



Apr 24th, 12:00 AM

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Understanding the Economic Impact of the Carolina Panthers Training Facility on Rock Hill

Jeremiah Hart

Abstract

In June of 2019, the construction of both a new training facility and headquarters for Charlotte's largest sports franchise was announced. Rock Hill, SC was selected as the new site for the facilities. This decision was notable for a number of reasons: foremost, the number of new residents that would be drawn into the region via jobs created by the construction of the new facilities. In order to better understand the outcomes of the Panther's investment, this paper will examine similar investments in other locales by other professional sports teams. These include "The Star," a facility constructed by the Dallas Cowboys in Frisco, Texas, and other stadiums in Baltimore and St. Louis. This paper will assess how different types and levels of sports facility investment impact the local job market of a city. Some notable points of focus are: What types of jobs are created? Do different types of sports facilities induce higher paying jobs? Is it possible to find a relationship between spending by the sports team and the number or type of jobs? Are they higher income jobs, or lower income? This research finds that overall, stadiums have a mixed impact on local economies and jobs. In some sectors employment decreases, however this is offset by jobs created by the sports complex, suggesting a shift. Also, wages typically rise across all sectors.

Why do businesses build where they do? What factors motivate large, multinational firms to pick the location of their next headquarters? And why do some firms seem to build in smaller, less well known towns that may seem to have less to offer? The answer lies in a variety of factors. These include local markets, local workforces, and tax incentives, as well as the cost of building and logistical ease. While cities and towns cannot directly influence the fixed cost of constructing a new building or creating new infrastructure, they can induce businesses to build by reducing other costs, such as taxes or workforce training.

This practice of competing for large firms to build in a specific area, and in doing so create jobs and stimulate the economy, is known as Economic and Urban Development, and it is a crucial part of city and county governance. An example of this can be found in Minneapolis: The St. Louis Fed estimates that of the \$1.1 billion spent on the new U.S. Bank stadium, \$498 million was paid for by the state and city governments (Wolla). Zimbalist and Noll estimate that in 2005 alone, over \$7 billion was spent on new stadium developments, and this number has only increased (Zimbalist Noll). Rock Hill, South Carolina is one such city that has leveraged large scale economic and urban development programs to secure a large contract with a professional sports team, the Carolina Panthers. While there are some downsides, ultimately the external benefits of such a facility should improve the marketability and growth potential of Rock Hill.

Introduction

According to the Greenville News, the Carolina Panthers are planning on not just expanding into Rock Hill, but also making it the site of their new headquarters. In addition to being the headquarters, the new development would also include a number of other amenities, namely, a large sports medicine facility, a hotel, as well as conference and other office space (Wilkinson). The project has been compared to similar developments by other teams, such as the Dallas Cowboy's "The Star" which is located in Frisco, Texas. Such a large undertaking would not have come to a smaller city like Rock Hill without

serious incentives by the local government, after all, the Panthers are headquartered in Charlotte currently, where there are already an abundance of large headquarters. Thus, a tax incentive of \$115 million was negotiated to provide the Panthers with the proper motivation to relocate (Wilkinson). Such an offer is a large expenditure and would not be justified without a serious return on investment. This paper will examine the outcomes of other investments into large sports facilities by other sports teams and analyze how these investments impacted other small economies. This paper will focus on job creation and expenditure growth, and use the outcomes seen in other towns to estimate the outcomes likely for Rock Hill.

First, it is necessary to take a look at the impacts of the Panther's existing facilities, as these will be the most similar in composition to the new facility, as they are from the same organization. The first of these is the Panther's existing training camp in Spartanburg, South Carolina. According to visitspartanburg.com, the camp is hosted by Wofford College in the Gibbs Stadium. This has been an ongoing event since the founding of the team and their first season in 1995. Not only do the Panthers train there, the team also hosts special events and promotions that draw in consumers and help generate revenue for local businesses.

Background / Literature Review

The Upstate Business Journal, a local publication, estimated that in 2017 alone, the training camp generated a \$13.24 million impact on the regional economy. The previous year, the amount generated was \$13.06 million. Over 100 thousand fans were counted in 2017, as well as in 2016. Of the \$13.24 million in 2017, \$10.76 million came in the form of direct spending, \$732,000 came in the form of local tax revenue, and \$2.37 million was generated in state level tax revenue (Jeter).

