



**STATEMENT OF THE
NATIONAL BUSINESS AVIATION ASSOCIATION**

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**BEFORE
THE UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
AVIATION SUBCOMMITTEE**

REGARDING

**“FAA REAUTHORIZATION: “ELIMINATING BOTTLENECKS: EXAMINING
OPPORTUNITIES TO RECRUIT, RETAIN, AND ENGAGE AVIATION
TALENT”**

JULY 10, 2024

Chairman Graves, Ranking Member Cohen, and Members of the Transportation and Infrastructure Aviation Subcommittee, thank you for holding this hearing to address the importance of recruiting, retaining and engaging aviation talent. On behalf of the National Business Aviation Association's (NBAA's) 11,000-member companies, I am honored to testify at this hearing.

My name is Jo Damato and I am the Senior Vice President, Education, Training and Workforce Development at NBAA where I have been employed since 2001.

NBAA's members, many of which are small businesses, rely on general aviation (GA) aircraft to meet some portion of their transportation needs. These aircraft provide connectivity to communities in nearly every congressional district, many of which do not receive airline service. While those airlines serve only around 500 airports, business aviation can reach 5,000 airports, located in places some people have never heard of. This unique American idea of connecting each other—no matter where we live and work—supports 1.2 million American jobs and \$247 billion in economic output.

GA is where aviation was born, and it's the point of entry for many in the larger aviation community, from the pilot's first hours of flight to the mechanic's first oil change. A healthy and vibrant general aviation community is central to a successful and productive national aviation industry, with workforce as a critical foundation. NBAA and the business aviation community greatly appreciate the opportunity to contribute to the discussion on eliminating bottlenecks and examining the opportunities to recruit, retain, and engage aviation talent.

As the Subcommittee knows, aviation needs a dynamic, diverse and engaged workforce to help it continue to thrive in our country. There is a demand for qualified and trained professionals in nearly every aspect of the aviation industry, especially a need for FAA-certified pilots and aircraft mechanics. Despite the high demand for these professionals, multiple challenges exist for these new entrants to embark on an aviation career path. These challenges include a lack of awareness that these careers exist, lack of information on how to proceed once awareness is established, lack of regional and national collaboration among all stakeholders and the financial barrier to afford the training needed to achieve the career goals. In addition to these challenges, the biggest barrier to recruit and retain women in aviation is a culture barrier keeping women from feeling like they belong in aviation.

Thanks to the leadership of Chairman Graves, Ranking Member Cohen, and full Committee Chairman Sam Graves and Ranking Member Rick Larsen, as well as the leadership of the Senate Committee on Commerce, Science, and Transportation, the United States Congress enacted the FAA Reauthorization Act of 2024 a strong, bipartisan five-year authorization that ensures that America will continue to lead the world in aviation safety, security, sustainability, innovation,

workforce development and investment in airports and other critical infrastructure. Notably, the law includes the first-ever general aviation (GA) title, recognizing the importance of GA to the larger aviation community.

In the area of workforce, the FAA Reauthorization Act of 2024 will help remove barriers for those seeking aviation careers while expanding the aviation workforce pipeline and improving training standards. It strengthens critical aviation workforce development grants established in the 2018 Reauthorization law that have been successful in enabling the training of more pilots and aviation maintenance technical workers, and expands the grants to manufacturing technical workers.

The law also mandates that the FAA implement key strategic recommendations from the Women in Aviation Advisory Board (WIAAB) and the Youth Access to American Jobs in Aviation Task Force (Youth Task Force), two independent groups established under the FAA Reauthorization Act of 2018 to address the significant underrepresentation of women in aviation and facilitate and encourage students to pursue studies and careers in aviation and aerospace. The dedicated focus of these two groups yielded groundbreaking insights into the aviation workforce challenges and provided over 70 recommendations for consideration of lawmakers, many of which are reflected in the FAA Reauthorization Act of 2024. If implemented effectively, these provisions should move aviation forward in ways that have not been possible in recent decades.

