Online Appendix A

Defining Teaching-Track Economists in Canada

We define teaching-track economists as full-time, regular faculty members[1] in positions with a heavier focus on teaching than their colleagues in traditional research-track positions. We use research-track to refer to economists in traditional faculty positions that prioritize research, but also include teaching and service responsibilities. Our definition of teaching-track economists excludes those teaching on a course-by-course basis, which are often referred to as sessional instructors in Canada. While these sessional positions often have a measure of job security provided by union rules, and while some sessional instructors teach many courses, these are not full-time, regular, faculty positions and hence are not included in our definition.[2]

Universities in Canada

Given the differences in the higher education landscape across Canada, the United Kingdom, and the United States, it is useful to provide some basic facts for Canada. Nearly all universities in Canada are public, and the few private ones, which often have a religious affiliation, are very small. Also, in Canada there is nothing comparable to liberal arts colleges in the United States. Consider the *Universities Canada* website, which posts annual enrolments at Canadian universities: https://www.univcan.ca/universities/facts-and-stats/enrolment-by-university/. To give an overview of universities in Canada, we use the "Fall 2023 full-time and part-time fall enrolment at Canadian universities" data downloaded on December 17, 2023, which has entries for 95 universities. Canadian universities are large, and some are huge. For example, the University of Toronto has an enrolment of 99,500 in 2023, which is far more than any university in the United States.[3] We exclude 18 French-speaking universities.

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[1] Those who are visiting, emeriti, adjunct, or in status-only positions are not regular faculty members.

[2] To further complicate matters, in at least one institution, there are a small number of economists who have contractually limited appointments, but that extend for up to five years. These appear as regular faculty members on at least one departmental website but are not eligible for renewal beyond five years. These types of contractual positions are *not* restricted to the teaching-track, yet even those on the research-track of a contractually limited appointment are hired to cover teaching needs. We would generally exclude such economists, although, one appears in our survey sample (the lone respondent who is not eligible for tenure or its equivalent).

[3] The largest universities in the United States include Texas A&M University (77,491), University of Central Florida (69,320), Rutgers University (67,620), and Ohio State University (all campuses) (65,405), according to reported total enrolments from each university's website retrieved on January 11, 2024 from: https://www.tamu.edu/about/facts.html, https://www.ucf.edu/about-ucf/facts/, https://www.rutgers.edu/about/by-the-numbers, and https://sem.osu.edu/enrollment-report.pdf, respectively.

Target Population and _Interviewees_ of Teaching-Track Economists in Canada

To identify willing participants for in-depth one-on-one interviews, we did a targeted pre-survey in March/April 2023. We identified 45 economists believed to be full-time teaching-track faculty members in Canada to invite. We created this list using our pre-existing knowledge of teaching-track economists in Canada and from what we could glean from public economics department websites for eight well-known, English-speaking Canadian universities: University of Alberta, University of British Columbia, University of Calgary, Dalhousie University, Queen's University, University of Toronto, University of Victoria, and York University. It was not intended as a comprehensive list. Of those 45, 30 completed the pre-survey for a response rate of 66.7 percent. Of those 30, 27 agreed to complete a one-on-one interview via Zoom.[4] Of these, we completed 24 interviews[5] at 7 institutions[6] during April/May 2023. Eleven of these interviews were conducted by members of our research team from the United Kingdom because the Canadian authors of this paper have, or have had, these economists as departmental colleagues and/or had other significant previous professional interactions with them. We sought to ensure that the interviewees could speak candidly and without presuming the interviewer already knew much of what they might say. For more details on purposive sampling, see Arico et al. (2024).

Target Population and _Survey Sample_ of Teaching-Track Economists in Canada

For the survey in July/August 2023, we defined a target population. We started with a comprehensive list of all universities in Canada.[7] We restricted our target population to English-speaking universities with at least 7,000 undergraduate students and at least 1,000 graduate students, yielding 29 universities. These 29 have mean enrolments of 33,140 students in 2023 and together have over 80 percent of all students among the 77 English-speaking universities.

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[4] In fact, 28 were willing, but one person incorrectly indicated that their university was in the United States, and we only realized their mistake after completing the interviews.

[5] Two people who had agreed to do Zoom interviews never replied to the scheduling invitations and one person subsequently declined to do a Zoom interview.

