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# ARE REGULATORY & FINANCIAL BARRIERS THE CAUSE OF THE AIRLINE PILOT SHORTAGE?

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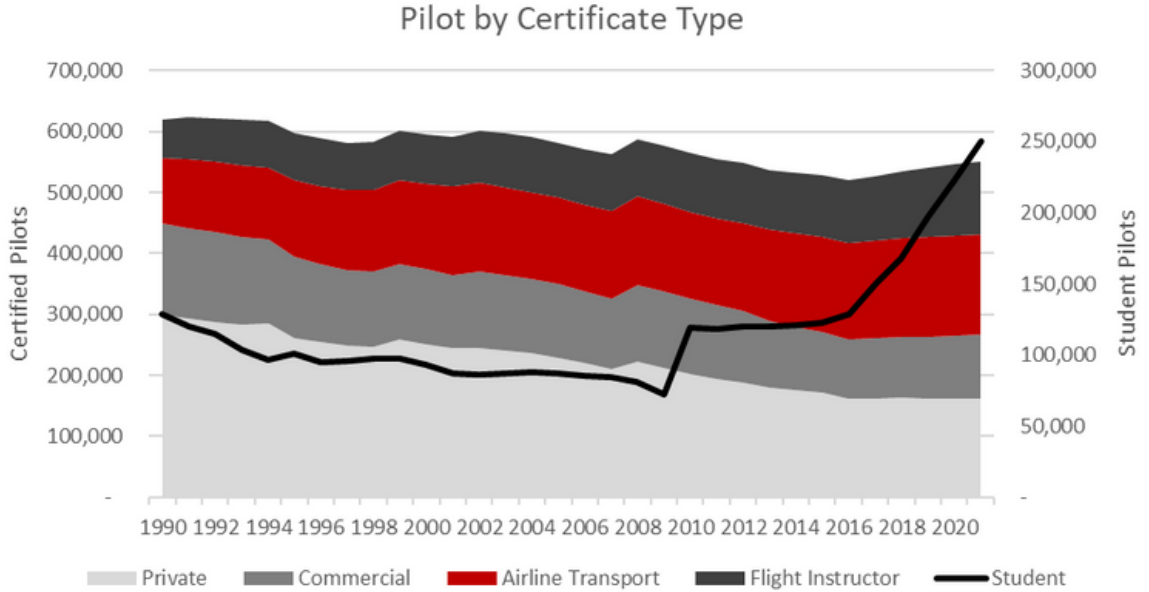
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Over the past 30 years, the overall number of certified pilots has steadily decreased. Today, there are more student pilots than ever before causing an increase in private and commercial pilot numbers. Despite this, the number of Airline Transport Pilots (ATP) has stagnated resulting in a bottle neck for some US carriers.



Financial and experiential requirements have contributed largely to the recent decline of ATPs. In aviation – safety is top priority. Beginning with the training and expertise of each student pilot – safety guidelines necessitate licensure requirements, minimum training times, and retirement age cutoffs. Depending on the flight certificate, student pilots must be able to obtain a valid medical certificate prior to training.

After receiving medical clearance, a student pilot must successfully complete flight hour requirements and ground instruction prior to being able to earn their private pilot license. Private pilots are certified to fly an aircraft for personal transportation and must make at least three landings every six months to carry passengers. Further training is fueled by passion and vocation, however a private pilot license is always the first step. Instrument ratings and aircraft type ratings allow for operation of specific aircraft types and weather conditions. Commercial Pilots are allowed to be paid to fly. Certified Flight Instructors teach and train student and private pilots. These are all prerequisites for an Airline Transport Pilot license.

