2018 Florida State Fair: 
Market Segmentation and Economic Impact Analysis 

Final Report 
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ECONOMIC DEVELOPMENT DISTRICT & ECONOMIC ANALYSIS PROGRAM

Since 1999, the Tampa Bay Regional Planning Council has been producing economic impact studies for a variety of public and private sector clients.

Using the most powerful analytical tools, including IMPLAN and REMI PI+, the Council’s Economic Analysis Program has produced hundreds of reports covering topics such as job creation, land use, natural resources and energy, as well as a variety of public policy questions.

The Tampa Bay Regional Planning Council is an association of local governments from Citrus, Hernando, Hillsborough, Manatee, Pasco and Pinellas Counties.
CONTENTS

1. Executive Summary .................................................................................................................. 0
2. Introduction ............................................................................................................................. 1
   2.1 About the Tampa Bay Regional Planning Council ............................................................. 2
   2.2 About the Florida State Fair .............................................................................................. 3
   2.3 2018 Florida State Fair Attendance .................................................................................. 4
3. Key Visitor Demographics .......................................................................................................... 6
4. Visitor Market Segments and Fair Satisfaction ......................................................................... 11
   4.1 Market Segmentation ...................................................................................................... 11
   4.2 Correlates of Satisfaction with the Fair ........................................................................... 13
5. Economic Impact Methodology .................................................................................................. 14
   5.1 Fairs and Special Events: An Expenditure Based Approach ........................................... 14
   5.2 Total Spending Impacts Versus Net Economic Impacts ................................................. 15
   5.3 About REMI PI+ ............................................................................................................. 16
   5.4 Data Sources ..................................................................................................................... 20
   5.5 Comparisons to the 2006 University of South Florida Study ......................................... 20
6. Economic Impacts of the Florida State Fair ................................................................................ 21
   6.1 Florida State Fair Authority: Payroll Impacts ................................................................. 21
   6.2 Florida State Fair Authority Non-Payroll Expenditures .................................................. 22
   6.3 Florida State Fair Authority Operations and Fair Expenses .......................................... 22
   6.4 Florida State Fair Authority Capital Improvements ....................................................... 24
   6.5 Summary of Florida State Fair Authority Impacts .......................................................... 24
   6.6 Vendor Overnight Stays and Spending .......................................................................... 24
   6.7 Out-of-Region Visitor Spending Impacts ....................................................................... 25
   6.8 Local and Other Out-of-Region Visitor Spending Impacts ............................................. 28
   6.9 Combined Impacts ........................................................................................................... 28
7. Conclusions ................................................................................................................................ 30
8. Glossary ..................................................................................................................................... 31
9. Appendices ................................................................................................................................ 32
9.1 Appendix A: Bivariate Correlations of Visitor Overall Enjoyment.................................32
9.2 Appendix B: Detailed Employment Impact Table .................................................................33

TABLES

Table 1.1: Summary of Combined Impacts ..................................................................................0
Table 4.1: Fair Out-of-Region Visitor Market Segments ..............................................................12
Table 6.1: FSFA Payroll Impacts ..................................................................................................22
Table 6.2: FSFA Operations Impacts ..........................................................................................23
Table 6.3: Florida State Fair Authority Construction Impacts .....................................................24
Table 6.4: Summary of Florida State Fair Authority Impacts ......................................................24
Table 6.5: Vendor Overnight Stays and Spending Impacts ............................................................25
Table 6.6: Qualified Out-of-Region Florida State Fair Visitor Average and Aggregate Spending ...25
Table 6.7: Revised Out-of-Region Florida State Fair Visitor Aggregate Spending ......................26
Table 6.8: Out of Region Florida State Fair Visitor Economic Impacts .........................................27
Table 6.7: Summary of Combined Impacts ..................................................................................28
Table 9.1: Bivariate Correlations of Visitor Overall Enjoyment ..................................................32
Table 9.2: Detailed Employment Table (Non-Farming) .................................................................33

FIGURES

Figure 2.1: Where do 2018 Fair Visitors Live? ........................................................................4
Figure 2.2: Where do 2018 Fair Visitors in Florida Live? ............................................................5
Figure 3.1: Age Distribution of Fair Visitors ..............................................................................6
Figure 3.2: Ethnicity of Fair Visitors ..........................................................................................7
Figure 3.3 Household Income .....................................................................................................7
Figure 3.4: Household Characteristics .......................................................................................8
Figure 3.5 Average Distance Traveled .......................................................................................8
Figure 3.6 Years Attended the Fair .............................................................................................9
Figure 3.7 Days Attending the Fair ............................................................................................9
Figure 3.8 Party Size ..................................................................................................................10
Figure 3.9 Number of Nights in Tampa .....................................................................................10
Figure 5.1: Total and Net Economic Impacts of Florida State Fair-Related Expenditures ..........16
Figure 5.2: Baseline Forecast Hillsborough County 2015-2035 .................................................18
Figure 5.4 The REMI Model ......................................................................................................19
Figure 6.1: FSFA Spending Patterns by Florida County ...............................................................23
Figure 6.2: Visitor Spending Impacts by Florida County ............................................................27
Figure 6.3: Total Job Impacts by Florida County .......................................................................29
1. Executive Summary

In 2018, paid attendance at the Florida State Fair was 309,068 unique visitors. Generating more than $152 million in economic output throughout Florida, the Fair’s economic footprint covers most of the State, as the Fair Authority purchases goods and services from vendors in most counties of the state to support the Fair, and visitors from nearly every county spent money on travel, accommodations, food and various retail goods, adding at least $93 million to the state economy and more than $58 million in personal income.

As such, the Florida State Fair’s economic impacts touch every county in the State and create at least one job in 29 counties. Overall, those impacts sustain an overall employment impact of more than 1,300 jobs¹ statewide, over a thousand of which are in Hillsborough County. Moreover, the Fair’s impacts extend beyond the state’s borders, generating sales in Alabama, Georgia, Illinois, New York and Texas.

Table 1.1 summarizes the key economic impact findings of the study.

Table 1.1: Summary of Combined Impacts

<table>
<thead>
<tr>
<th></th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>1,028</td>
<td>1,170</td>
<td>1,318</td>
</tr>
<tr>
<td>Gross Regional Product (Millions $)</td>
<td>$70.8</td>
<td>$80.3</td>
<td>$93.1</td>
</tr>
<tr>
<td>Output (Millions $)</td>
<td>$115.5</td>
<td>$131.8</td>
<td>$152.6</td>
</tr>
<tr>
<td>Personal Income (Millions $)</td>
<td>$35.7</td>
<td>$51.0</td>
<td>$58.4</td>
</tr>
</tbody>
</table>

There are a few key takeaways of Fair related spending—that visitor spending is driving Fair related employment within Hillsborough especially in food, accommodations and retail sales, while Fair and vendor spending elsewhere in Florida relies more on professional services and higher value purchases and rentals generating relatively fewer jobs but at higher wages and proprietor income.

Another way of summarizing the Fair’s impacts is to compare the ratio of total direct spending ($63.2 million) per dollar to the impacts in Table 1.1. For each dollar in direct expenditures, Fair impacts yield $1.47 in increased statewide Gross Regional Product. Moreover, if all of the personal income generated by the Fair were located in Tampa under one employer, that firm would be the 70th largest in Tampa, out of 21,000 business establishments in the city, according to state employment data (Covered wages program, 2017).

