



## 2016 HERNANDO COUNTY SCHOOL DISTRICT ECONOMIC IMPACT STUDY



Tampa Bay Regional Planning Council  
Economic Analysis Program

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

## About the 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 REMI PI+ and IMPLAN, 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.

## Acknowledgements

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## Introduction

At the request of the Hernando County School District, the Tampa Bay Regional Planning Council conducted a study of the economic impacts of the District's work force and capital improvement program.

The District employs 3,008 personnel in a variety of positions in teaching, administration, and other support staff. The payroll for the District in 2015 was \$104,941,494. The District also maintains a 5-Year Capital Improvements Plan (CIP). The CIP includes \$2.8 million in budgeted projects for fiscal year 2015, and \$39 million in projects through 2019, or an average of \$9.8 million per year, in maintenance, repair and upgrades and new construction.

## Summary of Economic Impacts

Table 1 summarizes the economic impacts of School District Direct Employment.

**Table 1**

Summary of Economic Impacts of School District Direct Employment			
Category	Units	2015	
		<i>Hernando</i>	<i>Florida*</i>
<b>Direct Employment</b>	Full Time Equivalents (Jobs)	3,008	---
<b>Indirect Employment</b>	Full Time Equivalents (Jobs)	865	2,092
<b>Total Employment</b>	Full Time Equivalents (Jobs)	3,873	5,100
<b>Gross Regional Product</b>	Millions of Nominal (2015) Dollars	222	323
<b>Personal Income</b>	Millions of Nominal (2015) Dollars	164	249

\*Cumulative impacts for Hernando County and all other Florida counties.

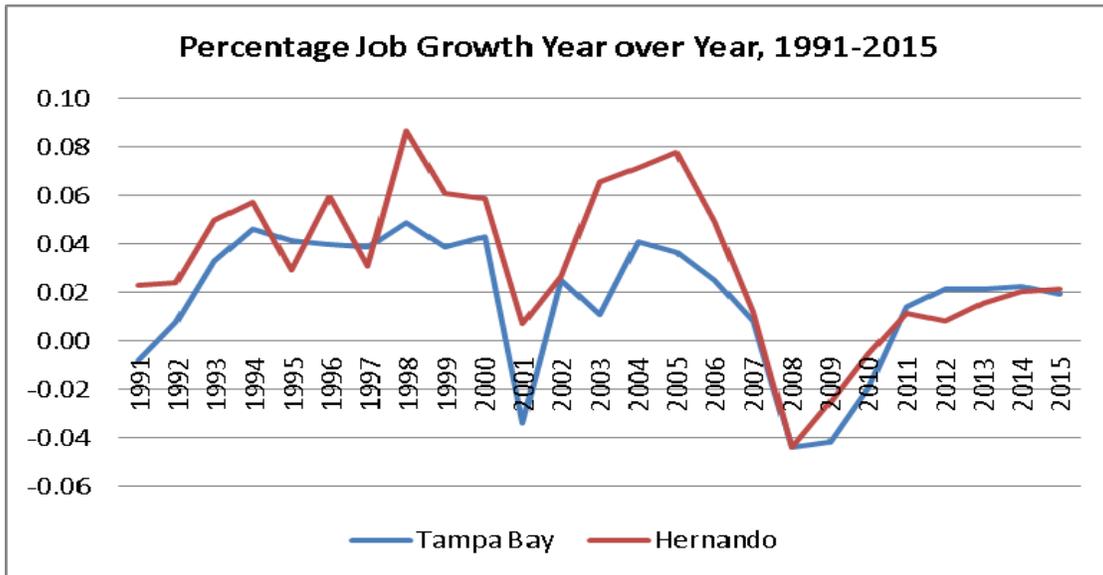
While BEBR (the Bureau of Economic and Business Research) estimates Hernando County's 2015 population at 176,819, REMI PI+ estimates Hernando County's 2015 population at 174,963 with a total employment at 61,220. With a labor force of 62,444, unemployment in the county is low. Overall, Hernando County's share of the Tampa Bay Area's regional employment<sup>1</sup> has remained small, accounting for 2 percent of total regional employment in 1990 (28,400 of 1.2 million) and only 3 percent in 2015 (61,000 of 1.8 million). As the chart on the next page shows, job growth in the county has largely tracked that of the Tampa Bay Region, but has been faster than the rest of the region, growing by 54 percent compared to 34 percent between 1990 and 2015.

