



2020
EDITION

Labor Market Industry Profile

Florida Aviation & Aerospace Industry

Florida Aviation and Aerospace Industry Cluster

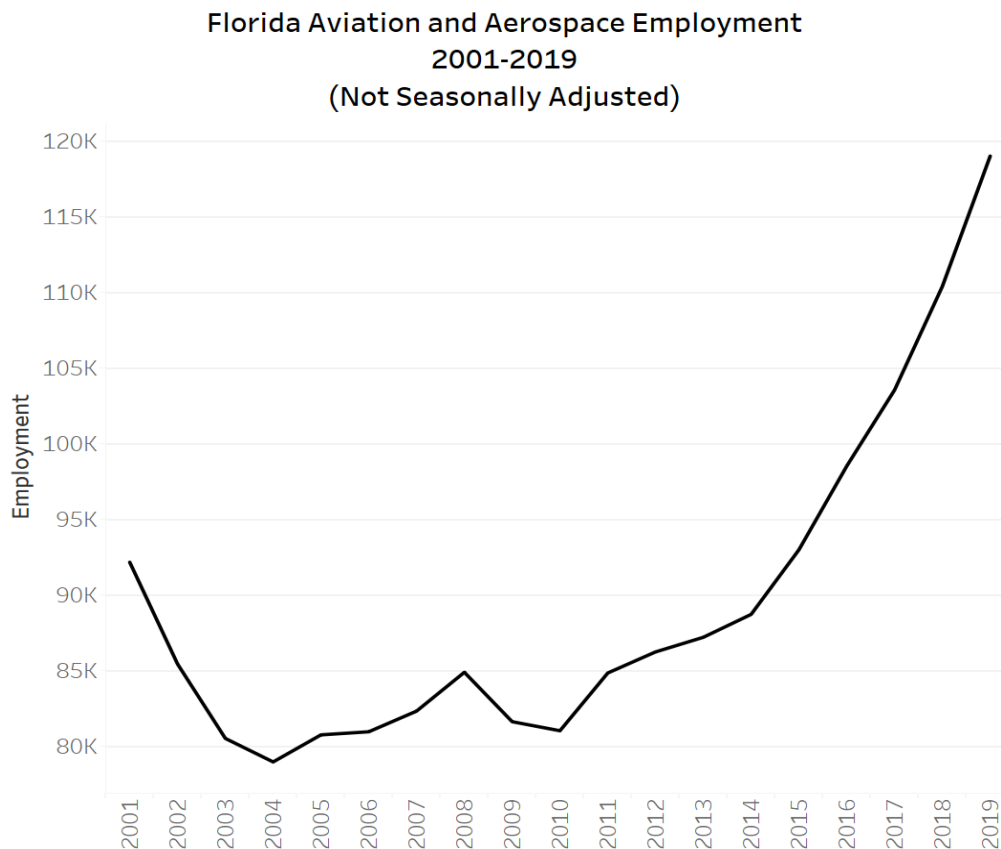
Florida's aviation and aerospace industry cluster is comprised of the aviation industry (Part I) and the aerospace industry (Part II).

DEO's industry profiles report the growth of major industries in Florida paramount to it's growth. The yearly profiles detail the expansion of these industries over the past year as well as projected growth. The estimates in this report were produced prior to March of 2020 and do not capture the immediate and lasting impacts of the COVID-19 pandemic.

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 2,416 establishments in 2019, with employment of 119,067. Employment was up 8,614 jobs (+7.8 percent) from 2018. 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 40,068 jobs (+50.7 percent).



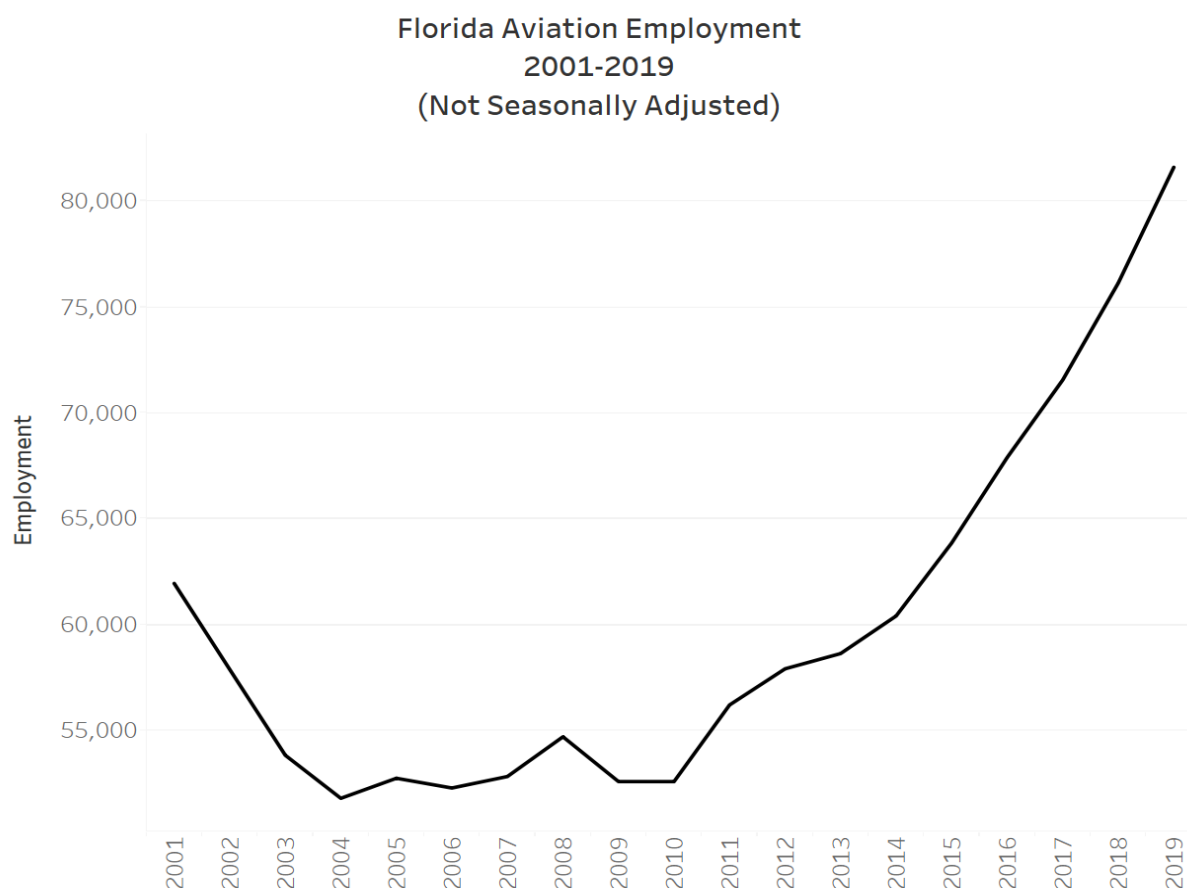
Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

