Economic Contributions of the Environmental Horticulture Industry in Florida in 2015

Sponsored Project Report to
Florida Nursery, Growers and Landscape Association, Orlando, Florida

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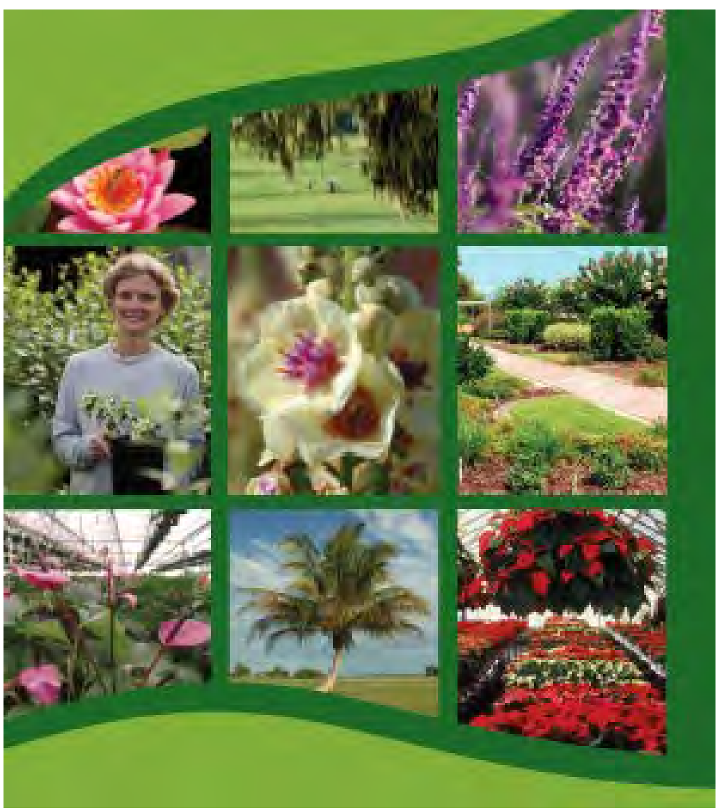

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Table of Contents

Executive Summary

The environmental horticulture industry is comprised of nursery and greenhouse producers, landscape service firms, horticultural product retailers and wholesalers, and allied horticultural product manufacturers and service providers. Economic contributions of the industry in Florida in 2015 were evaluated through mail and internet surveys of industry firms, together with regional economic models of the state and counties.

Survey questionnaires were sent to 10,440 firms, and usable responses were provided by 1,546 firms, representing a 14.8 percent response rate. Survey respondents reported sales of $1.195 billion in 2015. Total industry sales were estimated at $10.711 billion, including $2.753 billion for nursery producers, $4.431 billion for landscape service firms, $1.239 billion for horticultural retailers, $1.041 billion for wholesalers, and $1.247 billion for allied firms. Approximately 25 to 30 percent of nursery, wholesaler and allied firm sales were to out-of-state (national and international) markets, while landscape and retailer sales were predominantly to state and local markets. Respondents reported employment of 14,794 persons, including 11,245 full-time and 3,549 part-time or temporary employees, and total employment in the industry was estimated at 109,821 jobs, including 64,777 jobs in the landscape sector and 19,152 jobs for nurseries. In addition, a total of 552 unfilled positions were reported. Respondents reported capital investment of nearly $50 million in 2015, including $21 million for buildings/structures, $23 million for equipment and vehicles, and smaller amounts for information technology and other types of capital. For the next three years (2016-18), respondents expected to invest nearly $90 million.

Sales percentages were reported for major types of products, services and customers. The largest plant product types for the nursery plant grower sector were palms and tropical foliage plants, representing 21.5 percent of reported sales, followed by evergreen trees and shrubs (15.9%), propagating material (12.8%), and potted flowering/bedding plants (12.6%). Florida native plants represented 15.5 percent of nursery sales. For the landscape services sector, 32.3 percent of sales were for landscape installations and 31.2 percent were for landscape maintenance, including lawncare. For horticultural retailers and wholesalers, about one-third (34.6%) of sales were for live plants, followed by nursery containers (15.9%) and soil/growing media (13.1%). Among allied suppliers, the largest specific categories of product sales were fertilizer (54.0%) and irrigation equipment (13.7%). Information was collected on various product or service features offered in the industry, such as "Florida Friendly" plant or landscaping. Among possible business threats to the industry, over half of respondents indicated that water use restrictions, low prices, increasing costs of production, and government regulations were either "very important" or "moderately important".

Total economic contributions of the environmental horticulture industry were estimated using multipliers and region data from a regional input-output model for Florida constructed with the *IMPLAN* software (Implan Group, LLC). Economic multipliers estimate the economic activity that occurs in other sectors of the economy through the industry supply chain (indirect effects) and respending by employee households and governments (induced effects). Total economic impacts in Florida in 2015 were estimated at 232,648 full-time and part-time jobs, $21.080 billion in industry output or revenues, and $13.172 billion in value added, equivalent to Gross Domestic Product (GDP), comprised of $8.748 billion in labor income (wages, salaries, benefits, proprietor income), $3.427 billion in other property income (rents, interest, royalties, dividends, etc.), and $997 million in indirect business taxes paid to local, state, and federal governments. Employment and GDP contributions were largest for the landscape sector (148,215 jobs, $6.119 billion), followed by wholesale and retail trade (47,451 jobs, $4.021 billion), and nursery production and allied manufacturing (36,982 jobs, $3.033 billion). Contributions by allied suppliers (13,177 jobs, $1.46 billion GDP) were included within the wholesale trade and equipment manufacturing sectors. Since a previous study for 2010, total industry contributions increased by 19.2 percent for output and 22.5 percent for GDP in inflation-adjusted terms, while employment contributions declined by -4.7 percent.

Economic contribution estimates were developed for each of the State's 67 counties and nine economic regions. The top ten counties for employment contributions were Miami-Dade (28,598 jobs), Palm Beach (22,974), Broward (17,758), Orange (17,606), Hillsborough (15,573), Lee (9,851), Duval (9,710), Collier (8,199), Pinellas (7,486) and Seminole (7,115).

Acknowledgments

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Introduction

The environmental horticulture or "Green" industry encompasses a wide range of businesses: nursery and greenhouse producers, lawn and garden equipment and supply manufacturing, merchant wholesalers of durable and nondurable horticultural products, landscape design, installation and maintenance and other support services, lawn and garden stores and other retailers selling plants and related goods.

Nursery plants are one of the largest agricultural commodity groups in Florida, along with fruits, vegetables and forest products. According to the Census of Horticulture Specialties for 2014, the state of Florida had over 2,069 commercial nursery and greenhouse farms, with total sales of $1.796 billion, and $3.291 billion in capital assets in land, buildings, and equipment (USDA-NASS).

For the principal sectors of the environmental horticulture industry in Florida in 2015, there were 14,141 business establishments reporting employment of 108,336 full-time and part-time jobs, and wages paid of $3.313 billion (Table 1). Landscaping Services was by far the largest sector, with 9,594 firms, 67,319 employees and nearly $2 billion in wages, followed by nursery and floriculture production with 1,121 firms, 18,461 employees, and $513 million in wages. Note that these numbers do not represent small, nonemployer establishments who may not report employment to the government, and do not represent ancillary sectors, such as retailers whose principal business is not in horticultural goods and services. The number of establishments and average annual employment in the principal horticulture industry sectors are shown for Florida Counties in Tables 2 and 3, respectively. Miami-Dade County and Palm Beach Counties each had over 1,300 business establishments. Counties with over 5,000 employees in the environmental horticulture industry included Broward (6,043), Hillsborough (6,034), Miami-Dade (13,977), Orange (6,573), and Palm Beach (9,612).

Employment in the environmental horticulture industry in Florida has fluctuated significantly across years and quarterly within the year. Overall employment in the primary sectors of the industry in Florida increased by about 20 percent between 2001 and 2015 (Figures 1-3). While employment dropped significantly during the global economic recession of 2007-10, the data show an upward trend for selected sub-sectors since 2011. In particular, the landscape services sector of the industry grew substantially, while nursery production/manufacturing and wholesale/retail trade have been steady or declining. These same industry trends are reflected in national employment data for the industry, as well as dramatic seasonal fluctuation in landscape services employment reflecting the seasonal business conditions in more temperate climates (Figure 4).

In the United States in 2013, the environmental horticulture industry contributed an estimated 2.036 million jobs, $196.07 billion in industry output, and $120.71 billion to Gross Domestic Product (GDP) (Hodges et al., 2015). In this same study, economic contributions of the industry in the State of Florida ranked second only to California, with total economic contributions estimated at 142,409 jobs, output of $17.587 billion, and GDP of $10.819 billion. Compared with the earlier report (Hodges et al., 2011), the estimates in this study show increases in both jobs and output impacts, which were estimated at 147,795 jobs and $10.0 billion in revenue.

The present study was undertaken to update the economic impact estimates for the environmental horticulture industry in Florida in 2015, and to compare to the results of the earlier national study and previous sponsored research studies for Florida in 2000, 2005 and 2010 (Hodges and Haydu, 2002; Hodges and Haydu, 2006; Hodges et al, 2011).

Table 1. Number of business establishments, employment and wages paid in principal sectors of the environmental horticulture industry in Florida, 2015

Industry Sector (NAICS)	Number of Establishments	Average Annual Employment (Fulltime, Part-Time Jobs)	Wages Paid (Million $)
Nursery and Floriculture Production (11142)	1,121	18,461	$513.2
Lawn and Garden Equipment Manufacturing (333112)	62	250	$8.2
Farm and Garden Equipment Merchant Wholesalers (423820)	341	2,800	$148.6
Nursery and Florist Merchant Wholesalers (42493)	521	6,010	$231.4
Lawn and Garden Equipment and Supplies Stores (4442)	912	6,095	$189.4
Florists (4531)	761	3,356	$83.6
Landscape Architectural Services (54132)	829	4,045	$161.7
Landscaping Services (56173)	9,594	67,319	$1,976.9
Total	14,141	108,336	$3,312.9

Industries classified according to the North American Industry Classification System (NAICS).
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 2. Number of business establishments in principal sectors of the environmental horticulture industry in Florida counties, 2015

Florida County	Nursery and Floriculture Production	Lawn and Garden Equipment Manufac-turing	Landscaping Services	Landscape Architectural Services	Nursery and Florist Merchant Wholesalers	Farm and Garden Equip. Merchant Wholesalers	Lawn and Garden Equipment and Supplies Stores	Florists	Total
Alachua	27		137	6	3	4	14	9	200
Baker	2		8				3	1	14
Bay	1		60	4	1	1	6	6	79
Bradford	2	1	16			1	2	1	23
Brevard	6	4	312	11	2	5	37	24	401
Broward	40	6	688	80	26	21	47	56	964
Calhoun	1		3			1	1		6
Charlotte	3		96	3	3	2	11	8	126
Citrus	7		85	8	2	2	10	6	120
Clay	2	2	100	2	3	4	10	6	129
Collier	16	1	330	36	6	11	19	21	440
Columbia	5		21	2		1	6	3	38
DeSoto	10		20		1	2	4		37
Dixie			4				2		6
Duval	9	1	414	39	11	10	27	23	534
Escambia	2		103	5	2	6	15	13	146
Flagler	2	1	65	6		1	5	4	84
Franklin			3	1					4
Gadsden	9		16				2	1	28
Gilchrist	2		10		1		2		15
Glades	2		4						6
Gulf			3				1	1	5
Hamilton			1				1	1	3
Hardee	17		13	1	3	2	6	1	43
Hendry	11		26	1	1		5		44
Hernando	6	2	75	4	2	4	8	6	107

Florida County	Nursery and Floriculture Production	Lawn and Garden Equipment Manufac-turing	Landscaping Services	Landscape Architectural Services	Nursery and Florist Merchant Wholesalers	Farm and Garden Equip. Merchant Wholesalers	Lawn and Garden Equipment and Supplies Stores	Florists	Total
Highlands	33	2	53	4	3	9	11	7	122
Hillsborough	66	2	493	41	24	17	45	43	731
Holmes			2				2	1	5
Indian River	4		150	8	1	3	12	12	190
Jackson	2		12				4	3	21
Jefferson	6		10	1	1		5		23
Lafayette	3		1				1		5
Lake	76	1	199	5	22	10	23	15	351
Lee	20	2	482	44	10	12	27	29	626
Leon	3	2	105	7	4	4	12	13	150
Levy	6		14		3	3	4	1	31
Liberty							0		0
Madison	1	1	4			1	4		11
Manatee	22		237	17	5	8	19	10	318
Marion	18	1	199	15	3	10	25	9	280
Martin	18		154	27	9	2	6	8	224
Miami-Dade	210	5	557	68	210	38	118	114	1,320
Monroe	1	1	66	8	1		3	11	91
Nassau	1		46	2	1		2	3	55
Okaloosa	2		86	11		3	11	13	126
Okeechobee	2	2	30	3		2	8		47
Orange	107	2	524	73	34	11	40	43	834
Osceola	8		143	4	5	5	8	6	179
Palm Beach	102	1	985	101	44	22	50	58	1,363
Pasco	11	3	222	17	8	5	20	10	296
Pinellas	6	4	450	32	8	13	37	44	594
Polk	30	10	261	23	8	18	33	19	402
Putnam	15		28	2	1		4	5	55
Santa Rosa	9		72	5	2	1	10	6	105
Sarasota	11	1	370	19	4	9	19	21	454
Seminole	15		255	18	7	14	19	13	341
St. Johns	10		134	12	1	2	9	4	172
St. Lucie	10	2	140	8	1	7	13	7	188
Sumter	17		36	4	2		3	3	65
Suwannee	9		17		1	4	7	3	41
Taylor	2		8				4	2	16
Union			0	4			2		6
Volusia	78		302	23	19	7	35	24	488
Wakulla			8	1			1	2	12
Walton	1		41	1	1	2	3	5	54
Washington	4		6	1			1	1	13
Unknown	4	4	87	13	11	22	12	4	157
Total	1,125	64	9,602	831	521	342	916	763	14,164

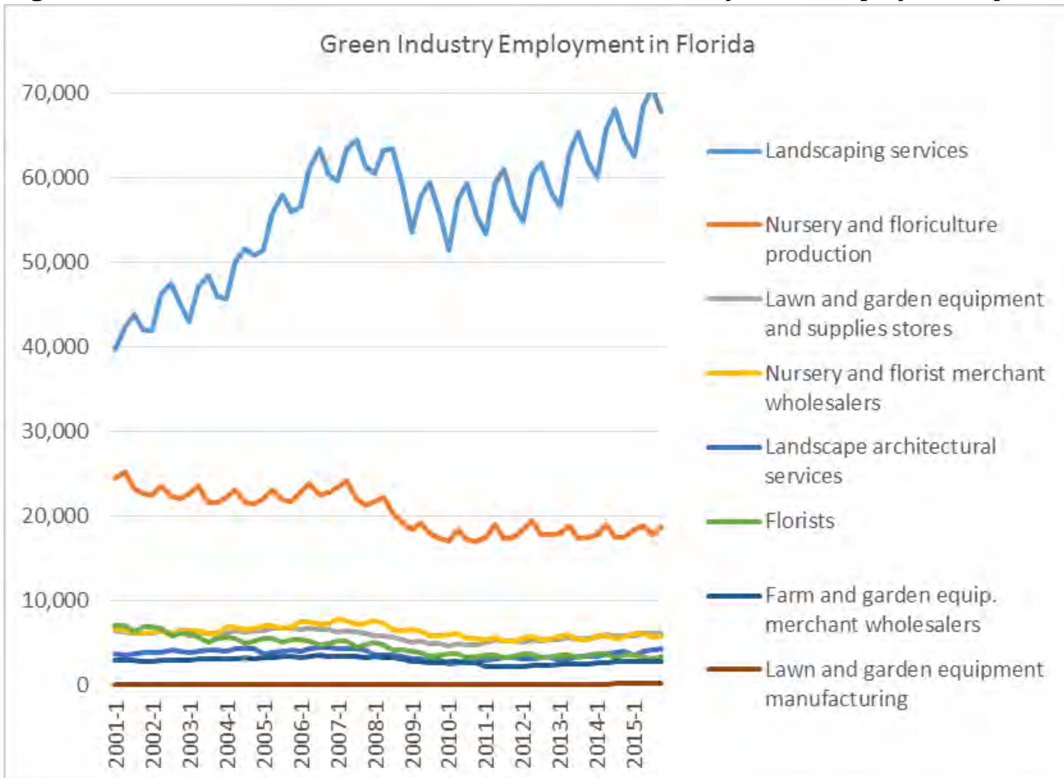
Table 3. Employment by principal sectors of the environmental horticulture industry in Florida counties, 2015

County	Nursery and Floriculture Production	Lawn and Garden Equipment Manufac-turing	Landscaping Services	Landscape Architec-tural Services	Nursery and Florist Merchant Wholesalers	Farm and Garden Equip. Merchant Wholesalers	Lawn and Garden Equipment and Supplies Stores	Florists	Total
					Full-time and Part-time Jobs				
Alachua	292		672	34	0	28	62	53	1,141
Baker	0		40				23	0	63
Bay	0		514	0	0	0	42	26	582
Bradford	0	0	38			0	0	0	38
Brevard	37	8	1,463	19	0	0	207	108	1,842
Broward	0	38	4,808	352	75	198	261	311	6,043
Calhoun	0		0			0	0		0
Charlotte	59		396	0	0	0	60	48	563
Citrus	14		386	15	0	0	40	20	475
Clay	0	0	459	0	5	28	90	24	606
Collier	0	0	3,380	126	10	75	201	77	3,869
Columbia	0		137	0		0	51	0	188
DeSoto	263		107		0	0	55		425
Dixie			16				0		16
Duval	0	0	2,467	220	118	84	267	160	3,316
Escambia	0		630	0	0	112	106	114	962
Flagler	0	0	1,033	73		0	21	13	1,140
Franklin			5	0					5
Gadsden	0		134				0	0	134
Gilchrist	0		26		0		0		26
Glades	0		0						0
Gulf			21				0	0	21
Hamilton			0				0	0	0
Hardee	378		53	0	0	0	0	0	431
Hendry	242		47	0	0		38		327
Hernando	65	0	392	9	0	7	37	43	553
Highlands	596	0	166	0	0	42	131	29	964
Hillsborough	991	0	4,065	182	168	124	338	166	6,034
Holmes			0				0	0	0
Indian River	0		990	69	0	17	123	38	1,237
Jackson	0		33				28	0	61
Jefferson	118		0	0	0		44		162
Lafayette	0		0				0		0
Lake	0	0	1,698	0	297	79	121	96	2,291
Lee	0	0	3,732	224	109	73	170	123	4,431
Leon	7	0	626	14	27	39	269	44	1,026
Levy	84		28		0	0	29	0	141
Liberty							0		0
Madison	0	0	0			0	22		22
Manatee	0		1,605	107	60	62	150	39	2,023
Marion	161	0	900	259	6	160	192	34	1,712
Martin	163		1,345	105	165	0	21	28	1,827
Miami-Dade	5,065	0	3,489	414	3,611	225	624	549	13,977

County	Nursery and Floriculture Production	Lawn and Garden Equipment Manufac-turing	Landscaping Services	Landscape Architec-tural Services	Nursery and Florist Merchant Wholesalers	Farm and Garden Equip. Merchant Wholesalers	Lawn and Garden Equipment and Supplies Stores	Florists	Total
	Full-time and Part-time Jobs								
Monroe	0	0	284	18	0		6	30	338
Nassau	0		253	0	0		0	11	264
Okaloosa	0		472	25		0	71	43	611
Okeechobee	0	0	146	0		0	51		197
Orange	0	0	5,497	277	239	97	241	222	6,573
Osceola	83		723	0	65	0	49	20	940
Palm Beach	0	0	7,954	580	224	256	364	234	9,612
Pasco	186	0	1,348	49	21	26	93	38	1,761
Pinellas	22	0	2,436	96	54	77	172	136	2,993
Polk	477	0	1,763	62	33	191	235	74	2,835
Putnam	163		111	0	0		37	8	319
Santa Rosa	110		326	16	0	0	88	29	569
Sarasota	0	0	2,720	91	50	163	121	104	3,249
Seminole	0		2,397	65	86	169	141	38	2,896
St. Johns	114		846	29	0	0	78	24	1,091
St. Lucie	0	0	822	49	0	86	50	27	1,034
Sumter	291		382	21	0		0	17	711
Suwannee	0		112		0	42	54	8	216
Taylor	0		46				22	0	68
Union			0	24			0		24
Volusia	1,238		1,599	41	185	0	168	79	3,310
Wakulla			54	0			0	0	54
Walton	0		476	0	0	0	21	19	516
Washington	0		5	0			0	0	5
Unknown	0	0	505	63	19	77	22	7	693
Total	11,219	46	67,178	3,728	5,627	2,537	5,907	3,311	99,553

