

Economic Impacts of the U.S. Sugar Corporation Buyout in Florida

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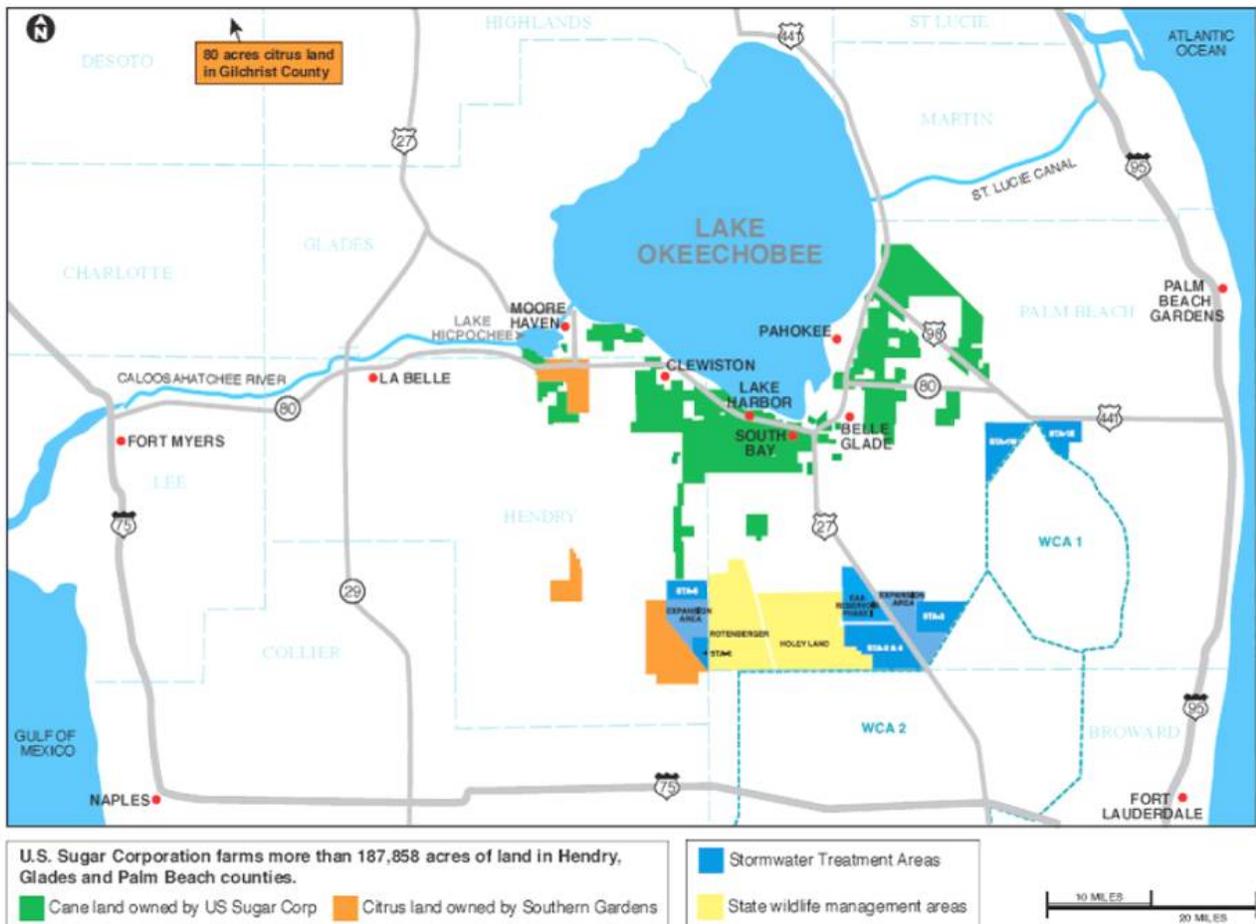
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Introduction