¹ Jobs are calculated by dividing total estimated wages by average yearly wages for each industry affected by the Fair. Because many Fair related jobs are short term, TBRPC’s job impact analysis probably underestimates the total number of jobs created or affected by Fair spending.
2. Introduction

This study, the 2018 Florida State Fair: Economic Impacts and Market Segmentation, was prepared under contract by the Tampa Bay Regional Planning Council to the Florida State Fair Authority.

In 2018, the Fairgrounds hosted more than 305,000 unique visitors in a variety of events, including the 2018 Florida State Fair (February 8-19). Turning over $50 million in sales, including Fair events and vendors, as well as expenditures on transportation, accommodation and shopping in Hillsborough County, there are significant economic impacts as the result of the Fair.

In this study, TBRPC has analyzed the impacts of

- Vendor contracts and Hillsborough County purchases, including costumes, maintenance costs, miscellaneous supplies, judging expenses, public relations, and catering costs; and
- Visitor spending, based on estimated visitor attendance and data obtained from a survey of visitors to the 2018 Fair. Spending includes day-tripper and non-resident visitor expenses in area hotels, restaurants and other spending, but not ticket sales; and
- Vendor local spending, such as transportation costs, accommodation and food.

In addition to the direct and indirect impacts of the Fair, TBRPC has also analyzed the visitor survey responses to provide additional context for the Fair’s economic impacts. The study’s results are presented in the following sections.

- Visitor Demographics
- Visitor Market Segmentation
- Correlates of Fair Satisfaction
- Economic Impact Methodology
  - Economic Impacts of Special Events
  - Direct and Indirect Impacts
  - Total Impacts versus Net Impacts
  - REMI PI+
    - Comparing this study to the 2006 USF study
- Economic Impacts of the Fair: Hillsborough County, Tampa Bay Area and Florida
  - Florida State Fair Authority Operations
  - Vendor overnight stays and local related spending
  - Local Visitor Fair Related Spending
  - Out-of-Region Visitor Fair related spending
  - Combined Impact on the Hillsborough, Tampa Bay and Florida Economies
- Conclusions
- Glossary
2.1 About the Tampa Bay Regional Planning Council

Established as Florida’s first regional planning council in 1962, the Tampa Bay Regional Planning Council (TBRPC) provides a forum to foster communication, coordination and collaboration among its member governments. Serving six counties (Citrus, Hernando, Hillsborough County, Manatee, Pasco and Pinellas) and twenty-one municipalities therein, the Council provides a wide range of services, including:

- Economic Modeling and Analysis
- Economic Development District
- Community Visioning and Planning
- Spatial Growth Modeling
- Hurricane and Hazard Preparedness Planning
- The Official Disaster Planning Guide
- GIS Mapping Services
- LEPC: Hazardous Materials
- Technical Assistance to Local Governments
- Agency on Bay Management
- Bay Soundings Quarterly Environmental Journal
- Future of the Region Awards
- Regional Information Center

As one of the first Regional Economic Models (REMI) users in Florida, TBRPC has been providing economic analysis services to government agencies, non-profits and the private sector. Since 1999, TBRPC has conducted over 400 economic impact studies, covering topics such as transportation, environmental and natural resources management, land use decisions, business investment incentives, taxation, sports and other events and festivals. Many of these reports are available from the TBRPC website, [http://www.tbrpc.org/eap/](http://www.tbrpc.org/eap/)
2.2 About the Florida State Fair

Established in 1904, the Florida State Fair has grown from agricultural exhibits contained in one building on the site of the present day University of Tampa to the largest fair in Florida. Over time the primary purposes of the Florida State Fair has evolved from promoting awareness of the diversity of agricultural products produced in Florida to include an emphasis on family education and entertainment.

Today the Fair attracts hundreds of thousands of visitors every year to its 355 acre grounds at the intersection of Interstate 4 and U.S. Highway 301 in Tampa. Occurring every February, the Fair offers live music and performances, exhibitions, rides and other activities, as well as food and a wide range of souvenirs, clothing and other attractions.

The Fair site contains three large exhibition halls. These are the Expo Hall, which is 88,000 square feet of exhibit space; Entertainment Hall, which is a 52,000 square foot multipurpose facility with a 5,000 person seating capacity; and the Charles M. Davis Special Events Center, which is 40,000 square feet. In addition, the Florida Center and Botanical Gardens accommodates up to 1,350 people for private and professional events.

There are two areas with stables and show grounds for equestrian and livestock activities. The Bob Thomas Equestrian Center includes a 10,000 square foot indoor pavilion, exercise grounds, warm-up rings, two show rings, and a grand prix ring. The Equestrian Center also has 471 permanent stalls in five barns, plus parking for vehicles and trailers. The Charlie Lykes Arena Complex provides 72,000 square feet of animal housing and show area under one roof with seating for 2,000 people.

One of several popular attractions, Cracker Country is a living history museum, showcasing original Floridian architecture dating between 1870 and 1912. The Fairgrounds is also home to the MidFlorida Credit Union Amphitheatre, a Live Nation venue, with a seating capacity for approximately 20,000 people. FSFA administration and maintenance buildings comprise the remaining structures at the Fairgrounds. Onsite parking is available for more than 16,000 vehicles, and 150 camping spots are available to event participants.

Throughout the year, a variety of non-Fair events take place at the Florida State Fairgrounds, and these activities offer diverse usage of the Fairground’s facilities. While those other events yield important economic impacts, this study is focused on the Fair itself and the FSFA’s operational impacts on the local economy, from December 2017 to the end of February 2018.
2.3 2018 Florida State Fair Attendance

2018’s Florida State Fair ran from February 8-19. Cumulative attendance over the 12 days of the Florida State Fair reached 423,726, of which 400,331 were unique visits. 2,120 of those unique visits were Fair participants in the livestock and horse shows, entertainers, exhibitors and volunteers. 398,187 were visitors, and more than 96,000 were children. Complimentary admissions included about 64,700 children and about 16,700 adults from various groups and distinguished guests.

Total paid attendance was 309,068, of which at least 29,654 were children. Eventcorp Services conducted a survey of visitors and analyzed its survey data to calculate the numbers of Out-of-Region visitors, estimating both all out-of-region visitors (36,018) and a group numbering 24,748, who came to the region specifically for the Fair or whose visit to the area was influenced by the timing of the Fair. As figures 2.1 and 2.2 depict, survey respondents mostly came from the central west coast of Florida, but the country’s northeast and Midwest also drew visitors to the Fair.

Figure 2.1: Where do 2018 Fair Visitors Live?

Source: Eventcorp Services, 2018
Figure 2.2: Where do 2018 Fair Visitors in Florida Live?

Source: Eventcorp Services, 2018
3. **Key Visitor Demographics**

Visitor demographics provide a snapshot of the key characteristics of Fair patrons. Demographic data can be used to compare customers to residents of nearby communities, for example, to consider the overall appeal of the Fair to its host community. As such, demographics are useful tools for shaping future marketing strategy.

