## SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1) Space Workforce Development - Problems Encountered and Resolutions (7)

## Author: Dr. Danielle Wood The John Hopkins University, United States

## NASA EDUCATION AND RESEARCH OPPORTUNITIES PREPARING STUDENTS FOR THE SPACE EXPLORATION WORKFORCE

## Abstract

NASA student programs have strongly impacted my career success. I have been fortunate to work with NASA as an intern, contractor, fellow and researcher. NASA has both inspired and enabled me to achieve the status of a doctoral student at the Massachusetts Institute of Technology. I grew up with a strong connection to the U.S. space program which continues with me today. In my hometown of Orlando, Florida I frequently saw launches of the Space Shuttle. I was privileged to be at Kennedy Space Center as a high school intern when the first female commander of a Space Shuttle mission lifted-off. That summer of 1999, I participated in NASA's Summer High School Apprenticeship Research Program (SHARP). The internship at Kennedy strongly influenced my decision to study aerospace engineering at MIT for my Bachelor's Degree. My next NASA internship – the NASA Academy – helped me decide to continue at MIT for graduate school. In 2004, I attended the NASA Academy at Goddard Space Flight Center near Washington, DC. The Academy is a 10-week, intensive research and leadership development experience for students who are passionate about space. One of the highlights of my Academy experience was learning about the NASA Institute for Advanced Concepts (NIAC). I later worked with another student from the NASA Academy to prepare a poster that we presented at the 2004 NIAC conference on "Applications" of Space Technology for the Developing World". That was the first time I worked on that topic, and it continues to be a passion of mine and part of my research focus. My leadership skills were further refined when I served as the Operations Manager for the Goddard NASA Academy. As the primary staff person, I was responsible for coordinating the many activities of the internship. I have been a graduate student at MIT since 2005. NASA has supported my graduate studies through funding from the NASA Harriett Jenkins Pre-Doctoral Fellowship Program. This fellowship provides both financial support and strong connections with the NASA community. My graduate study has also included several opportunities to do research at NASA facilities including the Marshall Space Flight Center and the Goddard Space Flight Center. In sum, NASA student programs have helped me in many ways. NASA inspired me to pursue a space-related education, gave me valuable financial support, and connected me with helpful resources and mentors. I hope to one day contribute to NASA's mission as a full time researcher.