

Supporting Information for “Gender Diversity Amongst Tenured and Tenure-Track Geoscience Faculty”

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Introduction

Text S1: Institutional Factors. We consider the effect that gender proportions at one level of the academic hierarchy may have on the gender proportions of another level. We compare the gender composition of the faculty during the 2019-2020 academic year to the gender composition of graduate students obtained from the NSF graduate student survey for 2018 and 2019. At a given institution, there is a weak correlation between the percent of faculty who are female and the percent of graduate students who are female (Figure S1). While no causative statements can be made based on this correlation, it appears

that institutions with a higher percentage of female professors are not more likely to have a higher percentage of female graduate students at an instant in time. This may be either because the assumption that diversity attracts diversity is not always applicable or may be because the typical percentages of female faculty are not high enough to attract more female students.

For nearly every institution we considered, there are more women at the graduate student level than at the faculty level. The percentage of graduate students ranges from $\sim 30\%$ to $\sim 60\%$, while the percentage of female professors ranges from $\sim 0\%$ to $\sim 40\%$. The proportions of female faculty do not differ significantly between private and public institutions.

There are also more women graduate students at a given institution than women graduate students. Additionally, there are more women postdocs than women faculty at any given institution on average. This suggests a systematic attrition of women at each stage of the academic process (from graduate student to postdoctoral associate to tenure-track faculty member). There is a strong correlation between the number of women postdocs and the number of women graduate students at a given institution. This may result from graduate students becoming postdocs at the same institution or with other institutional factors related to support for early career women.

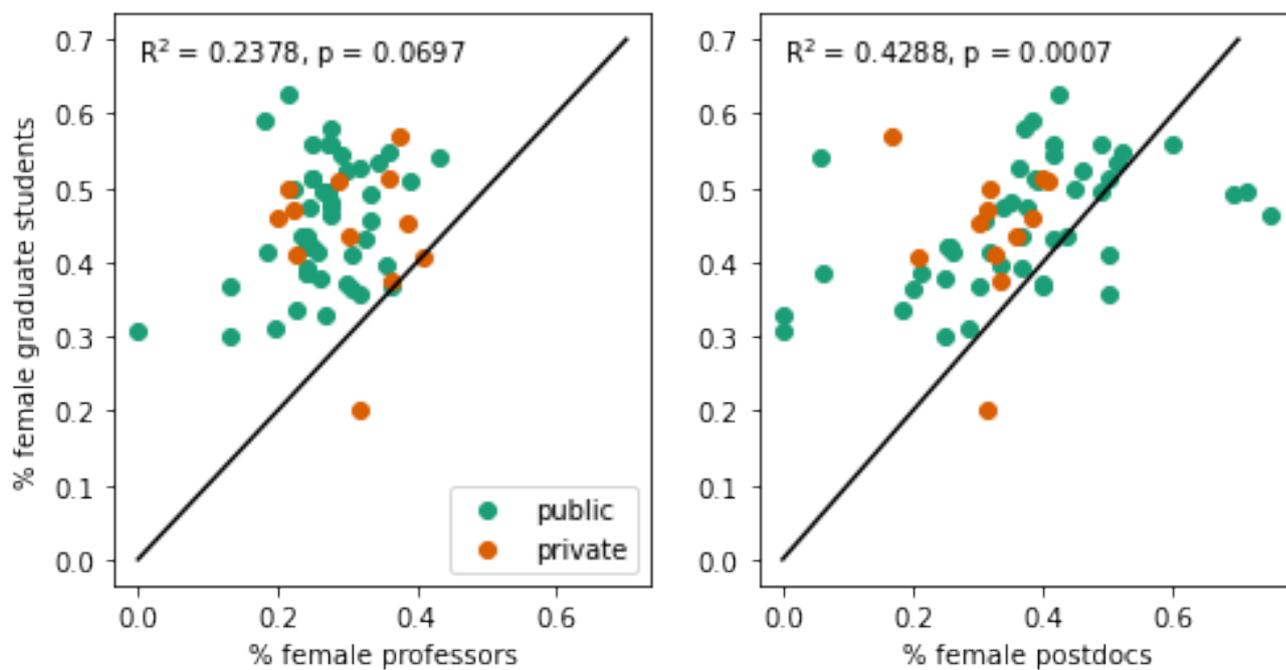


Figure S1. Correlations between academic ranks Comparison of percent female faculty in 2020 with percent female graduate students in 2017 and 2018 from the graduate student survey at each institution we consider. The color of the data point shows whether an institution is public or private.

Table S1. Percentage of Women by Rank and Subdiscipline

Subdiscipline	Assistant Professor	Associate Professor	Full Professor
Geobiology	54	50	27
Biogeochemistry	59	45	25
Geochemistry	58	40	22
Glaciology	40	42	20
Marine Geology	0	66	27
Geology	46	30	19
Geophysics	37	30	18
Geomorphology	33	31	11
<i>Total Earth Science</i>	<i>51</i>	<i>38</i>	<i>21</i>
Paleoceanography	71	12	38
Chemical Oceanography	55	45	25
Biological Oceanography	48	55	26
Physical Oceanography	37	29	15
Marine Biology	75	0	22
<i>Total Ocean Science</i>	<i>50</i>	<i>40</i>	<i>22</i>
Atmospheric Chemistry	25	41	22
Atmospheric Dynamics	40	30	14
<i>Total Atmospheric Science</i>	<i>38</i>	<i>33</i>	<i>17</i>
<i>Planetary Science</i>	<i>46</i>	<i>40</i>	<i>17</i>