The Florida State Fair Authority surveyed visitors to the Fair using an onsite survey instrument administered by Eventcorp Services during the last five days of the Fair (February 14-19, 2018) and made an online survey available to non-visitors, vendors and visitors between February 20 to March, 12, 2018. TBRPC has reproduced in this section the most important demographic data from the survey to provide context for the economic analysis in Section 6.

While data for visitors is used extensively throughout this report it is important to note that responses to the survey were incentivized by a chance to win $500 in cash, rather than through random sampling. As a voluntary and self-selected survey, TBRPC has used the data to analyze the economic choices of the population of visitors but is aware of the limitations of doing so.

**Figure 3.1: Age Distribution of Fair Visitors**

![Age Distribution of Fair Visitors](image)

Source: Eventcorp Services, 2018

The average age of Fair visitors was 41.3 years. While respondents visited from all over the United States, the average age is consistent with the average age of Hillsborough County (36.8 years old) residents and Tampa average of 35.6. The most frequently occurring age cohort was 18-29 years old. Since these findings are based on survey results the overall age of visitors may be older simply because most survey respondents were adults.
According to the US Census 2010 Census (Summary File 1), whites were 62.9% of the population, Black/African Americans were 26.2% and Hispanics of any race were 23.1% in Tampa. In Hillsborough County, whites were 71.3% of the population and Black/African-Americans were 16.7%, while Hispanics were 24.9% of the population and of any race.

Household Income of Fair visitors (median, $53,501) is high compared to $48,245 for Tampa residents and essentially the same as the $53,742 for Hillsborough County residents (per 2013-2017 American Community Survey 5 year estimates).
While the US Census produces statistics on average household size, this survey does not provide enough information to produce comparable average numbers. However, the largest single group of visitors consisted of couples with no children while the average household in Hillsborough County had 2.55 members.

Average miles traveled was 35.8.
Figure 3.6 Years Attended the Fair

Half of respondents answered “more than five years.”

Figure 3.7 Days Attending the Fair

On average, Fair visitors attended the Fair 1.5 days.
Figure 3.8 Party Size

Average party size was 3.9.

Source: Eventcorp Services, 2018

Figure 3.9 Number of Nights in Tampa

On average, overnight stays in Tampa were 4.6 nights.

Source: Eventcorp Services, 2018

In summary, the overall demographic profile of Festival visitors is similar to the overall makeup of the surrounding Tampa Bay area’s population.
4. Visitor Market Segments and Fair Satisfaction

While visitor demographics provide basic reference data on Fair visitors, profiles of groups of visitors can support economic analysis of the Fair’s impacts and Fair marketing. Both of those goals can be met by grouping visitors by common spending patterns and demographic characteristics. For example, let us say that the Fair Authority (FSFA) is interested in attracting more visitors who tend to spend more money than average, then it will be useful to understand if they do so because they are out-of-region visitors, or have multiple children or because they have more household income to spend.

Market segmentation is a methodology for anticipating visitor spending dynamics and, potentially, the reasons why visitors like or dislike the Fair or individual events. In this case, TBRPC’s market segmentation analysis shows that the most important indicators of high visitor expenditures are household income and days spent at the Fair.

4.1 Market Segmentation

A “market segment” refers to a group of potential buyers for a category of product or service whose needs are similar. A member of a market segment has needs that are more similar to the needs of another member of the same segment than to the needs of a member of a different market segment. An example of market segments for cars might be “luxury car buyers”, “performance car buyers”, and “economy car buyers”.

Market segmentation is a technique used by businesses to cluster and classify their customers. By grouping customers into market segments, businesses can identify which services the business offers is most appealing to customers and which are not. Other uses include identifying groups of customers by common demographic patterns: is the business patronized more by small families or by unmarried singles? Are customers older than average or are they younger?

In this study, TBRPC used market segmentation in cross-checking the spending assumptions generated by the survey and subsequently applied in the economic impact analysis in Section 6. Since the Eventcorp Services survey asked spending questions only of Out-of-Region visitors (visitors who traveled more than 100 miles to the Fair), TBRPC used a statistical segmentation technique called K-means clustering to classify certain Out-of-Region market segments.

K-means clustering uses responses to demographic and spending questions to group visitors by their statistical “nearest neighbor” in terms of responses. For example, respondents who stated that they spent two nights in Tampa and attended one day at the Fair might be grouped

together, but both of those segments would not be grouped with other respondents who stated they spent 5 and 6 nights in Tampa. Instead, visitors in the latter category would be placed in a separate group.

TBRPC used survey responses for Household Income, Household Composition, nights spent in Tampa (Tampa Nights), party size, days attended the Fair, and spending on lodging, groceries, restaurants, shopping and miscellaneous purchases to cluster respondents together into eight distinct market segments. TBRPC excluded age and ethnicity as those items made it more difficult to analyze how the other, spending related factors, clustered and we also excluded the costs of transportation as TBRPC concluded that those costs are more related to travel distances than to demographic affinities.

Table 4.1 summarizes the segments, organized by decreasing cluster size.

**Table 4.1: Fair Out-of-Region Visitor Market Segments**

<table>
<thead>
<tr>
<th>Segments</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique Share</td>
<td>28.80%</td>
<td>22.40%</td>
<td>14.70%</td>
<td>10.90%</td>
<td>9.60%</td>
<td>5.80%</td>
<td>3.80%</td>
<td>3.80%</td>
</tr>
<tr>
<td>HH Income $25K-$50K</td>
<td>$50K- $100K</td>
<td>$50K- $100K</td>
<td>$150K- $200K</td>
<td>$25K-$50K</td>
<td>N/A</td>
<td>&lt;$200K</td>
<td>&lt;$500K</td>
<td></td>
</tr>
<tr>
<td>HH Comp. Single with other</td>
<td>Fam, young child</td>
<td>Fam, mult. children</td>
<td>Couple, no children</td>
<td>Single with other</td>
<td>Fam, older children</td>
<td>Couple, no children</td>
<td>Couple, child away</td>
<td></td>
</tr>
<tr>
<td>Tampa Nights</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>&lt;7</td>
</tr>
<tr>
<td>Party Size</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Days Attended</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Lodging*</td>
<td>$100-$200</td>
<td>$201-$500</td>
<td>$1-$99</td>
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<td>$100-$200</td>
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<td>$1001-$1500</td>
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<tr>
<td>Groceries*</td>
<td>0</td>
<td>$1-$100</td>
<td>0</td>
<td>$1-$100</td>
<td>$1-$100</td>
<td>$1-$100</td>
<td>$1-$100</td>
<td>$1-$100</td>
</tr>
<tr>
<td>Restaurants</td>
<td>$1-$100</td>
<td>$101-$250</td>
<td>$1-$100</td>
<td>$1-$100</td>
<td>$1-$100</td>
<td>$1-$100</td>
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<tr>
<td>Shopping</td>
<td>$1-$100</td>
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<td>$1-$100</td>
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<tr>
<td>Misc Spending</td>
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<td>$1-$100</td>
<td>$1-$100</td>
<td>$1,500</td>
<td>$1-$100</td>
</tr>
</tbody>
</table>

Source: Eventcorp Services, 2018; IBM SPSS 13.0; TBRPC, 2019. *Overnighters only.

