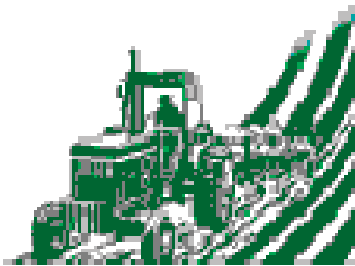

**THE CONTRIBUTION OF
AGRIBUSINESS TO
POLK COUNTY, FLORIDA**

SUPPLEMENT 2

Comparisons Between the 1999 and 2005 Studies



January 2006

**THE CONTRIBUTION OF
AGRIBUSINESS TO
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Comparisons Between the 1999 and 2005 Studies

Prepared for
Polk County Farm Bureau

Prepared by
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COMPARISON BETWEEN THE 1999 & 2005 STUDIES

PART 1: ECONOMIC OUTPUT - ALL INDUSTRIES

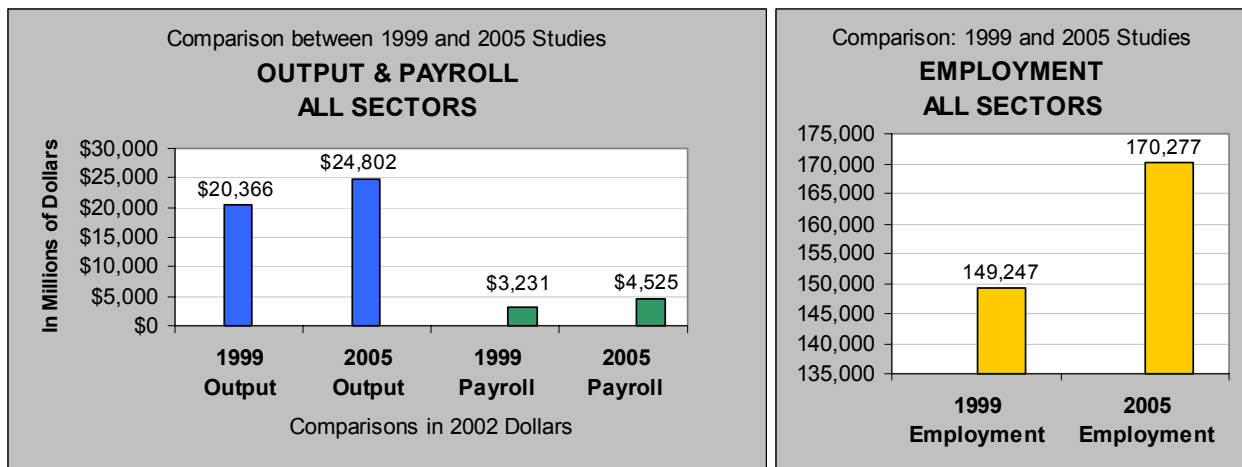
The following tables and charts compare findings from the 1999 and 2005 studies. Data in the 1999 study was based on the 1992 Census. Data in the 2005 study is based on the 2002 Census. In both cases, this was the most recent, verifiable data available at the time of the studies.

An inflation adjustment has been applied to the 1992 census numbers in the 1999 study so that comparisons can be made in “constant dollars.” For details on how these adjustments were calculated, see page D-1 in the Appendix at the end of Supplement 1.

PART 1: TOTAL ECONOMIC OUTPUT BY INDUSTRY

TOTAL (all sectors):	Output	Employment	Payroll
1999 study results	\$15,866,120,534	149,247	\$2,516,824,796
with Inflation Adjustment (1)	\$20,365,752,317	N/A	\$3,230,596,308
2005 study results	\$24,801,585,805	170,277	\$4,524,907,888
Difference: increase/ -decrease	\$4,435,833,488	21,030	\$1,294,311,580
% change since 1999	21.78%	14.09%	40.06%

Here’s a pictorial representation of this data:



COMMENTS:

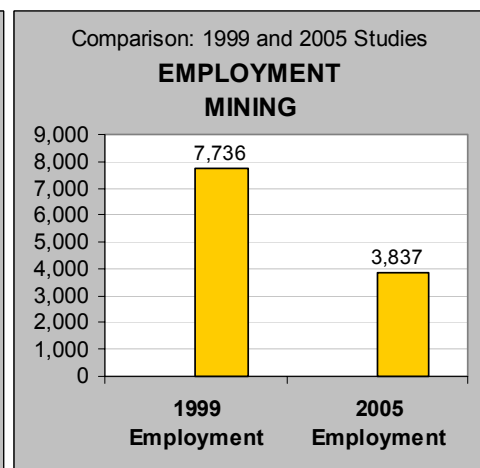
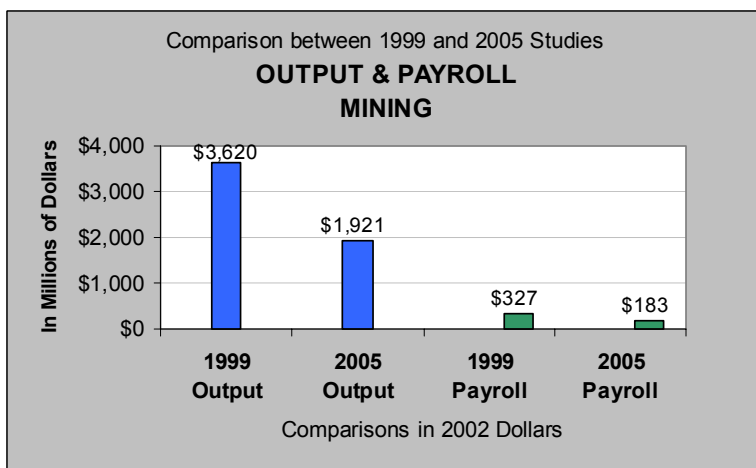
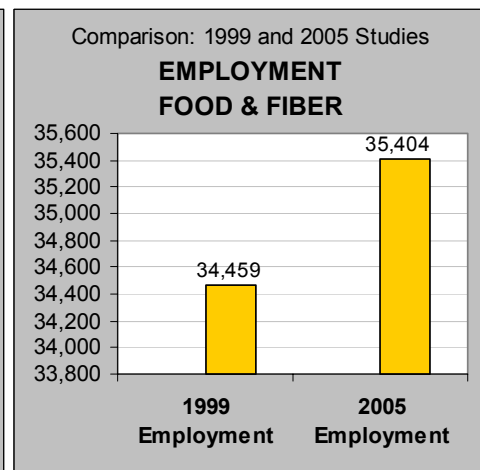
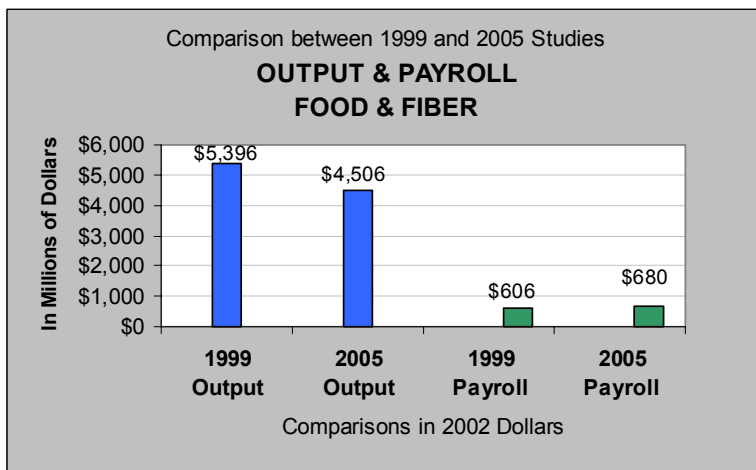
This analysis shows that during the time between the two studies Polk County’s economy has expanded, with increased output, more jobs and a larger payroll.

