eliminates interview bias. Response rates are usually higher because it is done online and people are online a lot. A disadvantage is that you need a computer in order to do the survey and that there may be lower numbers in the population of lower education subjects (Creative Research Systems, 2009).

Email surveys are successful because a lot of people have email than have the internet. An email survey can get a lot of people to respond to, it is speedy and effective. There is no cost to the interviewer and the interviewee. In the email you can attach things such as photos. Since it is done over the internet it is not only faster but gathers more responses than does regular mail. Unfortunately, people's email addresses are not given to you, you need to find and get them. Many people may respond a lot of times to the same survey which would lead to invalid surveys. People may not even respond to it because people may consider it junk mail and it may go into people's "junk mail" right when they receive the email just because it would come from an unknown address (Creative Research Systems, 2009).

Web Page surveys are available to anyone who has the internet. It is very fast and all you have to do is post it on a website. If the questionnaire is posted on a popular website than a lot of people will respond and take the survey. There is no cost to posting it on the internet unless the web page server or companies of the web URL want you to pay them for your use of their page. You can use different colors and fonts when putting it on a web page. People will give honest answers and they will give longer responses on a web page or internet based survey. Not everyone has the internet and therefore it would only reflect a certain population. Other populations of people would be ignored by the survey and therefore it would be imbalanced.

Once they answer a question they can decide if they want to answer anymore because it is up to them. People may stop taking the survey because it is taking too long or they will start just making up answers. People may take the survey multiple times or sometimes there are robots on the computer that will just answer the survey hundreds of times and the interviewer would never know (Creative Research Systems, 2009).

Scanning questionnaires are surveys that you simply have to just scan a paper such as a scan-tron one uses when filling out a multiple choice bubble answers. This is a very fast and easy way that a computer can just scan it and there can be no human falsies. However, you can only scan things that are bubbled or checked; one would not be able to write text to a response. If a question is bubbled in poorly or the check is crooked then the scan can be off and it may not be able to read the answer correctly (Creative Research Systems, 2009).

When you are making a survey you want to keep it short and simple. People do not want to read paragraph questions because they will not read it. You usually want to make choices for the subjects, not being too vague but also not too specific. There are three types of questions the interviewer can ask: multiple choice, numeric open end and text open ended. Multiple choice can be given if you are looking for a broad response such as asking a person what region they live in, north, west, south or east. A numeric open end question can be asked when asking how many kids a person has. A text open ended question can be used when asking if a company is improving its products. If you are asking a person where they live one can ask for a zip code in an open ended question, however the problem with asking open ended questions is that people may have bad handwriting. Others may answer the question completely incorrectly such as putting their area code or just making up a zip code because they do not want you to know where they live. One has to give broad but not too broad choices (Creative Research Systems, 2009).

Question and answer order is very important when it comes to surveys. Two important things to keep in mind are how the question and answer choice order can encourage or discourage people to complete the survey. Another issue is how the order of question or the order of the answer choices can affect the results of the survey. Usually the first couple of questions are broad or impersonal, whereas the last questions should become more specific. Separate related questions because it can confuse the interviewee. Make sure the answer choices are not all the same for each question, they should have different set of choices. The questionnaire should be short, simple and to the point. The beginning of the survey should say a title, a brief description of what the survey is for and information about you. Avoid technical terms as well as words that people may not understand. Each answer choice should be relevant such as asking a person what kind of area they live in would include suburbs, urban and rural. If you put: suburbs, urban, rural, and country, people will get confused because rural is country. Make sure answers and questions make sense (Creative Research Systems, 2009).

Answer choices should avoid double negatives, abbreviations. The way the questions are asked should be neutral and they should not seem to have any bias in the question. When using multiple choices try to make it be only two to five possible answer choices. If it is more than the answer choices are too specific and people will have a hard time differentiating what each answer choice is. The first question should be interesting which will entice the subject to want to answer the questions and complete the survey. The questions should be put in a logical order that will help guide the subjects through the survey. The more interesting the questions are, the more interest the subjects will have in the survey (Creative Research Systems, 2009).

When you are writing the questions one has to think of the subjects in which they are asking. Make sure they will understand the questions and the type of education that the people

have. If you are asking lower educated subjects questions about college then they will not be valid to the research as well as they will not understand what is being asked. The questions have to match the subject's education and physical abilities. After the survey is created the interviewee should test out the questions either on fellow coworkers or a random sample. This is to ensure that people understand what you are asking, making sure the questions make sense and are relevant (Creative Research Systems, 2009).

