



FLORIDA DEPARTMENT *of*  
ECONOMIC OPPORTUNITY

2019  
EDITION

Labor  
Market  
Industry Profile

Florida  
Aviation & Aerospace  
Industry

## Florida Aviation and Aerospace Industry Cluster

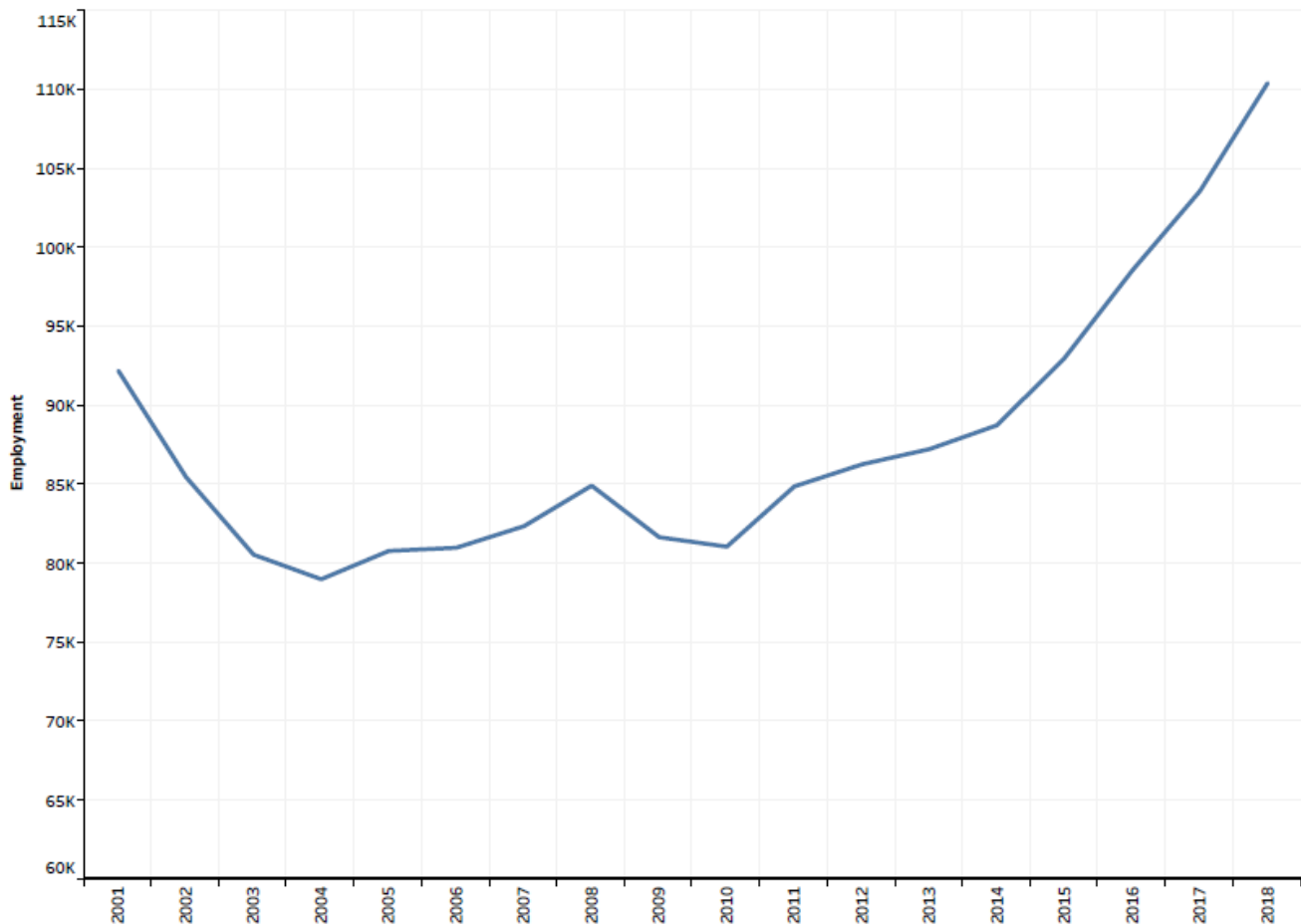
Florida's aviation and aerospace industry cluster is comprised of the aviation industry (Part I) and the aerospace industry (Part II).

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 2,361 establishments in 2018, with employment of 110,427. Employment was up 6,829 jobs (+6.6 percent) from 2017. 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 31,428 jobs (+39.8 percent).

Florida Aviation and Aerospace Employment  
2001-2018  
(Not Seasonally Adjusted)