These groups included 50 nominated representatives from all aspects of the aviation ecosystem including general aviation, airlines, aerospace companies, member associations, non-profit organizations, United States military, and school administrators and academia representing multiple levels of education including higher education and trade schools as well as subject matter experts from the FAA STEM Aviation & Space Education Program (AVSED).

The Women in Aviation Advisory Board, chaired by Dr. Heather Wilson, former Secretary of the Air Force, was tasked to develop strategies and recommendations to encourage women and girls to enter the field of aviation through an assessment of existing education, training, mentorship, outreach, and recruitment of women in the aviation industry. After two years of work they not only identified barriers to recruiting and retaining women but also released their final report of 55 recommendations for change to mitigate these barriers. This report was submitted in March 2022 to Industry, FAA, DOT and Congress.

The Youth Access to American Jobs in Aviation Task Force, chaired by Dr. Sharon DeVivo, President & Chief Executive Officer, Vaughn College, was tasked to develop and provide independent recommendations and strategies to facilitate and encourage high school students in the United States to enroll in and complete career and technical education courses, including science, technology, engineering, and mathematics (STEM), to prepare them to pursue a course

of study related to an aviation career at an institution of higher education, a community college, or trade school; to facilitate and encourage these students to enroll in a course of study related to an aviation career, including aviation manufacturing, engineering and maintenance, at an institution of higher education, including a community college or trade school; and to identify and develop pathways for students to secure registered apprenticeships. The Youth Task Force submitted their final report of 21 recommendations to Industry, FAA, DOT, and Congress in September 2022.

Both groups independently met with this subcommittee in November 2022 following their submissions. They each provided a brief summary focused on their recommendations that required Congressional action as it related to FAA Reauthorization. Many of those recommendations have been reflected in the FAA Reauthorization Act of 2024.

While the two groups operated independently, many of the members were known to each other through other industry work. There was a warm and steady exchange between the two groups over the two years of their individual charters. They identified similar challenges and made similar recommendations. Their final reports have many overlapping recommendations. Of the 55 recommendations of the WAIAB and the 21 recommendations from the Youth Task Force, 14 of them were aligned in the same four areas: lack of awareness that these careers exist, lack of information on how to proceed once awareness is established, lack of regional and national collaboration among all stakeholders and the financial barrier to afford the training needed to achieve the career goals. As previously stated, lack of an inclusive culture was also identified as the biggest barrier to recruiting and retaining women in the aviation workforce.

I personally served on the Youth Task Force and found it to be a worthwhile and rewarding experience. I grew up in South New Jersey and wanted to become a pilot since the age of 8 years old. No one in my family was connected to aviation. My three older brothers played multiple sports but I was more interested in airplanes.

I brought a unique perspective to my participation on the Youth Task Force and collaboration with my colleagues on the Women in Aviation Advisory Board, as someone who wanted to be a pilot and who's high school guidance counselor did not know how to advise her on a career path. Her only guidance to me was to tell me I had to apply to aeronautical engineering programs and that maybe I could keep flying at a local airport near a college campus. Her other suggestion was the military. My learning about the existence of 4-year collegiate aviation programs was only through a chance meeting with a recent graduate from one of those programs. That single conversation instantly changed the trajectory of my education and my career. Unfortunately, this exact example still happens all the time. If a young person is intrigued about pursuing an aviation career they often find that the authority figures in their lives - parents, guardians, teachers and counselors - are unable to tell them how to do so and are themselves unsure of where to find

more information. We must change this. It is not acceptable that this is still an issue more than 30 years from when I encountered this personally as a teenager.

My service and connection to the Task Force and WAIAB further connected with me as a sixteen-year-old high schooler who was the only teenager and the only young woman learning to fly at my local airport where I was not permitted access to all of the flight school's airplanes because of my gender. One of the owners of one of the 3 airplanes available to students was adamant that a female not use his airplane. Competing for access with the other two aircraft in my limited daylight time after school or on weekends made it difficult for my flight training to progress as fast as it could have. I was still able to take my first solo flight at age 16 and I did earn my rating at age 17 before I left for college but it came down to less than a week between earning my rating and leaving for college where having my private pilot rating was a prerequisite to begin my first flight course on campus. Again, this is an example I continue to hear about where young women eager to begin their own flight training find they are unwelcome or marginalized or discriminated against in the flight training environment. This unwelcome culture can serve as a revolving door causing them to discontinue flight training at the student pilot level at an alarming rate compared to their male counterparts. It is unacceptable that this culture continues to exist and that capable and passionate future aviation professionals are not given the opportunity to thrive and make meaningful aviation workforce contributions.

