

# Economic Impacts of Major League Baseball Spring Training in West Central Florida

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## Abstract

Due to the current environment of Major League Baseball teams seeking new stadiums and facilities from their current or prospective spring training host communities, we are interested in the impact of the entire industry on West Central Florida and the State of Florida. For this study, the industry consists of the nine MLB spring training operations including related activities such as instructional leagues, fantasy camps, minor league baseball, winter meetings, etc.

**What was measured?** This study measures the total economic impact of the nine MLB spring training operations in West Central Florida including related activities. The results of the study are presented in terms of impact of the nine operations on the State, Region, and Counties within the region.

**What was not measured?** This study does not estimate the fiscal impacts on individual communities. This was not done for two reasons. First, the econometric model used to evaluate the economic impacts is based on County level data<sup>1</sup>. Second, the purpose of the study is to evaluate the impacts of the industry, not individual teams.

*No attempt was made to place a value on the difficult-to-quantify value of intangible benefits. These benefits include exposure of the communities in the national media, civic pride as a host community, access to professional athletes for charitable events, and so forth. These and other non-pecuniary benefits of MLB spring training are very important factors in determining the net worth of a team to a community.*

**Methodology** Our methodology was straight forward. We estimated all of the expenditures associated with the spring training operations from the organizations and the fans. The expenditures were input into the Tampa Bay Regional Planning Council's (TBRPC) version of the Policy Insight<sup>®2</sup> econometric model. Policy Insight is a sophisticated computer model considered the best available tool to measure economic impacts.

**Presentation of results** The purpose of the written report is to summarize the results of the research and study of the economic impacts of the spring training industry in a concise manner. It is not intended to be a thesis on the topic. The power of the study lies with the use of the TBRPC version of the Policy Insight<sup>®</sup> econometric/policy impact model.

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<sup>1</sup> Methodologies exist to estimate the fiscal impact on specific communities. This may be explored in the future if commissioned by the communities to do so.

<sup>2</sup> Produced by Regional Economic Models, Inc. (REMI) of Amherst, Massachusetts.

## Summary of the Impacts

The nine MLB spring training operations conducted within West Central Florida generate the following impacts:

### Economic Impacts of MLB Spring Training in West Central Florida All Figures in 1999 Millions except Employment

|  | <i>Florida</i> | <i>Region</i> | <i>Average<br/>Generated/Team</i> |
|--|----------------|---------------|-----------------------------------|
| <b>Direct Spending</b><br>Teams and Fans               | 144.5          | 136.7         | 16.9                              |
| <b>Employment</b>                                      | 3,255          | 2887          | 361                               |
| <b>Personal Income</b>                                 | 96             | 84            | 11                                |
| <b>Demand</b><br>for Goods and Services                | 275            | 237           | 31                                |
| <b>Output</b><br>of goods and Services                 | 227            | 199           | 25                                |
| <b>Imports</b><br>of goods and Services                | 133            | 117           | 15                                |
| <b>Locally supplied</b><br>goods and services          | 141            | 120           | 15                                |
| <b>Self Supply</b> percentage<br>of Goods and Services | 52%            | 51%           | -                                 |
| <b>GRP</b><br>Gross Regional Product                   | 132            | 116           | 14.6                              |

Source: TBRPC and REMI, 1999

### “SAY”

- ➔ Total impact of the nine teams on Florida’s economy is \$227 million.
- ➔ Impact on West Central Florida is \$199 million.
- ➔ Average team generates \$16 million in direct expenditures
- ➔ Average impact of a team is over \$25 million after indirect and induced effects.
- ➔ An average spring training operation creates over 360 jobs.

## **Overview of Spring Training Operations**

Each of the nine teams that conduct spring training operations in West Central Florida operate in a slightly different manner. Some have minor league teams, some don't. Some conduct winter meetings, some don't. Some host fantasy camps, some don't. However, there are more similarities than differences. A major determinant on the economic impact of the operation of the team on the local economy is attendance. The teams with better attendance have a greater economic impact on their communities.

### Spring Training Season

Spring training opens in early to mid-February each year with players and personnel reporting to camp. The roster of players includes major and minor league players. The Grapefruit League season consists of 30 days in March. Each team hosts approximately 15 games and travels to 15 games. Once the major leaguers break camp to open their regular season, the minor league players and coaches remain in town until mid-May or early June.

### Players and Personnel

There are around 200 major/minor league players, over 30 coaches, and 10-15 office personnel in camp.