The last step to the survey design process is to ask the sample population and measure the results. The surveys need to be counted, as well as to separate the valid from invalid surveys. If using a web based survey then one has to make sure that the computer did not make a mistake in scanning or transferring the information. Evaluating the data will take time and one has to make sure they have enough valid surveys that they intended to have. If there were any shortcomings with the survey they must be pointed out. The results must be critically examined as well as to give pros and cons and if anything else could have been done differently. Reliability and validity of the results must be given as well. If the survey will turn out the same if someone tried to replicate it, would the same results be shown? The valid as well as invalid surveys must be taken into account. Try to point out why there was invalid surveys and if anything could have been done to prevent surveys being invalid (Creative Research Systems, 2009).

Multipliers

In order to conduct this economic impact study, we needed to obtain three economic impact multipliers in order to complete the calculations associated with this study. The multiplier that we will use in this study is a multiplier coefficient. This coefficient helps to indicate how

every new dollar, which means that it is spent by a non-local, that enters the jurisdiction will impact the economy of the jurisdiction (Howard, & Crompton, 2004, p.121).

The first multiplier that we needed to obtain is the multiplier for direct sales. This multiplier will be used to measure the direct effect of the spending done by non-locals attending the Hershey Bears game on the economy of the jurisdiction (Howard, & Crompton, 2004, p.119). This multiplier was provided for us by Dr. Newman during one of our daily lectures (T. Newman, lecture, March 9 2010). He identified as being one and that it will always remain a constant no matter the economic activity of the jurisdiction or the industry that is being studied.

The second multiplier that we need to obtain was either the direct income multiplier for the amusement industry within our jurisdiction. This multiplier measures the direct impact that the spending done by non-local at Hershey Bears game affects the income of the citizens living within the jurisdiction (Howard, & Crompton, 2004, p.119). We found the direct income multiplier by contacting Shaun Donovan, an economic development specialist from the Harrisburg Regional Chamber of Commerce & the Capital Region Economic Development Corporation (CREDC).

Mr. Donovan was able to supply us with the necessary chart named Household Earnings from \$1 Million in New Demand for Final Output for Hotels and Amusements (Thousands of Dollars), which is available in the appendix, which we used to find the direct income multiplier (S. Donovan, Email, April 4, 2010). We did this by taking the total final output for the county (532.7) and divided it by one million. The reason that we divided by one million was because the chart represented the final output for hotels and amusements based on household earnings from one million dollars in new demand. We did this in order to find out what effect one dollar of

spending would have on the income of the residents of our jurisdiction. The result of this simple calculation was that the direct income multiplier for our jurisdiction is .53.

The last multiplier that we found in order to complete this economic impact study was the direct employment multiplier. This multiplier is used to determine the amount of full-time jobs within our jurisdiction that can be supported by the spending of non-locals at Hershey Bears games (Howard, & Crompton, 2004, p.123). We found this to be .36 from a study that was completed by the Department of Dairy and Animal Science College of Agricultural Sciences at Pennsylvania State University on the economic effects of horseracing on economy of the state of Pennsylvania (Swinker, Tozer, Shields, & Landis, 2003, p. 7). There are two reasons that we felt that this direct employment multiplier could apply to our economic impact study on the Hershey Bears.

The first reason that we felt that this multiplier could be applied to the study is because horse racing falls in the same category as the Hershey Bears hockey game. The category that they share is Spectator Sports or number 7112, under the North American Industry Classification System (NAICS). The North American Industry Classification System is the standard numerical system used by the Federal Statistical agencies to classify business establishment in order to collect, analyze and publish statistical data that relates to the United States Economy (U.S. Census Bureau, 2008).

The second reason that we felt that this direct employment multiplier would apply to the study that we are conducting is because located within our jurisdiction, in Grantville or 17028, is one of Pennsylvania's major horse racing tracks, Penn National Race Course. This factor shows that the information from the study conducted at Pennsylvania State University can be relevant to

our specific jurisdiction. Due to this factor we felt that the direct employment multiplier could apply to our study of the economic impact of the Hershey Bears.

CHAPTER III

METHODS

The following section will describe the methods used to conduct this economic impact study on the March 27th, 2010 hockey game played by the Hershey Bears versus the Wilkes-Barre/Scranton Penguins. These methods include the process of defining who the subjects are that we were going to use in our study, the creation of the survey itself, distributing the surveys to the subjects and finally analyzing the data that was collected from the surveys.

Subjects

The subjects of this study are individuals who attended the Hershey Bears versus the Wilkes-Barre/Scranton Penguins hockey game that took place on Saturday, March 27th, 2010. In order for the subjects to be considered valid, meaning that they were contributing new money into the economy of our jurisdiction, they must live outside the ten mile radius that we established. Their current residency was determined by their answer to the first question on the survey which asked them what zip code they currently reside in.

Overall, the demographic information of our subjects varied, based on age, sex, location and the frequency of their hockey game attendance. The ages of the subjects that we surveyed ranged from teenagers to middle age, some were single and others were there with their families and friends. We surveyed both male and female individuals. The individuals that we surveyed varied based on their frequency of hockey game attendance, some were season ticket holders and some were attending their very first Hershey Bears hockey game. Finally, most of our subjects

stated that they reside in Pennsylvania, but we also surveyed individuals that reside in Maryland, Massachusetts, and even California.

