

# **Economic Contributions of Agriculture, Natural Resources, and Related Food Industries in Polk County, Florida**

**Sponsored Project Report to Polk County, Florida Farm Bureau**

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## **Executive Summary**

The findings of an assessment of the role and importance of agriculture, natural resources, and other related food industries in Polk County, Florida are documented in this report. Polk County has a long heritage of economic development associated with these industries dating back to the 1800s – most notably in citrus, cattle, and phosphate mining. But like the rest of Florida, it has seen rapid population growth over the last 60 years. From 2002 to 2012, the number of residents in Polk County increased by nearly 23 percent (114,614) to over 616,000. At the same time, the number of farms decreased from 3,114 to 2,415, and the land in farms declined by 105,735 acres (nearly 17 percent) to 520,899 acres. These types of development pressures tend to lead to higher land prices, fragmented patterns of land use, and, higher incidences of conflicts between residents and farmers. This assessment will hopefully provide a clearer picture of the future role and importance agricultural and natural resource related industries for the County’s economy, and help County stakeholders, decision-makers, and the public at large make informed choices in prioritizing the use of limited resources and tax revenues.

Information on the County’s population and economy, particularly the agricultural and natural resource related industries, was developed to create a snapshot and historical review to show how the County has changed over time. Polk County is noteworthy for high population growth, a relatively high proportion of residents over 65 years of age, and a significant proportion of residents who commute outside the County to work. Job growth in the County has not kept pace with population growth. About 25 percent of business revenues and 18 percent of the jobs in the County are derived from agriculture, natural resources and related food industries. Between 2001 and 2012, revenues and employment by production agriculture, mining and nature-based recreation industry groups declined in the County, while activities related to agricultural inputs and services, food manufacturing, and food distribution grew. This is shown in the employment data in Table ES1. Overall, employment by agriculture, natural resources and related food industries grew by only 3.2 percent between 2001 and 2012.

Total economic contributions of agriculture, natural resources, and related food industries were estimated using the IMPLAN® economic impact modeling system software, and are shown in Table ES2. The employment contributions of agriculture and natural resource related industries in Polk

County in 2012 were estimated at 86,023 fulltime and part-time jobs, which represented over 33 percent of the County's total employment (258,938 jobs). This includes secondary indirect and induced multiplier effects for sales of locally produced goods and services to markets outside the County that arise from supply chain activity and household income respending. The total output or industry revenue contributions were estimated at \$14.38 billion. Value added contributions were estimated at \$5.70 billion, which represented 30.5 percent of the County's Gross Domestic Product (GDP) in 2012. Total labor income contributions, including employee wages, salaries, benefits and proprietor (business owner) income, were estimated at \$3.45 billion, and other property income contributions, including dividends, interest payments, rents and corporate profits, totaled \$1.65 billion. Total impacts on taxes on production and imports were estimated at \$600 million (Table ES2).

For all types of contributions, the top four industry groups--Agricultural Inputs & Services; Crop, Livestock, Forestry & Fisheries Production; Food & Kindred Products Distribution; and, Food and Kindred Products Manufacturing, generated at least 82.5 percent of the total contributions for the Agriculture, Natural Resources and Related major group, while the Mining and Nature-based Recreation groups generated less than 7.5 percent of the total contributions for all contribution types. Food and Kindred Products Manufacturing had the largest contributions in terms of industry output (\$4.69 billion) and value added (\$1.78 billion), while Food and Kindred Products Distribution created the largest employment (24,226 jobs) and tax impacts (\$199 million) (Table ES2).

Polk County is in a unique situation with its strong heritage of agriculture and natural resource related industries, combined with high population growth, and, proximity to the Tampa Bay and Orlando metropolitan areas in Florida. Two of its traditional production industries, agriculture and phosphate mining, have been declining in recent years, but fertilizer manufacturing remains steady. Production agriculture in the County is dominated by citrus and this crop has experienced significant challenges in recent years from citrus greening disease (HLB), changing consumer preferences, and competition with other products. At the same time, food related manufacturing and distribution industries have been growing. Some of these industries generate a significant level of domestic and international exports that bring new dollars into the County's economy, which generate multiplier effects. There should be some concern as to how geographically dependent these manufacturing and distribution industries are to agricultural production in the region. If production agriculture continues to decline, then these related manufacturing sectors may be threatened too. Hopefully, continued research and development

will resolve the citrus greening issue and the County will develop a land use plan that will continue to support agriculture.

**Table ES1.** Employment contributions of agriculture, natural resource and related food industries in Polk County, Florida, 2001–12

Industry Group	2001	2002	2004	2006	2007	2008	2009	2010	2011	2012	Change 2001-12 %
	Full-time and Part-time Jobs										
Agricultural Inputs & Services	4,913	4,656	6,466	6,009	5,869	5,613	6,162	5,724	6,323	5,868	19.4%
Crop, Livestock, Forestry & Fisheries Production	10,646	*	10,254	10,520	9,764	10,842	9,574	8,105	9,879	9,655	-9.3%
Food & Kindred Products Distribution	20,197	21,337	20,662	20,451	21,267	21,298	20,594	21,132	22,602	23,295	15.3%
Food & Kindred Products Manufacturing	4,777	4,885	4,500	4,595	5,139	5,236	5,172	5,232	5,245	4,869	1.9%
Forest Products Manufacturing	1,479	1,467	1,875	2,530	2,175	1,921	1,717	1,502	1,350	1,569	6.1%
Mining	2,437	1,884	2,029	851	802	923	1,114	1,080	888	1,000	-59.0%
Nature-based Recreation	471	436	441	421	279	248	220	163	157	108	-77.0%
<b>Total</b>	<b>44,919</b>	<b>34,664</b>	<b>46,228</b>	<b>45,378</b>	<b>45,296</b>	<b>46,082</b>	<b>44,552</b>	<b>42,937</b>	<b>46,444</b>	<b>46,365</b>	<b>3.2%</b>

Source: IMPLAN Group, LLC. Note: data were not available for 2003 and 2005

\* The 2002 data point for this group was implausibly large (18,162) and treated as an outlier.

**Table ES2.** Summary of economic contributions of agriculture, natural resources, and related food industries in Polk County, Florida, 2012

Industry Group	Employment (Jobs)	Output	Value Added	Labor Income	Other property income	Taxes on Production & Imports
Agricultural Inputs & Services	18,988	5,140	1,380	893	364	123
Crop, Livestock, Forestry & Fisheries Production	15,615	1,305	807	561	210	37
Food & Kindred Products Distribution	24,226	1,776	1,089	676	214	199
Food & Kindred Products Manufacturing	19,845	4,692	1,714	943	577	195
Forest Products Manufacturing	4,521	959	414	220	166	27
Mining	2,715	502	294	153	122	19
Nature-based Recreation	112	6	4	3	1	0
<b>Total</b>	<b>86,023</b>	<b>14,382</b>	<b>5,702</b>	<b>3,449</b>	<b>1,654</b>	<b>600</b>

Note: estimates include regional multiplier effects. Employment represents fulltime and part-time jobs.