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.

The aviation industry cluster includes the following detailed industries: Scheduled Passenger Air Transportation; Scheduled Freight Air Transportation; Nonscheduled Air Freight Chartering; Nonscheduled Air Passenger Chartering; Scheduled Freight Air Transportation; Other Nonscheduled Air Transportation; Air Traffic Control; Other Airport Operations; Other Support Activities, Air Transportation; and Flight Training.

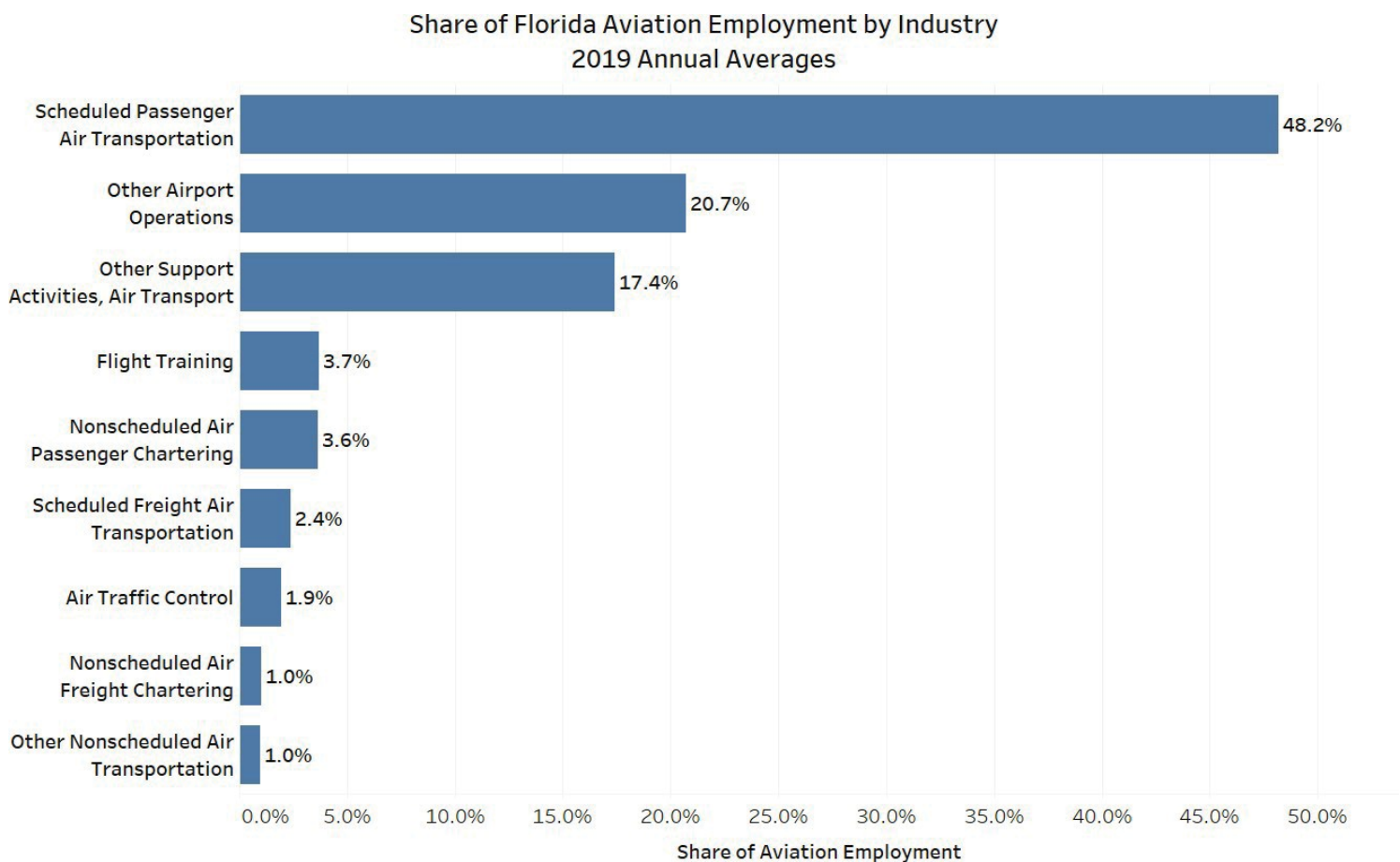
The aviation industry cluster had 1,862 establishments and employment of 81,613 in 2019, up 5,466 jobs (+7.2 percent) from 2018. Total jobs for all industries increased by 2.1 percent during the same period.