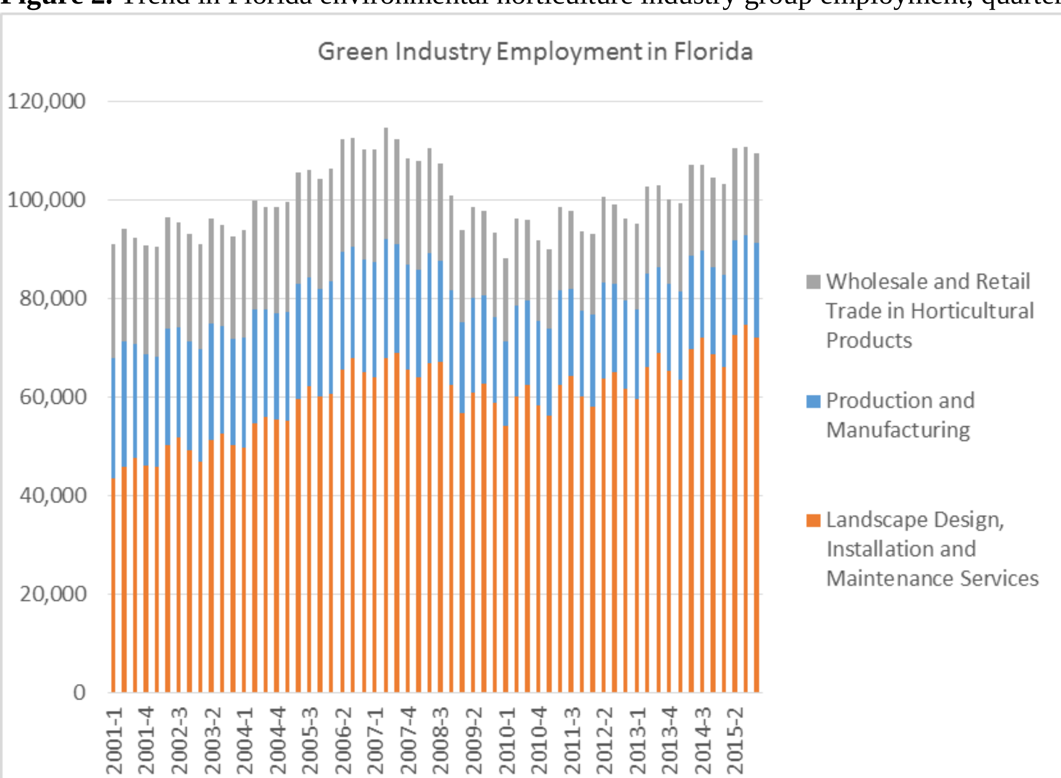
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.
Data not available for some counties and sectors due to nondisclosure rules.

Figure 1. Trend in Florida environmental horticulture industry sector employment, quarterly 2001-15



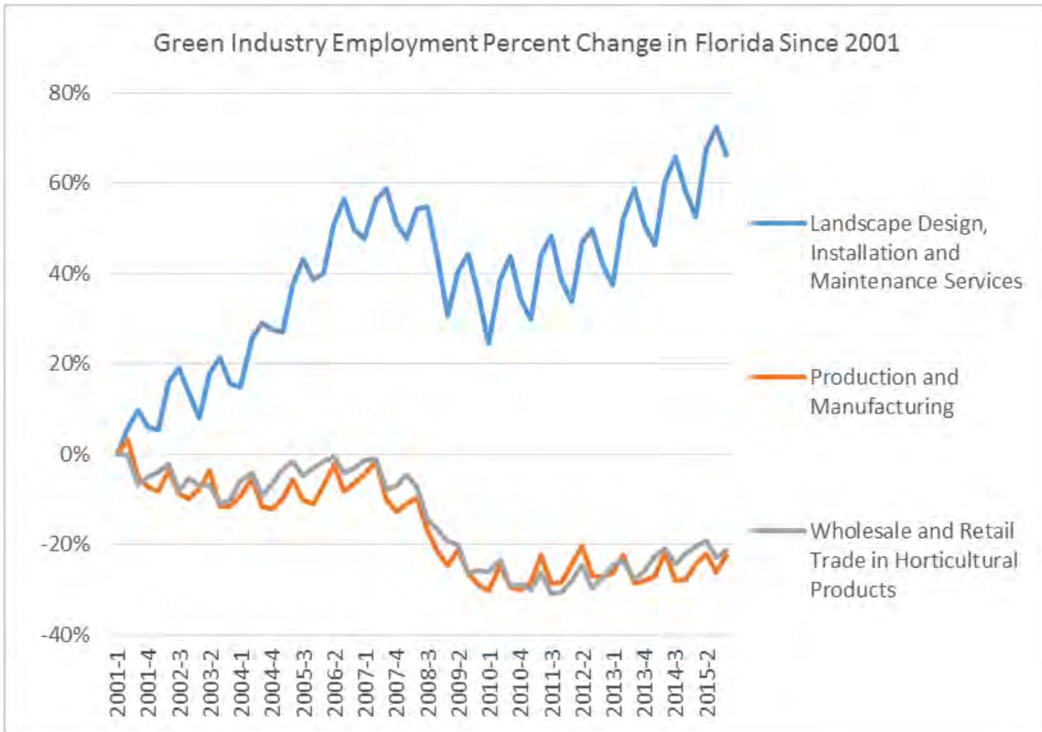
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Figure 2. Trend in Florida environmental horticulture industry group employment, quarterly 2001-15



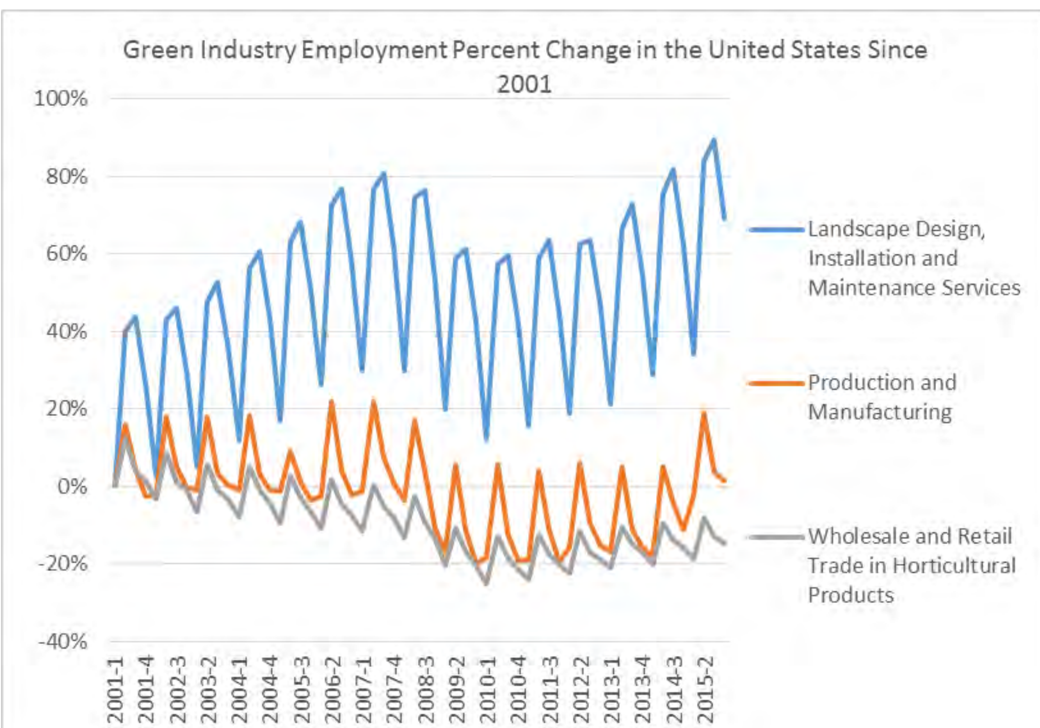
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Figure 3. Trend in Florida environmental horticulture industry group employment percentage change, quarterly 2001-15



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Figure 4. Trend in United States environmental horticulture industry group employment percentage change, quarterly 2001-15



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Methods

Estimation of the economic value of Florida's environmental horticultural industry was based upon information obtained from mail and internet surveys of nursery growers, landscape service firms, horticultural wholesale distributors and retailers, and allied horticultural suppliers conducted during April-June, 2016. Information was collected on annual sales, capital investment, employment, types of goods or services offered, production or wholesale/retail area, regional trade, types of customers and threats to the industry. Survey information represented business results for calendar year 2015 or the most recently completed fiscal year. All respondents were qualified as having active businesses in 2015. Information on annual sales was collected as either a specific value or a range of values. In addition, an open-ended question solicited statements by respondents regarding the impacts of their business and general issues in the industry. The internet and mail survey questionnaires were nearly identical except for certain qualifying questions in the internet survey. A copy of the questionnaire for the mail survey is presented in Appendix A. The questionnaire was prepared as a 5.5 by 8.5-inch booklet with full-color cover as shown on the title page of this report. The survey questionnaire, informed consent statement and survey administration protocol was approved by the University of Florida Institutional Review Board for compliance with federal standards for ethical conduct of human subjects research. No compensation was provided to survey participants.

Lists of firms for the survey were obtained from the certified nursery and stock dealer lists maintained by the Florida Department of Agriculture, Division of Plant Industry. All firms operating in Florida that produce or sell live plant products are legally required to register with this agency, so the lists may be considered comprehensive. The eligible population of nursery firms was considered to be those firms classified as "wholesale" or "wholesale and retail" operations that had an inventory of at least 1,000 plants. Approximately 3,175 very small firms with less than 1,000 plants in inventory were assumed to be noncommercial entities, and were excluded from the survey. The list of stock dealers encompasses landscape service firms. In addition, a list of members of the Florida Nursery, Growers and Landscape Association (FNGLA) was used to identify allied industry firms and confirm contact information. All lists were combined and screened for duplicates, and in some cases, information was filled-in from different sources. All firms with listed email addresses received the internet version of the survey, while firms without email addresses received the mail version. Every effort was made to avoid duplicate contacts of firms via both mail and email. The assembled lists contained a total of 10,440 unique firms, including 5,766 firms contacted via email and 4,674 firms contacted via regular USPS mail, as shown in Table 5.

For the mail survey, respondents received a copy of the survey booklet, together with a postage-paid return envelope and a cover letter from the investigators explaining the purposes of the survey. Two complete mailings of the survey were made during the first weeks of April and May, 2016, followed one week later by reminder postcards. In addition, an introductory postcard was sent one week before the first survey mailing, in keeping with best practices for survey research (Dillman). Firms selected for the internet survey were contacted via email at the same time as the mail survey, and were provided with an electronic link to the online survey at the *SurveyMonkey* website (www.SurveyMonkey.com). Reminder email messages were sent to firms that had not responded to the survey two, four and eight weeks after the initial contact. As required by law, firms choosing to "opt out" of the internet survey were removed from the mailing list and not contacted further. Mail survey respondents were identified by a code number on the survey booklet for quality control purposes. In cases where duplicate responses were received from the same firm, the survey with more complete information was used.

A total of 1,546 firms provided usable responses to the surveys, including 469 (30%) via mail and 1,077 (70%) via internet, representing a response rate of 14.8 percent, which is typical for contemporary mail and internet surveys. Each respondent was classified according to the primary type of business activity and firm size class, based on the total annual sales reported and the percentage of sales in different business lines, as summarized in Table 6. The survey sample included 710 nursery producers, 287 landscape service firms, 361 horticultural retailers, 116 wholesalers, and 54 allied suppliers, plus a small number that could not be classified (Figure 5). Over 40 percent of respondents were considered small or very small businesses, with annual sales less than $500,000, while 10 percent were classified as large, with sales of $1.0 to $4.9 million, and 3.3 percent were very large ($5M+). Over 70 percent of respondents reported key information on annual sales, nearly 80 percent reported employment, and over 30 percent reported capital investment made in 2015. Three quarters (75%) of respondents were the owners of the firm, and almost 10 percent were managers, as well as other company positions such as Grower, Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, and Administrative Assistant (Table 7).

Descriptive statistics were computed for each survey variable, including the number of respondents, mean (average), and sum of sample values. The annual sales for each firm were taken as the specific value reported or estimated at the midpoint of the range selected. Sales of specific products or services, to types of customers, and to different market areas were estimated as a percentage of total sales for each respondent. The total value of sales and employment in each industry sector were estimated from the mean of the survey sample multiplied by the population of firms.

For the horticultural wholesaler and retailer sectors, additional information was compiled on sales of lawn and garden products from the 2012 Economic Census, Product Line Statistics, as shown in Table 8. Gross sales for five selected retail sectors and the wholesale trade sector were $13.164 billion. These sales represented .40 to 15.1 percent of the total sales within each sector, and these percentages were used to estimate the share of total economic activity in these sectors.

Economic impacts of the environmental horticulture industry in 2015 were estimated using regional economic models for the State of Florida and each county developed with the *IMPLAN* software and 2014 state/county database (Implan Group, LLC). The *IMPLAN* databases consist of a set of socioeconomic accounts that represent the structure of the national, state and local economy in terms of transactions between households (10 income groups), government institutions, and 536 industry sectors classified according to the North American Industry Classification System (NAICS). *IMPLAN* models were constructed for Florida with all social accounts included and using the Regional Purchase Coefficient model specification. The *IMPLAN* models measure the economy in terms of commodity production and consumption, industry output or revenues, value added (Gross Domestic Product), employment (full-time and part-time jobs), labor and property income, imports and exports, transfer payments, and taxes. *IMPLAN* estimates economic multipliers for each industry sector, which reflect the direct employment, revenues or spending (direct effects), as well as industry supply chain activity (indirect effects) and respending of income by households and governments (induced effects), and the total economic impact is the sum of direct, indirect and induced multiplier effects. The magnitude of the multipliers represents the strength of linkages in the regional economy to other sectors and institutions, and the share of total inputs provided to industry firms by other businesses within the region.

Economic impacts were estimated using information in the *IMPLAN* model for each sector. Values for nursery and floriculture production, lawn and garden equipment manufacturing, and landscaping services were used as is, while values for the wholesale and retail sectors were split according to the share of employment within parent industry sectors, as shown in Table 9. The distribution of firms by number of employees was used to extrapolate survey data to represent all firms in the State (Table 10). In addition, model values for 2014 were extrapolated to 2015 based on the change in direct employment within each sector. All sectors showed positive change across these two years, except Miscellaneous Retailers, which includes Florists (Table 11). Economic impacts of allied industry suppliers were estimated as a share of activity in the wholesale trade and equipment manufacturing sectors, based on employment reported by survey respondents.

Sales of products and services outside the State of Florida were considered as new final demand, i.e. bringing "new" money into the state economy, and were therefore subject to the total multiplier effects, while sales in-state were treated as economic contributions subject only to the direct effects multiplier (Watson et al, 2007). Note that output of the wholesale and retail sectors is taken as the gross margin on sales. Impacts at the county level were estimated from models for individual counties, and aggregated to regions, and controlled to match with state totals based on the share of proportional share of statewide activity.

Table 5. Number of firms contacted for the 2016 environmental horticulture industry in Florida

Business Type	Internet (Email) Survey	Mail Survey	Total
Allied	224	4	228
Broker	1	0	1
Build Contractor/Developer	2	7	9
Exempt	52	49	101
Garden Center	20	2	22
Grower	168	13	181
Landscape	221	9	230
Own Use	107	60	167
Public	3	0	3
Retailer	1,579	1,308	2,887
Stock Dealer	1,209	1,598	2,807
Wholesaler	1,213	877	2,090
Wholesaler/Retailer	949	745	1,694
Not Available	18	2	20
Total	5,766	4,674	10,440

Figure 5. Number of survey respondents by industry sector and firm sales size class, 2016 survey of the Florida environmental horticulture industry

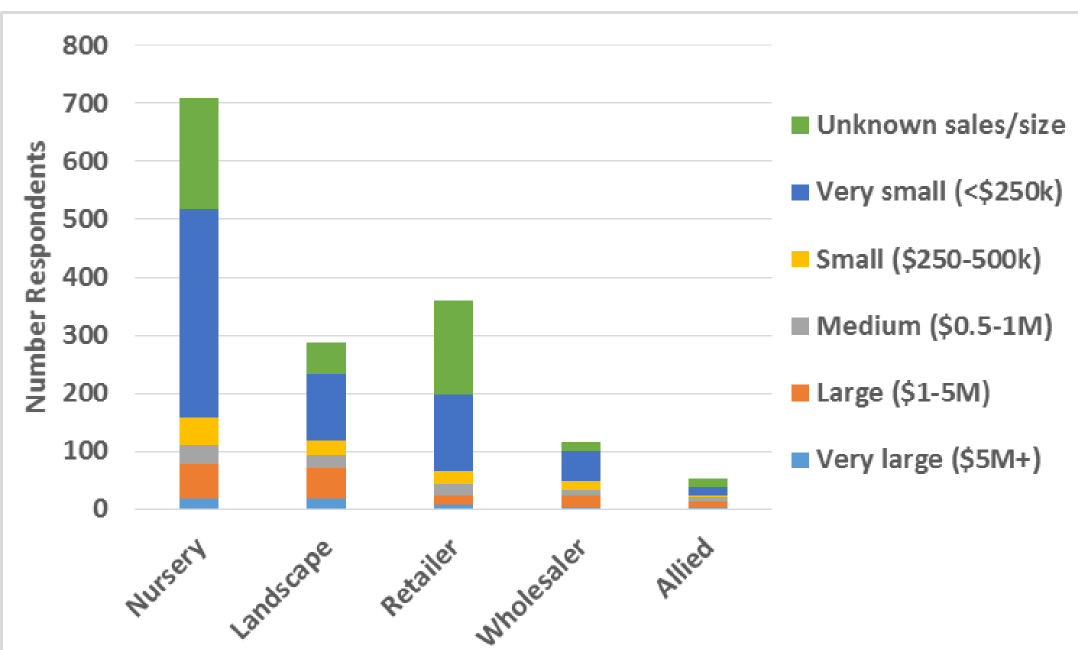


Table 6. Summary of survey respondents by primary business type, survey mode, business size and key indicators, 2016 survey of the Florida environmental horticulture industry

	Nursery	Landscape	Retailer	Wholesaler	Allied	Not Available	Total	Percent of Total
Survey Mode								
Mail	189	98	134	40	3	5	469	30.3%
Online	521	189	227	76	51	13	1,077	69.7%
Total	710	287	361	116	54	18	1,546	100.0%
Percent of Total	45.9%	18.6%	23.4%	7.5%	3.5%	1.2%	100.0%	
Firm Sales Class								
Very Large	17	18	7	4	4	1	51	3.3%
Large	61	52	15	18	9	1	156	10.1%
Medium	32	22	21	11	7	1	94	6.1%
Small	48	27	23	15	3	1	117	7.6%
Very Small	360	113	133	53	16	2	677	43.8%
Not Available	192	55	162	15	15	12	451	29.2%
Reported Annual Sales	518	232	199	101	39	6	1,095	70.8%
Reported Employment	563	258	245	111	46	13	1,236	79.9%
Reported Capital Investment in 2015								
Buildings, Structures	262	117	87	48	21	2	537	34.7%
Equipment, Vehicles	271	144	87	58	20	2	582	37.6%
Information technology	228	110	83	47	18	2	488	31.6%
Other Type	180	73	72	35	13	2	375	24.3%

Table 7. Respondents by company position, 2016 survey of the Florida environmental horticulture industry

Company Position	Number Respondents	Percent
Owner	1,154	74.6%
Manager	147	9.5%
Grower	21	1.4%
Chief Executive Officer	18	1.2%
Chief Financial Officer	14	0.9%
Chief Operating Officer	7	0.5%
Administrative Assistant	22	1.4%
Other	44	2.8%
No answer	119	7.7%
Total	1,546	100%

Table 8. Retail and wholesale sales of lawn and garden products in Florida (2012)

Industry Sector (NAICS)	Total Sales (Million Dollars)	Lawn and Garden Product Sales (Million Dollars)	Percent of Total Sales
Building Material and Garden Supply Stores (444)	15,692	2,370	15.11%
Food and Beverage Stores (445)	38,158	233	0.61%
General Merchandise Stores (452)	41,156	347	0.84%
Miscellaneous Store Retailers (453, Includes Florists)	6,133	214	3.48%
Nonstore Retailers (454)	22,697	91	0.40%
Wholesale Trade (42)	342,238	9,909	2.90%
Total		13,164	

Source: Census Bureau, 2012 Economic Census, product line statistics.

