

Abstract Submitted
for the APR12 Meeting of
The American Physical Society

**Factors that encourage females to pursue physical science careers:
Testing five common hypotheses¹** ZAHRA HAZARI, GEOFF POTVIN, Department of Engineering & Science Education and Department of Mathematical Sciences, Clemson University, ROBYNNE M. LOCK, FLORIN LUNG, Department of Engineering & Science Education, Clemson University, PHILIP M. SADLER, GERHARD SONNERT, Science Education Department, Harvard Smithsonian Center for Astrophysics — There are many hypotheses regarding factors that may encourage female students to pursue careers in the physical sciences. Using Propensity Score Matching (PSM) on national data (n=7505) drawn from the Persistence Research in Science and Engineering (PRiSE) project, we test five commonly held beliefs including having a single-sex physics class, having a female physics teacher, having female scientist guest speakers in physics class, discussing the work of women scientists in physics class, and discussing the under-representation of women in physics class. The effect of these experiences is compared for female students who are matched on several factors, including parental education, prior science/math interests, and academic background, thereby controlling for the effect of many confounding variables.

¹NSF Career 0952460, GSE 0624444

Zahra Hazari
Department of Engineering & Science Education and
Department of Mathematical Sciences, Clemson University

Date submitted: 09 Jan 2012

Electronic form version 1.4