How to Become an Airline or Commercial Pilot About this section

Most airline pilots begin their careers as commercial pilots. Commercial pilots typically need a high school diploma or equivalent. Airline pilots typically need a bachelor's degree. All pilots who are paid to fly must have at least a commercial pilot's license from the Federal Aviation Administration (FAA). Additionally, airline pilots must have the Airline Transport Pilot (ATP) certificate. Ratings such as the ATP, instrument, or multi-engine ratings, expand the privileges granted by the commercial



Pilots and copilots work together to fly complex aircraft.

pilot's license and may be required by certain employers.

Most pilots begin their flight training with independent instructors or through flight schools. Fixed base operators (FBO) usually provide a wide range of general aviation services, such as aircraft fueling, maintenance, and on-demand air transportation services, and they may also offer flight training. An FBO may call itself a school or call their training department a school. Some flight schools are parts of 2 and 4-year colleges and universities.

Education and Training

Airline pilots typically need a bachelor's degree in any subject, along with a commercial pilot's license and an Airline Transport Pilot (ATP) certificate from the FAA. Airline pilots typically start their careers in flying as commercial pilots. Pilots usually accrue thousands of hours of flight experience to get a job with regional or major airlines.

The military has traditionally been an important source of experienced pilots because of the extensive training provided. However, increased duty requirements have reduced the incentives for these pilots to transfer out of military aviation and into civilian aviation. Most military pilots who transfer to civilian aviation are able to transfer directly into the airlines rather than working in commercial aviation.

Commercial pilots must have a commercial pilot's license and typically need a high school diploma or the equivalent. Some employers will have additional requirements. For example, agricultural pilots will need to have an understanding of common agricultural practices, fertilizers, fungicides, herbicides, and pesticides. Flight instructors will have to have special FAA-issued ratings, such as the Certified Flight Instructor (CFI), CFI-Instrument (CFII),

Multi-Engine Instructor (MEI), MEI-Instrument (MEII), and possibly others. Many other requirements exist for other specialties. They range from glider and banner towing to helicopter and airship qualifications.

Commercial pilots typically begin their flight training with independent FAA-certified flight instructors or at schools that offer flight training. The FAA certifies hundreds of civilian flight schools, which range from small FBOs to large state universities. Some colleges and universities offer pilot training as part of a 2- or 4-year aviation degree. Regardless of whether pilots attend flight schools or learn from independent instructors, all pilots need the FAA's commercial pilot license before they can be paid to fly. Additionally, most commercial pilots need an instrument rating. Instrument ratings are typically needed to fly through clouds or other conditions that limit visibility. An instrument rating is required to carry paying passengers over 50 miles from the point of origin or at night.

Interviews for positions with major and regional airlines often reflect the FAA exams for pilot licenses, certificates, and instrument ratings, and can be intense. Airlines will often conduct their own psychological and aptitude tests in order to make sure that their pilots are of good moral character and can make good decisions under pressure.

Airline and commercial pilots who are newly hired by airlines or on-demand air services companies must undergo moderate-term on-the-job training in accordance with the Federal Aviation Regulations (FARs). This training usually includes 6-8 weeks of ground school and 25 hours of flight time. Additionally, commercial pilots may need specific training based on the type of flying they are doing. For example, those who work in aerial application need training in agricultural practices and fertilizers, pesticides, and other substances that can be applied to crops by air to increase yield or production efficiency. Additionally, various type ratings for specific aircraft, such as the Boeing 737 or Cessna Citation, are typically acquired through employer-based training and are generally earned by pilots who have at least the commercial license.

In addition to initial training and licensing requirements, all pilots must maintain recency of experience in performing certain maneuvers. This means that pilots must perform specific maneuvers and procedures a given number of times within a specified amount of time. In addition, pilots must undergo periodic training and medical examinations, generally every year or every other year.

Work Experience in a Related Occupation

Airline pilots typically begin their careers as commercial pilots. Pilots usually accrue thousands of hours of flight experience as commercial pilots or in the military to get a job with regional or major airlines.

