*Online Appendices*

Hard Work and You Can't Get it: An International Comparative Analysis of Gender, Career Aspirations, and Preparedness Among Politics and International Relations PhD Students

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**Abstract**

Do all PhD students aspire to academic careers? Do PhD programs appropriately prepare students for the realities of the job market? There is a well-established gap between political science PhD graduates and tenure-stream academic postings. The mismatch between PhD graduates and academic positions may point to alternative models of doctoral education as a possible solution. However, this survey of Canadian and Australian PhD students suggests that issues and challenges are common regardless of the model of doctoral education. Canadian PhDs do report more mentoring activity, but also are more fixated on securing academic positions. However, we find important gender differences across countries - men are more interested in an academic career and only a (disproportionately male) minority is confident they will succeed in securing a faculty career. This raises questions about diversity in the future profession. This research suggests that while students have different experiences under different doctoral models, issues of academic jobs and a mismatch are common in both systems.

**Appendix A: Comparison of Australian and Canadian PhD and higher education systems**

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| ​ | Australia​ | Canada​ |
| Length of program​ | 3-4 years​ | 5-6 years ​ |
| Program requirements | 80,000 word dissertation  Some universities require 6 months of coursework. | Coursework, comprehensive exam and dissertation of 60,000 - 80,000 words. |
| PhD completions per year | 9,200 across all fields | 8,000 across all fields |
| Part time study | Part time PhD enrolment is very common. | While part time PhD enrolment is possible, it is rare. |
| Growth across all fields | Number of PhD completions more than doubled in 19 between 2000 and 2019 | Number of PhD completions more than doubled in 15 years between 2002-2017 |
| Entry pathways​ | Undergraduate honours​ | Undergraduate & Masters​ |
| Proportion international students in PhD programs | 35% and growing 10x faster than domestic students. | 30% |
| Fees​ | Zero​ | $4,000 - $8,000 per annum ​  (but can be offset by a scholarship)​ |
| Stipend/support​ | ~AU$28,854 per year ​  (tax free) (~CA$27,000) | Varies​ |
| Public investment in tertiary education (OECD average ~0.99%) | ~0.73% of GDP | ~1.22% of GDP |
| Total higher education expenditure on research and development as a percentage of GDP  (OECD average ~0.41%) | ~0.62% of GDP | ~0.65% of GDP |
| Universities in top 50 in the world (QS Rankings 2022) | 5 (ANU, Universities of Melbourne; Sydney; New South Wales; and Queensland) | 3 (University of Toronto, McGill University and University of British Colombia) |
| Political science departments in top 50 (QS Rankings 2022) | 3 (Australian National University, Universities of Sydney; and Melbourne) | 3 (University of Toronto, McGill University and University of British Colombia) |

**Appendix B: Methodology**

To examine our research questions, we conducted original online surveys of doctoral students in Australian and Canadian political science programs. The online survey format is appropriate for the exploratory, theory-building nature of our research as it is highly accessible to the respondents and the ability to incorporate a mix of closed and open ended questions facilitates issue identification. The research ethics boards of [University name] approved the Australian survey and the research ethics boards of all 17 institutions where students participated in the Canadian survey approved the Canadian survey.

*Population*

Canada: Our population of study is current doctoral students studying at Australia’s tenure-stream faculty working in Canada’s 17 political science departments offering PhD programs in the English language (see Appendix Table 1). We do not look at French-language only programs given the distinctive organizational cultures of French-language Quebec universities and the additional complexities that language barriers may present to transferable career skills and career paths for graduates of French-language programs. Because enrolments at Canadian universities are not consistently made public at the necessary level of granularity, the size of the population is not available.

Australia: There were 574 enrolled PhD candidates in Political Science and Policy Studies in 2020 in Australia. However, this is likely to include a number of students not actively studying or researching, but who have still maintained their enrolment. Our best estimate of active engaged PhD candidates is around 450.

*Survey Fielding*

The Canadian survey, constructed with Voxco, was distributed from February 4 to April 2, 2021. The survey drew on questions from previously conducted surveys of graduate supervisors in political science (Berdahl, Malloy and Young 2020). The survey was advertised over social media (Twitter and Facebook) and emails from the researchers to department heads and graduate chairs who were asked to share the information with graduate students. A total of 99 responses were received.