Average private sector non-farm compensation in the county for 2015 is \$22,542, compared to \$36,883 across the Tampa Bay Area. As such, the average compensation of School District employees, \$34,887, raises the average wage in the County even though the District only comprises 5 percent of the total employment of Hernando County.

There are few other large employers in Hernando County aside from a large Walmart Distribution Center and the Hernando Airport Industrial Park. Since large employers often have

<sup>1</sup> The Tampa Bay Area includes Citrus, Hernando, Hillsborough, Manatee, Pasco, and Pinellas Counties.

significant capital programs, the construction impacts of the District’s Capital Improvement Program (CIP) are also analyzed in the study. However, because the CIP varies significantly from year-to-year and comprises a different set of activities from the routine operation of the District, construction impacts are calculated separately from the annual impact of School District payroll. In this study, the Council estimates the overall impact of the School District on the Hernando County economy from both employment and the CIP.



### Components of the Economic Impact Study

The study describes the economic effects of School District activities across five economic categories. Direct employment is the total number of employees that are employed by the School District. Indirect employment is all of the employment generated by fulfilling demand created by School District purchasing of goods and services, and household demand. Total employment is simply the sum of direct and indirect employment.

Gross Regional Product is 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. Personal income is the aggregated income of total employment.

The following piechart depicts the percentage of indirect jobs created in Hernando County by industry. One way of reading the chart is that for every 100 direct jobs created by the School District, 22 jobs are created in retail trade, 14 jobs are created in health care, and so on.

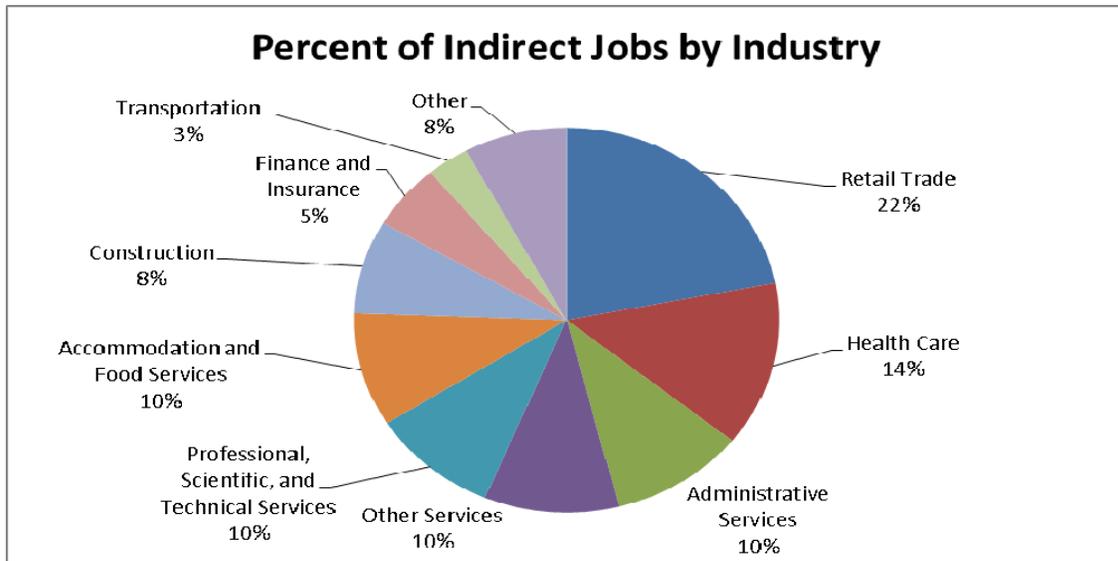


Table 2 summarizes the jobs that are created in Hernando County in a given year by the ongoing operations of the School District. Indirect jobs are broken down by industry in the Table.

**Table 2**

Industry	Jobs
<b>Direct Jobs (School District)</b>	<b>3,008</b>
Indirect Jobs	
<b>Breakdown of Indirect Jobs</b>	<b>865</b>
Retail Trade	189
Health Care and Social Assistance	119
Administrative and Waste Management Services	88
Other Services, except Public Administration	88
Professional, Scientific, and Technical Services	84
Accommodation and Food Services	82
Construction	67
Finance and Insurance	48
Transportation and Warehousing	28
Real Estate and Rental and Leasing	16
Mining	10
Wholesale Trade	9
Management of Companies and Enterprises	9
Manufacturing	7
Information	7
Forestry, Fishing, and Related Activities	5
Arts, Entertainment, and Recreation	5
<b>Total</b>	<b>865</b>

Table 3 summarizes the economic impacts of the School District’s Capital Improvements Program.