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

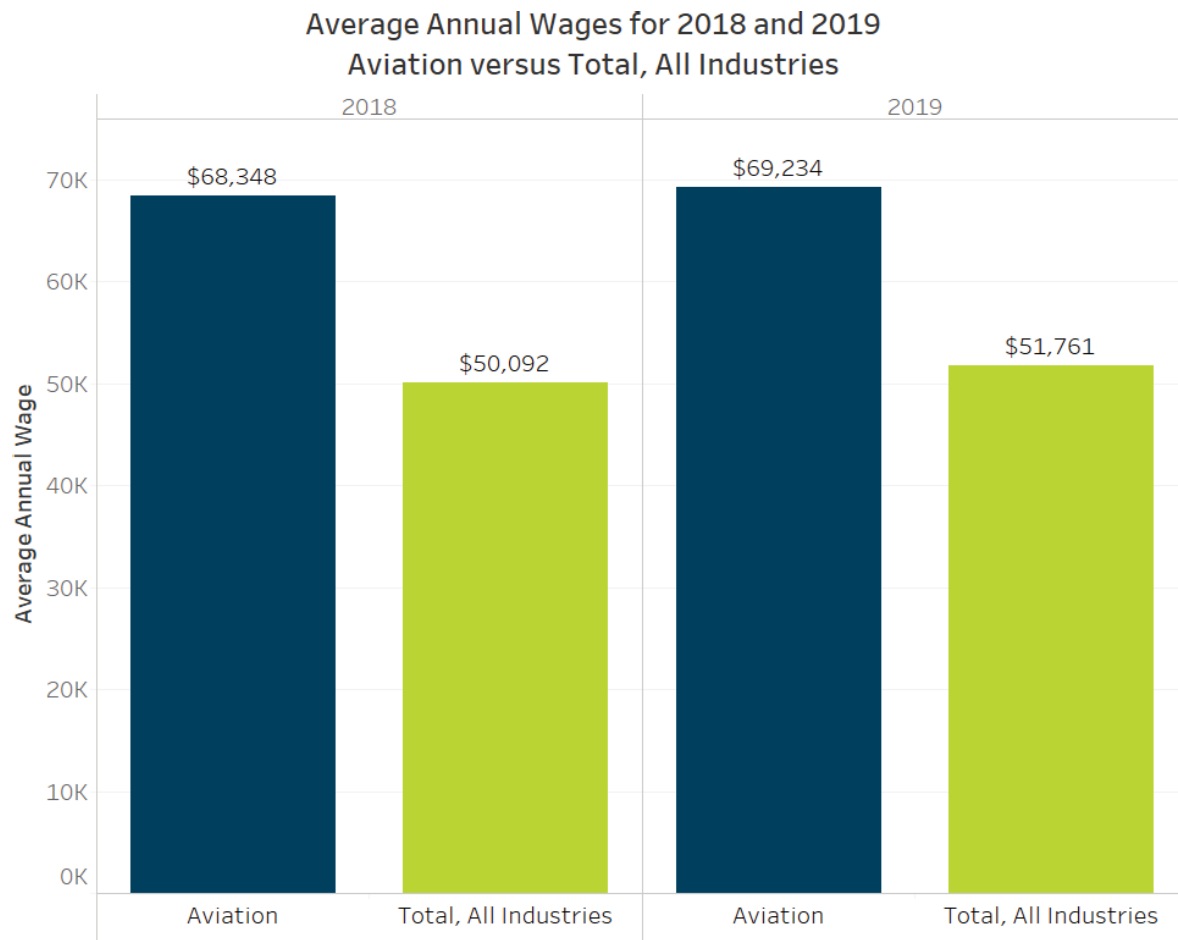
Florida aviation employment decreased from 2004 to 2010, but has shown an upward trend since its 2010 low. Employment increased by 29,013 jobs (+55.2 percent) from 2010 to 2019. Total employment for all industries increased by 25.0 percent over the same period, a modest growth rate in comparison to aviation.

The largest industries in aviation in 2019 were: Scheduled Passenger Air Transportation (39,343 jobs); Other Airport Operations (16,909 jobs); and Other Support Activities, Air Transportation (14,204 jobs). These three industries made up 86.3 percent of aviation employment in 2019 and 59.2 percent of the aviation and aerospace cluster's employment. Employment in Scheduled Passenger Air Transportation alone represents 48.2 percent of total aviation employment and 33.0 percent of the aviation and aerospace industry's collective 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 cluster, Scheduled Passenger Air Transportation gained the most jobs over the year in 2019 (+2,404 jobs, +6.5 percent). For the second consecutive year, the only industry losing jobs over the year in aviation was Air Traffic Control (-235 jobs, -13.0 percent).



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

Aviation's 2019 average annual wage increased less than the average wage for all industries over the year. The 2019 average annual wage for workers in the aviation industry cluster was \$69,234, an increase of \$886 (+1.3 percent) from 2018. The average annual wage for all industries grew by \$1,669 (+3.3 percent) over the year.

Aviation's 2019 average annual wage exceeded the average annual wage for all industries by \$17,473 (+33.8 percent), a slight decline from the average annual wage's difference in 2018 of \$18,256 (+36.4 percent).

Air Traffic Control had an average annual wage of \$120,196 in 2019, the highest in aviation. Other Airport Operations had the lowest average annual wage in 2019 (\$34,750). Eight of the nine industries in aviation had 2019 average annual wages exceeding the average annual wage for all industries. Compared to the average annual wage for all industries in 2019 (\$51,761), most aviation industries had relatively high average annual wages.