Table 9. Industry parent sector and horticulture subsector splits for employment

Industry Parent Sector / Subsector (NAICS)	Employment 2015 (Fulltime, Part-time Jobs)	Percent of Parent Sector
Architectural and Engineering Services (5413)	76,687	
Landscape Architectural Services (54132)	4,045	5.27%
Wholesale Trade (42)	334,699	
Nursery and Florist Merchant Wholesalers (42493)	6,010	1.80%
Farm and Garden Equip. Merchant Wholesalers (423820)	2,800	0.84%
Building Material and Garden Supply Stores (444)	80,288	
Lawn and Garden Equipment and Supplies Stores (4442)	6,095	7.59%
Miscellaneous Store Retailers (453)	55,514	
Florists (4531)	3,356	6.05%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 10. Number of business establishments in principal sectors of the environmental horticulture industry in Florida, by number of employees, 2015

Business Type (NAICS)	Number Employees								Total Firms
	Fewer than 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	
Nursery and floriculture production (11142)	516	204	181	143	45	26	5	1	1,121
Landscaping services (56173)	7,048	1,304	692	390	109	42	8	0	9,594
Farm and garden equip. merchant wholesalers (423820)	132	65	74	62	6	2	0	0	341
Nursery and florist merchant wholesalers (42493)	256	98	84	60	15	6	1	0	521
Lawn and garden equipment and supplies stores (4442)	435	203	200	64	8	2	0	0	912
Florists (4531)	520	168	57	14	2	0	0	0	761
Landscape architectural services (54132)	624	112	59	28	5	1	0	0	829
Lawn and garden equipment manufacturing (333112)	32	8	6	6	3	3	2	2	62

Industries classified according to the North American Industry Classification System (NAICS).
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 11. Summary of Florida environmental horticulture industry employment and percent change, 2014-15

Industry Title (NAICS)	Average Annual Employment		
	2014	2015	Percent Change
Nursery and Floriculture Production (11142)	17,947	18,461	2.9%
Lawn and Garden Equipment Manufacturing (333112)	166	250	50.6%
Farm and Garden Equip. Merchant Wholesalers (423820)	2,727	2,800	2.7%
Nursery and Florist Merchant Wholesalers (42493)	5,727	6,010	4.9%
Lawn and Garden Equipment and Supplies Stores (4442)	5,876	6,095	3.7%
Miscellaneous Retailers (4531, Includes Florists)	3,560	3,356	-5.7%
Landscape Architectural Services (54132)	3,743	4,045	8.1%
Landscaping Services (56173)	64,609	67,319	4.2%
Food and Beverage Stores-Partial (445)	208,114	217,886	4.7%
General Merchandise Stores-Partial (452)	204,815	210,977	3.0%
Nonstore Retailers-Partial (454)	27,645	31,298	13.2%
Total	544,929	568,497	4.3%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Survey Results

Industry Sector Employment and Sales

Information on employment in 2015 was reported by 1,236 firms, or 80 percent of survey respondents. Direct employment reported totaled 14,794 persons, including 11,245 full-time employees and 3,549 part-time employees, 5,883 at nurseries, 5,005 in landscape services, 1,650 at horticultural retailers, 848 at wholesalers, and 1,210 for allied suppliers (Table 12, Figure 6). Some 1.8 percent of respondents reported having 100 or more employees, 2.1 percent had 50-99 employees, 6.9 percent had 20-49, 8.3 percent had 10-19, 13.1 percent had 5-9, 47.8 percent had less than 5, and 20.1 percent did not report employment (Table 13). Survey respondents also reported a total of 552 unfilled worker positions, representing 3.7 percent of reported employment (Table 12).

The employment figures reported by survey respondents were used to estimate state-level total employment in the industry according to the procedures discussed in the Methods section. Total industry employment in 2015 was estimated at 109,821 jobs, including 19,152 for nurseries, 64,777 for landscape services, 10,592 for retailers, 9,303 for wholesalers, and 5,997 for allied suppliers (Table 14, Figure 7). Note that these employment figures are significantly lower than the number of employees reported to the Florida Department of Labor, Quarterly Census of Employment and Wages, so secondary data on employment was used for the economic impact analysis. The expanded number of unfilled worker positions in the industry was estimated at 4,995, including 3,779 in the landscape sector (Table 14).

Table 12. Employment and unfilled positions reported by primary business type, 2016 survey of the Florida environmental horticulture industry

Employee Type	Nursery	Landscape	Retailer	Wholesaler	Allied	Total
Permanent, Fulltime	4,079	4,265	1,044	572	1,114	11,245
Temporary, Part-Time, Seasonal	1,804	740	606	276	96	3,549
Total Fulltime, Part-Time	5,883	5,005	1,650	848	1,210	14,794
Number Unfilled Positions	170	292	48	26	14	552

Table 13. Employment size distribution by primary business type, 2016 survey of the Florida environmental horticulture industry

Number Employees	Nursery	Landscape	Retailer	Wholesaler	Allied	Total	Percent of Total
	Number of Respondents						
250 to 499	2	1			1	4	0.3%
100 to 249	8	9	2	1	3	23	1.5%
50 to 99	9	16	3	1	3	33	2.1%
20 to 49	41	40	9	10	4	107	6.9%
10 to 19	48	39	24	12	5	128	8.3%
5 to 9	72	42	54	23	9	202	13.1%
Less Than 5	383	111	153	64	21	739	47.8%
Not Available	147	29	116	5	8	310	20.1%
Total	710	287	361	116	54	1,546	100.0%

Table 14. Reported and expanded employment by primary business activity, 2016 survey of the Florida environmental horticulture industry

Primary Business Activity	Reported Employment	Expanded Employment	Expanded Number Unfilled Positions
	Full-time and Part-time Jobs		
Nursery	5,883	19,152	553
Landscape	5,005	64,777	3,779
Retailer	1,650	10,592	308
Wholesaler	848	9,303	285
Allied Manufacturer/Service	1,210	5,997	69
Total Specified Business Types	14,794	109,821	4,995

Figure 6. Reported full-time and part-time/seasonal employment by primary business activity, 2016 survey of the Florida environmental horticulture industry

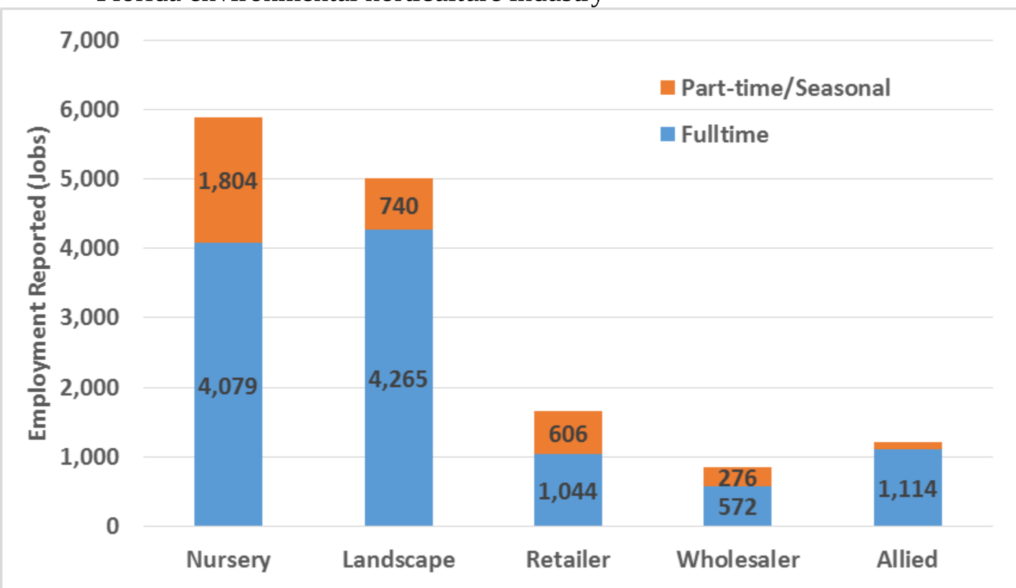
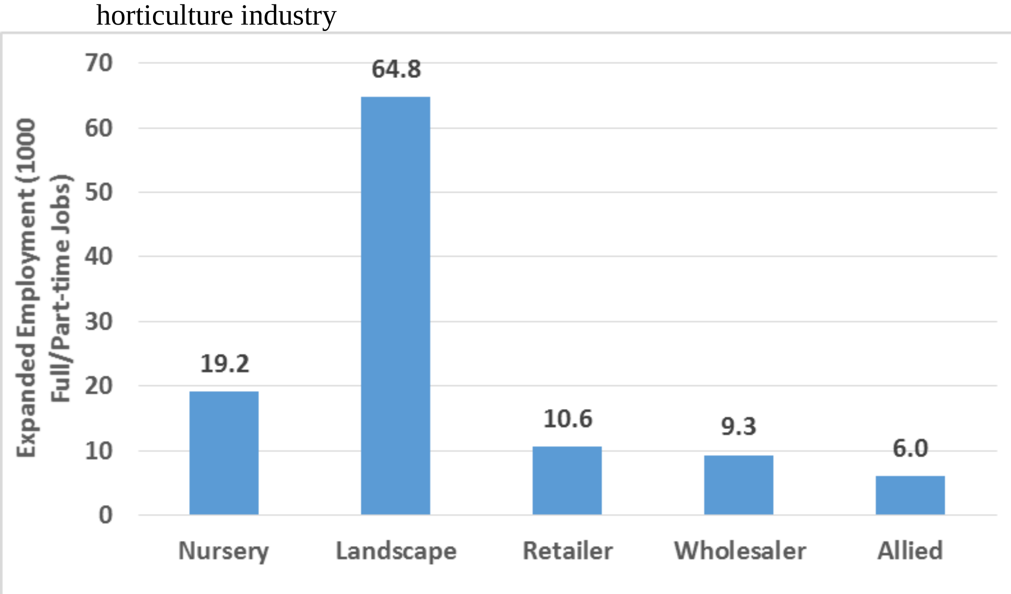


Figure 7. Expanded employment by primary business activity, 2016 survey of the Florida environmental horticulture industry



Information on annual sales was reported by 1,095 firms or 71 percent of all respondents. Total industry sales of $1.263 billion were reported by survey respondents. Annual sales reported by survey respondents averaged $1.15 million (M) per firm. Some 3.3 percent of respondents reported annual sales of $5 million or more, 10.1 percent had sales of $1 to $4.9 million, 6.1 percent had sales of $500-999,000, 7.6 percent had sales of $250-499,000, 43.8 percent had sales under $250,000, and 29.2 percent did not report sales (Table 15). Relative to the nursery plant grower and retailer sectors, a higher percentage of landscape, wholesaler and allied firms had sales greater than $1 million.

Total annual sales for each industry sector were estimated based on the number of respondents reporting annual sales in each firm size class and mean sales per firm, as discussed under Methods. Total expanded industry sales were estimated at $10.711 billion, including $2.753 billion for nurseries, $4.431 billion for landscape service firms, $1.239 billion for horticultural retailers, $1.041 billion for wholesalers, and $1,247 billion for allied suppliers (Table 16, Figure 8).

Industry sales were reported by market region, including local, state, national, and international. The local area was defined as the city or county in which the business was located, or within a 50-mile radius. Overall, 85.2 percent of sales were within the state or local area and 14.8 percent were to national or international markets. Among industry sectors, nurseries and wholesalers had about 30 percent share of national/international sales, allied firms sold 25 percent beyond Florida, and landscape and retailer firms sold less than 10 percent to national/international markets (Table 17, Figure 9).

Table 15. Distribution of respondent firms by annual sales class and principal business activity, 2016 survey of the Florida environmental horticulture industry

Annual Sales Class (Range)	Nursery	Landscape	Retailer	Wholesaler	Allied	Not Available	Total
	Percent of Respondents						
Very large ($5M+)	2.4%	6.3%	1.9%	3.4%	7.4%	5.6%	3.3%
Large ($1-4.9M)	8.6%	18.1%	4.2%	15.5%	16.7%	5.6%	10.1%
Medium ($500-999,000)	4.5%	7.7%	5.8%	9.5%	13.0%	5.6%	6.1%
Small ($250-499,000)	6.8%	9.4%	6.4%	12.9%	5.6%	5.6%	7.6%
Very small (less than $250,000)	50.7%	39.4%	36.8%	45.7%	29.6%	11.1%	43.8%
Not available	27.0%	19.2%	44.9%	12.9%	27.8%	66.7%	29.2%
Total	100%	100%	100%	100%	100%	100%	100%

Figure 8. Expanded sales by primary business activity, 2016 survey of the Florida environmental horticulture industry

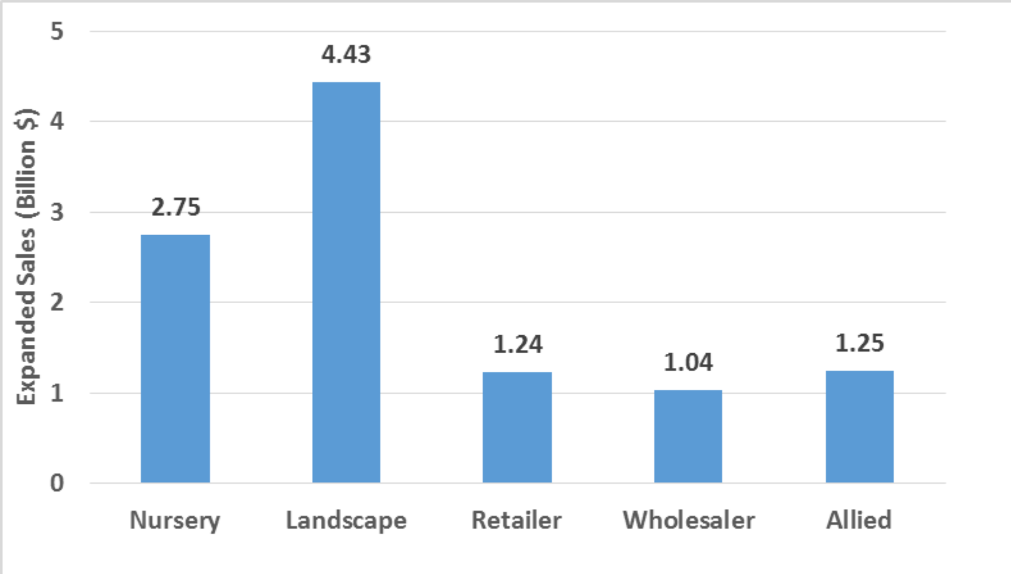


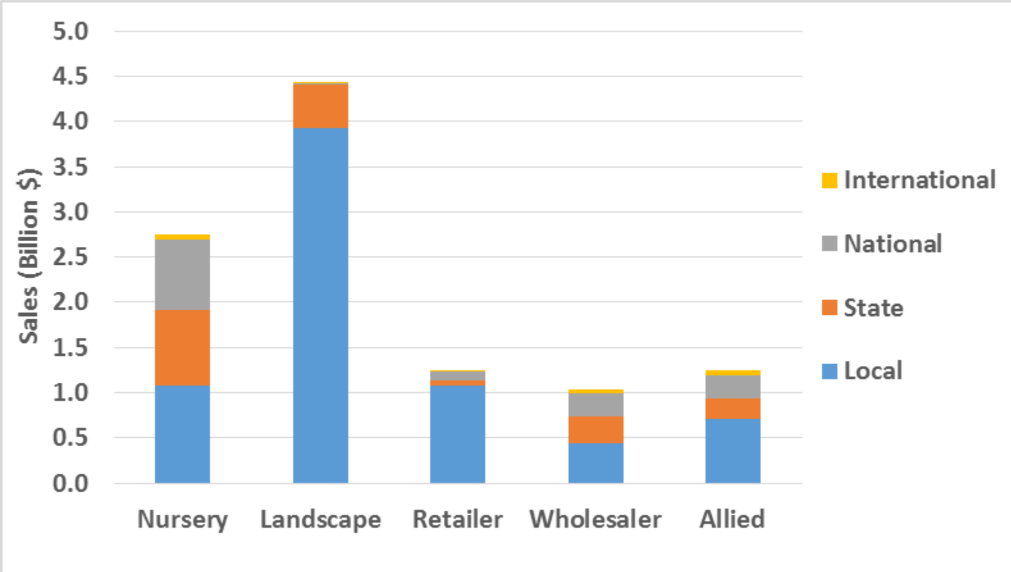
Table 16. Reported and expanded sales and employment by primary business activity, 2016 survey of the Florida environmental horticulture industry

Primary Business Activity	Reported Sales	Expanded Sales
	Million Dollars	
Nursery	$389.4	$2,753
Landscape	$352.6	$4,431
Retailer	$138.1	$1,239
Wholesaler	$117.3	$1,041
Allied Manufacturer/Service	$197.6	$1,247
Total Specified Business Types	$1,195.0	$10,711

Table 17. Expanded sales by market area and primary business activity, 2016 survey of the Florida environmental horticulture industry

Market Area	Nursery	Landscape	Retailer	Wholesaler	Allied	Total
	Million Dollars					
Local Area	$1,079	$3,932	$1,079	$444	$714	$7,248
Florida (Outside Local Area)	$839	$474	$51	$294	$224	$1,881
National (Outside Florida)	$771	$24	$108	$249	$257	$1,409
International	$64	$2	$1	$54	$52	$172
Total Specified Regions	$2,753	$4,431	$1,239	$1,041	$1,247	$10,711
Subtotal Local and State	$1,918	$4,405	$1,130	$738	$939	$9,130
Subtotal National and International	$835	$25	$109	$303	$308	$1,581
Percent National/International	30.3%	0.6%	8.8%	29.1%	24.7%	14.8%

Figure 9. Sales reported by market area and primary business activity, 2016 survey of the Florida environmental horticulture industry



Number of survey respondents, and employment and sales reported for Florida counties are shown in Table 18. Considering reported permanent, full-time employment, the leading five counties were Lee (1,221 full-time, and 189 part-time employees), Orange (1,067 full- and 223 part-time), Hillsborough (801 full- and 437 part-time), Palm Beach (1,036 full- and 172 part-time) and Miami-Dade (768 full- and 152 part-time). In terms of reported total annual sales, respondent firms in Palm Beach County reported the highest sales ($188 M) followed by Lee ($140 M), Miami-Dade ($129 M), Hillsborough ($90 M), and Orange ($87 M) counties, which is equivalent to 50 percent of annual sales reported by all counties (Table 18).