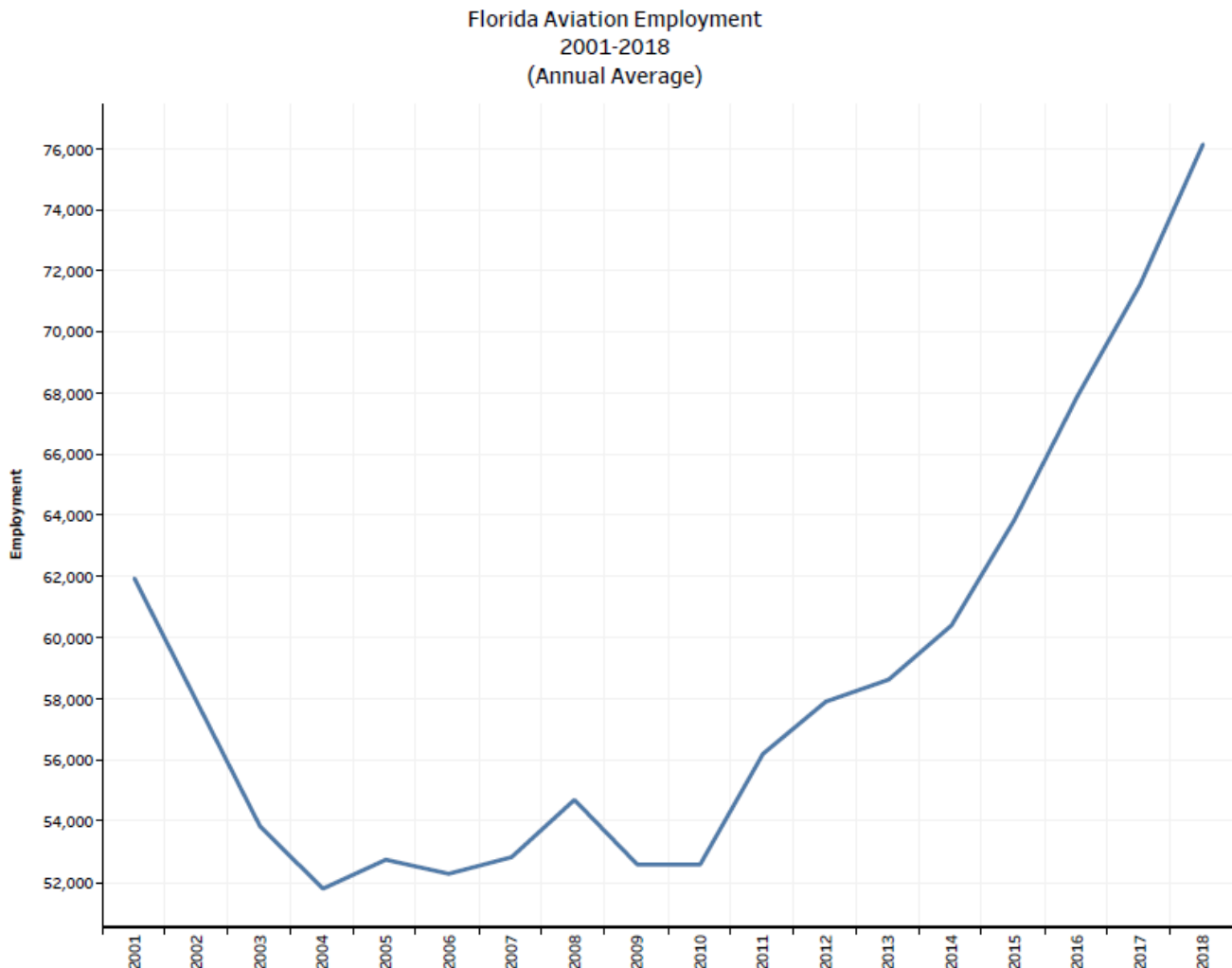
Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

## 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 1,820 establishments and employment of 76,155 in 2018, up 4,585 jobs (+6.9 percent) from 2017. Total jobs for all industries increased by 2.4 percent during the same period.

