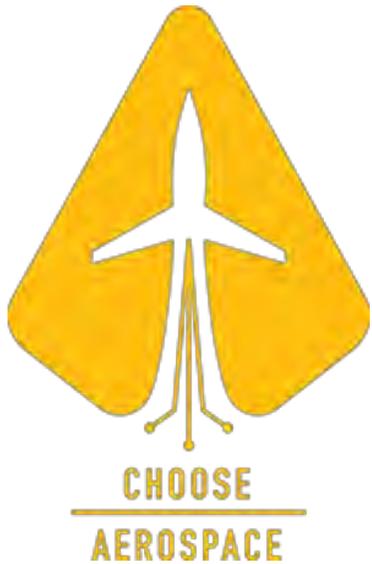


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About

Choose Aerospace is a non-profit, 501(c)(3) partnership of aerospace stakeholders, joined together to address one of the biggest threats to continued industry growth: the availability of a diverse, qualified technical workforce.

It works in close partnership with the Aviation Technician Education Council, the organization that represents schools certificated by the Federal Aviation Administration to train aviation mechanics.

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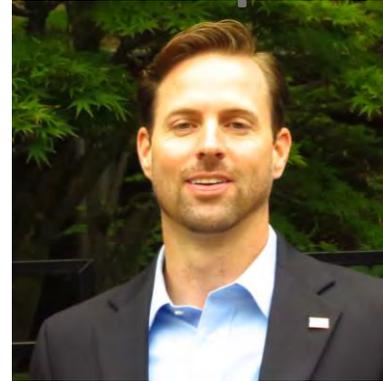
Leadership



President
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Vice President
Joel English, AIM