Table 18. Summary of reported employment and sales by Florida County, 2016 survey of the Florida environmental horticulture industry

County	Number Respon-dents	Permanent Full-time Employees	Temporary, Part-Time Employees	Total Annual Sales	Nursery Sales	Retail Sales	Wholesale Sales	Landscape Sales	Allied Sales
				Million Dollars					
Alachua	45	42	46	$3.43	$1.74	$0.09	$0.26	$0.69	$0.39
Baker	9	15	10	$0.70	$0.25	$0.38	$0.06	$0.01	$0.00
Bay	8	84	36	$9.40	$2.38	$0.93	$0.00	$6.10	$0.00
Bradford	3	7	6	$0.75	$0.38	$0.38	$0.00	$0.00	$0.00
Brevard	45	78	43	$4.51	$0.83	$1.44	$0.44	$1.53	$0.00
Broward	87	646	156	$60.09	$14.41	$2.34	$7.56	$33.77	$0.96
Calhoun	2	90	7	$7.50	$7.50	$0.00	$0.00	$0.00	$0.00
Charlotte	8	70	22	$4.10	$1.80	$1.05	$0.00	$1.25	$0.00
Citrus	16	25	11	$2.09	$1.11	$0.55	$0.18	$0.24	$0.00
Clay	8	18	32	$1.06	$0.73	$0.23	$0.01	$0.04	$0.00
Collier	46	750	35	$43.37	$2.98	$1.70	$1.49	$34.79	$0.56
Columbia	7	9	15	$0.98	$0.39	$0.01	$0.20	$0.00	$0.00
Desoto	3	36	11	$7.55	$7.55	$0.00	$0.00	$0.00	$0.00
Dixie	2	2	0	$0.05	$0.00	$0.05	$0.00	$0.00	$0.00
Duval	42	172	174	$21.36	$2.46	$1.65	$5.94	$6.23	$0.53
Escambia	29	251	49	$22.83	$0.51	$5.97	$1.96	$14.16	$0.00
Flagler	7	41	28	$3.98	$0.04	$0.19	$0.00	$3.75	$0.00
Franklin	1	2	1	$0.05	$0.00	$0.00	$0.00	$0.00	$0.05

County	Number Respon-dents	Permanent Full-time Employees	Temporary, Part-Time Employees	Total Annual Sales	Nursery Sales	Retail Sales	Wholesale Sales	Landscape Sales	Allied Sales
				Million Dollars					
Gadsden	6	177	124	$18.60	$18.50	$0.00	$0.05	$0.00	$0.00
Gilchrist	10	29	7	$1.95	$1.89	$0.00	$0.01	$0.05	$0.00
Hamilton	3	1	12	$0.10	$0.00	$0.00	$0.05	$0.00	$0.00
Hardee	10	108	9	$10.98	$1.85	$0.00	$9.13	$0.00	$0.00
Hendry	6	5	4	$0.94	$0.76	$0.00	$0.00	$0.13	$0.00
Hernando	13	10	6	$1.18	$0.89	$0.06	$0.07	$0.14	$0.02
Highlands	17	199	45	$43.55	$4.23	$0.35	$0.88	$2.88	$35.05
Hillsborough	102	801	437	$89.98	$40.10	$3.71	$19.16	$20.13	$0.23
Indian River	17	158	26	$15.18	$0.09	$3.89	$1.18	$9.87	$0.05
Jackson	7	7	13	$0.49	$0.09	$0.00	$0.03	$0.38	$0.00
Jefferson	10	184	24	$20.58	$5.73	$11.39	$2.81	$0.65	$0.01
Lake	54	528	183	$58.51	$38.34	$1.03	$0.42	$8.68	$7.50
Lee	55	1,221	189	$140.45	$26.18	$0.86	$18.69	$57.11	$19.31
Leon	13	87	55	$11.48	$0.49	$6.23	$0.04	$3.74	$0.00
Levy	11	17	44	$1.05	$0.88	$0.03	$0.00	$0.08	$0.00
Madison	2	2	1	$0.10	$0.05	$0.00	$0.00	$0.00	$0.00
Manatee	26	232	101	$20.05	$7.83	$1.68	$1.02	$8.05	$0.30
Marion	45	254	55	$61.58	$25.31	$28.68	$2.00	$0.55	$4.55
Martin	30	122	14	$8.61	$3.84	$0.30	$0.98	$1.76	$0.65
Miami-Dade	120	768	152	$128.97	$49.89	$31.64	$20.57	$15.94	$5.60
Monroe	11	7	3	$0.25	$0.15	$0.10	$0.00	$0.00	$0.00
Nassau	5	5	2	$0.33	$0.10	$0.05	$0.18	$0.00	$0.00
Okaloosa	8	73	38	$5.30	$0.08	$0.68	$0.00	$4.13	$0.00
Okeechobee	5	10	3	$0.65	$0.03	$0.00	$0.38	$0.19	$0.00
Orange	91	1,067	223	$86.90	$41.96	$4.34	$2.98	$33.47	$2.50
Osceola	13	49	14	$6.15	$4.36	$0.19	$1.19	$0.24	$0.00
Palm Beach	108	1,036	172	$188.34	$42.95	$4.53	$4.63	$28.87	$105.77
Pasco	26	59	18	$6.86	$0.73	$0.64	$1.25	$0.30	$3.75
Pinellas	65	374	180	$28.48	$0.36	$3.91	$0.14	$16.69	$2.17
Polk	58	367	403	$13.53	$0.93	$0.74	$2.18	$0.69	$7.14
Putnam	10	40	7	$4.30	$0.11	$0.34	$0.03	$3.76	$0.06
Santa Rosa	24	71	26	$9.08	$0.55	$0.76	$0.59	$6.71	$0.00
Sarasota	30	206	23	$20.76	$6.60	$1.00	$3.10	$8.21	$0.01
Seminole	37	227	77	$25.44	$1.34	$9.55	$1.77	$8.09	$0.43
St. Johns	19	47	12	$4.14	$1.03	$1.08	$0.00	$2.04	$0.00
St. Lucie	12	73	42	$5.18	$0.51	$0.31	$0.05	$3.50	$0.05
Sumter	14	120	31	$10.22	$8.99	$0.39	$0.75	$0.04	$0.00
Suwannee	11	18	7	$0.77	$0.40	$0.10	$0.00	$0.05	$0.01
Taylor	5	15	12	$2.03	$0.21	$0.03	$1.77	$0.03	$0.00
Volusia	47	92	63	$13.96	$4.18	$2.48	$1.14	$2.75	$0.00
Wakulla	1			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Walton	2	5	0	$0.05	$0.01	$0.04	$0.00	$0.00	$0.00
Washington	2	2	2	$0.05	$0.00	$0.05	$0.00	$0.01	$0.00
Total	1,546	11,245	3,549	$1,263.10	$389.40	$138.09	$117.33	$352.58	$197.63

Total includes out-of-state and unknown county locations.

Sales of Horticultural Products and Services

Sales of specific types of horticultural products and services are detailed for each industry sector in Table 19 and Figures 10-13. For the nursery and greenhouse producers, the largest-selling product type was tropical foliage plants, representing 21.5 percent of total sales, followed by evergreen trees and shrubs (15.9%), propagating material (liners, cutting, plugs, microplantlets, 12.8%), potted flowering or bedding plants (12.6%), deciduous trees and shrubs (8.9%), flowering and fruit trees (8.5%), and vines and ground covers (5.9%). Florida native plants represented 15.5 percent of nursery sales (includes all plant categories). For the landscape services sector, landscape installation and landscape maintenance represented 32.2 and 31.2 percent of sales, respectively, followed by irrigation installation and service (14.4%), pest control (10.0%), landscape design (7.6%), interiorscaping (1.2%) and miscellaneous other services (3.3%). For horticultural retailers and wholesalers, about one-third (34.6%) of sales were for live plants, followed by nursery containers (15.9%), soil/growing media (13.1%), fertilizer (7.0%), tools and equipment (4.9%), agrichemicals (4.7%), irrigation parts (3.0%) and miscellaneous other products (16.8%). Among allied suppliers, the largest specific categories of product sales were fertilizer (54.0%) and irrigation equipment (13.7%), and equipment/tools (5.5%), plus 19.2 percent for other unspecified items.

Table 19. Reported and expanded product and service sales, 2016 survey of the Florida environmental horticulture industry

Product/Service	Reported Sales (Million $)	Percent of Reported Sales	Expanded Sales (Million $)
Nursery Plants			
Deciduous Tree and Shrubs	$34.6	8.9%	$244.7
Evergreen Tree and Shrubs	$62.0	15.9%	$438.2
Flowering, Fruit Trees	$33.0	8.5%	$233.4
Palms, Tropical Foliage	$83.7	21.5%	$591.6
Vines and Ground Covers	$22.9	5.9%	$161.7
Potted Flowering and Bedding Plants	$48.9	12.6%	$346.0
Herbaceous Perennials	$16.8	4.3%	$118.5
Cut Foliage and Flowers	$4.9	1.2%	$34.4
Propagules (Liners, Plugs, Microplantlets)	$49.9	12.8%	$352.6
Turfgrass	$6.5	1.7%	$45.9
Edible Plants	$13.8	3.5%	$97.5
Aquatic Plants	$0.6	0.2%	$4.5
Other Plants	$11.8	3.0%	$83.8
Total Specific Plant Types	$389.4	100.0%	$2,752.7
Native Plants (All Plant Categories)	$170.1	15.5%	$1,2002
Retail/Wholesale Products			
Plant and Seeds	$88.3	34.6%	$787.8
Fertilizers	$18.0	7.0%	$160.4
Agrichemicals	$12.1	4.7%	$107.8
Nursery Containers	$40.6	15.9%	$362.3
Soil and Growing Media	$33.6	13.1%	$299.7
Tools and Equipment	$12.5	4.9%	$111.3
Irrigation Parts	$7.7	3.0%	$68.5
Other Retail/Wholesale Products	$42.8	16.8%	$382.1
Total Retail/Wholesale Products	$255.4	100.0%	$2,280.0

Product/Service	Reported Sales (Million $)	Percent of Reported Sales	Expanded Sales (Million $)
Landscape Services			
Landscape Design	$26.7	7.6%	$335.7
Landscape Installation	$114.0	32.3%	$1,432.2
Irrigation Installation and Services	$50.9	14.4%	$640.2
Landscape Maintenance and Lawncare	$109.9	31.2%	$1,381.7
Interiorscaping	$4.1	1.2%	$51.8
Pest Control	$35.3	10.0%	$443.1
Other Landscape Service	$11.6	3.3%	$146.3
Total Landscape Services	$352.6	100.0%	$4,430.9
Allied Manufacturers or Services			
Soil Media, Peat	$3.5	1.8%	$22.1
Horticultural Containers	$5.0	2.5%	$31.3
Fertilizers	$106.7	54.0%	$673.6
Agrichemicals	$1.5	0.8%	$9.5
Packaging Materials	$1.9	1.0%	$12.2
Equipment, Tools	$10.8	5.5%	$68.1
Irrigation Equipment	$27.0	13.7%	$170.5
Greenhouse Structures	$0.2	0.1%	$1.4
Transportation, Logistics	$1.5	0.7%	$9.3
Business or Consulting Services	$1.6	0.8%	$10.0
Other Allied Products or Services	$37.9	19.2%	$239.1
Total Allied Manufacturers or Services	$197.6	100.0%	$1,247.1

Figure 10. Expanded nursery product sales, 2016 survey of the Florida environmental horticulture industry

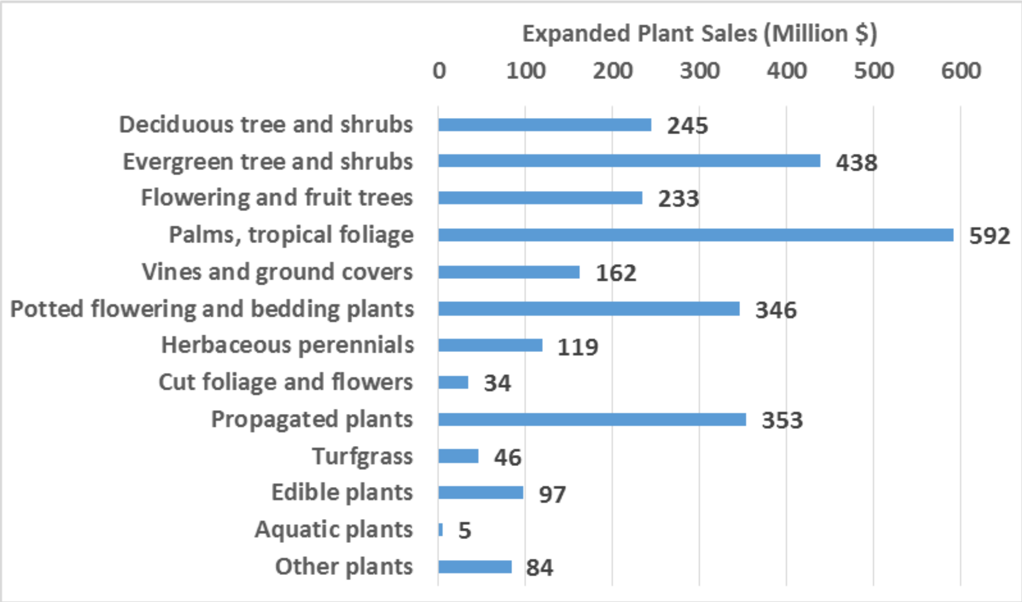


Figure 11. Expanded wholesaler/retailer product sales, 2016 survey of the Florida environmental horticulture industry

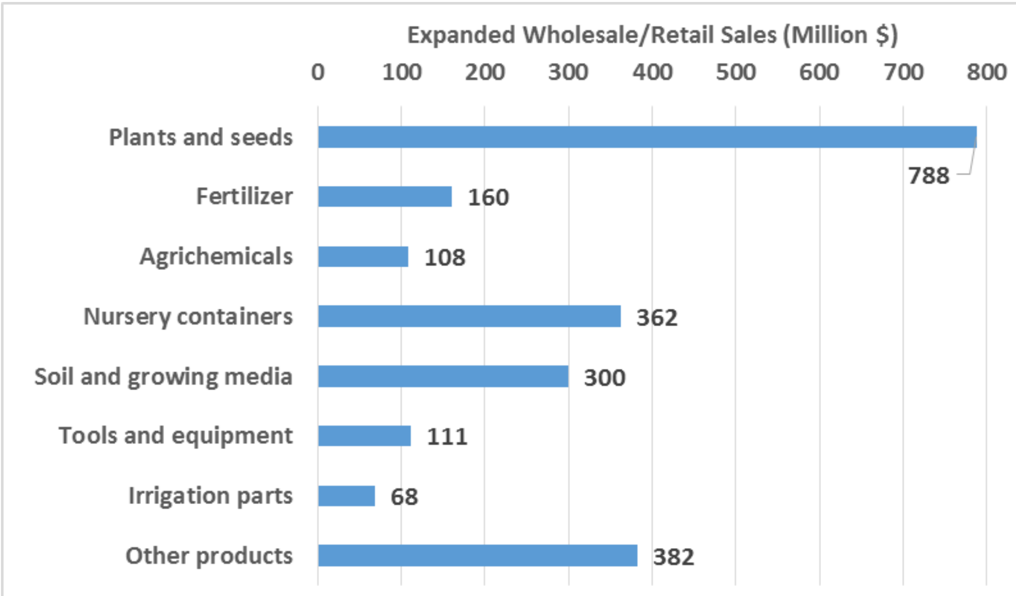


Figure 12. Expanded landscape service sales, 2016 survey of the Florida environmental horticulture industry

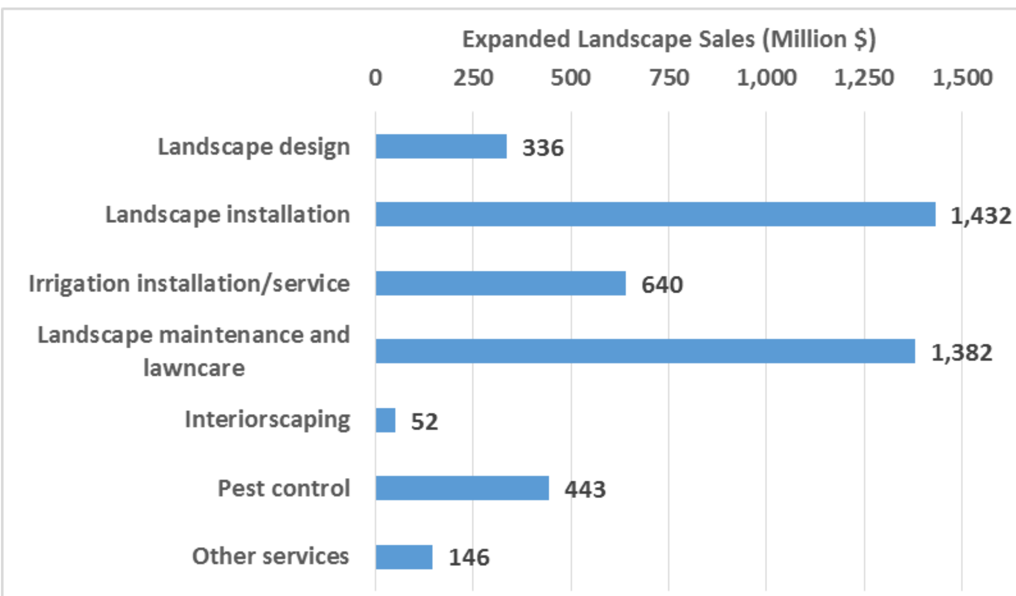
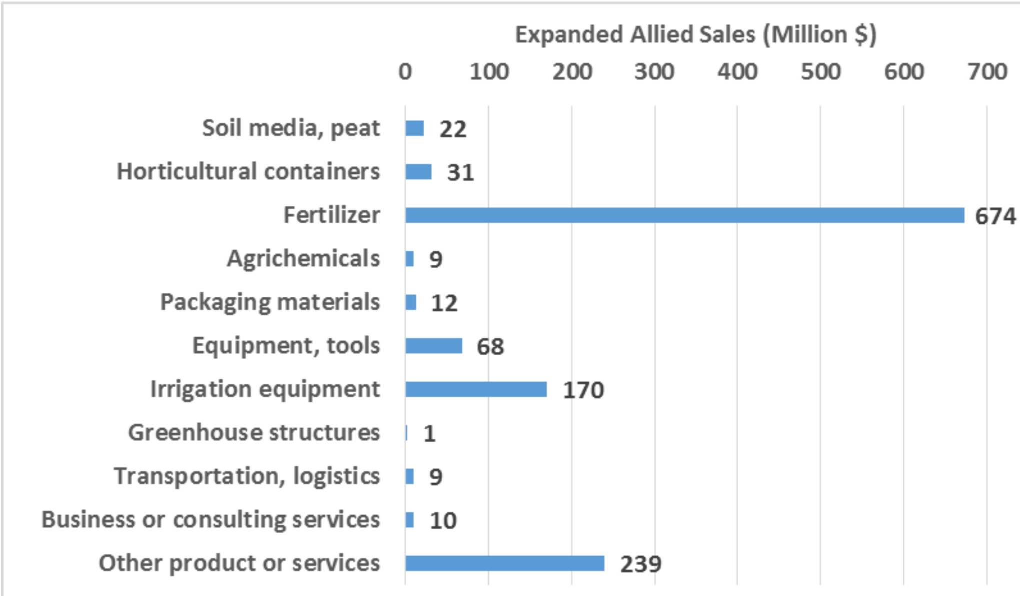


Figure 13. Expanded allied industry sales, 2016 survey of the Florida environmental horticulture industry



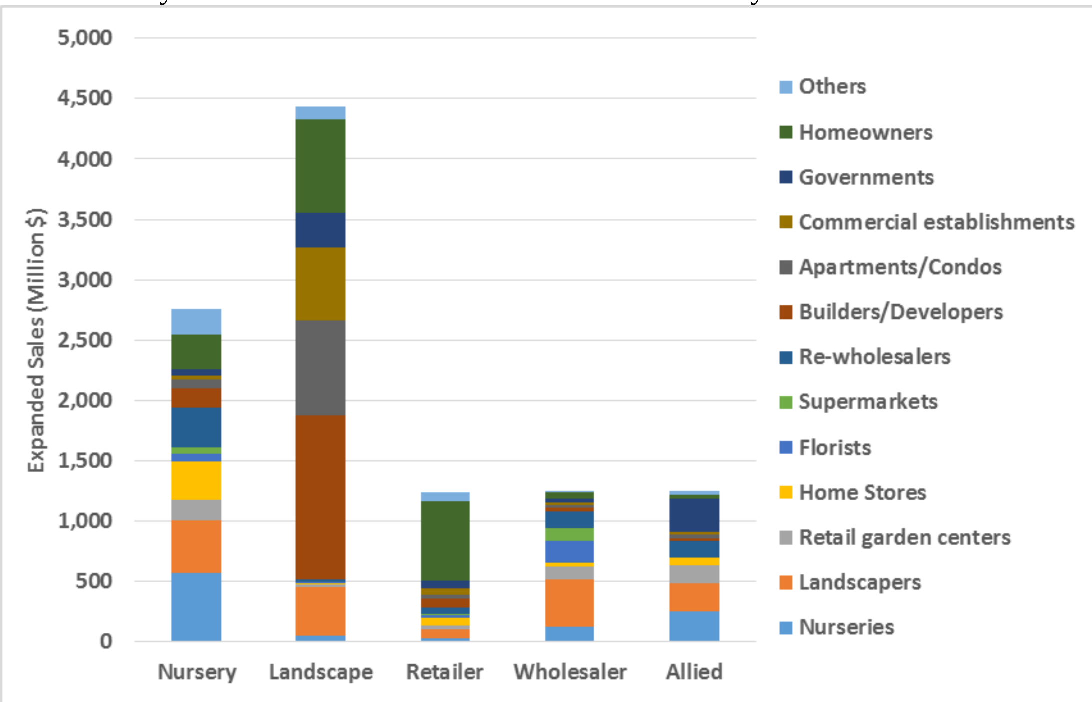
Market Channels for Horticultural Products

Reported sales of horticultural products and services to different types of customers are summarized in Table 20 and Figure 14. For the nursery/greenhouse sector, sales were greatest to other nursery firms (20.6%), followed by landscape contractors (15.7%), re-wholesalers/brokers (11.7%), home improvement stores (11.5%), and homeowners (10.4%). The most important type of customers for landscape firms were builders/developers (30.8%), apartments/condominiums/homeowner associations (17.8%), homeowners (17.5%), and commercial establishments such as office buildings, retail stores, restaurants, hotels, etc. (13.5%). For horticultural retailers, the largest customer segment by far was individual homeowners (53.0%), followed distantly by builders-developers (6.4%), landscape contractors (6.4%), and other unspecified customers (6.3%). For wholesalers, the largest customer groups were landscapers (32.3%), florists (14.4%), nurseries (9.4%), supermarkets (8.2%), and retail garden centers (8.0%). The largest customers for allied suppliers included government agencies (22.1%), nursery growers (20.3%), landscapers (18.3%), retail garden centers (12.1%), and re-wholesalers (11.2%).

