Labor Market Industry Profile

Florida Aviation & Aerospace Industry

Prepared by the Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research
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 including the following key areas: aviation & aerospace, life sciences, manufacturing, information technology, financial & professional services and logistics & distribution.

The industry profiles detail the benefits 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
The largest industry sectors by employment within the aviation and aerospace industry 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
The aviation and aerospace industry had 2,295 establishments in 2017, with employment of 103,579. Employment was up 5,011 jobs (+5.1 percent) from 2016. Aviation and aerospace employment reached a low of 78,999 jobs in 2004 and has increased since that time. From its trough in 2004, this industry has gained 24,579 jobs (+31.1 percent).
Figure #1
Florida Aviation and Aerospace Employment
2001-2017
(Not Seasonally Adjusted)

Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages program (QCEW).
Florida has a rich history of aviation firsts, being the site of the first night flight in aviation history (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. Florida commercial airports accommodated nearly 169 million passengers in 2016. The aviation industry in Florida includes air transportation, support activities for air transportation and flight training.

- The aviation industry includes the following detailed subsectors: scheduled passenger and freight air transportation; nonscheduled chartered passenger and freight air transportation; other nonscheduled air transportation; air traffic control; other airport operations; other support activities for air transportation; and flight training.

- The aviation industry had 1,755 establishments and employment of 71,552 in 2017, up 3,642 jobs (+5.4 percent) from 2016. Total jobs for all industries increased by 2.2 percent during the same period.

![Figure #2](image)

**Figure #2**

**Florida Aviation Employment**

**2001-2017**

*(Not Seasonally Adjusted)*

Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages program (QCEW).
• Florida aviation employment endured a stalling from 2004 to 2010, but it has shown an upward trend since its 2010 trough. Employment increased by 18,951 jobs (+36.0 percent) from 2010 to 2017. Total employment for all industries increased by 19.4 percent over the same period, a modest growth rate in comparison to aviation.

• The largest subsectors in aviation in 2017 were scheduled passenger air transportation (34,750 jobs); other airport operations (13,556 jobs); and other support activities, air transportation (12,770 jobs). These three subsectors made up 85.4 percent of aviation employment in 2017 and 59.0 percent of the aviation and aerospace cluster’s employment. Employment in scheduled passenger air transportation alone represents 48.6 percent of total aviation employment and 33.5 percent of the aviation and aerospace cluster’s employment.

Figure #3
Share of Florida Aviation Employment by Subsector
2017 Annual Averages
(Not Seasonally Adjusted)

Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages program (QCEW).
• Within the aviation industry, scheduled passenger air transportation gained the most jobs over the year in 2017 (+2,033 jobs, +6.2 percent). The subsector losing the most jobs over the year in aviation was scheduled freight air transportation (-144 jobs, -7.4 percent).

**Figure #4**
Average Annual Wages for 2016 and 2017
Total, All Industries Versus Aviation

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

• Aviation’s 2017 average annual wage increased more than the average wage for all industries over the year. The 2017 average annual wage for workers in the aviation industry was $66,474, an increase of $2,175 (+3.4 percent) from 2016. The average annual wage for all industries grew by $1,405 (+3.0 percent) over the year.

• The aviation industry’s 2017 average annual wage exceeded the average annual wage for all industries by $18,014 (+37.2 percent). The average annual wage difference in 2016 was $17,244 (+36.6 percent).

• The air traffic control subsector had an average annual wage of $104,218 in 2017, the highest in aviation. Other airport operations had the lowest average annual wage in 2017 ($33,336). Eight of the nine subsectors in aviation had 2017 average annual wages
exceeding $50,000. Compared to the average annual wage for all industries in 2017 ($48,460), most aviation subsectors had relatively high average annual wages.

