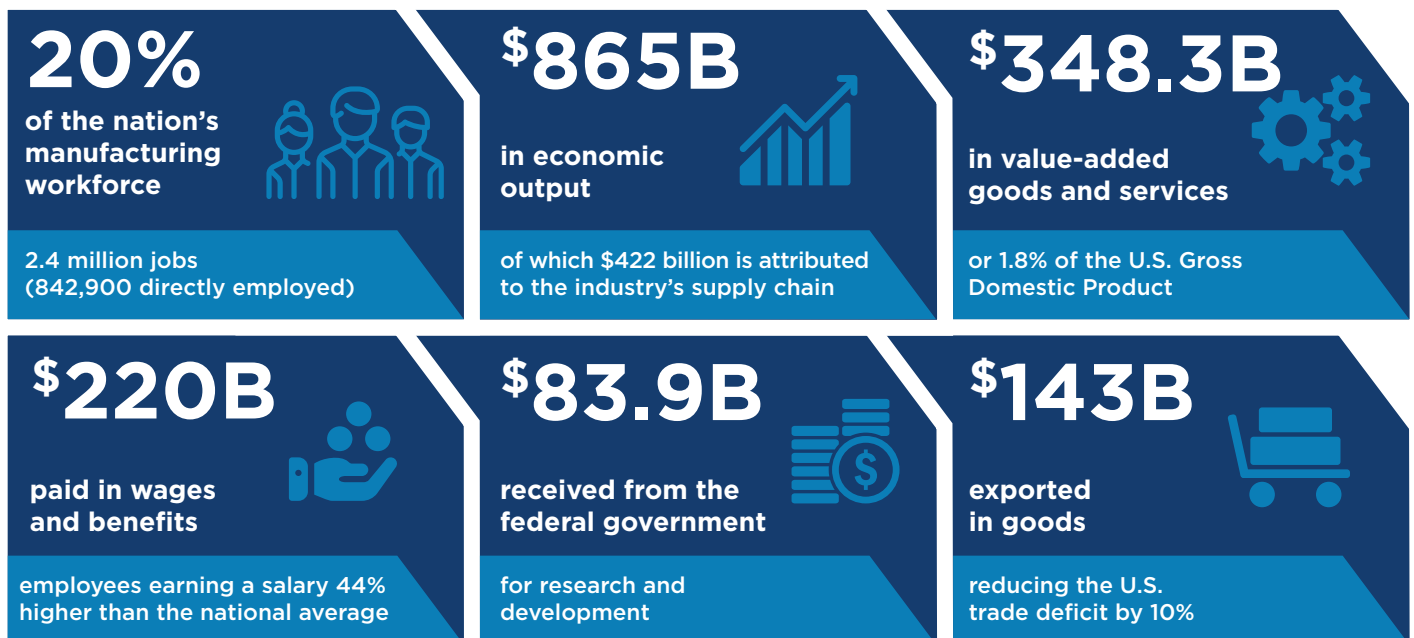


2019 AIAA KEY ISSUES AND RECOMMENDATIONS



The Aerospace & Defense (A&D) industry is critical to our nation's well-being, providing major contributions to national defense and homeland security, the economy, our quality of life, and education and learning. From the increasing growth and varied application of unmanned technology to the development of supersonic aircraft to the boom of activity in low Earth orbit by traditional and new commercial space players, there is much to look forward to in the coming years as government, industry, and academia together continue to imagine and create capabilities that transform our society. Here are some 2017 A&D industry statistics from the Aerospace Industries Association:



The American Institute of Aeronautics and Astronautics (AIAA), the world's largest aerospace technical society, urges lawmakers to enact and sustain policies that will enhance a robust, technologically-proficient A&D sector. We strongly believe the accompanying key issues and associated actionable recommendations are crucial to the continued health of our industry, as well as the continued competitiveness and security of our nation. As we strive to represent our nearly 30,000 individual members, 95 corporate members, and the broader aerospace community, we welcome and encourage feedback—our motive is to strengthen the profession and serve as a valued resource for decision makers.

FUNDING STABILITY AND COMPETITIVENESS

The A&D industry has experienced growth in recent years because of a strong market and increased defense spending; however, major challenges exist due to mounting budget deficits, trade policy uncertainties, and a lengthy acquisitions process, as well as foreign competitors investing heavily in military modernization and scientific research. Furthermore, the current unpredictable fiscal environment creates short-term perspectives, increasing the risk of delayed aerospace initiatives and the constant threat of important programs being terminated or scaled back to suboptimal levels. A return to a regular appropriations process coupled with a long-term perspective is needed immediately so that the nation, including the A&D industrial base, can begin work on initiatives critical to a secure and economically robust future.

