

Florida Aviation & Aerospace Industry

Florida Aviation and Aerospace Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a hub of commerce to all parts of the world. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool amongst other things have supported the expansion of a dynamic economy throughout the following six key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution—which are the subject of this series of reports titled *Industry Profiles*.

Industry Profiles detail the benefits of these targeted industries on Florida's employment, wage-earning levels and how each industry is forecast to perform moving forward. In an ever increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following industry profiles.

Overview

Florida's Aviation and Aerospace industry cluster is comprised of the aviation industry (Part I) and the aerospace industry (Part II). The Aviation and Aerospace industry cluster is composed of the following industries:

Aviation (Part I)

- Scheduled Passenger Air Transportation (NAICS industry 481111),
- Scheduled Freight Air Transportation (NAICS industry 481112),
- Other Airport Operations (NAICS industry 481119),
- Other Support Activities, Air Transport (NAICS industry 481190),
- Nonscheduled Air Passenger Chartering (NAICS industry 481211),
- Nonscheduled Air Freight Chartering (NAICS industry 481212),
- Other Nonscheduled Air Transportation (NAICS industry 481219),
- Air Traffic Control (NAICS industry 488111), and
- Flight Training (NAICS industry 611512).

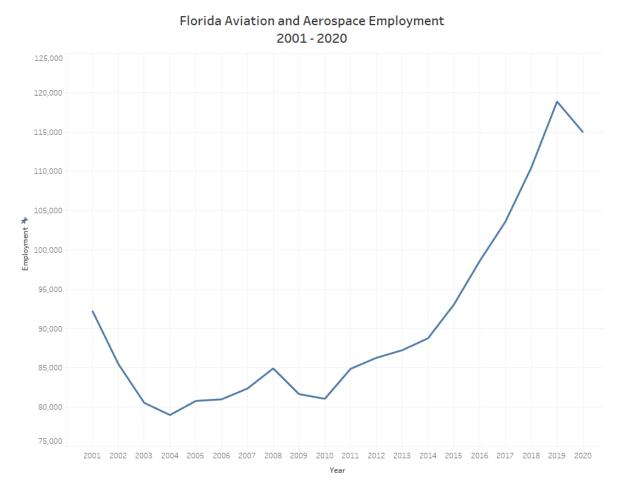
Aerospace (Part II)

- Search, Detection & Navigation Instrument (NAICS industry 334511),
- Aircraft Manufacturing (NAICS industry 336411),
- Aircraft Engine and Engine Parts (NAICS industry 336412),
- Other Aircraft Parts and Equipment (NAICS industry 336413),
- Guided Missiles and Space Vehicles (NAICS industry 336414),
- Space Vehicle Propulsion Units and Parts (NAICS industry 336415),
- Other Guided Missile/Space Vehicle Parts (NAICS industry 336419), and
- Satellite Telecommunications (NAICS industry 517410).

Some of the largest industries by employment within the Aviation and Aerospace industry cluster include: Scheduled Passenger Air Transportation; Other Support Activities for Air Transportation; Other Airport Operations; and, Search, Detection, and Navigation Instruments Manufacturing.

Employment Trends in the Aviation and Aerospace Industry Cluster

The Aviation and Aerospace industry cluster had 2,568 establishments in 2020, with employment of 114,993. Employment was down 3,876 jobs (-3.3 percent) from 2019. Aviation and aerospace employment reached a low of 78,999 jobs in 2004 and has increased since that time. From its low in 2004, this industry cluster has gained 35,994 jobs (+45.6 percent).



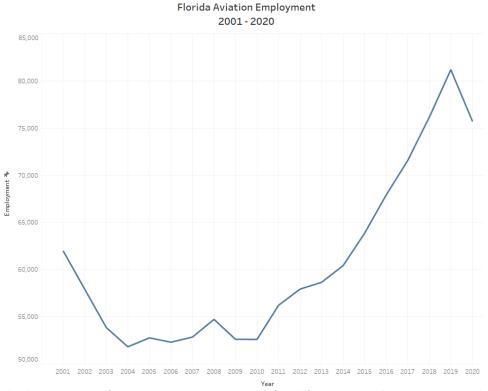
Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Florida Aviation Industry, Part I

Florida has a rich history of aviation firsts, being the site of the first night flight (Tampa, 1911) and having the world's first scheduled airline service (St. Petersburg to Tampa, 1914). Florida is the birthplace of commercial aviation and the air transportation hub of the Western Hemisphere, according to Enterprise Florida, Inc. Its commercial airports accommodated nearly 169 million passengers in 2016. The aviation industry cluster in Florida includes air transportation, support activities for air transportation and flight training.

Employment Trends in the Florida Aviation Industry Cluster

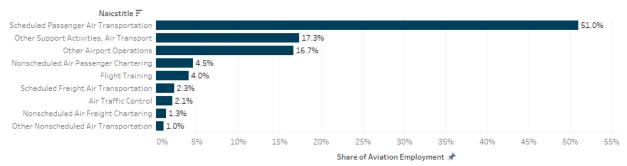
There were 2,009 aviation industry establishments in 2020 that accounted for 75,744 jobs; although employment was down 5,448 jobs (-6.7 percent) from 2019. Total jobs for all industries decreased by 4.9 percent during the same period. Aviation employment was on a downward trend between 2001 and 2004 and then began increasing slightly for several years before it started to decline again when it bottomed out in 2010. From here through 2019 aviation employment began growing from a low of 52,600 jobs in 2010 to 81,191 jobs in 2019 (+54.4 percent increase). However, 2020 saw a decrease of 5,447 aviation jobs, bringing aviation employment down to 75,744 jobs (-6.7 percent).



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The largest industries in aviation in 2020 were: Scheduled Passenger Air Transportation (38,601 jobs); Other Support Activities, Air Transportation (13,095 jobs); and Other Airport Operations (12,618 jobs). These three industries made up 84.9 percent of aviation employment in 2020 and 55.9 percent of the Aviation and Aerospace industry cluster's total employment. Employment in Scheduled Passenger Air Transportation alone represents 51.0 percent of total aviation employment and 33.6 percent of the Aviation and Aerospace industry cluster's employment.

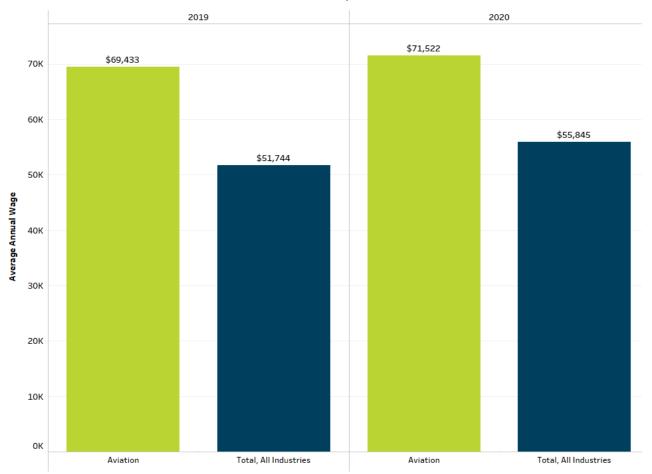




Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Within the Aviation industry, Nonscheduled Air Passenger Chartering gained the most jobs over the year in 2020 (+450 jobs, +15.2 percent). Seven of the nine industries lost jobs over the year. The largest decreases were: Other Airport Operations (-3,785 jobs, -23.1 percent); Other Support Activities, Air Transportation (-1,170 jobs, -8.2 percent); and Scheduled Passenger Air Transportation (-743 jobs, -1.9 percent).

Average Annual Wages for 2019 and 2020 Aviation versus Total, All Industries



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Aviation's 2020 average annual wage increased at a lesser rate than the average wage for all industries over the year. The 2020 average annual wage for workers in the aviation industry was \$71,522, an increase of \$2,090 (+3.0 percent) from 2019. The average annual wage for all industries grew by \$4,100 (+7.9 percent) over the year. Aviation's 2020 average annual wage exceeded the average annual wage for all industries by \$15,678 (+28.1 percent). The average annual wage difference in 2019 was \$17,688 (+34.2 percent).

The Air Traffic Control industry had an average annual wage of \$116,996 in 2020, the highest in aviation. Other Airport Operations had the lowest average annual wage in 2020 (\$38,394). Eight of the nine industries in aviation had 2020 average annual wages exceeding the average annual wage for all industries. Compared to the average annual wage for all industries in 2020 (\$55,845), most aviation industries had relatively high average annual wages.

All Education and Training Levels

Top Occupations in t	he Aviation In	dustry C	luster Fo	or All Tra	ining Le	evels*	
		yment		28 Change	% of Industry	2020 Median Hourly	Training
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement
Total, All Aviation Industry Occupations	79,923	90,930	11,007	13.77			
Aircraft Mechanics and Service Technicians	9,563	11,014	1,451	15.17	11.97	\$31.16	Postsecondary non-degree award
Laborers and Freight, Stock, and Material Movers, Hand	9,061	10,314	1,253	13.83	11.34	\$13.87	No formal educational cred. require
Flight Attendants	8,892	11,026	2,134	24.00	11.13	^\$59,287.00	High School Diploma or GED
Reservation and Transportation Ticket Agents and Travel Clerks	7,912	8,911	999	12.63	9.90	\$16.79	High School Diploma or GED
Airline Pilots, Copilots, and Flight Engineers	4,492	5,024	532	11.84	5.62	NR	Bachelor's Degree
Commercial Pilots	3,014	3,426	412	13.67	3.77	^\$102,132.00	High School Diploma or GED
Vocational Education Teachers, Postsecondary	2,378	2,471	93	3.91	2.98	\$26.60	Bachelor's Degree
Baggage Porters and Bellhops	1,973	2,336	363	18.40	2.47	\$10.36	High School Diploma or GED
Cargo and Freight Agents	1,887	2,161	274	14.52	2.36	\$19.86	High School Diploma or GED
Transportation Attendants	1,671	1,971	300	17.95	2.09	\$10.02	High School Diploma or GED
Cleaners of Vehicles and Equipment	1,152	1,323	171	14.84	1.44	\$12.10	No formal educational cred. require
Truck Drivers, Heavy and Tractor-Trailer	1,090	1,288	198	18.17	1.36	\$19.54	Postsecondary non-degree award
Avionics Technicians	921	1,065	144	15.64	1.15	\$26.92	Associate Degree
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	822	941	119	14.48	1.03	\$29.30	High School Diploma or GED
Maintenance and Repair Workers	749	858	109	14.55	0.94	\$17.33	High School Diploma or GED

^{*} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Aviation Industry, the occupations not included for 2020 were: Transportation Workers, All Other (1,846 jobs); Customer Service Representatives (1,672 jobs); First-Line Supervisors of Office and Admin. Support Workers (1,569 jobs); Office Clerks, General (993 jobs); General and Operations Managers (847 jobs); and Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (758 jobs).

NR - Not Releasable

- The top 15 occupations (by employment) specific to aviation made up 69.5 percent of total employment in aviation.
- Flight Attendants (+24.00 percent) has the highest projected growth rate from 2020 to 2028, though 14 of the top 15 are projected to see double digit percentage gains.
- Flight Attendants is projected to gain the most jobs (+2,134 jobs) among the top 15 aviation occupations. None of the top 15 occupations are projected to have declining employment between 2020 and 2028.
- Median hourly wages for the top 15 aviation occupations range from a high of \$49.10 per hour (based on the \$81,998 annual wage) for Commercial Pilots to a low of \$10.02 per hour for Transportation Attendants.
- Five of the top 15 occupations require training beyond high school.

[^] Annual Salary

Bachelor's Degree or Higher

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Top Occupations in the Aviation Indu	stry Clus	ter That	Require	a Bache	lor's Deg	ree or Higher	**
Occupation Title	Emplo 2020	yment 2028	2020-20: Total	28 Change Percent	% of Industry Total	2020 Median Hourly Wage	Training Requirement
Total, All Aviation Industry Occupations	13,406	14,782	1,376	10.26			
Airline Pilots, Copilots, and Flight Engineers	4,492	5,024	532	11.84	5.62	NR	Bachelor's Degree
Employment, Recruitment, and Placement Specialists	254	284	30	11.81	0.32	\$26.85	Bachelor's Degree
Sales Managers	248	279	31	12.50	0.31	\$55.87	Bachelor's Degree
Logisticians	185	213	28	15.14	0.23	\$30.53	Bachelor's Degree
Aerospace Engineers	166	197	31	18.67	0.21	\$51.30	Bachelor's Degree
Software Developers	146	166	20	13.70	0.18	\$46.26	Bachelor's Degree
Management Analysts	141	156	15	10.64	0.18	\$34.39	Bachelor's Degree
Market Research Analysts and Marketing Specialists	136	162	26	19.12	0.17	\$26.82	Bachelor's Degree
Industrial Engineers	135	153	18	13.33	0.17	\$39.21	Bachelor's Degree
Compliance Officers, Except Agriculture/ Construction/ Health & Safety/Transportation	132	148	16	12.12	0.17	\$29.38	Bachelor's Degree
Computer Systems Analyst	89	103	14	15.73	0.11	\$39.07	Bachelor's Degree
Industrial Production Managers	75	86	11	14.67	0.09	\$49.19	Bachelor's Degree
Financial Analysts	64	73	9	14.06	0.08	\$31.94	Bachelor's Degree
Engineering Managers	61	71	10	16.39	0.08	\$66.13	Bachelor's Degree
Sales Representatives, Wholesale and Manufacturing	52	61	9	17.31	0.07	\$34.59	Bachelor's Degree

^{**}The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Aviation Industry, the occupations not included for 2020 were: Vocational Education Teachers, Postsecondary (2,378 jobs); General and Operations Managers (847 jobs); Training and Development Specialists (312 jobs); Business Operations Specialists, All Other (311 jobs); Accountants and Auditors (293 jobs); Health Specialties Teachers, Postsecondary (273 jobs); Instructional Coordinators (207 jobs); Educational, Vocational, and School Counselors (191 jobs); Financial Managers (156 jobs); Education Administrators, All Other (148 jobs); Managers, All Other (146 jobs); Education Administrators, Postsecondary (144 jobs); Network and Computer Systems Administrators (121 jobs); Chief Executives (99 jobs); Loan Counselors (97 jobs); Marketing Managers (89 jobs); Education, Training, and Library Workers, All Other (89 jobs); Administrative Services Managers (70 jobs); Financial Specialists, All Other (64 jobs); and Nursing Instructors and Teachers, Postsecondary (59 jobs).