**Figure #5**

Top Occupations in the Aviation Industry Cluster for All Training Levels

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>2017 Employment</th>
<th>2017-2025 Change</th>
<th>% of Industry Total</th>
<th>2017 Median Hourly Wage</th>
<th>Training Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, Aviation Industry Cluster</td>
<td>64,530</td>
<td>72,222</td>
<td>7,692</td>
<td>11.92</td>
<td></td>
</tr>
<tr>
<td>Flight Attendants</td>
<td>9,189</td>
<td>10,556</td>
<td>1,367</td>
<td>14.88</td>
<td>14.24</td>
</tr>
<tr>
<td>Aircraft Mechanics and Service Technicians</td>
<td>9,130</td>
<td>10,178</td>
<td>1,048</td>
<td>11.48</td>
<td>14.15</td>
</tr>
<tr>
<td>Reservation and Transportation Ticket Agents and Travel Clerks</td>
<td>8,298</td>
<td>9,181</td>
<td>883</td>
<td>10.64</td>
<td>12.86</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>6,843</td>
<td>7,590</td>
<td>747</td>
<td>10.92</td>
<td>10.60</td>
</tr>
<tr>
<td>Airline Pilots, Copilots, and Flight Engineers</td>
<td>4,467</td>
<td>5,123</td>
<td>656</td>
<td>14.69</td>
<td>6.92</td>
</tr>
<tr>
<td>Baggage Porters and Bellhops</td>
<td>3,686</td>
<td>4,118</td>
<td>432</td>
<td>11.72</td>
<td>5.71</td>
</tr>
<tr>
<td>Commercial Pilots</td>
<td>2,080</td>
<td>2,359</td>
<td>279</td>
<td>13.41</td>
<td>3.22</td>
</tr>
<tr>
<td>Avionics Technicians</td>
<td>1,188</td>
<td>1,324</td>
<td>136</td>
<td>11.45</td>
<td>1.84</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>1,017</td>
<td>1,133</td>
<td>116</td>
<td>11.41</td>
<td>1.58</td>
</tr>
<tr>
<td>Cargo and Freight Agents</td>
<td>933</td>
<td>1,035</td>
<td>102</td>
<td>10.93</td>
<td>1.45</td>
</tr>
<tr>
<td>Cleaners of Vehicles and Equipment</td>
<td>890</td>
<td>991</td>
<td>101</td>
<td>11.35</td>
<td>1.38</td>
</tr>
<tr>
<td>First-Line Supervisors of Mechanics, Installers, and Repairers</td>
<td>733</td>
<td>814</td>
<td>81</td>
<td>11.05</td>
<td>1.14</td>
</tr>
<tr>
<td>Maintenance and Repair Workers, General</td>
<td>556</td>
<td>619</td>
<td>63</td>
<td>11.33</td>
<td>0.86</td>
</tr>
<tr>
<td>First-Line Supervisors of Material-Moving Vehicle Operators</td>
<td>447</td>
<td>496</td>
<td>49</td>
<td>10.96</td>
<td>0.69</td>
</tr>
<tr>
<td>Stock Clerks and Order Fillers</td>
<td>446</td>
<td>494</td>
<td>48</td>
<td>10.76</td>
<td>0.69</td>
</tr>
</tbody>
</table>


- The top 15 aviation occupations account for 77.3 percent of the total occupational employment in the aviation industry.
- Flight attendants (+14.88 percent) are projected to grow the fastest from 2017 to 2025, followed by airline pilots, copilots and flight engineers (+14.69 percent) and commercial pilots (+13.41 percent). All top 15 occupations are projected to have increased employment from 2017 to 2025.
- Flight attendants (+1,367 jobs); aircraft mechanics and service technicians (+1,048 jobs); and reservation and ticket agents and travel clerks (+883 jobs) are projected to gain the most jobs among the top fifteen aviation and aerospace industry occupations.
- Median hourly wages for the top 15 aviation and aerospace industry occupations range from a high of $76.12 for airline pilots, copilots and flight engineers to a low of $9.52 for baggage porters and bellhops.
- Nine of the top fifteen occupations require training beyond high school.
The top 15 high skill aviation occupations constitute 1.7 percent of the total occupational employment in the industry.

Market research analysts and marketing specialists (+17.78 percent) and electrical engineers (+14.29 percent) have the highest projected growth rates from 2017 to 2025. All top 15 high skill occupations are projected to have increasing employment from 2017 to 2025.

Accountants and auditors are projected to gain the most jobs among top high skill aviation occupations (+30 jobs). Software developers, systems software (+3 jobs) are projected to gain the least amount of jobs from 2017 to 2025.

Median hourly wages for the top 15 high skill aviation occupations range from a high of $56.94 for financial managers to a low of $25.38 for human resources specialists.

All top 15 high skill aviation occupations require a bachelor’s degree.

Aviation employment is concentrated along the coast in 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 Aerospace Industry

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 includes search, detection and navigation instrument manufacturing; aerospace product and parts manufacturing; and satellite communications.

- The aerospace industry includes the following detailed subsectors: 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 had 540 establishments in 2017 with employment of 32,027, up 1,368 jobs (+4.5 percent) from 2016. Total jobs for all industries increased by 2.2 percent during the same period.