Table 4.1 provides some insight into the various out-of-region market segments which may be useful in considering the spending patterns of local visitor groups. For example, overall survey results for all visitors suggest that the largest demographic group attending the Fair is single adults, travelling as couples or in small groups of friends. Nearly 38% of Out-of-Region visitors (Segments 1 and 5) have similar characteristics, and it may be reasonable to infer that local visitors share similar expenditure patterns.

Another insight supported by the market segmentation is that the largest segments are not necessarily the most important in generating sales at the Fair. Segment 7, with 3.8% of visitors, comprising high income couples with no children generated more than $10.2 million in expenditures, compared to Segment 1, with 28.8%, which generated approximately $5.1 million.
Some Caveats about Market Segments

Since there are many more possible combinations of responses to each question than just eight groups or 21 groups, for that matter, individual survey responses are compared and partly “forced” into a segment. For example, Segment 1 in Table 4.1 may have grouped respondents in most characteristics, such as party size, number of nights, and household income, but many of those respondents may be somewhat different from each other in other characteristics. This may result in segments over-generalizing important distinctions between visitors.

On the other hand, this problem may be partly resolved by greatly increasing the number of market segments, so that more detail is possible. However, there are still drawbacks as the number of market segments increase it becomes more difficult to note their distinguishing characteristics.

4.2 Correlates of Satisfaction with the Fair

Classifying visitors by demographic categories provides insights into visitor spending patterns but does not shed new light on which factors are related to satisfaction with the Fair. While there are many potential methods for analyzing this question, TBRPC conducted bivariate correlation analysis of the survey data to investigate the relationship between visitor characteristics and assessments of satisfaction with the Fair.

Bivariate analysis compares two survey based questions (variables)—for example, household income and satisfaction with the Fair, and tests whether they systematically change their value with respect to each other. It may be that wealthier visitors are happier with the Fair or it may be that Fair satisfaction is more correlated with party size. While establishing some statistically valid relationship between these variables helps to explain visitor behavior and opinions, sometimes the lack of a statistically valid relationship is also telling.

TBRPC’s analysis yielded the unsurprising result that satisfaction with the Fair is strongly associated with respondent’s perception that the Fair was good value for money. On the other, when viewed against various spending categories the analysis showed that the less visitors spent on groceries and transportation the more satisfied they were with the Fair (and, conversely, the more they spent on those categories the less satisfied they were with the Fair).

On the other hand, spending on restaurants and food at the Fair did not seem to influence visitor’s perceptions of the overall value of the Fair itself, suggesting that the entire or holistic experience of the Fair may influence opinions about respondents feelings than any one category of spending or activity. The bivariate correlation table is presented in Appendix 9.1.
5. Economic Impact Methodology

Economic impact analysis identifies the effects on the level of economic activity in a given area as the result of some economic event or decision by a business, consumer or public agency. Economic impacts can be both direct and indirect in nature. Direct impacts are those impacts that result from the first-order business decision, a business opens and hires workers. If the business hires 11 workers, there are 11 direct jobs. In order to sustain the business, the firm then orders a variety of inputs from suppliers, creating indirect jobs at firms in the supply chain.

Another layer of indirect impacts are the jobs that are created when employees of the first business and the employees of firms in the supply chain spend money on household consumption, creating jobs in supermarkets, doctors’ offices, and many other business types. The relationship between direct and indirect effects is called the **multiplier effect**. If the direct creation of 100 jobs results in the creation of 50 more indirect jobs, the multiplier ratio is 1.5. Economic development professionals often use these **multipliers** to compare potential projects.

But jobs are not the only way to categorize the economic impacts. Instead, typically economic analysts consider the impacts of an event or decision on the following indicators:

- Employment\(^3\); and
- Gross Regional Product (similar to Gross Domestic Product but at a regional scale); and
- Personal income (or wages) and
- Total sales (otherwise known as output).

Any or all of these measures can be an indicator of improvement in the economic well-being of area residents, which is usually the major goal of economic development efforts\(^4\).

5.1 Fairs and Special Events: An Expenditure Based Approach

Fairs and special events are a category of economic activity that relies on the flow of expenditures through the economy to estimate the economic indicators discussed above. Expenditures occur when the Fair hires staff, procures professional services and orders construction and supplies. Expenditures also occur when vendors arrive in town, obtaining accommodations for themselves and spending money on groceries, restaurants and other consumption categories, in addition to their own supply chain procurement process. Finally,

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\(^3\) Employment is estimated by dividing total estimated wages by average yearly wages for each industry affected by the Fair. Because many Fair related jobs are short term, TBRPC’s job impact analysis probably underestimates the total number of jobs created or affected by Fair spending.

expenditures occur when visitors spend money on transportation, accommodation and on the various activities that the Fair offers.

Since the Fair’s economic activities have been woven into the Hillsborough County economy for over a century, we must consider a counterfactual approach where we ask what would happen if the Fair and all of the expenditures associated with it were to disappear from the County economy.

As such, the REMI model calculates the total effects of the generated output by the FSFA and its event promoters were to, counterfactually, cease. Since the expenditure approach presumes that the economic value of the FSFA’s output equals its cost to produce that output, that lost output would include both the production of industries directly affected by the counterfactual and the production lost indirectly through the “ripple effect” as the flow of goods and services is reduced throughout the economy.

While this approach is logical, well documented by credible sources and has a long history of yielding important insights into economic events, there are potential pitfalls in not carefully distinguishing between different kinds of expenditures, specifically, total expenditures and net expenditures in estimating economic impacts.

5.2 Total Spending Impacts Versus Net Economic Impacts

TBRPC distinguishes between the total spending impacts of the Fair and its net economic impacts. Total spending accounts for all expenditures on the Fair, regardless of origin of those expenditures. For example, ticket sales and Fair spending by visitors from Tampa would be considered total spending effects. But counting both ticket sales and FSFA expenditures on goods and services would be double counting effects. Counting the impacts of local area resident spending on the Fair disregards the fact that local visitors are merely shifting their spending from other local businesses to the Fair, in reality yielding no net gain. By excluding those ticket sales and local visitor spending from our analysis, we obtain net impacts.

Figure 5.1 traces the cash-flows between economic actors (visitors, exhibitors and vendors, and the State Fair Authority) and expenditure categories. While the solid line indicates expenditures that were modeled in this analysis the dashed lines indicate categories that were excluded. These excluded categories are ticket sales—as those expenditures are accounted for in Fair spending—and local visitor expenditures, as those expenditures merely shift spending from non-Fair activities in Hillsborough to Fair activities.

As Figure 5.1 depicts, economic actors facilitate the flow of money through the economy through their expenditures. Sometimes, those expenditure categories overlap—both visitors and vendors spend money on transportation, accommodation and food. Sometimes, those categories do not overlap; we do not expect vendors to spend much on local souvenir shopping and therefore do not formally model those expenditures even if it is likely that vendors do spend money on souvenirs and other miscellaneous retail.
Figure 5.1: Total and Net Economic Impacts of Florida State Fair-Related Expenditures

Source: TBRPC, 2019

All of these expenditure flows make up the economic “shock” of the Florida State Fair on the Florida economy. Now that we see how Fair expenditures flow through the economy, we provide additional detail on how the REMI model operates in assessing those expenditures.

