

INTRODUCTION

THIS IS AN UPDATE OF A PREVIOUS STUDY. This study, like its 1996 predecessor, looks at the economic impact of agriculture and agribusiness to Hillsborough County.

The study also analyzes fiscal impacts (of or relating to government expenditures, revenues and debt). It compares the revenues generated and expenses incurred by rural, agricultural land uses to other types of land use in Hillsborough County.

The 1996 study stated in its introduction that:

The decisions made today will shape the appearance, environmental quality and economy of Hillsborough County tomorrow. Once made, these decisions cannot be undone.

The statement is still true. It has been proven by a decade of decisions that, having been made, now will be very difficult, if impossible to undo.

Take, for instance, the changes in land use over the past eight years in unincorporated areas of the county, and the settlement patterns and infrastructure investments that have resulted. Is the approach being taken fiscally and economically sound? Or is there a better approach?

The purpose of this study is to help answer those questions, and provide better information with which Hillsborough County can assess options and make decisions for the future. This study was commissioned by the Hillsborough County Agriculture Industry Development Program (see description, page 2). This study reports:

The total economic output of Hillsborough County broken down by industry ("output" is defined as the gross market value of goods and services),

The economic impacts of agriculture and agribusiness on the county,

The fiscal impacts of various types of land uses on the revenues collected and expenses incurred by county government and the county school district (in this case, each land use is viewed as a separate economic activity), and

The opportunity cost – or value gained or foregone – when one land use is converted to another.

The results of these analyses are reported on the following pages.

HILLSBOROUGH COUNTY'S AGRICULTURE INDUSTRY DEVELOPMENT PROGRAM

THE HILLSBOROUGH COUNTY AGRICULTURE INDUSTRY DEVELOPMENT PROGRAM is a component of the Hillsborough County Economic Development Department. The program works under the guidance of the Agriculture Economic Development Council, comprised of agribusiness, local chambers of commerce, government, industry, and business leaders.

Purpose of the Agriculture Industry Development Program is to initiate and assist with efforts to create a business atmosphere that is conducive to the continuation and expansion of agricultural businesses within Hillsborough County for the benefit of all residents.

Major goals of the Agriculture Industry Development Program are to:

- Discourage the premature conversion of productive farmland to non-agricultural use.

- Minimize the impact of the regulatory process on agriculture's ability to conduct business, while still achieving the goals of those regulations.

- Improve the economic sustainability of agriculture in Hillsborough County through increased marketing options, alternative crops, value-added processing, capital financing opportunities, and identification of barriers to the expansion or sustainability of agriculture.

- Promote the expansion and relocation of agribusiness firms to Hillsborough County.

For more information about the Agriculture Industry Development Program call:
Stephen Gran, Agriculture Industry Development Manager (813) 272-5506.

The Agriculture Industry Development Program is part of the Hillsborough County Economic Development Department. Offices are located at:

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QUICK FACTS

HERE ARE SOME QUICK FACTS, BASED ON THE FINDINGS OF THIS STUDY:

Agriculture is the second largest industry in Hillsborough County.¹

Hillsborough County covers a land area of 1,051 square miles; 34% of that area is agricultural land.²

Hillsborough County has 2,969 farms, the 2nd largest number of any county in the state – and the 20th highest in the nation.³

Hillsborough County is among the top 2% of agricultural counties in the nation.⁴

The total value of agricultural products sold places Hillsborough 3rd among Florida's 67 counties (behind Palm Beach and Dade counties). Of 3,078 U.S. counties, Hillsborough ranks 45th in the value of agricultural products sold.⁵

- ✓ Hillsborough County farms, ranches and agricultural operations produce \$668 million in total annual sales.⁶
- ✓ The county produces:
 - 90% of the strawberries in Florida and 14.2% of the strawberries in the nation.⁷
 - 34% of the commercially-grown fish – and 62% of the tropical fish – produced in Florida, making the county the 9th largest producer of commercially-grown fish in the nation.⁸
 - Almost 11% of Florida's tomatoes, and 4% of the tomatoes grown in the U.S.⁹

The amount of land in agricultural production has decreased dramatically over the past 30 years; however, because the county has many high value crops that require little acreage, the value of production has more than doubled in constant dollars.¹⁰

Agriculture production and the businesses which support the industry have an economic impact to the community of:

- ✓ \$1.4 billion in annual sales;
- ✓ 20,122 jobs; and
- ✓ \$293 million in payroll.¹¹

SUMMARY OF FINDINGS TABLE

Hillsborough County, Florida

*Total Economic Output & Agricultural Economic Impact calculations
are based on most recent available and verifiable data.*

Calculations completed December 2004.