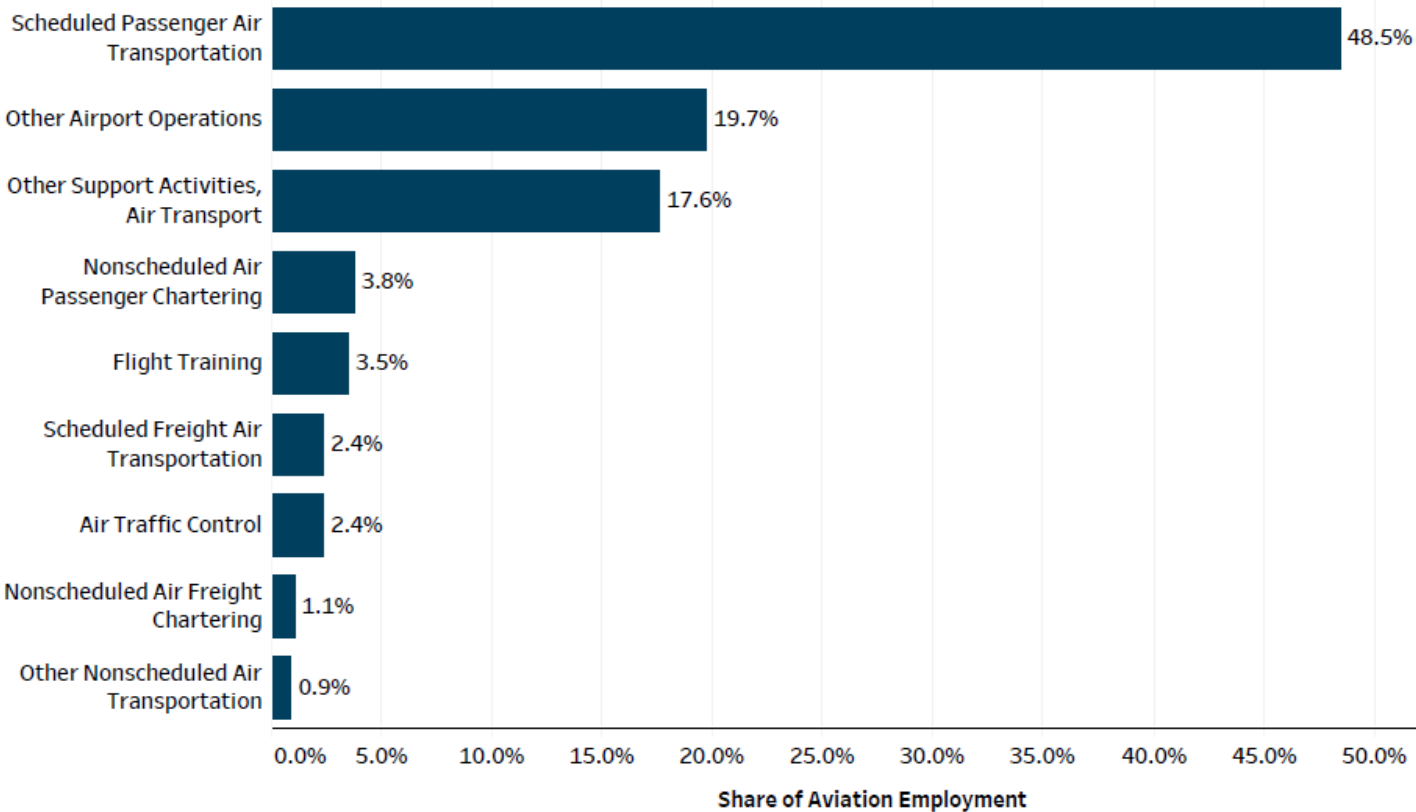


Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Florida aviation employment decreased from 2004 to 2010, but has shown an upward trend since its 2010 low. Employment increased by 23,555 jobs (+44.8 percent) from 2010 to 2018. Total employment for all industries increased by 22.4 percent over the same period, a modest growth rate in comparison to aviation.

The largest industries in aviation in 2018 were: Scheduled Passenger Air Transportation (36,939 jobs); Other Airport Operations (15,032 jobs); and Other Support Activities, Air Transportation (13,411 jobs). These three industries made up 85.9 percent of aviation employment in 2017 and 59.2 percent of the aviation and aerospace cluster’s employment. Employment in Scheduled Passenger Air Transportation alone represents 48.5 percent of total aviation employment and 33.5 percent of the aviation and aerospace cluster’s employment.

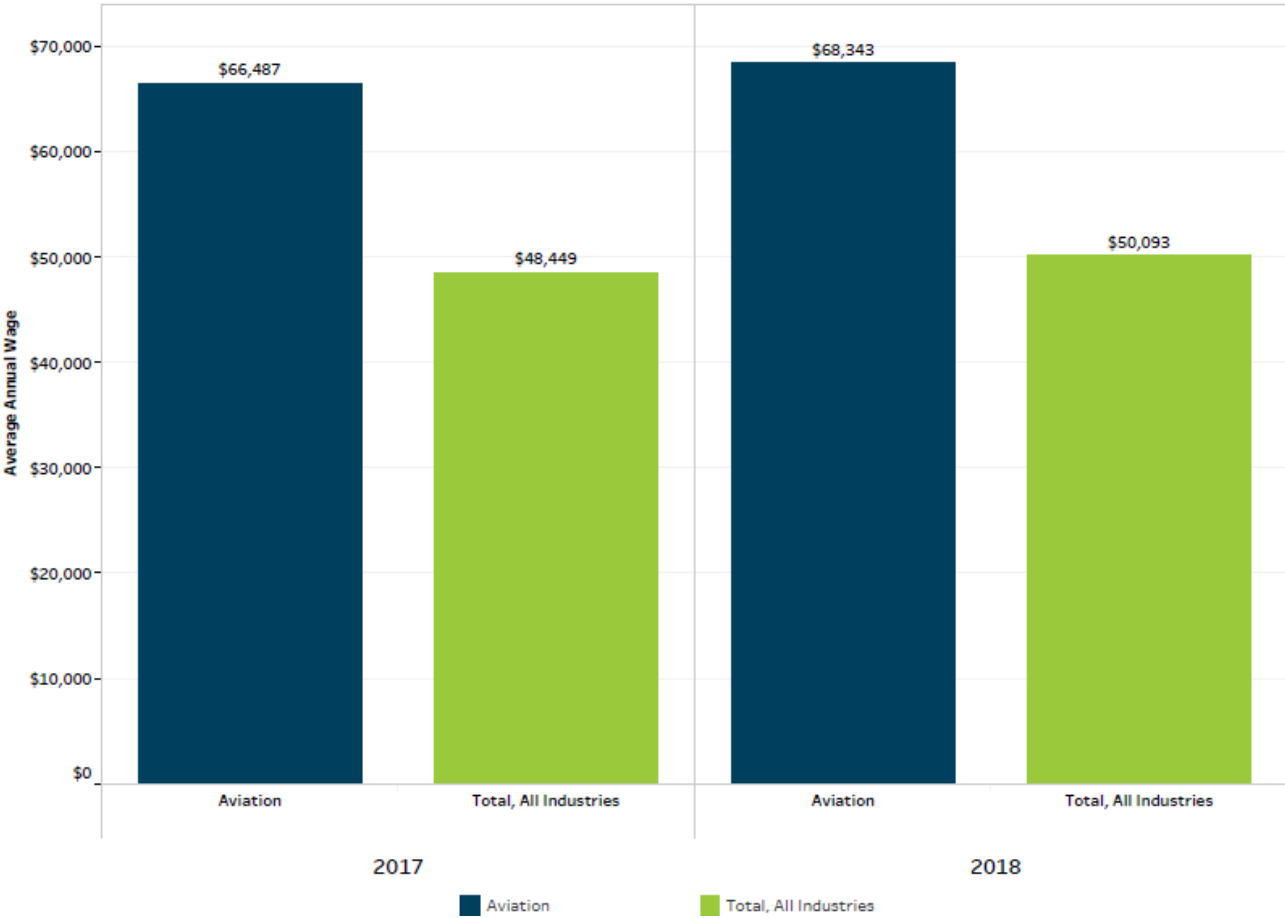
**Share of Florida Aviation Employment by Industry  
2018 Annual Averages**



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 2018 (+2,190 jobs, +2.8 percent). The only industry losing jobs over the year in aviation was Air Traffic Control (-18 jobs, -0.0 percent).