RECOMMENDATIONS:

- › Permanently eliminate the arbitrary budget caps and the sequestration process imposed on defense and non-defense discretionary spending.
- › Provide sustained investment for basic scientific research in federal labs at levels consistent with maximizing economic growth and technological leadership.
- › Provide the DOD with stable and predictable funding that supports efficient and effective multi-year acquisitions and operations.
- › Streamline the defense acquisition process by tailoring oversight requirements to risk.
- › Provide long-term authorizations and appropriations with top-line increases in the out years to properly fund all NASA missions in a balanced and predictable manner to meet short- and long-term program and mission requirements.
- › Reauthorize the Export-Import Bank of the United States, and either confirm all open board appointments or allow the bank's single board member to approve transactions of more than \$10 million.



2019 AIAA KEY ISSUES AND RECOMMENDATIONS

R&D AND INNOVATION

Since the dawn of aviation and through the advent of the space age, the United States has been the world leader in aerospace technologies. The federal government has played an important role in supporting research and development (R&D) efforts that have led to a myriad of scientific discoveries and innovations. Despite the recent uptick in federal funding for R&D to support the A&D industry, the overall trend over the last few decades has been downward. And while the United States still represents nearly half of global aerospace R&D spending, our foreign competitors continue to aggressively invest significantly more in technologies critical to aerospace and defense. Sufficient and sustained R&D investments are therefore crucial to maintain our preeminence in this sector and to create more high-paying jobs. Just as important is moving technologies from the laboratory into the marketplace through innovative new products and services that fuel growth, exports, and expanded employment.

RECOMMENDATIONS:

- › Invest in computational and experimental capabilities to advance military and commercial R&D.
- › Ensure sufficient and stable funding for federal programs specifically toward helping industry accelerate innovation and developing products in critical areas.
- › Create programs that enable greater interaction and cooperative arrangements between federal labs and research centers, academia, and industry to develop technologies needed for innovation and growth.
- › Support robust, long-term federal civil aeronautics and space research and technology initiatives funded at a level that will ensure U.S. leadership.
- › Offer incentives for corporate research and commercialization of that research into new products and services.
- › Ensure that federal agency R&D budgets provide sufficient funding so that the United States maintains long-term technical leadership and qualitative technical superiority.



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WORKFORCE DEVELOPMENT AND ENHANCEMENT

The U.S. A&D industry currently enjoys a prominent position in terms of global competitiveness and technical superiority; however, there are justifiable concerns as the sector faces a skills gap that will threaten our future standing in the world. According to the 2018 Aviation Week Workforce Study, nearly 30 percent of the nation's A&D workforce is over the age of 55 and 22 percent is younger than 35. The overall voluntary attrition rate is nearly 6 percent. And despite a major shift in the demographics of the United States the percentages of women and ethnic minorities working in A&D, at less than 25 percent and 5 percent, respectively, have not changed significantly in four decades.

Jobs in today's society are heavily reliant on technology, yet our education system is not currently structured to prepare students to be STEM-literate and adaptable to rapidly changing technologies. Additionally, many schools are underfunded, teachers receive inadequate support, and there is an absence of direct mentoring. These factors have helped create a national workforce crisis. Industry leaders and policymakers alike must tackle this crisis sooner rather than later so we as a society can address the forecasted demand for highly-skilled workers.

RECOMMENDATIONS:

- Pass legislation that enhances the pipeline of STEM-competent workers into the U.S. economy, including initiatives aimed at underrepresented demographics.
- Promote educational and training programs for both the existing workforce and new entrants, as well as encourage K-12 teacher recruitment and professional development, through federal incentives and/or grants.
- Support programs that specifically focus on technical jobs, improve the pipeline from high schools, and provide grants to carry out these activities.
- Incentivize industry and the military to be more directly engaged with evaluating and hiring military personnel transitioning to the civilian workforce, such as creating a standard to process and categorize military skill sets.
- Pass visa legislation that welcomes and retains highly-educated international professionals who earn advanced STEM degrees from U.S. colleges and universities.
- Reform the security review process to streamline investigations, increase oversight, prioritize mission critical investigations, and promote reciprocity among agencies, while protecting sensitive information and utilizing advanced technology to appropriately manage risk.