All Education and Training Levels

Top Occupations in the Aviation Industry Cluster For All Training Levels*

Occupation Title	Employment		2019-2027 Change		% of Industry Total	2019 Median Hourly Wage	Training Requirement
	2019	2027	Total	Percent			
Total, All Aviation Industry Occupations	80,796	90,799	10,003	12.38			
Aircraft Mechanics and Service Technicians	10,546	11,768	1,222	11.59	13.05	\$30.75	Postsecondary non-degree award
Flight Attendants	10,148	11,962	1,814	17.88	12.56	\$56,452^	High School Diploma or GED
Reservation and Transportation Ticket Agents and Travel Clerks	9,234	10,408	1,174	12.71	11.43	\$15.49	High School Diploma or GED
Laborers and Freight, Stock, and Material Movers, Hand	7,708	8,748	1,040	13.49	9.54	\$13.44	No formal education credential required
Airline Pilots, Copilots, and Flight Engineers	4,938	5,537	599	12.13	6.11	NR	Bachelor's Degree
Baggage Porters and Bellhops	4,294	5,001	707	16.46	5.31	\$10.51	High School Diploma or GED
Commercial Pilots	3,028	3,299	271	8.95	3.75	\$81,998^	High School Diploma or GED
Vocational Education Teachers, Postsecondary	2,150	2,232	82	3.81	2.66	\$27.88	Bachelor's Degree
Avionics Technicians	1,367	1,542	175	12.80	1.69	\$24.87	Associate Degree
Cargo and Freight Agents	1,043	1,179	136	13.04	1.29	\$18.27	High School Diploma or GED
Cleaners of Vehicles and Equipment	1,021	1,171	150	14.69	1.26	\$11.51	No formal education credential required
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	856	975	119	13.90	1.06	\$28.82	High School Diploma or GED
Maintenance and Repair Workers	719	810	91	12.66	0.89	\$16.88	High School Diploma or GED
First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Ops	498	560	62	12.45	0.62	\$27.99	High School Diploma or GED
Transportation Attendants	464	540	76	16.38	0.57	\$9.31	High School Diploma or GED

* The top 15 tables reflect the occupations synonymous with the particular industry and best represent the required set of skills. Though still counted in the total employment of the Aviation Industry, the occupations not included above were: Transportation Workers, All Other (2019 - 2,570 jobs), First- Line Supervisors of Office and Admin. Support Workers (2019 - 1,422 jobs), Customer Service Representatives (2019 - 1,258 jobs), Office Clerks, General (2019 - 985 jobs), Sales Representatives, Services, All Other (2019 - 826 jobs), Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (2019 - 596 jobs), General and Operations Managers (2019 - 541 jobs), Stock Orders and Order Fillers (2019 - 512 jobs), Business Operations Specialists, All Other (2019 - 502 jobs), and Personal Care and Service Workers, All Other (2019 - 473 jobs).

NR - Not Releasable

^ Annual Salary

The top 15 aviation-specific occupations account for 71.8 percent of total occupational employment in aviation, an almost identical percentage to 2018.

Flight Attendants (+17.88 percent) has the highest projected growth rate from 2019 to 2027, though 13 of the top 15 are projected for double digit percentage gains. Flight Attendants are also projected to gain the most jobs (+1,814 jobs) among the top fifteen aviation- specific occupations. The outlook for employment in the aviation industry continues to be promising as none of the top 15 occupations are projected to have declining employment from 2019 to 2027.

Excluding Airline Pilots, Copilots, and Flight Engineers (due to non-releasable information) and the salaries of Flight Attendants and Commercial Pilots, the median hourly wages range from a high of \$30.75 Aircraft Mechanics and Service Technicians to a low of \$9.31 for Transportation Attendants.

Nine of the top 15 occupations require a high school diploma or GED, and two of the top 15 do not require any formal education credentials.

Bachelor's Degree or Higher

Top Occupations in the Aviation Industry Cluster That Require a Bachelor's Degree or Higher**							
Occupation Title	Employment		2019-2027 Change		% of Industry Total	2019 Median Hourly Wage	Training Requirement
	2019	2027	Total	Percent			
Total, All Aviation Industry Occupations	12,598	13,808	1,210	9.60			
Airline Pilots, Copilots, and Flight Engineers	4,938	5,537	599	12.13	6.11	NR	Bachelor's Degree
Employment, Recruitment, and Placement Specialists	268	283	15	5.60	0.33	\$26.16	Bachelor's Degree
Sales Managers	144	163	19	13.19	0.18	\$52.61	Bachelor's Degree
Logisticians	141	161	20	14.18	0.17	\$25.44	Bachelor's Degree
Aerospace Engineers	76	88	12	15.79	0.09	\$48.60	Bachelor's Degree
Software Developers	75	89	14	18.67	0.09	\$46.12	Bachelor's Degree
Sales Reps, Wholesale and Manufacturing, Technical and Scientific Products	73	85	12	16.44	0.09	\$32.59	Bachelor's Degree
Market Research Analysts and Marketing Specialists	71	85	14	19.72	0.09	\$28.29	Bachelor's Degree
Public Relations Specialists	51	55	4	7.84	0.06	\$26.57	Bachelor's Degree
Management Analysts	45	51	6	13.33	0.06	\$32.33	Bachelor's Degree
Computer Programmers	42	40	-2	-4.76	0.05	\$36.02	Bachelor's Degree
Industrial Engineers	41	48	7	17.07	0.05	\$34.76	Bachelor's Degree
Compliance Officers	40	45	5	12.50	0.05	\$34.00	Bachelor's Degree
Electrical Engineers	38	43	5	13.16	0.05	\$45.08	Bachelor's Degree
Mechanical Engineers	37	43	6	16.22	0.05	\$40.63	Bachelor's Degree