NR - Not Releasable

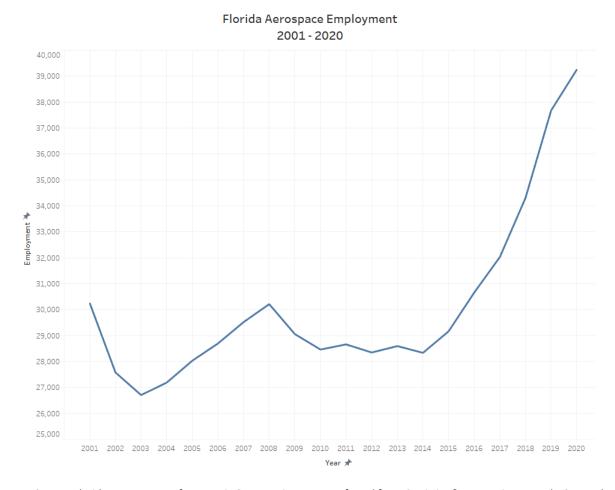
- Approximately 8.0 percent of employment in aviation is concentrated in the top 15 occupations that require at least a bachelor's degree.
- Market Research Analysts and Marketing Specialists (+19.12 percent) has the highest projected growth rate between 2020 and 2028.
- Airline Pilots, Copilots, and Flight Engineers is projected to have the largest gain of jobs amongst occupations that require a bachelor's degree or higher.
- Twelve of the top 15 occupations that require at least a bachelor's degree are projected to have employment gains of 30 jobs or less.
- Median hourly wages for aviation occupations that require at least a bachelor's degree range from a high of \$66.13 for Engineering Managers to a low of \$26.82 for Market Research Analysts and Marketing Specialists.

Florida Aerospace Industry, Part II

Florida is known as the premier location in the world for space technologies. Virtually every major aerospace company and defense contractor in the U.S. and abroad has operations in Florida. The state has been a center for aerospace research and testing since 1946.

Employment Trends in the Florida Aerospace Industry Cluster

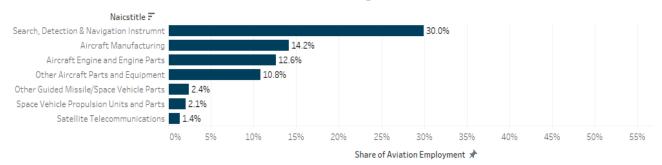
There were 559 aerospace industry establishments in 2020 that accounted for 39,249 jobs, which was up 1,571 jobs (+4.2 percent) from 2019. Total jobs for all industries decreased by 4.9 percent during this same period.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Aerospace employment was on an upward trend between 2003 and 2008, peaking at 30,212 jobs in 2008. From 2008 to 2010, the industry followed a negative trend, losing 1,750 jobs (-5.8 percent). Aerospace employment fluctuated during the 2010 to 2014 period, before dropping to its recent low of 28,335 jobs in 2014. From this low, aerospace employment has shown improvement, gaining 10,914 jobs (+38.5 percent) by 2020.

Share of Florida Aerospace Employment by Industry 2020 Annual Averages



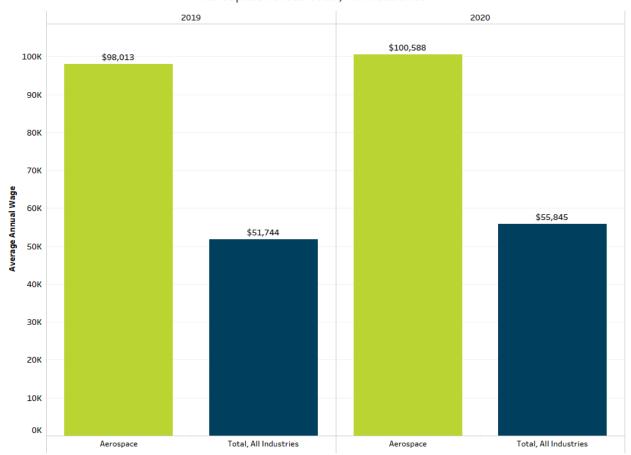
Note: Some industries not displayed due to confidentiality.

Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The largest industries in aerospace in 2020 were Search, Detection, and Navigation Instruments manufacturing (11,769 jobs); Guided Missiles and Space Vehicles (Confidential); Aircraft Manufacturing (5,562 jobs); and Aircraft Engine and Engine Parts Manufacturing (4,948 jobs).

Within the aerospace industry, Aerospace Product and Parts Manufacturing gained the most jobs over the year in 2020 (+1,125 jobs, +4.4 percent). Aircraft Engine and Engine Parts was the lone industry to lose jobs over the year in 2020 (-73 jobs, -1.5 percent).

Average Annual Wages for 2019 and 2020 Aerospace versus Total, All Industries



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The 2020 average annual wage for workers in the aerospace industry was \$100,588, an increase of \$2,575 (+2.6 percent) from 2019. The average annual wage for all industries grew by \$4,100 (+7.9 percent) over the year. Although, aerospace's 2020 average annual wage exceeded the average annual wage for all industries by \$44,743 (+80.1 percent). The average annual wage difference in 2019 was \$46,269 (+89.4 percent).

All Education and Training Levels

Top Occupations in the Aerospace Industry Cluster For All Training Levels* 2020 % of Median 2020-2028 Change Industry Hourly Training Employment Occupation Title 2020 Requirement 2028 Total Percent Total Wage Total, All Aerospace Industry Occupations 44.650 44.039 -611 -1.37 Software Developers 2.712 2.678 -34 -1.25 6.07 \$46.26 Bachelor's Degree 2,701 204 5.59 \$39.21 Bachelor's Degree Industrial Engineers 2,497 8.17 \$31.16 Postsecondary non-degree award 4.54 Aircraft Mechanics and Service Technicians 2,029 2,138 109 5.37 High School Diploma or GED 3.48 Inspectors, Testers, Sorters, Samplers, and Weighers 1.553 1.398 -155 -9.98 \$18.82 3.33 Bachelor's Degree Mechanical Engineers 1.486 1.502 16 1.08 \$40.76 1,217 1,075 2.73 \$19.45 High School Diploma or GED Aircraft Structure, Surfaces, Rigging, and Systems -142 -11.67 2.52 Bachelor's Degree Aerospace Engineers 1,123 1,174 51 4.54 \$51.30 First-Line Supervisors/Managers of Production & Operating Workers 956 957 0.10 2.14 \$27.48 High School Diploma or GED 2.05 \$66.13 Bachelor's Degree Engineering Managers 914 913 -0.11 2.04 Bachelor's Degree **Electrical Engineers** 911 888 -23 -2.52 \$46.03 2.04 High School Diploma or GED Machinists 911 929 18 1 98 \$20.18 1.95 Bachelor's Degree 870 812 -58 \$28.46 **Buvers and Purchasing Agents** -6.67 840 856 16 1.90 1.88 \$20.23 High School Diploma or GED Production, Planning, and Expediting Clerks 1.86 Associate Degree Electrical and Electronic Engineering Technicians 831 803 -28 -3 37 \$29.39

702

Avionics Technicians

 The top 15 occupations (by employment) specific to aerospace made up 43.8 percent of total employment in aerospace.

713

11

1.57

1.57

\$26.92

Associate Degree

- Industrial Engineers (+8.17 percent) is projected to grow the fastest from 2020 to 2028, followed by Aircraft Mechanics and Service Technicians (+5.37 percent) and Aerospace Engineers (+4.54 percent). Seven of the top 15 occupations are projected to have declining employment from 2020 to 2028, with Aircraft Structure, Surfaces, Rigging, and Systems projected to have the largest rate of decline (-11.67 percent).
- Industrial Engineers (+204 jobs) and Aircraft Mechanics and Service Technicians (+109 jobs) are projected to gain the most jobs among the top 15 aerospace occupations.
 Inspectors, Testers, Sorters, Samplers, and Weighers (-155 jobs) and Aircraft Structure, Surfaces, Rigging, and Systems (-142 jobs) are projected to lose the most jobs.
- Median hourly wages for the top 15 aerospace occupations range from a high of \$66.13 for Engineering Managers to a low of \$18.82 for Inspectors, Testers, Sorters, Samplers and Weighers.
- Seven of the top 15 occupations require a bachelor's degree and nine require training beyond high school.

^{*} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Aerospace Industry, the occupations not included for 2020 were: Business Operations Specialists, All Other (851 jobs) and Engineers, All Other (833 jobs).

Bachelor's Degree or Higher

Top Occupations in the Aeros	Top Occupations in the Aerospace Industry Cluster That Require a Bachelor's Degree or Higher**											
Occupation Title	Emplo 2020	oyment 2028	2020-202 Total	8 Change Percent	% of Industry Total	2020 Median Hourly Wage	Training Requirement					
Total, All Aerospace Industry Occupations	19,998	20,200	202	1.01								
Software Developers	2,712	2,678	-34	-1.25	6.07	\$46.26	Bachelor's Degree					
Industrial Engineers	2,497	2,701	204	8.17	5.59	\$39.21	Bachelor's Degree					
Mechanical Engineers	1,486	1,502	16	1.08	3.33	\$40.76	Bachelor's Degree					
Aerospace Engineers	1,123	1,174	51	4.54	2.52	\$51.30	Bachelor's Degree					
Engineering Managers	914	913	-1	-0.11	2.05	\$66.13	Bachelor's Degree					
Electrical Engineers	911	888	-23	-2.52	2.04	\$46.03	Bachelor's Degree					
Electronics Engineers, Except Computer	588	580	-8	-1.36	1.32	\$48.10	Bachelor's Degree					
Industrial Production Managers	518	514	-4	-0.77	1.16	\$49.19	Bachelor's Degree					
Sales Representatives, Wholesale and Manufacturing	517	497	-20	-3.87	1.16	\$34.59	Bachelor's Degree					
Financial Analysts	484	489	5	1.03	1.08	\$31.94	Bachelor's Degree					
Computer and Information Systems Managers	386	379	-7	-1.81	0.86	\$65.61	Bachelor's Degree					
Management Analysts	265	270	5	1.89	0.59	\$34.39	Bachelor's Degree					
Logisticians	259	262	3	1.16	0.58	\$30.53	Bachelor's Degree					
Computer Systems Analyst	257	253	-4	-1.56	0.58	\$39.07	Bachelor's Degree					
Technical Writers	249	256	7	2.81	0.56	\$30.00	Bachelor's Degree					

^{**} The Top 15 table reflects the occupations synonymous with the particular industry and best represent the required set of skills. Though still counted in the total employment of the Aerospace Industry, the occupations not included for 2020 were: Business Operations Specialists, All Other (851 jobs); Engineers, All Other (833 jobs); General and Operations Managers (639 jobs); Accountants and Auditors (397 jobs); and Managers, All Other (359 jobs).

- Approximately 29.5 percent of employment in aerospace is concentrated in the top 15 occupations that require at least a bachelor's degree.
- Industrial Engineers (+8.17 percent) has the highest projected growth rates from 2020 to 2028, as well as most total jobs gained (+204 jobs).
- Eight of the top 15 occupations that require at least a bachelor's degree are projected to lose jobs from 2020 to 2028.
- Median hourly wages for the top 15 aerospace occupations that require at least a bachelor's degree range from a high of \$66.13 for Engineering Managers to a low of \$30.53 for Logisticians.
- Employment in the aerospace industry is concentrated in coastal areas of south, central, northeastern and northwestern Florida with the largest number of jobs found in Brevard, Orange, Palm Beach, Pinellas, Broward, Miami-Dade, and Okaloosa counties.

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Florida
Finance &
Professional Services
Industry

Florida Financial and Professional Services Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a hub of commerce to all parts of the world. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool amongst other things have supported the expansion of a dynamic economy throughout the following six key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution—which are the subject of this series of reports titled *Industry Profiles*.

Industry Profiles detail the benefits of these targeted industries on Florida's employment, wage-earning levels and how each industry is forecast to perform moving forward. In an ever increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following industry profiles.

Overview

Florida is home to over 150,000 financial and professional services establishments that provide services in finance, insurance, architecture, legal services, accounting, consulting, engineering and more. Florida has 170 major banks with over \$336 billion in-state assets and nearly 4,300 regulated insurance companies doing business in the state, making Florida a major center of finance and insurance. Florida's proximity to Latin America and the cultural ties of its residents to the region have helped position the state as an international banking center. The Financial and Professional Services industry cluster makes up approximately 13.2 percent of total employment for all industries in Florida.

Financial Services

The financial services sector of the Financial and Professional Services Industry cluster is comprised of establishments primarily engaged in financial transactions or in facilitating financial transactions. Financial transactions involve the creation, liquidation, or change in ownership of financial assets. The financial services sector is composed of the following subsectors:

- Credit Intermediation and Related Activities (NAICS subsector 522),
- Financial Investment & Related Activity (NAICS subsector 523),
- Insurance Carriers and Related Activities (NAICS subsector 524), and
- Funds, Trusts, and Other Financial Vehicles (NAICS subsector 525).

Professional Services

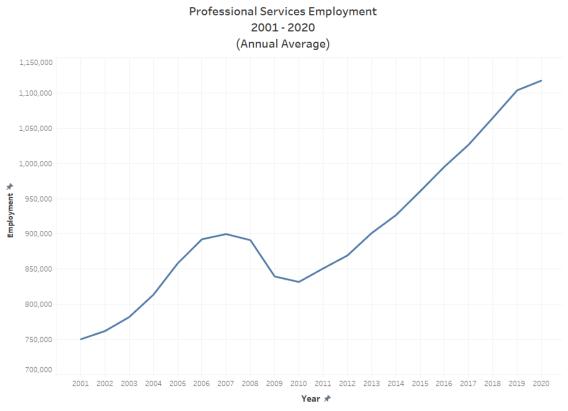
The professional services sector of the Financial and Professional Services Industry cluster is comprised of establishments that specialize in performing professional, scientific, and technical activities for others. The professional services sector is composed of the following subsectors:

- Professional and Technical Services (NAICS subsector 541), and
- Management of Companies and Enterprises (NAICS subsector 551).