### Additional Activities

In addition to the traditional rites of spring, the teams host extended spring training for minor leaguers, instructional leagues, winter meetings, fantasy camps, and the like. The expenditures related to these activities have been included in this analysis. Also, the estimated expenditures of the additional party members that accompany players and coaches to spring training have been accounted for in the study.

### Spring Training Expenditures

The average team spends around \$1.5 million on the operations and personnel referenced above. These expenditures go toward lodging, food and beverages, transportation, non-durable goods, utilities, and services. These expenses also include facilities maintenance. The facilities may be maintained by the team or the host community. Facility operation costs have been factored into the analysis.

### Media Expenditures

Spring Training is covered extensively by the national media. The typical team has 20 to 30 members of the media covering its activities throughout the spring season. These media members are around for about 35 days with some in town from early February to early April.

## Florida State League

Six of the nine teams field Class A minor league teams in the Florida State League. The season features 140 games (70 home/70 away). The operation and fan expenditures for these activities have been factored into this analysis. It is reasonable to assume that many of the teams would cease to exist if their parent teams halted their accompanying spring operations.

### **Spring Training Attendance Statistics 1996 - 1999** (Listed by Attendance Rank)

| <b>Team</b>           | <b>City</b>    | <b>County</b> | <b>Avg attend.<br/>1996-99</b> | <b>Stadium<br/>Capacity</b> | <b>FSL</b> |
|-----------------------|----------------|---------------|--------------------------------|-----------------------------|------------|
| New York Yankees      | Tampa          | Hillsborough  | 10,132                         | 12,000                      | Yes        |
| Cleveland Indians     | Winter Haven   | Polk          | 5,200                          | 7,000                       | No         |
| Detroit Tigers        | Lakeland       | Polk          | 5,120                          | 7,027                       | Yes        |
| Philadelphia Phillies | Clearwater     | Pinellas      | 4,719                          | 7,350                       | Yes        |
| Tampa Bay Devil Rays  | St. Petersburg | Pinellas      | 4,597                          | 6,438                       | Yes        |
| Cincinnati Reds       | Sarasota       | Sarasota      | 3,800                          | 7,500                       | Yes        |
| Pittsburgh Pirates    | Bradenton      | Manatee       | 3,613                          | 4,800                       | No         |
| Toronto Blue Jays     | Dunedin        | Pinellas      | 3,525                          | 6,086                       | Yes        |
| Kansas City Royals    | Baseball City  | Polk          | 2,845                          | 8,000                       | No         |

Source: Florida Sports Foundation

### **Fan Expenditures**

Various sources indicate that 60% of the fans in attendance at spring games are non-residents (visitors to region). These visitors spend an average of \$90 to \$100 per day in addition to ticket purchases. The average visitor takes in three games and stays three days for each game he/she attends. We have factored the three-day stay per game attended in the fan expenditures used in the study. Resident fans account for 40% of the attendance and typically spend \$12-\$15 dollars in addition to the purchase of the game ticket.

The typical visitor leases lodging for a short term or long term stay. Some of the visitors are seasonal residents that would relocate if their team were to relocate. Some of the visitors stay with friends or relatives. The largest component of visitor expenditures are lodging and food and beverages. Additional money is spent on non-durables and transportation.

Fan expenditures are the driving force behind the spring training economic impacts. Therefore, the larger attendance a team has, the greater its economic impact.

## Economic Impacts

The impact of spring training operations on West Central Florida and the State of Florida are considerable. The summary table in the front of the report illustrates the big picture. The following table breaks the results down in more detail by State, Region, and County.

### Economic Impacts of MLB Spring Training Operations Conducted in West Central Florida<sup>3</sup>

All Figures in 1999 Millions except Employment

|                        | Florida <sup>4</sup> | Region <sup>5</sup> | Hillsborough | Manatee | Pinellas | Polk  | Sarasota |
|------------------------|----------------------|---------------------|--------------|---------|----------|-------|----------|
| Employment             | 3255                 | 2887                | 673          | 230     | 975      | 628   | 245      |
| GRP (Mil \$)           | 132.06               | 115.92              | 28.72        | 8.29    | 38.26    | 23.93 | 9.30     |
| Pers Inc (Mil Nom \$)  | 96.10                | 83.50               | 19.34        | 6.41    | 27.05    | 16.22 | 6.78     |
| Disp Pers Inc (Mil \$) | 62.88                | 54.87               | 12.56        | 4.35    | 17.50    | 10.77 | 4.14     |
| Labor Force            | 618                  | 539                 | 117          | 43      | 166      | 108   | 42       |
| Demand (Mil \$)        | 275.07               | 237.32              | 53.26        | 17.68   | 81.96    | 50.91 | 22.56    |
| Output (Mil \$)        | 227.20               | 198.63              | 49.26        | 14.15   | 64.10    | 41.18 | 15.70    |
| Imports (Mil \$)       | 133.36               | 116.89              | 27.75        | 12.24   | 48.40    | 33.87 | 14.77    |
| Self Supply (Mil \$)   | 141.71               | 120.42              | 25.52        | 5.44    | 33.55    | 17.03 | 7.79     |
| Self Supply %          | 52%                  | 51%                 | 48%          | 31%     | 41%      | 33%   | 35%      |