Instrumentation

The survey that we used to conduct our economic impact study was developed in our Financing Sport and Operations class in order to insure that everyone had the exact same survey. Our survey consisted of seven questions that were designed to be clear and easily answered by our subjects. First, we had to find out where the subjects reside to determine if they were local, in order to make this as clear as possible we simply asked for the subjects' zip code.

The next three items were needed to determine how much money they were contributing to the jurisdiction's economy. We needed to find out how much their ticket cost, not how much they paid. We accomplished this by asking for the face value of their ticket. Next, we needed to find out amount of money, other than their ticket, that the subjects are spending in our jurisdiction. In order to find this out we asked them how much they are spending inside and outside the arena, within a ten mile radius.

Finally, we asked the additional questions in order to find out about the spending patterns of our subjects. We did this by asking if they regularly spend more, the same or less. Also we asked them how many Hershey Bears games they attend a season. The final survey that we created can be seen as Appendix A.

Procedures

Prior to beginning our economic impact study, we first choose which team we would be conducting the study on, for this we choose the Hershey Bears. Then we looked at the Hershey

Bears' remaining games and choose a game that we knew would draw a large crowd. Then we contacted Andy Longenberger, the Giant Center's manager of marketing, to gain approval to conduct the surveys on the Giant Center grounds (A. Longenberger, Phone, March 18, 2010). After gaining approval from both Mr. Longenberger and Hershey's Security to conduct the surveys in front of the Giant Center, but not in the parking lot, we all decide that each of us would print out fifty copies of the survey to bring with us to the game.

On the day of the game, we all met around five o'clock, two hours prior to the start of the game and began to conduct the surveys. We positioned ourselves by the two main sources of pedestrian traffic. The first was on the walkway that leads from the main parking lots to the Giant Center. The second was end of the pedestrian bridge that leads from the additional onsite parking. A map of the Giant Center grounds, which markers at where we positioned ourselves at, can be found in Appendix F. We approached individuals asking them if they would not mind answering our survey and those who did take the time to answer the survey became our subjects.

Statistical Analysis

In order to analyze that data that was collect through the surveys, we created an excel workbook to input all of the information collected by from the surveys into in order to organize and compute it easily. Within this excel workbook we created three worksheets. The first was for valid surveys, the second was for invalid surveys, and finally the third was for the calculations that we need to complete with the data.

We started the process of imputing the data into the worksheets by setting up the layouts of the worksheets. The layouts for the worksheets for the valid and invalid surveys consisting of eight columns labeled the following; Survey number, Zip Code, Face Value, Number of People,

Inside Spending, Outside Spending, More/Same/Less, and Games. We then numbered all of our surveys, prior to entering them into the worksheet, in order to allow us to easily reference them if needed. After inputting all of the information into the worksheets we used excel's abilities to find the average face value of the tickets, the total number of people, and the average for inside and outside spending for the valid surveys.

After completing the worksheets for the valid and invalid surveys, we then setup a worksheet for all of the calculations that need to be complete. We used the equations that are present in the appendix on the data analysis table to find the direct sales, direct income effect, and direct employment effects for the surveyed group, the game and the season. We also needed to find the total population of the jurisdiction as well as the average salary for the jurisdiction in order to complete these calculations. These findings can also be found in the appendix on the population by zip code and average salary by zip code tables.

We also used the Arts & Economic Prosperity Calculator to evaluate the direct employment effect for the surveyed group, the game and the season (American for the Arts, 2009). We did this by imputing the population of our jurisdiction, total average spending, and the size of the group, total valid attendance for the game, and the valid attendance for the season into the calculator.

CHAPTER IV

RESULTS

The following section will provide that results of our economic impact study of the March 27th, 2010 Hershey Bears versus the Wilkes-Barre/Scranton Penguins. It will first provide the individual answers to each of the seven research questions that were present on our surveys that we used to conduct our economic impact study and that were provided in chapter I. It will then provide the answers to the three sub-problems that were also outlined in chapter I.

Research Questions

Research Question #1- What zip code do you currently reside in?

Based on the answer to this question give by our subjects, we found that our valid subject came from fifty-two different zip codes. While most of the zip codes that were represented are in Pennsylvania, there were also some from Maryland, Massachusetts and California.

The zip code that had the highest number of subjects representing it was 17042, which represents Lebanon, Pennsylvania, who had twenty-two subjects. The rest of the zip codes can be seen in the follow chart, which shows that number of subjects that stated that they reside in the corresponding zip code.

