



**FAA Reauthorization: Examining the Current and Future Challenges Facing the
Aerospace Workforce**

Testimony for the House Aviation Subcommittee

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Members of the Subcommittee on Aviation, thank you so much for allowing me to speak to this esteemed group. I am honored to be part of this panel of engaged leaders who are working to provide incredible opportunities to the next generation of the aviation and aerospace workforce.

I come here today to offer two perspectives. The first is as the Chair of the Youth Access to American Jobs in Aviation Task Force (YIATF), a group of 21 members charged by Congress to look at how we provide a growing workforce pipeline to the aviation and aerospace industry. Our Task Force developed 21 recommendations to help move our country forward in addressing this challenge which we will face for the next two decades. The second perspective that I bring to you today is as the president and chief executive officer of Vaughn College of Aeronautics and Technology, a private, non-profit, Minority-Serving Institution located directly across the street from LaGuardia Airport. We offer master's, bachelor's and associate degrees as well as certificate programs in all aspects of aviation. We are a unique institution in that we offer a variety of entry points into the industry from a 16-month aviation maintenance training program and associate degrees that provide a pathway to air traffic control to an engineering degree that is coveted by aerospace companies seeking automation manufacturing expertise and a graduate degree in aviation management.

As you know, we face an unprecedented need for maintenance technicians and pilots for the next 20 years, according to Boeing and Airbus forecasts as well as engineers, air traffic controllers and airport managers. Right now, the United States is not producing enough qualified talent to meet the demand, which is why we must expand the existing pipeline to include opportunities for underserved populations especially minorities and women who have not been exposed to these fields. Prospective students and their families want to know that aviation is a high-tech, in-demand field with well-paying jobs and a solid career outlook.

The Task Force, comprised of individuals from industry, non-profits, trade associations, and educators completed their work this past fall and provided a roadmap for implementation with a set of actionable items using documented best practices and initiatives designed specifically to open pathways for underrepresented and underserved groups. The Task Force determined four key areas where industry, education, youth-serving organizations and the federal government can work together to build the workforce pipeline. The areas include:

- Early Awareness and Engagement
- Building a One-Stop Shop of Information on the Web
- Collaborating to Create a Connected Pathway
- Funding the Opportunity

The overwhelming evidence pointed to the ready solution to our talent shortfall lies in young people from currently underrepresented groups who are unaware of the jobs available in this sector and the transformational opportunities they represent. For too long, this industry has been an unknown opportunity for these communities, including rural communities. Building awareness, based on our research, needs to begin at roughly at the age of 10 when students are exploring their passions and their interests are formed. Creating greater awareness at the middle and elementary school levels can lead to greater engagement at the high school level. Key to this effort is creating a one-stop shop website that could be coordinated by the proposed legislation for the National Center for the Advancement of

Aviation Act. This website would act as a resource for students and families in finding out about organizations in that region to support interest, information about all of the career options available, the options for training and education as well as a resource for scholarships and other funding resources.

The other critical age, we learned, is 18 when students and families are making training and education decisions and the pathway to a transformational future needs to be clearly defined and communicated.

By building the awareness early, and providing role models who look like the students from unrepresented communities that we want to reach, we can increase the long-term engagement level, create a sense of belonging and lead young people to enroll in collegiate and technical training programs. Finally, we must make the pathway affordable so that students from low socioeconomic backgrounds can pursue the needed credentials to join the industry, whether aviation maintenance, flight or engineering.

After awareness of aviation, the single largest hurdle for young people to join the industry is funding. Among the seven recommendations made by the task force are: decreasing the cost of flight training by increasing the allowable simulator time for pilot certification; increasing the maximum Pell Grant for students; developing a national aviation scholarship program with specific criteria and approved programs; increasing donations to aerospace education programs by increasing corporate tax benefits; increasing the current FAA Workforce Grant Program from \$10 million to \$50 million as well as increasing funds to support the FAA's oversight of that program; and leveraging the FAA's regulatory oversight to lower costs by updating its personnel and certification standards.

The Task Force also made a recommendation for a longer-term multifaceted aerospace workforce development program to provide sustainable funding to nonprofit organizations and institutions so they can spend more time serving students and less time looking for funding. This program, along with other recommendations, is one of several that would require Congressional action. (Greater details for these can be found in the report which is available at:

https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/5703

We believe the connective tissue that links these recommendations together is the need to communicate at the regional and national level. We suggest a model, based on the nine regions of the FAA, that allows for better understanding of the aviation and aerospace needs of every sector of this country and a way to share our successes. The suggested Regional Advisory Councils would collaborate on pathways, best practices, resources and more with a representative from each regional council forming a National Advisory Council that would monitor efforts, share success from around the country and design metrics for success. Ideally, these Councils would be managed and coordinated by the FAA's Aviation and Space Education Office regional coordinators.

Without continuing this conversation beyond the Task Force, we will not make the progress we need to shape the workforce pipeline. That ability to work together was also identified by the Task Force at the federal level as well—we encourage the FAA to seek out partnerships with the Department of Labor (DOL), the Department of Education (DOE) and others to facilitate communication and alignment of national priorities that shape training and certification pathways. Two examples include: 1. Offer Job Corps training through a partnership between the FAA and DOL. 2. The FAA could collaborate with DOE on the various career readiness platforms available to high school students in a public-private partnership to provide the free flow of information about the myriad of job opportunities in aviation and the pathway to those options (more potential partnerships are suggested in the Task Force report, see link above).

