

Gender, graduate education experience  
and career-related choices: The case of  
doctoral students in science and  
engineering in Hong Kong

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Gender, Graduate Education Experience and Career-related Choices:  
The Case of Doctoral Students in Science and Engineering in Hong Kong  
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## Abstract

This research compares and contrasts the graduate educational experiences and the career aspirations of male and female doctoral students in Science and Engineering (S&E) disciplines in Hong Kong. The purpose is to get a better understanding of what contributes to the persistent under-representation of women in S&E, a research area of social, economic and epistemological importance, both locally and globally. Twenty doctoral students from Hong Kong and Mainland China were recruited for this study by snowball sampling. The primary data-collection method was by way of face-to-face, unstructured interviews. The bifurcated deficit/different framework devised by Sonnert is employed to conceptualize the research problem.

The results indicate that doctoral education in S&E is a gendered process, where male and female doctoral students reported vastly different experiences in the relationships with academic supervisors and faculty. Essentially, women doctoral students are less likely to reap the benefits of developing close working relationships with their supervisors and faculty, who are predominantly male while male doctoral students are working shoulder to shoulder with their male teachers and junior fellows, weaving a fabric of “brotherly comradeship” in the practice of mentoring, role modeling and academic grooming exercises such as participation in study groups and conference meetings. Gender is also a mediating factor affecting the peer interaction process, by which male doctoral displayed biased attitudes to their female peers. The gender-differentiated graduate experience shapes the career aspiration of the graduating doctoral students in S&E as the majority of male respondents favor research-oriented career path over teaching-oriented path, while the reverse pattern holds true for women. The gender divergence in the aspired career path contributes to

the gender disparity in career achievement in S&E as a premature specialization in teaching restricts the career possibilities of women in S&E, where much emphasis is put on research than teaching.

By examining gender differences in doctoral educational experience and career preparation, the current study contributes to the literature of women in S&E by making explicit the mechanism through which gender disparity in S&E is perpetuated. A better understanding of the mechanisms of educational and occupational sex segregation in S&E is likely to shed light on the problem of under-representation of women in S&E, which in turn can also help us understand what stands in the way of achieving gender equity in high-status occupations.

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