Some sectors expanded more rapidly than others, while some lost ground, as shown in the tables and charts on the following pages.

Food & Fiber:	Output	Employment	Payroll
1999 study results	\$4,203,551,234	34,459	\$472,029,196
with Inflation Adjustment (1)	\$5,395,678,364	N/A	\$605,896,676
2005 study results	\$4,506,101,875	35,404	\$679,631,847
Difference: increase/ -decrease	-\$889,576,489	945	\$73,735,171
% change since 1999	-16.49%	2.74%	12.17%

Mining Industries	Output	Employment	Payroll
1999 study results	\$2,819,865,000	7,736	\$254,943,000
with Inflation Adjustment (1)	\$3,619,578,714	N/A	\$327,244,835
2005 study results	\$1,921,413,915	3,837	\$182,698,690
Difference: increase/ -decrease	-\$1,698,164,799	-3,899	-\$144,546,145
% change since 1999	-46.92%	-50.40%	-44.17%

Here's a pictorial representation of this data:



COMMENTS:

Agriculture and mining both have been long running engines for the Polk County economy. But both are now beginning to decline in their importance.

Revenues from agricultural production have remained relatively stable over the past 10 years. In addition, employment and payroll have increased. At the same time, revenues, employment and payroll from agricultural services, agricultural processing and agricultural wholesale have declined. This has led to an overall decline in output for Food & Fiber sector.

The mining industry also is in decline, not only in output, but also in employment and payroll. This reflects an ongoing trend in the industry, which has steadily moved south over the last 100 years as sites mine out. Phosphate mining over the years has moved through Lakeland, Mulberry, Bartow and Plant City. In the past 10 years, mining operations on Polk County's southern fringe have wound down. Phosphate companies are now seeking permits to open new mine sites in Manatee, DeSoto and Hardee counties where the contiguous deposit of phosphate pebble is found.

All other sectors have increased their contribution to the Polk County economy, with the biggest gains coming in the construction, non-ag wholesale and service industries, as shown in the following tables:

Construction	Output	Employment	Payroll
1999 study results	\$278,411,000	7,480	\$171,252,000
with Inflation Adjustment (1)	\$357,368,360	N/A	\$219,819,067
2005 study results	\$2,360,819,488	12,741	\$397,438,696
Difference: increase/ -decrease	\$2,003,451,128	5,261	\$177,619,629
% change since 1999	560.61%	70.33%	80.80%

Non-Ag Manufacturing	Output	Employment	Payroll
1999 study results	\$818,300,000	9,100	\$233,500,000
with Inflation Adjustment (1)	\$1,050,369,880	N/A	\$299,720,600
2005 study results	\$1,623,707,000	8,297	\$274,310,000
Difference: increase/ -decrease	\$573,337,120	-803	-\$25,410,600
% change since 1999	54.58%	-8.82%	-8.48%

Non-Ag Wholesale	Output	Employment	Payroll
1999 study results	\$2,009,941,300	6,134	\$126,009,900
with Inflation Adjustment (1)	\$2,579,960,653	N/A	\$161,746,308
2005 study results	\$5,360,376,430	5,900	\$194,067,769
Difference: increase/ -decrease	\$2,780,415,777	-234	\$32,321,461
% change since 1999	107.77%	-3.81%	19.98%

Non-Ag Retail	Output	Employment	Payroll
1999 study results	\$2,244,319,000	14,496	\$209,563,700
with Inflation Adjustment (1)	\$2,880,807,868	N/A	\$268,995,965
2005 study results	\$3,977,404,700	18,525	\$378,214,330
Difference: increase/ -decrease	\$1,096,596,832	4,029	\$109,218,365
% change since 1999	38.07%	27.79%	40.60%

Other Industries (2)	Output	Employment	Payroll
1999 study results	\$1,156,557,000	39,330	\$418,968,000
with Inflation Adjustment (1)	\$1,484,556,565	N/A	\$537,787,325
2005 study results	\$1,887,473,022	28,618	\$945,713,000
Difference: increase/ -decrease	\$402,916,457	-10,712	\$407,925,675
% change since 1999	27.14%	-27.24%	75.85%

Services	Output	Employment	Payroll
1999 study results	\$1,526,425,000	30,512	\$630,559,000
with Inflation Adjustment (1)	\$1,959,319,130	N/A	\$809,385,532
2005 study results	\$3,164,289,375	56,955	\$1,472,833,556
Difference: increase/ -decrease	\$1,204,970,245	26,443	\$663,448,024
% change since 1999	61.50%	86.66%	81.97%

FOOTNOTES:

- (1) Inflation adjustment applied to source year for data so result is shown in "constant dollars."
In this case, 1992 data for output and payroll were adjusted upward to 2002.

Inflation Adjustment Factor		
per Consumer Price Index		
1	1992 to 2002	1.2836
average of 2.8% per year		

- (2) "Other Industries" also includes "Hospitality," which was broken out as a separate category in the 1999 study.

PART 2: ECONOMIC IMPACT OF AGRICULTURE & AGRIBUSINESS

The following tables compare findings from the 1999 and 2005 studies. Data in the 1999 study was based on the 1992 Census of Agriculture, the various volumes of the 1992 Economic Census, and the 1992 ES-202 reports on employment and payroll published by the Florida Department of Labor. Data in the 2005 study is based on the same sources for 2002.