As an educational institution that serves a primarily underserved and underrepresented population, Vaughn College understands firsthand the challenges that students from under resourced communities.

Founded in 1932, we offer master's, bachelor's, associate degrees and certificate programs in all aspects of aviation including flight, aviation maintenance, air traffic control (Vaughn is an FAA-approved Air Traffic-Collegiate Training Institute), flight dispatch, as well as engineering, airport/airline management and other technologies. We serve a population of about 1,200 students (500 students in aviation maintenance, 400 students in flight and airport/airline management and about 300 in engineering and engineering technology); 80 percent are from underrepresented backgrounds and most are first-generation Americans and first-generation college students. In our most recent incoming first-year class, 21 percent were women.

Our students are among the neediest. The average family income for a Vaughn aviation maintenance student is about \$34,000 and for all other programs it is about \$42,000. On average an aviation maintenance student has 55% gap between the cost of tuition and the financial aid available and for all other Vaughn degree programs the gap is 48%. In a recent survey of our students' financial circumstances, 72% worry about having enough money to pay for school and 20% ran out of money six or more times in the past year. In addition, 32% reported housing insecurity and 28% had very low food security with 40% working more than 40 hours per week.

For our flight students, the cost of flight training is an additional \$75,000 to \$85,000 on top of tuition. Many of our families do not qualify for a PLUS loan (the traditional loan offered to parents of students) because of their credit scores or lack of credit and must turn to the alternative loan market where the interest rates are much higher. Doubling Pell would provide the financial support that our students need to achieve their goals and get them to the industry. Congress should also consider the Flight Education

Access Act, which would significantly increase the subsidized and unsubsidized loan limits. This would allow families to carry the debt with a competitive interest rate, and given the fact that new graduates must still complete hundreds of hours of flight time as Certified Flight Instructors at an hourly pay rate of less than \$30 an hour, an income-based repayment option through the federal government would allow that student to afford those loan payments while also covering basic needs.

When students graduate the outcomes are exceptional: Within one year of graduation 92% of those students are employed or continuing their education (prior to the pandemic we were at 99%; 76% in their field. For graduates who pursue an aviation maintenance degree or certification, those skills are also transferable to a variety of fields including other forms of transportation, offshore and onshore wind, public utilities and manufacturing.

In a 2017 study done by the Equality of Opportunity Project published in the New York Times (that has not been replicated), examined more than 2,100 institutions that were the best at moving students from the bottom 40 percent in income to the top and Vaughn was number one in the country. That is the evidence of the transformation possible with a Vaughn education, and by extension an aviation education, and we not only change that student's life we change the whole family's trajectory. In addition, in a study by Georgetown University's Center on Education and the Workforce in 2020, Vaughn ranked in the top 4% of colleges where low-income students get the highest return on investment. As a result of this overwhelming evidence, we made a strategic decision to offer our full-time bachelor of science and associate in aviation maintenance students the *Vaughn Guarantee*—if they remain enrolled full-time during their studies and meet regularly with our career services office and are not employed within one year we will pay their federal loans for one year. Our students and families are primarily concerned with affordability and the assurance of a career path, and this Guarantee is a declaration that Vaughn considers this a true partnership for student success.

Queens is incredibly fortunate to have an aviation ecosystem that could act as a model for other major metropolitan areas. That ecosystem includes education partners like Aviation High School who we support with “Bridge to College” programs, partnering on Women in Aviation Events, scholarships and more. Between these two institutions, we are one of the largest producers of technicians to industry. Our other outstanding partners include the Port Authority of New York and New Jersey, Delta, Endeavor, Republic, JetBlue, United and the Cradle of Aviation Museum, among others, to provide a clear career pathway.

At Vaughn, we host the Scouting community with interactive workshops, have developed a math program with a local middle school that provides a pathway to high school and then Vaughn, our students offer demonstrations at museums like the Cradle of Aviation, and we host awareness events in cooperation with JetBlue and United at the New York Hall of Science, as well as send Vaughn students to participate in a variety of secondary school events. These programs create the early awareness needed to draw individuals traditionally not well represented in the industry.

Congress could do more to support Minority-Serving Institutions specially with grants for simulation equipment, curriculum development and faculty like the options available through the Department of Education with Title V and Title III grants (of which Vaughn recently was awarded for \$3 million over the next five years to invest in our facilities, faculty and program in aviation maintenance).

Vaughn’s 90 years of expertise in aviation education provides us with a unique vantage point and a legacy of students who fuel one of this nation’s leading economic drivers, and the horizon while it looks incredibly bright will only become more challenging with advanced air mobility and uncrewed aerial vehicles. All the current workforce demands do not even factor in the maintenance technicians, pilots,

airport managers and engineers needed for these burgeoning fields. To meet the need for a qualified and well-trained workforce we must create awareness in communities that can be the greatest contributors to the aviation industry by providing early awareness, access to a connected pathway, easy access to more information about the variety of pathways via the web, and an affordable way to achieve the dream of a fulfilling career that provides the American dream. Aviation and aerospace are and can continue to be that for more Americans if we have the willingness and the commitment to invest now in building a pipeline that supplies the workforce for the future.