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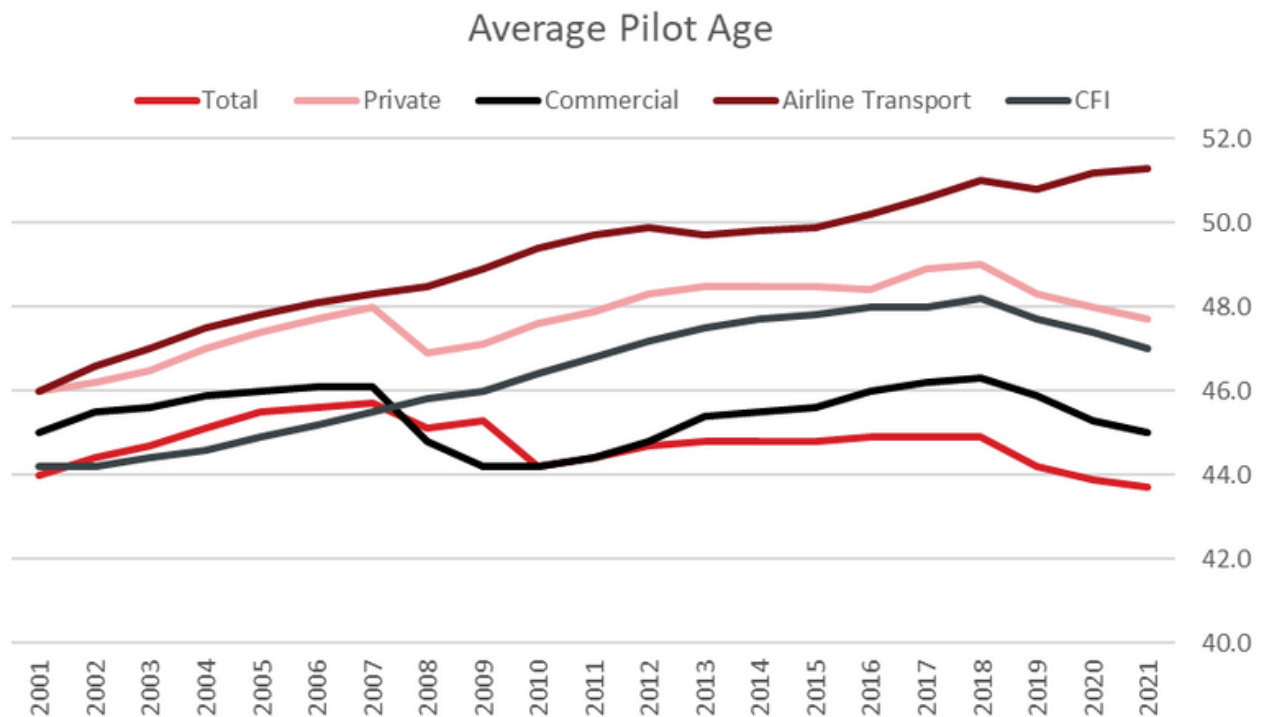
Due to the experiential requirements driven by safety standards – changes in FAA training requirements typically have a direct influence on the overall number of pilots. For instance, in 2007 the FAA made changes to pilot certifications allowing military veterans to receive additional credits for their prior military training. Due to the rise in certificate eligibility from this change, the amount of private and commercial pilots temporarily increased.

The “1,500-hour” rule went into effect at the end of 2013 and subsequently the lag time for new airline pilots became evident. By 2016, there was significant demand for new pilots and the number of student pilot programs increased dramatically. Although most student pilots do not complete additional certificates, the number of commercial pilots has been increasing at an average of 1.7% per year since 2016. This increase is encouraging, however, it does not combat the still declining ATP numbers.

Financial cost is a large barrier to flight training. The cost of earning an ATP is both expensive and time intensive. Flight school programs can train a student pilot from zero hour to a 250-hour Commercial Pilot License in one year and cost between \$100,000 to \$150,000. The most common way these 250-hour graduates work towards their FAA-required 1,500 hours for an ATP is by becoming Certified Flight Instructors and training more pilots.

If a full-time flight instructor can secure three flights per day plus ground instruction, they can reach 1,500 hours in just over two years. This training underlies a minimum three-year lag for airlines. Commercial pilots can also fly non-airline jobs such as banner towing, touring, or crop dusting. Many corporations and individuals have private aircraft which may also be operated with a Commercial Pilot License,. however, many of these jobs are seasonal or do not guarantee a high amount of flying time. In 2015, the number of Certified Flight Instructors surpassed the number of commercial pilots, and the gap has been widening ever since.

As the cost of reaching the Airline Transport Pilot license increases, so does the age of current airline transport pilots. Airline pilots are required to retire at age 65, so many retired airline pilots take on corporate flying or flight instructor jobs both to keep their currency ratings and satisfy their love of flying. As a result, newer, younger pilots are finding it more difficult to obtain the required 1,500 hours as the market begins to saturate.