Table 20. Percentage of sales by customer type and primary business, 2016 survey of the Florida environmental horticulture industry

Customer Type	Nursery	Landscape	Retailer	Wholesaler	Allied	Total
	Percentage of Sales					
Nurseries	20.6%	0.9%	2.1%	9.4%	20.3%	9.2%
Landscapers	15.7%	9.2%	6.4%	32.3%	18.3%	14.2%
Retail Garden Centers	6.3%	0.4%	2.1%	8.0%	12.1%	4.3%
Home Improvement and Mass Merchandise Stores	11.5%	0.3%	5.4%	2.7%	4.9%	4.5%
Florists	2.5%	0.1%	1.4%	14.4%	0.1%	2.5%
Supermarkets	2.0%	0.1%	1.2%	8.2%	0.0%	1.6%
Re-Wholesalers, Brokers	11.7%	0.4%	3.8%	11.7%	11.2%	6.2%
Builders, Developers	5.9%	30.8%	6.4%	2.3%	2.0%	15.2%
Apartments, Condominiums, Homeowner Associations	2.5%	17.8%	2.7%	1.9%	2.2%	8.6%
Commercial Establishments	1.2%	13.5%	3.6%	1.5%	1.8%	6.6%
Government Agencies	2.0%	6.6%	5.6%	2.9%	22.1%	6.7%
Homeowners, Individual Consumers	10.4%	17.5%	53.0%	4.5%	2.2%	16.5%
Other Types of Customers	7.7%	2.2%	6.3%	0.5%	2.9%	3.9%
Total	100%	100%	100%	100%	100%	100%

Figure 14. Expanded sales of horticultural products and services by customer type and primary business, 2016 survey of the Florida environmental horticulture industry



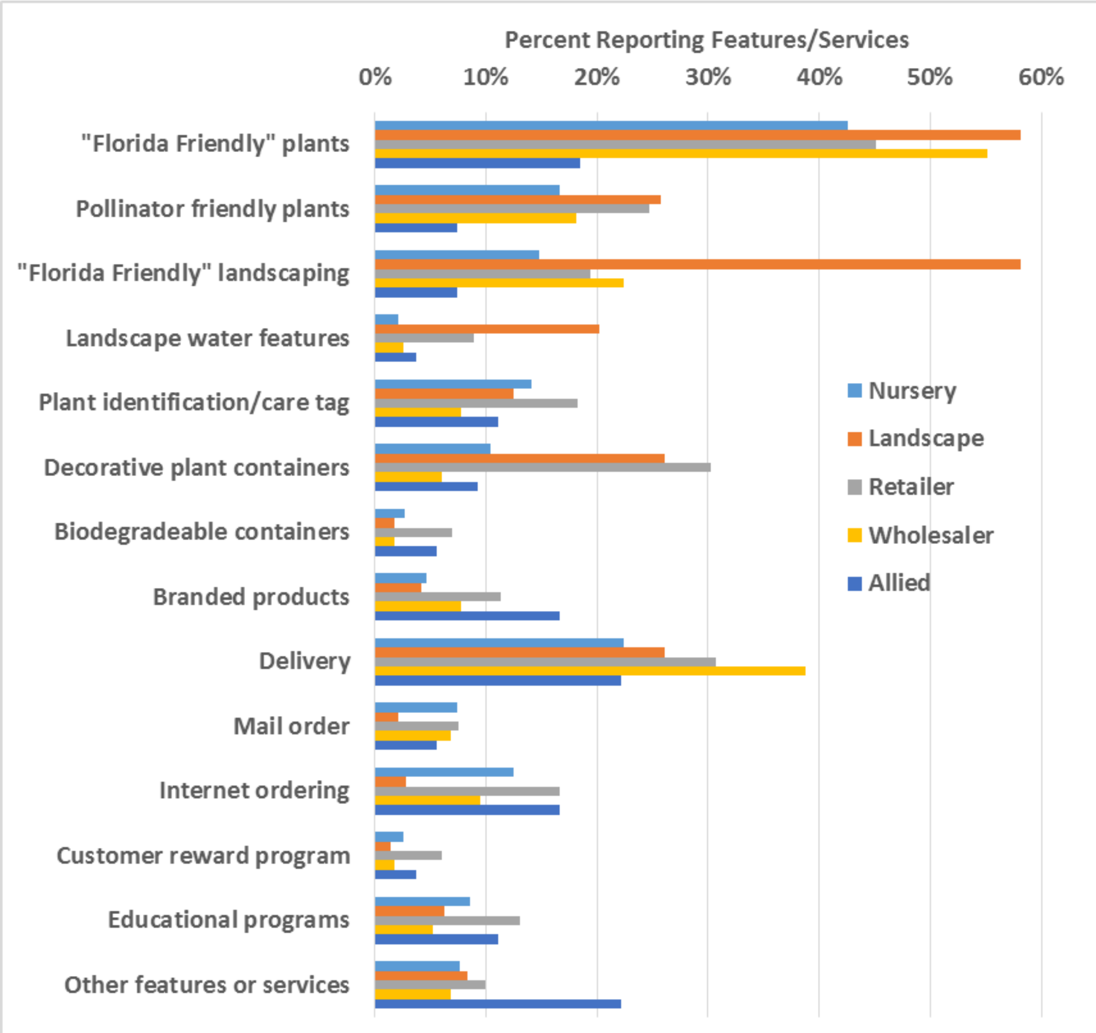
Product or Service Features Offered

Information was collected on various product or service features offered in the industry, as summarized in Table 21 and Figure 15. Across all industry sectors, the most common features offered were "Florida Friendly" plants, offered by 45.9 percent of respondent firms, followed by delivery (26.1%), "Florida Friendly" landscaping (24.1%), pollinator friendly plants (19.9%), decorative plant containers (17.2%), plant identification/care tagging (14.2%), internet ordering (11.5%), and educational programs (9.0%). Among landscape firms, 58 percent offered Florida Friendly plants and landscaping, 26 percent offered pollinator friendly plants, and a significant number offered landscape water features (20.2%). For retailer firms, a larger share offered "Florida Friendly" plants (45.2%), followed by decorative containers (30.2%), delivery (30.7%), and "Florida Friendly" landscaping (19.4%). Wholesalers commonly provided delivery services (38.8%). For allied firms, a relatively higher percentage offered branded products (16.7%) and internet ordering (16.7%).

Table 21. Product and service features offered, 2016 survey of the Florida environmental horticulture industry

Feature or Service	Nursery	Landscape	Retailer	Wholesaler	Allied	Total
	Percentage of Respondents Offering					
"Florida Friendly" Plants	42.5%	58.2%	45.2%	55.2%	18.5%	45.9%
Pollinator Friendly Plants	16.6%	25.8%	24.7%	18.1%	7.4%	19.9%
"Florida Friendly" Landscaping	14.8%	58.2%	19.4%	22.4%	7.4%	24.1%
Landscape Water Features (Pools, Fountains)	2.1%	20.2%	8.9%	2.6%	3.7%	7.2%
Plant Identification, Care Tagging	14.1%	12.5%	18.3%	7.8%	11.1%	14.2%
Decorative Plant Containers	10.4%	26.1%	30.2%	6.0%	9.3%	17.5%
Biodegradeable Plant Containers	2.7%	1.7%	6.9%	1.7%	5.6%	3.5%
Branded Products	4.6%	4.2%	11.4%	7.8%	16.7%	6.7%
Delivery	22.4%	26.1%	30.7%	38.8%	22.2%	26.1%
Mail Order	7.5%	2.1%	7.5%	6.9%	5.6%	6.3%
Internet Ordering	12.5%	2.8%	16.6%	9.5%	16.7%	11.5%
Favored Customer Reward Programs	2.5%	1.4%	6.1%	1.7%	3.7%	3.1%
Educational Programs	8.6%	6.3%	13.0%	5.2%	11.1%	9.0%
Other Features or Service	7.6%	8.4%	10.0%	6.9%	22.2%	8.9%

Figure 15. Product and service features offered, 2016 survey of the Florida environmental horticulture industry



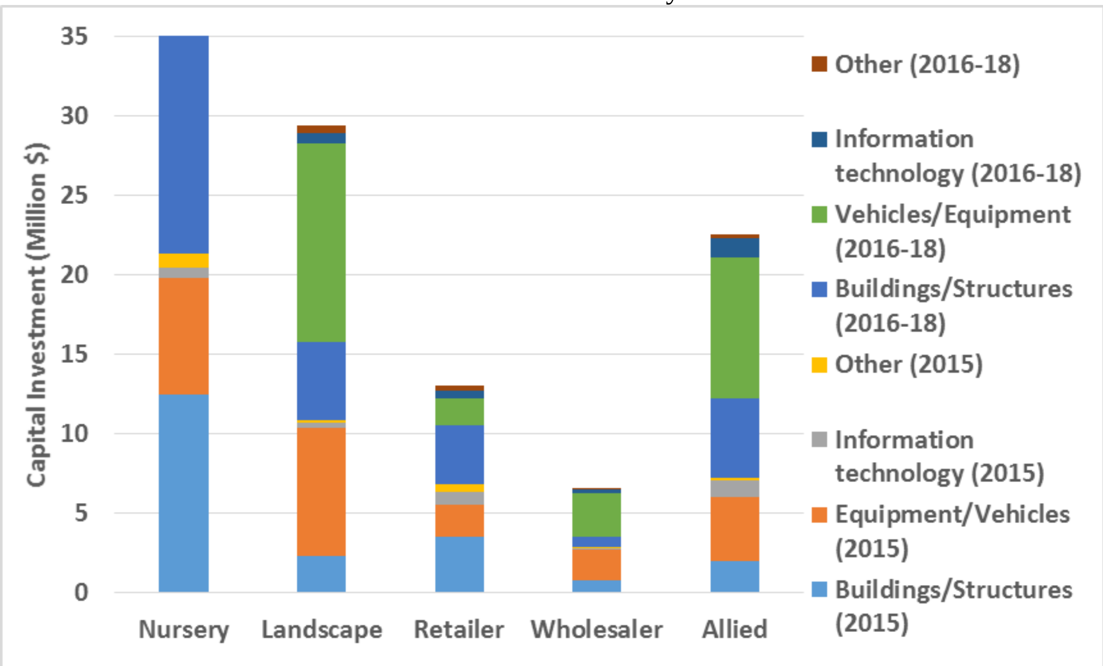
Capital Investment

Survey respondents reported total capital investment in 2015 of nearly $50 million (M), including $21.4 M for buildings/structures, $23.4 M for equipment and vehicles, $2.9 M for information technology, and $1.7 M for other types of capital (Table 22, Figure 16). Reported investments were greatest for nurseries ($21.4 M), landscape firms ($10.9 M), and allied firms ($7.3 M). Over the next three years (2016-18), respondents expected to invest nearly $90 M, including $44.6 M in buildings and $38.2 M in vehicles and equipment, with over half of this ($46.1 M) being invested by nurseries.

Table 22. Capital investment reported by primary business type in 2015 and for the next three years, 2016 survey of the Florida environmental horticulture industry

Investment Type, Year(s)	Nursery	Landscape	Retailer	Wholesaler	Allied	Total
			Million Dollars			
Investment in 2015						
Buildings, Structures	$12.45	$2.36	$3.52	$0.80	$1.98	$21.40
Vehicles, Equipment	$7.33	$8.06	$2.06	$1.94	$4.03	$23.41
Information Technology	$0.66	$0.30	$0.77	$0.07	$1.11	$2.92
Other	$0.92	$0.13	$0.50	$0.05	$0.13	$1.74
Total	$21.36	$10.85	$6.86	$2.86	$7.25	$49.47
Investment Next Three Years						
Buildings, Structures	$30.35	$4.95	$3.65	$0.65	$4.96	$44.63
Vehicles, Equipment	$12.38	$12.43	$1.73	$2.78	$8.87	$38.18
Information Technology	$1.47	$0.72	$0.49	$0.21	$1.19	$4.07
Other	$1.86	$0.48	$0.33	$0.06	$0.25	$2.98
Total	$46.06	$18.57	$6.20	$3.70	$15.27	$89.87

Figure 16. Capital investment reported by primary business type in 2015 and for the next three years, 2016 survey of the Florida environmental horticulture industry



Area Managed

Nursery respondents to the survey reported area managed for production in greenhouse/shadehouse, container and field production, as summarized in Table 23. Roughly one-third to one-half of respondents reported having the smallest range of production area, less than 10,000 square feet of greenhouse/shadehouse, and less than 5 acres of container or field area, while one to two percent reported having the largest range of over one million square feet of greenhouse/shadehouse, and over 100 acres container or field area. Total production area reported was estimated at 83 million square feet (MSF) of greenhouse/shadehouse, 359 MSF (8.235 acres) of container production, and 332 MSF (7,620 acres) of field production. In addition, wholesaler and retailer respondents reported nearly 22 MSF of business sales area.

Table 23. Nursery/greenhouse production area and wholesale/retail area, 2016 survey of the Florida environmental horticulture industry

Type / Size Production Area	Number Respondents	Percent Respondents
Greenhouse/Shadehouse (Square Feet)		
Less than 10,000	319	34.3%
10-49,000	113	12.1%
50-99,000	47	5.0%
100-199,000	31	3.3%
200-499,000	27	2.9%
500-999,000	17	1.8%
1+ million	11	1.2%
Don't know, Not available	366	39.3%
Total	931	100.0%
Container Production (Acres)		
Less than 5	456	49.0%
5-9	62	6.7%
10-19	49	5.3%
20-49	32	3.4%
50-99	12	1.3%
100+	12	1.3%
Don't know, Not available	307	33.0%
Total	930	100.0%
Field production (Acres)		
Less than 5	275	29.8%
5-9	40	4.3%
10-19	29	3.1%
20-49	13	1.4%
50-99	8	0.9%
100+	17	1.8%
Don't know, Not available	541	58.7%
Total	923	100.0%

Type Area	Estimated Area (Million Square Feet)
Greenhouse	82.7
Container	358.7
Field	331.9
Wholesale, Retail	21.9
Total	795.3

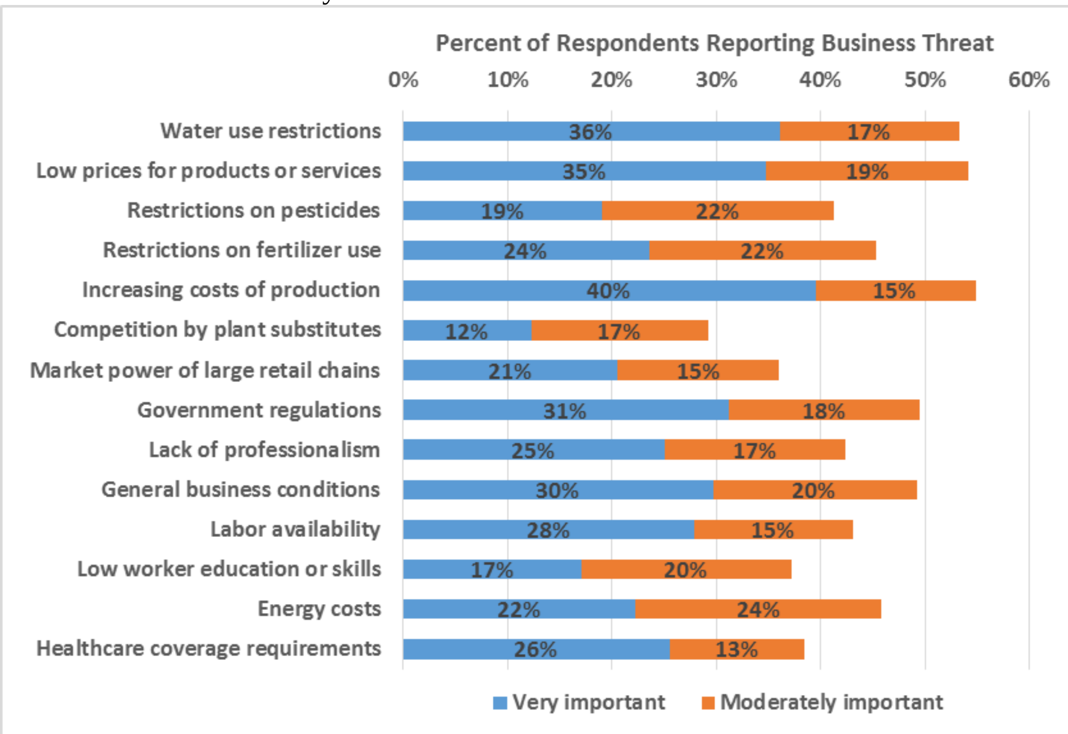
Issues or Threats to the Environmental Horticulture Industry

Survey respondents were asked to rate possible issues or threats facing the environmental horticulture industry in Florida in terms of “very important”, “moderately important”, or “not important”, as summarized in Table 24 and Figure 17. The most important issues were increasing costs of production, rated as “very important” by 40 percent of respondents, followed by water use restrictions (36%), low prices (35%) and government regulations (31%). Over half of respondents indicated that these same threats were either “very important” or “moderately important”. A second tier of threats rated as “very important” by over 20 percent of respondents were general business conditions (30%), labor availability 28%), lack of professionalism (25%), healthcare coverage requirements (26%), restrictions on fertilizer use (24%), energy costs (22%), and market power of large retail chains (21%). Competition by plant substitutes was viewed as “not important” by 24 percent.