On June 24, 2008, a deal was announced to sell all assets of the U.S. Sugar Corporation to the State of Florida, for purposes of environmental conservation and restoration of the Everglades ecosystem. The property would be purchased by the South Florida Water Management District through general revenues and certificates of participation. The transaction would include over 187,000 acres (292 square miles) of land located in Palm Beach, Hendry, Glades and Gilchrist Counties, as well as its sugar mill/refinery, citrus processing plant, short line railroad, and associated machinery, buildings and fixtures (Figure 1). About 150,000 acres of sugarcane lands owned by U.S. Sugar comprise part of the Everglades Agricultural Area adjacent to Lake Okeechobee, which is considered strategic property for the Comprehensive Everglades Restoration Plan (CERP). The asset purchase is valued at \$1.75 billion, subject to due diligence appraisals and approvals. The agreement would allow the company to continue operations for up to 6 years.

Figure 1. Map of U.S. Sugar Corporation lands, state wildlife management areas, stormwater treatment areas and water conservation areas in South Florida (source: company website).



The buyout of U.S. Sugar will have significant economic impacts to the South Florida region and the state of Florida. The purpose of this paper is to evaluate the statewide economic impacts of U.S. Sugar Corporation, that would potentially be lost under the proposed buyout, based on publicly available information from the company's website (www.ussugar.com) and other sources.

U.S. Sugar Corporation

U.S. Sugar Corp. is a privately held company, founded in 1931 in Clewiston, Florida. The company currently has approximately 1,700 employees. It is the largest producer of sugarcane and refined cane sugar in the United States, with annual capacity of 700,000 tons of raw sugar, accounting for about 8.3 percent of domestic production of beet and cane sugar. The company has extensive citrus operations under its *Southern Gardens* division, including over 30,000 acres of citrus groves, a citrus tree nursery, and a citrus processing plant with annual capacity of 120 million gallons of juice that is the largest U.S. supplier of bulk not-from-concentrate orange juice for private label packaging. The company also operates an internal railroad network that serves to transport harvested sugarcane, and an independent short line railroad, the South Central Florida Express, providing commercial haulage of bulk commodities over 159 miles of track.

Current annual revenues of U.S. Sugar Corporation were estimated at \$658 million (Mn), including refined sugar bulk and retail packaged sales (\$376 Mn), bulk orange juice and citrus by-product sales (\$271 Mn) and railroad commercial freight (\$11 Mn), as shown in Table 1. Based on typical refined sugar yields from raw sugar (95.8%, USDA-ERS), refined sugar production was estimated at 666,400 tons annually. Bulk sales of refined sugar constitute 75 percent of the company's output, while packaged sales for retail distribution represent 25 percent. Bulk sales were valued at the U.S. average wholesale price for 2007 (\$0.2506 per pound), and packaged sugar sales were valued at \$0.369 per pound based on the average retail price of \$0.5148 (USDA-ERS), less an average retail gross margin for food stores of 28.4 percent (USDOC). Molasses is a by-product of sugar milling that is marketed for animal feed; its value was estimated at 6.4 percent of raw sugar volume, and at a price of \$65.6 per ton (USDA-ERS). Wholesale bulk orange juice sales were valued at \$2.157 per gallon based on the 2007 average futures price for not-from-concentrate orange juice (ICE), and the conversion factor of 1.029 pounds solids per gallon (Mark Brown). The value of citrus by-products such as pulp, meal, molasses and essential oils were estimated at 4.5 percent of juice sales, based on a previous study of the citrus industry (Spreen et al). Railroad revenues reported for 1998 were expressed in current (2008) dollars using the GDP Implicit Price deflator.