5.3 About REMI PI+

Founded in 1980, Regional Economic Models, Inc. (REMI) constructs models that reveal the economic and demographic effects that policy initiatives or external events may have on a regional economy. REMI model users include national, regional, state and city governments, as well as universities, nonprofit organizations, public utilities and private consulting firms. A major feature of REMI Policy Insight is that it is a dynamic model which forecasts how changes in the economy and adjustments to those changes will occur on a year-by-year basis over a forty year forecast horizon. The model is sensitive to a very wide range of policy and project alternatives and to interactions between the regional and national economies.

Model Introduction

Tampa Bay Regional Planning Council’s REMI PI+ includes a 70 industry sector model for the six counties of the Tampa Bay region and a separate 23 industry sector statewide model that supports analysis of each county in Florida along with statewide models for Alabama and Georgia.

REMI’s model-building system uses hundreds of programs developed over the past decades to build customized models for each county of the United States using data from the Bureau of Economic Analysis, the Bureau of Labor Statistics, the Department of Energy, the Census Bureau and other public sources. The REMI model is a structural model, meaning that it clearly
accounts for cause-and-effect relationships. The model shares two key underlying assumptions with mainstream economic theory: *households maximize utility* and *producers maximize profits*. Since these assumptions make sense to most people, the model can be understood by intelligent lay people as well as trained economists.

In the model, businesses produce goods to sell to other firms, consumers, investors, governments and purchasers outside the region. The output is produced using labor, capital, fuel and intermediate inputs. The demand for labor, capital and fuel per unit of output depends on their relative costs, since an increase in the price of any one of these inputs leads to substitution away from that input to other inputs. The supply of labor in the model depends on the number of people in the population and the proportion of those people who participate in the labor force. Economic migration affects the population size. More people will move into an area if the real after-tax wage rates or the likelihood of being employed increases in a region.

Supply and demand for labor in the model determine the wage rates. These wage rates, along with other prices and productivity, determine the cost of doing business for every industry in the model. An increase in the cost of doing business causes either an increase in price or a cut in profits, depending on the market for the product. In either case, an increase in cost would decrease the share of the local and U.S. market supplied by local firms. This market share combined with the demand described above determines the amount of local output. Of course, the model has many other feedbacks. For example, changes in wages and employment impact income and consumption, while economic expansion changes investment and population growth impacts government spending.

**Baselines and Economic Impacts**

REMI P+ compares current conditions versus anticipated or planned future conditions. In simulating economic impacts to the economy, the model measures ‘shocks’ or economic impacts of an economic event to a baseline forecast. Baseline forecasts are reference points economic analysts use to judge the direction and magnitude of potential economic impacts.

Baseline forecasts are not important in themselves other than placing employment change and other impacts to the economy due to some shock in the context of the overall economy. As such, it is more useful to think of the shock as generating an ‘underperforming’ effect on expectations or an ‘over-performing’ effect on trend employment.

For example, REMI’s forecasted employment growth for Hillsborough County is anticipated to be steady and somewhat faster than the national growth in employment over the same period. Figure 5.2 depicts the baseline forecast for Hillsborough County through 2035.
Let us say that a hypothetical economic impact, such as the loss of major employers, causes Output and Personal Income to drop by ten percent in each year between 2015 and 2035. That hypothetical impact is depicted in Figure 5.3. A solid line is shown for both baseline output and personal income, while the alternative impact (Alt Output and Alt Personal Income) is shown in the same colors but with dashed lines.

Source: TBRPC, 2019
The difference between the solid line and the dashed line, in dollar terms, is the impact that we measure when we conduct economic analysis.

**Model Structure**

Figure 5.4 depicts the interactions within the REMI model among five economic “blocks.”

Imagine a factory (the Output block) that sells to all the sectors of final demand as well as to other industries. The Labor and Capital Demand block shows how labor and capital requirements depend both on output and their relative costs. Population and Labor Supply are shown as contributing to demand and to wage determination in the product and labor market. The feedback from this market shows that economic migrants respond to labor market conditions. Demand and supply interact in the Wage, Price and Profit block. Once prices and profits are established, they determine market shares, which along with components of demand, determine output.

The REMI model brings together all of the above elements to determine the value of each of the variables in the model for each year in the baseline forecasts. The model includes all the inter-industry relationships that are in an input-output model in the Output block, but goes well beyond the input-output model by including the relationships in all of the other blocks shown in figure 5.4.

In order to broaden the model beyond the standard Input-Output methodology, it was necessary to estimate key relationships. This was accomplished by using extensive data sets covering all areas in the country. These large data sets and decades of research effort have enabled REMI to simultaneously maintain a theoretically sound model structure and build a model based on all the relevant data available.

The model has strong dynamic properties, which means that it forecasts not only what will happen but when it will happen. This results in long-term predictions that have general equilibrium properties. This means that the long-term properties of general equilibrium models
are preserved without sacrificing the accuracy of event timing predictions and without simply taking elasticity estimates from secondary sources.

5.4 Data Sources

All data in this study were supplied by the Florida State Fair. Principal data sources were expenditures by the FSFA on vendors, supplies and professional services with billing data by vendor and billing zip code. Additional data on visitor spending came the Fair’s survey firm, Eventcorp Services, which conducted an onsite and web based survey for Fair visitors.

5.5 Comparisons to the 2006 University of South Florida Study

In 2006, the Center for Economic Development Research (CEDR) at the University of South Florida issued a study concerning “the economic contributions of the Florida State Fair Authority” in Fiscal Year 04/05. As with this present study, CEDR used an expenditure based counterfactual approach and REMI PI+ to analyze the economic impacts of the Florida State Fair Authority in that fiscal year.

However, the two studies are different in scope and TBRPC suggests that any comparison between the two studies be exercised with caution. First, the CEDR study focused on the FSFA during the entire 04/05 fiscal year while this study is primarily focused on the economic effects of the Fair itself with additional activities conducted by the FSFA in the months leading up to the Fair and immediately afterwards. Another key distinction is that the CEDR’s scope was broader than the current study’s, including an analysis of year round events, especially equestrian events and events hosted by Live Nation.

Nevertheless, the scale of economic impacts between the two studies are roughly comparable. The CEDR study found that 1,183 jobs were created in Tampa Bay and 1,267 jobs were created statewide. As will be shown in Section 6 of this report, 1,170 jobs were created in Tampa Bay and 1,315 jobs were created statewide for the 2018 Fair. Despite the somewhat larger scope of the 2006 study, there is significant consistency between the two studies.
6. Economic Impacts of the Florida State Fair

As described in the Methodology section, TBRPC used an expenditure based approach to analyzing the impacts of the State Fair. As noted, local visitor impacts are excluded from the formal analysis but information is provided on an estimate of local visitor spending in Section 6.7.

As shown in Figure 5.1, the economic Impacts of the Florida State Fair include the following activities:

- State Fair Payroll
- State Fair Authority Operations
- State Fair Authority Capital Improvements (Construction)
- State Fair Supplies and Services
- Vendor Expenditures in Hillsborough County (transportation, accommodation and food & beverage)
- Out of Region Visitor Impacts (transportation, accommodation and food & beverage, shopping)

The following sub-sections address each activity. Each table reports economic impacts for three geographic regions: Hillsborough County, the Tampa Bay Area (Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas and Polk Counties) and all of Florida. Moreover, each geographic region’s economic impacts are described in terms of employment, Gross Regional Product, Output and Personal Income\(^5\).

