



2017 AIAA Key Issues:

Aerospace & Defense Workforce Enhancement

Issue Area: Workforce Preparation

Education and Career Training: Provide opportunities within the educational system to support and grow STEM K–12, adult education programs, and workforce initiatives that build a foundation of skills to be globally competitive in the 21st century.

- Ensure a balanced portfolio for STEM-dependent agencies with student programs, grants, fellowships, internships, co-op programs, apprenticeships, job shadowing, and teacher development programs. These agencies include DARPA, DOD, NASA, NSF, etc.
- AIAA applauds the 114th Congress's passage of the Every Student Succeeds Act and the American Innovation and Competitiveness Act.

Recommendations:

1. Continue to pass legislation that enhances the pipeline of STEM-competent workers into the U.S. economy, such as reauthorizing, modernizing, and providing appropriations for the Perkins Career and Technical Education Act.
2. Encourage industry to participate in STEM educational, training, and development programs for the incoming, existing, and transitioning workforce.

Diversity: Support initiatives that stimulate, encourage, and promote participation of underrepresented populations, specifically females and ethnic minorities, to major in STEM fields for higher education.

- According to the *Aviation Week 2016 Workforce Study*, the percentages of ethnic minorities and women working in A&D have remained unchanged, at less than 25 percent, for decades. Targeting underrepresented populations will open a broad talent pool of candidates to help solve the nation's skilled workforce shortage.
- Research shows that workforce diversity in organizations improves innovation; boosts ability to solve challenging problems; and increases return on investment.

Recommendation: Promote comprehensive initiatives that expand the capacity and diversity of the STEM workforce pipeline.

Issue Area: Maintaining and Retaining a Skilled Workforce

Collaboration: Promote sharing of information and facilitate exchange between industry, government, and academia.

- Collaborations would emphasize skills with cutting-edge technology such as: advanced manufacturing, information technology, control systems, cybersecurity, and autonomous systems.

- Emphasizing cutting-edge technology would more actively engage young professionals and new STEM graduates in trending, emerging career paths, i.e., making the A&D industry more attractive to the millennial generation.
- Small businesses are vital to the A&D industry. Incentivizing training collaborations between small businesses and large primes would ensure training is easily accessible and flexible to meet the increasing standards and requirements for the A&D workforce.
- Mechanisms should be put in place to encourage industry to support the transition of retiring A&D workers to new, contributing roles, such as training, teaching, and mentoring.
- Expand programs like the DOD Information Technology Exchange Program.

Recommendations:

1. Ensure federal incentives and/or grants are readily available to support industry, government, and academic partnerships that tailor training for high-level skills and provide research-focused collaborations.
2. Direct more temporary personnel exchange between government, industry, and academia in the A&D sector, and provide incentives for stakeholders to participate in these activities.

Veterans: Transition qualified military veterans to civilian A&D careers.

- Provide a seamless transition for veterans to enter the A&D workforce at the proper career level thus maximizing recruitment of a valuable resource.

Recommendation: Incentivize industry and the military to be more directly engaged with evaluating and hiring transitioning military personnel, such as creating a standard to process and categorize military skill sets.

Issue Area: Foreign Professionals in STEM Fields

We must continue to welcome highly-skilled, non-U.S. citizens who wish to be educated and trained at our top institutions and who want to work alongside American colleagues to contribute to the advancement of our A&D industry. Collectively this workforce drives economic growth, innovation, and the entrepreneurial spirit that has continually pushed the aerospace community to accomplish the seemingly impossible.

Previously introduced legislation like the STEM Optional Practical Training Program, which allows foreign-born STEM graduates up to 36 months of qualified employment, and the I-Squared Act of 2015, which would raise H-1B visa caps and exempt those who hold advanced STEM degrees from counting against the caps, represent productive approaches to realizing the needed high-skilled workforce.

Recommendation: Pass visa legislation that encourages the retention of foreign professional STEM workers in U.S. industry.