I am proud that I was a young goal-getter from New Jersey who was old enough to fly an airplane on solo cross-country flights at age 16 but was not old enough in NJ to get my drivers license until age 17. It is a bucket list item for many NJ teens who pursue flight training. I'm also a proud mom who, 28 years later, watched my own sixteen year old son solo an airplane at that same general aviation airport in South New Jersey, the Flying W Airport (N14), where I did. I had to drive him to his lessons when he was old enough to take a Piper Warrior on a solo cross-country flight but not to drive himself to or from the airport. It is not lost on me that the only reason he has had this opportunity is because his mother and his father are both in the industry and were not only able to inspire his career path but were also able to help him begin his journey. He has had "see it, be it" examples in front of him his entire life as well as access to resources to begin his aviation journey. Most do not have a friend or family resource to help. In fact, I had the opportunity to speak to a group of economically-disadvantaged high school students about aviation in Camden, NJ which is about 4 miles away from my oldest son's high school. Some of the students were excited to learn about a potential career in aviation but, unlike my son and his classmates, they had no idea that more than one general aviation airport was within a 20-minute drive and that they could take flight lessons. There was no "see it, be it" for them. This too is something that our recommendations can address.

Today, in 2024, my work in aviation workforce development has entirely crossed over to my being a parent raising two aviation teens. My oldest son is currently working on his commercial

certificate in a four-year aviation university pursuing an aviation bachelor's degree. My other son, enrolled in a Career and Technical Education high school for automotive technology, has been exploring the best training for him after high school to pursue becoming an aircraft technician. This summer he will be a camp counselor at the same local aviation summer camp he and his older brother have attended off and on for the last decade. AEROSPACE4KIDS.COM, LLC, started as a Rutgers Cooperative Extension, 4-H Youth Development program. Based in Somerset County, N.J, the original program called "Blue Sky Below my Feet," focused on aviation education, and was offered to area schools as a 45-minute hands-on program. The program was so successful that it went from being offered as a Saturday event into a week long, hands on, summer aviation camp. The camp ends with an Experimental Aircraft Association (EAA) Young Eagles program where the students each get an opportunity to fly in a general aviation airplane. This is a terrific example of attracting and engaging young people to aviation through STEM and fun. It is also a great example of using collaborative resources to create something local like this camp and connect it nationally to an association like EAA. There are so many examples like this and we just need to create the connective tissue for them to exist and complement each other to create a real aviation workforce pipeline instead of small experiences that don't connect to a potential career path.

While I always have my mom hat on for my own kids, throughout my career in aviation, I have also encouraged many students to begin their own aviation journey. It is a dream come true for me to lead workforce and professional efforts at NBAA where I get to collaborate with teams and work with them to design professional development activities that attract, develop and retain industry professionals every day.

Building the Workforce of the Future

Many recommendations from the WAIAB and the Youth Task Force were recognized for their importance and have been reflected in the FAA Reauthorization Act of 2024. As a member of the Task Force, my colleagues and I often discussed our excitement around the work we were doing and the impact the recommendations could have on recruiting, retaining and engaging aviation talent. We also discussed our fear that our hard work might get forgotten and that the Task Force might sunset without an understanding of recommendation adoption, implementation and oversight. We are thankful that the importance of our recommendations were recognized through this bipartisan legislation and that there is an opportunity through this testimony to emphasize their value. I submit that the original recommendation categories created in the Youth Task Force report are the areas to emphasize in addition to the culture barrier identified as the largest barrier to attracting and retaining women in aviation.

1. Early Awareness and Engagement

Engagement with young people needs to start early.

