

Birds of a Feather Publish Together? Gender Homophily and Advisor-Advisee Collaborations

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Abstract

Research into academic careers has long recognized the importance of an active and engaging advisor in fostering professional success. Previous research has pointed in particular to the importance of co-authorship with graduate advisors in this “sponsored mobility” process. Co-authoring with one’s advisor can help shape future productivity and advancement through both the socialization into research practices and the increased visibility of resulting publications. In this paper, we attempt to understand this collaborative process, trying to understand the determinants of such co-authorships. In particular, we are interested in issues related to gender homophily. Are female graduate students more likely to collaborate with female advisors? Are homophilous collaborations more productive and/or visible? What are the implications of these patterns for understanding potential issues related to underrepresentation in academia? In order to address these questions, we use both survey and bibliometric data for a nationally representative sample of academic scientists in the US across different STEM disciplines, each with different levels of female representation. We use text mining and name disambiguation techniques in order to collect extensive publication, citation and collaboration data over time, as this allows us to both contextualize the original collaboration between advisee and advisor, and track future productivity.