[6] The seven institutions are: the University of Alberta, the University of Calgary, Queen's University, University of British Columbia (including participants from the two economics departments on two campuses), University of Toronto (including participants from the two economics departments on two campuses), University of Victoria, and York University.

[7] Universities Canada provides an annual list of universities and enrolments, both undergraduate and graduate, at each: we used the Fall 2022 data (the most recent available at the time) at https://www.univcan.ca/universities/facts-and-stats/enrolment-by-university/ retrieved on June 30, 2023.

To identify the universities with teaching-track economists, in June/July 2023, we conducted an in-depth examination of publicly available information, including checking economics department websites, faculty members' profiles and C.V.s, and faculty members' self-maintained public websites and profiles (e.g. LinkedIn).[8] For universities where it was unclear if they had teaching-track economists, we directly contacted those departments via e-mail to confirm. There were nine institutions that would have met our inclusion criteria but had no teaching-track economists.[9] In several cases we were told that the universities were seeking to introduce a teaching-track, but the faculty unions were blocking this. At 20 universities and 22 economics departments[10] – some universities have more than one campus and more than one economics department – we identified 77 teach-track economists.[11] Excluding two faculty members just hired (appointment starts July 1, 2023), this leaves 75. We invited 73 teaching-track economists in Canada to complete the comprehensive survey.[12] We received 32 completed surveys for a response rate of 43.8 percent. The survey is anonymous so we cannot know which universities are represented. We dropped the one survey respondent who indicated being part-time. Hence, our analysis sample has 31 observations.

Survey Sample Representativeness

Using data gathered for the entire target population, we checked the representativeness of our sample. In late August 2023, for all 22 economics departmental websites at the 20 included

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[8] We triple checked all the top-ranked programs at https://www.schoolfinder.com/Discover/Article/25/6117/2023-Macleans-University-Rankings-Comprehensive-Schools (retrieved on July 7, 2023) and the top-ranked programs at https://education.macleans.ca/university-rankings/canadas-best-medical-doctoral-universities-rankings-2023/ (retrieved on July 7, 2023) to ensure we did not overlook any teaching-track economists.

[9] From largest to smallest, these are the nine universities without teaching-track economists: University of Ottawa, Western University, Toronto Metropolitan University, University of Guelph, University of Saskatchewan, Brock University, Memorial University of Newfoundland, University of Windsor, and University of New Brunswick.

[10] In alphabetical order, this includes 22 economics departments: Carleton University, Concordia University, Dalhousie University, University of Manitoba, McGill University, McMaster University, Queen's University, Simon Fraser University, Thompson Rivers University, Trent University, University of Alberta, University of British Columbia (Okanagan Campus), University of British Columbia (Vancouver Campus), University of Calgary, University of Regina, University of Toronto (Downtown Campus), University of Toronto (UTM Campus), University of Victoria, University of Waterloo, University of Winnipeg, Wilfrid Laurier University, and York University.

[11] We also excluded people at least one university on part-time contracts, which we only learned from the Zoom interviews. However, some department websites do not distinguish between full and part-time, so we cannot be sure that this population includes only people with full-time contracts.

[12] 73 is less than 75 because this excludes one of the authors of this manuscript who is in the population. It also excludes one other person who did not wish to be invited to complete the survey.

universities, we counted the total number of regular faculty members.[13] We identify which of these are teaching-track economists to compute the percent on in the teaching track. The total population of interest is 79 teaching-track economists (including four not invited to complete the comprehensive survey)[14], with appointments starting before July 1, 2023, at 20 Canadian universities. Across the 22 economics departments: the mean and median number of faculty members is 29.5 with a standard deviation of 12.1, a minimum of 6, and a maximum of 52. The mean number of teaching-track economists is 4.0, the median is 3.5, the standard deviation is 2.5, the minimum is 1 and the maximum is 11. The mean percentage in the teaching-track is 14.8, the median is 14.0, the standard deviation is 9.0, the minimum is 3.2, and the maximum is 42.9 (although the second highest is only 23.8).