The FAA Reauthorization Act of 2024 SEC. 423 states that not later than 2 years after the date of enactment of this Act, the Secretary, acting through the Administrator, shall submit to the appropriate committees of Congress a report on the implementation of the following recommendations of the Youth Access to American Jobs in Aviation Task Force of the FAA established under section 602 of the FAA Reauthorization Act of 2018 (Public Law 115–254) including this recommendation:

“Collaboration across regions of the FAA on outreach and workforce development programs.”

The FAA can be the connective tissue to bring together all stakeholders to create early awareness opportunities. The office already exists as the FAA STEM Aviation and Space Education program or STEM AVSED. It was created in the 1960’s with the program mission is to “inspire youth from diverse backgrounds to pursue aerospace careers and create a consistent pipeline of professionals for a robust workforce of the future.”

The FAA’s STEM AVSED program has 9 offices focused on educational outreach around the United States to provide support for aerospace-based STEM programs and to connect stakeholders and educators. There is a Regional Program Analyst (RPA) in each region to manage this.

The Youth Task Force recognizing the existence of the office and talent and passion for aviation workforce development among the RPAs, made these recommendations to Congress to expand the reach and effectiveness of FAA AVSED.

Specifically, they encouraged “the FAA’s AVSED office to develop a standardized curriculum that could be used by aviation and aerospace professionals to incentivize young people to consider aviation and aerospace as a potential career.”

Examples cited by both groups for how to address early awareness through AVSED included:

- developing easy-to-implement aviation and aerospace activities for after school programming
- establishing professional development opportunities and aviation/aerospace teaching “academies” for educators in K-12 with the goal of enhancing a teacher's knowledge of aviation/aerospace careers and pathways; a “train-the-teacher” concept.

The recommendation intent is for FAA AVSED to identify standards as well as the learning outcomes that programs can work toward.

The Youth Task Force report also called upon FAA AVSED to manage and coordinate regional advisory councils to be “conveners of like-minded individuals and organizations across the nine regions of the United States to share information about best practices, solicit data from students, caregivers and educators about what they need, as well as create responsive systems (e.g., adding information to the national website, creating greater opportunities to visit aircraft manufacturers or fly a drone etc.)”

2. Information Access

There is a need for easy-to-access resources where caregivers, teachers, guidance counselors and youth can find out more information and connect to local resources.

The FAA Reauthorization Act of 2024 SEC. 423 states that not later than 2 years after the date of enactment of this Act, the Secretary, acting through the Administrator, shall submit to the appropriate committees of Congress a report on the implementation of the following recommendations of the Youth Access to American Jobs in Aviation Task Force of the FAA established under section 602 of the FAA Reauthorization Act of 2018 (Public Law 115–254) including this recommendation:

“Improve information access about careers in aviation and aerospace.”

Awareness of an aviation career path can create a desire to learn more but it means nothing if the individual cannot gain the knowledge or ability to do so. Both the Youth Task Force and the Women in Aviation Advisory Board recommended a “one-stop shop” national website as the destination and central source of information on pursuing a career in aviation. We currently lack this universal destination to help a caregiver, teacher, guidance counselor, a young person or anyone else trying to help that individual to get started once they gain awareness that an aviation career is possible.

Lacking this universal destination, many organizations have been going about this themselves. Their enthusiasm and intent are well-placed. Everyone wants to be a partner in promoting aviation careers and sharing scholarships, mentorship opportunities, education initiatives and more. However, all of these sites may be just drops in the ocean versus creating one place for national awareness. If you are fortunate enough to know about them they can be very helpful but likely each of these independent sites offers only some pieces of information and not the comprehensive information that is needed. They can be expensive to build and maintain to retain their effectiveness and require a consistent campaign to continue to bring awareness to their existence.

Many of us have had a friend or neighbor who has asked us for help for their young person who might have an interest in an aviation career. We all have that in common. And we all give different answers. Our answers are not wrong but they typically lack structure and direction beyond our own experience or connections. What we need is to be able to all share our unique experiences but to be able to give only one answer for a place to go to for resources that can take that from early interest to their first job in the industry.

