The PPPL Science Education Pipeline - Where Does it Lead?

ANDREW ZWICKER, S.A. WISSEL, ALIYA MERALI, DEEDEE ORTIZ, JOHN DELOOPER, PPPL — PPPL’s Science Education Program includes programs for students of all ages. Opportunities for the general public include a lecture series and exhibits in science museums on plasmas and fusion energy. K-12 students perform summer research, participate in quiz competitions, and enrichment workshops. K-12 teachers go to Plasma Camp, “Energy in the 21st Century” workshops, and perform research. Undergraduates, including community college students, perform research throughout the year. To measure the quality and effectiveness of each program, we study the short term impact through pre- and post-surveys, and the long-term outcome through longitudinal studies. For example, from 2000-2009, 72% of the undergraduate interns entered graduate school in physics or engineering and 45% studied plasma physics. However, data shows a significant gender difference in graduate school enrollment and points to an overall issue with recruitment in all of our programs. Thus, we have recently added new programs that target at-risk students and their teachers as well as young women in middle and high school.