In terms of jobs created, in 2017 alone the training camp created over 260, more than in 2015 (174 jobs created) and 2014 (113 jobs created) (Jeter). These reports suggest, then, that even modestly sized investments and facilities can have noticeable effects on local spending and employment. While the

266 jobs created in 2017 is not much compared to the total employment levels of the entire region, it is important to remember that this is simply scratching the surface of the true contribution of the Carolina Panthers' facility to the local economy. An example of hidden benefits could be that there are some jobs which would not be necessary without the influx of spending from the training camp. For example, many service based jobs such as servers, cooks, bartenders, and dishwashers would simply not be necessary without the large influx of consumers brought by the Carolina Panthers every year. In addition, the training camp may provide specialized jobs that would not have otherwise been available. For example, local sports medicine jobs can be hard to find. However, by creating a demand for workers skilled at sports medicine and other training related fields, the Panthers' investment has allowed for growth in other areas that may draw workers from Spartanburg.

The Panther's training camp in Spartanburg serves as a useful analogue for what may be expected from a similar project in Rock Hill, however, this comparison is limited by the discrepancies in size between the two projects. There are a few conclusions that can be drawn, however. The first of these is that such an investment will bring in outside spending, that is, consumption by individuals who do not regularly spend in the local economy. The report by the Upstate Business Journal on the revenue generated by the Spartanburg facility indicates that a significant amount of spenders drawn in by the training facility were from out of state. Both Rock Hill and Spartanburg are located close to state borders, so it is reasonable to expect a similar development. In addition, the proposed Rock Hill facility will likely draw in more in-state residents as well, as it is larger and will have much more amenities, including a hotel. In particular, the planned hotel should incentivize an even higher percentage of travelers to spend in the local economy, generating further revenues in the form of direct expenditure and tax revenues.

Unfortunately, the Upstate Business Journal's report does not give the types of jobs created, or the level of compensation associated with them. This info is crucial to estimating the impact of the Panthers' training facility on Rock Hill's residents.

A more detailed report was created for the city of Frisco, Texas by the Insight Research Corporation which provides empirical estimates for how a large NFL franchise can shape a community for the better. The report by Insight Research examines the Dallas Cowboys' current franchise headquarters complex. It was prepared before the complex was built and uses robust data to provide projections from 2013 until 2042 on how the new complex (the "Star") will stimulate the local economy.

The Star is an important source for understanding the impact the Panthers' new training center will have on Rock Hill because the two facilities share many attributes, in both their locale and composition. Both facilities possess or are planned to possess a large stadium capable of holding multiple thousands of people. Unlike a shared stadium space from a local college (like in Spartanburg), these complexes are invested in from the ground up. Therefore, a significantly higher start-up cost is present. Secondly, both campuses contain the franchise headquarters. This is important because it greatly influences the types and number of jobs created. Headquarters require that high paying executive, analyst, and coach jobs be available. Training facilities likely have coaches brought in from outside and will only need maintenance and basic medical jobs. Finally, both The Star and the proposed Panthers facility consist of multiple different attractions, not just a practice stadium. The Star maintains two large hotels and multiple shopping areas, while the Panthers facility is also expected to have a hotel. These qualities make The Star ideal for estimating the impact of the Carolina Panthers' move to Rock Hill.