For the target population of 79 faculty members, 46 percent appear female.[15] In the sample of 32 survey respondents, 50 percent self-identify as female.[16] For the target population of 79, on average they are in an economics department where 17.8 percent of faculty members are on the teaching track (median of 17.2 percent) with a standard deviation of 9.3 percentage points.[17] For the sample of 30 survey respondents who answered the question about the percent of faculty members belonging to the teaching track[18], the mean is 16.6 percent, the median is 15 percent, and the standard deviation is 13.5 percentage points.[19] Hence, based on the known observables of the target population, the sample in the survey is highly representative.

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[13] This excludes sessional instructors, adjunct professors, visiting professors, post-docs, and emeriti professors.

[14] At four different institutions, we found four additional teaching track faculty members, who are not new hires, in departments where we had thought we invited all teaching-track members. These are cases where the departmental website has been updated since our original search in June/July 2023.

[15] This is based on a combination of public photos, names, pronouns used in profiles, and other public information. It is not necessarily equal to how a person would self-identify in our anonymous survey and is simply used to do a rough check of sample representativeness.

[16] While both the sample and population include a non-zero number of faculty members identifying as nonbinary, we choose to simply report the fraction identifying as female to protect anonymity.

[17] This uses 79 teaching-track economists, not 22 economics departments, as the relevant unit of observation.

[18] The exact wording of the survey question is: "To the best of your knowledge, what PERCENTAGE of economics faculty members in your department are in a full- time, teaching-focused position or have a teaching-focused contract?"

[19] This includes one outlier (80 percent), and without it, the sample mean, median, and standard deviation are 14.4, 15, and 6.4, respectively. This outlier is a response error: the maximum possible value in the target population is 42.9 percent.

Online Appendix B

Table B.1 gives complete results to support Panel A of Table 1 in the main text. In the survey, 45.2 percent of responses from Canada indicate being pre-tenure. This is consistent with an assessment of the total population of interest as 79 teaching-track economists, which excludes two who were hired July 1, 2023. Of that population, 36 (45.6 percent) have a job title that is consistent with being pre-tenure.[20] Panel B of Table B.1 conditions on having the option of tenure to allow a more direct comparison between Canada and the other two countries. It again shows that Canada has a higher fraction of pre-tenure teaching-track economists.

Table B.1. Distinctions of Teaching-Track Economists in Canada, Survey Data: Tenure or its Equivalent

	Percent		
Categorical survey questions:	CA	UK	US
Panel A: All survey respondents			
"I have tenure or its equivalent" [percent]	51.6	75.0	8.9
"I do not yet have tenure or its equivalent, but can be promoted and gain tenure (or the equivalent)." [percent]	45.2	10.7	3.1
N/A [percent]	3.2	14.3	88.0
Number of observations	31	84	192
Panel B: Conditional on being in a position where tenure or its equivalent is possible			
"I have tenure or its equivalent" [percent]	53.3	87.5	73.9
"I do not yet have tenure or its equivalent, but can be promoted and gain tenure (or the equivalent)." [percent]	46.7	12.5	26.1
Number of observations	30	72	23

Notes: Question 18 in the survey asks: "At your current institution, which best describes the highest level of employment security achievable given your current full-time academic appointment?" If the respondent selects "Tenure or its equivalent, which assures continued employment similar to those in traditional research-focused positions (e.g., Senior Lecturer with Security of Employment)," then Question 19 asks: "Which ONE of the following statements is true regarding your current position?" The two possible answers to Question 19 are shown above. N/A means not applicable because Question 19 is not shown to respondents for whom it is not relevant. CA abbreviates Canada. UK abbreviates the United Kingdom. US abbreviates the United States.

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[20] Some examples of pre-tenure titles are: Assistant Professor, Teaching Stream (instead of Associate Professor, Teaching Stream or Professor, Teaching Stream), or Lecturer (instead of Senior Lecturer).

Table B.2 gives complete results to support Panel B of Table 1 in the main text.