Aviation is competing with many other industries to spark interest in young people. We often have only one chance to spark their interest and turn that into desire and engagement for them to want to learn more. We need one simple URL that anyone in this industry can easily remember and share and that is also easy for someone not in this industry to remember after their interest is sparked.

A great example from another industry is the BuildSubmarines.com campaign. In March 2024, BlueForge Alliance, the non-profit integration partner of the U.S. Navy and its Submarine Industrial Base, announced a “new multi-year partnership with Major and Minor League Baseball designed to recruit skilled workers across the country. As an Official Partner of MLB and MiLB, BFA will expand their reach and engagement to promote BuildSubmarines.com, a platform in partnership with the Navy for attracting, recruiting, and training the more than 10,000 manufacturing workers per year over the next decade needed to build and maintain the United States Navy’s next generation submarines. The partnership begins with the launch of MLB Opening Day Pick ‘Em game presented by BuildSubmarines.com. The BuildSubmarines.com platform will be featured across a number of MLB Jewel Events throughout the season, including MLB All-Star Week, the MLB Postseason, the World Series presented by Capital One, and presenting partnership of Opening Day. The partnership will also include BuildSubmarines.com promotion across 40 Minor League ballparks.”

This is exactly the type of exposure that aviation needs to find the pilots, mechanics, air traffic controllers and other skilled workers to help this industry create a steady pipeline of newly qualified personnel to replace those who have left or will soon leave the industry.

Again, FAA AVSED has a webpage that has the foundation to potentially become this universal destination. What they need is a partner in the same way that BlueForge Alliance has partnered with the US Navy to create the campaign and the destination for the entire industry to support and contribute. The Youth Task Force report recommended utilizing “current FAA AVSED group and their expertise as subject matter experts for the site and its contents - calling up on other expertise as needed.” The regional advisory

councils mentioned earlier will be integral to providing content oversight, particularly as it pertains to their region and to keep the site up to date.

3. Collaboration

Create a connected career pathway that draws students into aviation and aerospace among all of the amazing programs across the United States

The FAA Reauthorization Act of 2024 SEC. 441 calls for a ***“National Strategic Plan for Aviation Workforce Development”*** and states not later than September 30, 2025, the Secretary of Transportation shall, in consultation with other Federal agencies and the Cooperative Aviation Recruitment, Enrichment, and Employment Readiness Council (in this section referred to as the ‘CAREER Council’) established in subsection (c), establish and ***maintain a national strategic plan to improve recruitment, hiring, and retention and address projected challenges in the civil aviation workforce and that The CAREER Council shall be appointed by the Secretary from candidates nominated by national associations representing various sectors of the aviation industry.***

A national strategic plan to improve recruitment, hiring and retention created by members of the national aviation associations addressing workforce challenges can be the key to progress.

This goes in hand with promoting awareness of careers and sharing information about how to achieve them. They need a strategy and stakeholder guidance to ensure they are effective.

Both the Women in Aviation Advisory Board and the Youth Task Force were populated with many national association professionals passionate about recruiting, retaining and engaging aviation talent.

There are many examples of national aviation associations that have their own workforce initiatives. All of these programs are admirable. Their missions to engage youth and aspiring young professionals in aviation are similar but their programs are unique. Together with the FAA and other partners they have the potential to create an entire journey for an individual The following examples highlight individual efforts to create, attract, retain and engage aviation talent from the age of Kindergarten through high school, trade school and/or college and university graduation to the workplace.

The Experimental Aviation Association's Young Eagles program, launched in 1992, has EAA member volunteers giving free introductory flights to youth ages 8-17. This program has reached over 2.3 million young people. Youth can also participate in the Young Eagles Flight Plan after they take their first flight. An EAA student membership is available FREE of charge to any young person aged 8-18 who has completed a Young Eagles flight. This then gives them access to free online private pilot ground school (\$299 value), qualification for a free first flight lesson at a flight school of their choice (\$160 value) and EAA will even reimburse the student for the exam fee after they pass the FAA Knowledge Exam (\$175 value).