6.1 Florida State Fair Authority: Payroll Impacts

The Florida State Fair Authority (FSFA) supports the Florida State Fair through its operations and creates jobs throughout the Tampa Bay and Florida economies through expenditures on goods and services. In this section, TBRPC analyzes the economic impacts of FSFA expenditures through payroll. The Fair Authority impacts the local and regional economy through wages paid to 114 employees, 65 of which are full time and 49 are part time. Those 114 employees are considered direct employment impacts of the FSFA and are concentrated mostly in Hillsborough County (91), with about 11 more throughout the Tampa Bay Area and an additional 12 employees in other parts of the state.

Using REMI PI+, TBRPC analyzed the direct expenditures on employees’ wages and the indirect impacts that paid wages have on other industries through household spending by employees in each of the geographies in Table 6.1.

\(^5\) These terms are defined in the Glossary.
Table 6.1 summarizes the payroll impacts of the Fair employees in 2018, totaling $5.4 million in direct wages. An additional $3.8 million was paid out throughout Florida in personal income in wages, rent and profit to non-FSFA employees and business owners.

Table 6.1: FSFA Payroll Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct (FTEs)</td>
<td>91</td>
<td>102</td>
<td>114</td>
</tr>
<tr>
<td>Indirect Employment</td>
<td>34</td>
<td>53</td>
<td>66</td>
</tr>
<tr>
<td>Total Employment</td>
<td>125</td>
<td>155</td>
<td>180</td>
</tr>
<tr>
<td>Gross Regional Product (Millions)</td>
<td>$8.3</td>
<td>$10.1</td>
<td>$11.8</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$14.9</td>
<td>$17.8</td>
<td>$20.5</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$5.1</td>
<td>$7.8</td>
<td>$9.2</td>
</tr>
</tbody>
</table>

Since not all Fair employees live in Hillsborough County, TBRPC distributed those employees to other counties based on their home zip code data. As with all tables in this section, Gross Regional Product, Output and Personal Income include both direct and indirect impacts.

### 6.2 Florida State Fair Authority Non-Payroll Expenditures

In addition to salary and wages in Section 6.1, the FSFA spent approximately $13.6 million in total on operational costs and capital improvements. However, since a substantial portion of the FSFA’s expenditures ($4.3 million) were either spent outside of Florida or could not be matched to a Florida county by TBRPC using FSFA billing information, that portion of expenditures was excluded from the analysis. As such, total FSFA spending in Florida for capital improvements and Fair operations and expenses was $9.3 million. Sections 6.3, 6.4, and 6.5 summarize impacts for statewide impacts only.

### 6.3 Florida State Fair Authority Operations and Fair Expenses

FSFA Operations and Fair Expenses comprise the impacts of everyday business operations, including professional services such as graphic design, marketing and advertising services, as well as Fair supplies and services, such as the purchase of costumes, maintenance, food, catering and equipment rentals.

For non-construction operational and Fair expenses, FSFA spent about $7.9 million in Florida. None of these activities are associated with direct jobs as they are the product of FSFA expenditures on business operations and not on staff. As such, jobs created are all indirect jobs.

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6 Full Time Equivalents calculated by dividing payroll by county by average wages.
7 Illinois, Texas and New York were the largest recipients of the Fair’s out-of-state spending.
Since TBRPC’s REMI model requires retail purchases to be adjusted to the mark-up portion of sales (receipts less cost of goods sold) and a large share of those supplies were retail goods, TBRPC subtracted 50% of the reported value of retail sales purchased by the FSFA to account for the ‘keystone’ mark-up rate. As shown Table 6.2, that $7.9 million in expenditures “roll over” through expenditures throughout the FSFA supply chain, ultimately generating $15.5 million in output (sales) throughout Florida, or $9.9 million in Gross Regional Product and $5.1 million in personal income.

Table 6.2: FSFA Operations Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>52</td>
<td>50</td>
<td>106</td>
</tr>
<tr>
<td>Gross Regional Product (Millions)</td>
<td>$5.8</td>
<td>$4.6</td>
<td>$9.9</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$9.0</td>
<td>$7.6</td>
<td>$15.5</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$2.4</td>
<td>$2.5</td>
<td>$5.1</td>
</tr>
</tbody>
</table>

Figure 6.1: FSFA Spending Patterns by Florida County
6.4 Florida State Fair Authority Capital Improvements

Another area of FSFA expenditures is on capital improvements, or construction. While the amount the Fair spends each year will vary by the need, construction generates employment and sales that ripple throughout the Hillsborough County economy and the greater Tampa Bay region. FSFA spent approximately $1.4 million on construction related expenditures in Florida.

Table 6.3 summarizes the economic impacts of FSFA expenditures on construction.

Table 6.3: Florida State Fair Authority Construction Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>9</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Gross Regional Product (Millions)</td>
<td>$0.8</td>
<td>$1.4</td>
<td>$1.8</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$1.4</td>
<td>$2.4</td>
<td>$3.0</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$0.5</td>
<td>$0.9</td>
<td>$1.2</td>
</tr>
</tbody>
</table>

6.5 Summary of Florida State Fair Authority Impacts

Totaled across all wages, operations and capital improvements, FSFA spent about $19 million on Fair related activities in 2018, $14.7 million of which were spent in Florida. However, as shown in Table 6.4, the ripple effects of those Florida expenditures alone raised personal income throughout Florida by $15.5 million, or about $2 million in excess of direct FSFA expenditures.

Table 6.4: Summary of Florida State Fair Authority Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>186</td>
<td>222</td>
<td>307</td>
</tr>
<tr>
<td>Gross Regional Product (Millions)</td>
<td>$14.9</td>
<td>$16.1</td>
<td>$23.5</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$25.2</td>
<td>$27.7</td>
<td>$39.1</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$8.0</td>
<td>$11.3</td>
<td>$15.5</td>
</tr>
</tbody>
</table>

6.6 Vendor Overnight Stays and Spending

Prior to the Fair, Vendors must arrive in the Tampa area and find accommodations in hotels or in Recreational Vehicle parks, in addition to eating and transportation costs. Based on a survey of vendors conducted by the Florida State Fair, vendors spent a total of 2,372 hotel room nights and 1,974 Recreational Vehicle pad nights in the Tampa area, housing approximately 676 individuals. Assuming pad costs of $35/night and $100/hotel room night, vendors spent

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8 TBRPC searched for comparable RV park sites in the Tampa area to make this assumption.
$305,590 on accommodations. Assuming $35 per room and RV night, total food spending (groceries and restaurants) reached $83,020.

Table 6.5: Vendor Overnight Stays and Spending Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Gross Regional Product (Millions)</td>
<td>$0.5</td>
<td>$0.6</td>
<td>$0.6</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$0.8</td>
<td>$0.9</td>
<td>$1.0</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$0.8</td>
<td>$0.4</td>
<td>$0.4</td>
</tr>
</tbody>
</table>

6.7 Out-of-Region Visitor Spending Impacts

Out-of-Region visitors are those visitors that Eventcorp Services identified as traveling further than 100 miles to reach the Fair (36,018 visitors). Eventcorp Services then estimated the spending those visitors whose visit was either primarily for the Fair or whose visit to the area was influenced by the timing of the Fair, based on survey responses. Out of 309,068 unique attendees and 36,018 Out-of-Region visitors, there were 24,748 out-of-region visitors who came to Hillsborough County with the intent to visit the Fair or for whom the Fair’s timing influenced their visit. Those visitors are called ‘qualified’ Out of Region Visitors. Of those 24,748 out-of-region visitors, 7,841 ‘daytripper’ visitors lived outside of the region but returned home at night. 16,907 ‘overnighters’ stayed at area hotels during their visit to the Fair. Overnight visitors stayed an average of 4.6 nights in the Tampa Area.

