

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
SPACE WORKFORCE DEVELOPEMENT – CHALLENGES AND OPPORTUNITIES (7)

Author: Dr. Mabel J. Matthews
National Aeronautics and Space Administration (NASA), United States

“IMPLEMENTATION OF A NASA EDUCATION WORKFORCE DEVELOPMENT INITIATIVE:
TRANSITIONING A HIGH-PERFORMING AND DIVERSE STUDENT POOL INTO THE SPACE
EXPLORATION WORKFORCE”

Abstract

With over thirty percent of the NASA workforce eligible for retirement, the Agency needs to attract a new generation of highly qualified undergraduate and graduate students. NASA’s Strategic Management Council (SMC) decided that the risk of a shortfall in critical skills is so great that dramatic action was needed to change these trends. The goal of the Agency is fifty percent of all new civil servant hires will be fresh-out hires.

Along with requiring new competencies and skill sets, there is a growing need for an efficient and effective pipeline of qualified college graduates who transition into full time employment at NASA. This helps ensure that the Agency continues to have a vibrant workforce, as well-prepared employees are critical to the success of the Agency’s mission.

The newly implemented NASA One-Stop Shopping Initiative (OSSI) is designed to address these trends by creation of a standardized integrated approach to NASA Education internship/fellowship opportunities, including recruitment, retention, selection, mentoring, career and workforce development, and longitudinal components. The initiative will assist NASA in furthering its efforts to avert its looming technical void with of individuals who are diverse, dynamic and technically experienced.

An infusion of key NASA strategic partners, Office of Human Capital Management, Office of Diversity and Equal Opportunity, and Office of Education, in addition to NASA scientists and engineers will address all of the concerns listed above. Top consideration is given to retain these students in NASA STEM careers, while factoring in generational issues, competition from other industries, and continuing breakthroughs in information technology and communication. As stated in “Building a Better NASA Workforce” NASA’s attention to workforce development requires an outward approach that focuses on making jobs more attractive to selected target populations. This is accomplished through enhancing relationships with external and internal stakeholders as the pipeline development strategies focus on engaging increased numbers of students in space exploration education and research.

The OSSI system provides interns and fellows with increasing levels of interaction and preparation that help students navigate through the NASA education pipeline and develop a sense of loyalty to the Agency in addition to the technical skills needed to support its missions. One of the objectives is to interact with them on their terms and foster interest that will result in employment. To ensure success, the Agency is adapting to the changing landscape and enhancing its existing education workforce development approaches to cultivate its future workforce.