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**Eric Fanning  
President and Chief Executive Officer  
The Aerospace Industries Association  
House Small Business Subcommittee on Innovation,  
Entrepreneurship, and Workforce Development**

“Moving Upwards and Onwards: The Workforce and Innovation Needs  
of the Aviation and Aerospace Industry.”

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**Introduction**

Chairman Crow, Ranking Member Kim, and members of the committee, thank you for inviting me to appear before the Innovation, Entrepreneurship, and Workforce Subcommittee today. My name is Eric Fanning, and I serve as the President and CEO of the Aerospace Industries Association (AIA). For over 100 years, AIA has advocated for America’s aerospace and defense (A&D) companies and the more than two million men and women who are the backbone of our industry. AIA serves as a bipartisan convener, bringing people together to find consensus on important topics, like effective federal investments and adaptation of policies that enhance our workforce’s skills, diversity, and global competitiveness, empowering our industry and country for the 21st century and beyond.

AIA applauds this committee for its ongoing leadership in listening and learning from A&D industry leaders to act on new and innovative approaches to support and strengthen our industry. An essential part of this effort is rightfully focused on our world-class workforce, which brings unparalleled experience and expertise, as well as tremendous heart, to their work on behalf of America’s military and our aviation transportation system.

Addressing the 21<sup>st</sup> Century workforce needs of the aviation and aerospace industry is vital to our missions, our customers, and our national and economic security. There are several ways AIA would like to work with government leaders and Congress to address these needs. This includes investing in STEM education, reskilling current industry employees for new technologies, enhancing our country’s training efforts to expand talent pools, and increasing diversity and expanding equity and inclusion efforts within the A&D workforce.

**Who We Are**

Today, AIA represents over 300 A&D companies ranging from family-run businesses to multi-national corporations. Our membership includes aircraft and engine manufacturers, and companies that design and build cutting-edge military and dual-use-technology second to none. Our members have a worldwide reputation of global technological leadership, and the A&D

industry represents a dynamic workforce composed of many types of workers. These workers span a wide range of skill sets, from skilled trade technicians to space scientists, engineers to accountants, with many becoming more digitally focused. These jobs not only provide higher than average compensation, but also support their communities and a positive balance of trade for our nation. In 2019, the A&D industry workforce contributed \$17.6 billion in state and local tax revenues and \$46 billion in federal tax revenue.

Small businesses are the lifeblood of our industry. Using just one example, the Boeing Company's supplier network includes 12,000 active suppliers, with more than 6,000 of those being small and diverse businesses. Out of those numbers, approximately 600 are veteran-owned and approximately 850 are women-owned.

### **The Challenges We Face**

The A&D workforce remains the bedrock of our industry's success. At over 2 million strong in 2020, A&D workers represented 1.4% of America's total workforce. Like so many sectors in the U.S., however, the COVID-19 pandemic reshaped our workforce and created unprecedented financial and human resources challenges, impacting the way our companies operate and the lives of our millions of employees and their families.

In 2020 alone, decreasing demand for products (due largely to the reduction in air travel) cost our industry 87,000 jobs, with our workforce shrinking by about 4%. Approximately 64% of these job losses came from the shared aerospace and defense supply chain, comprising thousands of small and medium-sized businesses that provide vital products like bolts, wiring, hoses, and electronics. While the pandemic is receding, our companies and workforce are now faced with historic inflation, which is the cost of personnel, goods, and services. Navigating these dual economic challenges is especially difficult for our small and medium-sized businesses, which identify these factors as a threat to their employee base.

The aging of the aerospace and defense workforce is also a major challenge for our industry. In AIA's most recent workforce survey fielded in 2021, we examined workforce age distribution. This survey found that the percentage of employees over the age of 55 has decreased, albeit gradually, from around 29% to about 26%. This percentage of employees over age 55 is slightly higher when compared to the total U.S. workforce, at 24%. Given this disparity and a projected increase in retirements (some of which were accelerated by the pandemic), it will be imperative to retain and develop the mid-career workforce, while also continuing to attract top talent across the workforce to confirm that A&D companies have employees with the skills needed for future success.

Tapping into the ingenuity, experience, and expertise of diverse teams helped the A&D industry send Americans to the Moon and back, helped protect our country through two world wars, and developed incredible technology like GPS. AIA and our members are committed to strengthening the diversity, equity, and inclusion (DEI) throughout our industry. We do recognize that this is not a problem we can fix by just focusing on our industry alone. Working

across industries is essential to achieving our goal of inclusivity and have access to the best workforce this country has to offer.

### **What We Have Learned**

In Fall 2021, AIA and the American Institute of Aeronautics and Astronautics (AIAA) released their 2021 Aerospace & Defense Workforce Study, conducted in collaboration with Ernst & Young LLP (EY US). The report, which includes analysis from 33 companies representing over 950,000 employees across the globe, outlines efforts in workforce development and diversity, as well as areas of opportunity in which additional progress can be made. Concentrating its analysis on five key topics (reframing the future of work; winning the competition for talent; workforce demographic data; diversity, equity and inclusion; and the future of the workforce), this study underscored the industry's approach of using data-driven insights for workforce planning and the industry's overall commitment to data transparency and talent analytics.