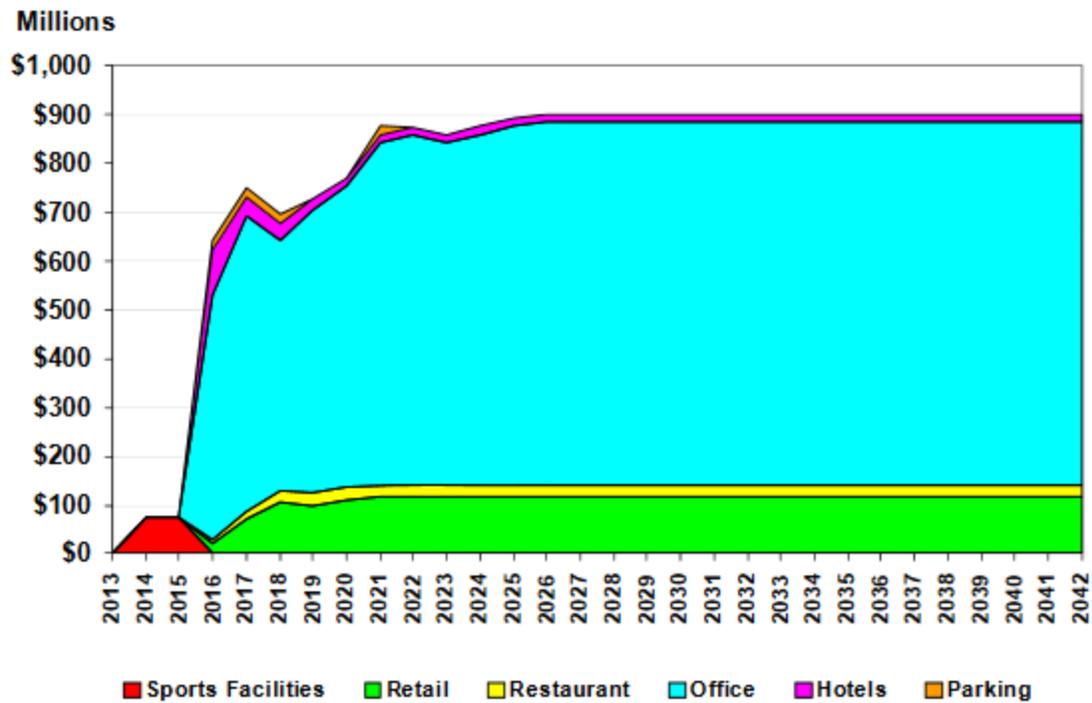
A study of the construction of new stadiums in Baltimore and St. Louis found that an increase in secondary spending in the form of hotel and retail consumption does not correlate with the construction of a new sporting facility. Indeed, negative effects have even been measured for employees in these sectors: on average, restaurant employees saw a decrease of \$162 annually. While small earnings gains were seen for employees in the Amusements and Recreation sector, these were likely associated with that fact that these employees make up the bulk of the jobs at the new stadium, which explains the small increase (Coates Humphreys 6). Thus, any spillover into existing jobs is likely negligible. Applying this to Rock Hill, which is smaller than most of the locations examined in existing literature, a slightly more

substantial change may be observed. This is because Rock Hill has a smaller overall economy than St. Louis or Baltimore, therefore, the spending multiplier may be elevated because it is concentrated over a smaller variety of businesses.

Baade and Sanderson postulate that aggregate increases in local spending are one of the main drivers behind employment growth. However, they highlight that spending on sports stadiums merely crowds out other forms of spending, which in turn has no overall effect on the level of employment (Schwester 18). This is due to the substitution effect, where as one form of consumption becomes relatively cheaper, individuals will consume more of it, at the expense of other forms of consumption. In this case, recreational spending is cheaper at the stadium, so consumers will substitute towards this form of consumption. However, because this does not increase aggregate spending, no effect is measured on employment. This is an important insight because this principle applies to almost every city, including those like Rock Hill. Thus, even if effects of stadiums may be drowned out in larger cities, this provides evidence that a comparable outcome will arise in smaller regions like Rock Hill. Ultimately, employment may not rise as much as was predicted by the economic impact study for the Frisco Region because that study included all new jobs as “created”, when in reality they may have just been transferred from one business to the new complex.