Table 1. Estimated current annual revenues of U.S. Sugar Corporation (2008)

Company Revenue	Million Dollars
Sugar operations	376.4
Refined sugar bulk sales	250.5
Refined sugar packaged sales	123.0
Molasses sales (animal feed)	3.0
Citrus operations	270.5
Orange juice bulk sales	258.8
Citrus by-product sales	11.7
Railroad commercial freight	10.6
Total	657.5

Economic Impact Analysis

The broad regional economic impacts of U.S. Sugar that would result under the buyout proposal were estimated using the *Implan Professional* software and associated datasets for Florida (MIG). This economic modeling system accounts for commodity production, input purchases, employment, earned income, transfer payments, taxes, regional trade flows, and capital investment among over 500 industry sectors, resident households, and state and local governments, for any region of the United States. Economic models were constructed with default parameters for the state of Florida and for the south-central Florida region of Palm Beach, Hendry and Glades Counties. Economic multipliers derived from the model reflect the additional economic activity created (lost) through supply chain purchases from other Florida businesses (indirect effects) and industry employee household consumer spending (induced effects), as well as the direct effect of lost company revenues. The multipliers for sugar manufacturing and citrus processing capture the backward linkages to sugarcane farming, citrus groves and nursery operations. In this analysis, it was assumed that all output (revenues) for U.S. Sugar Corp. were subject to the indirect and induced multiplier effects, since any lost production would likely be replaced by imports.

Statewide Economic Impacts

The estimated annual economic impacts of U.S. Sugar Corporation to the State of Florida that would potentially be lost through the proposed buyout are shown in Table 2. Impacts would include \$1.639 billion in output or revenues and 10,711 jobs. Value added impacts of \$689 Mn represents the loss of personal as well as reduced net income to businesses. Labor income impacts of \$434 Mn include lost wages, salaries and benefits of employees and business owner profits. Other property income impacts of \$206 Mn include lost rents, dividends and interest income. Indirect business tax impacts of \$50 Mn would include most taxes paid to local, state and federal governments, such as property, motor fuel and excise taxes, but not federal income taxes. The impacts were considerably higher for the company's sugar operations than for citrus operations (7,018 vs. 3,536 jobs; \$393 vs. \$281 Mn in value added). In addition to the direct output impact of lost sales by U.S. Sugar Corp. (\$658 Mn), these impacts include indirect output impacts of \$456 Mn for lost sales by input suppliers and induced output impacts of \$525 Mn in reduced consumption expenditures by employee households (Table 2). To put these statewide results in perspective, the total value added impact (\$689 Mn) would represent approximately 0.09 percent of the Gross Domestic Product of Florida in 2007 (\$735 billion, USDOC-BEA).

The statewide total impacts by economic sector are shown in Table 3. Naturally, the greatest impacts are expected to occur in the agricultural and manufacturing sectors, where the direct impacts of U.S. Sugar take place. The agriculture sector would experience an employment loss of 2,495 jobs, and \$38 Mn in reduced value added, while the manufacturing sector would lose 1,626 jobs and \$164 Mn in value added. In addition, other sectors of the Florida economy would be significantly affected, including employment losses of at least 500 jobs in transportation and warehousing, retail trade, health and social services, and government.

Table 2. Estimated annual statewide economic impacts (losses) from the U.S. Sugar Corporation buyout in Florida (2008)

Impact Measure / Level	Sugar Operations	Citrus Operations	Railroad Operations	All Operations
Employment (jobs)				
Direct	594	806	38	1,437
Indirect	3,744	835	20	4,600
Induced	2,681	1,895	99	4,675
Total	7,018	3,536	157	10,711
Output (Mn\$)				
Direct	376.4	270.5	10.6	657.5
Indirect	329.6	123.4	2.8	455.7
Induced	300.7	213.6	11.2	525.5
Total	1,006.6	607.5	24.6	1,638.7
Value Added (Mn\$)				
Direct	60.7	81.3	6.3	148.3
Indirect	146.0	68.4	1.6	216.1
Induced	186.2	131.6	6.9	324.7
Total	392.9	281.4	14.8	689.1
Labor Income (Mn\$)				
Direct	50.4	45.5	3.6	99.5
Indirect	81.6	42.7	1.2	125.5
Induced	119.6	84.6	4.4	208.6
Total	251.6	172.8	9.2	433.6
Other Property Type Income (Mn\$)				
Direct	7.2	33.6	2.5	43.4
Indirect	52.2	18.8	0.3	71.3
Induced	52.1	36.8	1.9	90.9
Total	111.5	89.2	4.8	205.5
Indirect Business Taxes (Mn\$)				
Direct	3.1	2.1	0.2	5.4
Indirect	12.2	6.9	0.1	19.3
Induced	14.5	10.2	0.5	25.2
Total	29.8	19.3	0.9	49.9