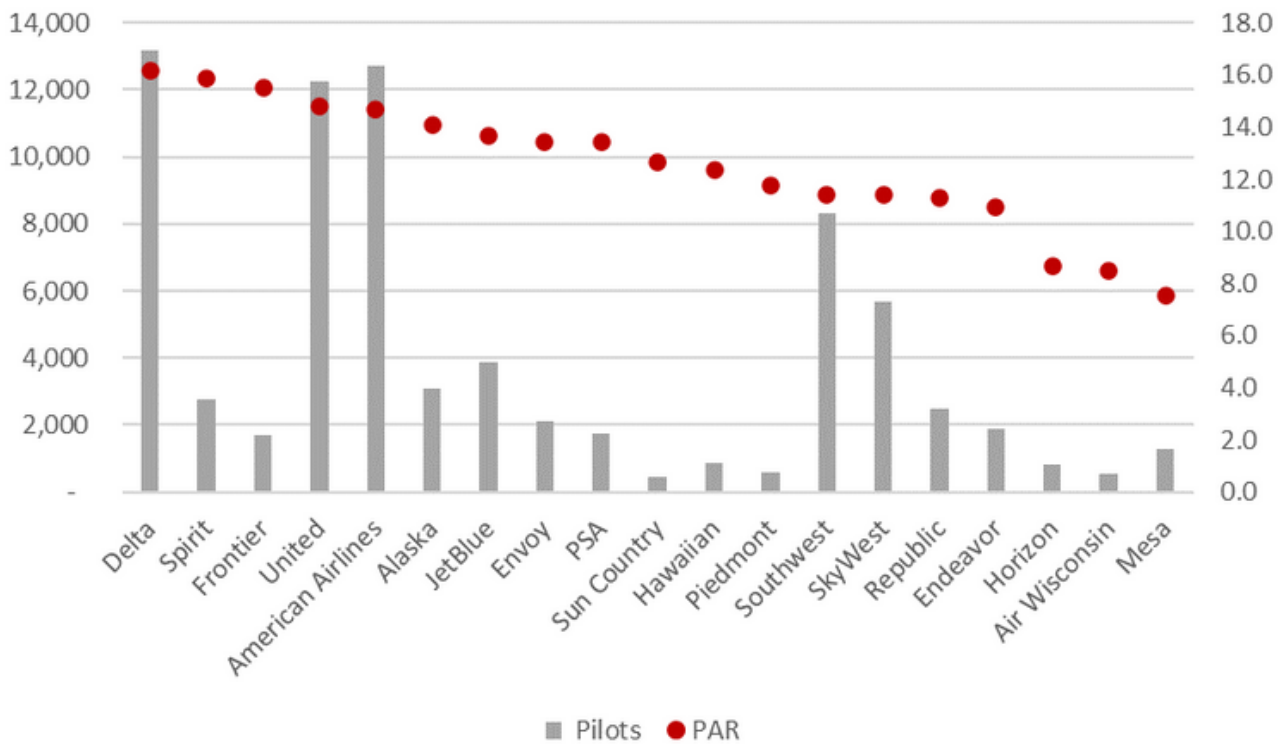


Major decreases in average age curves can also be attributed to FAA requirement changes. As part of the 1,500-hour requirement, the FAA also increased the retirement age for ATP from 60 to 65, temporarily flattening the private and commercial pilot age curves as recently retired airline pilots went back to flying. In 2018, the FAA relieved the burden on pilot training once again by increasing the allowed use of aviation training devices such as approved aircraft simulators[1]. However, this relief does not extend to aircraft flight hours towards the 1,500-hour requirement for the ATP license.

The aging out and overall decline of airline transport pilots means Pilot-to-Aircraft Ratio (PAR) is declining. The Pilot-to-Aircraft Ratio (PAR) can be used as a measure of staffing and utilization of fleet and crews. A higher PAR means more pilots are available to fly the airline’s aircraft. Large domestic carriers can hold a higher PAR because of their resources, while smaller regional carriers typically have a lower PAR and are greatly affected by changes in fleet or pilot numbers.

[1] FEDERAL REGISTER: REGULATORY RELIEF: AVIATION TRAINING DEVICES; PILOT CERTIFICATION, TRAINING, AND PILOT SCHOOLS; AND OTHER PROVISIONS

## Pilot-to-Aircraft Ratio



Fleet commonality is an efficient way to operate at a lower PAR because pilots only need to be rated for a single aircraft type. As airlines plan on growing their fleets they will also need more ATP licensed pilots to keep a healthy PAR. Airlines affected by this issue have begun changing their policies to attract commercial pilots who already have enough hours.

In January of 2022, Delta Airlines decided to make a four-year college degree 'preferred' rather than required for first officer candidates, effective immediately.[1] In May, Republic Airways filed for an exemption to the 1,500-hour rule. On June 13, 2022, American Airline's wholly owned regional carriers Piedmont and Envoy increased starting pilot pay over 75% from \$51 to \$90 per flight hour.

Thoughtful solutions should be implemented to ease the pilot shortage. Prior to 2013, regional airlines offered co-pilot or "right seat" time to commercial pilots without the need for an ATP, served as a cost-effective method for airlines and pilots alike to gain flight hours. Today, commercial pilots seeking the 1,500 hours for an ATP license will expect to spend upwards of \$200,000 to pay for aircraft rentals, fuel, and landing fees, without the aid of special programs or other commercial flying jobs. The increase in accessibility and cost for obtaining an ATP directly correlates to the challenge airlines are facing in increasing and maintaining an operable PAR.

[2] <https://www.aopa.org/news-and-media/all-news/2022/january/06/delta-drops-degree-requirement-for-pilot-applicants>