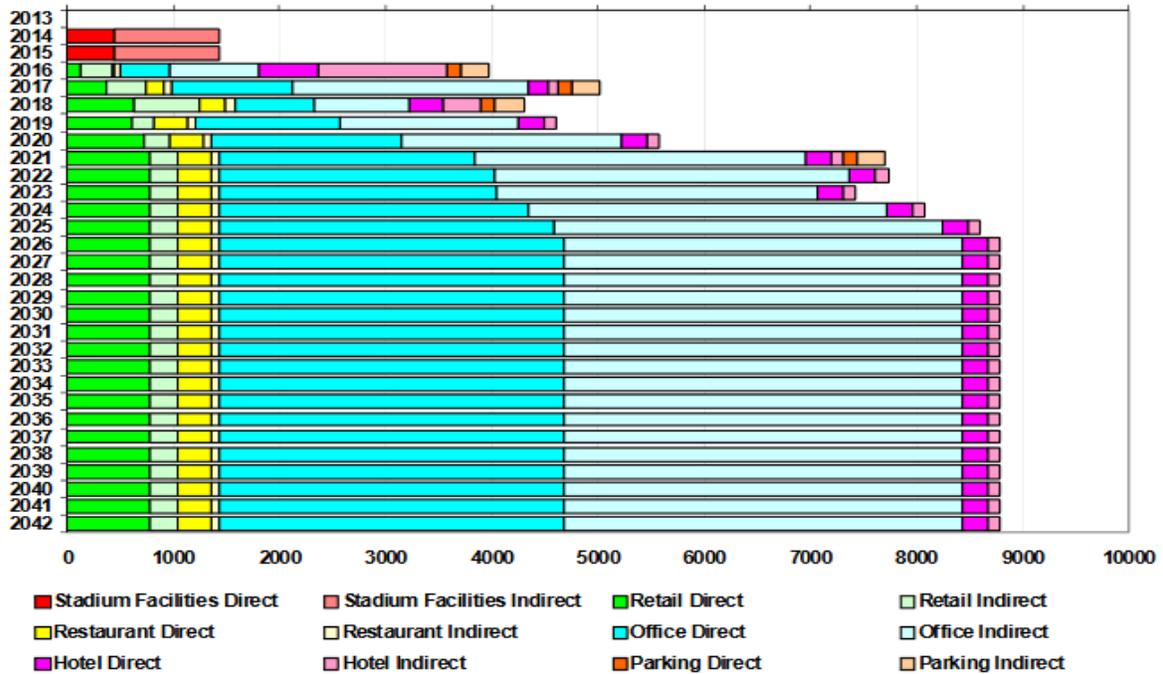
Descriptive Statistics

Below is the estimated economic impact of each sector of The Star from 2013 until 2042. Insight defines this “impact” as “Economic impact is the benefit to the general economy of the entire Dallas Metropolitan Division (MD), derived using a multiplier series from the U.S. Bureau of Economic Analysis and generally referred to as the "economic ripple effect" of new money in circulation the regional economy.” Therefore, it is money that would not have otherwise been spent. It is new revenue, not revenue that was detracted from other businesses in the region in favor of the new development.



One of the most important metrics with which to measure the impact of the Star on Frisco is the estimate of the jobs created. The following chart details the estimates for job creation in various sectors of the economy. Direct employment denotes individuals directly employed at the new complex, for example, sports medicine staff, office workers, and maintenance crews, and also those employed during its construction. Indirect employment describes jobs created elsewhere that are necessary because of the new facility, for example, sales jobs created by an increase in the demand for Cowboys merchandise. According to the economic impact report, these estimates were derived from “a US BEA industry-specific multiplier for each type of business.”

**Project Azul Employment Impact
Annual Job Growth Progression
2013 through 2042**



Initially, the only demand is for “Stadium Facilities Direct / Indirect.” This is representative of the construction labor required to construct the massive facility. Most of these construction positions will likely be filled by workers already employed in construction jobs, however, it is probable that a multitude of construction jobs will be created, especially for such a complicated, diverse project. In addition, Indirect jobs created are a noticeable amount of this first surge in jobs. These are likely jobs in construction supply that were created by the large amount of raw materials necessary. While construction supply companies are not necessarily working directly on the facility itself, the revenue they are enjoying is directly related to the Star, and so they are included in the estimate of jobs created.

After the initial surge in Stadium Facilities Direct / Indirect there is another, much large surge. This is the product of the completion of the initial phase of the facilities, and the utilization of the office /

hotel accommodations. Evidence for this is shown by the large proportion of jobs created in the Hotel Direct / Indirect and Office Direct / Indirect. Direct hotel and office jobs are the initial positions filled on the site of the Star itself, whereas the indirect jobs are an exogenous response to the new demand for commercial and hotel services from the Star. Retail is a smaller portion, but still noticeable. Shopping is not the priority of the Star, but it is a significant aspect. Parking jobs are also higher during this period, as parking facilities become operable.

After this initial surge, a drop is seen in 2018, before a surge the following years to maximum capacity for all sectors. This is caused by the completion of the remaining phases of the project and the subsequent fulfilling of all available retail, office, and hotel space. Note that while jobs in the direct sectors remain high during this period, indirect jobs also remain at an elevated level. This shows the ripple effect of such a large project. Initial investments lead to sustainable levels of increased demand at all strata of the local economy. Unfortunately, the report is not specific enough to gauge the income level of the jobs created, but the quantity alone is still noteworthy. In addition, it is notable how indirect employment is almost equal to the level of direct employment. A job created at the Star, at least in the office and retail sectors, is almost analogous in the long run to another job created elsewhere. In this way, the return on investment is much higher than it would be if the Star were simply a self-contained facility, such as a lone sports stadium. Stadium facility jobs are in the minority, and the indirect creation of these jobs is minimal. This is what separates the Star from other facilities that are simply new stadiums.