Zip Code Break Down by Number of Subjects

Number of Subjects	Zip Codes
22	17042
18	17055
13	17552
12	17545, 18040
10	17407
9	17019, 17022, 17067, 17402
8	18078, 18103, 18507
7	17025, 17046
6	17013
4	1844, 16828, 17011, 17020, 17059, 17078, 17094, 17331, 17404, 17408, 17512, 17538, 17551, 17603, 21074, 21701, 21774
3	17601, 94508
2	17032, 17057, 17070, 17073, 17360, 17405, 17406, 17522, 17566, 17963, 18017, 18447, 19512
1	17315, 17403, 19567, 20866

Research Question #2- What is the face value of your ticket?

The average face value of a ticket for our group was calculated to be \$19.08. The answers to this question ranged from the lowest being ten dollars, and the highest being sixty-five dollars. The lowest face value represents a seat in the Ollie’s Cheap seats section, while the highest face value represents the price of a seat in one of the luxury boxes. The mode face value of a ticket was sixteen dollars, which is the price that season ticket holders pay per ticket; therefore this reflects the large season ticket holder population of the Hershey Bears.

Face Value of Subject’s Ticket

Average Face Value of a Ticket	\$19.08
Lowest Face Value of a Ticket	\$10.00
Highest Face Value of a Ticket	\$65.00
Mode Face Value of a Ticket	\$16.00

Research Question #3- How many people, including yourself, are you responsible for paying for today?

There were a total of 271 individuals represented on the one hundred surveys that we collected in order to complete this economic impact study. The average number of people that the individual responding to this question was responsible for paying for is about 2.71. The mode group size was calculated to be a group of two individuals. The largest group represented among our surveys is eight and the smallest group size represented by our surveys is one.

Number of People Subjects are Responsible for Paying For

Average Group size	2.71
Mode Group Size	2
Largest Group	8
Smallest Group	1

Research Question #4- Approximately, how much do you plan on spending inside the stadium/arena today? (Concession, Souvenirs, Stadium parking, etc.)

The average answer that the subjects answered about their planned approximate spending inside the arena was twenty-five dollars. The highest planned approximate spending inside the arena, as answered by our subjects, was one hundred and twenty-five dollars. In comparison the lowest approximate planned spending inside that arena, as answered by our subjects, was zero.

Spending Inside the Arena

Average Spending Inside	\$25.00
Highest Spending Inside	\$125.00
Lowest Spending Inside	\$0.00

Research Question #5- Approximately, how much do you plan on spending within a ten mile radius outside the stadium/arena today? (Gas, restaurant, hotel, transportation, off-site parking, etc.)

The average answer about our subjects planned approximate spending outside the arena was twenty-one dollars and fifteen cents. The highest planned approximate planned spending outside the arena, as answered by our subjects, was six hundred dollars. While the lowest approximate planned spending outside the arena, as answered by our subjects, was zero.

Spending Outside the Arena

Average Spending Outside	\$21.50
Highest Spending Outside	\$600.00
Lowest Spending Outside	\$0.00

Research Question #6- Do you spend more, the same or less each time you attend a game?

Overall, the average answer to this question was that the individuals attending the game spend about the same every time they attend a Hershey Bears hockey game. Six surveys answered this question with the response of less, and eleven answered this question with the response of more. The remaining eighty-three surveys responded with the answer of same.

Spending Trends per Game

Answer	Number of People
More	11
Same	83
Less	6

Research Question #7- How many games do you attend per year?

The average number of games that our survey group attends per year is about sixteen point twelve. Answers to this question ranged from the lowest being zero and the highest being forty-one games.

Average Number of Games Attended	16.12
Lowest Number of Games Attended	0
Highest Number of Games Attended	41

Sub Problems

Before we can answer the three sub problems there are a few figures that need to be outlined in order to be able to understand the answers to the sub problems. The first figure is valid people, which represents the number of people that make up our group, and is the total of the answers given to question number three on the survey and was 271. The next figure is the number of invalid people which is the total of the answers given to question number three on the invalid surveys and was 12. By adding up these two numbers we found the number of total people survey, for our economic impact study the total number of people is 283. The game attendance was found to be 10,703 people, from the summary of the game published by the American Hockey League (The American Hockey League, 2010).

The valid game attendance, which represents the portion of the game attendance that is non-local, was found by multiplying the games attendance times the number of valid people divided by the number of total people.

$$\text{Valid Game Attendance} = (\text{Game Attendance}) * (\text{Valid People} / \text{Total People})$$

$$\text{Valid Game Attendance} = (10,703) * (271 / 283) = 10,249.16$$

The season attendance was found by multiplying the game attendance by the number of games in a season, 40.

$$\text{Season Attendance} = (\text{Game attendance}) * (\text{number of games in a season})$$

$$\text{Season Attendance} = (10,703) * 40 = 428,120$$

In order to find the valid season attendance we multiplied the valid game attendance time the number of games in a season.