Together, those visitors spent a total of $33 million during their stay over the course of the Florida State Fair. Table 6.6 details the “qualified” estimated average and aggregate spending by various categories.

Table 6.6: Qualified Out-of-Region Florida State Fair Visitor Average and Aggregate Spending

<table>
<thead>
<tr>
<th>Spending Category</th>
<th>Average Spend</th>
<th>Aggregate Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging</td>
<td>$479.50</td>
<td>$8,106,664</td>
</tr>
<tr>
<td>Restaurants/Bars/Lounges</td>
<td>$223.17</td>
<td>$5,522,916</td>
</tr>
<tr>
<td>Grocery/Liquor Stores</td>
<td>$178.21</td>
<td>$4,410,391</td>
</tr>
<tr>
<td>Retail Spending</td>
<td>$180.98</td>
<td>$4,478,921</td>
</tr>
<tr>
<td>Transportation</td>
<td>$158.67</td>
<td>$3,926,708</td>
</tr>
<tr>
<td>Miscellaneous Spending</td>
<td>$269.74</td>
<td>$6,675,610</td>
</tr>
<tr>
<td>Total</td>
<td>$1,338.34*</td>
<td>$33,121,210</td>
</tr>
</tbody>
</table>

Source: Eventcorp Services, 2018. *(33,121,210 divided by 24,748)

This qualified spending profile is a conservative approach to estimating how much spending is driven by visitors who are expressly visiting the Fair. However, this approach leaves out Out-of-
Region spending by more than 11,000 visitors who spend some time at the Fair even if the Fair is not the primary reason for their visit to the region.

“Coincidental” and Revised Out-of-Region Visitors

Eventcorp Services Table “In-region spending by Out-of-Region Visitors Associated with attendance at 2018 Florida State Fair,” did not aggregate spending by visitors whose attendance at the Fair was coincidental to the timing and purpose of their visit to the Tampa Bay Area. As Crompton, Lee and Shuster (2001) argue, expenditures by groups who would have visited the area regardless of the Fair would have occurred without the event but at different times and places. As such, those authors would argue, those expenditures should be excluded from the study. However, since the Eventcorp Services survey’s spending questions are vague about the spending venue, TBRPC assumed the questions relate to spending at the Fair.

As such, TBRPC’s position is that the purpose of visits to Hillsborough is irrelevant because spending originating outside of the region does generate net employment and net economic benefits to Hillsborough County and the region. Therefore, TBRPC has re-tabulated the data from Eventcorp Services to include all 36,018 Out-of-Region visitors with the same fractional split between daytrippers and overnighters (31.7% to 68.3%), as shown in Table 6.7. Then, TBRPC compared the re-tabulated data to the market segmentation in Section 4.1 to cross-validate the consistency of TBRPC’s spending assumptions by Out-of-Region visitors and its various sub-categories. Total revised Out-of-Region Visitor spending was $48.1 million.

Table 6.7: Revised Out-of-Region Florida State Fair Visitor Aggregate Spending

<table>
<thead>
<tr>
<th>Spending Category</th>
<th>Average Spend</th>
<th>Aggregate Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging</td>
<td>$479.50</td>
<td>$11,727,369</td>
</tr>
<tr>
<td>Restaurants/Bars/Lounges</td>
<td>$223.17</td>
<td>$8,038,042</td>
</tr>
<tr>
<td>Grocery/Liquor Stores</td>
<td>$178.21</td>
<td>$6,418,818</td>
</tr>
<tr>
<td>Retail Spending</td>
<td>$180.98</td>
<td>$6,518,566</td>
</tr>
<tr>
<td>Transportation</td>
<td>$158.67</td>
<td>$5,714,919</td>
</tr>
<tr>
<td>Miscellaneous Spending</td>
<td>$269.74</td>
<td>$9,715,580</td>
</tr>
<tr>
<td>Total</td>
<td>$1,338.34*</td>
<td>$48,133,292</td>
</tr>
</tbody>
</table>

Table 6.7 was then entered into REMI PI+ as the Out-of-Region Visitor impacts. Results of the Out-of-Region Visitor economic impacts are provided in Table 6.8. Figure 6.2 maps how that spending at the Fair filtered through the entire state economy.

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Table 6.8: Out of Region Florida State Fair Visitor Economic Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>835</td>
<td>940</td>
<td>999</td>
</tr>
<tr>
<td>Gross Regional Product ( Millions)</td>
<td>$55.4</td>
<td>$63.6</td>
<td>$69.0</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$89.5</td>
<td>$103.1</td>
<td>$112.5</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$26.9</td>
<td>$39.4</td>
<td>$42.5</td>
</tr>
</tbody>
</table>

As shown in Figure 6.2, while visitor spending occurs primarily in Hillsborough County, the scale of that spending ‘spills over’ into surrounding counties, and indirectly raises spending in almost every county in the state of Florida.

Figure 6.2: Visitor Spending Impacts by Florida County
6.8 Local and Other Out-of-Region Visitor Spending Impacts

As described in the methodology, Eventcorp Services did not obtain spending data from local visitors. Nevertheless, TBRPC estimated the total number of local visitors. 309,068 unique Fair visitors less the 36,018 out-of-region visitors and 96,000 children means that the spending impacts of about 170,050 adult visitors are not accounted for in this study. Excluding local visitors from the analysis is consistent with economic theory that local visitor spending on the Fair is merely displaced spending on other activities in Hillsborough County and that in the counterfactual case of including those impacts would yield some exaggeration in the total economic impact of the Fair.

Even if we assume that local visitors spend some money at the Fair that they would otherwise not spend while staying in Hillsborough County, those local visitor impacts would be fairly small. For example, assuming local visitors spent $20 in excess of their average daily spending on one day at the Fair that increased economic output would only yield about 4 additional jobs, a minimal difference.

6.9 Combined Impacts

When the economic activities of the FSFA, vendors and out-of-region visitors are combined, TBRPC has calculated a total of **$63.2 million dollars in direct expenditures across all categories in Florida**. As Table 6.7 shows, about 78% of jobs created by the Fair are created in Hillsborough County but with substantial job impacts in other parts of the state of Florida. Hillsborough’s share of total Gross Regional Product generated by the Fair is slightly smaller (73.6%) and personal income is even smaller (62.0%).

