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Abstract for an Invited Paper
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Sociological Perspectives on College Women's Pathways to Persistence in Physics¹

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While there have been notable gains made by some STEM disciplines in closing the gender gap, physics is among the few fields where gender disparities persist. Drawing on both original and secondary data analyses, the speaker will explain how background characteristics and school environments shape persistence on the track to careers in physics and related majors (e.g., engineering and computer science). Recent sociological findings will be emphasized, with particular attention to the speaker's current and published findings from nationally-representative U.S. cohorts and case studies from U.S. high schools and universities, Cambodian universities, and cross-national comparisons. Using a longitudinal framework, the speaker will discuss potential interventions to keep women on the path to physics degrees through secondary school, the transition to college, and undergraduate study. The presentation will additionally discuss how students' racial/ethnic and socioeconomic status and university type influence variation in the scope of gender disparities in entry to scientific career fields, of particular note as the demographics of the undergraduate population and the labor force become increasingly diverse and increasingly less dependent on training within traditional four-year institutions. Emerging evidence across these types of data indicate that the persistent sex segregation in physics is not attributable to biological nor academic factors; rather, these traditional explanations consistently fail to explain the gap. The presentation will conclude with a discussion of potential interventions that faculty, institutions, and the field can draw upon to promote women's persistence in physics degrees and careers.

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