**Table 3**

<b>Summary of Economic Impacts of School District Capital Investment Programming</b>					
<b>Category</b>	<b>Units</b>	<b>2015 Budgeted</b>		<b>Average Annual Impact 2016-2019</b>	
		<i>Hernando</i>	<i>Florida*</i>	<i>Hernando</i>	<i>Florida*</i>
<b>Total Employment</b>	Full Time Equivalents (Jobs)	109	131	362	442
<b>Gross Regional Product</b>	Millions of Nominal (2015) Dollars	2.0	4.0	8.5	16.0
<b>Personal Income</b>	Millions of Nominal (2015) Dollars	3.0	5.0	1.5	20.5

\*Cumulative impacts for Hernando County and all other Florida counties.

### Conclusions

The Hernando County School District is an important economic driver in Hernando County beyond its role in adding value to the local economy through educating the County’s students. As Table 2 shows, the range of industries that are influenced by the School District’s activities is impressive.

The employment multiplier for the Hernando County School District is 1.28. That means that for every 100 School District jobs, 28 more jobs are created in the Hernando County economy because of demand for goods and services by the District or by employee household demand. For every dollar the district spends on ongoing operations, 56 additional cents are created in Hernando County as personal income.

Ongoing construction also provides a positive contribution to the Hernando and State economies. In Hernando, every million dollars spent on construction generates about 54 jobs, while statewide every million dollars generates about 65 jobs.

## 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 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. 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. 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.

## Model Introduction

Tampa Bay Regional Planning Council’s REMI Policy Insight includes a REMI model that has been built especially for the Tampa Bay region version of the model and a state model. 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.

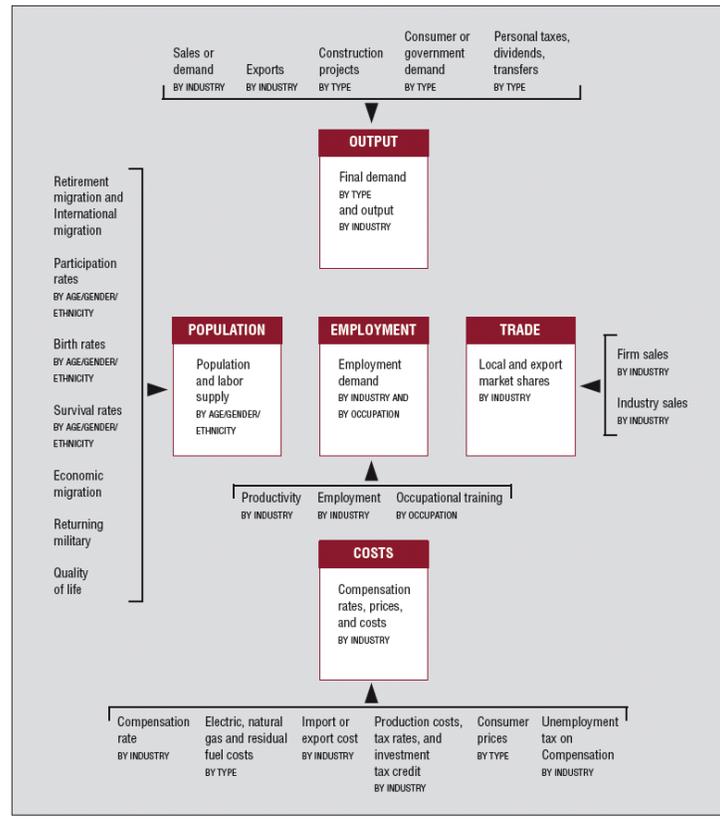
In the model, businesses produce goods to sell to other firms, consumers, investors, governments and purchasers outside the region. The output is produced using labor, capital, fuel and intermediate inputs. The demand for labor, capital and fuel per unit of output depends on their relative costs, since 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

A pictorial representation of the model is below. 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

**Employment:** Full-Time Equivalent (FTE) compensated labor.

**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.

**Personal Income:** Compensation to employed labor.

**Value Added:** revenue less outside purchases (of materials and services).