Table 6.7: Summary of Combined Impacts

<table>
<thead>
<tr>
<th>2018 Impacts</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>1,028</td>
<td>1,170</td>
<td>1,315</td>
</tr>
<tr>
<td>Gross Regional Product (Millions)</td>
<td>$70.8</td>
<td>$80.3</td>
<td>$93.1</td>
</tr>
<tr>
<td>Output (Millions)</td>
<td>$115.5</td>
<td>$131.8</td>
<td>$152.6</td>
</tr>
<tr>
<td>Personal Income (Millions)</td>
<td>$35.7</td>
<td>$51.0</td>
<td>$58.4</td>
</tr>
</tbody>
</table>

Together, these indicators suggest that even with the majority of the Fair’s employees located within Hillsborough, most of the jobs created in Hillsborough are lower value (in terms of Gross Regional Product) and are paid less than the average of Fair related employment across the state ($34,735 versus $44,398). Some of that difference, however, can be attributed to rental and proprietary income.

In brief, these statistics underscore the key takeaways of Fair related spending—that visitor spending is driving Fair related employment within Hillsborough especially in food,
accommodations and retail sales, while Fair and vendor spending elsewhere in Florida relies more on professional services and higher value purchases and rentals generating relatively fewer jobs but at higher wages and proprietor income.

Another way of summarizing the Fair’s impacts is to compare the ratio of out-of-region visitor spending per dollar to the same impacts in Table 6.7. Forgetting for the moment that spending is also driven by local dollars (which are also excluded from the impacts), we calculate the ratio of out-of-region spending ($48 million) to Gross Regional Product and Personal Income. For each dollar spent by out-of-region visitors, Fair impacts yield $1.94 in increased statewide Gross Regional Product and an additional $0.22 in personal income. As Figure 6.3 shows, the Fair leads to the creation of at least 1 job in 29 counties around the state, with the greatest impacts focused on Hillsborough County and the I-4 corridor.

Figure 6.3: Total Job Impacts by Florida County
7. Conclusions

Generating more than $152 million in sales throughout Florida, the Florida State Fair’s economic footprint covers most of the state, as visitors spend money on travel, accommodations, food and various retail goods, adding at least $93 million to the state economy and more than $58 million in personal income.

With average incomes of $44,398 statewide, the Fair’s average personal income impacts are comparable if a little less than the state average wage of $46,562, according to the US Bureau of Labor Statistics (3rd Quarter, 2017). In terms of comparisons, this average wage is slightly higher than the average of workers in health care and social assistance.

Depending on a range of assumptions, TBRPC’s medium estimate of the Florida State Fair’s 2018 impacts on the Florida economy suggest that more than 1,300 jobs are created and sustained through the year by the overall impact of the Fair, if all Out-of-Region visitors are taken into account. Even if a significant share of Out-of-Region visitors and all local visitors are excluded, the Fair’s economic impacts create over 1,000 jobs.

In terms of relative size, if all of the jobs generated by the Florida State Fair were housed under one firm in Tampa, it would be one of the largest establishments in the city, at approximately 70th place (out of 21,000 other firms) in terms of total wages paid. However, the most important finding is that the Florida State Fair is truly a state fair, impacting the economy of nearly every county in the state.

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10 Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research. 2nd Quarter, 2017 Covered wages data. Countywide, the Fair would be the 110th largest Hillsborough employer under the same assumptions.
8. Glossary

**Counterfactual**: Contrary to fact. "what would have occurred if some observed characteristics or aspects of the processes under consideration were different from those prevailing at the time."\(^{11}\)

**Employment**: same as used by the U.S. Bureau of Economic Analysis, so it captures full-time, part-time and sole proprietors as one. Because employment is a stock concept, the results cannot be aggregated over multiple years. They should be only interpreted as the impact in the single year relative to base year.

**Gross Regional Product**: The sum of the gross values added of all resident, institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). The term is the same as Gross Domestic Product, reduced to a regional context.

**Output**: Gross sales.

**Personal Income**: aggregate of all sources of income to households across wages, supplemental income, rental income, and transfer payments.

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9. Appendices

9.1 Appendix A: Bivariate Correlations of Visitor Overall Enjoyment

Table 9.1: Bivariate Correlations of Visitor Overall Enjoyment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Enjoyment</th>
<th>Overall Value</th>
<th>Groceries</th>
<th>Shopping</th>
<th>Transportation</th>
<th>Misc Spending</th>
<th>Party Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.704**</td>
<td>.279**</td>
<td>.217*</td>
<td>.315**</td>
<td>0.114</td>
<td>-0.066</td>
</tr>
<tr>
<td>2-Tailed Sig.</td>
<td>0.000</td>
<td>0.005</td>
<td>0.028</td>
<td>0.001</td>
<td>0.236</td>
<td>0.457</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>130</td>
<td>129</td>
<td>101</td>
<td>103</td>
<td>106</td>
<td>109</td>
<td>130</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tampa Nights</th>
<th>Restaurants</th>
<th>Fair Food</th>
<th>Rides</th>
<th>Shopping</th>
<th>Animals and Ag</th>
<th>Live Entertainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>-0.148</td>
<td>0.161</td>
<td>-0.100</td>
<td>0.063</td>
<td>0.207</td>
<td>0.222</td>
<td>-0.164</td>
</tr>
<tr>
<td>2-Tailed Sig.</td>
<td>0.105</td>
<td>0.090</td>
<td>0.488</td>
<td>0.810</td>
<td>0.356</td>
<td>0.181</td>
<td>0.514</td>
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<tr>
<td>N</td>
<td>121</td>
<td>112</td>
<td>50</td>
<td>17</td>
<td>22</td>
<td>38</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: Florida State Fair, 2018; Eventcorp Services, 2018; TBRPC, 2019. *One-tailed significance. **Two-tailed significance
<table>
<thead>
<tr>
<th>Industry</th>
<th>Hillsborough</th>
<th>Tampa Bay</th>
<th>Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Industries</td>
<td>1,028</td>
<td>1,170</td>
<td>1,315</td>
</tr>
<tr>
<td>113-115 - Forestry, fishing, and hunting</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21 - Mining</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>22 - Utilities</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>23 - Construction</td>
<td>58</td>
<td>87</td>
<td>85</td>
</tr>
<tr>
<td>31-33 - Manufacturing</td>
<td>9</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>42 - Wholesale trade</td>
<td>11</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>44-45 - Retail trade</td>
<td>253</td>
<td>273</td>
<td>260</td>
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<tr>
<td>48,492-493 - Transportation and warehousing</td>
<td>71</td>
<td>74</td>
<td>79</td>
</tr>
<tr>
<td>51 - Information</td>
<td>5</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>52 - Finance and insurance</td>
<td>23</td>
<td>31</td>
<td>34</td>
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<tr>
<td>53 - Real estate and rental and leasing</td>
<td>15</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>54 - Professional, scientific, and technical services</td>
<td>28</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>55 - Management of companies and enterprises</td>
<td>10</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>56 - Administrative, support, waste management, and remediation services</td>
<td>34</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>61 - Educational services; private</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>62 - Health care and social assistance</td>
<td>23</td>
<td>37</td>
<td>42</td>
</tr>
<tr>
<td>71 - Arts, entertainment, and recreation</td>
<td>92</td>
<td>111</td>
<td>117</td>
</tr>
<tr>
<td>72 - Accommodation and food services</td>
<td>299</td>
<td>309</td>
<td>317</td>
</tr>
<tr>
<td>81 - Other services (except public administration)</td>
<td>70</td>
<td>60</td>
<td>166</td>
</tr>
<tr>
<td>NA - State and Local Government</td>
<td>22</td>
<td>27</td>
<td>28</td>
</tr>
</tbody>
</table>