The total economic activity related to the nine team operations studied is expressed by the \$275 million of demand generated. \$237 million of this demand occurs within the region. The economic variable that best states the amount of activity within the region is the output measure of \$199 million. This means that \$199 million worth of goods and services were produced or imported into the region. \$117 million were supplied locally (the region). Hillsborough County has the highest percentage of goods/services produced locally to satisfy demand. This is to be expected because of the size and diversity of the economy. Manatee County has the lowest rate of self supply, meaning it imports more of the goods/services needed to satisfy demand than any other county.

Employment generated by spring training is approximately 2,887 jobs within the region. Spring Training adds more than \$83 million to the personal income of the region's population. The Gross Regional Product of the Region is enhanced by \$116 million annually. This can be thought of as the bottom line of "net profit" to the Region after all the intermediate goods and imports are paid for. GRP represents the value added concept and depicts compensation and profits to the Region's businesses and workers.

It should be noted that the majority of the extra-regional benefits (State - Regional) accrue to the Orlando metropolitan area. This is due to proximity and the concentration of the hospitality industry in Orlando.

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<sup>3</sup> Note: The glossary of this report contains definitions to the economic terms referenced.

<sup>4</sup> This is the West Central Florida teams' impact on the state and doesn't include the state's other teams' impacts.

<sup>5</sup> Also includes Hernando and Pasco Counties in addition to those listed.

## Methodology

The expenditures of the MLB spring training operations and the fan expenditures were estimated and input into the REMI Policy Insight® model. The following table summarizes the variables and their amounts that were input into the model.

| <b>REMI Variable</b>                      | <b>Hillsborough</b> | <b>Manatee</b>      | <b>Pinellas</b>     | <b>Polk</b>         | <b>Sarasota</b>      |
|---|---------------------|---------------------|---------------------|---------------------|----------------------|
| Lodging                                   | \$10,866,906        | \$4,572,521         | \$17,507,047        | \$12,671,619        | \$4,980,681          |
| Food & Bev (residents)                    | \$1,287,120         | \$281,814           | \$1,899,348         | \$1,326,120         | \$595,650            |
| Food and Bev (non-residents)              | \$7,800,477         | \$3,417,709         | \$12,846,694        | \$10,014,349        | \$3,595,773          |
| Other non-Durables (res)                  | \$680,119           | \$143,286           | \$1,564,945         | \$839,569           | \$512,570            |
| Other non-Durables (non-res)              | \$5,896,685         | \$2,658,294         | \$9,526,162         | \$7,615,262         | \$2,763,046          |
| Transportation                            | \$444,777           | \$282,410           | \$921,068           | \$657,146           | \$298,366            |
| Wages                                     | \$650,000           | \$650,000           | \$1,950,000         | \$1,950,000         | \$650,000            |
| Machinery/computers/etc.                  | \$81,054            | \$71,054            | \$348,161           | \$318,161           | \$71,054             |
| Utilities                                 | \$160,000           | \$160,000           | \$480,000           | \$480,000           | \$160,000            |
| <b>Total</b>                              | <b>\$27,867,138</b> | <b>\$12,237,088</b> | <b>\$47,043,425</b> | <b>\$35,872,226</b> | <b>\$13,627,139</b>  |
| Sub Total Region                          |                     |                     |                     |                     | \$136,647,016        |
| Other (Orlando Metro)                     |                     |                     |                     |                     | \$7,877,701          |
| <b>Grand Total of Direct Expenditures</b> |                     |                     |                     |                     | <b>\$144,524,717</b> |

# An Overview of REMI Policy Insight®

## What Is REMI Policy Insight®?

Founded in 1980, Regional Economic Models, Inc. (REMI) constructs models that reveal the economic and demographic effects that policy initiatives or external events may cause on a local economy. REMI model users include national, regional, state and city governments, as well as universities, nonprofit organizations, public utilities and private consulting firms.