Employment Trends in the Financial and Professional Services Industry Cluster

The Financial and Professional Services industry cluster had 157,997 establishments and employment of 1,117,571 in 2020. Employment was up 13,818 jobs (+1.3 percent) over the year.

Florida Financial and

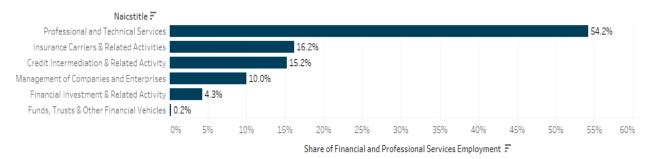


Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Employment in the Financial and Professional Services industry cluster was on an upward trend from 2001 to 2007, reaching a peak of 899,642 jobs in 2007. During the recession, employment dropped by 67,912 jobs (-7.5 percent) to a low of 831,730 jobs in 2010. Since 2010, employment in the Financial and Professional Services industry cluster has trended upward recording year-over-year growth for the ninth straight year, rising to 1,117,571 in 2020. This was an increase of 285,841 jobs (+34.4 percent) since 2010, and 217,929 jobs (+24.2 percent) since the pre-recession peak in 2007.

The largest industries in the Financial and Professional Services industry cluster in 2020 were: Professional and Technical Services (605,334 jobs), Insurance Carriers and Related Activities (180,672 jobs), and Credit Intermediation and Related Activities (169,537 jobs). These three industries made up 85.5 percent of the employment in the Financial and Professional Services industry cluster. Professional and Technical Services alone made up 54.2 percent of the employment in the Financial and Professional Services industry cluster.

Share of Financial and Professional Services Employment by Industry 2020 Annual Averages



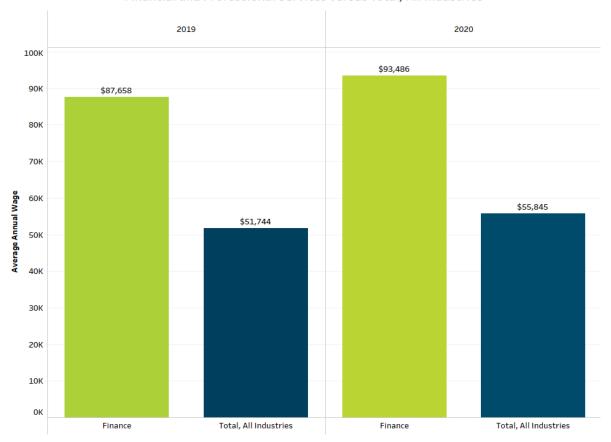
Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Five of six Financial and Professional Services industry cluster industries gained jobs from 2019 to 2020. Professional and Technical Services gained the most jobs over the year (+7,859 jobs, +1.3 percent), followed by Insurance Carriers and Related Activities (+5,415 jobs, +3.1 percent), and Credit Intermediation and Related Activity (+3,600 jobs, +2.2 percent). The lone industry to lose jobs over the year was Management of Companies and Enterprises (-3,593 jobs, -3.1 percent).

The 2020 average annual wage for workers in the Financial and Professional Services industry cluster was \$93,486, exceeding the average annual wage for all industries (\$37,641) by 67.4 percent. This gap has narrowed slightly since 2017, when the Financial and Professional Services industry cluster average annual wage exceeded the wage for all industries by 70.1 percent.

The Financial and Professional Services industry cluster average annual wage increase was larger than the wage for all industries from 2019 to 2020. The average annual wage increased by \$5,828 (+6.6 percent), while for all industries it grew by \$4,100 (+7.9 percent).

Average Annual Wages for 2019 and 2020 Financial and Professional Services versus Total, All Industries



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages program (QCEW).

All of the Financial and Professional Services industry cluster industries had 2020 average annual wages that exceeded the wage for all industries (\$51,761). Every financial and professional services industry had an average annual wage greater than \$80,000 in 2020. Compared to the 2020 average annual wage for all industries, financial and professional services industries were relatively high paying.

Financial Investment and Related Activity had an annual average wage of \$177,948, the highest in the Financial and Professional Services industry cluster and 243.9% higher than the average annual wage for all industries. Insurance Carriers and Related Activities had the lowest average annual wage with \$82,410 in 2020.

All Education and Training Levels

Top Occupations in	Top Occupations in the Financial Industry Cluster For All Training Levels*										
Occupation Title	Emplo 2020	oyment 2028	2020-202 Total	8 Change Percent	% of Industry Total	2020 Median Hourly Wage	Training Requirement				
Total, All Financial Industry Occupations	1,123,420	1,240,932	117,512	10.46							
Insurance Sales Agents	47,801	53,690	5,889	12.32	4.25	\$23.12	High School Diploma or GED				
Lawyers	38,981	41,683	2,702	6.93	3.47	\$54.36	Doctoral or Professional Degree				
Accountants and Auditors	38,851	44,307	5,456	14.04	3.46	\$31.30	Bachelor's Degree				
Software Developers	32,425	38,703	6,278	19.36	2.89	\$46.26	Bachelor's Degree				
Bookkeeping, Accounting, and Auditing Clerks	29,713	30,824	1,111	3.74	2.64	\$19.10	Some college, no degree				
Tellers	28,825	26,005	-2,820	-9.78	2.57	\$16.75	High School Diploma or GED				
Securities, Commodities, and Financial Services Sales Agents	28,409	31,364	2,955	10.40	2.53	\$26.82	Bachelor's Degree				
Paralegals and Legal Assistants	26,785	30,260	3,475	12.97	2.38	\$23.79	Associate Degree				
Management Analysts	26,476	32,071	5,595	21.13	2.36	\$34.39	Bachelor's Degree				
Computer User Support Specialist	19,686	23,343	3,657	18.58	1.75	\$22.76	Some college, no degree				
Market Research Analysts and Marketing Specialists	18,957	24,466	5,509	29.06	1.69	\$26.82	Bachelor's Degree				
Claims Adjusters, Examiners, and Investigators	18,426	19,026	600	3.26	1.64	\$30.39	High School Diploma or GED				
Insurance Claims and Policy Processing Clerks	17,687	18,430	743	4.20	1.57	\$18.68	High School Diploma or GED				
Loan Officers	15,421	16,305	884	5.73	1.37	\$29.98	Bachelor's Degree				
Financial Managers	15,342	18,608	3,266	21.29	1.37	\$56.78	Bachelor's Degree				

^{*} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Financial and Professional Services Industry, the occupations not included for 2020 were: Customer Service Representatives (83,121 jobs); General and Operations Managers (31,378 jobs); Secretaries and Administrative Assistants, Except Legal, Medical and Executive (30,308 jobs); Office Clerks, General (30,178 jobs); First-Line Supervisors of Office and Admin. Support Workers (28,102 jobs); Sales Representatives, Services, All Other (18,499 jobs); and Business Operations Specialists, All Other (18,069 jobs).

- The top 15 occupations (by employment) specific to financial and professional services made up 35.9 percent of total employment in the industry cluster.
- The largest occupation (by employment) in 2020 was Insurance Sales Agents, which has a median hourly wage of \$23.12.
- Median hourly wages among the top 15 occupations range from a high of \$54.36 per hour for Lawyers, to a low of \$16.75 per hour for Tellers.
- Twelve out of the 15 largest employment occupations have a median wage greater than \$20.00 per hour.
- Fourteen of the 15 largest occupations are projected to gain jobs through 2028.
- Software Developers is expected to gain the most jobs (+6,278 jobs), while Market Research Analysts and Marketing Specialists is expected to grow the fastest (+29.06 percent) from 2020 to 2028. Tellers is the lone occupation projected to lose jobs (-2,820 jobs, -9.78 percent).
- Higher wages are found in occupations with greater training requirements. Eleven of the 15 largest occupations require additional certification beyond a high school diploma, such as a Postsecondary Adult Vocational certificate, Associate degree, bachelor's degree, or higher.

Bachelor's Degree or Higher

Top Occupations in the Financia	al Industry C	luster Tha	t Require	a Bache	elor's De	egree o	r Higher**
Occupation Title	Emplo 2020	yment 2028	2020-202 Total	8 Change Percent	% of Industry Total	2020 Median Hourly Wage	Training Requirement
Total, All Financial Industry Occupations	512,085	590,843	78,758	15.38			
Lawyers	38,981	41,683	2,702	6.93	3.47	\$54.36	Doctoral or Professional Degree
Accountants and Auditors	38,851	44,307	5,456	14.04	3.46	\$31.30	Bachelor's Degree
Software Developers	32,425	38,703	6,278	19.36	2.89	\$46.26	Bachelor's Degree
Securities, Commodities, and Financial Services Sales Agents	28,409	31,364	2,955	10.40	2.53	\$26.82	Bachelor's Degree
Management Analysts	26,476	32,071	5,595	21.13	2.36	\$34.39	Bachelor's Degree
Market Research Analysts and Marketing Specialists	18,957	24,466	5,509	29.06	1.69	\$26.82	Bachelor's Degree
Loan Officers	15,421	16,305	884	5.73	1.37	\$29.98	Bachelor's Degree
Financial Managers	15,342	18,608	3,266	21.29	1.37	\$56.78	Bachelor's Degree
Computer Systems Analyst	15,238	18,112	2,874	18.86	1.36	\$39.07	Bachelor's Degree
Personal Financial Advisors	14,434	16,939	2,505	17.35	1.28	\$34.17	Bachelor's Degree
Civil Engineers	12,870	14,191	1,321	10.26	1.15	\$40.31	Bachelor's Degree
Computer and Information Systems Managers	9,763	11,598	1,835	18.80	0.87	\$65.61	Bachelor's Degree
Employment, Recruitment, and Placement Specialists	9,117	10,947	1,830	20.07	0.81	\$26.85	Bachelor's Degree
Financial Analysts	8,578	9,541	963	11.23	0.76	\$31.94	Bachelor's Degree
Network and Computer Systems Administrators	8,375	9,766	1,391	16.61	0.75	\$39.48	Bachelor's Degree

^{**} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Financial and Professional Services Industry, the occupations not included for 2020 were: General and Operations Managers (31,378 jobs) and Business Operations Specialists, All Other (18,069 jobs).

- Approximately 26.1 percent of employment in the Financial and Professional Services industry cluster is concentrated in the top 15 occupations that require at least a bachelor's degree.
- Among the top 15 occupations, median hourly wages for occupations that require at least a bachelor's degree ranged from a high of \$65.61 for Computer and Information Systems Managers, to a low of \$26.82 for Market Research Analysts and Marketing Specialists.
- All 15 of the top occupations that require at least a bachelor's degree have a median wage greater than \$25.00 per hour.
- All 15 of the top occupations that require at least a bachelor's degree are projected to gain jobs through 2028.
- Software Developers is projected to gain the most jobs (+6,278 jobs) among the top 15 occupations that require at least a bachelor's degree from 2020 to 2028, followed by Management Analysts (+5,595 jobs) and Market Research Analysts and Marketing Specialists (+5,509 jobs).
- Lawyers is the lone occupation that requires education beyond a bachelor's degree.
- Employment in the Financial and Professional Services industry cluster is concentrated in the southeast, central, and northeast areas of the state. These counties include Miami-Dade, Orange, Palm Beach, Pinellas, Hillsborough, Broward, Duval, and Seminole.

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Florida Information Technology Industry

Florida Information Technology Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a hub of commerce to all parts of the world. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool amongst other things have supported the expansion of a dynamic economy throughout the following six key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution—which are the subject of this series of reports titled *Industry Profiles*.

Industry Profiles detail the benefits of these targeted industries on Florida's employment, wage-earning levels and how each industry is forecast to perform moving forward. In an ever increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following industry profiles.

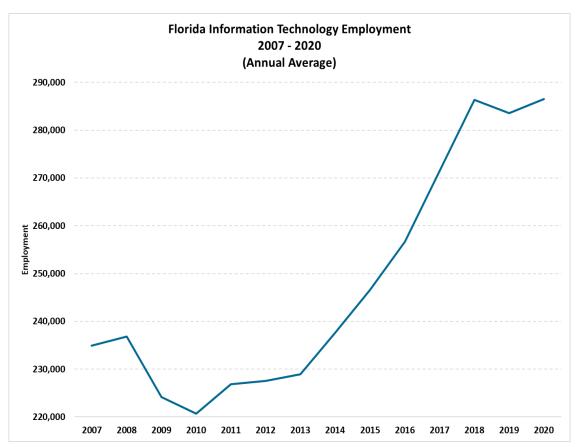
Overview

Florida's Information Technology industry cluster evolved in support of the nation's space program and was further advanced in 1981 with the introduction of the IBM Personal Computer in Boca Raton. From these early achievements, Florida's Information Technology industry cluster has matured into such diverse areas as digital media, modeling, simulation and training, photonics/optics, mobile technologies, and electronic shopping.

The Information Technology industry cluster is composed of 50 different industries from both manufacturing (28 industries) and nonmanufacturing (22 industries), as defined by Enterprise Florida, Inc.