Secretary/Treasurer
Justin Madden, A4A



Director
Kevin Dallaire, Peidmont



Director
Tamera Holmes, AAI



Director (non-voting)
Sean Torpey, FAA



Executive Director
Crystal Maguire



Program Manager
Tarra Ruttman

NOVEMBER 2022



2022 PIPELINE REPORT & AVIATION MAINTENANCE TECHNICIAN SCHOOL DIRECTORY



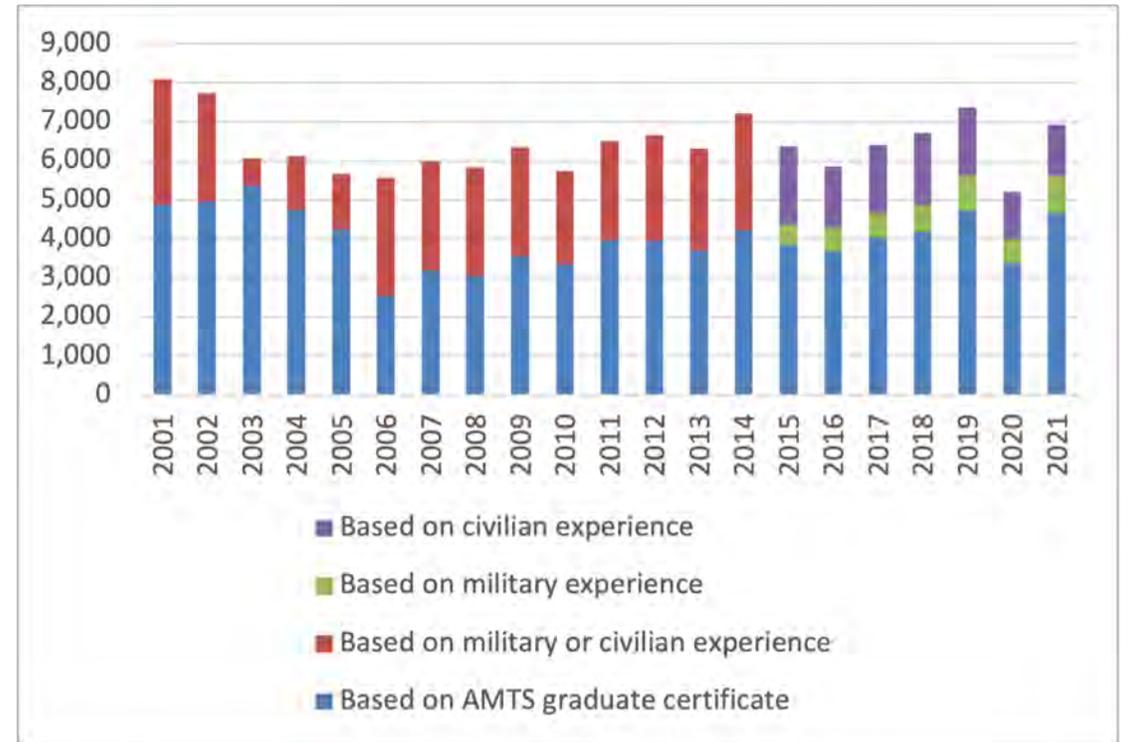
Mechanic Shortage

- Boeing: 690,000 new technicians needed to support commercial fleet over the next 20 years—125,000 of those in North American
- Oliver Wyman: the gap between supply and demand will reach between 8 and 12 percent this year with the larger shortage anticipated later this decade.
- ARSA: the technician shortage is costing the repair station industry \$100 million per month.
- ATEC: Workforce pipeline is stagnant at best, growing only 2 percent a year. **Production must increase by 20 percent to meet JUST commercial demand.**



The Pipeline

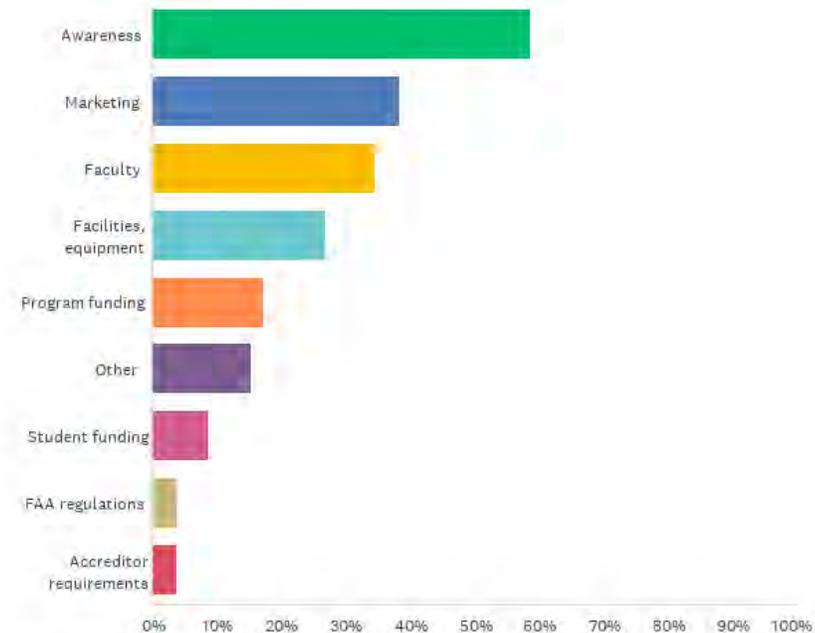
- Total population of mechanic certificates: 320,000
- New mechanics in 2022: 7,119 (2.75% increase over last year)
- **Sixty seven percent** of new mechanics come through A&P school. **Fourteen percent** obtain certification based on military experience and **nineteen percent** from civilian work experience.
- A&P enrollment is **21,156**. Year-over-year growth is **1.9 percent a year**, well short of the **21 percent annual increase** needed to meet projected needs for the commercial market alone.



Challenges

- The national student load factor—that is, the number of available AMTS seats vs. enrollment—is 56.
- **Insufficient career and program awareness and lack of effective marketing are cited as the top barriers to increasing A&P program enrollment.**
- High school partner programs are one of the best feeders for FAA-certificated maintenance schools, but they are not common given the high costs associated with necessary facility, equipment, and materials.

Q6 What are the most significant barriers to increasing enrollment at your A&P program? (Check all that apply.)



Sequence of Courses

This modular content facilitates a flexible approach to meet a wide-range of schedule and program needs. For example, the approximately 500 hours of content can be delivered in a full-time, 12-week program for adult learners, or as an elective in the 11th and 12th grade year of high school.

The following courses make up the entire suite of aviation maintenance curriculum. We have provided a suggested order for completion below.