Average Annual Wages for 2017 and 2018  
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 2018 average annual wage increased more than the average wage for all industries over the year. The 2018 average annual wage for workers in the aviation industry cluster was \$68,343, an increase of \$1,856 (+2.8 percent) from 2016. The average annual wage for all industries grew by \$1,644 (+3.4 percent) over the year.

Aviation’s 2018 average annual wage exceeded the average annual wage for all industries by \$18,251 (+36.4 percent). The average annual wage difference in 2017 was \$18,038 (+37.2 percent).

Air Traffic Control had an average annual wage of \$108,250 in 2018, the highest in aviation. Other Airport Operations had the lowest average annual wage in 2018 (\$34,225). Eight of the nine industries in aviation had 2018 average annual wages exceeding the average annual wage for all industries. Compared to the average annual wage for all industries in 2018 (\$50,093), most aviation industries had relatively high average annual wages.

## All Education and Training Levels

<b>Top Occupations in the Aviation Industry Cluster For All Training Levels*</b>							
Occupation Title	Employment		2018-2026 Change		% of Industry	2018 Median Hourly Wage	Training Requirement
	2018	2026	Total	Percent	Total		
<b>Total, All Aviation Industry Cluster Occupations</b>	<b>75,170</b>	<b>84,056</b>	<b>8,886</b>	<b>11.82</b>			
Aircraft Mechanics and Service Technicians	9,643	10,567	924	9.58	12.83	\$29.20	Postsecondary non-degree award
Flight Attendants	9,590	11,340	1,750	18.25	12.76	\$58,780^	High school diploma or equivalent
Reservation and Transportation Ticket Agents and Travel Clerks	8,677	9,764	1,087	12.53	11.54	\$14.81	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	7,159	8,061	902	12.60	9.52	\$12.64	No formal educational credential
Airline Pilots, Copilots, and Flight Engineers	4,662	5,246	584	12.53	6.20	\$163,615^	Bachelor's degree
Baggage Porters and Bellhops	3,834	4,324	490	12.78	5.10	\$9.77	High school diploma or equivalent
Commercial Pilots	2,869	3,194	325	11.33	3.82	\$77,425^	High school diploma or equivalent
Vocational Education Teachers, Postsecondary	2,089	2,227	138	6.61	2.78	\$26.61	Bachelor's degree
Avionics Technicians	1,240	1,368	128	10.32	1.65	\$28.11	Associate's degree
Cargo and Freight Agents	972	1,094	122	12.55	1.29	\$18.67	High school diploma or equivalent
Cleaners of Vehicles and Equipment	933	1,051	118	12.65	1.24	\$11.10	No formal educational credential
First-Line Supervisors of Mechanics, Installers, and Repairers	787	884	97	12.33	1.05	\$27.99	High school diploma or equivalent
Maintenance and Repair Workers, General	663	740	77	11.61	0.88	\$16.15	High school diploma or equivalent
Stock Clerks and Order Fillers	476	534	58	12.18	0.63	\$11.80	High school diploma or equivalent
First-Line Supervisors of Transport. and Material-Moving Machine/Op.	466	526	60	12.88	0.62	\$25.00	High school diploma or equivalent

\* The top 15 titles reflect the occupations synonymous with the particular industry cluster and best represent the required set of skills. Though still counted in the total employment of the Aviation Industry Cluster, the occupations not included above were: Transportation Workers, All Other (2018-2,373 jobs), First-Line Supervisors of Office and Administrative Support Workers (2018-1,333 jobs), Customer Service Representatives (2018-1,158 jobs), Office Clerks, General (2018-924 jobs), Sales Representatives, Services, All Other (2018-777 jobs), Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (2018-564 jobs), General and Operations Managers (2018-499 jobs), and Business Operations Specialists, All Other (2018-470 jobs).

^ Annual Wage

The top 15 aviation-specific occupations account for 71.92 percent of total occupational employment in aviation.

Flight Attendants (+18.25 percent) has the highest projected growth rate from 2018 to 2026, though 13 of the top 15 are projected for double digit percentage gains.

Flight Attendants is projected to gain the most jobs (+1,750 jobs) among the top fifteen aviation-specific occupations. None of the top 15 occupations are projected to have declining employment from 2018 to 2026.

Median hourly wages for the top 15 aviation-specific occupations range from a high of \$78.67 (based on the \$163,615 annual wage) for Airline Pilots, Copilots, and Flight Engineers to a low of \$9.77 for Baggage Porters and Bellhops.

Four of the top 15 occupations require training beyond high school.

## Bachelor's Degree or Higher

<b>Top Occupations in the Aviation Industry Cluster That Require a Bachelor's Degree or Higher**</b>							
Occupation Title	Employment		2018-2026 Change		% of Industry	2018 Median Hourly Wage	Training Requirement
	2018	2026	Total	Percent	Total		
<b>Total, All Aviation Industry Cluster Occupations</b>	<b>12,027</b>	<b>13,299</b>	<b>1,272</b>	<b>10.58</b>			
Airline Pilots, Copilots, and Flight Engineers	4,662	5,246	584	12.53	38.8%	\$163,615 <sup>A</sup>	Bachelor's degree
Logisticians	131	147	16	12.21	1.1%	\$29.77	Bachelor's degree
Aerospace Engineers	69	76	7	10.14	0.6%	\$51.83	Bachelor's degree
Engineers, All Other	38	42	4	10.53	0.3%	\$37.03	Bachelor's degree
Industrial Engineers	37	42	5	13.51	0.3%	\$35.41	Bachelor's degree
Software Developers, Applications	36	44	8	22.22	0.3%	\$44.53	Bachelor's degree
Electrical Engineers	34	38	4	11.76	0.3%	\$43.59	Bachelor's degree
Software Developers, Systems Software	34	38	4	11.76	0.3%	\$47.62	Bachelor's degree
Mechanical Engineers	33	37	4	12.12	0.3%	\$39.98	Bachelor's degree
Health and Safety Engineers, Except Mining Safety	29	33	4	13.79	0.2%	\$35.75	Bachelor's degree
Architectural and Engineering Managers	26	29	3	11.54	0.2%	\$59.84	Bachelor's degree
Computer and Information Systems Managers	26	29	3	11.54	0.2%	\$57.97	Bachelor's degree
Computer Network Architects	23	24	1	4.35	0.2%	\$41.74	Bachelor's degree
Information Security Analysts	18	19	1	5.56	0.1%	\$42.86	Bachelor's degree
Interpreters and Translators	16	17	1	6.25	0.1%	\$19.55	Bachelor's degree