PART 1: ECONOMIC OUTPUT - ALL INDUSTRIES

	<u>Output</u>	<u>Employment</u>	<u>Payroll</u>
TOTAL (all sectors):	\$ 82.3 billion	600,753	\$ 16.0 billion
FOOD & FIBER:	\$ 18.6 billion	155,670	\$ 2.4 billion

PART 2: ECONOMIC IMPACT OF AGRICULTURE & AGRIBUSINESS

	<u>Output</u>	<u>Employment</u>	<u>Payroll</u>
DIRECT:			
<i>Agricultural Production</i>	\$668 million	10,546	\$123 million
<i>Agricultural Services</i>	\$222 million	4,585	\$ 69.7 million
<i>Equine Activities</i>	\$227 million	NA	NA
<i>Agricultural Processing</i>	\$894 million	4,437	\$180 million
<i>Agricultural Wholesale</i> (sales margin)	\$635 million	5,215	\$172 million
INDIRECT & INDUCED:			
<i>Agricultural Production</i>	\$538 million	4,878	\$ 97 million
<i>Agricultural Services</i>	\$ 9.5 million	113	\$ 2.9 million
<i>Equine Activities</i>	\$112 million	not available	not available
<i>Agricultural Processing</i>	\$524 million	6,667	\$226 million
<i>Agricultural Wholesale</i>	\$330 million	5,744	\$126 million

	<u>Output</u>	<u>Employment</u>	<u>Payroll</u>
TOTAL IMPACT:			
<i>Agricultural Production</i>	\$ 1.2 billion	15,424	\$220 million
<i>Agricultural Services</i>	\$ 232 million	4,698	\$ 73 million
<i>Equine Industry</i>	\$ 339 million	not available	not available
<i>Agricultural Processing</i>	\$ 1.42 billion	11,104	\$405 million
<i>Agricultural Wholesale</i>	\$ 965 million	10,959	\$297 million

POTENTIAL LOSS IF HILLSBOROUGH COUNTY AGRICULTURE WAS TO DISAPPEAR:

<i>Agricultural Production & Agricultural Services</i>	\$ 1.4 billion	20,122	\$293 million
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PART 3: COMMUNITY REVENUES & EXPENSES

Shows the impacts of different land uses on the revenues generated and the expenses incurred for providing necessary public services:

	<u>% of Total REVENUES Generated</u>	<u>% of Total EXPENSES Incurred</u>	<u>Ratio of REVENUES to EXPENSES</u> <u>Generated</u> : <u>Incurred</u>
RESIDENTIAL:	76.1%	93.7%	\$1.00 : \$1.29
COMMERCIAL:	14.9%	5.1%	\$1.00 : \$0.36
INDUSTRIAL:	4.3%	0.8%	\$1.00 : \$0.21
AGRICULTURAL RELATED:	0.8%	0.2%	\$1.00 : \$0.25
VACANT:	2.6%	0.1%	\$1.00 : \$0.05
OTHER:	1.5%	0.1%	\$1.00 : \$0.05

PART 4: OPPORTUNITY COST ANALYSIS

Shows potential differences in the values gained or foregone when one land use is converted to another.

	Economic Contribution over 50 years/acre	Present Value
Residential Construction & Resale	\$1,417,356	\$ 972,019
Total Agriculture	\$ 466,709	\$ 125,385
Citrus	\$ 179,930	\$ 48,339
Vegetables	\$1,192,589	\$ 320,398
Aquaculture	\$4,031,194	\$1,083,011
Strawberries	\$4,366,801	\$1,173,174
Ornamentals	\$7,724,876	\$2,075,346

ABOUT THIS STUDY

THIS STUDY CONSISTS OF FOUR ANALYSES:

1. *The Total Economic Output of Hillsborough County by Industry,*
2. *The Economic Impacts of Agriculture & Agribusiness,*
3. *The Community Revenues & Expenses Generated by Agriculture & Agribusiness Compared with Other Land Uses, and*
4. *Opportunity Cost – the Value Gained or Foregone When Land is Converted from One Use to Another*

All data in this study was drawn from the most recent, available and verifiable source documents and sources. All sources are footnoted and shown in the Endnotes to this study. They also are cited in footnotes to the spreadsheets in the text and the Appendix.

The study followed a five-step process – the compilation, calculation, review, verification and finalization of data – from August to December 2004. All findings are as of December 2004.

