

Challenges in Developing a Program for First Generation Students Interrupted by the Pandemic

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The Connecting Mentor Partners for Academic Success in STEM (CoMPASS) is an NSF S-STEM scholarship program developed to create and study an asset-based framework to recruit, retain, and graduate low-income, academically talented, first-generation students earning degrees in STEM fields. The program provides two 10-student cohorts from Worcester Public School District with scholarships for four years at Worcester Polytechnic Institute (matriculating in consecutive years), while also offering evidence-based student success strategies and a supportive network of mentors. Over the past year, the program offered scholars a set of activities designed to help them 1) transition into college, 2) navigate diverse academic resources, 3) receive peer and academic support, and 4) enhance their college experience through mentoring.

To assess the program's effectiveness, we administered a survey to the first scholar cohort using the Longitudinal Assessment of Engineering Self-Efficacy (LAESE) after their first year of college. LAESE measures the self-efficacy of undergraduate engineering students, their feelings of inclusion, and outcome expectations. Initial results indicate that the scholars are in good academic standing. In addition, the residential, relational, and mentoring aspects of the program fostered an important sense of community, which students attributed as one of the reasons for their first-year success.

Although initial assessments demonstrate that the CoMPASS program is indeed achieving its goals, the COVID-19 pandemic has posed a major challenge. Both scholar cohorts have been living on-campus with the appropriate restrictions and a mixture of remote and in-person classes and activities. Much of the CoMPASS programming has been conducted virtually due to campus policies and have impacted the outcomes. In this presentation, we will provide the initial results from our first scholar cohort, the acute challenges we faced in developing an effective program during the pandemic, and ways in which we will mitigate the pandemic effects on our student cohorts long-term.

Participant Learning Outcomes:

- Awareness of an asset-based framework for supporting first-generation students from local public high schools at a private STEM-focused university.
- Self-efficacy results for 1st cohort of 10 students on their first year of college navigating the COVID-19 pandemic after their first semester on campus
- Sharing of the challenges and mitigation in developing a robust supportive program for first-generation scholars during the COVID pandemic.