\*\* The top 15 titles 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 (2018-2,089 jobs), General and Operations Managers (2018-499 jobs), Business Operations Specialists, All Other (2018-470 jobs), Nursing Instructors and Teachers, Postsecondary (2018-318 jobs), Accountants and Auditors (2018-309 jobs), Human Resources Specialists (2018-254 jobs), Health Specialties Teachers, Postsecondary (2018-240 jobs), Education, Training, and Library Workers, All Other (2018-231 jobs), Purchasing Agents, Except Wholesale, Retail and Farm Products (2018-218 jobs), Instructional Coordinators (2018-140 jobs), Training and Development Specialists (2018-139 jobs), Education Administrators, All Other (2018-119 jobs), Educational, Guidance, School and Vocational Counselors (2018-105 jobs), Network and Computer Systems Administrators (2018-105 jobs), Teachers and Instructors, All Other, Except Substitute Teachers (2018-99 jobs), Credit Counselors (2018-97 jobs), Education Administrators, Postsecondary (2018-89 jobs), Administrative Services Managers (2018-82 jobs), Financial Managers (2018-82 jobs), Postsecondary Teachers, All Other (2018-81 jobs), Managers, All Other (2018-72 jobs) and Marketing Managers (2018-70 jobs).

<sup>A</sup> Annual Wage

The top 15 high skill aviation occupations make up 6.9 percent of the total occupational employment in the industry.

Software Developers, Applications (+22.22 percent) has the highest projected growth rates from 2018 to 2026, while Information Security Analysts (+5.56 percent) and Computer Network Architects (+4.35 percent) are projected to grow the slowest.

Airline Pilots, Copilots and Flight Engineers is projected to gain the most jobs among top high skill aviation occupations (+584 jobs). None of the top 15 occupations are projected to have declining employment from 2018 to 2026.

Fourteen of the high skill occupations are projected to have employment gains of less than 20 jobs.

Median hourly wages for the top 15 high skill aviation occupations range from a high of \$78.67 (based on the \$163,615 annual wage for Airline Pilots, Copilots and Flight Engineers to a low of \$19.55 for Interpreters and Translators.

Five of the top 15 high skill aviation occupations require an education higher than a bachelor's degree.