Table 24. Importance ratings of possible business issues or threats, 2016 survey of the Florida environmental horticulture industry

Issue or Threat	Very Important	Moderately Important	Not Important
	Percentage of Respondents		
Water Use Restrictions	36%	17%	9%
Low Prices for Products or Services	35%	19%	6%
Restrictions On Pesticides (e.g. Neonicotinoids)	19%	22%	17%
Restrictions on Fertilizer Use	24%	22%	14%
Increasing Costs of Production	40%	15%	5%
Competition by Plant Substitutes	12%	17%	24%
Market Power of Large Retail Chains	21%	15%	21%
Government Regulations	31%	18%	9%
Lack of Professionalism	25%	17%	13%
General Business Conditions	30%	20%	9%
Labor Availability	28%	15%	15%
Low Worker Education or Skills	17%	20%	19%
Energy Costs	22%	24%	12%
Healthcare Coverage Requirements	26%	13%	16%
Other	2%	1%	5%

Figure 17. Importance ratings of possible business issues or threats, 2016 survey of the Florida environmental horticulture industry



Economic Contribution Results

Statewide Contributions

The economic impacts of the environmental horticulture industry in Florida were estimated using the *IMPLAN* input-output regional modeling system to build state and county models (see Methods).

The total output or revenue contribution at the state level in 2015 was estimated at $21.080 billion, including $12.782 B in direct output or industry sales, and $8.297 billion in indirect and induced multiplier effects from supply chain activity and income respending by industry employee households and governments, as summarized in Table 25 and Figures 18-20. For the nursery, landscape and allied sectors, direct output represents sales revenues, but for the wholesale and retail sectors, output is the gross margin on sales, typically around 25-35 percent of sales. Multiplier effects of supply chain activity and employee household spending were calculated from nonlocal output (export sales) estimated by the regional models. Total output contributions were $4.546 billion for nurseries and manufacturers, $10.111 billion for landscape design, installation and maintenance services, and $6.423 billion for wholesalers and retailers of horticultural products (Figure 18). Nurseries and allied manufacturers generated the largest share of indirect and induced multiplier impacts due to their much larger shipments to domestic and international markets.

Within the production and manufacturing industry group, output contributions were $4.328 billion for greenhouse and nursery production and $218 million for lawn and garden equipment manufacturing (Table 25). Within the services industry group, output contributions were $9.284 billion for landscape and horticultural services and $827 million for landscape architecture services. Within the wholesale and retail trade industry group, the largest output contributions were by the wholesale trade sector ($4.421 billion) and retail building material and garden equipment and supplies stores, also known as retail garden centers ($1.559 billion). Output contributions by allied industry firms, estimated at $2.424 billion, were included within the wholesaler and equipment manufacturing segments.

The total employment contribution of the industry was estimated at 232,648 full-time and part-time/seasonal jobs, including 36,982 jobs generated by nursery production/manufacturing, 148,215 jobs by landscape services, and 47,451 jobs by horticultural wholesalers and retailers (Figure 19). An estimated contribution of 13,177 jobs by allied industry suppliers within the wholesale and manufacturing sectors was based on direct employment of 5,997 jobs expanded from allied survey respondents.

Value added is an important measure of contribution to a regional economy, representing the difference between industry output and the cost of purchased industry inputs, and is comparable to Gross Domestic Product (GDP). The total value added contribution of the Florida environmental horticulture industry in 2015 was estimated at $13.172 billion, comprised of $3.033 billion by the nursery production and manufacturing sectors, $6.119 billion by landscape services, and $4.021 billion by wholesalers and retailers (Figure 20). GDP contributions of $1.460 billion were estimated separately for allied suppliers.

Labor income contributions represent employee wages and benefits, proprietor income, and were estimated at $8.748 billion, including $1.821 billion for nursery production/manufacturing, $4.598 billion for landscape services and $2.329 billion for wholesale/retail distribution. Other property income contributions, representing dividends, corporate profits, rents, dividends, royalties, and interest income, were estimated at $3.427 billion. Contributions to taxes on production and imports paid to state, local and federal governments, such as sales tax, property tax, fuel taxes, excise taxes, etc., were estimated at $997 million. Note that labor income, property income and taxes on production and imports are included within value added, so these separate measures should not be added together.

Table 25. Summary of economic contributions of the environmental horticulture industry in the State of Florida in 2015

Industry Group / Sector	Direct Contributions			Total Economic Contributions (including regional multiplier effects)					
	Industry Output (M$)	Employ-ment (Jobs)	Domestic and Inter-national Exports (M$)	Industry Output (M$)	Employ-ment (Jobs)	Value Added (M$)	Labor Income (M$)	Other Property Income (M$)	Business Taxes (M$)
Nursery Production and Manufacturing	**2,245**	**19,295**	**1,402**	**4,546**	**36,982**	**3,033**	**1,821**	**1,091**	**121**
Greenhouse, Nursery and Floriculture Production	2,064	18,921	1,357	4,328	36,370	2,997	1,797	1,082	119
Lawn and Garden Equipment Manufacturing	181	374	44	218	612	35	24	9	2
Landscape Design, Installation and Maintenance Services	**6,234**	**119,121**	**2,332**	**10,111**	**148,215**	**6,119**	**4,598**	**1,280**	**240**
Landscape and Horticultural Services	5,512	114,039	2,278	9,284	142,288	5,689	4,184	1,276	229
Landscape Architecture Services	722	5,082	54	827	5,926	429	414	4	11
Wholesale and Retail Trade in Horticultural Products	**4,303**	**31,167**	**1,113**	**6,423**	**47,451**	**4,021**	**2,329**	**1,056**	**635**
Wholesale Trade	2,666	11,107	923	4,421	24,614	2,760	1,522	802	437
Building Material and Garden Equipment and Supplies Stores	1,265	13,555	153	1,559	15,796	979	618	212	150
Food and Beverage Stores	79	1,245	12	103	1,426	66	43	14	9
General Merchandise Stores	121	1,738	16	152	1,975	96	59	16	22
Miscellaneous Store Retailers	122	3,083	8	137	3,202	89	78	-3	13
Nonstore Retailers	49	438	0	49	438	30	10	15	5
Total All Groups / Sectors	**12,782**	**169,583**	**4,846**	**21,080**	**232,648**	**13,172**	**8,748**	**3,427**	**997**
Allied Suppliers (included within Wholesale Trade and Lawn and Equipment Manufacturing)	1,487	5,997	505	2,424	13,177	1,460	807	424	229

Monetary values expressed in millions of dollars. Employment estimates represent fulltime and part-time jobs.

Source: *IMPLAN* model and Florida state data (Implan Group, LLC).

Figure 18. Summary of employment contributions of environmental horticulture industry groups in Florida, 2015

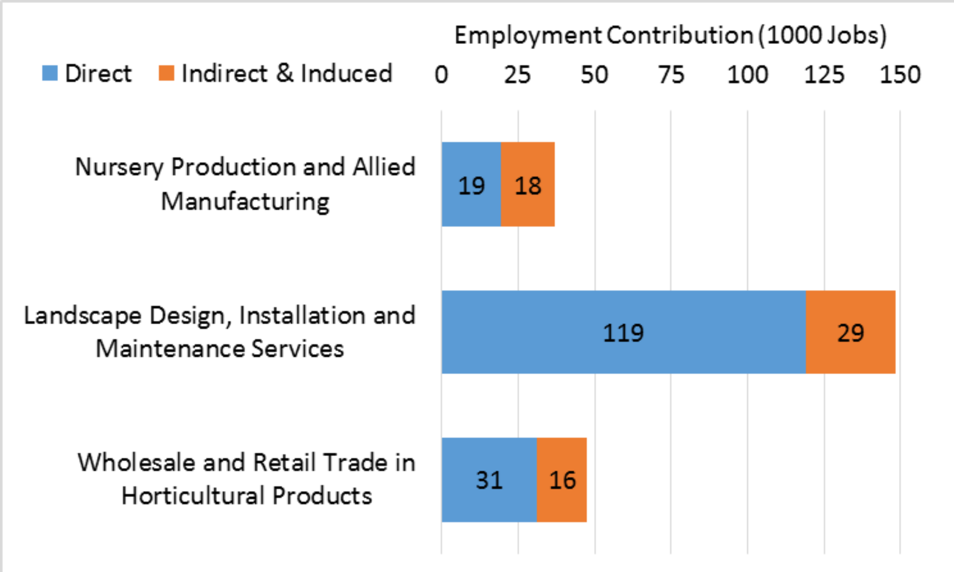


Figure 19. Summary of output contributions of environmental horticulture industry groups in Florida, 2015

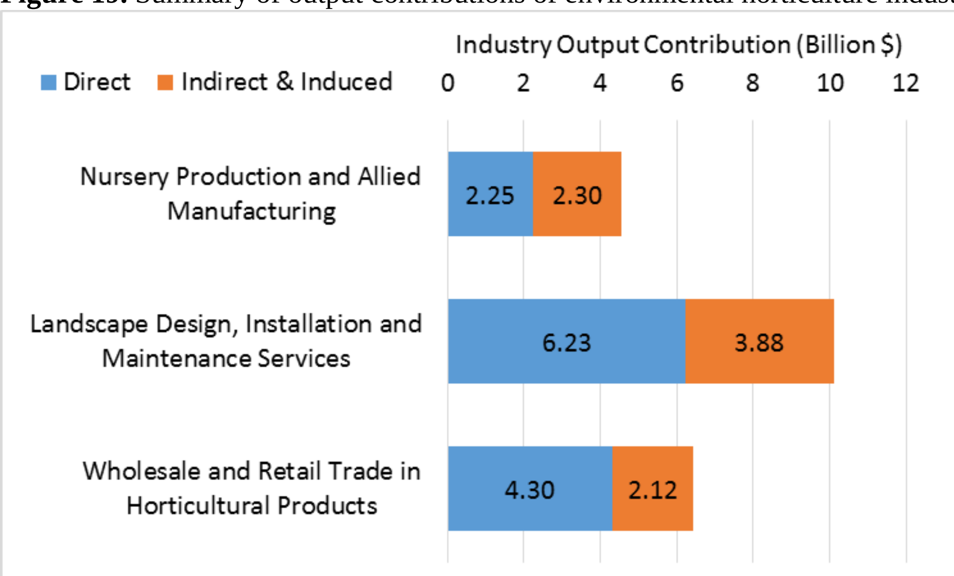
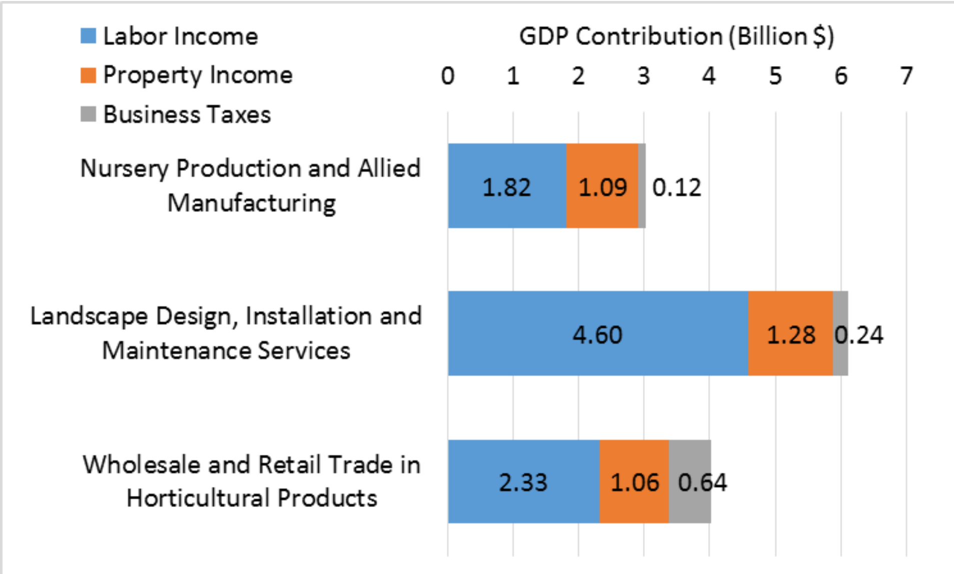


Figure 20. Summary of value added (GDP) contributions of environmental horticulture industry groups in Florida, 2015



Regional and County Economic Impacts

Economic contributions of the environmental horticulture industry in 2015 were also estimated for individual counties in Florida and for nine multi-county economic regions, as summarized in Tables 26-27 and Figures 21-24. Economic contributions at the county level were controlled to match with the state totals. Regionally, industry contributions were dominated by the major metro areas of Miami-Fort Lauderdale (77,780 jobs, $4.677 billion GDP) and Orlando (65,190 jobs, $3.6111 billion GDP), followed by Sarasota-Bradenton (32,249 jobs, $1.738 billion GDP), Tampa-St. Petersburg (27,494 jobs, $1.594 billion GDP), and Jacksonville (12,953 jobs, $684 million GDP) (Figures 21-23). The top ten counties for employment contributions were Miami-Dade (28,598 jobs), Palm Beach (22,974), Broward (17,758), Orange (17,606), Hillsborough (15,573), Lee (9,851), Duval (9,710), Collier (8,199), Pinellas (7,486) and Seminole (7,115) (Figure 24). An additional 27 counties had industry employment contributions of over one thousand jobs. Counties with industry output and value added (GDP) contributions of over one billion, respectively, included Miami-Dade ($2.891, $1.780), Palm Beach ($2.117, $1.369), Orange ($1.829, $1.149), Broward ($1.701, $1.044), and Hillsborough ($1.573, $1.018). Another 21 counties had GDP contributions in excess of $100 million.

A breakdown of economic contributions by industry group is presented for regions and counties in Table 27. With total contributions including 148,215 (full- and part-time) jobs, $10.111 billion total output, and $6.112 billion GDP, the landscape services sector was generally the largest contributor in all except a few rural counties where production/manufacturing or wholesale/retail trade was relatively more important. Palm Beach County had the state's highest contributions from landscape services, with over 17,000 jobs, $1.339 billion in output, $832 million in GDP, followed by Miami-Dade, Broward, Orange and Hillsborough, all with around 9,000-10,000 jobs and $300-$500 M GDP. In Miami-Dade County, there is a very important wholesale/retail trade sector associated with international imports of floral products. Nursery production/manufacturing is important in a number of counties with over 1,000 jobs: Miami-Dade (9,153), Orange (3,621), Palm Beach (2,568), Volusia (2,216), Hillsborough (2,030), Lake (1,883), Gadsden (1,322), Manatee (1,089), Collier (1,057).

Table 26. Summary of economic contributions of the environmental horticulture industry in Florida regions and counties in 2015

Region - County	Employment (Fulltime, Part-time Jobs)	Industry Output (M$)	Value Added (M$)	Labor Income (M$)	Other Property Income (M$)	Business Taxes (M$)
Miami-Fort Lauderdale	**77,780**	**7,475.2**	**4,677.4**	**3,125.7**	**1,186.8**	**366.1**
Miami-Dade	28,598	2,891.4	1,779.5	1,230.4	400.4	149.5
Palm Beach	22,974	2,116.9	1,368.8	908.5	373.5	86.7
Broward	17,758	1,701.2	1,043.8	689.3	255.2	99.8
Martin	4,016	405.8	265.1	147.8	100.6	16.6
Indian River	2,398	190.1	118.0	82.0	28.9	7.1
Monroe	955	66.6	38.0	25.8	9.6	3.0
Okeechobee	704	62.9	36.3	25.0	9.1	2.2
Hendry	309	29.6	19.5	14.1	4.3	1.0
Glades	69	10.7	8.3	2.8	5.2	0.3
Orlando	**65,190**	**5,847.1**	**3,611.2**	**2,390.6**	**957.0**	**265.9**
Orange	17,606	1,828.7	1,148.7	802.2	262.6	80.4
Seminole	7,115	721.0	461.3	285.2	140.3	36.0
Volusia	6,450	556.3	349.9	221.4	105.0	23.4
Lake	6,367	500.8	287.3	211.1	57.2	19.5
Polk	5,987	510.6	304.3	199.2	78.8	26.4
Brevard	4,850	387.9	232.2	149.5	63.9	17.3
Marion	3,327	232.3	134.4	92.7	30.0	11.7
St Lucie	2,937	247.0	139.8	84.8	43.7	11.3
Osceola	2,138	173.7	107.5	63.5	36.4	14.8
Highlands	1,845	165.7	100.5	61.4	33.0	6.0
St Johns	1,804	152.5	101.4	66.1	28.5	6.7
Flagler	1,653	123.6	80.0	53.9	22.2	4.1
Citrus	1,315	78.0	44.9	28.2	13.3	3.3
Sumter	1,147	100.2	66.9	45.5	18.4	2.9
Hardee	650	68.8	52.1	26.0	23.8	2.2
Sarasota-Bradenton	**32,249**	**2,741.0**	**1,738.3**	**1,184.9**	**441.0**	**113.7**
Lee	9,851	874.5	555.2	394.3	122.3	39.0
Collier	8,199	739.8	487.8	317.9	143.9	26.4
Sarasota	7,011	586.7	357.7	252.5	80.9	25.1
Manatee	5,434	418.9	265.5	173.0	74.7	17.8
Charlotte	1,329	83.1	46.1	32.9	8.9	4.2
DeSoto	425	37.9	26.2	14.4	10.5	1.3
Tampa-St. Petersburg	**27,494**	**2,518.5**	**1,593.8**	**1,072.3**	**388.1**	**130.1**
Hillsborough	15,573	1,573.3	1,018.0	689.9	244.3	80.5
Pinellas	7,486	623.4	378.6	254.2	88.6	36.0
Pasco	2,998	217.1	132.4	93.0	30.0	9.3
Hernando	1,436	104.7	64.8	35.2	25.1	4.3
Jacksonville	**12,953**	**1,118.9**	**683.9**	**452.9**	**170.5**	**60.4**
Duval	9,710	878.4	538.8	367.1	123.5	48.6
Clay	1,557	113.6	64.7	36.4	21.5	6.8
Nassau	875	60.0	34.2	25.1	6.3	2.5
Putnam	628	50.1	34.3	20.1	12.2	1.9
Baker	185	16.8	11.8	4.2	6.9	0.7

Region - County	Employment (Fulltime, Part-time Jobs)	Industry Output (M$)	Value Added (M$)	Labor Income (M$)	Other Property Income (M$)	Business Taxes (M$)
Pensacola	**5,594**	**447.0**	**280.4**	**179.6**	**79.6**	**21.3**
Escambia	2,085	175.1	109.2	66.3	32.5	10.4
Okaloosa	1,539	129.9	82.2	57.2	20.2	5.0
Santa Rosa	1,020	68.0	41.7	24.5	13.9	3.1
Walton	950	74.0	47.3	31.5	13.1	2.8
Tallahassee	**4,963**	**403.8**	**260.0**	**139.6**	**104.2**	**15.3**
Leon	1,937	154.7	81.8	57.8	16.9	6.9
Gadsden	1,751	154.1	115.6	51.5	58.8	5.0
Jefferson	445	33.7	24.6	11.5	11.9	1.2
Wakulla	302	21.7	14.2	6.1	7.3	0.7
Madison	201	18.3	10.8	5.6	4.5	0.7
Taylor	148	12.2	8.4	3.7	4.2	0.5
Hamilton	87	4.9	2.8	2.3	0.3	0.2
Franklin	84	3.7	1.6	1.1	0.3	0.2
Liberty	8	0.5	0.2	0.1	0.0	0.1
Gainesville	**4,289**	**364.1**	**227.5**	**136.9**	**74.4**	**15.5**
Alachua	2,226	162.6	95.6	71.3	16.8	7.3
Suwannee	519	56.2	39.9	16.6	20.8	2.4
Levy	456	42.2	25.7	17.3	7.0	1.4
Columbia	434	48.5	34.0	17.5	13.9	2.5
Bradford	291	22.2	10.3	5.2	4.3	0.7
Gilchrist	196	10.1	5.2	3.8	1.0	0.4
Dixie	76	7.2	4.8	2.0	2.3	0.4
Union	70	13.9	11.3	2.9	8.1	0.3
Lafayette	22	1.3	0.7	0.4	0.2	0.1
Panama City	**2,135**	**164.0**	**99.7**	**65.9**	**25.3**	**8.6**
Bay	1,493	119.4	73.4	51.0	16.0	6.5
Jackson	218	13.6	7.5	4.2	2.3	0.9
Calhoun	179	13.4	8.1	5.6	2.2	0.4
Holmes	115	4.4	1.9	1.1	0.6	0.2
Washington	88	10.2	7.1	2.8	3.8	0.5
Gulf	43	3.0	1.8	1.2	0.4	0.2
Total All Regions	**232,648**	**21,079.7**	**13,172.4**	**8,748.5**	**3,426.9**	**997.0**