All monetary values in millions 2008 dollars.

Table 3. Estimated annual statewide economic impacts (losses) by sector from the U.S. Sugar Corporation buyout in Florida (2008)

Industry Sector (NAICS*)	Employment (jobs)	Output (Mn\$)	Total Value Added (Mn\$)	Labor Income (Mn\$)	Other Property Type Income (Mn\$)	Indirect Business Taxes (Mn\$)
Agriculture, forestry, fisheries, hunting	2,495	93.2	37.8	14.8	20.1	2.9
Mining	9	3.1	0.8	0.3	0.4	0.1
Utilities	33	17.1	12.2	3.5	6.8	1.8
Construction	457	58.2	25.1	21.8	3.0	0.3
Manufacturing	1,626	749.0	163.9	111.5	46.5	6.0
Wholesale trade	432	77.8	52.5	29.5	11.5	11.5
Transportation & warehousing	695	84.9	43.6	32.0	10.0	1.6
Retail trade	799	59.7	39.2	24.4	6.6	8.2
Information	88	25.6	11.6	6.1	4.7	0.9
Finance & insurance	305	60.3	33.6	19.3	12.7	1.5
Real estate & rental	287	58.6	35.6	8.4	22.0	5.3
Professional, scientific, tech. services	458	65.8	34.4	28.1	5.8	0.6
Management of companies	151	32.5	19.3	15.0	4.0	0.3
Administrative & waste services	382	23.8	14.8	11.9	2.5	0.4
Educational services	98	5.7	3.5	3.1	0.3	0.1
Health & social services	632	57.9	35.3	30.5	4.4	0.4
Arts- entertainment & recreation	110	7.1	4.4	3.1	0.8	0.5
Accommodation & food services	456	29.2	15.8	10.4	3.5	1.9
Other services	402	24.8	12.7	10.0	1.8	0.9
Government	796	104.2	92.9	49.7	38.3	4.9
Total	10,711	1,638.7	689.1	433.6	205.5	49.9

All values in millions 2008 dollars.

*Sectors defined according to the North American Industrial Classification System.

Regional Economic Impacts

The impacts of the U.S. Sugar buyout will be felt most acutely in the south-central Florida region of Palm Beach, Hendry and Glades Counties, where most of the economic activity is based. Based on a regional model for these three counties, the estimated impacts included loss of 8,935 jobs, \$1.433 billion in output, \$598 Mn in value added, \$368 Mn in labor income, \$185 Mn in other property income, and \$45 Mn in indirect business taxes (Table 4). These impacts represent 87 to 90 percent of the statewide impacts, and indicate a high level of local economic integration. The total personal income impact, including labor income and other property income, amounted to \$553 Mn, which represented approximately 0.078 percent of total personal income in this region in 2007 (\$71.15 billion). This result, however, may be misleading because the vast majority of income in the region is in Palm Beach County (98.4%), while the sugar mill and citrus processing plant operations of U.S. Sugar are based in Hendry County. If we assume that half of the overall impacts occur in Hendry and Glades Counties, this would represent a loss of about 25 percent of total personal income. This estimate is highly uncertain because of the extensive economic linkages between the urban and rural areas of this region.