$$\text{Valid Season Attendance} = (\text{Valid Game Attendance}) * (\text{Number of games in a season})$$

$$\text{Valid Season Attendance} = (10,249.16) * 40 = 409,966.50$$

Finally the total spending was found by adding the average face value with the average inside spending and with the average outside spending.

$$\text{Total Spending} = (\text{Average Face Value of a Ticket}) + (\text{Average Inside$$

$$\text{Spending}) + (\text{Average Outside Spending})$$

$$\text{Total Spending} = 19.08 + 25.00 + 21.15 = 65.23$$

Basic Numbers

Valid People	271
Invalid People	12
Game Attendance	10,703
Valid Game Attendance	10,249.16
Season Attendance	428,120
Valid Season Attendance	409,966.50
Total Spending	\$65.23

Sub Problem #1- Find the direct sales impact on our jurisdiction of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on March 27th, 2010.

The direct sales impact of the Hershey Bears on our jurisdiction is broken down into three levels. The first level is the direct sales impact of the group of participants that we surveyed. We found this number to be \$17,676,65. This number represents that the group of 271 people that were represented on our valid surveys contributed \$17,676,65 into the economy of our jurisdiction. We found this number by multiplying total spending time the number of valid people time the direct sales multiplier (1).

Direct Sales of the Group = (Total Spending)*(Valid People)*(Direct Sales Multiplier)

$$\text{Direct Sales of the Group} = (65.23) * (271) * (1) = \$17,676,65$$

The second level of impact of the Hershey Bears that direct sales had on our jurisdiction is the direct sales impact of the game, which we found to be \$673,285.45. This number represents the money contributed into our jurisdiction by the valid attendance, which we found to be 10,249.16 people. We found this number by multiplying total spending time the valid game attendance times the direct sales multiplier (1).

Direct Sales of the Game = (Total Spending)*(Valid Game Attendance)*(Direct Sales Multiplier)

$$\text{Direct Sales of the Game} = (65.23) * (10,249.16) * (1) = \$673,285.45$$

The third level of impact of the Hershey Bears that direct sales had on our jurisdiction is the direct sales impact of the season, which we found to be \$26,931,418.04. This number represents the money that the valid attendance for the season, 409,966.50, contributes to the economy of the jurisdiction for the entire season. We found this number by multiplying total spending time the valid season attendance times the direct sales multiplier.

$$\text{Direct Sales of the Season} = (\text{Total Spending}) * (\text{Valid Season Attendance}) * (\text{Direct Sales Multiplier})$$

$$\text{Direct Sales of the Group} = (65.23) * (409,966.50) * (1) = \$26,931,418.04$$

Direct Sales Impact	
Group	\$17,676.65
Game	\$673,285.45
Season	\$26,931,418.04

Sub Problem #2- Find the direct income impact on our jurisdiction of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on March 27th, 2010.

The direct income impact of the Hershey Bears on our jurisdiction is broken down into three levels. The first level is the direct income impact of the group that we surveyed. We found this number to be \$0.06 cents. Meaning that based on the amount that the group spent at the game the population of our jurisdiction, found to be 168,327 people, would have a six cent increase in their yearly income. We found this number by

multiplying the direct sales of the group time the direct income multiplier (.53) divided by the population of the jurisdiction.

$$\text{Direct Income Impact of the Group} = (\text{Direct Sales of the Group}) * (\text{Direct Income Multiplier} / \text{Population of the Jurisdiction})$$

$$\text{Direct Income Impact of the Group} = (17,676,65) * (.53 / 168,327) = \$0.06$$

The next level of direct income impact of the Hershey Bears is based off of the direct sales for the game; this impact was found to be \$2.12. This means that based on the spending of all of the individuals from outside the jurisdiction at just that game, the population of the jurisdiction would see a \$2.12 increase in their yearly income. We found this number by multiplying the direct sales of the game times the direct income multiplier (.53) divided by the population of the jurisdiction.

$$\text{Direct Income Impact of the Game} = (\text{Direct Sales of the Game}) * (\text{Direct Income Multiplier} / \text{Population of the Jurisdiction})$$

$$\text{Direct Income Impact of the Game} = (668,527.25) * (.53 / 168,327) = \$2.12$$

The final level of direct income impact of the Hershey Bears is based off of the direct sales for the season. This impact was found to be \$84.63, which means that the money spent by non-locals during the Hershey Bears' season, the population of the jurisdiction would see an \$84.63 increase in yearly income. We found this number by

multiplying the direct sales of the season time the direct income multiplier (.53) divided by the population of the jurisdiction.

$$\text{Direct Income Impact of the Season} = (\text{Direct Sales of the Season}) * (\text{Direct Income Multiplier} / \text{Population of the Jurisdiction})$$

$$\text{Direct Income Impact of the Season} = (26,931,418.04) * (.53 / 168,327) = \$84.63$$

Direct Income Impact

Group	\$0.06
Game	\$2.12
Season	\$84.63

Sub Problem #3- Find the direct employment impact on our jurisdiction of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins on March 27th, 2010.