**The top 15 tables reflect the occupations synonymous with the particular industry and best represent the required set of skills. Though still counted in the total employment of the Aviation Industry, the occupations not included above were: Vocational Education Teachers, Postsecondary (2019 - 2,150 jobs), General and Operations Managers (2019 - 541 jobs), Business Operations Specialists, All Other (2019 - 502 jobs), Accountants and Auditors (2019 - 333 jobs), Nursing Instructors and Teachers, Postsecondary (2019 - 327 jobs), Health Specialties Teachers, Postsecondary (2019 - 247 jobs), Purchasing Agents, Except Wholesale, Retail and Farm (2019 - 239 jobs), Education, Training, and Library Workers, All Other (2019 - 238 jobs), Training and Development Specialists (2019 - 146 jobs), Instructional Coordinators (2019 - 145 jobs), Education Administrators, All Other (2019 - 123 jobs), Network and Computer Systems Administrators (2019 - 112 jobs), Educational, Vocational, and School Counselors (2019 - 109 jobs), Loan Counselors (2019 - 100 jobs), Education Administrators, Postsecondary (2019 - 92 jobs), Administrative Services Managers (2019 - 88 jobs), Financial Managers (2019 - 87 jobs), Postsecondary Teachers, All Other (2019 - 83 jobs), Managers, All Other (2019 - 80 jobs), Marketing Managers (2019 - 75 jobs), Chief Executives (2019 - 63 jobs), and Engineers, All Other (2019 - 41 jobs).

NR - Not Releasable

The top 15 high skill aviation occupations make up 7.5 percent of the total occupational employment in the industry, slightly higher than in 2018 when 6.9 percent of the top 15 high skill occupations comprised the total aviation industry.

Airline Pilots, Copilots, and Flight Engineers are projected to have the largest gain of jobs amongst the occupations that require a Bachelor's Degree or higher. Market Research Analysts and Marketing Specialists (+19.72 percent) has the highest projected growth rate from 2019 to 2027. Computer Programmers (-4.76 percent) is the lone profession projected to lose jobs over the same time frame though thirteen of the high skill occupations are projected to have employment gains of 20 jobs or less.

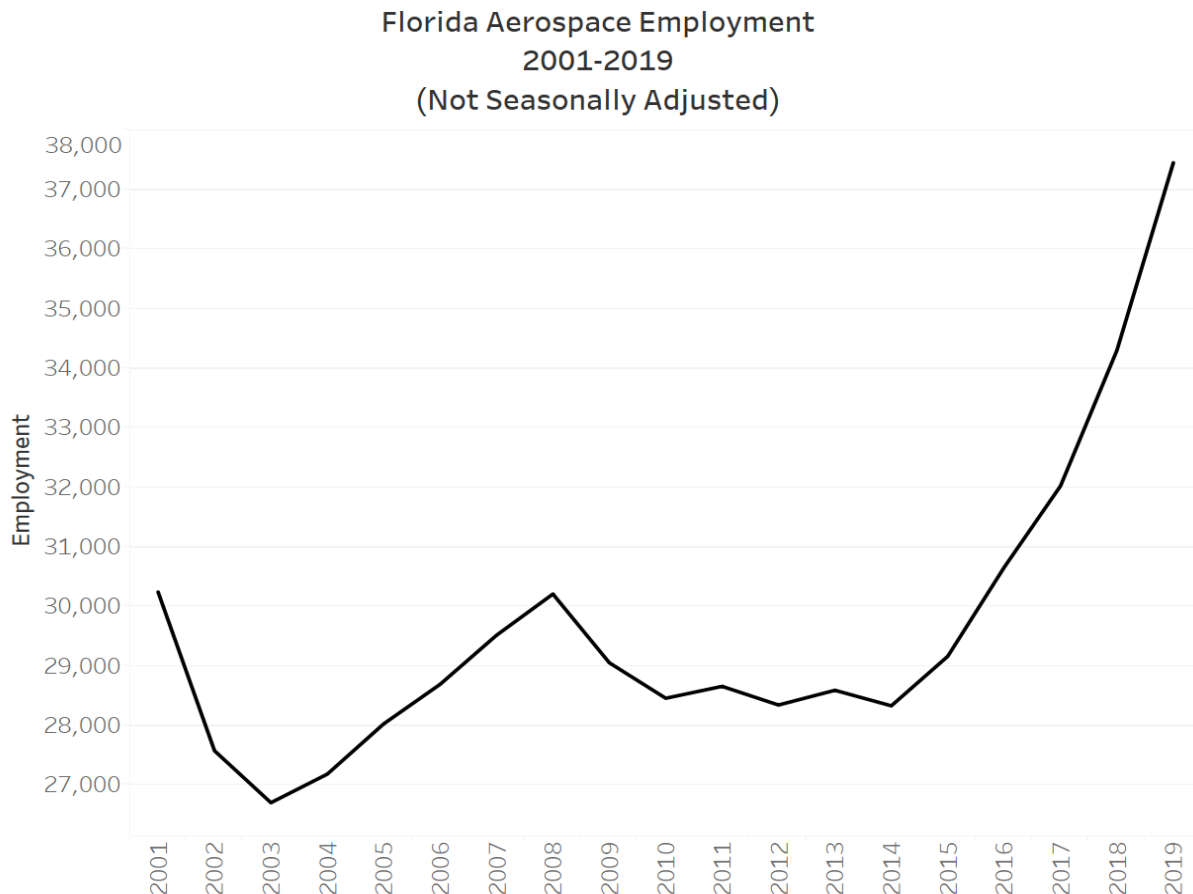
Median hourly wages for the top 14 (excluding Airline Pilots, Copilots, and Flight Engineers) high skill aviation occupations range from a high of \$52.61 for Sales Managers to a low of \$26.16 for Employment, Recruitment, and Placement Specialists. All 14 of the high skill occupations have a median hourly wage over \$25.00.