Table 4. Estimated annual economic impacts (losses) from the U.S. Sugar Corporation buyout (2008) in Palm Beach, Hendry and Glades Counties of Florida

Impact Measure	Direct	Indirect	Induced	Total
Employment (jobs)	1,398	3,979	3,558	8,935
Output (Mn\$)	657.5	357.4	418.1	1,433.0
Value Added (Mn\$)	156.1	181.0	260.7	597.8
Labor Income (Mn\$)	103.4	102.6	161.9	367.9
Other Property Type Income (Mn\$)	47.1	61.1	77.0	185.3
Indirect Business Taxes (Mn\$)	5.7	17.2	21.7	44.6

All values in millions 2008 dollars.

Fiscal Impacts

Another important aspect of the U.S. Sugar Corp. buyout is the fiscal impacts on local, state and federal government tax revenues. The estimated total annual tax revenue losses from the local area would be \$134 Mn, including \$88 Mn to the federal government and \$45 Mn to state/local governments (Table 5). Of note among the state and local government tax losses are \$13.8 Mn in property taxes and \$19.2 Mn in sales taxes, which would represent a substantial portion of the local tax base in the two rural counties.

In cases such as this, however, where land is removed from local tax roles for conservation purposes, the loss of ad valorem taxes by governments in counties with population of 150,000 or less, would be mitigated by payments from the Conservation and Recreation Lands Trust Fund, according to provisions of Florida Senate bill 542 enacted in 2008 (flsenate.gov). This would apply to the property tax losses in Hendry and Glades Counties. If we assume that half of the estimated property tax impact would occur in these two counties, then the net property tax impact would be reduced to \$7.0 Mn, and the overall fiscal impact of the U.S. Sugar buyout would be reduced to around \$127 Mn.

Table 5. Estimated annual tax impacts (losses) to governments from the U.S. Sugar Corporation buyout in Palm Beach, Hendry and Glades Counties in Florida (2008)

Government / Type Tax	1000 dollars
Federal Government	88,088
Corporate Profits Tax	9,150
Customs Duty	712
Excise Taxes	1,920
Federal Non-Taxes	871
Personal Income Tax	36,305
Social Ins Tax- Employee Contribution	20,120
Social Ins Tax- Employer Contribution	19,010
State/Local Government	45,535
Corporate Profits Tax	1,212
Dividends	2,135
Motor Vehicle Licenses	315
Indirect Bus Tax: Other Taxes	4,369
Property Tax	13,957
State/local Non-Taxes	1,753
Sales Tax	19,167
Severance Tax	45
Motor Vehicle License	461
Fines- Fees	1,510
Fish/Hunt licenses	30
Social Ins Tax- Employee Contribution	117
Social Ins Tax- Employer Contribution	466
Enterprises (Corporations)	322
Total	133,946
Total net of property tax mitigated*	126,968

All values in thousands 2008 dollars.

*Assumed half of property tax impacts mitigated by the State of Florida for rural counties.

