Economic Impact of Civil Aviation

- In 2014, civil aviation generated $1.6 trillion in economic activity and supported 10.6 million jobs, with $446.8 billion in earnings.

- Civil aviation accounted for 5.1% (846 billion) of the U.S. gross domestic product in 2014.

- Commercial airline operations enabled $310.0 billion of visitor expenditures on goods and services.

- Civil aircraft manufacturing continues to be the top net exporter in the U.S. with a positive trade balance of $59.9 billion.

Source: U.S. DOT FAA “The Economic Impact of Civil Aviation on the U.S. Economy” September 2017
Regional Airlines are Critical Infrastructure

63% of U.S. airports with scheduled passenger air service get their **ONLY** source of air service from regional airlines.

41% of scheduled passenger departures were operated by U.S. regional airlines.
Regional Airlines Provide ONLY Source of Air Service at 217 Airports in Lower 48 States

Nearly all of these are small communities.
Small Community Air Service drove $134B in US Economic Impact; Supported over 1M Jobs in 2017

*Analysis did not account for economic development impacts, which would have likely doubled the measured impact.
Air Service is Vital for Small Communities

- Link to the global economy
- Creates direct and indirect jobs
- Connects local businesses
- Provides access to premium health care
- Brings visitors and supports tourism
A Growing Pilot Shortage Threatens Air Service

• **CAE Airline Pilot Demand Outlook** (2017) indicates 85,000 new airline pilots needed, by 2027, including 62,000 new captains; cites large number of retirements as significant challenge.

• **Boeing Pilot Outlook** (2018) projects worldwide growth in pilot demand, with 206,000 pilots needed in North America by 2038.

• “The number of private pilots holding active airmen certificates has decreased by 27 percent in the last ten years. The number of commercial pilots in the same period has decreased by 21 percent.” *Dan Elwell, FAA Acting Administrator, September 13, 2018*
Declining Original Airmen Certificates
Shrinking Hirable Pilot Pool

Estimated Active Pilot Certificates Held by Category Ages 20-59

Federal Aviation Administration U.S. Civil Airmen Statistics, Table 12

-20.6% since 2009

-992 per month

-33 per day
Aging Pilots in all Categories

Average Age of Active Pilots by Category
Federal Aviation Administration U.S. Civil Airmen Statistics, Table 13
• 51,156 (48%) of today’s qualified pilot workforce are 50 years or older and will reach mandatory retirement age within 15 years.

• 13,946 of these pilots are 60-64 years old and will reach mandatory retirement age within 5 years.

ATP AMEL Pilots with Valid 1st Class Medicals by Age
5,811 new pilots qualified in 2018 -- more than 2017, but 39% less than 2016.

* In 2013, FAA newly required First Officers to hold ATP certificates, causing a spike in certificate issuances.

**In 2016, a regulatory window closed, after which point anyone seeking to gain an ATP must sit the ATP CTP course before taking the practical, contributing to a second spike in certificate issuances.
Major Airlines Expected to Hire Equivalent of Regional Airline Workforce between 2016 and 2020

Source: University of North Dakota Pilot Supply Forecast 2016
Regional Airline Industry is Contracting Under a Growing Pilot Shortage
Pilot Shortage Drove Regional Airline Industry Contraction

Passengers Enplaned (Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Passengers Enplaned (Millions)</th>
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<tbody>
<tr>
<td>2008</td>
<td>158.73</td>
</tr>
<tr>
<td>2009</td>
<td>157.66</td>
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<td>164.10</td>
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<td>156.56</td>
</tr>
<tr>
<td>2016</td>
<td>154.92</td>
</tr>
<tr>
<td>2017</td>
<td>153.25</td>
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</tbody>
</table>
Industry Contraction Meant Fewer Departures

Average Daily Departures

<table>
<thead>
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<th>Year</th>
<th>Regional</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20K</td>
<td>10K</td>
</tr>
<tr>
<td>2009</td>
<td>15K</td>
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<td>10K</td>
<td>20K</td>
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<tr>
<td>2011</td>
<td>5K</td>
<td>25K</td>
</tr>
<tr>
<td>2012</td>
<td>0K</td>
<td>30K</td>
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</tbody>
</table>

Regional Percentage of Total

Source: BTS Air Carrier Statistics Form 41 Traffic T-09 Segment (U.S. Carriers Only)
Fewer Departures Meant Air Service Losses

2018 compared with 2013:

- 246 airports reduced by 10% or more
- 190 airports reduced by 20% or more
- 109 airports reduced by 33% or more
- 77 airports reduced by 50% or more
- 42 airports reduced by 75% or more
- 32 airports lost all service

Source: RAA analysis of OAG schedules via PlaneStats online portal; Airports had scheduled passenger air service (departures) in 2013 and had reduced air service in 2018.
Pilot Shortage = Parked Aircraft when Pilots are not Replaced

10 -- Number of pilots needed to Crew 1 Regional Aircraft.