Regions and counties rank-ordered by employment.
Source: *IMPLAN* model and Florida state and county data (Implan Group, LLC)

Table 27. Economic contributions of environmental horticulture industry groups in Florida regions and counties in 2015

Region - County	Employment (Fulltime, Part-time Jobs)			Industry Output (Million Dollars)			Value Added (Million Dollars)		
	Production, Manufact.	Landscape Services	Wholesale, Retail Trade	Production, Manufact.	Landscape Services	Wholesale, Retail Trade	Production, Manufact.	Landscape Services	Wholesale, Retail Trade
Miami-Fort Lauderdale	**13,863**	**44,425**	**19,493**	**1,704.4**	**2,934.0**	**2,836.7**	**1,115.3**	**1,764.0**	**1,798.1**
Miami-Dade	9,153	10,335	9,110	1,004.1	520.1	1,367.3	624.6	286.5	868.5
Palm Beach	2,568	17,558	2,848	375.2	1,339.4	402.3	274.6	832.9	261.3
Broward	752	10,438	6,567	87.4	656.5	957.3	48.4	396.4	599.0
Martin	794	2,808	413	148.0	210.4	47.4	109.3	126.6	29.2
Indian River	86	2,064	248	14.8	144.0	31.3	9.6	87.2	21.2
Monroe	34	721	201	7.0	38.5	21.0	3.3	21.7	13.1
Okeechobee	307	336	61	41.4	15.5	6.0	25.2	7.6	3.5
Hendry	128	143	38	17.2	8.8	3.6	12.7	4.8	2.0
Glades	41	22	7	9.4	0.8	0.5	7.7	0.3	0.3
Orlando	**12,579**	**41,964**	**10,647**	**1,623.2**	**2,865.5**	**1,358.4**	**1,044.4**	**1,729.3**	**837.5**
Orange	3,621	10,424	3,561	472.2	840.6	515.8	288.3	535.7	324.7
Seminole	547	4,760	1,808	87.3	393.8	240.0	65.6	246.5	149.3
Volusia	2,216	3,458	775	235.5	234.7	86.1	155.4	142.9	51.6
Lake	1,883	3,844	640	183.6	254.9	62.2	99.5	151.2	36.6
Polk	771	4,182	1,035	116.1	258.7	135.8	73.2	149.0	82.0
Brevard	426	3,515	910	78.4	203.3	106.2	52.6	113.3	66.3
Marion	430	2,416	481	43.7	135.2	53.4	28.9	74.3	31.2
St Lucie	349	2,241	347	75.7	129.8	41.5	42.6	72.7	24.5
Osceola	350	1,464	324	65.5	72.8	35.5	46.7	39.4	21.4
Highlands	868	833	144	121.2	30.6	13.8	80.5	11.8	8.1
St Johns	159	1,388	257	21.7	97.3	33.5	17.6	62.6	21.1
Flagler	82	1,471	99	11.7	103.0	8.9	9.1	65.6	5.4
Citrus	106	1,062	147	13.4	51.7	12.9	10.8	26.6	7.5
Sumter	353	702	93	41.0	49.4	9.9	28.2	32.5	6.3
Hardee	420	204	26	56.2	9.8	2.8	45.3	5.2	1.7
Sarasota-Bradenton	**3,414**	**25,086**	**3,749**	**387.5**	**1,911.5**	**442.0**	**272.8**	**1,189.0**	**276.5**
Lee	788	7,715	1,348	83.8	630.2	160.5	50.5	404.7	100.0
Collier	1,057	6,476	666	133.5	520.9	85.4	101.7	330.4	55.8
Sarasota	290	5,879	842	35.5	453.2	98.0	20.0	276.8	60.8
Manatee	1,089	3,779	565	105.7	246.0	67.2	79.3	144.4	41.7
Charlotte	55	974	300	7.3	48.0	27.9	3.9	25.7	16.5
DeSoto	134	264	27	21.7	13.2	3.0	17.4	7.1	1.7
Tampa-St. Petersburg	**2,544**	**18,009**	**6,941**	**265.4**	**1,290.2**	**962.9**	**194.8**	**796.1**	**602.9**
Hillsborough	2,030	9,295	4,248	193.6	755.1	624.6	146.6	478.6	392.8
Pinellas	53	5,363	2,070	10.6	338.2	274.7	4.9	202.4	171.3
Pasco	217	2,350	431	22.1	148.4	46.6	13.9	89.6	28.9
Hernando	244	1,000	191	39.1	48.6	17.0	29.5	25.5	9.9
Jacksonville	**715**	**8,784**	**3,454**	**89.1**	**562.0**	**467.8**	**62.2**	**331.8**	**289.9**
Duval	171	6,621	2,917	19.6	445.1	413.8	10.8	268.2	259.8
Clay	132	1,103	322	25.6	55.5	32.5	17.9	29.5	17.3

Region - County	Employment (Fulltime, Part-time Jobs)			Industry Output (Million Dollars)			Value Added (Million Dollars)		
	Production, Manufact.	Landscape Services	Wholesale, Retail Trade	Production, Manufact.	Landscape Services	Wholesale, Retail Trade	Production, Manufact.	Landscape Services	Wholesale, Retail Trade
Nassau	5	762	107	0.4	48.5	11.1	0.2	27.3	6.7
Putnam	346	200	82	33.1	9.2	7.8	24.6	5.1	4.6
Baker	61	98	26	10.4	3.7	2.7	8.6	1.8	1.5
Pensacola	**347**	**3,944**	**1,303**	**62.3**	**239.6**	**145.1**	**51.0**	**140.4**	**89.0**
Escambia	155	1,304	626	28.3	71.2	75.6	22.6	40.8	45.8
Okaloosa	92	1,084	363	15.8	75.1	39.0	13.2	44.2	24.8
Santa Rosa	88	723	209	14.8	33.6	19.6	12.3	17.8	11.6
Walton	12	834	104	3.5	59.7	10.8	3.0	37.6	6.7
Tallahassee	**1,931**	**2,367**	**665**	**216.8**	**112.2**	**74.8**	**155.3**	**58.3**	**46.4**
Leon	122	1,328	487	28.6	70.4	55.7	7.2	39.0	35.6
Gadsden	1,322	363	66	130.5	15.2	8.4	103.6	7.3	4.7
Jefferson	247	181	16	25.6	6.4	1.7	21.3	2.5	0.9
Wakulla	55	220	26	9.6	9.9	2.2	7.9	5.1	1.2
Madison	83	99	19	12.5	3.8	2.0	8.0	1.7	1.1
Taylor	41	86	22	6.6	3.4	2.2	5.6	1.6	1.3
Hamilton	61	19	7	3.3	0.9	0.8	1.8	0.5	0.4
Franklin	0	67	17	0.0	2.0	1.7	0.0	0.7	1.0
Liberty	0	4	4	0.0	0.1	0.4	0.0	0.0	0.2
Gainesville	**1,380**	**2,208**	**702**	**175.3**	**109.0**	**79.8**	**120.7**	**59.2**	**47.7**
Alachua	563	1,275	388	48.2	68.6	45.9	28.6	39.0	28.1
Suwannee	215	219	85	37.9	9.6	8.6	30.1	4.9	4.9
Levy	305	117	35	34.9	4.2	3.2	22.2	1.8	1.7
Columbia	119	188	127	20.4	13.2	14.9	16.2	8.9	8.9
Bradford	62	204	25	13.1	6.4	2.6	6.6	2.2	1.5
Gilchrist	42	140	14	4.3	4.4	1.4	3.0	1.4	0.8
Dixie	17	40	18	3.5	1.6	2.1	2.9	0.7	1.2
Union	55	9	6	12.8	0.5	0.6	10.9	0.1	0.3
Lafayette	2	16	4	0.3	0.5	0.5	0.3	0.2	0.3
Panama City	**209**	**1,428**	**499**	**21.9**	**87.0**	**55.1**	**16.3**	**50.5**	**32.9**
Bay	36	1,074	383	1.9	74.2	43.3	1.7	45.5	26.1
Jackson	11	147	60	2.3	5.3	6.1	1.9	2.1	3.5
Calhoun	121	46	11	11.1	1.2	1.1	7.2	0.3	0.6
Holmes	3	100	12	0.6	2.9	0.9	0.5	0.9	0.5
Washington	38	30	20	6.1	1.9	2.3	4.9	0.8	1.3
Gulf	0	30	13	0.0	1.5	1.4	0.0	0.8	0.9
Total All Regions	**36,982**	**148,215**	**47,451**	**4,546.0**	**10,111.1**	**6,422.6**	**3,032.8**	**6,118.7**	**4,020.8**

Regions and counties rank-ordered by employment.
Source: *IMPLAN* model and Florida state and county data (Implan Group, LLC).

Figure 21. Employment contributions of environmental horticulture industry groups in Florida economic regions, 2015

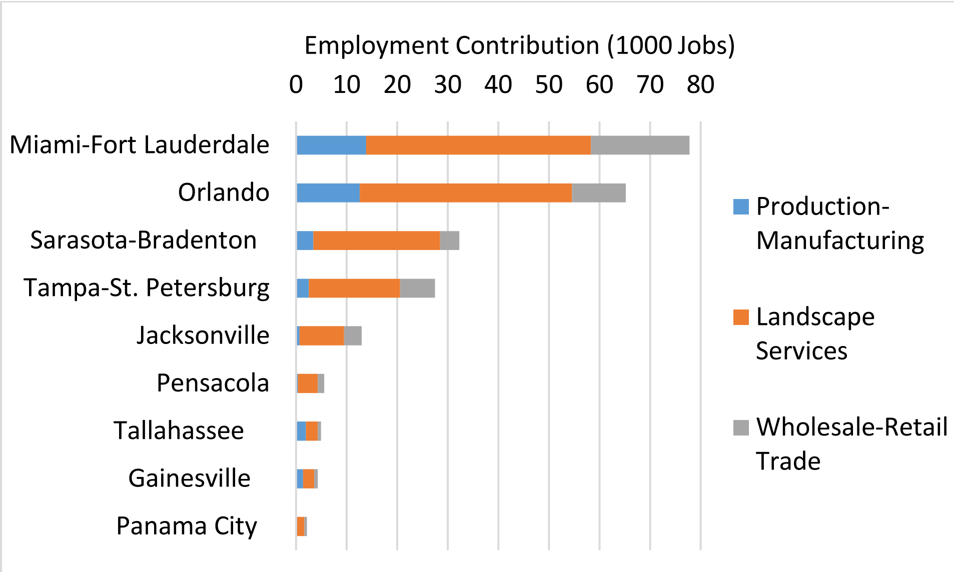


Figure 22. Output contributions of environmental horticulture industry groups in Florida economic regions, 2015

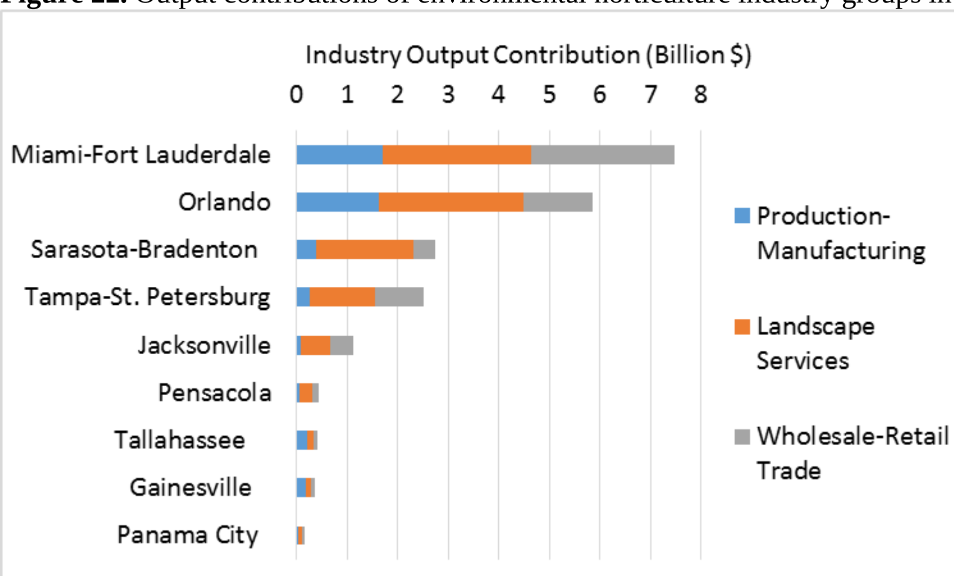


Figure 23. Value added (GDP) contributions of environmental horticulture industry groups in Florida economic regions, 2015

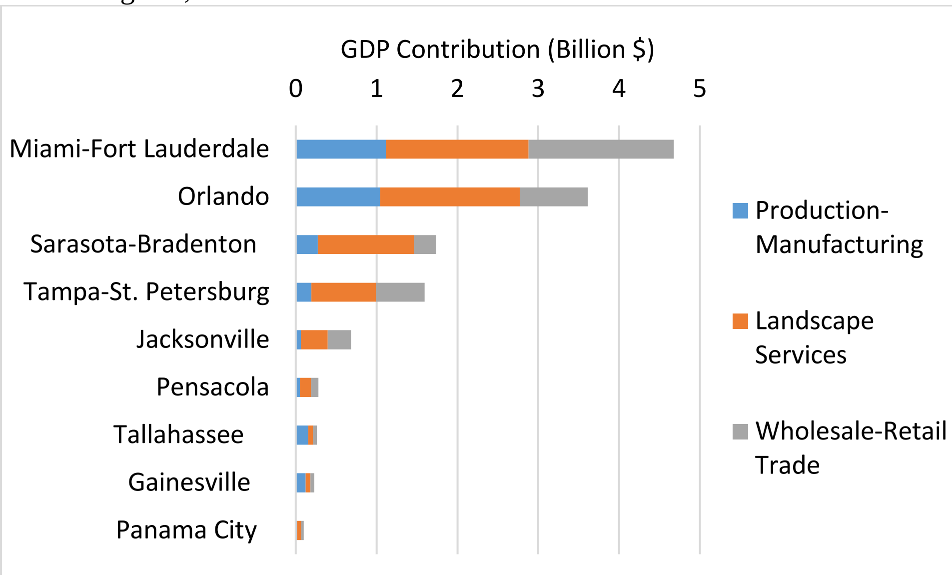
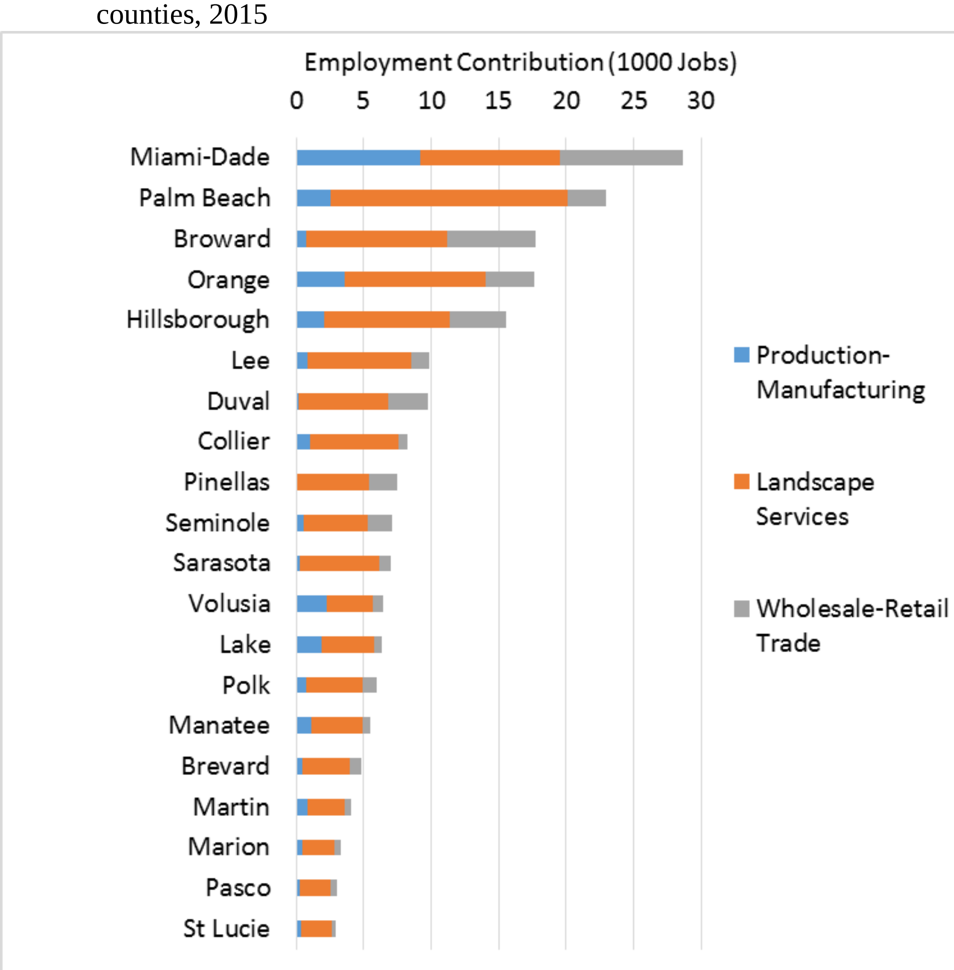


Figure 24. Employment contributions of environmental horticulture industry groups in the top twenty Florida counties, 2015



Comparison to Previous Studies

The economic contribution results of the present study for 2015 were compared with previous studies for 2000, 2005 and 2010, as summarized in Table 28 and Figures 25-27. The previous studies were conducted using similar, though not identical methods, so the overall results are broadly comparable, but may not be so for some detailed sectors or measures. All monetary values were adjusted for inflation to express in 2015 dollars. Total industry output contributions increased from $12.310 billion in 2000 to $21.080 billion in 2015, an increase of 71 percent over the 15 year period, and 19.2 percent during the most recent period between 2010 and 2015. The increase in output contributions since 2000 was positive for landscape services (122%) and wholesale/retail distribution sectors (109%), but was negative for nursery production and allied manufacturing (-3.0%). In terms of employment, the number of direct jobs increased by 13.5 percent since 2000, but declined by 17.2 percent between 2010 and 2015 (Figure 25). Consistent with the direct employment trends, total employment contributions also increased since 2000 (23.8%) but decreased -4.7 percent during 2010-15 (Figure 26). The decline in direct employment since 2005 reflects general economic trends in the broader economy towards workforce reduction to reduce labor costs, and increasing worker productivity, i.e. greater output per worker. Value added (GDP) contributions increased by 53.2 percent since 2000, and 22.5 percent during the recent period, including a 138 percent increase for wholesale/retail trade and 70.5 percent increase for landscape services (Figure 27). The large increase for wholesale/retail trade sectors partly reflects a change in methodology for the present study, which relied on secondary data sources from the *IMPLAN* model and employment data from the Quarterly Census of Employment and Wages rather than survey-based estimates.