In 2024, Women in Aviation International (WAI) will celebrate the 10th anniversary of their Annual Girls in Aviation Day. Girls in Aviation Day is part of a multi-faceted international youth STEM education program designed by WAI to inspire girls to pursue careers in aviation and aerospace. The program, called Aviation for Girls, includes GIAD events, as well as free Junior membership to youth 18 years old and younger. Two annual issues of Aviation for Girls are published and distributed worldwide as well as included on the Aviation for Girls app. The free AFG app also includes monthly webinars focused on aviation STEM education activities and more. In 2023, through unique local events hosted by WAI chapters and corporate members, the number of GIAD participants nearly doubled to over 30,000 compared with 16,000 attendees at GIAD 2022. The number of countries where events were held grew to 31 countries versus 19 countries in 2022. The number of events also increased to 168 events compared with over 120 in 2022.

The Organization of Black Aerospace Professionals (OBAP) Project Aerospace offers annual opportunities to inform and prepare aspiring aerospace professionals for their future careers. One of these programs, Aerospace Career Education (ACE) Academy, provides middle and high school youth with exposure to opportunities in aerospace through week-long summer academies. Endorsed by the Federal Aviation Administration (FAA), OBAP has played a leading role in establishing ACE Academies nationwide to introduce, educate and guide diverse students towards careers in aerospace. ACE Academies are in 38 locations including Honolulu, Puerto Rico, and the U.S. Virgin Islands, three academies in Houston, and two in Louisville. The program engages 1,100 students annually.

The Aircraft Owners and Pilots Association (AOPA) Foundation's You Can Fly program created a High School initiative. Working with professional instructional designers, The AOPA Foundation offers a four-year high school aviation STEM program that falls along two tracks—pilot and unmanned aircraft systems or drones. The program conforms to math and science standards and, in keeping with career and technical education best

practices, leads to a certification or industry-accepted test, such as the FAA Private Pilot knowledge test or a Part 107 drone pilot certification.

The General Aviation Manufacturers Association (GAMA) Aviation Design Challenge is a competition offering U.S. high school students the ability to improve their knowledge of Science, Technology, Engineering and Mathematics (STEM) skills through aviation curriculum. GAMA launched the Aviation Design Challenge in 2013 to help increase the number of young people entering the general aviation field. Each year GAMA sends registered teams, which must have a minimum of four students including one female, complimentary teacher and student copies of Fly to Learn curriculum and software powered by X-Plane. Over the course of six weeks, the students learn about topics such as the four forces of flight, aspect ratio and even advanced subjects such as supersonic flight. They then compete in a fly-off that requires them to modify a virtual airplane and fly a specifically tasked mission. Since establishing the Aviation Design Challenge, GAMA has reached over 1,800 students in over 400 high schools spanning 43 states and Washington, D.C.

The National Business Aviation Association (NBAA) engages with college-aged students already interested in aviation as a career path through our Collegiate Connect program hosted annually at NBAA-BACE, our business aviation convention and exhibition. We connect high-school and college-aged students with industry leaders and emerging leaders from our Young Professionals (YoPro) community to engage with them on careers in nine different categories including pilot and maintenance professionals. A recent partnership with America's oldest professional co-ed aviation fraternity, Alpha Eta Rho, has increased this engagement to their 65 collegiate chapters nationwide. In separate 2024 events, NBAA helped to bring 30 Alpha Eta Rho students and nearly 70 YoPros to meet with their members of Congress. This leadership development is a great example of retention and engagement for our pipeline of industry leaders.

In addition to the above examples, all of these organizations and many more not named offer multiple scholarship opportunities, in-person events to engage the aviation community and to inspire future aviation enthusiasts and professionals, access to mentors, and real-time glimpses into "day in the life" and "see, be it" aviation snapshots through their social media and other media content.

The establishment of a CAREER Council collaboration of FAA and industry workforce experts can be the connective tissue needed to unite multiple offerings into carefully-crafted pipeline journeys for America's youth.

These regional efforts would come together under the national CAREER Council.

4. **Financial Hurdle**

Provide both individual financial support to pursue training and education and create a sustainable funding model for organizations.

