

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Enabling the Future - Developing the Space Workforce (5)

Author: Ms. Hira Nadeem
Institute for Earth and Space Exploration, Western University, Canada

Ms. Sam Condie
Zenith Canada Pathways, Canada

MODEL FOR CHANGE: LEVERAGING THE SPACE FELLOWSHIP MODEL IN CANADA

Abstract

The United Nations Sustainable Development Goals are ambitious. Achieving the targets will require leveraging the greatest talent of this generation, including from women, visible minorities, and other underrepresented groups. Despite significant leaps in technology, marginalized people continue to have significant barriers to entry from space. The United States has seen success with the rise of fellowship programs designed to develop and retain talent within underrepresented populations in the aerospace sector. But this leaves the question: could this be a sustainable model for other countries who do not face the unique U.S. labor market dynamics?

While Canada has made significant strides in diversifying its STEM graduates, it is not reflected in its space industry. Only 28% of the space workforce identifies as female. Given no similar stats are available regarding visible minorities, inferences can be made from the recent CSA astronaut selection process in which no visible minority was shortlisted in the top 32 candidates. One of the goals of fellowships is to tackle this common space workforce challenge.

The Zenith Canada Pathways Foundation is a not-for-profit organization established to develop a fellowship program focussed on promoting equity, diversity and inclusion in Canada's space sector. The program connects participants with an internship at one of seven host companies, pairs them with a mentor from the Canadian space sector, and provides them with a community of peers that will grow annually. By equipping students from underrepresented backgrounds with tangible work experience and a network, they will become more competitive candidates when seeking full-time employment. Ideally this will create the momentum needed to propel their career in the long term and diversify the next generation of Canadian space leaders.

By examining the development of the Zenith Fellowship in Canada and its inaugural class, this paper evaluates the approach, impact, and challenges. As a case study, it will provide tangible lessons learned for how the fellowship model can be successfully adapted to international markets. Further, as women in space, both authors of this paper provide a unique lens on challenges faced by women in the sector and support required to bridge the gender gap.