- 01 FAA-ACS-AM-IF-GOS **Safety, Ground Operation, and Servicing**
- 02 FAA-ACS-AM-IK-HTM **Hand Tools and Measuring Devices**
- 03 FAA-ACS-AM-IC-WAB **Weight and Balance**
- 04 FAA-ACS-AM-IH-MAT **Mathematics**
- 05 FAA-ACS-AM-IJ-PFA **Physics for Aviation**
- 06 FAA-ACS-AM-II-MIR **Maintenance and Inspection Regulations**
- 07 FAA-ACS-AM-IB-ACD **Aircraft Drawing**
- 08 FAA-ACS-AM-IA-FEE **Fundamentals of AC Electricity**
- 09 FAA-ACS-AM-IA-FEE **Fundamentals of DC Electricity**
- 10 FAA-ACS-AM-ID-FLF **Fluid Lines and Fittings**
- 11 FAA-ACS-AM-IE-MHP **Materials, Hardware, and Processes**
- 12 FAA-ACS-AM-IG-CCC **Cleaning and Corrosion Control**

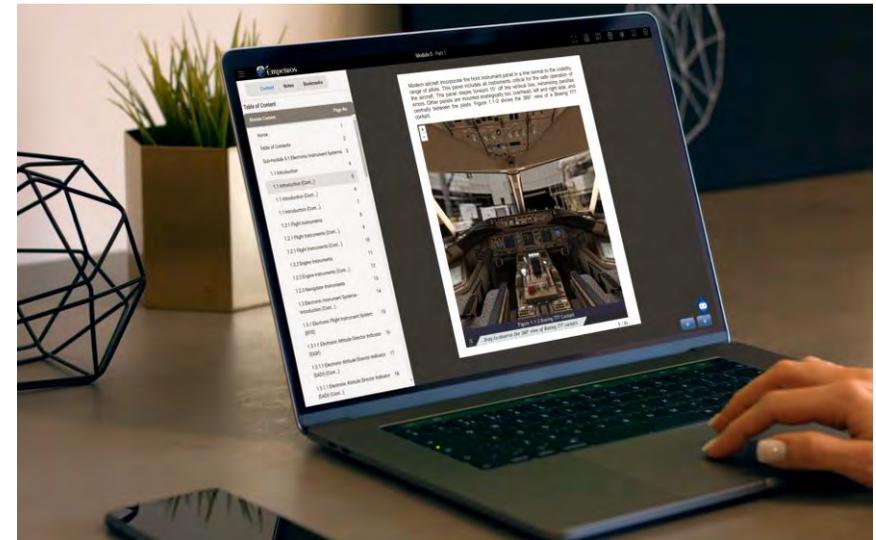
Maintenance Curriculum

- Created to make aviation technical content more accessible and build pipelines into part 147 schools.
- Developed by Clemson University Center for Workforce Development and ARCS Aviation in partnership with Choose Aerospace, ATEC, and Advisory Committee.
- Five hundred hours of content covers the general subject areas in the FAA [Mechanic Airman Certification Standards](#) (same as required by part 147).
- Includes computer-based curriculum with hands-on labs and activities in accompanying instructor guides.