Licenses, Certifications, and Registrations

Those who are seeking a career as a professional pilot typically get their licenses and ratings in the following order:

- Student Pilot Certificate
- Private Pilot License
- Instrument Rating
- Commercial Pilot License
- Multi-Engine Rating
- Airline Transport Pilot Certificate

Each certificate and rating requires that pilots pass a written exam on the ground and a practical flying exam, usually called a check ride, in an appropriate aircraft. In addition to these licenses, many pilots get Certified Flight Instructor (CFI) ratings after they get their commercial certificate, which helps them build flight time and experience more quickly and at less personal expense. Current licensing regulations can be found in FARs.

Commercial pilot's license. To qualify for a commercial pilot license, applicants must be at least 18 years old and meet certain hour requirements. When pilots first begin their training, student pilots need to get a logbook and keep detailed records of their flight time. They may also need to log their ground instruction time as well, depending on their school. This logbook must be endorsed by the flight instructor for the student to be able to take the FAA knowledge and practical exams. For specific requirements, including details on types and quantities of flight experience and knowledge requirements, see the FARs. Title 14 of the code of federal regulations (14 CFR), Federal Aviation Regulations part 61, covers the basic rules for the certification of pilots. Flight schools can train pilots in accordance with part 61 rules or the rules found in 14 CFR part 141.

In addition, applicants must pass the appropriate medical exam, meet all of the detailed flight experience and knowledge requirements, and pass a written exam and a practical flight exam in order to become commercially licensed. The physical exam confirms that the pilot's vision is correctable to 20/20 and that no physical handicaps exist that could impair their performance.

Commercial pilots must hold an instrument rating if they want to carry passengers for pay over 50 miles from the point of origin or at night.

Instrument rating. Earning their instrument rating enables pilots to fly during periods of low visibility, also known as instrument meteorological conditions or IMC. They may qualify for this rating by having at least 40 hours of instrument flight experience, 50 hours of cross-coun-

try flight time as pilot in command, and by meeting other requirements detailed in the FARs.

Airline transport pilot (ATP) certification. Beginning in 2013, all pilot crew of a scheduled commercial airliner must have ATP certificates. To earn the ATP certificate, applicants must be at least 23 years old, have a minimum of 1,500 hours of flight time, and pass written and practical flight exams. Furthermore, airline pilots usually maintain one or more aircraft-type ratings, which allow pilots to fly aircraft that require specific training, depending on the requirements of their particular airline. Some exceptions and alternate requirements are detailed in the FARs.

Pilots must pass periodic physical and practical flight examinations to be able to perform the duties granted by their certificate.

Other Experience

Minimum time requirements to get a certificate or rating may not be enough to get some jobs. To make up the gap between paying for training and flying for the major airlines, many commercial pilots begin their careers as flight instructors and on-demand charter pilots. These positions typically require less experience than airline jobs require. When pilots have built enough flying hours, they can then apply to the airlines. Newly hired pilots at regional airlines typically have about 2,000 hours of flight experience. Newly hired pilots at major airlines typically have about 4,000 hours of flight experience.

Important Qualities

Communication skills. Pilots must speak clearly when conveying information to air traffic controllers. They must also listen carefully for instructions.

Observational skills. Pilots must regularly watch over screens, gauges, and dials to make sure that all systems are in working order. They also need to maintain situational awareness by looking for other aircraft or obstacles. Pilots must be able to see clearly and judge the distance between objects, and possess good color vision.

Problem-solving skills. Pilots must be able to identify complex problems and figure out appropriate solutions. When a plane encounters turbulence, for example, pilots may assess the weather conditions and request a route or altitude change from air traffic control.

Quick reaction time. Pilots must be able to respond quickly and with good judgment to any impending danger, because warning signals can appear with no notice.

Advancement

For airline pilots, advancement depends on a system of seniority outlined in collective bargaining contracts. Typically, after 1 to 5 years, flight engineers may advance to first officer positions and, after 5 to 15 years, first officers can become captains. In large companies, a captain could become a chief pilot or director of aviation.