Employment Trends in the IT Industry Cluster

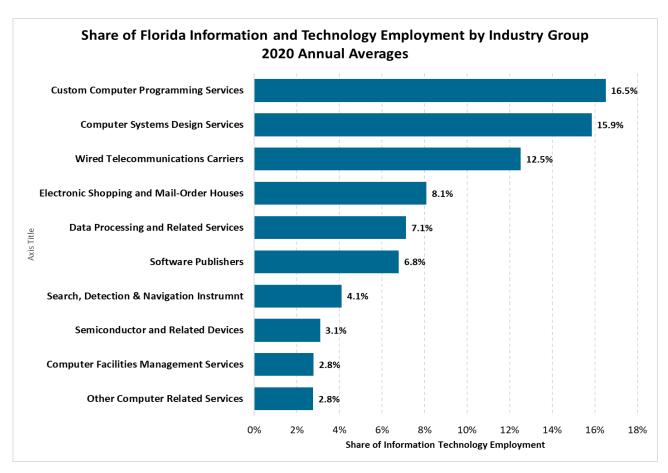
The Information Technology industry cluster had 36,479 establishments and employment of 286,501 in 2020. Employment increased by 2,888 jobs (+1.0 percent) over the year.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The largest *manufacturing* industries in the Information Technology industry cluster in 2020 were: Search, Detection, and Navigation Instruments (11,769 jobs); Semiconductors and Related Device Manufacturing (Confidential); Broadcast and Wireless Communications Equipment (3,916 jobs); and Other Electronic Component Manufacturing (2,643 jobs). The largest *nonmanufacturing* industries in the Information Technology industry cluster were: Custom Computer Programming Services (47,312 jobs); Computer Systems Design Services (45,412 jobs); Wired Telecommunications Carriers (35,875 jobs); and Electronic Shopping and Mail-Order Houses (23,171 jobs).

Within the Information Technology industry cluster, Computer Systems Design Services gained the most jobs over the year in 2020 (+2,590 jobs, +6.0 percent). The industry losing the most jobs over the year was Wired Telecommunications Carriers (-1,562 jobs, -4.2 percent).

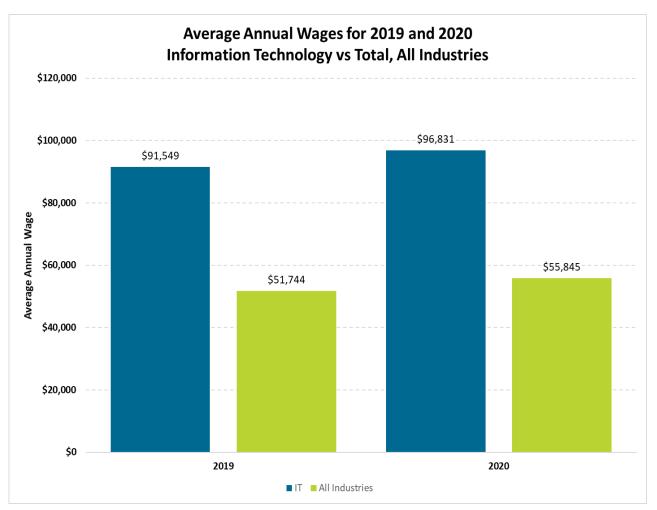


Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The 2020 average annual wage for workers in the Information Technology industry cluster was \$96,831, exceeding the total average annual wage for all industries (\$55,845) by 73.4 percent. This gap has narrowed since 2019, when the Information Technology industry cluster average annual wage exceeded the average annual wage for all industries by 76.9 percent.

The average annual wage in the Information Technology industry cluster increased more than the average annual wage for all industries. However, it grew at a slower rate. The average annual wage increased by \$5,282 (+5.8 percent), while for all industries it grew by \$4,101 (+7.9 percent).

Software Publishers had an average annual wage of \$133,073 in 2020, the highest in the Information Technology industry cluster, which is 138.3 percent higher than the average wage for all industries. Magnetic Media Manufacture and Reproducing had the lowest average annual wage in 2020 (\$29,733). Forty-two information technology industries had average annual wages that exceeded the wage for all industries (\$55,845). Fifteen industries had annual wages greater than \$100,000. Compared to the average annual wage for all industries in 2020, most information technology industries had relatively high average annual wages.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

All Education and Training Levels

Top Occupations in the Informa	Top Occupations in the Information Technology Industry Cluster For All Training Levels*										
	Employ	ment	2020 - 202		% of Industry	2020 Median Hourly	Training				
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement				
Total, All Information Technology Industry Occupations	282,800	319,680	36,880	13.04							
Software Developers, Applications	23,580	28,018	4,438	18.82	8.34	46.26	Bachelor's Degree				
Computer User Support Specialist	13,368	16,173	2,805	20.98	4.73	22.55	Some college, no degree				
Computer Systems Analyst	11,094	13,464	2,370	21.36	3.92	39.07	Bachelor's Degree				
Software Developers, Systems Software	10,539	12,350	1,811	17.18	3.73	46.26	Bachelor's Degree				
Computer and Information Systems Managers	7,155	8,578	1,423	19.89	2.53	65.61	Bachelor's Degree				
Computer Programmers	6,993	8,568	1,575	22.52	2.47	35.45	Bachelor's Degree				
Network and Computer Systems Administrators	4,616	5,533	917	19.87	1.63	37.36	Bachelor's Degree				
Management Analysts	4,577	5,511	934	20.41	1.62	34.39	Bachelor's Degree				
Computer Network Architects	3,654	4,370	716	19.59	1.29	52.29	Bachelor's Degree				
Graphic Designers	3,336	3,853	517	15.50	1.18	23.11	Bachelor's Degree				
Computer Applications, All other	3,094	3,720	626	20.23	1.09	37.41	Bachelor's Degree				
Web Developers	2,785	3,313	528	18.96	0.98	31.43	Associate Degree				
Information Security Analyst	2,735	3,273	538	19.67	0.97	44.86	Bachelor's Degree				
Computer Network Support Specialist	2,631	3,007	376	14.29	0.93	28.80	Associate Degree				
Industrial Engineers	2,627	2,809	182	6.93	0.93	39.21	Bachelor's Degree				

- The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Information Technology Industry, the occupations not included for 2020 were: Customer Service Representatives (11,303 jobs); General and Operations Managers (9,054 jobs); Office Clerks, General (5,476 jobs); Secretaries, Except Legal, Medical and Executive (4,053 jobs); Accountants and Auditors (3,902 jobs); Bookkeeping, Accounting and Auditing Clerks (3,404 jobs); First-Line Supervisors of Office and Admin. Support Workers (3,368 jobs); Order Clerks (3,335); Business Operations Specialists, All Other (3,107 jobs); and Sales Managers (2,742 jobs).
 - The top 15 occupations (by employment) in the Information Technology industry cluster made up 36.35 percent of the total employment within the industry cluster.
 - The largest occupation in 2020 is Software Developers, Applications, which has a median hourly wage of \$46.26.
 - Among the top 15 occupations, median hourly wages range from a high of \$65.61 for Computer and Information Systems Managers to a low of \$22.55 for Computer User Support Specialist.
 - Thirteen of the top 15 occupations have a median wage greater than \$25.00 per hour.
 - All of the top 15 occupations are projected to gain employment through 2028.
 - Software Developers, Applications is projected to gain the most jobs (+4,438 jobs) and Computer Programmers are projected to grow the fastest (+22.52 percent) of the top 15 occupations from 2020 to 2028.
 - All of the top 15 occupations require training beyond high school, with eleven requiring a bachelor's degree. Higher wages are found in occupations with greater training requirements.

Bachelor's Degree or Higher

Top Occupations in the Information Techno	ology Industry	Cluster Th	nat Requi	re a Bacl	helor's De	egree or	Higher**
	Employ	ment	2020 - 202	8 Change	% of Industry	2020 Median Hourly	Training
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement
Total, All Information Technology Industry Occupations	153,408	180,163	26,755	17.44			
Software Developers, Applications	23,580	28,018	4,438	18.82	15.37	46.26	Bachelor's Degree
Computer Systems Analyst	11,094	13,464	2,370	21.36	7.23	39.07	Bachelor's Degree
Software Developers, Systems Software	10,539	12,350	1,811	17.18	6.87	46.26	Bachelor's Degree
Computer and Information Systems Managers	7,155	8,578	1,423	19.89	4.66	65.61	Bachelor's Degree
Computer Programmers	6,993	8,568	1,575	22.52	4.56	35.45	Bachelor's Degree
Network and Computer Systems Administrators	4,616	5,533	917	19.87	3.01	37.36	Bachelor's Degree
Management Analysts	4,577	5,511	934	20.41	2.98	34.39	Bachelor's Degree
Sales Representatives, Wholesale and Manufacturing	4,080	4,815	735	18.01	2.66	34.59	Bachelor's Degree
Market Research Analysts and Marketing Specialists	3,810	4,899	1,089	28.58	2.48	26.82	Bachelor's Degree
Computer Network Architects	3,654	4,370	716	19.59	2.38	52.29	Bachelor's Degree
Graphic Designers	3,336	3,853	517	15.50	2.17	23.11	Bachelor's Degree
Computer Applications, All other	3,094	3,720	626	20.23	2.02	37.41	Bachelor's Degree
Information Security Analyst	2,735	3,273	538	19.67	1.78	44.86	Bachelor's Degree
Industrial Engineers	2,627	2,809	182	6.93	1.71	39.21	Bachelor's Degree
Training and Development Specialists	2,342	2,846	504	21.52	1.53	26.79	Bachelor's Degree

- ** The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Information Technology Industry, the occupations not included for 2020 were: General and Operations Managers (9,054 jobs); Accountants and Auditors (3,902 jobs); Business Operations Specialists, All Other (3,107 jobs); and Interior Designers (2,482 jobs).
 - Approximately 36.28 percent of employment in the Information Technology industry cluster is concentrated in the top 15 occupations that require at least a bachelor's degree.
 - Median hourly wages for the top 15 occupations that require at least a bachelor's degree range from a high of \$65.61 for Computer and Information Systems Managers to a low of \$23.11 for Graphic Designers.
 - All of the top 15 occupations that require at least a bachelor's degree have a median wage greater than \$20.00 per hour.
 - All of the top 15 occupations that require at least a bachelor's degree are projected to gain jobs between 2020 to 2028.
 - Of the top 15 occupations that require at least a bachelor's degree from 2020 to 2028, Software Developers, Applications are projected to gain the most jobs (+4,438 jobs), followed by Computer Systems Analyst (+2,370 jobs) and Software Developers, Systems Software (+1,811 jobs). Business Operations Specialists, All Other are projected to gain the least amount of jobs (+507 jobs, +16.32 percent).
 - Employment in the Information Technology industry cluster is concentrated in the southeast, central, and northeast areas of the state. The largest counties by employment are Broward, Miami-Dade, Hillsborough, Pinellas, Orange, Brevard, Palm Beach, Duval, and Seminole.

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Florida
Life Sciences
Industry

Florida

Life Sciences Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a hub of commerce to all parts of the world. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool amongst other things have supported the expansion of a dynamic economy throughout the following six key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution—which are the subject of this series of reports titled *Industry Profiles*.

Industry Profiles detail the benefits of these targeted industries on Florida's employment, wage-earning levels and how each industry is forecast to perform moving forward. In an ever increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following industry profiles.

Overview

Florida's Life Sciences industry cluster is comprised of the Biosciences industry cluster (Part I) and the Health care industry cluster (Part II). The Life Sciences industry cluster is composed of the following subsectors, industry groups, and industries:

Biosciences (Part I)

- Medicinal and Botanical Manufacturing (NAICS industry 325411),
- Pharmaceutical Preparation Manufacturing (NAICS industry 325412),
- In-Vitro Diagnostic Substance Manufacturing (NAICS industry 325413),
- Other Biological Product Manufacturing (NAICS industry 325414),
- Electromedical Apparatus Manufacturing (NAICS industry 334510),
- Analytical Laboratory Instruments Manufacturing (NAICS industry 334516),
- Irradiation Apparatus Manufacturing (NAICS industry 334517),
- Surgical and Medical Instrument Manufacturing (NAICS industry 339112),
- Surgical Appliance and Supplies Manufacturing (NAICS industry 339113),
- Ophthalmic Goods Manufacturing (NAICS industry 339115),
- Research and Development in Nanotechnology (NAICS industry 541713), and
- Research and Development in Biotechnology (NAICS industry 541714).

Health Care (Part I)

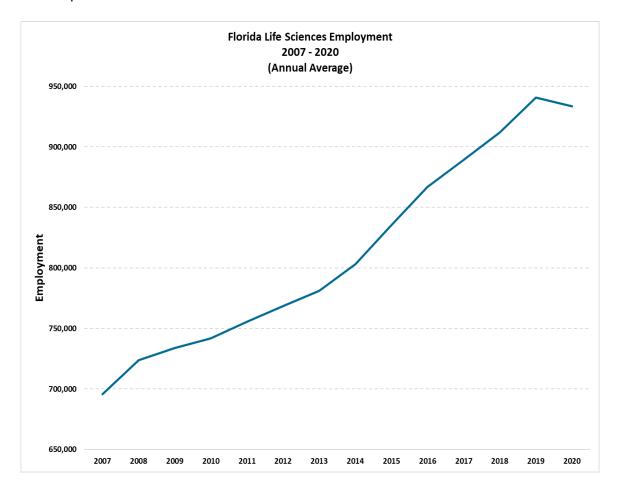
- Ambulatory Health Care Services (NAICS subsector 621),
- Offices of Physicians (NAICS industry group 6211),
- Offices of Dentists (NAICS industry group 6212),
- Offices of Other Health Practitioners (NAICS industry group 6213),
- Outpatient Care Centers (NAICS industry group 6214),
- Medical and Diagnostic Laboratories (NAICS industry group 6215),
- Home Health Care Services (NAICS industry group 6216),
- Other Ambulatory Health Care Services (NAICS industry group 6219),
- Hospitals (NAICS subsector 622),
- General Medical and Surgical Hospitals (NAICS industry group 6221),

- Psychiatric & Substance Abuse Hospitals (NAICS industry group 6222), and
- Other Hospitals (NAICS industry group 6223).

Some of the largest subsectors, industry groups, and industries within the Life Sciences industry cluster include: Pharmaceutical Preparation Manufacturing, Electromedical and Electrotherapeutic Apparatus Manufacturing, Surgical and Medical Instrument Manufacturing, Surgical Appliance and Supplies Manufacturing, Ophthalmic Goods Manufacturing, Ambulatory Health Care Services (Physicians, Dentists, Outpatient Care Centers, and Home Health Care Centers), and Hospitals.