The FAA Reauthorization Act of 2024 strengthens critical aviation workforce development grants established in the 2018 Reauthorization law that have been successful in enabling the training of more pilots and aviation maintenance technical workers, and expands the grants to manufacturing technical workers.

SEC. 625. AVIATION WORKFORCE

DEVELOPMENT PROGRAMS states that the Secretary of Transportation shall establish program(s) to “provide grants for eligible projects to support the education and recruitment of: future aircraft pilots and the development of the aircraft pilot workforce; aviation maintenance technical workers and the development of the aviation maintenance workforce; and aviation manufacturing technical workers and aerospace engineers and the development of the aviation manufacturing workforce.”

The 2022 “Breaking Barriers for Women in Aviation” report submitted by the Women in Aviation Board did an excellent job highlighting the economic factors that are barriers to aviation as a career path:

“Although cost is not a gender specific barrier, it is an identified roadblock for women and should be addressed. To date, there is a disconnect between organizations that wish to supply financial support and people seeking support opportunities. Varieties of aid for aviation-related education include grants, foundation scholarship, concurrent enrollment, federal work studies, internships, tuition reimbursement, private loans, institutional aid, state aid, and federal aid... Identifying funding channels that are supported by agencies, government, and industry are crucial to removing barriers to entry and welcoming more talent, including women, to aviation. Although more scholarships and internships for women and better communication of these opportunities is imperative, there is also a shortage and maldistribution of flight schools at state-supported universities where students can take advantage of scholarships, grants, and aid to reduce the out-of-pocket education costs.”

The new legislation does an excellent job highlighting the recommendations from the Women in Aviation Advisory Board in this area emphasizing the need to develop not only pilots and the aviation maintenance workforce but also aviation manufacturing technical workers and aerospace engineers. It further calls for not less than 20% of the

funds allocated to be used for grants as the “Willa Brown Aviation Education Program.” Willa Brown was the first African-American woman to earn her pilot’s rating in the United States. This grant money is to be used for recruitment of populations in economically-disadvantaged geographic areas and rural communities and to strengthen aviation programs at minority-serving institutions.

Also, in line with Youth Task Force recommendations, grant money has also been allocated to bring aviation education to high school and secondary school students in a meaningful way to prepare them for careers as aircraft pilots or uncrewed aircraft systems operators, aviation mechanics and aviation maintenance technicians, or as aviation manufacturing technical workers or aerospace engineers and to also establish or improve registered apprenticeship, internship or scholarship programs.

The Youth Task Force reported that “programs should begin in high school whenever possible to close the gap between exposure to a career and full training leading to certification.”

5. Culture Barrier

At the conclusion of her appointment as Chair of the Women in Aviation Advisory Board, Dr. Heather Wilson wrote, *“The biggest barrier that discourages women from entering and staying in aviation careers is culture - and it is the hardest to change. Women don’t feel like they belong. Changing culture requires consistent leadership commitment over time in thousands of large and small actions across government and industry.”*

As a woman in aviation since I took my first flight over 30 years ago at age 15, I am appreciative of the passage of this Act which includes SEC. 403., the establishment of the Bessie Coleman Women in Aviation Advisory Committee no later than 6 months after the date of the Act enactment. This honors the service of the 30 women who participated in the WAIAB from 2020-2022 on behalf of all of the women in aviation. They gave us a voice and now it will continue to be heard.

This creation of this important Committee, named after Bessie Coleman who was the first woman of African American and Native American descent to earn her pilot’s license, shall advise the Secretary and the Administrator on matters and policies related to promoting the recruitment, retention, employment, education, training, career advancement, and well-being of women in the aviation industry and aviation-focused Federal civil service positions.

Data included in the WAIAB report cited that in most aviation occupations, women make up less than 20% of the workforce with only 5% of women as air transport pilots and only 3.6% as captains. This compares to women representing 47% of the total US workforce and 26% of people working in STEM fields globally. It also cited that in the last fifteen years, the percentage of women private pilots and women aviation technicians has shown virtually no change over time.