In order to find the direct employment impact of the Hershey Bears on our jurisdiction we used two methods. The first method breaks down the direct employment impact of the Hershey Bears on our jurisdiction is broken down into three levels. The first level based of the spending of the group, showed that the group had 0.133 direct impact on employment in the jurisdiction. This means that the total amount that was spent by the group would support 0.133 new jobs in that jurisdiction, based on the average salary being \$47,273.78. We found this number by multiplying the total spending time the number of valid people, and then we multiplied that number time the direct employment multiplier (.36) divided by the average salary of the jurisdiction.

Direct Employment Impact of the Group = (Total Spending*Valid People)*(Direct Employment Multiplier/Average Salary of the Jurisdiction)

$$\text{Direct Employment Impact of the Group} = (65.23*271)*(.36/47,273.78) = 0.133$$

The next direct employment impact of the Hershey Bears was based on the total spending for just the game, and was calculated at being 5.013. Meaning that based on the average salary of our jurisdiction being \$47,273.78, then the spending of the non-local individuals would support 5.013 new jobs within that jurisdiction. We found this number by multiplying the total spending time the valid game attendance and then we multiplied that number by the direct employment multiplier (.36) divided by the average salary of the jurisdiction.

Direct Employment Impact of the Game = (Total Spending*Valid Game Attendance)*(Direct Employment Multiplier/Average Salary of the Jurisdiction)

$$\text{Direct Employment Impact of the Game} = (65.23*10,249.16)*(.36/47,273.78) = 5.013$$

Finally the direct employment impact of the Hershey Bears based on the total spending of non-locals for the entire forty game season, was determined to be 200.521. This number means that based off the amount contributed to the economy of the jurisdiction by non-locals throughout the season, there could be 200.521 new jobs created. We found this by multiplying the total spending time the valid season attendance, then we multiplied that number times the direct employment multiplier (.36) divided by the average salary of the jurisdiction.

$$\text{Direct Employment Impact of the Season} = (\text{Total Spending} * \text{Valid Season Attendance}) * (\text{Direct Employment Multiplier} / \text{Average Salary of the Jurisdiction})$$

$$\text{Direct Employment Impact of the Game} = (65.23 * 409,966.50) * (.36 / 47,273.78) = 200.521$$

Direct Employment Impact	
Group	0.133
Game	5.013
Season	200.521

The second way that we calculated the direct employment impact of the Hershey Bears on our jurisdiction was by using the Arts & Economic Prosperity Calculator (American for the Arts, 2009). By using this calculator we were able to find how many full-time equivalent jobs that could be support by the expenditures of the group, the attendance, and the industry. The Arts & Economic Prosperity Calculator found that .2 full-time equivalent jobs could be supported by the expenditures of the group. This means that just the spending of the group would .2 of full-time equivalent jobs within our jurisdiction.

The Arts & Economic Prosperity Calculator then found that 7.8 full-time equivalent jobs could be supported by the entire attendance of the game. This calculation means that the expenditures of individuals who attended that game could create and support 7.8 full-time equivalent jobs within our jurisdiction.

Finally the Arts & Economic Prosperity Calculator found that based on the attendance of the season, 297.1 full-time equivalent jobs could be supported within out jurisdiction. This means that the total spending by non-locals that attend Hershey Bears'

games would be able to support the creation and support 297.7 full-time equivalent jobs within a jurisdiction.

Direct Employment Impact according to
the Arts & Economic Prosperity Calculator

Group	.2
Game	7.8
Season	297.7

(American for the Arts, 2009)

CHAPTER V

CONCLUSION, DISCUSSION, AND RECCOMENDATIONS

As we complete our economic impact study, we have found the answers to all seven of the research questions that were present on our survey, and we have found the answers to all three of the sub problems that were stated in chapter I. Within this section we will review those findings and discuss the reliability of them, and finally make recommendations about how to conduct a similar study in the future.

For this economic impact study we had seven research questions that were found based on the answers given by the subjects on the surveys. The first was about the location of our subjects, we found that our 271 subjects came from fifty-two different zip codes. The most common answer to this question was 17042, which represents the neighboring Lebanon, Pennsylvania. The second question was about the face value of the participants' ticket. Based on the answers given for this question, we found that the average face value of a ticket was \$19.08.

Our third research question was how many people the subjects were responsible for paying for, we found that the average answer to this question was 2.71. This number is in line with our group total of 271 for the one hundred surveys that we completed. Our fourth research question was approximately how much did the subjects plan on spending inside that arena at the game; the average inside planned spending was \$25.00. The fifth question that we found the answer to was the subjects approximate spending outside the arena. The average approximate outside spending was found to be \$21.50.