The 2021 Workforce Study analyzed current efforts across the A&D industry and outlined a roadmap for future work and industry growth, including the following key insights:

- **Positive Trends in Employee Demographics** – Although the A&D workforce is less diverse than the overall U.S. labor force, year-over-year trends indicate various key metrics are moving in a positive direction. For example, the representation of women and Black employees at the executive level has increased consistently for the past several years.
- **Innovative Recruiting Efforts to Increase Diversity in Talent Pipelines** – Our companies are investing significant resources into the attraction and recruitment of diverse candidates. From new partnerships with Minority-Serving Institutions (MSIs) to intentional promotion and succession plans that prioritize equity and inclusion, companies are working to address DEI at all levels of business.
- **Reimagining the Future of Work** – The 2021 Workforce Study captured employee sentiment around the nature of work and its impact on employee experience. While COVID-19 reinforced A&D as a critical industry, it also created opportunities for the industry to increase flexibility and offer new solutions for its workforce to increase employee satisfaction, engagement, and belonging.

### **What Can This Committee Do?**

To remain a global technology leader, both industry and government need to put more investment into the search for competitive talent to join the A&D industry. That means looking for non-traditional sources to increase the talent pool, streamlining our processes for attracting and retaining talent, and building our future workforce at earlier stages. As we develop the next generation of world-changing innovations, from autonomous flight to sending humans to Mars, our industry must build on our work to include diverse voices and perspectives at the idea phase, in the board room, and everywhere in between. This committee should evaluate the following policy options:

Congress should expand federal support for apprenticeships and career technical education. There are several programs created at the state and local levels which the Department of Labor (DoL) should consider scaling for the benefit of critical industries, like the A&D industry. These programs expand career pathways for high school graduates alternative to pursuing post-secondary education, as well as opportunities for career transitions. One example of the success of these programs comes from an AIA member, Certified Aviation Services (CAS). CAS launched a unique aviation apprenticeship program at Valley Community College in San Bernardino, California. There, students work on various commercial aircraft projects from sheet metal to building avionics technology and other necessary technical training skills needed to attain an Airframe and Powerplant (A&P) mechanics license. These students also delve into routine and non-routine maintenance on a wide variety of commercial aircraft including 737, 757, and 787 planes. This apprenticeship program allows community college students to develop and grow into high salary careers in the world of large aircraft projects while CAS develops a continuous pipeline of prospective future employees. The success of CAS' innovative program so far allowed them to start expanding the program to community colleges in Alabama and Nevada. With the help of additional federal and state support, successful programs like this one could continue to expand nationwide, creating a diverse next generation talent for the A&D industry.

Congress should explore the establishment of a program where activities conducted by contractors to support STEM education be considered as allowable community service activities for the purposes of determining allowability of cost on a government contract. A great example of such an activity comes from AIA member BAE Systems. BAE partnered with MY TURN, a non-profit organization in New Hampshire that is helping underrepresented youth launch careers in advanced manufacturing through financial assistance, career coaching, and support services. Since the creation of the partnership, more than 40 MY TURN participants have graduated from the Microelectronics Boot Camp at Nashua Community College, a ten-week course that prepares students for entry-level advanced manufacturing roles. Together, these powerful partnerships are making a difference for our business and our community, not only opening doors to meaningful employment opportunities, but also changing lives by developing high caliber, motivated talent in our local communities.

While significant progress has been made in past couple of years, ensuring that employees can obtain security clearances in a timely manner remains a persistent challenge and puts the DIB at a competitive disadvantage in the competition for top talent. Security clearance processing is a historically slow and bureaucratic process, which leads to staffing delays and slowdowns for important national security projects for both industry and our government partners. AIA members know well that the current process to get a security clearance for a new hire can take as long as eighteen months. This causes lengthy delays in project development for current and future defense articles. Additionally, reciprocity, and reinstatement requirements play a large role in these problems, and there are common-sense measures Congress could take to remedy them. Military veterans and DoD civilians are two groups often in the waiting line for clearance

processing, while also often having existing favorably adjudicated clearances. Reforms should be considered to allow these groups to be exempt from certain reciprocity processes when seeking post-service employment.

Congress should also make efforts to reform the Federal Work-Study Program to reach more students from low-income backgrounds, particularly those at community colleges, historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs), and other minority-serving institutions (MSIs). These reforms should include helping students access on- and off-campus work experiences that align with their career path. Improving the overall recruitment and applicant pool of underrepresented minorities applying for government research programs, a process that should include investigating the reason many underrepresented students drop out during the application process and piloting a mentoring effort to increase application success.

Another way Congress can provide immediate help to the A&D industry workforce is by improving access and annual funding for the Federal Aviation Administration (FAA) aviation workforce development grant programs. Funding for current FAA aviation workforce development grant programs does not meet the level of expressed interest the A&D industry has demonstrated in the application processes. The current program was authorized by Congress in Section 625 of the 2018 FAA Reauthorization Act. Congress should increase annual funding for the grant program, as well as expand access for aviation manufacturers beyond pilot and aircraft maintenance training, to ensure America's global leadership in A&D and the ability of the industry's workforce to adapt to new technological environments and develop innovative skills.

Congress should expand current government-industry exchange programs. The relationship between the DoD Acquisition workforce and private-sector acquisition professionals is a critical element of the defense acquisition system. This need is even more pronounced when DOD places reliance on centralized 'cadres' of experts (e.g., the Defense Contract Management Agency's Commercial Items Group (CIG), or various Intellectual Property cadres across DOD) that impact the breadth of DOD acquisitions.

Finally, Congress must address a harmful tax change that went into effect in January 2022 and has significantly impacted America's innovators, in all sectors of our economy, because companies are no longer able to immediately write-off the full value of their investments in R&D. With less private investment in R&D, we risk our workforce lagging behind in the high-tech skills and the expertise to maintain our competitive edge. At a time when we need to stay ahead of the growing competitive threat from China, we must continue to build our world-class A&D workforce, not jeopardize high-paying American jobs at businesses of all sizes while simultaneously constraining domestic investment in strategically critical technologies.

Thank you, and I look forward to your questions.