Figure #7
Florida Aerospace Employment
2001-2017
(Not Seasonally Adjusted)

Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and 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 followed a negative trend, losing 1,750 jobs (-5.8 percent). Aerospace employment endured an ebb and flow 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 3,692 jobs (+13.0 percent) by 2017.

Figure #8
Share of Florida Aerospace Employment by Subsector
2017 Annual Averages (Not Seasonally Adjusted)

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

• The largest subsectors in aerospace in 2017 were search, detection and navigation instruments manufacturing (9,837 jobs); guided missiles and space vehicles (confidential); aircraft manufacturing (5,209 jobs); and aircraft engine and engine parts manufacturing (4,635 jobs).

• Within the aerospace industry, search, detection and navigation instruments manufacturing gained the most jobs over the year in 2017 (+659 jobs, +7.2 percent). The only subsector losing jobs over the year in aerospace was aircraft engine and engine parts manufacturing (-209 jobs, -4.3 percent).
Aerospace’s 2017 average annual wage increased more than the average wage for all industries over the year. The 2017 average annual wage for workers in the aerospace industry was $92,964, an increase of $3,011 (+3.3 percent) from 2016. The average annual wage for all industries grew by $1,405 (+3.0 percent) over the year.

The aerospace industry’s 2017 average annual wage exceeded the average annual wage for all industries by $44,504 (+91.8 percent). The average annual wage difference in 2016 was $42,898 (+91.2 percent).

The 2017 average annual wages for aerospace subsectors range from $65,646 to over $100,000. Guided missiles and space vehicles had the highest 2017 average annual wage of all aerospace subsectors (confidential). Other aircraft parts and auxiliary equipment manufacturing had the lowest average annual wage in 2017 ($65,646). All eight subsectors in aerospace had 2017 average annual wages exceeding $60,000 and seven exceeded $80,000. Compared to the average annual wage for all industries in 2017 ($48,460), aerospace subsectors had relatively high average annual wages.
The top 15 aviation and aerospace occupations account for 51.5 percent of the total occupational employment in the aerospace industry.

Mechanical engineers (+12.99 percent) are projected to grow the fastest from 2017 to 2025, followed by machinists (+10.36 percent) and industrial engineers (+7.95 percent). Twelve of the top 15 occupations are projected to have increased employment from 2017 to 2025, with aerospace engineers projected to have the highest rate of decline (-1.03 percent).

Mechanical engineers (+172 jobs); industrial engineers (+156 jobs); and machinists (+93 jobs) are projected to gain the most jobs among the top fifteen aerospace industry occupations. Aerospace engineers are projected to lose the most jobs (-12 jobs).

Median hourly wages for the top 15 aerospace industry occupations range from a high of $50.76 for aerospace engineers to a low of $13.34 for team assemblers.

Five of the top fifteen occupations require a bachelor’s degree and thirteen require training beyond high school.
Top Occupations in the Aerospace Industry Cluster that Require a Bachelor’s Degree or Higher