Our last two questions were about our subjects spending and attendance patterns. Question six asked if they spend more, the same or less, when they attend other Hershey Bears

hockey games. The most common answer to this question was the same, meaning that our subject often spend the same amount at other games as they did at the March 27th game. Our last question asked how many games our subjects attend a season. The average answer to this was 16.12, meaning that our group attends about sixteen games out of forty a season.

Our economic impact study found the overall economic impact of the Hershey Bears versus the Wilkes-Barre/Scranton Penguins that took place on March 27th, 2010 on the surrounding community. Based on just the group of 271 non-local individuals we surveyed, we found that they have a direct sales impact of \$17,676.65. This is the money that is entering the jurisdiction through the spending of those 271 non-local individuals, which means that the money spent by them is considered “new” money. Also based on the group, we found that they have a direct income impact of \$0.06. This finding means that the spending done by the group at the March 27th, 2010 Hershey Bears hockey game would cause a \$0.06 increase in the income level of citizens in the jurisdiction. Based on our calculations we found that the group had a direct employment impact of 0.122. This means that 0.122 full-time jobs could be supported within our jurisdiction from the spending of the group, based on the yearly average salary of \$47,273.78. We also found the direct employment impact of the group by using the Arts & Economic Prosperity Calculator, which found that the spending done by the group could support .2 full-time jobs within our jurisdiction (American for the Arts, 2009).

Our economic impact study then found the impact of the game on the surrounding community. We found the direct sales impact of the game to be \$668,527,25, which represents the amount that the valid game attendance spent in association with coming to the game. Next, we found the direct income impact of the game to be \$2.12, which means that the citizens within the jurisdiction experience a \$2.12 increase in their yearly income. Finally, we found the direct

employment impact of the game to be 5.013. This number means that the spending done at the game by non-locals could support 5.013 full-time jobs within the jurisdiction. By using the Arts & Economic Prosperity Calculator, we found that the direct employment impact of the game to be 7.8. This finding translates the spending of non-locals at the game into 7.8 full-time jobs within the jurisdiction (American for the Arts, 2009).

Also within this economic impact study we found the economic impact of the entire Hershey Bears season. We found that for the entire forty game season the Hershey Bears influence the surrounding community’s economy with \$26,741,089.99 entering the community from direct sales. Also the citizens of the jurisdiction experience an \$84.63 increase in their yearly incomes as a result of the direct sales that occur at the Hershey Bears games. Finally the Hershey Bears are able to support 200.521 new full-time jobs at the jurisdiction’s average salary of \$47,273.78 per year, according to our calculation. According to the Arts & Economic Prosperity Calculator the entire Hershey Bears season could support 297.7 full-time equivalent jobs within our jurisdiction (American for the Arts, 2009).

Economic Impact Study Findings

Direct Sales Impact of the Group	\$17,676.65
Direct Sales Impact of the Game	\$668,527,25
Direct Sales Impact of the Season	\$26,741,089.99
Direct Income Impact of the Group	\$0.06
Direct Income Impact of the Game	\$2.12
Direct Income Impact of the Season	\$84.63
Direct Employment Impact of the Group	0.122
Direct Employment Impact of the Game	5.013
Direct Employment Impact of the Season	200.521
Direct Employment Impact of the Group from Arts & Economic Prosperity Calculator	.2
Direct Employment Impact of the Game from Arts & Economic Prosperity Calculator	7.8
Direct Employment Impact of the Season from Arts & Economic Prosperity Calculator	297.7

One issue that we encountered when conducting our economic impact study, was what we found to be the direct employment multiplier. As stated above we found the direct employment multiplier to be 0.36. This number falls outside the range of .4-.8, which 90%-95% of multipliers for counties in the United States fall under. The reason that is an issue when conducting our economic impact study is because it may represent a fudged multiplier coefficient. The use of fudged multiplier coefficients has been identified as one of the possible abuses while conducting economic impact studies (Howard & Crompton, 2004, 119).

Another abuse that can occur when conducting an economic impact study is the failure to exclude “time switchers” and “Casuals”. A time switcher is an individual who changes their plans due to the event to either enter or not enter the jurisdiction. A casual is an individual who happens to be in the jurisdiction for a reason, other than the event, but decides to go to the event as well (Howard & Crompton, 2004, 118). For our economic impact study, we did not have a way to make sure that we excluded these individuals from our study.

A condition that we did not factor into our study that may have affected the results of our economic impact study is the overall history of the Hershey Bears franchise. Due to the fact that the Hershey Bears have been around for seventy-two years, the team itself is very well established throughout not just the American Hockey League but throughout the hockey world as a whole, we believe that it may be harder to measure their economic impact due to this factor. We believe that the Hershey Bears history has an influence on who attends their games. The season ticket holder population is expansive and many come from outside the jurisdiction, but are very set in the amount that they spend per game. There also has been a consistent amount of Washington Capitals fans, their parent club, that are attending games, especially during the National Hockey League’s Olympic break, due to the success the Hershey Bear have had and the

number of former Hershey Bears who are currently Washington Capitals. These fans are traveling longer distances, therefore are more likely to rent a hotel room in the jurisdiction and have dinner at a local restaurant. Overall, we believe it is hard to know the affect of the entire Hershey Bears season has had on the economy of the surround community based on just the findings of one game.