Lifetime Value of Stadium

When examining the proposed impacts of a stadium, it is important to consider the rate at which structures / facilities become obsolete, and new construction becomes necessary to either revitalize an old complex and encourage new utilization, or to create a new complex to further serve the needs of the community. Coates and Humphries report that most literature agrees on an average useful life of a stadium at around 30 years. After this, the last ripple effects are exhausted and new capital investment is needed. However, an interesting trend has emerged in recent years. There has been a rise in the

construction of feature heavy stadiums, that is, facilities that contain the arena itself but also an array of other attractions such as office, retail, and dining space (Coates Humphreys 12). This is exemplified by both the Star and the proposed new facility for the Carolina Panthers. There is a twofold effect from the new manner of stadium construction. One aspect is that these stadiums bring in far higher revenues in direct and induced spending, as well as tax revenues. The downside, however, is that the success of these stadiums has contributed to ever more advanced and modern facilities being constructed, increasing competition and leading to a race of innovation between stadium owners, which greatly diminishes their competitive economic life (Coates Humphreys 13).

Fortunately for Rock Hill, the proposed Panthers complex is designed to be at the cutting edge of stadium technology. And while the main stadium for the Carolina Panthers will still be Bank of America Field, the Rock Hill facility still boasts an impressive number of features. It is doubtful that the facilities will become obsolete until well into the current 30-year average. The amount of office space within the facility, as well as the supporting investment in the city of Rock Hill that has been driven by the interest of the Carolina Panthers will ensure the continued use of the complex by the city, county, and Panthers for the foreseeable future. While it is not quite as large as the Star, it will have an analogous timeline in terms of longevity. Therefore, it is likely to be a driver of local investment for years to come.

Potential Downsides

With every investment comes potential downsides. This project is no different. In “The Effect of Professional Sports on the Earnings of Individuals: Evidence from Microeconomic Data”, Coates and Humphreys investigate the effect of a greater “sports atmosphere” in a city on wages. The wages studied were in sectors directly affected by the increased “sportization” of a city, that is, where the local economy pivots away from other sectors such as retail or manufacturing and focuses on recreation and amusements. Thus, this study will help capture the secondary effects of the Panthers training camp, which will inevitably increase Rock Hill’s focus on sports even more.

Table 4: F-Tests and Forecast Mean Impact on Earnings

Model	F-Statistic	P-Value	Overall Impact
Full Sample	2.09	0.00	-0.0418
Sports Related Occupations	17.27	0.00	-0.1708
Hotel Employees	2.96	0.00	-0.1674
Food Service Employees	15.98	0.00	-0.0928
Retail Employees	12.37	0.00	0.1079

As these results indicate, as a city increases in “sportiness” by 1 percent, we see an overall decrease in average weekly wages in the area by .04%. This effect is most pronounced for employees of Sports Related Occupations and Hotels. This runs contrary to the popular belief that these sectors will always benefit from an increase in demand brought about by focusing on sports in an economy. The reasoning behind this is that while before employees in these sectors might have enjoyed being employed by a monopoly, as more competitors move into the local economy, the businesses that previously enjoyed monopoly power must now adjust their wages in order to stay competitive. Thus, even the decrease in wages may still represent a positive move towards market power parity between buyers and sellers.

A similar study performed more recently by Jasina and Rotthoff finds similar outcomes. The results of those are presented below:

		Average Wage per Employee					
		Clothing	Drinking	Food	Hotel	Liquor	Total
MLB		0.413 (0.27)	-1.843 (1.10)	0.349 (0.34)	-0.854 (0.30)	3.239 (0.83)	1.988 (0.83)
NBA		-0.955 (1.13)	1.058 (1.16)	-0.457 (0.80)	0.324 (0.22)	0.21 (0.09)	0.608 (0.47)
NHL		-4.081 (1.26)	1.845 (0.52)	-0.838 (0.39)	-11.124 (1.86)	-2.881 (0.35)	-8.339 (1.64)
NFL		4.006 (0.92)	-3.569 (0.75)	2.053 (0.70)	2.804 (0.31)	1.83 (0.16)	2.717 (0.58)
FE	Yes	Yes	Yes	Yes	Yes	N/A	Yes
Joint Sig	No	No	No	No	No	No	No