100 -- Number of aircraft parked with shortage of 1,000 pilots.

1000 -- Number of aircraft parked with shortage of 10,000 pilots.

2,018 -- Total number of Regional aircraft operated today.
Using Larger Aircraft Reduces Number of Pilots Needed, but not all Communities Can Support Larger Aircraft
Even though Seats Increased, Departures Decreased

**Scheduled Departures**

- 2009: 790,000
- 2013: 760,000
- 2018: 750,000

**Scheduled Seats**

- 2009: 74,000,000
- 2013: 72,000,000
- 2018: 88,000,000

-4.5% FEWER departures in 2018 than 2009

+14.9 MORE seats in 2018 than 2009

July Schedules (U.S. Carriers • Domestic operations)
## Departures (not Seats) Equal Connectivity

### 2018 vs. 2009

<table>
<thead>
<tr>
<th>Category</th>
<th>Departures</th>
<th>Seats</th>
<th>Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>0.7%</td>
<td>15.7%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Medium</td>
<td>-4.7%</td>
<td>16.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Small</td>
<td>-13.9%</td>
<td>9.7%</td>
<td>-10.3%</td>
</tr>
<tr>
<td>Nonhub</td>
<td>-15.1%</td>
<td>14.0%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Nonprimary</td>
<td>-19.3%</td>
<td>-6.1%</td>
<td>-24.2%</td>
</tr>
</tbody>
</table>

July Schedules (U.S. Carriers • Domestic operations)
Air Service has Declined Sharply alongside the Pilot Shortage

- 2.6% FEWER airports served in 2018 than 2009

July Schedules (U.S. Carriers • Domestic operations)
Businesses Need Reliable Air Service

“Locating our headquarters closer to a global transportation hub, such as Chicago, means we can meet with our global customers, dealers and employees more easily and frequently.” -- Caterpillar CEO Jim Umpleby https://tinyurl.com/y84527yx

“Krystal CEO Doug Pendergast, who took over shortly after the company was sold to an Atlanta-based investment group in March, said moving the headquarters to Atlanta will put Krystal executives closer to more restaurants and improve air service to its units”

“Albemarle Corp. has been in Baton Rouge, La., for seven years and has decided to move its headquarters to Charlotte. One big draw for the Queen City was the better airline service at Charlotte Douglas International Airport, Louisiana officials say.” https://tinyurl.com/y8u3rsfc

“New York’s air service also makes it easier to travel to the 25 states where Charter operates...and not have to have two transfers on the flight.” - Charter spokeswoman Anita Lamont. https://tinyurl.com/ya2e7len

“Omaha’s relatively slim pickings for direct flights to major cities — and no international flights — can be a big detriment when it comes to selling the city” - Tracey Hyatt Bosman, managing director at Biggins Lacy Shapiro & Co.

“Agriculture giant Archer Daniels Midland cited air service as one of the benefits of moving its headquarters last year to Chicago from Decatur, Illinois. https://tinyurl.com/yckqwa2l
SOLUTIONS
Market-based Solutions

• **Regional Airlines are Investing In Pilots.**
• Collegiate and training institution partnerships focused on career opportunities.
• Internship and cadet programs.
• Academy style programs to train and support aspiring pilots.
• Flow and guaranteed interview programs with major airlines to support career stability.
• Tuition reimbursement agreements.
• Significant salary investments, starting year one.
• Leadership development programs for women and people of color to create new role models.
Pilot Compensation is High and Climbing

RAA MEMBER AIRLINES PAY FIRST YEAR, FIRST OFFICERS AN AVERAGE TOTAL COMPENSATION OF $61,602.

THE BUREAU OF LABOR AND STATISTICS (BLS) REPORTED 2017 MEDIAN ANNUAL WAGE FOR ALL U.S. OCCUPATIONS AT ALL LEVELS WAS $37,040.