Employment Trends in the Life Sciences Industry Cluster

The Life Sciences industry cluster had 55,081 establishments in 2020, with employment of 933,639. Employment in 2020 was down 7,157 jobs (-0.8 percent) from 2019. Although, employment has been on an upward trend since 2007, gaining 238,165 jobs (+34.2 percent) over this period.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Florida Biosciences Industry, Part I

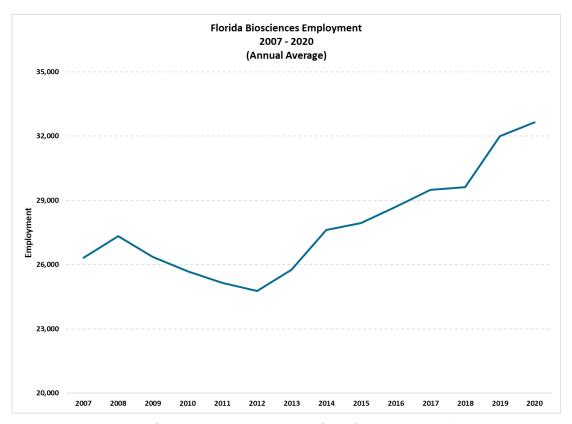
Florida continues to build a world-class bioscience industry following the job losses that occurred during 2008 to 2012. Florida is presently home to the nation's second largest pharmaceutical and medicine manufacturing industry, and medical device manufacturing industry. The Biosciences industry is built on a foundation of strong research universities and leading institutes.

The Biosciences industry includes the following industries:

- Medicinal and Botanical Manufacturing (NAICS industry 325411),
- Pharmaceutical Preparation Manufacturing (NAICS industry 325412),
- In-Vitro Diagnostic Substance Manufacturing (NAICS industry 325413),
- Other Biological Product Manufacturing (NAICS industry 325414),
- Electromedical Apparatus Manufacturing (NAICS industry 334510),
- Analytical Laboratory Instruments Manufacturing (NAICS industry 334516),
- Irradiation Apparatus Manufacturing (NAICS industry 334517),
- Surgical and Medical Instrument Manufacturing (NAICS industry 339112),
- Surgical Appliance and Supplies Manufacturing (NAICS industry 339113),
- Ophthalmic Goods Manufacturing (NAICS industry 339115),
- Research and Development in Nanotechnology (NAICS industry 541713), and
- Research and Development in Biotechnology (NAICS industry 541714).

Employment Trends in the Biosciences Industry

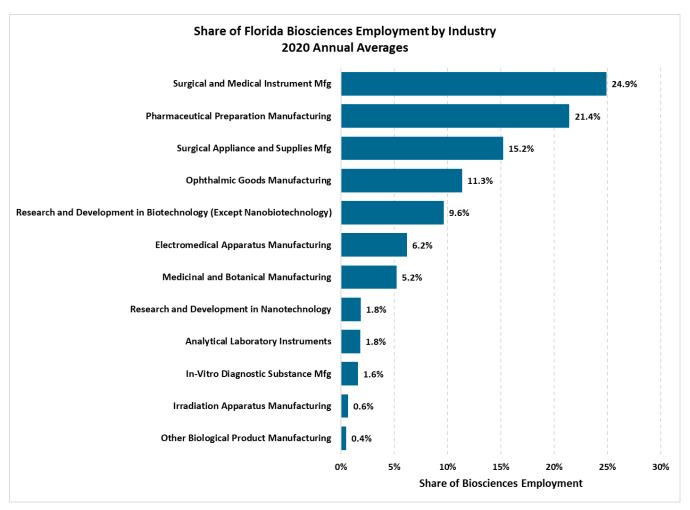
The Biosciences industry had 1,829 establishments in 2020, with employment of 32,643. Employment was up 643 jobs (+2.0 percent) from 2019. With its ups and downs, employment has gained 6,323 jobs (+24.02 percent) since 2007.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

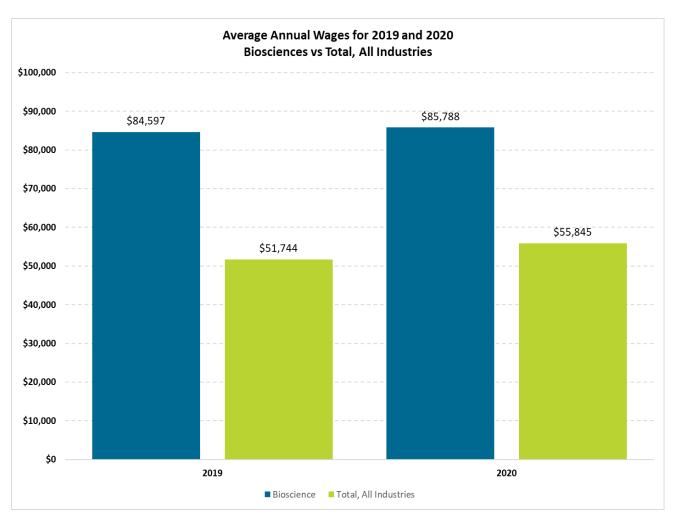
Florida bioscience employment was on a downward trend from 2008 to 2012, losing 2,576 jobs (-9.4 percent) from its peak (27,336 jobs) in 2008. From this low, biosciences employment has been on an upward trend from 2012 to 2020, rising to 32,643 jobs (+29.3 percent).

The largest industries within the Biosciences industry in 2020 were Surgical and Medical Instrument Manufacturing (8,116 jobs), Pharmaceutical Preparation Manufacturing (6,986 jobs), and Surgical Appliance and Supplies manufacturing (4,950 jobs). These three industries made up 61.4 percent of employment in the Biosciences industry.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Within the Biosciences industry, the Pharmaceutical Preparation Manufacturing industry gained the most jobs over the year (+620 jobs, +9.7 percent), while Ophthalmic Goods Manufacturing lost the most jobs over the year (-272 jobs, -6.8 percent).



The 2020 average annual wage in the Biosciences industry increased less than the average wage for all industries over the year. The 2020 average annual wage in the Biosciences industry was \$85,788, an increase of \$1,191 (+1.4 percent) from 2019. The average annual wage for all industries grew by \$4,101 (+7.9 percent) over the year.

The 2020 average annual wage for the Biosciences industry exceeded the average annual wage for all industries (\$55,845) by \$29,943 (+53.6 percent). This gap has narrowed from 2019 when the average annual wage exceeded the wage for all industries by \$32,853 (+63.5 percent).

Research and Development in Biotechnology (except Nanobiotechnology) had an average annual wage of \$139,763 in 2020—an increase of 21.1% (+\$24,314) from 2019. The average annual wage of \$139,763 makes it the highest in the Biosciences industry and 150.3 percent higher than the average annual wage for all industries. Medicinal and Botanical Manufacturing had the lowest average annual wage in 2020 (\$53,050). Eleven of 12 biosciences industries had 2020 average annual wages greater than the average annual wage for all industries, while six of the industries had wages higher than \$90,000. Compared to the average annual wage for all industries in 2020 (\$55,845), most biosciences industries had relatively high wages.

All Education and Training Levels

Top Occupations in the Biosciences Industry Cluster For All Training Levels*									
	Employ	ment	2020 - 202	8 Change	% of	2020 Median Hourly	Training		
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement		
Total, All Biotechnology Occupations	69,358	72,331	2,973	4.29					
Dental Laboratory Technicians	2,647	2,791	144	5.44	3.82	18.24	High school diploma or GED		
Industrial Engineers	2,252	2,444	192	8.53	3.25	39.21	Bachelor's Degree		
Medical Scientists, Except Epidemiologists	2,017	2,307	290	14.38	2.91	36.61	Doctoral or Professional Degree		
First-Line Supervisors/Managers of Production and	1,554	1,601	47	3.02	2.24	27.48	High school diploma or GED		
Ophthalmic Laboratory Technicians	1,283	1,332	49	3.82	1.85	15.45	High school diploma or GED		
Software Developers, Systems Software	1,158	1,186	28	2.42	1.67	46.26	Bachelor's Degree		
Sales Representatives, Wholesale and Manufacturing	1,053	1,069	16	1.52	1.52	34.59	Bachelor's Degree		
Biological Technicians	1,006	1,151	145	14.41	1.45	19.64	Bachelor's Degree		
Mechanical Engineers	997	1,007	10	1.00	1.44	40.76	Bachelor's Degree		
Mixing and Blending Machine Setters, Operators,	995	1,188	193	19.40	1.43	16.54	High school diploma or GED		
Software Developers, Applications	994	1,025	31	3.12	1.43	46.26	Bachelor's Degree		
Business Operations Specialists, All Other	902	998	96	10.64	1.30	31.58	Bachelor's Degree		
Electrical and Electronic Engineering Technicians	833	817	-16	-1.92	1.20	29.39	Associate Degree		
Sales Representatives, Wholesale and Manufacturing	802	823	21	2.62	1.16	34.59	High school diploma or GED		
Machinists	778	766	-12	-1.54	1.12	20.18	High school diploma or GED		

- * The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Biosciences Industry, the occupations not included for 2020 were: Packaging and Filling Machine Operator and Tender (2,997 jobs); Inspectors, Testers, Sorters, Samplers, and Weighers (1,778 jobs); General and Operations Managers (1,829 jobs); Installation, Maintenance, and Repair Occupations (1,419 jobs); Office Clerks, General (1,359 jobs); and Customer Service Representatives (1,323 jobs).
 - The top 15 occupations (by employment) in the Biosciences industry made up 27.78 percent of total employment within the industry.
 - The largest occupation in 2020 was Dental Laboratory Technicians, which has a median hourly wage of \$18.24.
 - Among the top 15 occupations, median hourly wages range from a high of \$46.26 for Software Developers to a low of \$15.45 for Ophthalmic Laboratory Technicians. Ten of the 15 largest occupations have a median wage greater than \$25.00 per hour.
 - Thirteen of the top 15 occupations are projected to gain employment.
 - Medical Scientists, Except Epidemiologists, is projected to gain the most jobs (+290 jobs) and Mixing and Blending Machine Setters, Operators is expected to grow the fastest (+19.40 percent) of the top 15 occupations from 2020 to 2028. Electrical and Electronic Engineering Technicians (-16 jobs, -1.92 percent) and Machinists (-12 jobs, -1.54 percent) are the only occupations projected to lose jobs.
 - Nine of the top 15 occupations require training beyond high school, with eight requiring a bachelor's degree or higher.

Bachelor's Degree or Higher

Top Occupations in the Biosciences Industry Cluster That Require a Bachelor's Degree or Higher**									
	Employ	ment	2020 - 202	8 Change	% of	2020 Median Hourly	Training		
Occupation Title			Total Percent		Total	Wage	Requirement		
Total, All Biotechnology Occupations	29,564	31,869	2,305	7.80					
Industrial Engineers	2,252	2,444	192	8.53	7.62	39.21	Bachelor's Degree		
Medical Scientists, Except Epidemiologists	2,017	2,307	290	14.38	6.82	36.61	Doctoral or Professional Degree		
Software Developers, Systems Software	1,158	1,186	28	2.42	3.92	46.26	Bachelor's Degree		
Sales Representatives, Wholesale and Manufacturing	1,053	1,069	16	1.52	3.56	34.59	Bachelor's Degree		
Biological Technicians	1,006	1,151	145	14.41	3.40	19.64	Bachelor's Degree		
Mechanical Engineers	997	1,007	10	1.00	3.37	40.76	Bachelor's Degree		
Software Developers, Applications	994	1,025	31	3.12	3.36	46.26	Bachelor's Degree		
Electrical Engineers	760	742	-18	-2.37	2.57	46.03	Bachelor's Degree		
Industrial Production Managers	753	776	23	3.05	2.55	49.19	Bachelor's Degree		
Engineering Managers	742	743	1	0.13	2.51	66.13	Bachelor's Degree		
Chemists	684	840	156	22.81	2.31	28.50	Bachelor's Degree		
Management Analysts	586	648	62	10.58	1.98	34.39	Bachelor's Degree		
Market Research Analysts and Marketing Specialists	579	681	102	17.62	1.96	26.82	Bachelor's Degree		
Computer and Information Systems Managers	522	537	15	2.87	1.77	65.61	Bachelor's Degree		
Engineers, All Other	495	514	19	3.84	1.67	46.42	Bachelor's Degree		

^{**} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills.

Though still counted in the total employment of the Biosciences Industry, the occupations not included for 2020 were: General and Operations Managers (1,829 jobs); Business Operations Specialists, All Other (902 jobs); Accountants and Auditors (792 jobs); and Managers, All Other (533 jobs).

- Approximately 21.05 percent of employment in the Biosciences industry cluster is concentrated in the top 15 occupations that require at least a bachelor's degree.
- Median hourly wages for occupations that require at least a bachelor's degree range from a high of \$66.13 for Engineering Managers to a low of \$19.64 for Biological Technicians.
- Twelve of the top 15 occupations that require at least a bachelor's degree have a median wage greater than \$30.00 per hour.
- All of the top 15 occupations that require at least a bachelor's degree are projected to gain employment through 2028.
- Medical Scientists, Except Epidemiologists, is projected to gain the most jobs (+290 jobs) of the top 15 occupations that require at least a bachelor's degree from 2020 to 2028, while Chemists is projected to grow the fastest (+22.81 percent).
- Employment in the Biosciences industry is concentrated in the southeast, central, and northeast areas of the state. The largest counties by employment are Miami-Dade, Pinellas, Broward, Duval, Hillsborough, Palm Beach, Orange, Alachua, Collier, and Volusia.

Florida Healthcare Industry, Part II

The Healthcare industry has two major subsectors: Ambulatory Health Care Services and Hospitals. Industries in the Ambulatory Health Care services subsector provide health care services directly or indirectly to ambulatory patients and do not usually provide inpatient services. Industries in the Hospitals subsector provide medical, diagnostic, and treatment services that include physician, nursing and other health services to inpatients and the specialized accommodation services required by inpatients.