Absolute value of z-statistics in parentheses

* significant at 5% level; ** significant at 1% level

		Employment					
		Clothing	Drinking	Food	Hotel	Liquor	Total
MLB		3085.464 (2.57)*	-905.191 (0.84)	14143.1 (2.43)*	2543.024 (1.05)	39.198 (0.24)	55770.02 (1.30)
NBA		2360.039 (3.57)**	-644.795 (1.10)	2896.93 (0.89)	1358.418 (1.06)	-215.237 (2.20)*	-28221.6 (1.21)
NHL		-2539.28 (1.01)	-1095.35 (0.48)	3577.842 (0.29)	2941.385 (0.57)	321.911 (0.93)	102174.1 (1.13)
NFL		-7482.31 (2.19)*	-5082.85 (1.67)	45854.2 (2.76)**	10798.15 (1.41)	-1568.97 (3.31)**	-6373.36 (0.08)
FE	Yes	Yes	N/A	Yes	Yes	N/A	N/A
Joint Sig	Yes	Yes	No	Yes	No	Yes	No

Absolute value of z-statistics in parentheses

* significant at 5% level; ** significant at 1% level

These results are consistent with other literature. While the impact of a new NFL stadium on employment was negative in some sectors, this most likely represents the move from people working in those sectors to people working in the new sectors augmented by the new stadium. In addition, most sectors saw an increase in wages, so those that remained in the job they had originally worked at were on average better off. Furthermore, it is important to keep in mind that the Panthers' new complex will have

much more office space than just a stadium, which should lead to even greater effects in terms of jobs and wages. While some sectors in Rock Hill will see a decrease in employment, this should be offset by the new jobs being offered, as well as the raise in wages. Overall, this could lead to a positive outcome for all.

Results

Economic development is not a perfect science. There will always be errors, inaccurate estimates, and biased calculations. There are billions given in tax breaks to professional sports franchises every year to facilitate the move or creation of a new complex in a specific city under the assumption it will lead to a net benefit. However, there are many instances where this is not the case. In fact, stadiums often have a negligible or even negative effect on the economy of the region where they are placed. According to Ben Bergman in “Are Pro Sports Teams Economic Winners for Cities?” if there was a sudden shutdown of every sports team in Chicago, the economic impact would be less than one percent, akin to a large shopping center at most (Bergman).

As negative as some results are, there is a significant offset the new Panthers complex can provide that will most likely outweigh the substantial downsides. These are the positive externalities a large, prestigious public structure brings to a city. In “Economic Impact Analysis of Sports Facilities and Events: Eleven Sources of Misapplication” Crompton describes these non-tangible externalities as “increased community visibility and enhanced community image.” For example, when a city’s sports team, that city becomes both more well-known and well-respected. This is the vehicle by which quality of life improvements may come about for residents. In addition, Crompton argues that the marginal improvement of a city’s image is much larger for smaller cities than larger cities when a stadium is added (Crompton 23). Thus, for Rock Hill, this could lead to a major augmentation in the city’s ability to market itself. If Rock Hill can use the relative renown of the Panthers to market itself more effectively, which the city assuredly will, then this can lead to significant improvements in external investment further in the future.

In fact, that was already measured at the Panthers' previous training complex in Spartanburg, and observations by Siegfried and Zimbalist in "The Economics of Sports Facilities and Their Communities" corroborate this. According to the authors, "if...35 percent of the fans at a typical game in Fenway Park came from out of state, then each game would bring tens of thousands of dollars of new demand to the Boston metropolitan area." And "the experience of major league teams in the various sports suggests that the general range of fans from "out of the area" is from 5 to 20 percent" While the Panthers' practice games do not bring in quite as much revenue directly, they still bring in a large amount of spending from outside the area that absolutely would not have been spent there otherwise. these effects continue, and indeed they should even be amplified by the move, then Rock Hill can expect to see a significant uptick in revenue, which will be an enormous boon to the region.

Conclusion

There are upsides and downsides to every major investment, and the Panthers' new training facility and headquarters relocation is no different. This project has the potential to bring in a significant amount of investment, revenue, and employment to Rock Hill, as well as establishing Rock Hill as one of the most well-known sports towns in the southeast. Research indicates effects lasting into the 2040s, with a widespread impact throughout the entire region. However, Rock Hill should be cautious to mitigate the downsides. Crowding out, in the form of spending and employment, is a major issue that should be addressed in order to protect residents. Furthermore, traffic will increase, and other infrastructure will be strained. Rock Hill has the capability to leverage this opportunity for years to come, it only requires that the city be proactive and responsible in its' decisions.

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