



The University of Georgia

Center for Agribusiness and Economic Development

College of Agricultural and Environmental Sciences

Economic Impact of Landscape Services in Four Selected Urban Counties

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Executive Summary

Landscape service businesses are primarily engaged in providing landscape care that includes maintenance and installation of lawns, shrubs, plants, trees, or gardens. An urban Atlanta area consisting of Cobb, DeKalb, Fulton, and Gwinnett Counties have landscape service sales totaling \$836.1 million in 2005. Landscape services in each urban county create annual economic impacts within the local economy. Indirect impacts occur as landscaping businesses purchase green industry products, fuel, fertilizers, pesticides, equipment, and supplies. Total direct output impact in the four counties is equal to the value of aggregate sales. Total direct labor income of \$363.5 million for 15,420 employees is the aggregate landscape service firm expense for wages and benefits. Indirect economic activity of \$558.8 million leads to a total output impact of \$1.4 billion in the four urban counties. Total labor income impact is \$561.1 million for 20,969 jobs which averages \$26,757 per job. State and local taxes generated due to economic activity in the four counties associated with landscape services total of \$66.2 million.

Economic Impact of Landscape Services in Four Selected Urban Counties

Landscape service businesses are primarily engaged in providing landscape care that includes maintenance and installation of lawns, shrubs, plants, trees, or gardens. This service sector is involved with products of the green industry and is categorized as an agricultural production activity. While limited in commodity production, urban communities utilize Georgia agricultural production through processing and consumption. Much of urban commodity utilization consists of green industry products due to large residential populations, as well as development of private and public campuses. An urban Atlanta area consisting of Cobb, DeKalb, Fulton, and Gwinnett Counties have landscape service sales totaling \$836.1 million in 2005. This output exceeds all Georgia farm gate crop values in 2005, and only broilers have a greater value. Landscape services in urban counties lead to additional economic output through related industries within each county.

Principles of Economic Impact Analysis

Economic impacts can be estimated with input-output models (IMPLAN) that separate the economy into various industrial sectors such as agriculture, construction, manufacturing, trade, and services. The input-output model then calculates how a change in one industry changes output, income, and employment in other industries. These changes, or impacts, are expressed in terms of direct and indirect effects. Impacts are interpreted as the contribution of the enterprise to the total economy. Direct effects represent the initial impact on the economy of either construction or operations of an enterprise. Indirect effects are changes in other industries caused by direct effects of an enterprise and include changes in household spending due to changes in economic activity generated by direct effects. Thus, the total economic impact is the sum of direct and indirect effects. Input-output analysis can interpret the effects of an enterprise in a number of ways including output (sales), labor income (employee compensation and proprietary income), employment (jobs), and tax revenue.

Economic impacts result from a multiplier effect that begins with expenditures of an enterprise stimulating business to business spending, personal income, employment, and tax revenue. IMPLAN models include a regional purchase coefficient (RPC) for each impact variable that represents percentage of demand that is satisfied by production within an impact area. Demand for inputs not satisfied within the impact area represent leakages that have no indirect impacts in the impact area. Enterprises vary in their multiplier effects due to differing expenditure levels, RPC's, and sectors in which their expenditures are directed. Impact analysis involves quantification of spending levels and proper allocation to impacted sectors.

Output impacts are a measure of economic activity that results from enterprise expenditures in a specific industrial sector. Output is equivalent to sales, and this multiplier offers insights into how initial economic activity in one sector leads to sales in other sectors. Personal income impacts measure purchasing power that is created due to the output impacts. This impact provides the best measure of how standards of living are affected for residents in the impact area.

An enterprise involves a specified number of employees that is determined by the technology of the enterprise. Employment multipliers indicate the effect on employment resulting from the enterprise initiating economic activity. IMPLAN indirect employment includes both full-time and part-time jobs without any distinction. Jobs calculated within an IMPLAN industrial sector are not limited to whole numbers and fractional amounts represent additional hours worked without an additional employee. With no measure of hours involved in employment impacts, IMPLAN summations for industrial sectors which include fractional employment represent both jobs and job equivalents. Since employment may result from some employees working additional hours in existing jobs, instead of terming indirect employment impacts as “creating” jobs, a more accurate term is “involving” jobs or job equivalents.