PART 2: ECONOMIC IMPACT OF AGRICULTURE & AGRIBUSINESS

DIRECT IMPACT

Agricultural Production	Output	Employment	Payroll
1999 study results	\$203,350,000	2,758	\$44,996,528
with Inflation Adjustment (1)	\$261,020,060	N/A	\$57,757,543
2005 study results	\$284,787,000	7,284	\$125,223,408
Difference: increase/ -decrease	\$23,766,940	4,526	\$67,465,865
% change since 1999	9.11%	164.10%	116.81%

Agricultural Services	Output	Employment	Payroll
1999 study results	\$271,579,534	7,240	\$88,010,268
with Inflation Adjustment (1)	\$348,599,490	N/A	\$112,969,980
2005 study results	\$190,880,005	5,514	\$86,642,538
Difference: increase/ -decrease	-\$157,719,485	-1,726	-\$26,327,442
% change since 1999	-45.24%	-23.84%	-23.30%

Ag Processing	Output	Employment	Payroll
1999 study results	\$1,231,900,000	4,300	\$99,800,000
with Inflation Adjustment (1)	\$1,581,266,840	N/A	\$128,103,280
2005 study results	\$1,500,062,000	3,638	\$153,700,000
Difference: increase/ -decrease	-\$81,204,840	-662	\$25,596,720
% change since 1999	-5.14%	-15.40%	19.98%

Ag Wholesale	Output	Employment	Payroll
1999 study results	\$121,590,870	3,377	\$53,899,100
with Inflation Adjustment (1)	\$156,074,041	N/A	\$69,184,885
2005 study results	\$100,451,025	1,744	\$53,925,000
Difference: increase/ -decrease	-\$55,623,016	-1,633	-\$15,259,885
% change since 1999	-35.64%	-48.36%	-22.06%

NOTE: (1) As with the tables in Part 1, an inflation adjustment has been applied so that comparisons can be made between the 1992 and 2002 numbers in “constant dollars.” This adjustment is based on the Consumer Price Index for the 10-year period 1992 to 2002. During this period, inflation was 28.36%. This means that every \$1.00 in 1992 dollars is worth \$1.2836 in 2002 dollars.

The tables on the previous page showed the numbers for direct impact. The following tables show the numbers for total impact, after the multiplier effects for products sold outside the county are taken into account, to show the total amount of economic activity that is generated by these sales, which bring new money into the county. (For a complete description of this multiplier effect, see pages 41-44 in the study text.)

TOTAL IMPACT (DIRECT + INDIRECT & INDUCED)

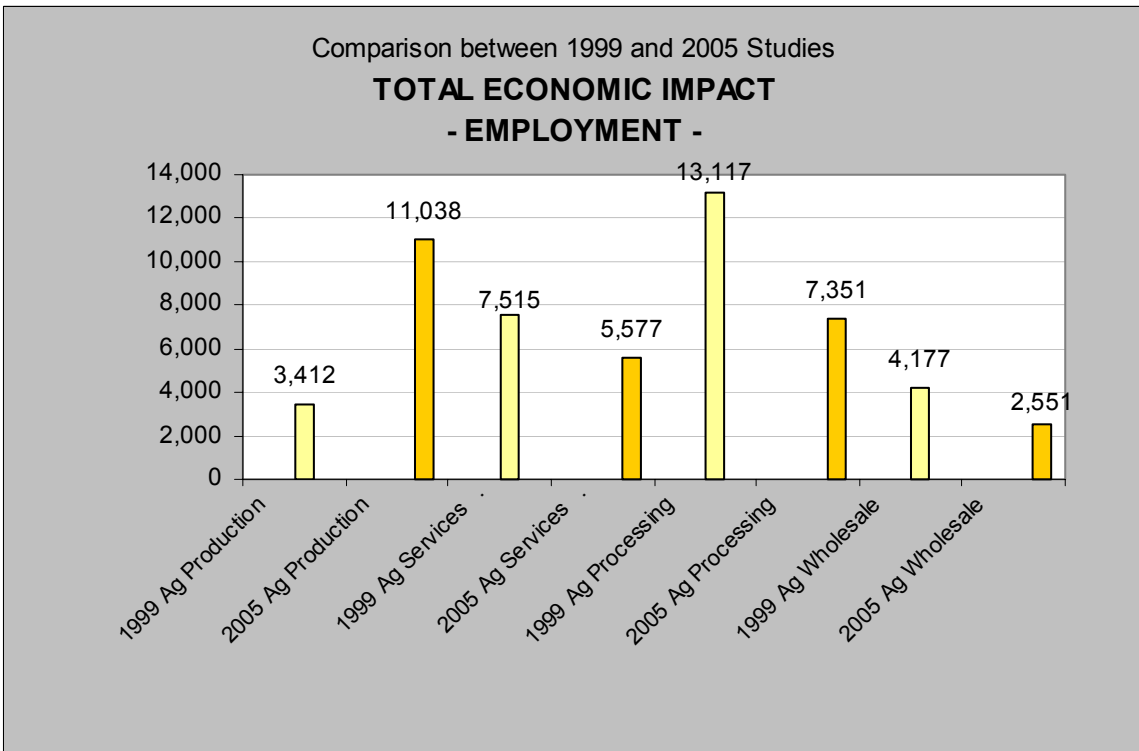
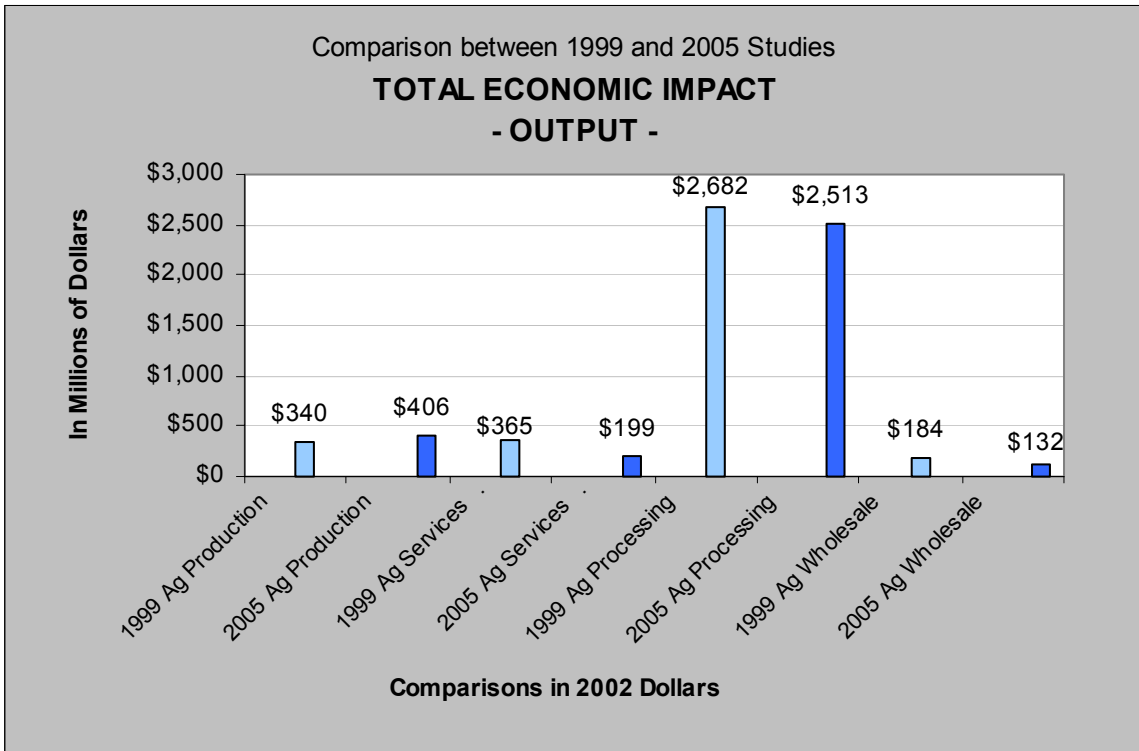
Agricultural Production	Output	Employment	Payroll
1999 study results	\$264,802,352	3,412	\$57,616,276
with Inflation Adjustment (1)	\$339,900,299	N/A	\$73,956,252
2005 study results	\$406,334,599	11,038	\$207,673,587
Difference: increase/ -decrease	\$66,434,300	7,626	\$133,717,335
% change since 1999	19.55%	223.51%	180.81%