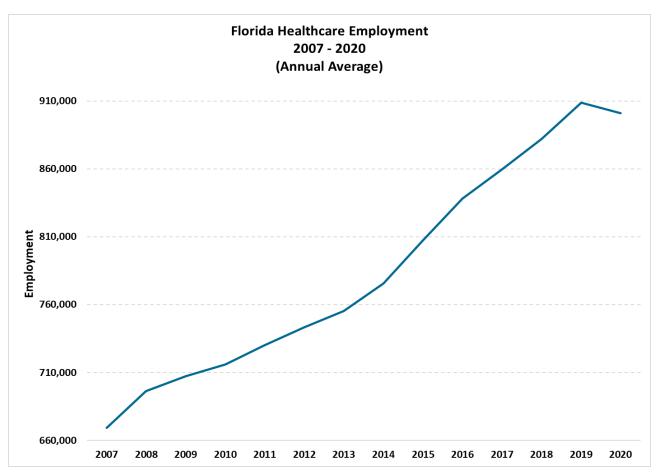
The Healthcare industry includes the following industries:

- Ambulatory Health Care Services (NAICS subsector 621),
- Offices of Physicians (NAICS industry group 6211),
- Offices of Dentists (NAICS industry group 6212),
- Offices of Other Health Practitioners (NAICS industry group 6213),
- Outpatient Care Centers (NAICS industry group 6214),
- Medical and Diagnostic Laboratories (NAICS industry group 6215),
- Home Health Care Services (NAICS industry group 6216),
- Other Ambulatory Health Care Services (NAICS industry group 6219),
- Hospitals (NAICS subsector 622),
- General Medical and Surgical Hospitals (NAICS industry group 6221),
- Psychiatric & Substance Abuse Hospitals (NAICS industry group 6222), and
- Other Hospitals (NAICS industry group 6223).

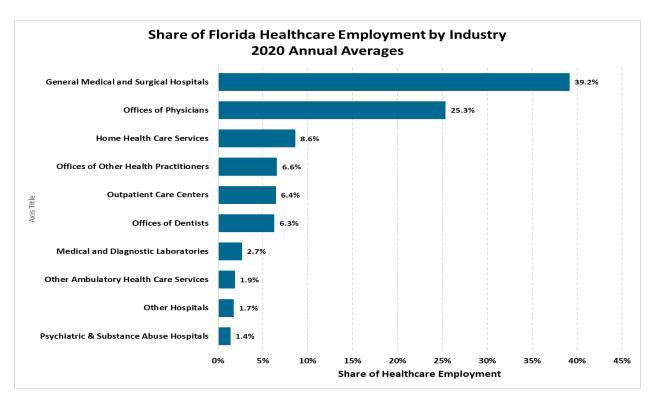
Employment Trends in the Healthcare Industry

The Healthcare industry had 53,252 establishments in 2020, with employment of 900,996. Employment was down 7,800 jobs (-0.9 percent) from 2019.

Florida health care employment experienced a slight decrease in growth during 2020, losing 7,800 jobs (-0.9 percent) over the year. From 2007 to 2020, health care employment has increased by 231,842 jobs (+34.6 percent).



The largest industry groups within health care in 2020 were General Medical and Surgical Hospitals (352,840 jobs) and Offices of Physicians (228,240 jobs). These two industry groups made up 64.5 percent of health care employment.



Within the Healthcare industry, Offices of Other Health Practitioners gained the most jobs over the year in 2020 (+546 jobs, +0.9 percent). Three of ten industry groups in the Healthcare industry gained jobs over the year, while Home Health Care Services lost the most jobs over the year (-2,330 jobs, -2.9 percent).



The 2020 average annual wage for all industries increased more than the average wage for the Healthcare industry cluster. The 2020 average annual wage for health care was \$66,296, an increase of \$3,079 (+4.9 percent) from 2019. The average annual wage for all industries grew by \$4,101 (+7.9 percent) over the year.

The 2020 average annual wage for the Healthcare industry exceeded the average annual wage for all industries (\$55,845) by \$10,451 (+18.7 percent). Offices of Physicians had an average annual wage of \$89,119 in 2020, the highest of all health care industry groups and 59.6 percent higher than the average annual wage for all industries. Psychiatric and Substance Abuse Hospitals had the lowest average annual wage of \$44,271 in 2020, which was 20.7 percent lower than the average annual wage for all industries. Six of the ten Healthcare industry groups had 2020 average annual wages greater than the average annual wage for all industries and four groups had a wage higher than \$60,000.

All Education and Training Levels

Top Occupations in the Healthcare Industry Cluster For All Training Levels*									
	Emplo	yment	2020 - 202	8 Change	% of Industry	2020 Median Hourly	Training		
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement		
Total, All Healthcare Occupations	918,093	1,047,945	129,852	14.14					
Registered Nurses	159,157	176,122	16,965	10.66	17.34	32.46	Bachelor's Degree		
Medical Assistants	56,726	68,868	12,142	21.40	6.18	16.39	Postsecondary non-degree award		
Nursing Assistants	37,531	42,050	4,519	12.04	4.09	13.49	Postsecondary non-degree award		
Licensed Practical and Licensed Vocational Nurses	27,297	31,236	3,939	14.43	2.97	22.25	Postsecondary non-degree award		
Medical Secretaries	25,252	28,526	3,274	12.97	2.75	16.33	High School Diploma or GED		
Home Health Aides	21,693	26,131	4,438	20.46	2.36	11.61	High School Diploma or GED		
Physicians and Surgeons, All Other	21,163	24,192	3,029	14.31	2.31	NR	Doctoral or Professional Degree		
Dental Assistants	19,655	22,080	2,425	12.34	2.14	19.39	Postsecondary non-degree award		
Billing and Posting Clerks and Machine Operators	18,560	21,038	2,478	13.35	2.02	17.91	High School Diploma or GED		
Radiologic Technologists and Technicians	14,337	16,178	1,841	12.84	1.56	27.61	Associate Degree		
Medical and Health Services Managers	14,082	18,369	4,287	30.44	1.53	46.06	Bachelor's Degree		
Family and General Practitioners	13,476	15,522	2,046	15.18	1.47	93.05	Doctoral or Professional Degree		
Physical Therapists	11,836	13,916	2,080	17.57	1.29	42.21	Doctoral or Professional Degree		
Dental Hygienists	11,633	12,980	1,347	11.58	1.27	33.68	Associate Degree		
Nurse Practitioners	10,727	16,721	5,994	55.88	1.17	48.53	Master's Degree		

^{*} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Health Care Industry, the occupations not included for 2020 were: Receptionists and Information Clerks (40,469 jobs); Office Clerks, General (21,656 jobs); First-Line Supervisors of Office and Admin. Support Workers (18,024 jobs); Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (17,930 jobs); and Customer Service Representatives (11,649 jobs).

NR - Not Releasable

- The top 15 occupations (by employment) in the Healthcare industry made up 50.44 percent of total employment within the industry.
- The largest occupation in 2020 was Registered Nurses, which has a median hourly wage of \$32.46.
- Among the top 15 occupations (excluding Family and General Practitioners), median hourly wages range from a high of \$48.53 for Nurse Practitioners to a low of \$11.61 for Home Health Aides. Eight of the top 15 occupations have a median wage greater than \$20.00 per hour.
- All of the top 15 occupations are projected to gain double-digit percentage increases through 2028.
- Registered Nurses is projected to gain the most jobs (+16,965 jobs) of the top 15 occupations, while Nurse Practitioners is projected to grow the fastest (+55.88 percent) from 2019 to 2027.
- Twelve of the top 15 Healthcare industry occupations require training beyond high school, with five requiring a bachelor's degree or higher.

Bachelor's Degree or Higher

Top Occupations in the Healtho	ster That	Require a	a Bachel	or's Degr	ee or H	igher**		
	Employ	ment	2020 - 202	8 Change	% of Industry	2020 Median Hourly	Training	
Occupation Title	2020	2028	Total Percent		Total	Wage	Requirement	
Total, All Healthcare Occupations	346,845	400,030	53,185	15.33				
Registered Nurses	159,157	176,122	16,965	10.66	45.89	32.46	Bachelor's Degree	
Physicians and Surgeons, All Other	21,163	24,192	3,029	14.31	6.10	NR	Doctoral or Professional Degree	
Medical and Health Services Managers	14,082	18,369	4,287	30.44	4.06	46.06	Bachelor's Degree	
Family and General Practitioners	13,476	15,522	2,046	15.18	3.89	93.05	Doctoral or Professional Degre	
Physical Therapists	11,836	13,916	2,080	17.57	3.41	42.21	Doctoral or Professional Degre	
Nurse Practitioners	10,727	16,721	5,994	55.88	3.09	48.53	Master's Degree	
Dentists, General	7,139	8,020	881	12.34	2.06	70.91	Doctoral or Professional Degre	
Medical and Public Health Social Workers	6,647	7,574	927	13.95	1.92	25.72	Master's Degree	
Physician Assistants	6,310	8,525	2,215	35.10	1.82	52.96	Master's Degree	
Pharmacists	5,772	6,304	532	9.22	1.66	60.11	Doctoral or Professional Degre	
Occupational Therapists	5,135	6,069	934	18.19	1.48	42.42	Master's Degree	
Speech-Language Pathologists	3,822	5,123	1,301	34.04	1.10	39.83	Master's Degree	
Chiropractors	2,651	2,818	167	6.30	0.76	35.12	Doctoral or Professional Degre	
Employment, Recruitment, and Placement Specialists	2,630	2,944	314	11.94	0.76	26.85	Bachelor's Degree	
Mental Health and Substance Abuse Social Workers	2,578	2,981	403	15.63	0.74	19.05	Master's Degree	

^{**} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Health Care Industry, the occupations not included for 2020 were: Business Operations Specialists, All Other (7,338 jobs) and General and Operations Managers (3,587 jobs).

NR - Not Releasable

- Approximately 29.75 percent of employment in the Healthcare industry is concentrated in the top 15 occupations that require at least a bachelor's degree.
- Median hourly wages for occupations that require at least a bachelor's degree range from a high of \$93.05 for Family and General Practitioners to a low of \$19.05 for Mental Health and Substance Abuse Social Workers.
- Eleven of the top 14 occupations (excluding Physicians and Surgeons, All Other) have a median wage greater than \$30.00 per hour.
- Thirteen of the top 15 occupations that require at least a bachelor's degree are projected to gain double digit percentage increases through 2028.
- Registered Nurses is projected to gain the most jobs (+16,965 jobs) among the top 15 occupations that require at least a bachelor's degree from 2020 to 2028, while Nurse Practitioners is expected to grow the fastest (+55.88 percent).
- Twelve of the 15 occupations that require at least a bachelor's degree require a master's degree or higher.
- Employment in the Healthcare industry is concentrated in the southeast, central, and northeast areas of the state. The largest counties by employment are Miami-Dade, Broward, Hillsborough, Palm Beach, Orange, Duval, and Pinellas counties.

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Florida Logistics Industry

Florida Logistics and Distribution Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a hub of commerce to all parts of the world. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool amongst other things have supported the expansion of a dynamic economy throughout the following six key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution—which are the subject of this series of reports titled *Industry Profiles*.

Industry Profiles detail the benefits of these targeted industries on Florida's employment, wage-earning levels and how each industry is forecast to perform moving forward. In an ever increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following industry profiles.

Overview

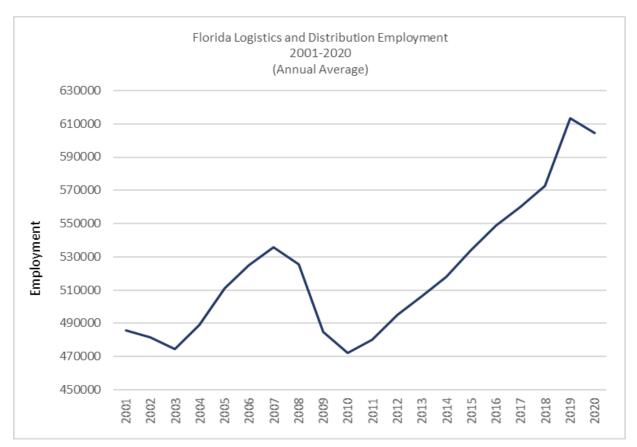
As the "Gateway to the Americas," Florida's unique geographic location positions itself as a worldwide hub of commerce. The state has one of the world's most extensive multi-modal transportation systems, featuring international airports, deep-water shipping ports, extensive highways, and railway networks. Florida's transportation infrastructure includes 12,130 centerline miles of state highways, 15 deep-water seaports, 2,746 miles of mainline railroad tracks, 20 commercial airports, and, eight active spaceports.

The Logistics and Distribution industry cluster is composed of the following sectors, subsectors, industry groups, and industries:

- Wholesale Trade (NAICS sector 42),
- Air Transportation (NAICS subsector 481),
- Water Transportation (NAICS subsector 483),
- Truck Transportation (NAICS subsector 484),
- Support Activities for Transportation (NAICS subsector 488),
- Warehousing and Storage (NAICS industry group 4931),
- Process and Logistics Consulting Services (NAICS industry 541614), and
- Packaging and Labeling Services (NAICS industry 561910).

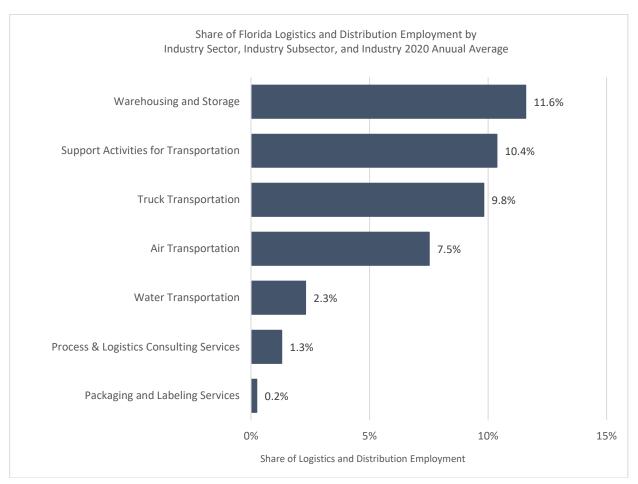
Employment Trends in the Logistics and Distribution Industry Cluster

The Logistics and Distribution industry cluster had 57,789 establishments in 2020, with employment of 604,714. 2020 annual employment in this cluster was down 8,624 jobs (-1.4 percent) from 2019.