Discussion and Conclusions

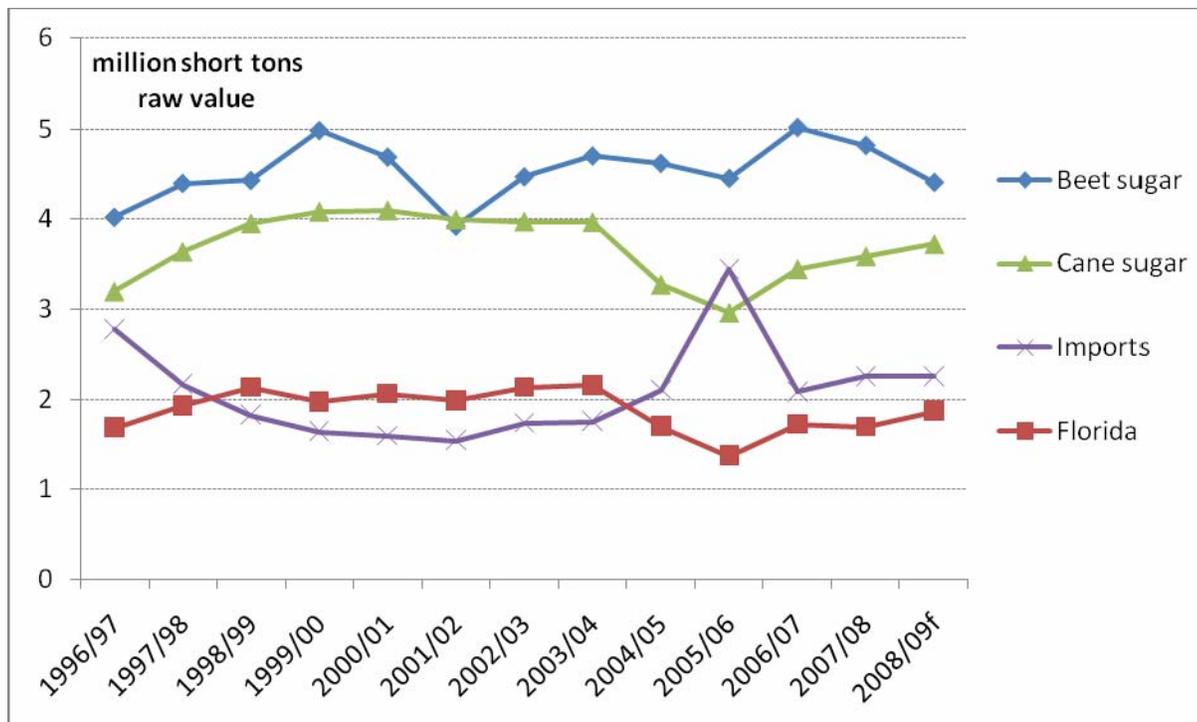
The economic impacts of the U.S. Sugar Corporation buyout will be very large in magnitude, with total statewide annual losses exceeding \$1.6 billion in output (revenues), \$689 Mn in value added, 10,711 jobs, and \$127 Mn in tax revenues to local, state and federal governments. These impacts will occur predominantly in the south-central Florida region of Palm Beach, Hendry, and Glades Counties. The impacts will be especially acute in the latter two rural counties where the milling/processing operations are located, representing a loss of perhaps one-quarter of total personal income.

These estimates assume that all company operations would cease immediately and permanently. However, some assets such as the sugar mill/refinery, citrus processing plant, citrus nursery or railroad may be resold or leased to other commercial entities to continue operations, in which case the impacts would be correspondingly lower. For example, other rail and truck transportation firms would likely take over business currently served by the South Central Florida Express.

Under the terms of the buyout agreement, the company may continue operations for up to six years, which would reduce the economic losses in current dollar terms by about 13 percent, based on industry-specific discount factors. Also, new activity for water reservoir construction, other environmental restoration work and ongoing management that will occur on the purchased lands would offset these losses, however, plans by the South Florida Water Management District for this area have not yet been publicly disclosed, so these offsetting impacts could not be estimated.

Although U.S. Sugar is the largest domestic producer of sugar, its cessation of production would not likely cause any significant shift in the sugar market in the short run, due to the controlling effect of the U.S. sugar program, which indirectly regulates supplies and prices, through a combination of commodity loans, import quotas and tariffs. Domestic production of cane and beet sugar have fluctuated over the past 12 years (Figure 2). The share of domestic production from Florida has ranged from 19 to 25 percent. Overall supplies of sugar in the U.S have trended up, primarily due to increased imports, particularly from Central America under the CAFTA treaty, and for “nonprogram” imports which are driven by free market conditions, rather than quotas. Moreover, global production of sugar has been rising, and world sugar prices have declined in recent years.

Figure 2. U.S. supply of sugar from sugarcane (including Florida), sugarbeets, and imports, 1996/97-2008/09 (forecast)



Source: USDA-ERS

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