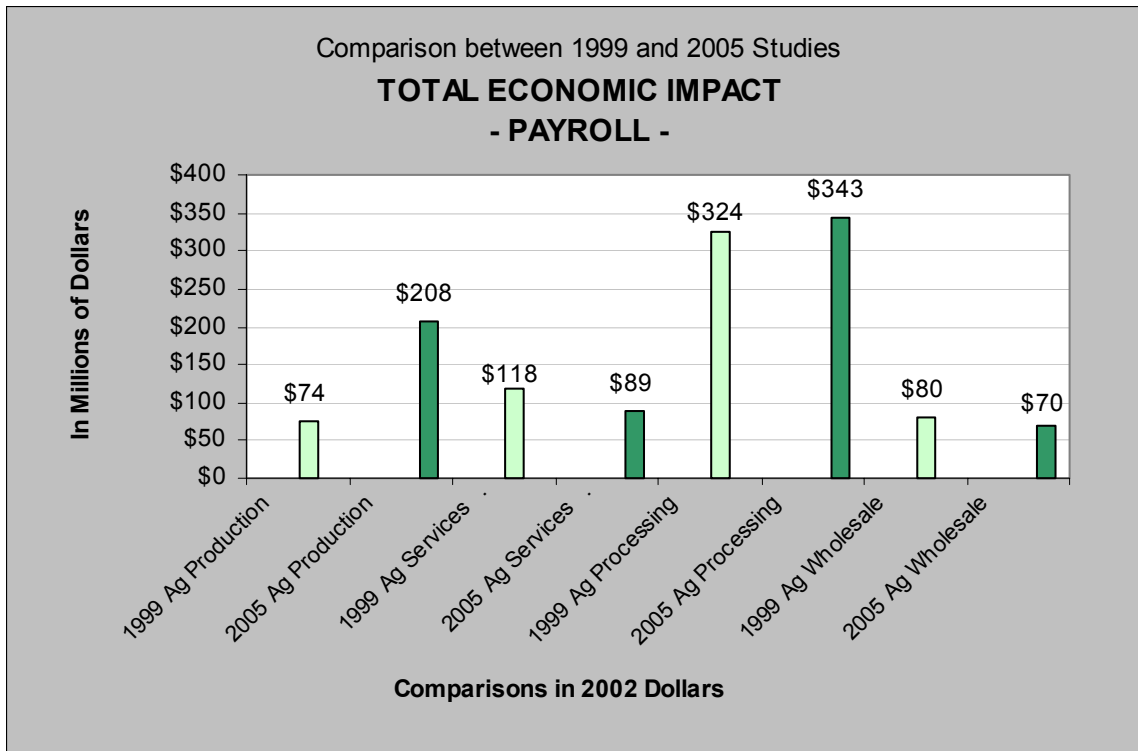
Agricultural Services	Output	Employment	Payroll
1999 study results	\$284,736,204	7,515	\$91,967,210
with Inflation Adjustment (1)	\$365,487,391	N/A	\$118,049,111
2005 study results	\$199,110,751	5,577	\$88,849,757
Difference: increase/ -decrease	-\$166,376,640	-1,938	-\$29,199,354
% change since 1999	-45.52%	-25.79%	-24.73%

Ag Processing	Output	Employment	Payroll
1999 study results	\$2,089,265,443	13,117	\$252,765,256
with Inflation Adjustment (1)	\$2,681,781,123	N/A	\$324,449,483
2005 study results	\$2,512,725,355	7,351	\$343,432,045
Difference: increase/ -decrease	-\$169,055,768	-5,766	\$18,982,562
% change since 1999	-6.30%	-43.96%	5.85%

Ag Wholesale	Output	Employment	Payroll
1999 study results	\$143,545,185	4,177	\$62,613,989
with Inflation Adjustment (1)	\$184,254,599	N/A	\$80,371,316
2005 study results	\$131,522,630	2,551	\$70,327,695
Difference: increase/ -decrease	-\$52,731,969	-1,626	-\$10,043,621
% change since 1999	-28.62%	-38.93%	-12.50%

Pictorial representations of this data appear on the following pages.





COMMENTS:

Agricultural production has continued to be a strong part of Polk County’s economy over the past 10 years, with an increase of almost 20% in its total economic output and a significant increase in employment and payroll.

Part of this increase came from an increase in sales, which bumped up direct impact by almost 10%. The major change, however, was in the amount of product that was sold outside the county, which increased from 31% to 57%, thus bringing more money into the county. This pushed up the total economic impact of agricultural production by 20%.

During the same period, both the direct impact and the total impact of agricultural processing, agricultural wholesale and agricultural services has declined.

The value of agricultural processing declined slightly – falling a little over 5% based on its direct impact, and a little over 6% for its total impact. This decline was accompanied by an increase in the value of agricultural production, as a result of the increased amount of product that was sold outside the county.

