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Abstract for an Invited Paper for the APR17 Meeting of the American Physical Society

## Women's and men's career choices in astronomy and astrophysics.<sup>1</sup>

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In order to understand gender differences in persistence and attrition from astronomy and physics, the Longitudinal Study of Astronomy Graduate Students follows a cohort of people who were graduate students in astronomy or astrophysics during 2006-07. The first survey was conducted during 2007-08 and the second during 2012-13, when many of the respondents had left graduate school and were working. For respondents who had completed PhDs and were not postdocs, we tested the effects of four major concepts on attrition from physics and astronomy. These concepts included: the imposter syndrome, mentoring and advising during graduate school, work-family balance, and being female. We hypothesized that women would be more likely than men to work outside of astronomy and physics. However, results from the study show that there is no direct independent effect of being female on attrition. Rather, women are more likely to leave astronomy because they are more likely than men to (1) experience difficulties related to the need to find a job for a spouse or partner in the same geographical area, and (2) report less than satisfactory advising during graduate school. This research identifies specific areas of concern that can be addressed by the scientific community to increase the retention of all people, but especially women, in astronomy, physics, and related fields.

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