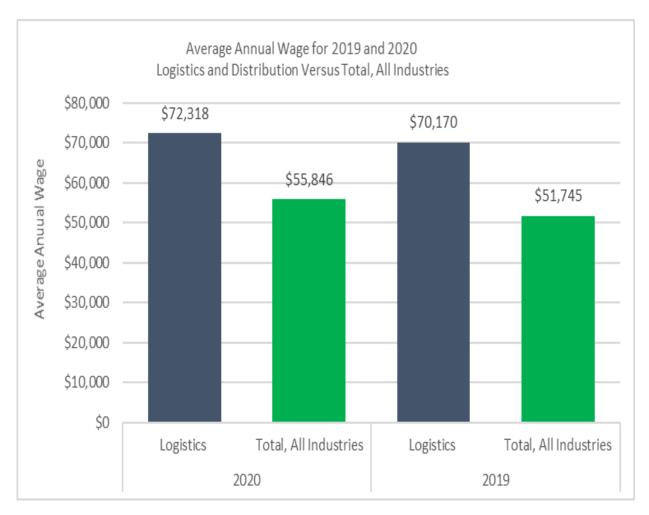
Employment in the Logistics and Distribution industry cluster experienced an initial peak of 535,718 jobs in 2007. After 2007, employment began declining steadily and reached a low of 472,225 jobs in 2010. Since the 2010 downturn, employment has shown constant growth until 2019, which peaked at 613,337 jobs.

The Wholesale Trade sector accounted for 56.9 percent (343,894 jobs) of the Logistics and Distribution industry cluster in 2020. The largest industry group and subsector in 2020 were Warehousing and Storage (70,072 jobs) and Support Activities for Transportation (62,724 jobs). Combined, the Wholesale Trade sector and two subsectors made up 78.8 percent of the Logistics and Distribution industry cluster employment.



The Wholesale Trade sector lost jobs from 2019 to 2020. Support Activities for Transportation lost the most jobs over the year (-7,812 jobs, -11.1 percent), followed by the Support Activities for Air Transportation (-4,972 jobs, -15.4 percent), Water Transportation (-1,551 jobs, -10.0 percent), and Air Transportation (-437 jobs, -1.0 percent).

Warehousing and Storage gained the most jobs over the year (+9,758 jobs, +16.2 percent), followed by Truck Transportation (+360 jobs, +0.6 percent).



The 2020 average annual wage for workers in the Logistics and Distribution industry cluster was \$72,318, exceeding the average annual wage for all industries (\$55,846) by 29.5 percent. This gap has lessened since 2019, when the average annual wage in the Logistics and Distribution industry cluster exceeded the average annual wage for all industries by 35.6 percent.

The average annual wage for the Logistics and Distribution industry cluster grew slower than the average annual wage for all industries from 2019 to 2020. The average annual wage increased by \$2,148 (+3.1 percent) in the Logistics and Distribution industry cluster, while for all industries it grew by \$4,101 (+7.9 percent).

The Nonscheduled Air Transportation industry group had an average annual wage of \$101,579 in 2020, the highest in the Logistics and Distribution industry cluster and is 81.9 percent higher than the average wage for all industries. Warehousing and Storage had the lowest average annual wage with \$41,307 in 2020. Seven of 14 subsectors and the Wholesale Trade sector in the Logistics and Distribution industry cluster had average annual wages that exceeded the wage for all industries (\$55,845). Two subsectors had annual wages greater than \$90,000 in 2020.

All Education and Training Levels

Top Occupations in the Logistics and Distribution Industry Cluster For All Training Levels*									
	Empl	oyment	2020-202	8 Change	% of Industry	2020 Median Hourly	Training		
Occupation Title	2020			Total	Wage	Requirement			
Total, All Logistics and Distribution Industry Occupations	796,155	899,778	103,623	13.02					
Laborers and Freight, Stock, and Material Movers	83,648	98,278	14,630	17.49	10.51	\$13.87	No formal education credential required		
Sales Representatives, Wholesale and Manufacturing	60,831	66,011	5,180	8.52	7.64	\$26.05	High School Diploma or GED		
Truck Drivers, Heavy and Tractor-Trailer	60,401	68,132	7,731	12.80	7.59	\$19.54	Postsecondary non-degree award		
Truck Drivers, Light or Delivery Services	35,525	44,065	8,540	24.04	4.46	\$15.95	High School Diploma or GED		
Stock Clerks and Order Fillers	27,910	30,377	2,467	8.84	3.51	NR	High School Diploma or GED		
Industrial Truck and Tractor Operators	20,595	22,807	2,212	10.74	2.59	\$17.95	No formal education credential required		
General and Operations Managers	19,336	22,422	3,086	15.96	2.43	\$42.13	Bachelor's Degree		
Management Analysts	14,313	18,045	3,732	26.07	1.80	\$34.39	Bachelor's Degree		
Shipping, Receiving, and Traffic Clerks	14,011	14,293	282	2.01	1.76	\$15.47	High School Diploma or GED		
Market Research Analysts and Marketing Specialists	11,774	15,494	3,720	31.60	1.48	\$26.82	Bachelor's Degree		
Sales Representatives, Wholesale and Manufacturing	11,699	12,614	915	7.82	1.47	\$34.59	Bachelor's Degree		
Aircraft Mechanics and Service Technicians	9,572	11,043	1,471	15.37	1.20	\$31.16	Postsecondary non-degree award		
Flight Attendants	8,895	11,030	2,135	24.00	1.12	NR	High School Diploma or GED		

The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Logistics and Distribution Industry, the occupations not included for 2020 were: Customer Service Representatives (25,643 jobs); Office Clerks, General (23,879 jobs); General and Operations Managers (19,336 jobs); Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (13,604 jobs); First-Line Supervisors of Office and Admin. Support Workers (12,807 jobs); Bookkeeping, Accounting, and Auditing Clerks (12,433 jobs); Business Operations Specialists, All Other (10,697 jobs); Sales Representatives, Services, All Other (9,598 jobs); and Accountants and Auditors (6,971 jobs).

9.814

8.973

1,121

383

8 693

8.590

1.09

1.08

\$16.79

\$11.30

High School Diploma or GED

No formal education credential required

12 90

4.46

Reservation and Transportation Ticket Agents and Travel clerks

Packers and Packagers

- The top 15 occupations (by employment) in the Logistics and Distribution industry cluster made up 48.12 percent of the total employment within the industry cluster.
- The top occupations in 2020 were Laborers and Freight, Stock, and Material Movers, which had a median hourly wage of \$13.87.
- Among the top 15 occupations, median hourly wages ranged from a high of \$34.59 for Sales Representatives, Wholesale and Manufacturing to a low of \$13.87 for Laborers and Freight, Stock, and Material Movers.
- Five of the top 15 occupations had a median wage greater than \$20.00 per hour.
- All of the top 15 occupations are projected to increase employment through 2028.
- Laborers and Freight, Stock, and Material Movers are expected to gain the most jobs of the top 15 occupations from 2020 to 2028 (+14,630 jobs). Market Research Analysts and Marketing Specialists is expected to grow the fastest (+31.60 percent).
- Five of the top 15 occupations require training beyond high school—three of which
 require at least a bachelor's degree. Higher wages are found in occupations with
 greater training requirements.

Bachelor's Degree or Higher

Top Occupations in the Logistics and Distribution Industry Cluster That Require a Bachelor's Degree or Higher**										
	Emple	pyment	2020-202	8 Change	% of Industry	2020 Median Hourly	Training			
Occupation Title	2020	2028	2020-2028 Change Total Percent		Total	Wage	Requirement			
Total, All Logistics and Distribution Industry Occupations	145,788	172,256	26,468	18.16						
Management Analysts	14,313	18,045	3,732	26.07	1.80	\$34.39	Bachelor's degree			
Market Research Analysts and Marketing Specialists	11,774	15,494	3,720	31.60	1.48	\$26.82	Bachelor's degree			
Sales Representatives, Wholesale and Manufacturing	11,699	12,614	915	7.82	1.47	\$34.59	Bachelor's degree			
Software Developers, Applications	5,169	6,099	930	17.99	0.65	NR	Bachelor's degree			
Sales Managers	5,158	5,791	633	12.27	0.65	\$55.87	Bachelor's degree			
Airline Pilots, Copilots, and Flight Engineers	4,492	5,024	532	11.84	0.56	NR	Bachelor's degree			
Employment, Recruitment, and Placement Specialists	3,295	4,075	780	23.67	0.41	\$26.85	Bachelor's degree			
ogisticians	3,087	3,600	513	16.62	0.39	\$30.53	Bachelor's degree			
inancial Managers	2,475	3,105	630	25.45	0.31	\$56.78	Bachelor's degree			
Marketing Managers	2,306	2,758	452	19.60	0.29	\$56.19	Bachelor's degree			
raining and Development Specialists	1,747	2,054	307	17.57	0.22	\$26.79	Bachelor's degree			
Graphic Designers	1,710	2,002	292	17.08	0.21	\$23.11	Bachelor's degree			
Computer Systems Analysts	1,686	1,964	278	16.49	0.21	NR	Bachelor's degree			
Computer and Information Systems Managers	1,520	1,786	266	17.50	0.19	\$65.61	Bachelor's degree			

^{**} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Logistics and Distribution Industry, the occupations not included for 2020 were: General and Operations Managers (19,336 jobs); Business Operations Specialists, All Other (10,697 jobs); Accountants and Auditors (6,971 jobs); Chief Executives (4,213 jobs); Network and Computer Systems Administrators (2,052 jobs); Managers, All Other (2,024 jobs); and Computer Applications, All Other (1,522 jobs).

1 399

NR - Not Releasable.

Financial Analysts

- Approximately 9.02 percent of employment in the Logistics and Distribution industry cluster is concentrated in the top 15 occupations that require at least a bachelor's degree.
- Median hourly wages for the top 14 (Excluding Airline Pilots, Copilots, and Flight Engineers) occupations that require at least a bachelor's degree range from a high of \$65.61 for Computer and Information Systems Managers, to a low of \$23.11 for Graphic Designers.
- All of the top 15 occupations that require at least a bachelor's degree have a median wage greater than \$20.00 per hour.
- All of the top 15 occupations that require at least a bachelor's degree are projected to gain jobs between 2020 to 2028.
- The Management Analysts occupation is projected to gain the most jobs (+3,732 jobs) while Market Research Analysts and Marketing Specialists is projected to grow the fastest (+31.60 percent) among the top 15 occupations that require at least a bachelor's degree from 2020 to 2028.
- Employment in the Logistics and Distribution industry cluster is concentrated in the southeast, central, and northeast areas of the state. The largest counties by employment are Miami-Dade, Broward, Orange, Hillsborough, Duval, and Palm Beach.

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Florida
Manufacturing
Industry

Florida

Manufacturing Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a hub of commerce to all parts of the world. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool amongst other things have supported the expansion of a dynamic economy throughout the following six key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution—which are the subject of this series of reports titled *Industry Profiles*.

Industry Profiles detail the benefits of these targeted industries on Florida's employment, wage-earning levels and how each industry is forecast to perform moving forward. In an ever increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following industry profiles.

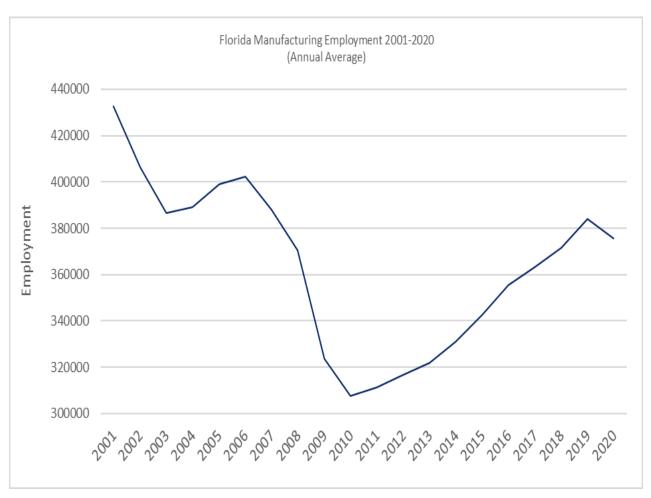
Overview

Florida manufacturers are critical to the state's economy. Many Florida manufacturing operations benefit from the presence of advanced research facilities at Florida's universities and colleges, military installations and NASA.

In 2020, Florida manufacturing was 4.4 percent of the employment for all industries and is separated into durable goods manufacturing and nondurable goods manufacturing. Durable goods manufacturing accounted for 68.7 percent of 2020 manufacturing employment while nondurable goods manufacturing accounted for 31.4 percent.

Employment Trends in the Manufacturing Industry Cluster

The Manufacturing industry cluster is composed of 10 durable goods and 11 nondurable goods subsectors. There were 21,280 durable and nondurable goods manufacturing establishments in 2020 that accounted for 375,707 jobs. Manufacturing employment was on a downward trend between 2001 and 2003 and then began increasing for several years before it started to decline again when it bottomed out in 2010. Manufacturing employment began growing from a low of 307,618 jobs in 2010 to 384,075 jobs in 2019 (a +24.7 percent increase). However, 2020 saw a decrease of 8,368 manufacturing jobs (-2.2 percent over the year), bringing overall manufacturing employment down to 375,707 jobs.