Table 28. Comparison of economic impacts of the Florida environmental horticulture industry, 2000, 2005, 2010 and 2015

Impact / Sector	2000	2005	2010	2015	Percent change 2000-15	Percent change 2010-15
Direct Employment (fulltime, part-time jobs)	**149,461**	**293,179**	**204,761**	**169,583**	**13.5%**	**-17.2%**
Production-Manufacturing	35,622	33,435	63,822	19,295	-45.8%	-69.8%
Landscape Services	60,637	87,914	111,006	119,121	96.4%	7.3%
Wholesale-Retail Distribution	53,202	171,830	29,933	31,167	-41.4%	4.1%
Employment Contributions (jobs)	**187,860**	**318,573**	**244,188**	**232,648**	**23.8%**	**-4.7%**
Production-Manufacturing	54,288	53,551	98,439	36,982	-31.9%	-62.4%
Landscape Services	64,282	88,073	112,726	148,215	130.6%	31.5%
Wholesale-Retail Distribution	69,290	176,949	33,023	47,451	-31.5%	43.7%
Direct Output (M$)	**9,258**	**12,427**	**13,403**	**12,782**	**38.1%**	**-4.6%**
Production-Manufacturing	3,024	3,596	4,635	2,245	-25.8%	-51.6%
Landscape Services	4,178	6,288	6,563	6,234	49.2%	-5.0%
Wholesale-Retail Distribution	2,057	2,543	2,204	4,303	109.2%	95.2%
Output Contributions (M$)	**12,310**	**15,112**	**17,689**	**21,080**	**71.2%**	**19.2%**
Production-Manufacturing	4,669	5,702	8,827	4,546	-2.6%	-48.5%
Landscape Services	4,561	6,306	6,782	10,111	121.7%	49.1%
Wholesale-Retail Distribution	3,080	3,104	2,080	6,423	108.5%	208.7%
Value Added Contributions (M$)	**8,599**	**10,342**	**10,756**	**13,172**	**53.2%**	**22.5%**
Production-Manufacturing	3,383	4,757	5,476	3,033	-10.3%	-44.6%
Landscape Services	2,861	3,251	3,588	6,119	113.8%	70.5%
Wholesale-Retail Distribution	2,355	2,334	1,692	4,021	70.7%	137.7%
Labor Income Contributions (M$)	**5,532**	**6,206**	**7,528**	**8,748**	**58.1%**	**16.2%**
Production-Manufacturing	2,160	2,210	3,854	1,821	-15.7%	-52.8%
Landscape Services	1,905	2,584	2,603	4,598	141.4%	76.6%
Wholesale-Retail Distribution	1,468	1,412	1,071	2,329	58.6%	117.5%
Indirect Business Tax Contributions (M$)	**621**	**656**	**726**	**997**	**60.6%**	**37.3%**
Production-Manufacturing	121	150	246	121	0.3%	-50.8%
Landscape Services	126	112	154	240	90.3%	56.4%
Wholesale-Retail Distribution	373	395	326	635	70.1%	94.8%

Values expressed in 2015 dollars using GDP Implicit Price Deflator (U.S. Commerce Department).
Output for retail/wholesale trade sectors reflects gross margin on sales. Estimates for 1997 and 2000 include separate values for nurseries, sod, cut flowers/foliage (production), and floral imports (trade). Estimates for 2015 include wholesale trade and lawn and garden equipment manufacturing. Allied sectors for 2010 included in wholesale-retail industry group.

Figure 25. Direct employment of environmental horticulture industry groups in 2000, 2005, 2010 and 2015

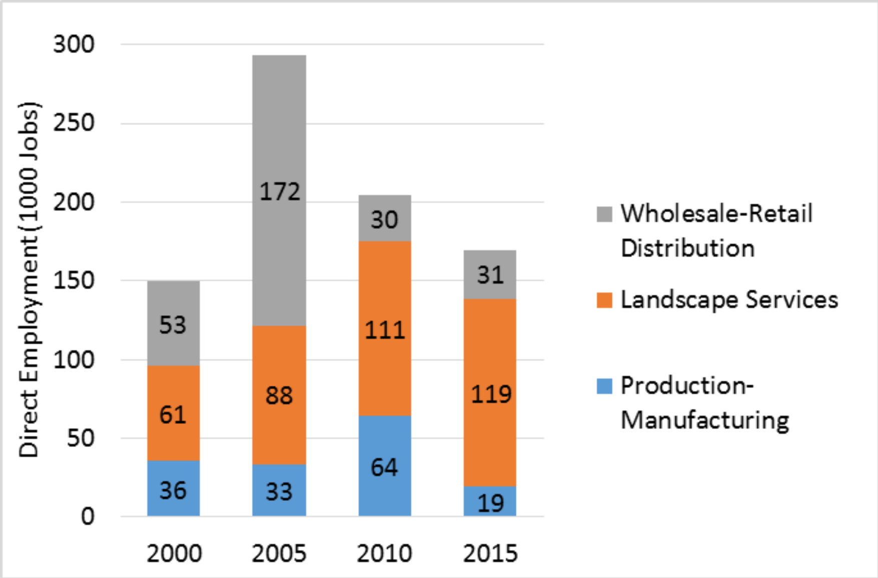


Figure 26. Employment contributions of environmental horticulture industry groups in 2000, 2005, 2010 and 2015

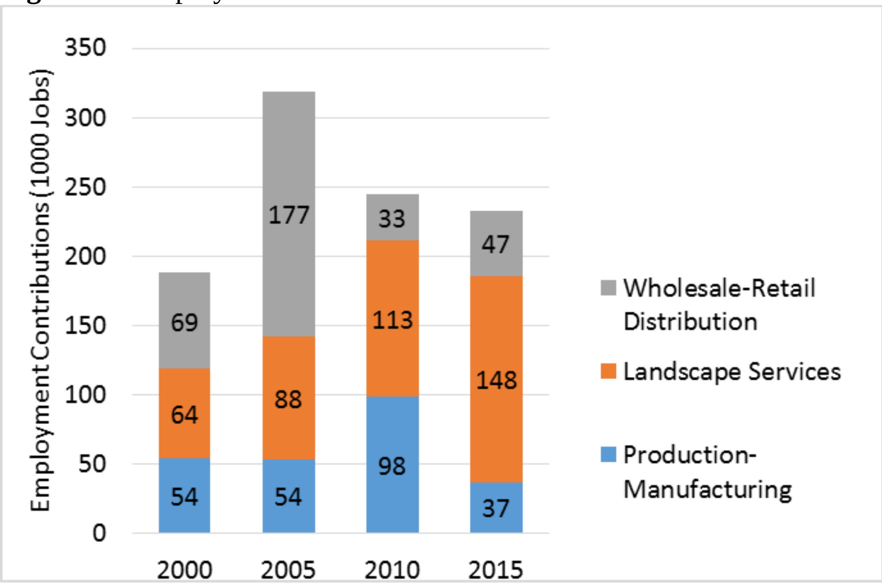
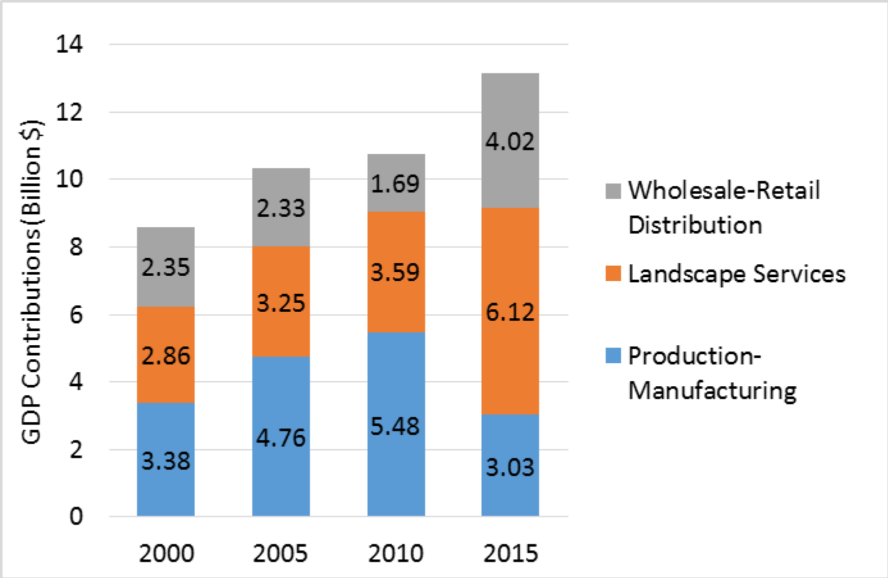


Figure 27. Value added (GDP) contributions of environmental horticulture industry groups in 2000, 2005, 2010 and 2015



Conclusions

This study used mail and internet surveys to collect data on industry sales, employment, trade flows, market channels, and industry outlook data for the year 2015 from owners and managers in the Florida environmental horticultural industry. Total industry sales and employment data from secondary sources were also used for the economic contribution analysis. *IMPLAN* regional economic models were used to estimate the total economic impacts of the industry at the state, regional and county levels. Compared to previous studies, Florida's environmental horticulture industry continued growing and recovering from the Great Recession of 2007-09, with especially fast growth in the landscape services sector of the industry. The nursery and greenhouse production sector has significant indirect and induced impacts on other sectors of the state's economy due to product sales to out-of-state markets that bring new dollars into the state's economy. Total employment impacts of the environmental horticulture industry in Florida remain greater than for other major agricultural commodities in the state, such as forest products and fruits/vegetables, while total output and value added impacts were comparable, according to other studies. Unlike many other agricultural industries, economic activity in the environmental horticulture sector in Florida tends to be concentrated in urban areas, close to the workforce and markets for products and services, with the largest impacts occurring in major metropolitan areas, such as Miami-Fort Lauderdale, Orlando, Sarasota-Bradenton, Tampa-St. Petersburg, and Jacksonville.

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Appendix A: Mail Questionnaire for the 2016 Florida Environmental Horticulture Industry Economic Survey

This survey is being conducted by the University of Florida, Institute of Food and Agricultural Sciences, as part of a research project to evaluate the economic contributions of the environmental horticulture industry in Florida, including plant production, landscape services, horticultural product manufacturing, retailing and wholesale distribution. The study is sponsored by the Florida Nursery, Growers and Landscape Association (FNGLA). The survey is being sent to randomly selected industry firms and members of the FNGLA. Information collected in this survey will be invaluable to researchers, educators, and allied professionals, as well as company owners and managers in the industry. Your participation is voluntary, and you do not have to answer any questions that you do not wish to, but it is important to respond to this survey so that your type of business is represented in the study. Your identity will remain anonymous, and all information about your particular business will be kept strictly confidential; only averages or totals for all survey respondents will be disclosed. There is no compensation or anticipated risk for participating in the survey. The survey requires about 10-15 minutes to complete. A study report will be released in September, 2016. When you have completed the questionnaire, please return it in the postage-paid envelope provided. If you have questions or concerns about the survey, please contact one of the principal investigators:

Alan W. Hodges, PhD	Hayk Khachatryan, PhD
352-294-7674	407-410-6951
awhodges@ufl.edu	hayk@ufl.edu

For questions about your rights as a research participant, contact the University of Florida Institutional Review Board at PO Box 112250, Gainesville, FL 32611, telephone 352-392-0433.
Thank you very much for you cooperation!

Was this business active in Florida during 2015?

____Yes
____No
If answer is "No", no further responses are required. We are surveying only active businesses.

Respondent position. What is your position in this business? (check appropriate title)

____ Owner
____ Manager
____ Grower/supervisor
____ Chief Executive Officer
____ Chief Financial Officer
____ Chief Operating Officer
____ Administrative assistant/accountant/clerk
____ Other employee: specify __________________________

Please answer the following sections specific to different type(s) of activities for this business in Florida:

1. Nursery/greenhouse producers
2. Horticultural retailers or wholesale distributors
3. Landscape services
4. Horticultural product manufacturers or allied services

Then complete section 5 for all firms.

1: Nursery/Greenhouse Producers

Greenhouse/Shadehouse Production Area. What was the area used for greenhouse or shadehouse production by this business in 2015? (choose appropriate range)

____ Not applicable
____ Don't know
____ less than 10,000 square feet
____ 10,000 to 49,999 square feet
____ 50,000 to 99,999 square feet
____ 100,000 to 199,999 square feet
____ 200,000 to 499,999 square feet
____ 500,000 to 999,999 square feet
____ 1 million square feet or more; If 1+ million square feet, specify area: ______________square feet

Container Production Area. What was the area used for container production by this business in 2015? (check appropriate range)

____ Not applicable
____ Don't know
____ less than 5 acres
____ 5 to 9 acres
____ 10 to 19 acres
____ 20 to 49 acres
____ 50 to 99 acres
____ 100 acres or more; If 100+ acres, specify area: _________acres

Field Production Area. What was the area used for field (in-ground) production by this business in 2015? (check appropriate range)

____ Not applicable
____ Don't know
____ less than 5 acres
____ 5 to 9 acres
____ 10 to 19 acres
____ 20 to 49 acres
____ 50 to 99 acres
____ 100 acres or more; If 100+ acres, specify area: ________acres

Plant Types. What percentage of total plant sales by this business in 2015 were for the following types of plants? (check appropriate ranges)

Plant	Zero	1-19%	20-39%	40-59%	60-79%	80-100%
Deciduous trees and shrubs	____	____	____	____	____	____
Evergreen trees and shrubs	____	____	____	____	____	____
Flowering and fruit trees (incl. citrus)	____	____	____	____	____	____
Palms, tropical foliage and indoor houseplants	____	____	____	____	____	____
Vines and ground covers	____	____	____	____	____	____
Potted flowering plants and bedding plants	____	____	____	____	____	____
Herbaceous perennials	____	____	____	____	____	____
Cut foliage and flowers	____	____	____	____	____	____
Propagules: liners, cuttings, plugs, microplantlets, etc.	____	____	____	____	____	____
Turfgrass	____	____	____	____	____	____
Edible plants	____	____	____	____	____	____
Aquatic plants	____	____	____	____	____	____
Other plants	____	____	____	____	____	____

Specify other plant type(s): ______________________

Native plants. What share of total plant sales by this business in 2015 were Florida native plants? (check appropriate range)

_____ Don't know _____ Zero _____ 1-9% _____ 10-19% _____ 20-29% _____ 30-39%
_____ 40-49% _____ 50% or more; If 50% or more, specify percentage: ____________

2: Horticultural Product Retailers and Wholesale Distributors

Retail or Wholesale Distribution Area. What was the total retail sales area or wholesale distribution holding area used by this business in 2015? (check appropriate range)

____ Don't know
____ less than 5,000 square feet
____ 5,000 to 9,999 square feet
____ 10,000 to 19,999 square feet
____ 20,000 to 49,999 square feet
____ 50,000 to 74,999 square feet
____ 75,000 to 99,999 square feet
____ 100,000 or more square feet; If 100,000+ sq. ft., specify area: _________________square feet

Products. What percentage of total retail or wholesale distributor sales by this business in 2015 were for the following types of products? (check appropriate ranges)

Product	Zero	1-19%	20-39%	40-59%	60-79%	80-100%
Plants and seeds	____	____	____	____	____	____
Fertilizer	____	____	____	____	____	____
Agrichemicals	____	____	____	____	____	____
Nursery containers	____	____	____	____	____	____
Soil and growing media	____	____	____	____	____	____
Tools and equipment	____	____	____	____	____	____
Irrigation parts	____	____	____	____	____	____
Other products	____	____	____	____	____	____

Specify other product type(s): ______________________

3: Landscape Service Firms

What percentage of total landscape service sales by this business in 2015 were for the following types of services? (check appropriate ranges)

Service	Zero	1-19%	20-39%	40-59%	60-79%	80-100%
Landscape design	____	____	____	____	____	____
Landscape installation	____	____	____	____	____	____
Irrigation installation and service	____	____	____	____	____	____
Landscape maintenance and lawncare	____	____	____	____	____	____
Interiorscaping	____	____	____	____	____	____
Pest control	____	____	____	____	____	____
Other services	____	____	____	____	____	____

Specify other service type(s): ______________________

4: Horticultural Product Manufacturers and Allied Services

What percentage of total sales by this business in 2015 were for the following types of products and services? (check appropriate ranges)

Product/Service	Zero	1-19%	20-39%	40-59%	60-79%	80-100%
Soil media, peat	____	____	____	____	____	____
Horticultural containers	____	____	____	____	____	____
Fertilizer	____	____	____	____	____	____
Agrichemicals	____	____	____	____	____	____
Packaging materials	____	____	____	____	____	____
Equipment, tools	____	____	____	____	____	____
Irrigation equipment	____	____	____	____	____	____
Greenhouse structures	____	____	____	____	____	____
Transportation, logistics	____	____	____	____	____	____
Business or technical consulting services	____	____	____	____	____	____
Other products or services	____	____	____	____	____	____

Specify other type(s): ______________________

5: All Firms

Employment. How many permanent full-time and part-time, temporary or seasonal employees worked for Florida operations of this business in 2015, including management and unpaid family members? (enter numbers)

_____ Permanent, full-time employees
_____ Temporary, part-time or seasonal employees (during peak season)

How many employee positions were unfilled in this business last year? _______

Product Features and Services Offered. Which of the following product features or services are offered by this business? (check any that apply).

____ Florida Friendly plants
____ Pollinator friendly plants
____ Florida Friendly landscaping
____ Landscape water features (pools, fountains)
____ Plant identification/care tagging
____ Decorative plant containers
____ Biodegradeable plant containers
____ Branded products
____ Delivery
____ Mail order
____ Internet ordering
____ Favored customer reward programs
____ Educational programs
____ Other: specify ___________________________________

Business Line Sales. What percentage of the total sales by Florida operations of this business in 2015 were for the following types of activities? (enter number for each type applicable; answers should sum to 100%)

______% Nursery/greenhouse plant production
______% Retail garden center
______% Wholesale distribution of horticultural products
______% Landscape services
______% Manufacturing of horticultural products or allied services

Market Area. What percentage of total sales by Florida operations of this business in 2015 were to the following geographic areas (enter number for each area; answers should sum to 100%).

______% Local city or county, or within a 50 mile radius
______% State of Florida outside local area
______% National (states outside Florida)
______% International

Customers. What percentage of total sales by this business in 2015 were to the following types of customers? (check appropriate ranges)

Customer Type	Zero	1-19%	20-39%	40-59%	60-79%	80-100%
Nursery and greenhouse growers	____	____	____	____	____	____
Landscape contractors, lawncare and interiorscape firms	____	____	____	____	____	____
Independent retail garden centers	____	____	____	____	____	____
Home improvement stores and mass merchandise stores	____	____	____	____	____	____
Florists	____	____	____	____	____	____
Supermarkets	____	____	____	____	____	____
Re-wholesalers and brokers	____	____	____	____	____	____
Builders or developers	____	____	____	____	____	____
Apartments, condominiums and homeowner associations	____	____	____	____	____	____
Commercial establishments: restaurants, hotels, offices, retail stores, etc.	____	____	____	____	____	____
Government agencies	____	____	____	____	____	____
Homeowners and individual consumers	____	____	____	____	____	____
Other types of customers	____	____	____	____	____	____

Specify other type(s): ______________________________

Annual Sales Revenue. What was the total gross sales for Florida operations of this business in 2015 or the most recent completed fiscal year completed? (enter specific value or check the appropriate range below)

Specific value: $______________

Or select range

_____ Less than $100,000	____ $100,000 to $249,999
_____ $250,000 to $499,999	_____ $500,000 to $999,999
_____ $1 to $2.49 million	_____ $2.5 to $4.99 million
_____ $5 to $9.99 million	_____ $10 to $14.99 million
_____ $15 to $19.99 million	_____ $20 to $29.99 million
_____ $30 to $39.99 million	_____ $40 to $49.99 million
_____ $50 million or more;	

If sales were $50 million or more, please indicate the specific value (may round to the nearest million): $_______

Capital investment. What was the amount of capital investment by Florida operations of this business in 2015, and the amount anticipated over the next three years (2016-18) in each of the following categories.

	2015	Next 3 years
Buildings/Structures	$__________	$__________
Equipment /Vehicles	$__________	$__________
Information technology	$__________	$__________
Other	$__________	$__________

Specify other: ____

Business Threats. How would you rate the importance of the following potential threats to this business? (check appropriate ratings)

	Not Important	Moderately Important	Very Important	Dont know
Water use restrictions	____	____	____	____
Low prices for product or services	____	____	____	____
Restrictions on pesticides (e.g. neonicotinoids)	____	____	____	____
Restrictions on fertilizer use	____	____	____	____
Increasing costs of production	____	____	____	____
Competition by plant substitutes	____	____	____	____
Market power of large retail chains	____	____	____	____
Government regulations	____	____	____	____
Lack of professionalism	____	____	____	____
General business conditions	____	____	____	____
Labor availability	____	____	____	____
Low worker education or skills	____	____	____	____
Energy costs	____	____	____	____
Healthcare coverage requirements	____	____	____	____
Other	____	____	____	____

Specify other: ____

6: Comments

Please provide any comments you may have about the economic contributions of this business or the horticulture industry in general.

____
____
____
____
____
____
____

Please return the completed questionnaire in the postage-paid envelope provided. Thank you very much for you cooperation!