Progress through Predicament: How Collaborating on Tough Problems Cultivates a Successful, Supportive Community

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How can a physics department best support its students and encourage success during their academic careers, particularly for those traditionally underrepresented in physics? A well-designed, well-taught curriculum is a necessary component, but there are important steps a department can take in addition to improving what happens in the classroom. The Compass Project at UC Berkeley is a program that focuses on supporting students in the physical sciences inside and outside the classroom. Compass’s philosophy is that students can learn better if they feel like they are a part of a supportive community brought together by working on meaningful and difficult problems. For Compass, this community starts in the classroom, where students tackle real-world physics projects together. It continues to develop during their engagement with organizational decision-making, through which students take ownership over many of Compass’s programs and shape them to better meet their needs. Compass is not a program done to or for students, it is a program of and by students to meet the challenges they face. Through conversations with students, survey results, and video data, our talk will demonstrate the importance of these types of experiences for supporting student success.