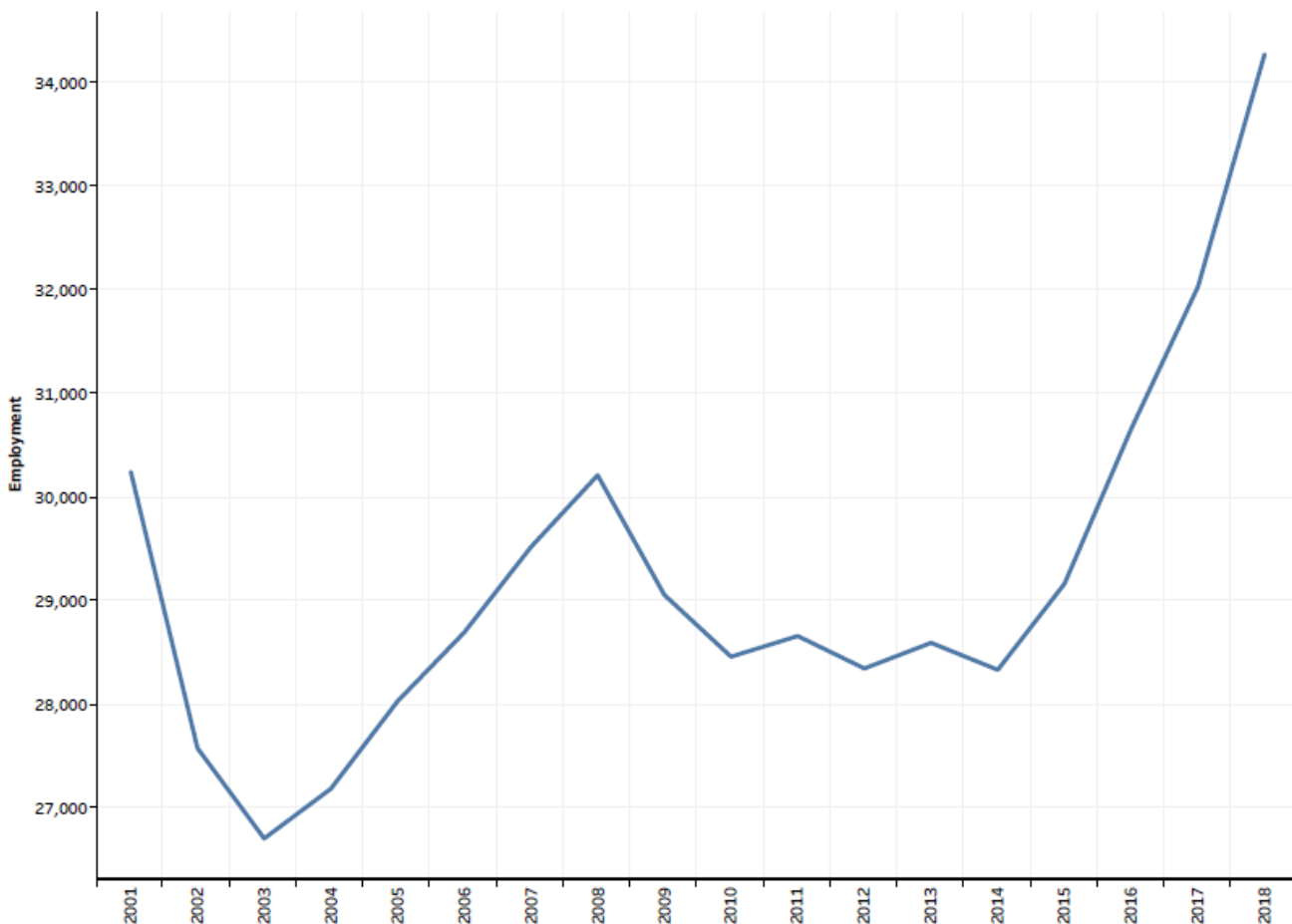
## Florida Aerospace Industry, Part II

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 541 establishments in 2018 with employment of 34,272, up 2,245 jobs (+7.0 percent) from 2017. Total jobs for all industries increased by 2.4 percent during the same period.

Florida Aerospace Employment  
2001-2018  
(Annual Average)

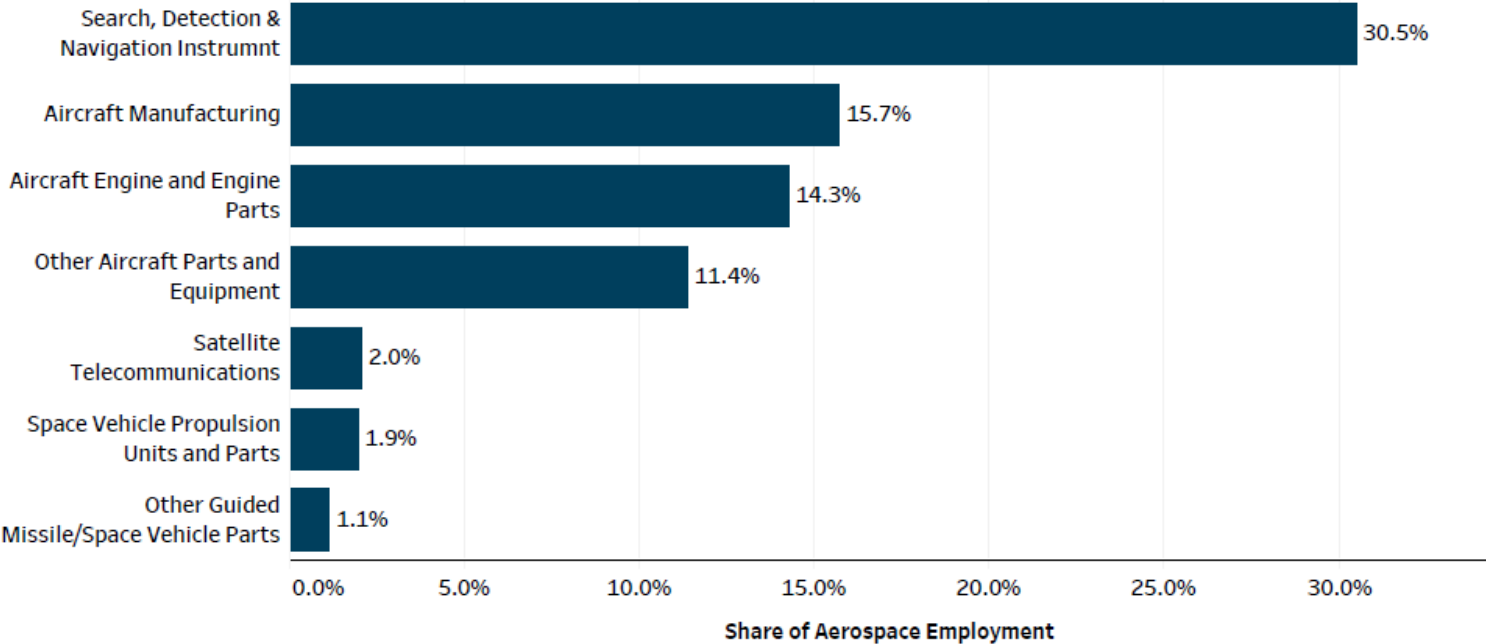


Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).



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 5,938 jobs (+21.0 percent) by 2018.