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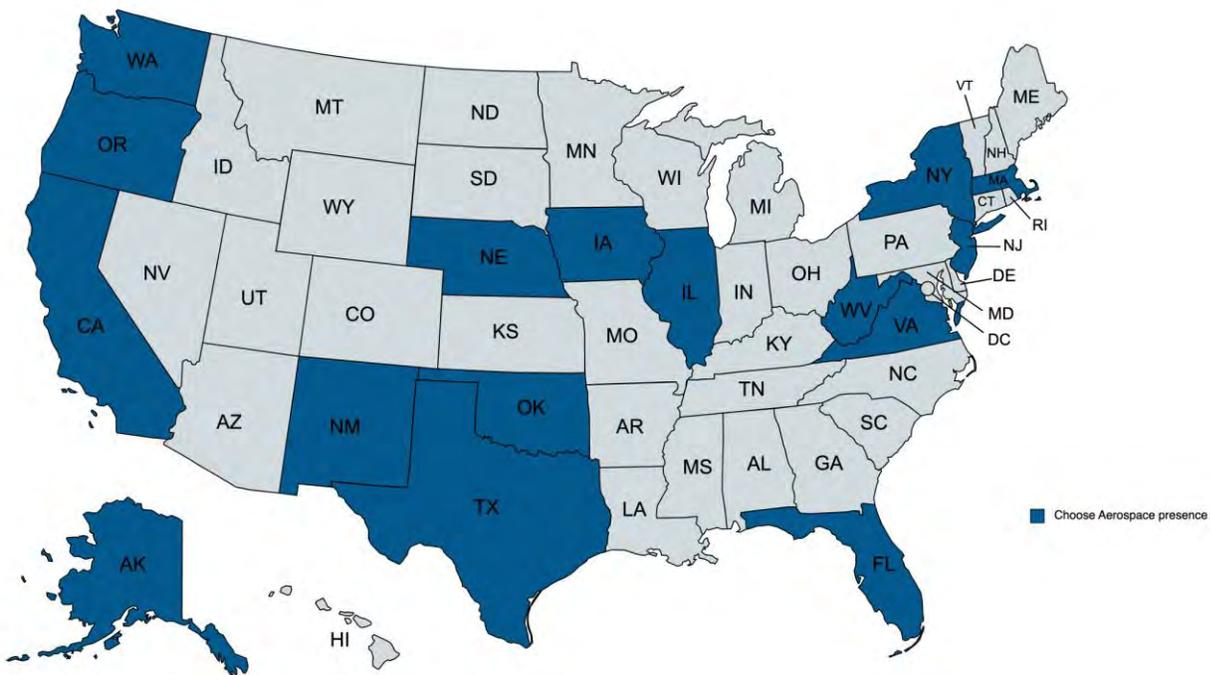
Requirements to Adopt

- Computer and wireless connection
- Recommended that teachers have at least three years experience in a technical-related field, FAA mechanic certification is a plus but not required
- License fees \$200 per student, per year
- Hands-on elements with recommended projects and equipment list





Participating Programs



Created with mapchart.net

	States	Schools	Students
2021-2022 Pilot Test	8	9	140
2022-2023 Academic Year	6	16	203
2023-2024 Academic Year (applied)	10	20	592
2027 Goal	--	--	10,000

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Participating Programs

Ada City Schools, Ada OK
Alabama Aerospace & Aviation High School, Bessemer AL
Broken Arrow Public Schools, Broken Arrow OK
Butler Tech, Fairfield OH
Cape Cod Community College, West Barnstable MA
Chelsea High School, Chelsea OK
Des Moines Public Schools, Des Moines IA
Goddard High School, Roswell NM
Grand Island SH, Grand Island NE
Liberty High School, Hillsboro OR
Marion High School, Marion IL
McKinney North High School, McKinney TX
Moore Public Schools, Moore OK
Okmulgee High School, Okmulgee OK
Polaris Career Center, Middleburg Heights OH
Putnam City Schools, Oklahoma City OK
Rising Aviation High School, Addison TX
Shenandoah Valley Governor's School, Fishersville VA
Southern Tech, Ardmore OK
Southwest Technology Center, Altus OK
Tulsa Public Schools - East Central High School, Tulsa OK
US Aviation Academy, Denton TX
Vienna High School, Vienna IL
Wayne County Schools, Huntington WV
West Michigan Aviation Academy, Grand Rapids MI
Western Heights Public Schools, Oklahoma City OK
Yukon Public Schools, Yukon OK



The Vision: Matriculation

- Students that come away with the ATEC credential have demonstrated knowledge of the general subject areas in the FAA mechanic airman certification standards
- FAA certificated programs transfer in credit for previous instruction (under their accredited system)
- Choose Aerospace students receive credit for the general subject areas, go right into airframe and powerplant



Program Development

- Define multiple pathways to certification
 - Matriculate into A&P schools
 - Go direct to work as a non-certificated technician
 - Feed into apprenticeship program
- Facilitate adoption
 - Create credential for high school student graduates
 - Expand opportunities to matriculate into A&P school
 - Advocate for earlier opportunity to test
- Remove barriers
 - Funding
 - Training

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Questions?

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