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>2017 Employment</th>
<th>2025 Employment</th>
<th>2017-2025 Change</th>
<th>% of Industry Total</th>
<th>2017 Median Hourly Wage</th>
<th>Training Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, Aerospace Industry Cluster</td>
<td>37,878</td>
<td>38,766</td>
<td>888</td>
<td>2.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>1,963</td>
<td>2,119</td>
<td>156</td>
<td>7.95</td>
<td>5.18</td>
<td>33.81 Bachelor's Degree</td>
</tr>
<tr>
<td>Software Developers, Systems Software</td>
<td>1,558</td>
<td>1,577</td>
<td>19</td>
<td>1.22</td>
<td>4.11</td>
<td>46.86 Bachelor's Degree</td>
</tr>
<tr>
<td>Mechanical Engineers</td>
<td>1,324</td>
<td>1,496</td>
<td>172</td>
<td>12.99</td>
<td>3.50</td>
<td>40.60 Bachelor's Degree</td>
</tr>
<tr>
<td>Aerospace Engineers</td>
<td>1,163</td>
<td>1,151</td>
<td>-12</td>
<td>-1.03</td>
<td>3.07</td>
<td>50.76 Bachelor's Degree</td>
</tr>
<tr>
<td>Electrical Engineers</td>
<td>944</td>
<td>953</td>
<td>9</td>
<td>0.95</td>
<td>2.49</td>
<td>41.64 Bachelor's Degree</td>
</tr>
<tr>
<td>Architectural and Engineering Managers</td>
<td>671</td>
<td>680</td>
<td>9</td>
<td>1.34</td>
<td>1.77</td>
<td>59.09 Bachelor's Degree</td>
</tr>
<tr>
<td>Electronics Engineers, Except Computer</td>
<td>463</td>
<td>467</td>
<td>4</td>
<td>0.86</td>
<td>1.22</td>
<td>42.80 Bachelor's Degree</td>
</tr>
<tr>
<td>Logisticians</td>
<td>372</td>
<td>380</td>
<td>8</td>
<td>2.15</td>
<td>0.98</td>
<td>29.71 Bachelor's Degree</td>
</tr>
<tr>
<td>Computer and Information Systems Managers</td>
<td>370</td>
<td>374</td>
<td>4</td>
<td>1.08</td>
<td>0.98</td>
<td>57.63 Bachelor's Degree</td>
</tr>
<tr>
<td>Accountants and Auditors</td>
<td>361</td>
<td>369</td>
<td>8</td>
<td>2.22</td>
<td>0.95</td>
<td>29.58 Bachelor's Degree</td>
</tr>
<tr>
<td>Financial Analysts</td>
<td>361</td>
<td>371</td>
<td>10</td>
<td>2.77</td>
<td>0.95</td>
<td>33.30 Bachelor's Degree</td>
</tr>
<tr>
<td>Market Research Analysts and Marketing Specialists</td>
<td>211</td>
<td>233</td>
<td>22</td>
<td>10.43</td>
<td>0.56</td>
<td>27.81 Bachelor's Degree</td>
</tr>
<tr>
<td>Management Analysts</td>
<td>210</td>
<td>216</td>
<td>6</td>
<td>2.86</td>
<td>0.55</td>
<td>31.11 Bachelor's Degree</td>
</tr>
<tr>
<td>Technical Writers</td>
<td>189</td>
<td>194</td>
<td>5</td>
<td>2.65</td>
<td>0.50</td>
<td>30.30 Bachelor's Degree</td>
</tr>
<tr>
<td>Human Resources Specialists</td>
<td>170</td>
<td>169</td>
<td>-1</td>
<td>0.59</td>
<td>0.45</td>
<td>25.38 Bachelor's Degree</td>
</tr>
</tbody>
</table>


- The top 15 high skill aerospace occupations constitute 27.3 percent of the total occupational employment in the industry.

- Mechanical engineers (+12.99 percent) and market research analysts and marketing specialists (+10.43 percent) have the highest projected growth rates from 2017 to 2025. Thirteen of the top 15 high skill occupations are projected to have increasing employment from 2017 to 2025, with aerospace engineers projected to have the highest rate of decline (-1.03 percent).

- Mechanical engineers are projected to gain the most jobs among top high skill aerospace occupations (+172 jobs). Aerospace engineers (-12 jobs) are projected to lose the most jobs from 2017 to 2025.

- Median hourly wages for the top 15 high skill aerospace occupations range from a high of $59.09 for architectural and engineering managers to a low of $25.38 for human resources specialists.

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

- Aerospace employment is concentrated along the coast in 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.
Summary

Since the industry’s low point of 2004, aviation and aerospace employment has enjoyed a meteoric rise, gaining 24,579 jobs (+31.1 percent). In 2017, the largest subsector in the aviation industry was scheduled passenger air transportation (34,750 jobs); the aerospace industry was led by search, detection and navigation instruments manufacturing (9,837 jobs).

Aviation’s and aerospace’s 2017 average annual wage increased more than the average wage for all industries over the year. The 2017 average annual wage for workers in the aviation industry was $66,474, an increase of $2,175 (+3.4 percent) from 2016. Eight of the nine subsectors in aviation had 2017 average annual wages exceeding $50,000. The 2017 average annual wage for workers in the aerospace industry was $92,964, an increase of $3,011 (+3.3 percent) from 2016. All eight subsectors in aerospace had 2017 average annual wages exceeding $60,000 and seven exceeded $80,000.

In the aviation industry, flight attendants are forecast to gain the most amount of jobs among all training levels (+1,367 jobs) and accountants and auditors are forecast to gain the most amount of jobs requiring a bachelor’s degree or higher (+30 jobs). In the aerospace industry, mechanical engineers (+172 jobs) and industrial engineers (+156 jobs) are forecast to gain the most amount of jobs regardless of educational background.