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. Florida's aerospace industry cluster includes Search, Detection and Navigation Instrument Manufacturing; Aerospace Product and Parts Manufacturing; and, Satellite Communications.

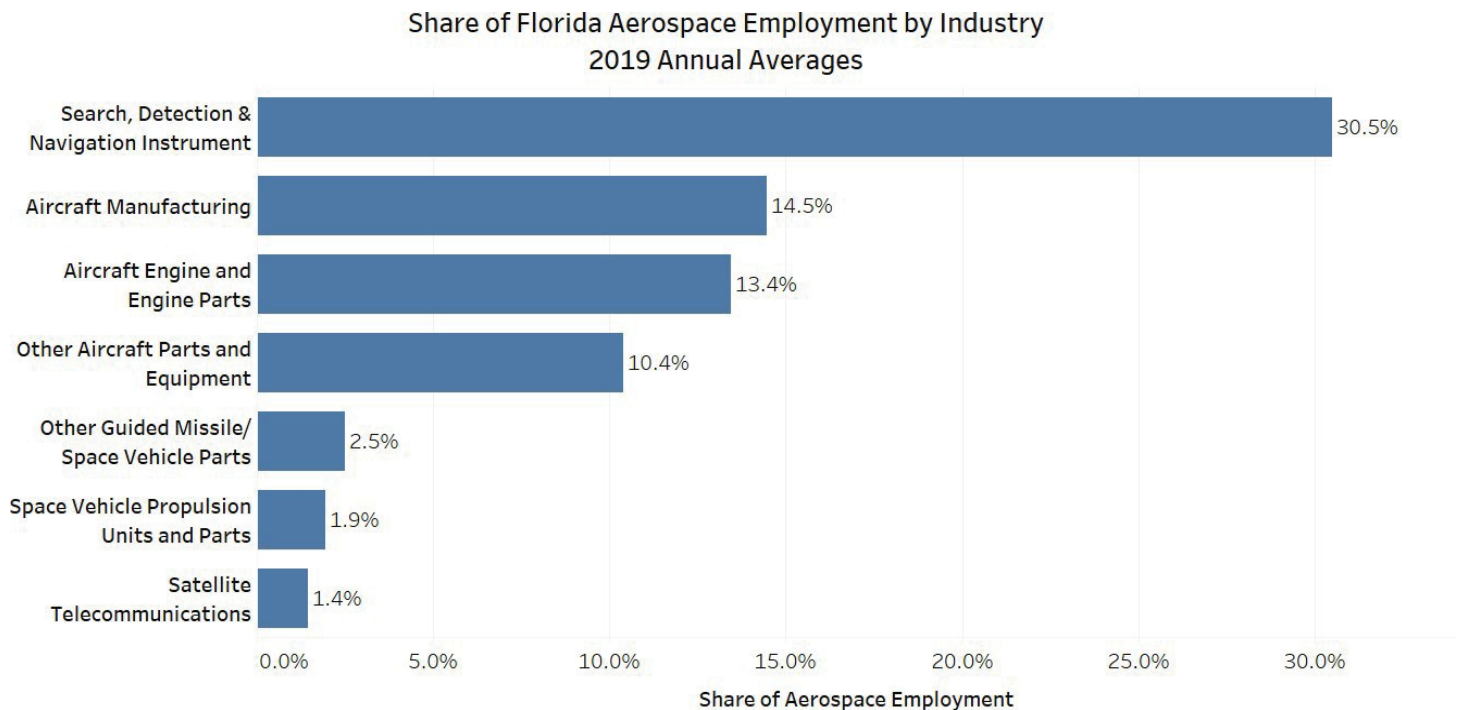
The aerospace industry cluster includes the following detailed industries: Search, Detection, and Navigation Instruments Manufacturing; Aircraft Manufacturing; Aircraft Engine and Engine Parts Manufacturing; Other Aircraft Parts and Auxiliary Equipment Manufacturing; Guided Missile and Space Vehicle Manufacturing; Guided Missile and Space Vehicle Propulsion Unit and Other Parts Manufacturing; Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing; and Satellite Telecommunications.

The aerospace industry cluster had 554 establishments in 2019 with employment of 37,454, up 3,148 jobs (+9.2 percent) from 2018. Total jobs for all industries increased by 2.1 percent during the 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 from 2003 to 2008, peaking at 30,212 jobs in 2008. From 2008 to 2010, the industry cluster followed a negative trend, losing 1,750 jobs (-5.8 percent). Aerospace employment fluctuated from 2010 to 2014, before dropping to the most recent low of 28,335 jobs in 2014. From this low, aerospace employment has shown improvement, gaining 9,119 jobs (+32.2 percent) by 2019.