Table B.2. Distinctions of Teaching-Track Economists in Canada, Survey Data: Other categorical survey questions about the role and role holders

	Percentage (standard error)			P-value	
	CA	UK	US	CA - UK	CA - US
"I have always preferred a teaching focused role which aligns with my passions and ambitions" is a factor influencing career decision [percent yes]	67.7 (8.4)	36.9 (5.3)	56.5 (3.6)	0.0032	0.2412
Number of observations	31	84	191		
"I am eligible to go on sabbatical" [percent yes]	83.9 (6.6)	38.6 (5.3)	27.7 (3.2)	0.0000	0.0000
Number of observations	31	83	191		
"I have faculty member voting rights in departmental or college meetings" [percent yes]	96.8 (3.2)	56.6 (5.4)	56.5 (3.6)	0.0000	0.0000
Number of observations	31	83	191		
"Is there a faculty/staff labor union at your institution?" [yes, and can join]	90.3 (5.4)	96.4 (2.0)	33.2 (3.4)	0.1914	0.0000
Number of observations	31	84	190		
"The hiring process for teaching-focused faculty is parallel to the hiring process for research-focused faculty" [percent agree or strongly agree]	58.1 (8.9)	31.0 (5.0)	27.0 (3.2)	0.0079	0.0005
Number of observations	31	84	189		
"I am valued by my department colleagues" [percent agree or strongly agree]	93.5 (4.4)	81.0 (4.3)	78.9 (3.0)	0.0990	0.0547
Number of observations	31	84	190		
"Overall, I am satisfied with my job" [percent agree or strongly agree]	90.3 (5.3)	77.4 (4.6)	79.6 (2.9)	0.1174	0.1567
Number of observations	31	84	191		

Notes: P-values are for two-tailed tests of differences in proportions.

Table B.3 supports Figure 1 and Table 2 in the main text. For Table 2, Table B.3 corresponds to the rows of results that are interval (not Likert scale) questions. Table B.4 gives the remaining results to support Table 2 in the main text.

Table B.3. Potential Challenges for Teaching-Track Economists in Canada, Survey Data: Differences in Means

	Mean (standard error)			P-value	
	CA	UK	US	CA - UK	CA - US
"What is the approximate total number of students you teach in a typical academic year?"	980 (118)	507 (29)	653 (43)	0.0005	0.0130
Number of observations	30	81	186		
"Counting each semester/term/session/quarter in a regular academic year, how many distinct courses/modules do you lead or are involved in teaching in a typical academic year?"	4.9 (0.3)	3.8 (0.2)	4.6 (0.2)	0.0073	0.4537
Number of observations	31	82	192		
"Within the last five academic years, how many courses/modules you taught were new preparations?"	3.6 (0.4)	3.6 (0.2)	2.8 (0.1)	0.9851	0.0979
Number of observations	28	80	180		
"Approximately how many hours do you work per week in a typical week?"	51.9 (2.2)	47.2 (1.2)	45.6 (0.8)	0.0719	0.0117
Number of observations	31	84	191		

Notes: Reports means with standard errors in parentheses. P-values are for two-tailed tests of differences in means, not assuming equal variances.

Table B.4. Potential Challenges for Teaching-Track Economists in Canada, Survey Data: Differences in Proportions

	Percentage (standard error)			P-value	
Categorical survey questions:	CA	UK	US	CA - UK	CA - US
"I feel overwhelmed by student mental health needs" [percent often or always]	54.8 (8.9)	20.2 (4.4)	31.3 (3.3)	0.0003	0.0104
Number of observations	31	84	192		
"Student teaching evaluations are heavily weighted in assessing my performance" [percent agree or strongly agree]	58.1 (8.9)	47.6 (5.4)	73.8 (3.2)	0.3202	0.0711
Number of observations	31	84	191		

Notes: Reports percentages with standard errors in parentheses. P-values are for two-tailed tests of differences in proportions.

For all interval variables reported in the main text, the panels in Figure B.1 below show the box plots to summarize the distribution of each variable.
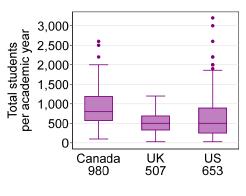

Figure B.1, Panel A.
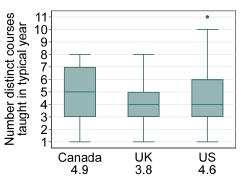
Total students per academic year

Figure B.1, Panel B.
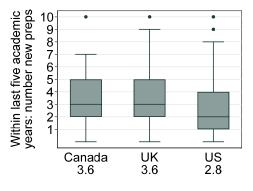
Total distinct courses per academic year

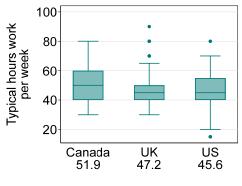**Figure B.1, Panel C.**

Total new course preparations over past five years

Figure B.1, Panel D.

Hours worked in a typical week