The net effect of this shift in the amount of product processed in Polk County is not even, however. While the total economic impact of agricultural production increased by \$66 million between the two studies, the total economic impact of agricultural production declined by \$169 million.

This comparison shows how much impact value-added processing contributes to locally grown products, and underscores why it is important to take steps to promote the health

of all facets of the agricultural industry. Integrated planning and coordination allows one part of the industry to build on the other, which can multiply the benefits to the Polk County economy.

The biggest decline in value, a little over 45%, came in the agricultural services sector. Part of this decline may be explained, not so much by differences in the market place as by differences in the way in which data for the two studies was calculated.

Agricultural services is assigned a specific a specific North American Industry Classification System (NAICS) number (NAICS number 115 and its subcategories). As a result, it is possible to obtain employment and payroll data segregated out by this NAICS number. County-level data for employment and payroll is computed by the Florida Agency for Workforce Innovation (formerly the Florida Department of Labor).

Hence, county-level employment and payroll data was available for both studies and came from the same source. This data shows a decline of about 25% in both employment and payroll. So it is apparent that the value of agricultural services has declined. How much this decline has affected sales numbers is more difficult to determine.

The 1992 and 2002 Agricultural Census and the various volumes of the Economic Census do not segregate out and report sales numbers specifically for agricultural services, except in a few isolated instances.

For example, the 2002 Census of Agriculture for Florida includes a single line item on page 259 under “Income from Farm-Related Sources” reporting sales data for “customwork and other agricultural services.” This activity accounted for slightly more than \$1 million in sales in Polk County in 2002, which was only a small a fraction of the total value of sales for all agricultural services rendered in the county for that year.

For this reason, the value of agricultural services has to be calculated by consulting other sources. For the 1999 study, the value of agricultural services was calculated by obtaining data from the U.S. Department of Agriculture in Washington, D.C. and estimating the numbers for Polk County based on the proportion that U.S. estimated receipts were to U.S. payroll in 1992 ($\$31,010,600,000/\$10,049,561$). Using national statistics to estimate county-level values is fraught with difficulty. But this was the only means of doing this for the 1999 study.

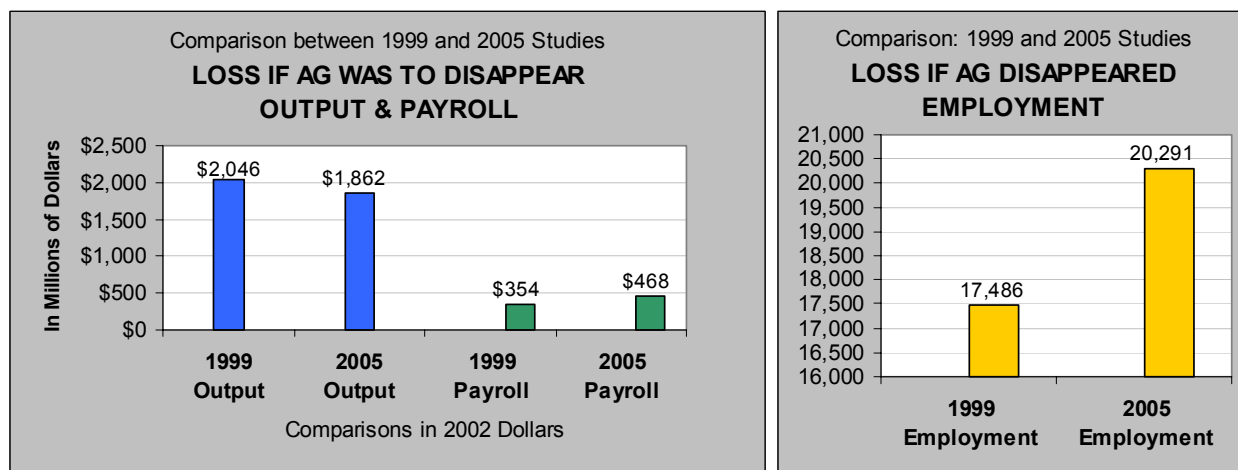
For the 2005 study, county-level data was used that had been calculated by Alan Hodges, Ph.D., of the Food and Resource Economics Department at the University of Florida. Hodges used the IMPLAN software to do these calculations. The IMPLAN software is designed specifically to construct a complete set of regional accounts to calculate the multiplier effects of different activities on a regional economy. Because of its ease of use and flexibility, IMPLAN is now replacing the once-prevalent RIMS II multipliers computed by the U.S. Department of Commerce in many university economics departments. IMPLAN data was not available for the 1999 study. But it did provide an accurate picture of the direct and total impacts of agricultural services within the context of the agricultural sector and the entire Polk County economy for the 2005 study.

Because different approaches were used to compute the economic impacts for agricultural services in the 1999 and 2005 studies, some of the differences in numbers could be attributed to differences between these two approaches.

In the end, the most important comparison is the *Potential Loss if Local Agriculture was to Disappear*:

POTENTIAL LOSS IF LOCAL AGRICULTURE WAS TO DISAPPEAR			
Ag Production & Ag Services			
	Output	Employment	Payroll
1999 study results	\$549,538,556	10,927	\$149,583,486
with Inflation Adjustment (1)	\$705,387,690	N/A	\$192,005,363
2005 study results	\$605,445,350	16,615	\$296,523,344
Difference: increase/ -decrease	-\$99,942,340	5,688	\$104,517,981
% change since 1999	-14.17%	52.05%	54.43%
Plus 50% of Processing			
	Output	Employment	Payroll
1999 study results	\$1,594,171,278	17,486	\$275,966,114
with Inflation Adjustment (1)	\$2,046,278,252	N/A	\$354,230,104
2005 study results	\$1,861,808,028	20,291	\$468,239,367
Difference: increase/ -decrease	-\$184,470,224	2,805	\$114,009,263
% change since 1999	-9.01%	16.04%	32.19%

Here's a pictorial representation of the data in the last table:



COMMENTS:

The increase in the sales value of agricultural production was more than offset by the decreases in the sales of agricultural services and agricultural processing. Hence, the total economic output of local agriculture to the Polk County economy has declined slightly since the last study.

On the other hand, the value of the industry's overall employment and payroll is up significantly, more than 50%.

Because processing usually can operate independently from local agricultural production, and can bring in raw products to process if local production is lost, processing usually is not considered in calculating the value of local agriculture.

However, in Polk County, there is a very close connection between local production and processing. This was demonstrated by the impact on processing of having more local produce sold outside the county, as described at the top of page 6.