Share of Florida Aerospace Employment by Industry  
2018 Annual Averages

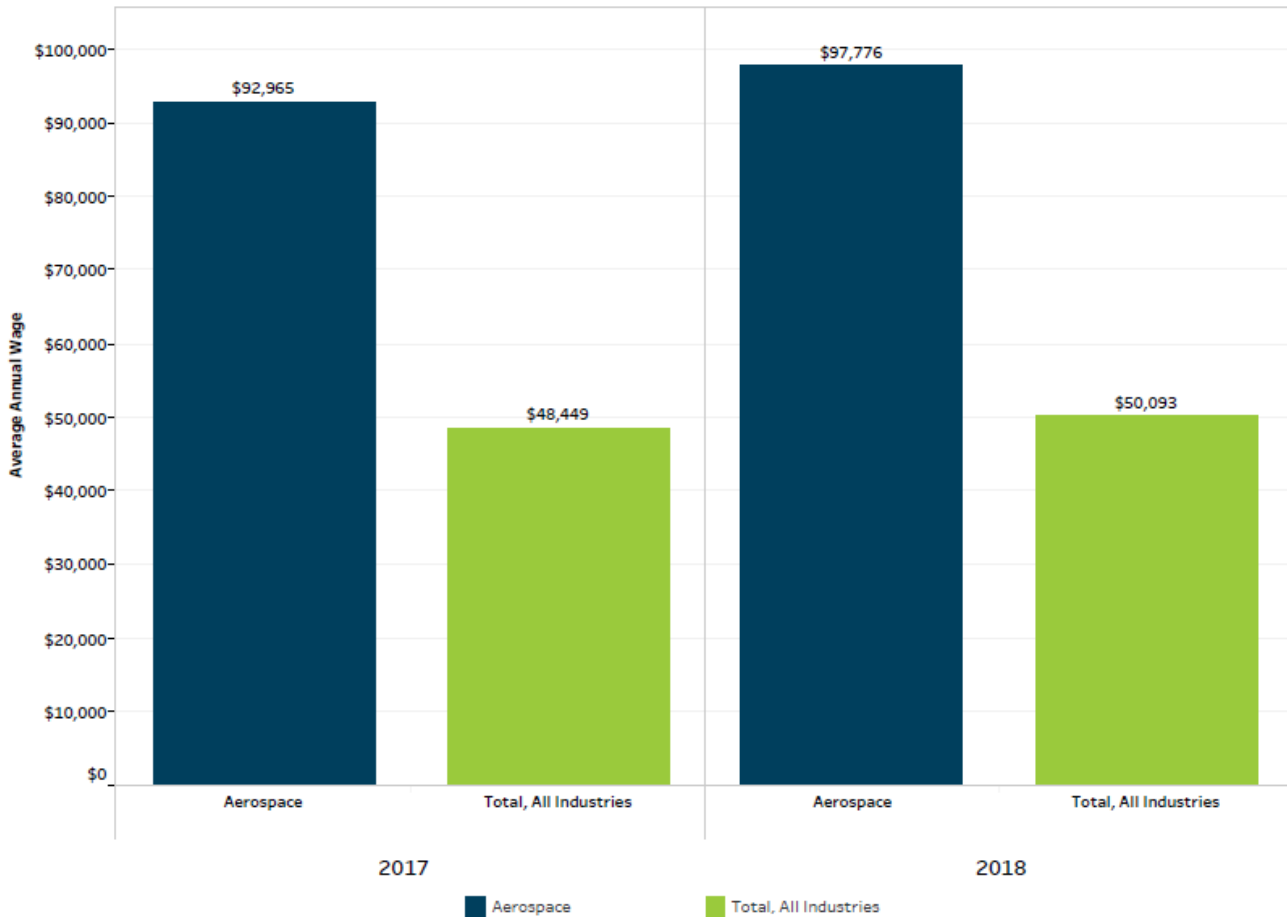


Note: Some industries not displayed due to confidentiality.  
Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics & Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The largest industries in aerospace in 2018 were Search, Detection, and Navigation Instruments manufacturing (10,455 jobs); Guided Missiles and Space Vehicles (Confidential); Aircraft Manufacturing (5,385 jobs); and Aircraft Engine and Engine Parts Manufacturing (4,894 jobs).

Within the aerospace industry cluster, Aerospace Product and Parts Manufacturing gained the most jobs over the year in 2018 (+1,621 jobs, +7.5 percent). The only industry losing jobs over the year in aerospace was Aircraft Engine and Engine Parts Manufacturing (-90 jobs, -2.3 percent).

Average Annual Wages for 2017 and 2018  
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).

Aerospace’s 2018 average annual wage increased more than the average wage for all industries over the year and grew at a faster rate. The 2018 average annual wage for workers in the aerospace industry was \$97,776, an increase of \$4,811 (+5.2 percent) from 2017. The average annual wage for all industries grew by \$1,644 (+3.4 percent) over the year.

Aerospace’s 2018 average annual wage exceeded the average annual wage for all industries by \$47,683 (+95.2 percent). The average annual wage difference in 2017 was \$44,516 (+91.9 percent).

The 2018 average annual wages for aerospace industries range from \$67,983 to over \$100,000. Space Vehicle Propulsion Units and Parts had the highest 2018 average annual wage of all aerospace industries (\$117,294). Other Aircraft Parts and Auxiliary Equipment Manufacturing had the lowest average annual wage in 2018 (\$67,983). All eight industries in aerospace had 2018 average annual wages exceeding \$60,000, and seven exceeding \$80,000. Compared to the average annual wage for all industries in 2018 (\$50,093), aerospace subsectors had relatively high average annual wages.

## All Education and Training Levels

### Top Occupations in the Aerospace Industry Cluster For All Training Levels\*

Occupation Title	Employment		2018-2026 Change		% of Industry Total	2018 Median Hourly Wage	Training Requirement
	2018	2026	Total	Percent			
<b>Total, All Aerospace Industry Cluster Occupations</b>	<b>39,356</b>	<b>40,072</b>	<b>716</b>	<b>1.82</b>			
Electrical and Electronic Equipment Assemblers	3,407	3,004	-403	-11.83	8.66	\$26.40	High school diploma or equivalent
Industrial Engineers	2,039	2,286	247	12.11	5.18	\$35.41	Bachelor's degree
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	1,695	1,492	-203	-11.98	4.31	\$21.91	High school diploma or equivalent
Aircraft Mechanics and Service Technicians	1,659	1,742	83	5.00	4.22	\$29.20	Postsecondary non-degree award
Software Developers, Systems Software	1,615	1,698	83	5.14	4.10	\$47.62	Bachelor's degree
Mechanical Engineers	1,377	1,447	70	5.08	3.50	\$39.98	Bachelor's degree
Inspectors, Testers, Sorters, Samplers, and Weighers	1,281	1,129	-152	-11.87	3.25	\$17.24	High school diploma or equivalent
Aerospace Engineers	1,210	1,288	78	6.45	3.07	\$51.83	Bachelor's degree
Electrical Engineers	978	1,028	50	5.11	2.49	\$43.59	Bachelor's degree
Machinists	935	983	48	5.13	2.38	\$19.61	High school diploma or equivalent
First-Line Supervisors of Production and Operating Workers	808	849	41	5.07	2.05	\$27.12	High school diploma or equivalent
Electrical and Electronics Engineering Technicians	800	841	41	5.13	2.03	\$27.97	Associate's degree
Software Developers, Applications	716	816	100	13.97	1.82	\$44.53	Bachelor's degree
Production, Planning, and Expediting Clerks	703	739	36	5.12	1.79	\$19.88	High school diploma or equivalent
Architectural and Engineering Managers	696	732	36	5.17	1.77	\$59.84	Bachelor's degree