Economic Impacts of Landscape Services

Landscape services in each urban county create annual economic impacts within the local economy. Indirect impacts occur as landscaping businesses purchase green industry products, fuel, fertilizers, pesticides, equipment, and supplies. Direct output impact in Cobb County of \$170.7 million in Table 1 is equal to the value of annual landscape service sales. Direct labor income of \$76.7 million for 2,972 employees is the aggregate landscape service firm expense for wages and benefits. Indirect economic activity in Cobb County of \$119.0 million leads to a total output impact of \$289.8 million. Indirect output leads to indirect labor income of \$41.7 million for 1,167 jobs. Total labor income in Cobb County is \$118.4 million for 4,138 jobs which averages \$28,613 per job. State taxes of \$8.8 million in Table 1 are for economic activity occurring in Cobb County. Local taxes of \$5.9 million in the county result in total tax revenue of \$14.7 million. Appendix 1 shows economic impacts among major industrial sectors of the Cobb County economy.

Table 1. Landscape Services: Cobb County Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	170,731,552	119,026,915	289,758,467
Labor Income (\$)	76,747,224	41,654,209	118,401,433
Employment	2,972	1,167	4,138
State Taxes (\$)			8,753,990
Local Taxes (\$)			5,943,762
Sum of Taxes (\$)			14,697,752

Direct output impact in DeKalb County of \$226.4 million in Table 2 is equal to the value of annual landscape service sales. Direct labor income of \$89.2 million for 4,807 employees is the aggregate landscape service firm expense for wages and benefits. Indirect economic activity in DeKalb County of \$162.8 million leads to a total output impact of \$389.2 million. Indirect output leads to indirect labor income of \$56.9 million for 1,749 jobs. Total labor income in DeKalb County is \$146.1 million for 6,557 jobs which averages \$22,276 per job. State taxes of \$11.0 million in Table 2 are for economic activity occurring in DeKalb County. Local taxes of \$7.7 million in the county result in total tax revenue of \$18.8 million. Appendix 2 shows economic impacts among major industrial sectors of the DeKalb County economy.

Table 2. Landscape Services: DeKalb County Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	226,360,912	162,846,234	389,207,146
Labor Income (\$)	89,164,384	56,901,706	146,066,090
Employment	4,807	1,749	6,557
State Taxes (\$)			11,024,985
Local Taxes (\$)			7,743,110
Sum of Taxes (\$)			18,768,095

Direct output impact in Fulton County of \$190.5 million in Table 3 is equal to the value of annual landscape service sales. Direct labor income of \$86.5 million for 3,274 employees is the aggregate landscape service firm expense for wages and benefits. Indirect economic activity in Fulton County of \$101.6 million leads to a total output impact of \$292.1 million. Indirect output leads to indirect labor income of \$37.6 million for 941 jobs. Total labor income in Fulton County is \$124.0 million for 4,215 jobs which averages \$29,428 per job. State taxes of \$6.5 million in Table 3 are for economic activity occurring in Fulton County. Local taxes of \$4.9 million in the county result in total tax revenue of \$11.4 million. Appendix 3 shows economic impacts among major industrial sectors of the Fulton County economy.

Table 3. Landscape Services: Fulton County Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	190,478,608	101,601,738	292,080,346
Labor Income (\$)	86,474,184	37,566,593	124,040,777
Employment	3,274	941	4,215
State Taxes (\$)			6,473,642
Local Taxes (\$)			4,902,758
Sum of Taxes (\$)			11,376,400

Direct output impact in Gwinnett County of \$248.6 million in Table 4 is equal to the value of annual landscape service sales. Direct labor income of \$111.2 million for 4,367 employees is the aggregate landscape service firm expense for wages and benefits. Indirect economic activity in Gwinnett County of \$175.30 million leads to a total output impact of \$423.9 million. Indirect output leads to indirect labor income of \$61.4 million for 1,691 jobs. Total labor income in Gwinnett County is \$172.6 million for 6,059 jobs which averages \$28,480 per job. State taxes of \$12.8 million in Table 4 are for economic activity occurring in Gwinnett County. Local taxes of \$8.5 million in the county result in total tax revenue of \$21.3 million. Appendix 4 shows economic impacts among major industrial sectors of the Gwinnett County economy.