Processors usually locate in an area where local produce is available, since this reduces shipping costs when this produce is being grown. But processors also buy product from other growing regions to maximize the use of their facilities and to keep their lines running. In some areas of Florida, such as Lake County, where local production was almost completely eliminated due to several severe weather events in the 1980s, processors have continued to make a significant contribution to the economy, due to their ability to bring in produce from other areas.

Polk County processors, however, are much more reliant on local production. Almost two-thirds of the revenues generated by Polk County's food processing industry come from citrus, and Polk County is the state's top producer of citrus. Considering the status of citrus production elsewhere in the state, where groves are being pushed over to combat canker, it is unlikely that any surpluses of product are going to be available. Hence, any losses in local production are likely to negatively affect processors.

For this reason, it has been estimated in this study that at least 50% of Polk County's processing industry is reliant on local production.

If local agriculture was lost, it would create a \$1.8 billion hole in Polk County's economy and affect the livelihoods of almost 17,000 people – dislocations that would be very hard to replace.

PART 3: ECONOMIC IMPACT OF MINING & FERTILIZER PRODUCTION

This analysis was not included in the 1999 study, so no comparison has been made.

PART 4: COMMUNITY REVENUES & EXPENSES

The following tables compare findings from the 1999 and 2005 studies. Data in the 1999 study was based on the actual revenues and expenditures of county agencies and schools for the 1996 fiscal year. Data in the 2005 study was based on actual revenues and expenditures for the 2004 fiscal year.

PART 4: COMMUNITY REVENUES & EXPENSES

Commercial	% Revenues	% Expenses	Revenue	Expense
1999 study results	see C&I	see C&I	see C&I	see C&I
2005 study results	10.6%	2.3%	\$1.00	\$0.22
Difference: increase/ -decrease	see C&I	see C&I	see C&I	see C&I
% change since 1999	see C&I	see C&I	see C&I	see C&I

Industrial	% Revenues	% Expenses	Revenue	Expense
1999 study results	see C&I	see C&I	see C&I	see C&I
2005 study results	2.7%	1.0%	\$1.00	\$0.36
Difference: increase/ -decrease	see C&I	see C&I	see C&I	see C&I
% change since 1999	see C&I	see C&I	see C&I	see C&I

Commercial & Industrial	% Revenues	% Expenses	Revenue	Expense
1999 study results	29.4%	5.1%	\$1.00	\$0.18
2005 study results	13.2%	3.3%	\$1.00	\$0.25
Difference: increase/ -decrease	-16.2%	-1.8%	same	\$0.07
% change since 1999	-55.1%	-35.3%	same	38.9%

Agriculture & Agribusiness	% Revenues	% Expenses	Revenue	Expense
1999 study results	5.5%	0.4%	\$1.00	\$0.08
2005 study results	2.2%	0.5%	\$1.00	\$0.22
Difference: increase/ -decrease	-3.3%	0.1%	same	\$0.14
% change since 1999	-60.0%	25.0%	same	175.0%

Mining	% Revenues	% Expenses	Revenue	Expense
1999 study results	N/A	N/A	N/A	N/A
2005 study results	0.5%	0.1%	\$1.00	\$0.27
Difference: increase/ -decrease	N/A	N/A	N/A	N/A
% change since 1999	N/A	N/A	N/A	N/A

NOTES:

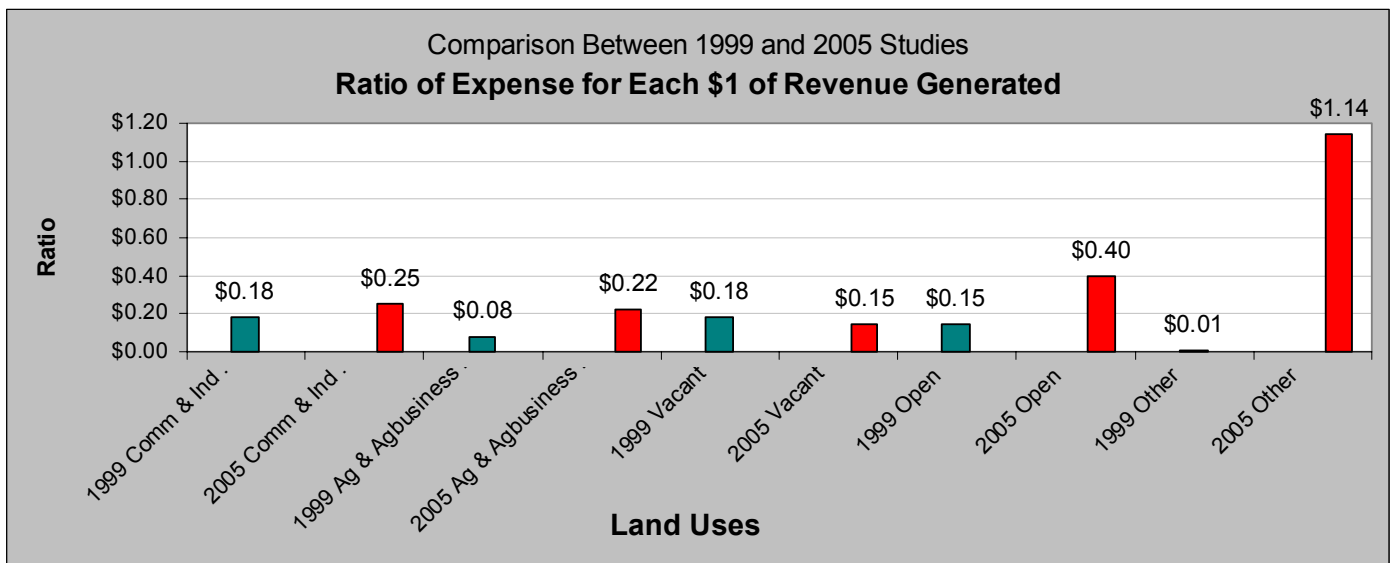
The *commercial* and *industrial* land use categories, which were combined as one category in the 1999 study, were separated out as two categories in this study. While there are similarities between the two categories, they do generate revenues in different ways and require different services. Hence, it makes sense to treat them separately, so their differences can be more easily highlighted.

Also, *mining* land uses were not broken out as a separate category in the 1999 study.