\* The top 15 titles reflect the occupations synonymous with the particular industry cluster and best represent the required set of skills. Though still counted in the total employment of the Aerospace Industry Cluster, the occupations not included above were: Team Assemblers (2018-1,103 jobs) and Business Operations Specialists, All Other (2018-732 jobs).

The top 15 aerospace-specific occupations account for 50.61 percent of total occupational employment in aerospace.

Software Developers, Applications (+13.97 percent) is projected to grow the fastest from 2018 to 2026, followed by Industrial Engineers (+12.11 percent) and Aerospace Engineers (+6.45 percent). Three of the top 15 occupations are projected to have declining employment from 2018 to 2026, with Aircraft Structure, Surfaces, Rigging and Systems Assemblers projected to have the largest rate of decline (-11.98 percent).

Industrial Engineers (+247 jobs) and Software Developers, Applications (+100 jobs) are projected to gain the most jobs among the top fifteen aerospace-specific occupations. Electrical and Electronic Equipment Assemblers is projected to lose the most jobs (-403 jobs).

Median hourly wages for the top 15 aerospace-specific occupations range from a high of \$59.84 for Architectural and Engineering Managers to a low of \$17.24 for Inspectors, Testers, Sorters, Samplers and Weighers.

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

## Bachelor's Degree or Higher

<b>Top Occupations in the Aerospace Industry Cluster That Require a Bachelor's Degree or Higher**</b>							
Occupation Title	Employment		2018-2026 Change		% of Industry Total	2018 Median Hourly Wage	Training Requirement
	2018	2026	Total	Percent			
<b>Total, All Aerospace Industry Cluster Occupations</b>	<b>18,242</b>	<b>19,346</b>	<b>1,104</b>	<b>6.05</b>			
Industrial Engineers	2,039	2,286	247	12.11	5.18	\$35.41	Bachelor's Degree
Software Developers, Systems Software	1,615	1,698	83	5.14	4.10	\$47.62	Bachelor's Degree
Mechanical Engineers	1,377	1,447	70	5.08	3.50	\$39.98	Bachelor's Degree
Aerospace Engineers	1,210	1,288	78	6.45	3.07	\$51.83	Bachelor's Degree
Electrical Engineers	978	1,028	50	5.11	2.49	\$43.59	Bachelor's Degree
Software Developers, Applications	716	816	100	13.97	1.82	\$44.53	Bachelor's Degree
Architectural and Engineering Managers	696	732	36	5.17	1.77	\$59.84	Bachelor's Degree
Purchasing Agents, Except Wholesale, Retail, and Farm Products	591	571	-20	-3.38	1.50	\$26.93	Bachelor's Degree
Sales Rep., Wholesale/Manufacturing, Tech. and Scientific Products	581	611	30	5.16	1.48	\$34.01	Bachelor's Degree
Industrial Production Managers	500	525	25	5.00	1.27	\$46.74	Bachelor's Degree
Electronics Engineers, Except Computer	478	503	25	5.23	1.21	\$44.85	Bachelor's Degree
Logisticians	388	408	20	5.15	0.99	\$29.77	Bachelor's Degree
Computer and Information Systems Managers	383	404	21	5.48	0.97	\$57.97	Bachelor's Degree
Financial Analysts	377	396	19	5.04	0.96	\$33.20	Bachelor's Degree
Computer Systems Analysts	232	233	1	0.43	0.59	\$38.08	Bachelor's Degree

\*\* The top 15 titles reflect the occupations synonymous with the particular industry cluster and best represent the required set of skills. Though still counted in the total employment of the Aerospace Industry Cluster, the occupations not included above were: Business Operations Specialists, All Other (2018-732 jobs), General and Operations Managers (2018-431 jobs), Engineers, All Other (2018-406 jobs), Accountants and Auditors (2018-375 jobs), Computer Occupations, All Other (2018-325 jobs), Managers, All Other (2018-288 jobs) and Network and Computer Systems Administrators (2018-234 jobs).

The top 15 high skill aerospace occupations make up 30.9 percent of the total occupational employment in the industry.

Software Developers, Applications (+13.97 percent) and Industrial Engineers (+12.11 percent) have the highest projected growth rates from 2018 to 2026. Of the top 15 high skill occupations, only Purchasing Agents, Except Wholesale, Retail, and Farm Products (-20 jobs, -3.38 percent) is projected to have declining employment from 2018 to 2026.

Industrial Engineers is projected to gain the most jobs among top high skill aerospace occupations (+247 jobs).

Median hourly wages for the top 15 high skill aerospace occupations range from a high of \$59.84 for Architectural and Engineering Managers to a low of \$26.93 for Purchasing Agents, Except Wholesale, Retail and Farm Products.

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.

**Florida Department of Economic Opportunity  
Bureau of Workforce Statistics and Economic Research**

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