The largest industry subsectors in the Manufacturing industry cluster in 2020 were: Transportation Equipment Manufacturing (48,204 jobs), Computer and Electronic Product Manufacturing (44,105 jobs), Fabricated Metal Product Manufacturing (39,841 jobs), Food Manufacturing (33,494 jobs), Miscellaneous Manufacturing (31,418 jobs), and Machinery Manufacturing (30,365 jobs). These six subsectors comprised 60.5 percent of total manufacturing employment. Food manufacturing is the only subsector of these six that manufacture nondurable goods.

Durable Goods Manufacturing

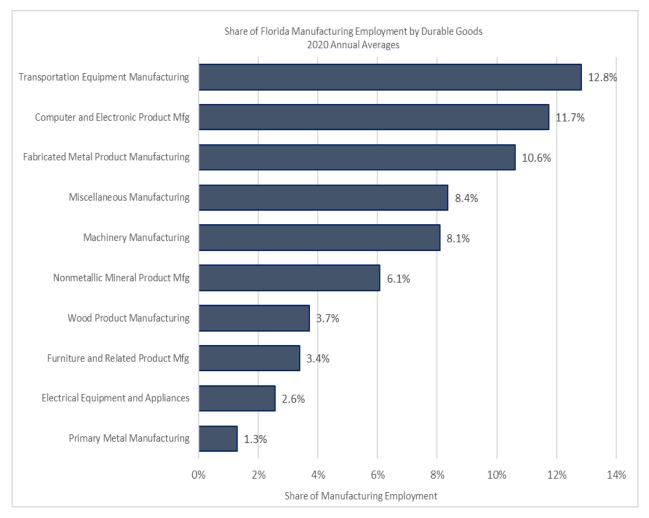
Durable goods manufacturing includes the following industry subsectors:

- Wood Product Manufacturing (NAICS subsector 321),
- Nonmetallic Mineral Product Manufacturing (NAICS subsector 327),
- Primary Metal Manufacturing (NAICS subsector 331),
- Fabricated Metal Product Manufacturing (NAICS subsector 332),
- Machinery Manufacturing (NAICS subsector 333),
- Computer and Electronic Product Manufacturing (NAICS subsector 334),
- Electrical Equipment and Appliance Manufacturing (NAICS subsector 335),
- Transportation Equipment Manufacturing (NAICS subsector 336),
- Furniture and Related Product Manufacturing (NAICS subsector 337), and

Miscellaneous Manufacturing (NAICS subsector 339).

Durable goods manufacturing had 13,821 establishments in 2020 that accounted for 257,921 jobs. Employment was down 4,632 jobs (-1.8 percent) over the year.

The largest industry subsectors in durable goods manufacturing in 2020 were: Transportation Equipment Manufacturing (48,204 jobs), Computer and Electronic Product Manufacturing (44,105 jobs), Fabricated Metal Product Manufacturing (39,841 jobs), Miscellaneous Manufacturing (31,418 jobs), and Machinery Manufacturing (30,365 jobs). These five subsectors accounted for 75.2 percent of durable goods manufacturing employment and 51.6 percent of total manufacturing employment.



Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Eight of the ten durable goods industries lost jobs over the year in 2020. Miscellaneous Manufacturing (-1,604 jobs, -4.9 percent), followed by Fabricated Metal Product Manufacturing (-1,272 jobs, -3.1 percent), Furniture and Related Product Manufacturing (-802 jobs, -5.9 percent), and Machinery Manufacturing (-704 jobs, -2.3 percent) lost the most jobs from 2019 to 2020, while Transportation Equipment Manufacturing (+378 jobs, +0.8 percent) and Computer and Electronic Product Manufacturing (+77 jobs, +0.2 percent) were the only industries that gained jobs.

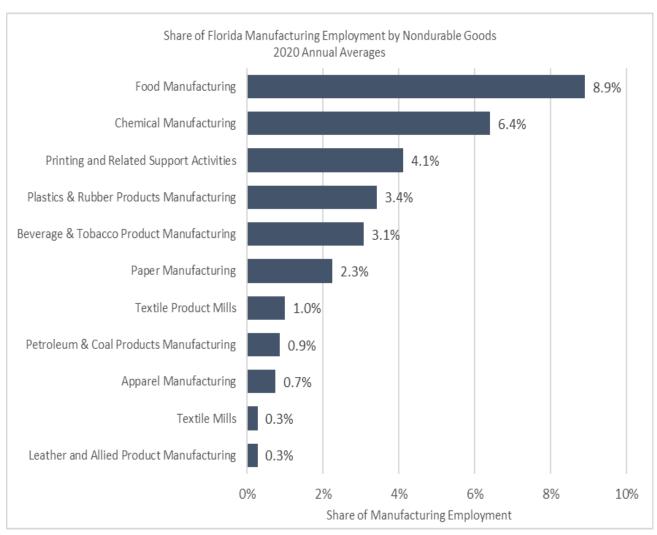
Nondurable Goods Manufacturing

Nondurable goods manufacturing includes the following subsectors:

- Food Manufacturing (NAICS subsector 311),
- Beverage and Tobacco Product Manufacturing (NAICS subsector 312),
- Textile Mills; Textile Product Mills (NAICS subsector 314),
- Apparel Manufacturing (NAICS subsector 315),
- Leather and Allied Product Manufacturing (NAICS subsector 316),
- Paper Manufacturing (NAICS subsector 322),
- Printing and Related Support Activities (NAICS subsector 323),
- Petroleum and Coal Products Manufacturing (NAICS subsector 324),
- Chemical Manufacturing; and Plastics (NAICS subsector 325), and
- Plastics & Rubber Products Manufacturing (NAICS subsector 326).

Nondurable goods manufacturing had 7,459 establishments in 2020 that accounted for 117,786 jobs. Employment was down (-3,736 jobs, -3.1 percent) over the year.

The largest industry subsectors in nondurable goods manufacturing in 2020 were: Food Manufacturing (33,494 jobs), Chemical Manufacturing (24,024 jobs), and Printing and Related Support Activities (15,486 jobs). These three subsectors accounted for 62.0 percent of nondurable goods manufacturing employment and 19.4 percent of total manufacturing employment.



Nine of the eleven nondurable goods manufacturing subsectors lost jobs over the year in 2020. Printing and Related Support Activities (-1,523 jobs, -9.0 percent) and Apparel Manufacturing (-835 jobs, -22.9 percent) lost the most jobs from 2019 to 2020, while Chemical Manufacturing (+570 jobs, +2.4 percent) gained the most jobs.



The Manufacturing industry cluster's 2020 average annual wage increased less than the average wage for all industries over the year and grew at a slower rate. The 2020 average annual wage for the Manufacturing industry cluster was \$66,726, an increase of \$2,855 (+4.5 percent) from 2019. The average annual wage for all industries grew by \$4,101 (+7.9 percent) over the year.

The Manufacturing industry cluster's 2020 average annual wage exceeded the average annual wage for all industries by \$10,881 (+19.5 percent). The wage gap has narrowed slightly since 2019 when it was \$12,126 (+23.4 percent).

The Computer and Electronic Product Manufacturing subsector had an average annual wage of \$97,005 in 2020, the highest in Manufacturing. Textile Product Mills had the lowest average annual wage in 2020 (\$42,089). Eleven of the 21 manufacturing industries had a 2020 average annual wage greater than the average for all industries (\$55,845), and nine industries had an average annual wage greater than \$60,000.

All Education and Training Levels

Top Occupations in the Manufacturing Industry Cluster for All Training Levels*

	Emplo	oyment	2020-202	8 Change	% of Industries	2020 Median Hourly	Training
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement
Total, All Manufacturing Industries Occupations	380,905	391,697	10,792	2.8		\$18.07	
First-Line Supervisors/Managers of Production	15,533	16,295	762	4.9	4.1	\$27.48	HS Diploma or GED
Packaging and Filling Machine Operators and Tenders	12,953	14,211	1,258	9.7	3.4	\$13.51	HS Diploma or GED
Sales Representatives, Wholesale and Manufacturing	10,221	10,734	513	5.0	2.7	\$26.05	HS Diploma or GED
Laborers and Freight, Stock, and Material Movers	8,817	9,310	493	5.6	2.3	\$13.87	No formal education credential require
Inspectors, Testers, Sorters, Samplers, and Weighers	8,459	7,548	-911	-10.8	2.2	\$18.82	HS Diploma or GED

581

817

306

480

258

-243

-308

377

988

8,115

7,724

7.511

7,134

6,061

6,041

5,320

5.111

4,897

8,696

8,541

7.817

7,614

6,319

5,798

5,012

5.488

5,885

Welders, Cutters, Solderers, and Brazers

Truck Drivers, Heavy and Tractor-Trailer

General and Operations Managers

Industrial Machinery Mechanics

Shipping, Receiving, and Traffic Clerks

Mixing and Blending Machine Setters, Operators, and Tenders

Industrial Engineers

Printing Press Operators

Machinists

7.2

10.6

4.1

6.7

4.3

-4.0

-5.8

7.4

20.2

4.5

2.1

2.0

2.0

1.6

1.6

1.3

1.3

\$19.39

\$39.21

\$19.54

\$20.18

\$42.13

\$15.47

\$15.70

\$16.54

\$23.84

HS Diploma or GED

Bachelor's Degree

Postsecondary non-degree

Bachelor's Degree

Bachelor's Degree

HS Diploma or GED

HS Diploma or GED

HS Diploma or GED

HS Diploma or GED

- The top 15 occupations (by employment) in the Manufacturing industry cluster made up 30.2 percent of total employment in manufacturing.
- The largest occupation in 2020 was First-Line Supervisors/Managers of Production, which has a median hourly wage of \$27.48.
- Median hourly wages among the 15 largest occupations range from a high of \$42.13 per hour for General and Operations Managers to a low of \$13.21 per hour for Helpers--Production Workers.
- Six out of the 15 largest employment occupations have a median wage greater than \$20.00 per hour.
- Twelve of the 15 largest occupations are projected to gain jobs through 2028.
- Packaging and Filling Machine Operators and Tenders (+1,258 jobs) is projected to gain the most jobs from 2020 to 2028, followed by Industrial Machinery Mechanics (+988 jobs). Inspectors, Testers, Sorters, Samplers, and Weighers (-911 jobs, -10.77 percent) is projected to lose the most jobs from 2020 to 2028.
- Four of the top 15 manufacturing occupations require training beyond high school. Higher wages are found in occupations with greater training requirements.

Helpers--Production Workers HS Diploma or GED 4,872 5,090 218 \$13.21 The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Manufacturing Industry, the occupations not included for 2020 were: Office Clerks, General (8,061 jobs) and Customer Service Representatives (6,112 jobs).

Ton Occupations in the Manufacturing	Industry Cluster for All Training Loyals*
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					% of	2020 Median	
	Emplo	yment	2020-20	028 Change	Industries	Hourly	Training
Occupation Title	2020	2028	Total	Percent	Total	Wage	Requirement
Total, All Manufacturing Industries Occupations	69,279	71,956	2,677	3.9			
Industrial Engineers	7,724	8,541	817	10.6	11.1	\$39.21	Bachelor's Degree
Software Developers	7,370	7,435	65	0.9	10.6	NA*	Bachelor's Degree
Industrial Production Managers	3,807	3,974	167	4.4	5.5	\$49.19	Bachelor's Degree
Mechanical Engineers	3,254	3,371	117	3.6	4.7	\$40.76	Bachelor's Degree
Electrical Engineers	2,541	2,614	73	2.9	3.7	\$46.03	Bachelor's Degree
Graphic Designers	2,337	2,324	-13	-0.6	3.4	\$23.11	Bachelor's Degree
Engineering Managers	2,124	2,172	48	2.3	3.1	\$66.13	Bachelor's Degree
Sales Representatives, Wholesale and Manufacturing	1,645	1,663	18	1.1	2.4	\$34.59	Bachelor's Degree
Engineers, All Other	1,498	1,548	50	3.3	2.2	\$46.42	Bachelor's Degree
Sales Managers	1,266	1,311	45	3.6	1.8	\$55.87	Bachelor's Degree
Employment, Recruitment, and Placement Specialists	1,155	1,175	20	1.7	1.7	\$26.85	Bachelor's Degree
Aerospace Engineers	1,151	1,198	47	4.1	1.7	\$51.30	Bachelor's Degree
Chief Executives	1,149	1,037	-112	-9.7	1.7	\$87.85	Bachelor's Degree
Financial Managers	1,114	1,259	145	13.0	1.6	\$56.78	Bachelor's Degree
Electronics Engineers, Except Computer	1,100	1,116	16	1.5	1.6	\$48.10	Bachelor's Degree

^{**} The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Manufacturing Industry, the occupations not included for 2020 were: General and Operations Managers (6,061 jobs); Accountants and Auditors (2,781 jobs); Business Operations Specialists, All Other (1,023 jobs); and Network and Computer Systems Administrators (1,158 jobs).

NA* (not available).

- Approximately 10.3 percent of employment in the Manufacturing industry cluster is concentrated in the top 15 occupations that require at least a bachelor's degree.
- The largest occupation (by employment) in 2020 that requires at least a bachelor's degree was Industrial Engineers, which has a median hourly wage of \$39.21.
- Among the top 15 occupations, median hourly wages for occupations that require at least a bachelor's degree ranged from a high of \$87.85 for Chief Executives to a low of \$23.11 for Graphic Designers.
- All 15 of the top occupations that require at least a bachelor's degree have a median wage greater than \$20.00 per hour.
- Thirteen of the 15 top occupations that require at least a bachelor's degree are projected to gain jobs through 2028.
- Industrial Engineers (+817 jobs) is projected to gain the most jobs of the top 15 occupations that require at least a bachelor's degree, followed by Industrial Production Managers (+167 jobs), and Mechanical Engineers (+117 jobs). Chief

Executives (-112 jobs, -9.75 percent) and Graphic Designers (-13 jobs, -0.56 percent) are two of the top 15 occupations projected to lose jobs from 2020 to 2028.

• Employment in the Manufacturing industry cluster is concentrated in the southeast, central, and northeast areas of the state with the largest number of jobs found in Miami-Dade, Pinellas, Orange, Broward, Hillsborough, Duval, Brevard, Polk, and Palm Beach counties.

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