Vacant	% Revenues	% Expenses	Revenue	Expense
1999 study results	3.6%	0.6%	\$1.00	\$0.18
2005 study results	3.5%	0.5%	\$1.00	\$0.15
Difference: increase/ -decrease	-0.1%	-0.1%	same	-\$0.03
% change since 1999	-2.8%	-16.7%	same	-16.7%

Open	% Revenues	% Expenses	Revenue	Expense
1999 study results	3.6%	0.5%	\$1.00	\$0.15
2005 study results	1.3%	0.5%	\$1.00	\$0.40
Difference: increase/ -decrease	-2.3%	0.0%	same	\$0.25
% change since 1999	-63.9%	0.0%	same	166.7%

Other	% Revenues	% Expenses	Revenue	Expense
1999 study results	7.4%	0.1%	\$1.00	\$0.01
2005 study results	1.5%	1.7%	\$1.00	\$1.14
Difference: increase/ -decrease	-5.9%	1.6%	same	\$1.13
% change since 1999	-79.7%	1600.0%	same	11300.0%



NOTES:

The tables and chart shown above reflect three significant differences in the ways in which calculations were made and reported for the land use categories in the 1999 and 2005 studies:

1. First, results for *residential* land uses were not reported in the 2005 study.

The purpose of these studies was to measure the contributions that agriculture and agribusiness make to the Polk County economy. The studies were not intended as a referendum on the positive or negative impacts of residential development. Unfortunately, results from the 1999 study were used in this way. Moreover, these results were sometimes pulled out of context and used in debates about development proposals, without any regard or reference to the reason these results

were included in the 1999 study – which was as a comparison, to help show the positive benefits of agricultural land uses.

To avoid this problem in the future, results regarding residential land uses were not included in the 2005 study.

2. The 1999 study was criticized by some people because they felt some costs that should be attributed to agricultural land uses – in particular, *social* costs related to migrant farm workers – were not allocated adequately.

The rationale behind this argument, which the author of this study accepts, is that while many services are delivered to individuals as a result of where they live (since that is the central focus of their home and family lives), people often are attracted to a locale because of the employment opportunities it offers. When a specific employment opportunity attracts a group of people who require a greater number of services than is required by groups of workers in other industries, the costs of these additional services should then be allocated to where the person works, not where the person lives.

This study uses employment data to determine what percentage of the working population spends time using different categories of land use. This allows costs for the services required by these people to be allocated both to the land uses where they live and the land uses where they work (see notes to the Allocation table on page C-2 of the Appendix, and the table showing the distribution of employment by land use on pages C-5 and C-6).

Hence, social costs are allocated in part to residential locations and in part to job locations.

As a result of this change, the proportion of costs attributed to residential land uses decreased and the costs attributed to all other types of land use increased. This is reflected in the tables by the large percentage of change between results in the two studies.

It is significant to note that, even with this change, all non-residential land uses, except for the *other* category, still generate a large surplus of revenues over expenses.

It is also significant to note that agriculture still is shown to have one of the most beneficial revenue to expense ratios of all types of land use in the county. According to the 2005 study, both the *commercial* and *agriculture & agribusiness* land use categories generate a surplus of \$0.78 for every \$1.00 of revenue generated due to their low demand for services in comparison to other land uses. Only the *vacant* land use category has a more beneficial ratio of revenues to expenses.

3. Employment data was used in the 1999 study to allocate the costs of several types of services to the *commercial/industrial* and *agriculture-related* land use

categories. However, for the reasons stated above, much more detailed employment data was obtained for the 2005 study so that allocations could be made across *all* land use categories, based upon where people work. Also, many more expense items were allocated based upon the distribution of employment across the various land uses. The two land uses that showed the greatest differences as a result of these changes were the *open* and *other* land use categories.

Because much of the land in the *open* and *other* land use categories is government-owned and, hence, does not generate property tax revenues, even a modest change in the ways in which expenses are allocated by land use will show a dramatic impact on the ratios for these land uses.

In the case of the *open* land use category, accounting for the costs of 3,378 people who work in the industries and businesses that operate, care for and utilize these lands, produced a 166% change in the revenue to expense ratios reported in the two studies.

The most dramatic change, however, came in the *other* land use category, which includes all institutional and governmental land uses such as schools, hospitals, churches and government buildings. Almost one-third of the county's workforce – 60,077 out of a total of 187,031 full-time equivalent jobs in 2002 – spends their working hours in the *other* land use category.

In the 1999 study, the *other* land use category had a ratio of \$0.01 in expenses for every \$1.00 of revenue generated. When the costs of services for one-third of the county's workforce is allocated to this land use category, the category's expenses increase to \$1.14 for every \$1.00 in revenue generated, creating a \$0.14 deficit.

COMMENTS:

The changes described above have allowed the 2005 study to provide a more accurate reflection of the revenues and expenses generated by different land use categories.

Nevertheless, with the sole exception of the *other* land use category, the relationships between different land use categories still remains almost the same: virtually all non-residential land use categories generate a significant surplus in revenues over the expenses required to provide necessary public services.

This is because the most expensive public service is schools. The combined totals for county and school revenues and expenses shows that schools account for 46% of total revenues and 48% of total expenses. In other words, schools cost almost as much as all other public services combined. Even people who do not have school age children benefit from this expenditure, since an educated, informed population helps to keep a community economically competitive and socially engaged.

Although some education expenses are related to workforce development and adult education (and were allocated as such in the 1999 and 2005 studies), these expenditures

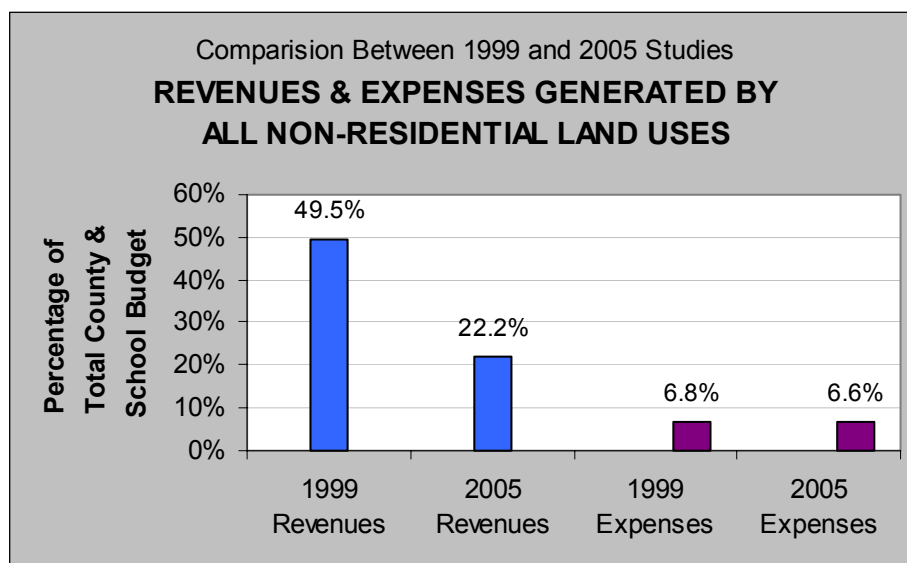
account for only 2.5% of total school expenses. The balance of school expenses are directed to school-age children. As a result, the bulk of this cost derives from and can only be attributed to residential land uses.