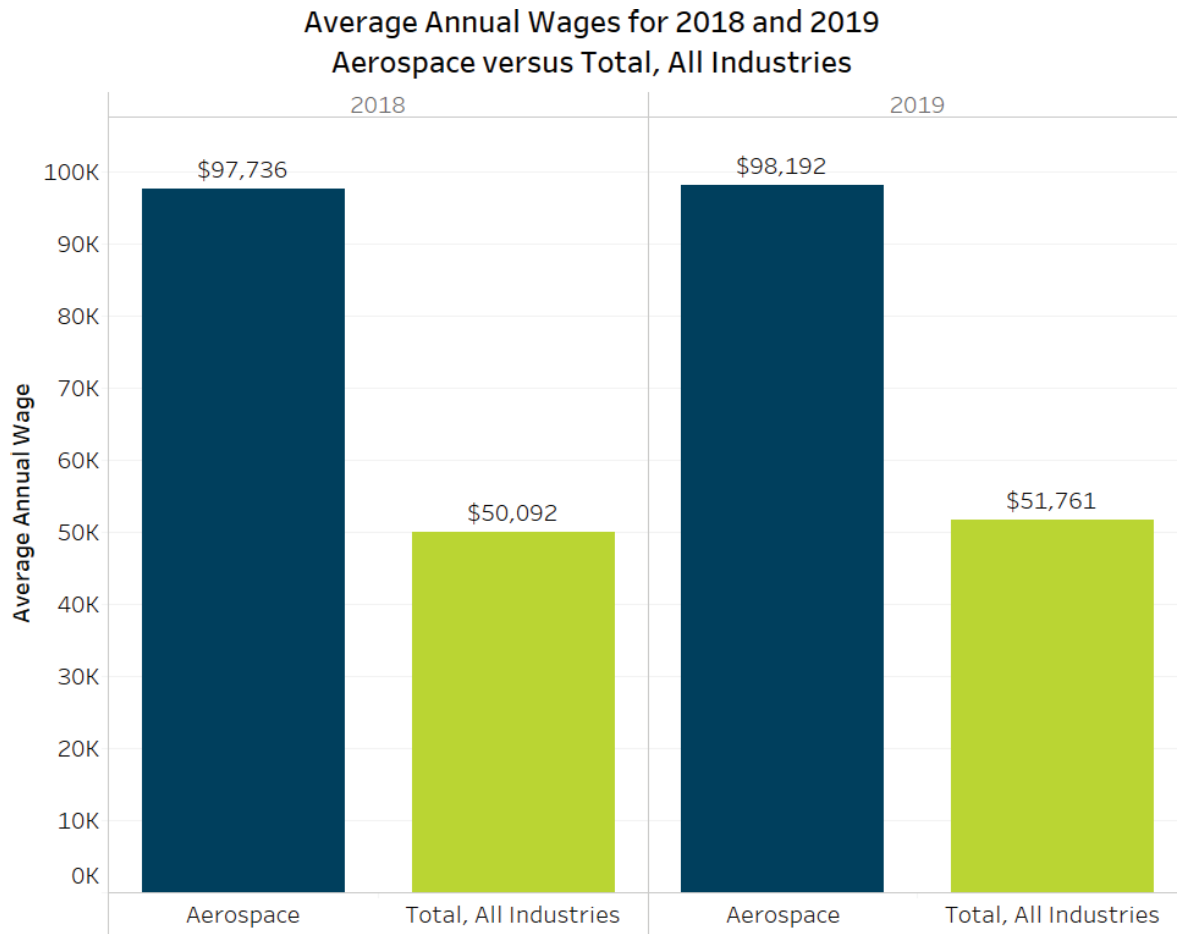
Note: Some industries not displayed due to confidentiality.

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 2019 were Search, Detection, and Navigation Instruments Manufacturing (11,416 jobs); Guided Missiles and Space Vehicles (Confidential); Aircraft Manufacturing (5,414 jobs); and Aircraft Engine and Engine Parts Manufacturing (5,032 jobs).

Within the aerospace industry cluster, Search, Detection, and Navigation Instrument Manufacturing gained the most jobs over the year in 2019 (+961 jobs, +9.2 percent). No industry within the aerospace sector lost jobs over the year.

The 2019 average annual wage for workers in the aerospace industry was \$98,192, an increase of \$456 (+0.5 percent) from 2018. The average annual wage for all industries grew by \$1,669 (+3.3 percent) over the year.



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

Aerospace's 2019 average annual wage exceeded the average annual wage for all industries by \$46,431 (+89.7 percent). Comparatively, the average annual wage difference in 2018 was \$47,644 (+95.1 percent).

The 2019 average annual wages for aerospace industries range from \$70,464 to over \$120,000. Space Vehicle Propulsion Units and Parts had the highest 2019 average annual wage of all aerospace industries (\$123,993). Other Aircraft Parts and Auxiliary Equipment Manufacturing had the lowest average annual wage in 2019 (\$70,464). All eight industries in aerospace had 2019 average annual wages exceeding \$70,000, and six exceeded \$90,000. Compared to the average annual wage for all industries in 2019 (\$51,761), aerospace subsectors had high average annual wages.

The top 15 aerospace-specific occupations account for 52.12 percent of total occupational employment in aerospace, a modest increase from 50.61 percent in 2018.

Industrial Engineers (+14.35 percent) is projected to grow the fastest from 2019 to 2027, followed by Aircraft Mechanics and Service Technicians (+10.95 percent) and Aerospace Engineers (+9.68 percent).

