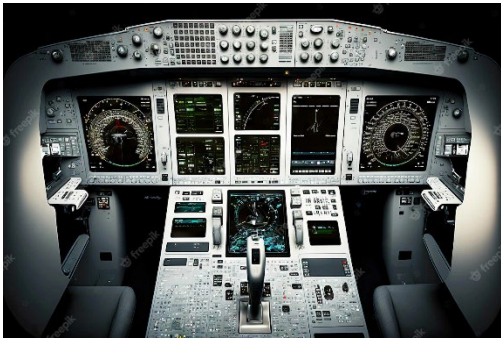




# Aviation Flight Transportation

## JOB OUTLOOK

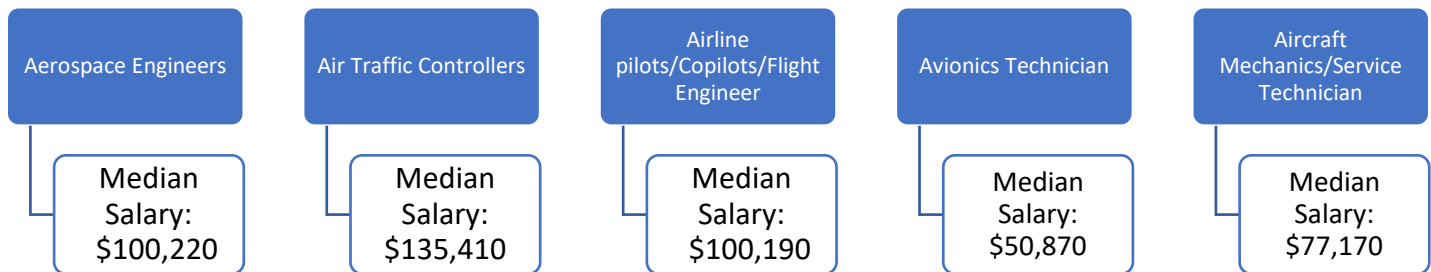
The air transportation workers occupation group is projected to grow by 32.5 percent in Tennessee between 2014 and 2022 with a total annual average of 165 openings. Employment of airline pilots, copilots, and flight engineer is expected to grow by 60.4% with 45 annual average openings projected per year. Growth is also anticipated for commercial pilots, yet this is a smaller occupation with 20 annual average openings expected. Additional opportunities for students in this program of study are available in air traffic control where 40 annual average openings are projected. The Memphis area was reported to have the highest concentration of employment of airline pilots, copilots, and flight engineers in May 2014 with 310 reported to be employed.



## OCCUPATIONAL PROFILE

**Aerospace engineers** develop technologies for use in aviation, defense systems, and spacecraft. They may focus on areas such as aerodynamic fluid flow; structural design; guidance, navigation, and control; instrumentation and communication; robotics; or propulsion and combustion. **Pilots** plan their flights by checking that the aircraft is operable and safe, that the cargo has been loaded correctly, and that weather conditions are acceptable. They file flight plans with air traffic control and may modify the plans in flight because of changing weather conditions or other factors. Air traffic

controllers' primary concern is safety, but they also must direct aircraft efficiently to minimize delays. They manage the flow of aircraft into and out of the airport airspace, guide pilots during takeoff and landing, and monitor aircraft as they travel through the skies. **Air traffic controllers** use radio equipment to communicate with pilots. They also use radar, computers, and other visual references to monitor and direct aircraft movement in the skies and on airport grounds. Airplanes require reliable parts and maintenance in order to fly safely. To keep an airplane in operating condition, **aircraft and avionics equipment mechanics and technicians** perform scheduled maintenance, make repairs, and complete inspections. They must follow detailed regulations set by the Federal Aviation Administration (FAA) that dictate maintenance schedules for different operations.



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# Memphis-Shelby County Schools



## ROAD MAP TO SUCCESS

### PROGRAM OF STUDY PROFILE

The Aviation Flight program of study prepares students to be successful in a range of aviation careers, such as pilots, aircraft engineers, air traffic control specialists, aircraft mechanics, or airline statisticians. Course content covers the knowledge and skills of all aspects of flight needed to pass the Federal Aviation Administration (FAA) Private Pilot written exam, including aircraft structures, flight environment, procedures and regulations, aerodynamics of flight, judgment training, navigation, and communications. Upon completion of this program of study, students will be prepared to take the FAA Private Pilot written exam and will be able to advance more quickly through the training hours typically required to solo in an aircraft after graduating. Dual credit or dual enrollment opportunities may be established with local postsecondary institutions.

### CAREER PATHWAY

#### SECONDARY EDUCATION

- \*Aviation I: Principles of Flight
- \*Aviation II: Advanced Flight
- \*Unmanned Aircraft Systems Pilot

#### CERTIFICATES

- \*Aviation Maintenance
- \*Aviation Maintenance Technology

#### BACHELORS

- \*B.S. AVIATION ADMINISTRATION
- \*B.S. AVIATION MANAGEMENT
- \*B.S. AEROSPACE
- \*B.S. AERONAUTICAL & INDUSTRIAL TECHNOLOGY
- \*B.S. AEROSPACE ENGINEERING
- \*B.S. AVIATION FLIGHT TRAINING PROGRAM

**MSCS PARTICIPATING SCHOOLS:** East HS

**LOCAL EMPLOYERS:** FedEx, Memphis International Airport, Millington-Memphis Airport, Olive Branch Airport, and West Memphis Municipal Airport