2019 Issue Brief: Aviation Workforce Development

Issue: Over the next 20 years, Boeing estimates a global shortage of 790,000 pilots and 754,000 aircraft mechanics.

Implications for Ohio:

- A shortage of qualified pilots can lead to air service cuts in smaller communities **threatening** air service at Ohio's small and non-hub airports (Toledo, Akron-Canton, Dayton, and Youngstown). According to the Regional Airline Association, 58% of departures in Ohio are operated by regional carriers and would be risk from the pilot shortage [i].

- The shortage of qualified pilots and mechanics presents an **opportunity** for Ohio to attract aviation businesses looking for a well-trained workforce and while retaining students in high wage careers (average starting salary of over $59,000[ii]).

- Interest in aviation careers has increased but there remain **barriers** to entry including the high cost of training, lack of access to financing (the federal student loan program cap is $57,500 for undergraduate programs) and the long training period (up to 6 years for pilots to earn requisite hours).

- While Ohio has a robust system of universities, community colleges, technical schools, and high schools providing flight and maintenance instruction to thousands of students, many of these programs require significant capital **investments** to accommodate increased demand.

Solutions to Make Ohio an Aviation Workforce Leader:

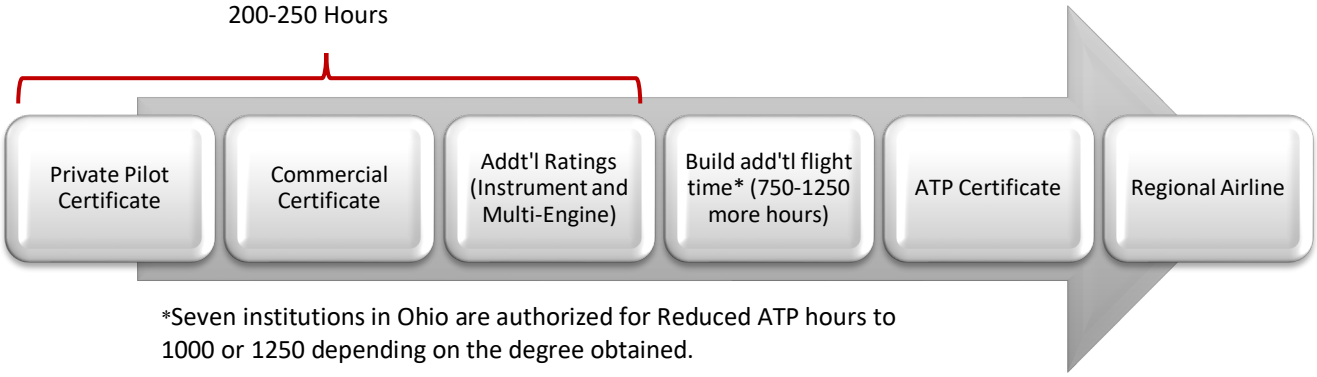
- Develop a revolving loan fund ($15-20 million) to provide access to low-interest loans to finance training for students entering aviation related careers at Ohio universities and community colleges.

- Develop a mechanism to provide a one-time capital infusion to each of Ohio's collegiate aviation programs and technical colleges to allow the state's training programs to accommodate increased demand for training in aviation careers.

- Develop a task force to identify ways to strategically market Ohio's aviation workforce to airlines, aircraft maintenance and repair companies, and other aviation-related businesses.

FAQ's

1. **What is the process, timing, and cost for a civilian to become an Airline Pilot?** Ultimately, an Airline Transport Pilot (ATP) certificate is required to fly for an airline, with a minimum of 1,500 flight hours. A typical flow of pilot training is shown below. There are three ways to achieve these: 1) a college or university with a degree, or 2) a local flight school with no degree, or 3) a dedicated training center with no degree. While a degree is not required to be an airline pilot, it is highly predictive of whether a student can perform well at airline training.



Requirements	Timing	Cost
Obtain an ATP Certificate -with a degree (most successful method) Note: only collegiate education programs offer access to federal loans.	4-6 years	Total cost for collegiate aviation training to $150,000 to $200,000[iii]

2. **What is the process for becoming an aircraft airframe and powerplant (A&P) mechanic and how much does it cost?**

Requirements	Timing	Cost
• Must be 18 years old; and, • Obtain 18 months of practical experience with airframes and power plants or graduate from an FAA-approved aviation maintenance technician school; and, • Pass three written, oral, and practical exams	16-36 months	Average cost of a two-year associates A&P program is $40,430[iv].

3. **How do we keep these pilots and mechanics in Ohio?** The short answer is that it happens with additional air service and expanding training programs in the state. Airline pilots can live anywhere they choose, but a recent study found around 50 percent choose to live close to their domicile[v], the location they report to each day. Ohio has three regional jet crew domiciles (Columbus, Cleveland, and Dayton) and has pilots and mechanics who live in Ohio and commute to major air carrier bases at Detroit Metro and Cincinnati/Northern Kentucky. Airlines select crew domiciles based on operational need and workforce availability. Therefore, as Ohio continues to grow its aviation training programs, it will become a more attractive option for airlines looking to make air service and maintenance facility investments.

4. **What have other states done to enhance their aviation workforce efforts?** Across the country, States are investing in aviation training facilities as a way to leverage federal investment, attract new businesses, and retain their workforce through providing high wage jobs. The State of Georgia recently invested $35 million in a new Technical College Aviation Academy in Chattahoochee while the State of Delaware invested $3.4 million in aircraft at Delaware State University[vi]. Additionally, States funds have been matched by Economic Development Administration (EDA) grants for aviation flight and maintenance training expansion projects in Illinois, Louisiana, and California[vii].

[i] RAA October 2018 Workforce Update. https://www.raa.org/news/423275/RAA-Industry-Update-October.htm
[ii] RAA October 2018 Workforce Update. https://www.raa.org/news/423275/RAA-Industry-Update-October.htm
[iii] Air Line Pilots Association. 2017. http://www.alpa.org/news-and-events/air-line-pilot-magazine/navigating-pathways-to-success
[iv] National Center for Education Statistics. 2017-2018. https://nces.ed.gov/ipeds/
[v] The Effects of Commuting on Pilot Fatigue. National Research Council. 2011. https://www.nap.edu/download/13201#
[vi] https://delawarestatenews.net/news/the-skys-the-limit-dsu-invests-in-new-fleet-of-planes/
[vii] https://www.eda.gov/news/press-releases/2018/09/27/oakland-ca.htm