Paper ID: 78459
student

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Space Culture – Public Engagement in Space through Culture (9)

Author: Ms. Rachel Venn
Space Group of the Royal Aeronautical Society, United Kingdom

Mrs. Catarina Trindade Baldaia
Thales UK Plc, United Kingdom
Ms. Nikita Shetti
Space Group of the Royal Aeronautical Society, United Kingdom
Ms. Xiaoyao Yin
Durham University, United Kingdom

FEMALE PARTICIPATION IN THE UK SPACE SECTOR: BARRIERS, PROGRESS, AND RECOMMENDATIONS

Abstract

It is consistently found across sector surveys that women are statistically underrepresented throughout the UK space workforce. While progress has been made in recent years, recent data from the Space Skills Alliance finds that women currently comprise 29% of the workforce - less than one-third. This discrepancy is particularly prominent in engineering positions, where men are reported as more than twice as likely to have a role than women. Identifying and addressing the factors behind this continued discrepancy will help to retain talent within the UK space sector at a time when workforce needs are expected to grow by 3% per annum. Factors reported in the UK workforce are also likely to have relevance for women's experiences in similar space economies.

Crucially, these are not static proportions. A "leaky pipeline" is observed across junctions in a woman's space career, where the number of women in each stage - university studies, young professional, and senior positions - continually drops from the point of first entry into the sector. In one 'leak point' example, nearly 20% fewer women in undergraduate STEM cohorts continue on to related careers after graduation, despite reporting similar levels of enthusiasm to work in the industry, being more likely to have completed work experience, and statistically obtaining higher-classification results.

The driving factors behind this retention difficulty are currently not well-understood. Previous studies have primarily focused on static pictures on an international scope or have examined the engineering field as a whole, but not the specific context of the space industry in the UK.

Along with a literature review, we conduct a survey of female STEM graduates, space sector workers and industry leavers across the UK and identify key reported barriers to female participation in the UK space workforce. In particular, we give new statistical attention to the reports of those who have already left the sector. Finding that pay issues and lack of female peers are often driving factors, we discuss recommendations to encourage higher-retention working environments. For example, mentoring programmes for female professionals, such as the recent initiative Alta, can be effective in increasing the visibility of women in leadership positions and fostering an often-absent sense of sector community. We therefore propose the development of a mentorship and community platform dedicated for women in the UK space sector.