One of the conclusions reached from the pages of data in the report is that “aviation is failing to access the full range of skills and talent that the industry needs. The continued strength and success of the U.S. aviation industry must not be taken for granted. Aviation faces significant workforce challenges that threaten the industry’s sustainability, profitability, and ability to innovate. Identifying and recruiting talent from underrepresented groups is an obvious and necessary strategy to address workforce needs throughout the industry.”

Dr. Rebecca Lutte, a member of the Women in Aviation Advisory Board, testified to this Subcommittee in July 2021 at a hearing focused on “Bridging the Gap: Improving Diversity and Inclusion in the U.S. Aviation Workforce.” Her testimony included references to her research which cited that women choose aviation careers because they have a passion for aviation, they have a perception that aviation is a fun and adventurous profession, that they have an opportunity to prove personal abilities and a desire for a challenging career.

Her testimony also referenced the factors that negatively impact the recruitment and retention of women in aviation which include:

- Economic factors, including cost of entry - particularly for flight training
- Family and work balance challenges
- The need for additional outreach about career options and pathways
- Lack of women in leadership positions
- Need for leadership commitment to diversity and inclusion
- Navigating the workplace culture including gender bias and sexual harassment

The Women in Aviation Advisory Board report unequivocally stated that Aviation’s culture must become more inclusive; this fundamental point runs through their recommendations. “For women to have an indisputable sense of belonging, the FAA and industry must increase the visibility of women in aviation careers.” The creation of the Bessie Coleman Women in Aviation Advisory Committee is an excellent continuation of

the 2 years of work completed by the Women in Aviation Advisory Board (WIAAB) when it was sunset in 2022 after submitting their recommendations.

By some estimates, we're looking at an astonishing 280,000 new jobs coming online, in twenty-first century positions, meaning those in Science, Technology, Engineering and Mathematics.

According to the Boeing company, more than 600,000 new pilots and technicians are needed to address projected growth in the next 20 years¹. Meeting this projected demand is dependent upon the investment in a steady pipeline of newly qualified personnel to replace those who have left or will soon leave the industry.

While we work to strengthen industry workforce, we also must enhance the FAA workforce. New and emerging technologies will offer more high-skill, high paying jobs people want - and the FAA will need the support of Congress to hire people with the right technical skills to ensure the safe integration of these technologies. Thanks to a provision in the FAA Reauthorization Act of 2024 the DOT Inspector General must conduct an audit of the FAA workforce plan. Following the audit, the DOT IG must assess staffing levels and workforce retention trends, review gaps in safety-critical and senior positions, and review opportunities for FAA employees to expand knowledge and training opportunities to enhance FAA's technical capabilities.

Additionally, the FAA needs the resources to hire and train a strong workforce and modernize the Air Traffic Control System so that our workers are utilizing the best technology in the most state-of-the-art facilities through targeted guaranteed spending from the Airport and Airway Trust Fund (AATF). The FAA Reauthorization Act of 2024 improves air traffic control workforce hiring, training and staffing, requiring the FAA to provide additional information about unfunded ATC system capital investment needs and development of an air traffic control realignment report. To build on these initiatives, the NBAA supports the Biden Administration's request for \$8 billion in mandatory spending to restore its facilities to good condition and make a down payment on a Facility Replacement and Radar Modernization Program required to ensure resilience and safety in the National Airspace System.

¹Pilot and Technician Outlook 2023-2042:
<https://www.boeing.com/commercial/market/pilot-technician-outlook/>

We support the implementation of the Promoting Service in Transportation Act, passed into law through the Infrastructure Investment and Jobs Act (IIJA), and encourage continued funding of the program.

Conclusion

This hearing highlights the importance of recruiting, retaining and engaging aviation talent and the work that must be energized as outlined in the FAA Reauthorization Act of 2024. All stakeholders need to be invested in its success and ready to contribute to solutions that create awareness for aviation careers everywhere in the United States and access to the resources needed to achieve career success through information sharing, collaboration, and removal of financial and cultural barriers. This pipeline is critical to our strength as a nation. NBAA and our members appreciate this Subcommittee's continued leadership, and we welcome the opportunity to testify at this critical hearing.