Table 4. Landscape Services: Gwinnett County Economic Impacts

	Direct Impact	Indirect Impact	Total Impact
Output (\$)	248,559,056	175,345,818	423,904,874
Labor Income (\$)	111,160,280	61,398,136	172,558,416
Employment	4,367	1,691	6,059
State Taxes (\$)			12,773,665
Local Taxes (\$)			8,540,437
Sum of Taxes (\$)			21,314,101

Summary

An urban Atlanta area consisting of Cobb, DeKalb, Fulton, and Gwinnett Counties have landscape service sales totaling \$836.1 million in 2005. Total direct output impact in the four counties is equal to the value of aggregate sales. Total direct labor income of \$363.5 million for 15,420 employees is the aggregate landscape service firm expense for wages and benefits. Indirect economic activity of \$558.8 million leads to a total output impact of \$1.4 billion in the four urban counties. Total labor income impact is \$561.1 million for 20,969 jobs which averages \$26,757 per job. State and local taxes generated due to economic activity in the four counties associated with landscape services total of \$66.2 million.

Appendix 1. Landscape Services: Economic Impacts to Major Sectors,
Cobb County

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	171,625,479	77,449,824	3,000
Mining & Construction	775,553	332,109	7
Utilities	1,460,971	289,306	3
Manufacturing	6,358,231	976,499	16
Transportation, Warehousing	4,035,755	1,896,618	44
Trade	34,955,082	13,348,205	409
Finance, Insurance, & Real Estate	16,535,179	4,317,840	90
Services	43,524,153	19,585,397	566
Government and non-NAICS	10,488,064	205,637	4
Total	289,758,467	118,401,433	4,138

Appendix 2. Landscape Services: Economic Impacts to Major Sectors,
DeKalb County

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	226,517,412	89,297,628	4,814
Mining & Construction	583,113	240,122	5
Utilities	4,191,100	932,030	1
Manufacturing	7,572,528	1,423,183	25
Transportation, Warehousing	5,294,237	2,245,597	65
Trade	48,692,705	18,621,289	691
Finance, Insurance, & Real Estate	23,870,382	5,990,642	139
Services	59,820,893	27,048,434	812
Government and non-NAICS	12,664,775	267,165	4
Total	389,207,146	146,066,090	6,557

Appendix 3. Landscape Services: Economic Impacts to Major Sectors,
Fulton County

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	190,697,729	86,616,649	3,277
Mining & Construction	402,321	177,968	4
Utilities	1,673,291	323,817	3
Manufacturing	6,066,247	1,093,570	15
Transportation, Warehousing	4,551,331	2,090,508	41
Trade	30,366,787	11,870,054	376
Finance, Insurance, & Real Estate	14,561,771	3,979,142	77
Services	36,962,621	17,443,675	415
Government and non-NAICS	6,798,249	445,394	7
Total	292,080,346	124,040,777	4,215

Appendix 4. Landscape Services: Economic Impacts to Major Sectors,
Gwinnett County

Sector	Output (\$)	Labor	
		Income (\$)	Employment
Agriculture	253,102,447	114,024,713	4,422
Mining & Construction	1,137,429	505,126	10
Utilities	1,126,318	215,119	2
Manufacturing	11,389,668	2,310,598	43
Transportation, Warehousing	5,428,167	2,606,180	62
Trade	52,495,162	20,096,572	616
Finance, Insurance, & Real Estate	24,831,933	6,373,739	132
Services	58,684,360	25,991,923	764
Government and non-NAICS	15,709,391	434,446	7
Total	423,904,874	172,558,416	6,059

The Center for Agribusiness & Economic Development



The Center for Agribusiness and Economic Development is a unit of the College of Agricultural and Environmental Sciences of the University of Georgia, combining the missions of research and extension. The Center has among its objectives:

To provide feasibility and other short term studies for current or potential Georgia agribusiness firms and/or emerging food and fiber industries.

To provide agricultural, natural resource, and demographic data for private and public decision makers.

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