It is important to keep in mind, however, that deficits caused by a single land use or land use category is not necessary a negative. A community benefits in many ways by having good schools, good roads, good libraries, good parks and good fire and police protection. It is well worth the investment to provide these services, since these services help to improve each resident’s quality of life, and are a significant factor in attracting businesses and employers to a community.

Also, it is important to recognize that the deficits caused by a single land use or land use category can be made up in many different ways.

One of the purposes of this study is to show that a broad *mix* of land uses, with a strong emphasis on retaining, allowing for and promoting land uses that generate a surplus in revenues over expenses, helps to improve the overall balance sheets for county agencies and schools, and helps to provide a higher level of services for all residents to enjoy.

ALL NON-RESIDENTIAL LAND USES COMBINED	% Revenues	% Expenses	Revenue	Expense
1999 study results	49.5%	6.8%	\$1.00	\$0.14
2005 study results	22.2%	6.6%	\$1.00	\$0.30
Difference: increase/ -decrease	-27.3%	-0.2%	same	\$0.16
% change since 1999	-55.2%	-2.9%	same	114.3%



COMMENTS:

As shown in the table and chart above, all non-residential land uses in Polk County contributed almost one-quarter of the total revenues collected by county agencies and schools in 2005, but required only 6.6% of the expenditures made to provide necessary

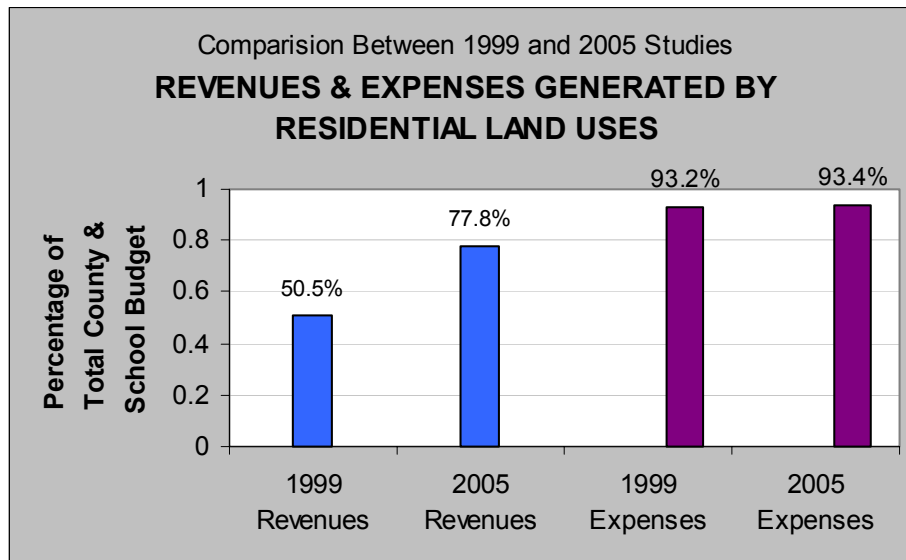
public services. This resulted in an average surplus of \$0.70 for every \$1.00 in revenue generated.

This surplus helps to pay for higher levels of service for all county residents. The more that these land uses can be retained, promoted and encouraged, the more they can continue to contribute to maintaining a high quality of life for county residents.

This table also shows something else. While the percent of expenses for all non-residential land use categories has remained relatively constant between the 1999 and 2005 studies, the percent of total county and school revenues that was generated by these land uses is significantly less.

The adjustments made in the ways in which expenses were allocated to different land use categories in the 2005 study help explain some of this change. The impact of these adjustments, however, shows up primarily in the comparison between the ratios of revenues to expenses.

What changed significantly between the two studies is the percent of revenues generated by residential land uses. This percentage increased almost 54% – moving up from 50.5% of total revenues to 77.8% of total revenues. At the same time, there was no appreciable change in the percentage of expenses attributed this category (expenses moved up a miniscule 0.2% from 93.2% to 93.4%).



There are two reasons these revenues increased. For one, rates for some taxes and fees were increased. But the major change, which occurred between the two studies, was in the dramatic upward swing in market values. As market values increased, and tax rates and fees caught up with these increases, more revenues were generated.

Overall, the increase in real estate values within the residential land use category did more to influence findings between the two studies than any other factor.

As a result, residential land uses in the county now do a better job of paying their way.

This helps to underscore why it is important to encourage and promote high value uses within individual land use categories – at least to the degree possible – so that each land use category can generate more revenues.

In the end, all of the key points stressed in the 1999 study were reflected in the 2005 study, and continue to remain valid. These points are:

- *All types of land use play important roles in our society and economy* – providing places to live, work, and play; providing for health and safety; providing for transportation and the delivery of services; maintaining the integrity of the environment; and providing a place to produce food and fiber.
- Some types of land use that generate a deficit, such as affordable housing, are necessary to provide for the needs of certain segments of the county’s population. These land uses should NOT be avoided simply because they might cause a deficit. These land uses provide many benefits to the community as a whole: They help to attract businesses and companies to the county. They provide diversity. They also accommodate people who contribute to the community in ways that benefit all residents (the people who sometimes are referred to as the “glue” that holds the rest of society together – the teachers, firemen, policemen, social workers and pastors).
- By taking the surpluses and deficits that are generated by each type of land use into consideration, it is possible for policymakers to balance one type of land use against another – and thus pair land uses that generate a surplus up with land uses that create deficits.
- As a result, a deficit that could create budget shortfalls and require some painful corrective measures – such cuts in the number of services offered, reductions in the levels of service, delays in maintenance, increases in fees and taxes, or ALL five – can be avoided in a fiscally sound, politically acceptable way.
- That is why it is important to encourage a broad *mix* of land uses, with a strong emphasis on retaining, allowing for and promoting land uses that generate a surplus in revenues over expenses. Taken together, land uses that generate a surplus in revenues can “carry” the cost of services for all of the county’s residential land uses.
- In addition, increasing the values of land uses inside of each category can improve the balance between revenues and expenses.

This study does not provide definitive answers about what effects changes in the county’s mix of land uses would have on overall revenues and expenses. But it does show the relationships – and interactions – that revenues and expenses from different land uses can have with each other.

That is one of the purposes of this study – to highlight issues that bear further consideration. More details on the public policy implications of the findings from this study are contained in Supplements 3, 4 and 5.