One of the ways that sport franchises persuades a community to open their arms to the creation of a team within their community is by promoting the economic benefits that it will bring with it. While there are economic benefits to having a major or minor league sport franchise in a community the economic effects are not always what is advertised by the franchise. Communities need to be aware of the false promises that sport franchises make to them. They need to be aware that most of the money that will be spent at the games played by that sport franchise will come from directly within the community, meaning that is not actually new income. Also communities need to be aware that most of the jobs that are created by sport franchises are only part-time, seasonal and minimum wage.

APPENDICES

Appendix A: York College of Pennsylvania Economic Impact Survey

**YORK COLLEGE OF PENNSYLVANIA
ECONOMIC IMPACT SURVEY**

1. What zip code do you currently reside in? _____
2. What is the face value of your ticket? \$ _____
3. How many people, including yourself, are you responsible for paying for today? _____
4. Approximately how much do you plan on spending inside the stadium/arena today?
(Concessions, souvenirs, stadium parking, etc.)

\$ _____
5. Approximately how much do you plan on spending within a ten mile radius outside of the
stadium/arena today? (Gas, restaurant, hotel, transportation, off-site parking, etc.)

\$ _____
6. Do you typically spend more, the same or less each time you attend a game?

____ More ____ Same ____ Less
7. How many games do you attend per season? _____



**Note: This survey is intended for educational purposes only. **

Appendix B: Population by Zip Code

Population by Zip Code

Zip Code	Population
17033	15,069
17003	10,343
17036	18,826
17028	3,769
17057	21,556
17111	27,111
17109	23,356
17112	30,337
17078	17,960
Total	168,327

(United States Census Bureau, 2000)

Appendix C: Average Salary by Zip Code

Average Salary Based
On Zip Code

Zip Code	Average Salary
17033	\$45,816.00
17003	\$45,672.00
17036	\$56,063.00
17028	\$46,761.00
17057	\$40,283.00
17111	\$47,666.00
17109	\$39,755.00
17112	\$55,439.00
17078	\$48,009.00
Average Salary of the Jurisdiction	\$47,273.78

(United States Census Bureau, 2000)

Appendix D: Household Earnings from \$1 Million in New Demand for Final Output for Hotels and Amusements (Thousands of Dollars)

	County	State
Construction	7.5	13.7
Motor Vehicles and Equipment	37.9	44.8
Transportation, Communications, and Utilities	26.8	36.8
Wholesale and Retail Trade	37.5	54.6
Finance, Insurance and Real Estate	24.4	30.6
Hotel and Amusements	291.3	333.3
Services	104.7	132.1
Other	2.6	7.6
Total	532.7	653.5

Appendix E: Data Analysis Equations

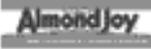
Data Analysis Equations

Total Average Spending	$(\text{Average Face Value} + \text{Average, Inside Spending} + \text{Average, Outside Spending})$
Valid Attendance	$(\text{Valid People}/\text{Total People}) * \text{Game Attendance}$
Direct Sales for Group	$(\text{Total Average Spending}) * (\text{Total Valid People}) * (\text{Direct Sales Multiplier})$
Direct Sales for Game	$(\text{Total Average Spending}) * (\text{Valid Attendance}) * (\text{Direct Sales Multiplier})$
Direct Sales for Season	$(\text{Direct Sales for Game}) * (\text{Number of Games})$
Direct Income for Group	$(\text{Direct Sales for Group}) * (\text{Income Multiplier}/\text{Population of Jurisdiction})$
Direct Income for Game	$(\text{Direct Sales for Game}) * (\text{Income Multiplier}/\text{Population of Jurisdiction})$
Direct Income for Season	$(\text{Direct Sales for Season}) * (\text{Income Multiplier}/\text{Population of Jurisdiction})$
Direct Employment for Group	$(\text{Total Average Spending}) * (\text{Valid People}) * (\text{Employment Multiplier}/\text{Average Salary})$
Direct Employment for Game	$(\text{Total Average Spending}) * (\text{Valid Attendance}) * (\text{Employment Multiplier}/\text{Average Salary})$
Direct Employment for Game	$(\text{Total Average Spending}) * (\text{Valid People} * \text{Number of Games in a Season}) * (\text{Employment Multiplier}/\text{Average Salary})$

Appendix F: Map of Giant Center Grounds

 Where we positioned ourselves



	Club Seat Parking		General Parking
	Preferred Parking		General Parking
★ Suiteholders Parking			

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