

Abstract Submitted
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Preparing graduate students to be educators EDWARD PRICE, California State University, San Marcos, NOAH FINKELSTEIN, University of Colorado at Boulder — We present two programs that address needs to better prepare graduate students for their roles as professional physicists, particularly in the areas of teaching and education research. The two programs, Preparing Future Physicists (PFP) and a course, Teaching and Learning Physics, are designed to be mutually supportive, address these broader graduate roles, and support the development of the field of physics education research. While voluntary, PFP has attracted the participation of roughly half the physics graduate students at each of two large research institutions. Compared to the national rate, these students are roughly twice as likely to report an interest in pursuing future roles as educators. While less than one in five of participants surveyed reported education being valued by the research community in physics, more than 90% reported intentions to incorporate the results of research in physics education in their future teaching. Experience with the synergistic program, Teaching and Learning Physics, demonstrates that it is possible to replicate earlier successes of the program initiated at a different institution, including increasing student mastery of physics, developing student interest in education and teaching, and engaging students in research projects in physics education. In addition to introducing these programs, we identify some of the critical features that contribute to their successes.

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