All Education and Training Levels

Top Occupations in the Aerospace Industry Cluster For All Training Levels*							
Occupation Title	Employment		2019-2027 Change		% of Industry Total	2019 Median Hourly Wage	Training Requirement
	2019	2027	Total	Percent			
Total, All Aerospace Industry Occupations	42,009	43,550	1,541	3.67			
Electrical and Electronic Equipment Assemblers	3,488	2,982	-506	-14.51	8.30	\$14.75	High School Diploma or GED
Software Developers	2,477	2,704	227	9.16	5.90	\$46.12	Bachelor's Degree
Industrial Engineers	2,181	2,494	313	14.35	5.19	\$34.76	Bachelor's Degree
Aircraft Structure, Surfaces, Rigging, and Systems	1,876	1,746	-130	-6.93	4.47	\$33.20	High School Diploma or GED
Aircraft Mechanics and Service Technicians	1,836	2,037	201	10.95	4.37	\$30.75	Postsecondary non-degree award
Mechanical Engineers	1,487	1,605	118	7.94	3.54	\$40.63	Bachelor's Degree
Inspectors, Testers, Sorters, Samplers, and Weighers	1,376	1,242	-134	-9.74	3.28	\$17.89	High School Diploma or GED
Aerospace Engineers	1,312	1,439	127	9.68	3.12	\$48.60	Bachelor's Degree
Electrical Engineers	1,031	1,088	57	5.53	2.45	\$45.08	Bachelor's Degree
Machinists	1,019	1,111	92	9.03	2.43	\$20.38	High School Diploma or GED
First-Line Supervisors/Managers of Production and Operations	862	921	59	6.84	2.05	\$26.75	High School Diploma or GED
Electrical and Electronic Engineering Technicians	822	844	22	2.68	1.96	\$28.82	Associate Degree
Production, Planning, and Expediting Clerks	762	828	66	8.66	1.81	\$18.33	High School Diploma or GED
Engineering Managers	738	783	45	6.10	1.76	\$64.26	Bachelor's Degree
Purchasing Agents, Except Wholesale, Retail, and Farm	629	615	-14	-2.23	1.50	\$27.96	Bachelor's Degree

* The top 15 tables reflect 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 above were: Team Assemblers (2019 - 1,077 jobs) and Business Operations Specialists, All Other (2019 - 800 jobs).

Four of the top 15 occupations are projected to have declining employment from 2019 to 2027. Despite being the largest employed occupation for the 2nd straight year, Electrical and Electronic Equipment Assemblers is projected to have the largest rate of decline (-14.51 percent) and lose the most jobs (-506 jobs).

Median hourly wages for the top 15 aerospace-specific occupations range from a high of \$64.26 for Engineering Managers to a low of \$14.75 for Electrical and Electronic Equipment Assemblers.

Seven of the top 15 occupations require a bachelor's degree and nine require training beyond high school.

The top 15 high skill aerospace occupations make up 31.42 percent of the total occupational employment in the industry, slightly above the 2018 rate of 30.9 percent.

Industrial Engineers are projected to have the largest increase in jobs (+313 jobs) followed by Software Developers (+227 jobs) and Aerospace Engineers (+127 jobs). Industrial Engineers (+14.35 percent) are also projected to have the highest growth rate from 2019 to 2027. Of the top 15 high skill occupations, only Purchasing Agents, Except Wholesale, Retail, and Farm Products (-14 jobs, -2.23 percent) is projected to have declining employment from 2019 to 2027.

Bachelor's Degree or Higher

Top Occupations in the Aerospace Industry Cluster That Require a Bachelor's Degree or Higher**							
Occupation Title	Employment		2019-2027 Change		% of Industry Total	2019 Median Hourly Wage	Training Requirement
	2019	2027	Total	Percent			
Total, All Aerospace Industry Occupations	19,480	21,026	1,546	7.94			
Software Developers	2,477	2,704	227	9.16	5.90	\$46.12	Bachelor's Degree
Industrial Engineers	2,181	2,494	313	14.35	5.19	\$34.76	Bachelor's Degree
Mechanical Engineers	1,487	1,605	118	7.94	3.54	\$40.63	Bachelor's Degree
Aerospace Engineers	1,312	1,439	127	9.68	3.12	\$48.60	Bachelor's Degree
Electrical Engineers	1,031	1,088	57	5.53	2.45	\$45.08	Bachelor's Degree
Engineering Managers	738	783	45	6.10	1.76	\$64.26	Bachelor's Degree
Purchasing Agents, Except Wholesale, Retail, and Farm	629	615	-14	-2.23	1.50	\$27.96	Bachelor's Degree
Sales Representatives, Wholesale and Manufacturing	603	622	19	3.15	1.44	\$32.59	Bachelor's Degree
Industrial Production Managers	529	560	31	5.86	1.26	\$46.98	Bachelor's Degree
Electronics Engineers, Except Computer	493	509	16	3.25	1.17	\$49.98	Bachelor's Degree
Logisticians	420	456	36	8.57	1.00	\$25.44	Bachelor's Degree
Financial Analysts	413	454	41	9.93	0.98	\$30.88	Bachelor's Degree
Computer and Information Systems Managers	404	428	24	5.94	0.96	\$66.63	Bachelor's Degree
Computer Systems Analyst	246	251	5	2.03	0.59	\$38.09	Bachelor's Degree
Management Analysts	236	256	20	8.47	0.56	\$32.33	Bachelor's Degree

** The top 15 tables reflect 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 above were: Business Operations Specialists, All Other (2019 - 800 jobs), General and Operations Managers (2019 - 456 jobs), Engineers, All Other (2019 - 442 jobs), Accountants and Auditors (2019 - 396 jobs), Computer Applications, All Other (2019 - 345 jobs), Managers, All Other (2019 - 316 jobs), and Network and Computer Systems Administrators (2019 - 246 jobs).

Median hourly wages for the top 15 high skill aerospace occupations range from a high of \$66.63 for Computer and Information Systems Managers to a low of \$25.44 for Logisticians.

All top 15 high skill aerospace occupations require a bachelor's degree.

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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