The first section this study, the **Total Economic Output by Industry**, shows the direct economic output (business revenues), employment, and payroll for each industry segment. These numbers demonstrate the order of magnitude of each industry's economic contribution to the county. The analysis uses data from the Economic Censuses, which include: Census of Retail Trade; Census of Wholesale Trade; Census of Service Industries; Census of Financial, Insurance, and Real Estate (FIRE); Census of Transportation, Communications, and Utilities; Census of Manufactures; Census of Mineral Industries; and Census of Construction Industries.

The **Economic Impact** section presents the value contributed to the overall county economy by *agriculture & agribusiness*. The results are shown as the "economic impacts" of *agriculture & agribusiness*. This refers to the amount of economic activity that is **directly** and **indirectly** produced by an industry. The economic impact looks at three factors: output or sales (in dollars), employment (number of jobs), and earnings (payroll). Other information presented includes: federal income tax generated by employees, property tax generated and the value of capital investment.

The numbers in this section were calculated by taking cash receipts figures (or output) for the value of products exported out of the county (see pages 42 to 45 for a more detailed explanation of why exported value was used).

Figures for farm-gate receipts were supplied by the Hillsborough County Cooperative Extension Service and Hillsborough County Economic Development Department.

Numbers for the Equine Industry output were based on data from a variety of sources (for more detail, see pages 24 and 47). Employment and payroll figures were supplied by the Florida Department of Labor. Other output figures were taken from U.S. Census information.

To calculate economic impact, these figures were multiplied by *Regional Economic Multipliers*, provided by the U.S. Department of Commerce, Bureau of Economic Analysis. This multiplier is applied only to sales outside the county, not to local sales that are generated within the county.

This multiplier accounts for the *indirect* impacts (such as sales of fertilizers and equipment to growers) and *induced* impacts (such as spending by employees) that result when money brought in from outside the county is spent locally.

The *indirect* and *induced* impacts that result from agricultural industry sales were calculated by multiplying the numbers for the *direct* cash sales of agricultural produce and manufactured products by the most recently available *Regional Economic Multipliers* computed for Florida by the U.S. Department of Commerce, Bureau of Economic Analysis. The multipliers are calculated using the Regional Input-Output Modeling System (RIMS II).

The basis of the RIMS model is a transactions table showing the distribution of sales and the pattern of purchases for each sector of the economy. For each sector, the transactions table reflects the dollar value of sales to every other sector and the dollar value of purchases from every other sector. In effect, the table provides a picture of interactions between sectors in the Hillsborough County and Florida economies and allows the flow of dollars to be traced through the economy.

This information allows the calculation of multipliers that can be used to assess the total contribution of a particular sector to the county economy.

For example, the output multiplier for agricultural products that are sold outside Hillsborough County -- such as strawberries, oranges, tomatoes and cucumbers -- is 1.8563. This means that a one dollar increase in sales outside the county by the fruit and vegetable industry will have a total impact on the county of almost \$1.86. This total includes the initial sale of \$1.00 plus an additional \$0.86 in indirect and induced effects.¹²

The **Community Revenues & Expenses** (CRE) section analyzes the costs of services provided by the county and schools to each of six types of land uses: *Residential*, *Commercial*, *Industrial*, *Agriculture Related*, *Vacant* and *Other* and then compares these expenses to the revenues contributed by each land use. ("Revenue" represents all operating funds for county government and schools and includes property taxes, fees, state and federal aid and other taxes. For a list of revenue items, see pages C-5 through C-9 in the Appendix).

The results of this analysis are reported, first, with the revenues and expenditures of each

land use category shown as a percent of the total and, second, as ratios. The ratios show the relationship between revenues and expenditures for each land use category by comparing the amount spent for each land use to every \$1.00 contributed in revenue. For example, this study found that \$1.29 is spent by Hillsborough County government and schools on residential land uses for each \$1.00 contributed in revenue.

The results of this section were calculated by taking the actual 2003 revenues and expenses reported in the Hillsborough County *Annual Budgets for FY03, Volume II, Operations and Funding Guide* and the *Report on Audit of the Hillsborough County District School Board*. These revenues and expenses were then allocated to land uses based upon the allocation methods shown in the Appendix on page C-1. The sums of all revenues for each land use category was compared to the sum of all expenses for each land use category and the results were presented as a ratio.

The **Opportunity Cost** section computes the direct and indirect output of some of the major agricultural products per acre and of residential development by using the *Regional Economic Multipliers* and then extending the results over time to show the relative long term and present value of each use in order to demonstrate the loss or gain to the economy when an acre of agricultural land is converted to residential use.