MEDIAN COMPENSATION FOR COMMERCIAL AIRLINE PILOTS IN 2017 WAS $137,330. (17% INCREASE FROM 2015)
RAA member airline first year, First Officer average compensation rose more than 150 percent between 2014 and 2016.

At the same time, RAA members reported finding fewer qualified new hire pilot candidates than needed. In fact, recruiting success declined.

Pilot education and training costs exceed Federal student loan caps – without access to private capital, pilots cannot afford to train.

Pilot career path inaccessibility is undermining the effectiveness of market response.
Pilots Need Financial Aid for Training and Education

• The *price tag* of a four-year flight training degree can reach $250,000, well above the federal financial aid cap.

• Pilots must pay out of pocket or secure private loans to cover required elements of foundational training that exceed the federal aid cap. These expenses can range from $50,000 - $100,000.

• Pilots who pursue training outside of a collegiate environment at a flight school are not eligible for any federal financial aid at all.

• Financial aid expansion for all types of pilot training, alongside expanded opportunities for pilot training, are critical components of a pilot shortage solution.
Training Based Pilot Qualification Pathways are Permitted

• Through PL 111-216, Congress authorized FAA to approve alternate pathways for pilot qualification, allowing specific academic training courses be credited toward total flight hours. This results in a R-ATP certificate.

• Independent, empirical data consistently shows newly-hired pilots following these training-based pathways perform best.

Military and Academic Institutions are already approved for these R-ATP Pathways
Training Based Compliance Pathways are Effective

- Pilot Source Study 2018 findings are similar to PSS 2015
- Key “outcomes” analyzed were completions, extra training and IOE
  - 45% of new-hire pilots require extra training (up from 28% in 2015)
  - Pilots with 1500 – 3000 hours in flight required more extra training than all other groups
  - Top performing pilots are still those pilots with fewer than 1500 hours.
- The top positive predictors of high pilot performance, in order:
  1. High GPA
  2. Recency of graduation from foundational training
  3. Holding a restricted-ATP (R-ATP) rather than a non-restricted ATP (R-ATP pathways replace some unstructured flying time with rigorous structured training)
  4. Holding degree from AABI accredited school
  5. Having fewer than 1500 total flight hours
  6. Holding a bachelor’s degree
More Training Pathways are Needed

• Airlines are starting to build comprehensive foundational training programs to help pilots achieve their dream of flight.

• Additional programs to bridge the gap between existing foundational training and a pilot’s qualification could provide additional support and improve training outcomes. FAA should approve these pathways when they enhance safety.

• Training programs would be robust – incorporating rigorous screening, testing, academics, checks, audits, operational experience and more. Use of high-quality simulators will ensure pilots are trained for scenarios they don’t usually encounter when building flight hours, like an engine fire, passenger medical emergency or icing on the wing.
Initial Congressional Actions

Sampling of Recently enacted U.S. Aviation Workforce Measures:

• **Aviation and Aerospace Workforce of the Future Study** – GAO study on strategies / best practices to attract people into aviation workforce.

• **Women in Aviation** – Creates a Women in Aviation Advisory Board.

• **Youth in Aviation** – Creates a Youth Access to American Jobs in Aviation Taskforce.

• **Aviation Maintenance Industry Technical Workforce** – Directs GAO study on aviation maintenance workforce needs.

• **Aviation Workforce Development Programs** – Small dollar grant program to develop pilot and technician workforce including aviation curriculum development and teacher training at high schools and supports purchasing equipment, scholarships, outreach, and career transition programs.

• **Sense of Congress** – 1) the aviation industry should hire more veterans 2) career pathways and initiatives should continue to exist to attract people into the industry and the educational and federal aid system should support the aviation industry.
More Solutions are Needed…

Requested of Congress:

• Improve financial support for pilot training: expand federal student loan coverage, establish loan forgiveness programs, provide for student loan deferment while students complete qualification requirements. Consider accreditation reforms to allow flight schools to receive federal financial aid, and create tax incentives for employer-based programs.

• Protect and streamline GI bill funding; ensure veterans can use GI benefits for flight training.

• Encourage FAA to approve structured training pathways offered by certificated air carriers for credit toward pilot qualification when those programs enhance safety.

• Encourage FAA to provide credit for scenario-based, modern training methods, such as high-fidelity flight simulators.
For more information or to join the Pilot Career Access Coalition please contact media@raa.org.