REMI Policy Insight®, the newest version of REMI's software, combines years of economic experience with an easy-to-use software interface. A major feature of REMI 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. The model is sensitive to a very wide range of policy and project alternatives and to interactions between the regional and national economies. By pointing and clicking, you can answer the toughest "What if...?" questions about federal, state, local or regional economies. REMI is dedicated to continuing economic research combined with quality customer service and support.

## Model Introduction

TBRPC's version of REMI Policy Insight® includes a REMI model that has been built especially for the Tampa Bay Region. The model-building system uses hundreds of programs developed over the past two decades to build customized models for each area 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 includes 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.

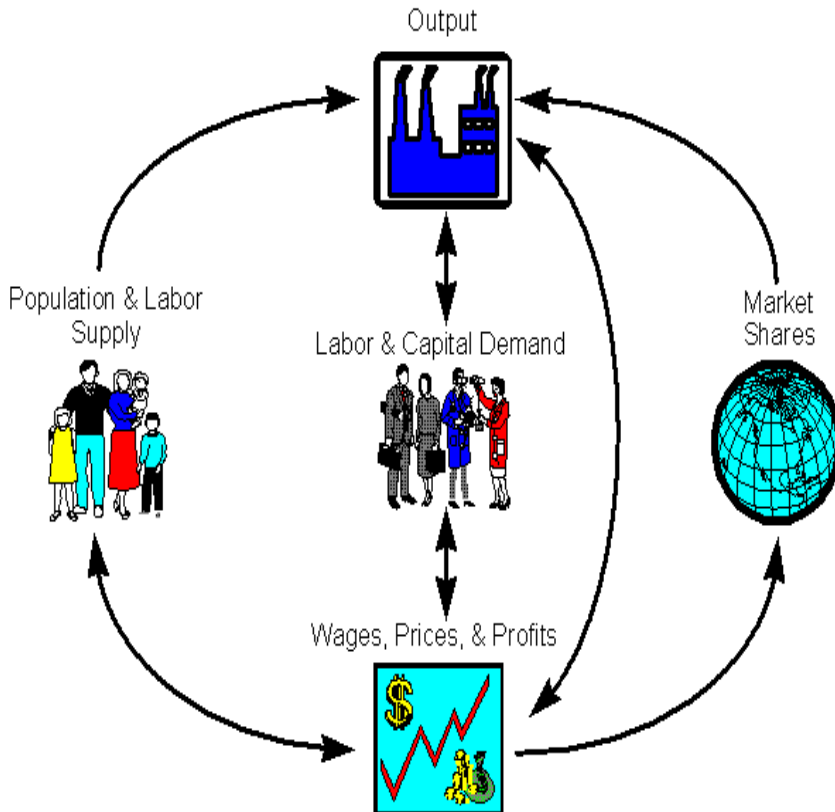
Supply and demand for labor in the model determine the wage rates. These wage rates, along with other prices and productivity, determine the cost of doing business for every industry in the model. An increase in the cost of doing business causes either an increase in price or a cut in profits, depending 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.

### Model Overview

Below is a pictorial representation of the model. The Output block shows a factory 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 the figure.

In order to broaden the model in this way, 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 two 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.

## Glossary

Demand - The amount of goods and services demanded by the local region; demand equals imports plus self supply.

Exports - The amount of local production exported out of the local region, i.e. to the rest of the US and the rest of the world.

Imports - The amount of goods and services produced outside the area and consumed locally; a component of demand.

Induced Effects - Economic effects resulting from the re-spending of wages, i.e., new employees have money to spend. Explains why the demand is higher than the direct expenditures.

Self Supply - The amount of local demand supplied locally; equals the Regional Purchase Coefficient multiplied by Demand.

Personal Income - This is a concept based on place of residence; the sum of wage and salary disbursements, other labor income, proprietors' income, rental income, personal dividend income, personal interest income, and transfer payments, less personal contributions for social insurance. Reported as a nominal dollar concept.

Output - The amount of production in dollars, including all intermediate goods purchased as well as value-added (compensation and profit). Can also be thought of as sales.  $Output = Self-Supply + Exports + Intraregional Trade + Exogenous Production$ .

### Gross Regional Product

Gross Regional Product as a value added concept is analogous to the national concept of Gross Domestic Product. It is equal to output excluding the intermediate inputs. It represents compensation and profits.

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