The Australian survey, constructed with Qualtrics, was distributed over six weeks (from February 24 to April 6, 2022). The survey drew on questions from two previously conducted surveys of PhD students and graduate supervisors in politics and international relations (Berdahl, Malloy and Young 2020; Kefford and Morgenbesser 2013). To reach this population, the survey was advertised via several avenues: over social media (Facebook and Twitter); emails sent by the executive of the Australian Political Science Association (AusPSA) to the organization’s membership list; emails sent by convenors of AusPSA’s working groups to members of these groups; and emails sent by the authors (A1 and A2) directly to Heads of each of the Political Science departments around Australia, who were asked encouraged to forward the survey information and link on to members of their department. We received a total of 109 responses. This represents approximately 25% of the target PhD candidate population.

*Measures*

The survey design replicated some questions from previous research of department chair and supervisors’ attitudes toward career development. The full survey instruments are available on request. This appendix provides a table comparing the questions used in this study.

The survey took respondents approximately 10-15 minutes to complete.

**Comparative Survey Questions**

|  |  |  |
| --- | --- | --- |
|  | **Australian survey** | **Canadian survey** |
| **Views on career training in the PhD program** | *To what extent do you agree or disagree with the following statements?*  *“There is sufficient training in my PhD program to prepare PhD candidates for the academic job market.”*  *“There is sufficient training in my PhD program to prepare PhD candidates for the non-academic job market.”*   * Strongly disagree * Somewhat disagree * Neither agree nor disagree * Somewhat agree * Strongly agree * Don't know | *Please evaluate the availability of career support programming for students in your program:*    *“Academic career support programming offered by your university’s graduate faculty and/or career centre”*    *“Academic career support programming offered by your department”*    *“Non-academic career support programming offered by your university’s graduate faculty and/or career centre”*    *“Non-academic career support programming offered by your department”*     * Too little * About right * Too much * Not sure |
| **Career preparedness** | *Have you engaged in the following activities as part of your PhD program? (Select all that apply.)*     * Co-authoring with a supervisor * Being included as a co-investigator/collaborator on a supervisor's grant application * Being consulted for input on a supervisor's grant application * Being employed by a supervisor as a Research Assistant * Being funded by a supervisor to attend a conference * Being encouraged by a supervisor to attend non-academic events (e.g. policy forums) | **I***ndividual faculty members engage in one-on-one graduate student career training in a number of ways. Please indicate whether or not your supervisor(s) and/or other faculty have engaged in each of the following activities over the course of your own career training.*    *(1) Co-authoring with you as a graduate student*  *(2) Formally including you as a graduate student as a co-investigator /collaborator on a grant application*  *(3) Consulting you as a graduate student for input on a grant application*  *(4) Employing you as a graduate student as a research assistant*  *(5) Funding you as a graduate student to attend a conference*  *(6) Encouraging you as a graduate student to attend non-academic events (e.g., policy forums)*     * Has not occurred * Has occurred |
|  | *Have you worked in a teaching position at your university or another university while completing your PhD?*   * Yes * No |  |
|  | *Not including tutoring or research assistant work, do you undertake paid employment outside your department?*   * Yes - up to 10 hours a week * Yes - between 10-15 hours a week * Yes - above 15 hours a week * No |  |
| **Academic career aspirations** | *For each statement, please indicate whether you primarily agree or disagree.*    *“I am primarily interested in pursuing an academic career”*    *“I measure my own success in terms of whether or not I successfully obtain an academic position”*  *“I was aware of limited academic job prospects before I began my doctoral program”*  *“I am convinced that I will be successful in the academic job market”*   * Agree * Neither agree nor disagree * Disagree | *For each statement, please indicate the extent to which you agree or disagree.*    *“I am primarily interested in pursuing academic careers.”*    *“I measure my own success in terms of whether or not I successfully attain an academic position.”*  *“I was aware of limited academic job prospects before I began my doctoral program.”*  *“I am convinced that I will be successful in the academic job market.”*   * Strongly agree * Agree * Neither agree nor disagree * Disagree * Strongly disagree |