

Canadian Women Economist Committee (CWEC) Comité des Femmes Économistes Canadiennes (CFÉC)

Report on the Status of Women



BY ELIZABETH DHUEY, UNIVERSITY OF TORONTO

MARCH 2021





Introduction

Since 2012-13, Canadian Women Economists Committee/Comité des Femmes Économistes Canadiennes has published biennial reports on the status of women economists in Canadian universities. This report seeks to update trends in the representation of women in Canadian economics departments for 2018-19. Though the gender gap in academia in mathematically intensive fields such as economics, engineering and computer science has improved, women remain underrepresented, with the pipeline leaking most dramatically as women advance in their academic careers, with there being only one third as many female full professors as there are assistant professors in the US (Ceci, 2017). The results of our survey for Canada show that female representation improves from assistant (26.6%) to associate professor (27.7%), before falling at the level of full professor (15.4%).

Data on Canadian economists was collected from CWEC/CFEC surveys which were sent to all Canadian economics departments, as well as from department websites. Data on US economists was collected from CSWEP's annual survey.



Economists in Academic Jobs

Figure 1a: Women in tenured/tenure-track positions with voting rights in economics departments, 2018-19



Figure 1b: Men in tenured/tenure-track positions with voting rights in economics departments, 2018-19



Figure 1a indicates the job title of every female faculty member in a tenured/tenure track position with voting rights in the 2018-19 sample. Figure 1b shows the job title of every male faculty member in a tenured/tenure track position with voting rights in the 2018-19 sample. Each square represents one individual. We can see that female faculty are outnumbered compared to male faculty. These graphs allow us to compare the most common job titles for female and male faculty.

In the 2018-19 sample, we found that the proportion of female faculty who were untenured assistant professors (22.5%) was similar to the proportion of male faculty who were untenured assistant professors (19.0%). In stark contrast, women are much less likely to be full professors with tenure (22.5%), compared to men (40.6%). Tenured assistant professors, untenured associate professors and untenured full professors are uncommon positions for both men and women.



Figure 2a: Women in positions without voting rights in economics departments, 2018-19



Figure 2b: Men in positions without voting rights in economics departments, 2018-19



Figure 2a indicates the job title of every female faculty member in a position without voting rights in the 2018-19 sample, while Figure 2b shows the job title of every male faculty member, with each square representing one individual. Women are also outnumbered by men in these positions.

Canadian women are twice as likely to work part-time as men, so one might expect that women in part-time positions would make up a larger proportion of faculty without voting rights compared to men (Patterson, 2018). However, we find that men and women are similarly represented in part-time positions, with 76.9% of female faculty without voting rights working part-time, compared to 80.2% of their male counterparts.



Table 1: Percentage and number of female academic staff in tenured/tenure-track positions with voting rights, by rank

		Assistant		Associate		Full	
	Source	n	% female	n	% female	n	% female
2012-13	CWEN/RFE Surveys	149	32.9%	198	21.1%	247	10.1%
2014-15	Web Data	184	25.5%	328	25.9%	354	13.6%
2016-17	Web Data	226	27.0%	348	26.7%	358	13.7%
2018-19	Combined Survey and Web Data	247	26,6%	417	27.7%	397	15.4%

Total is the total number of professors reported, and % women is the percentage of those professors reported to be women.

Table 1 shows the number of professors per academic rank for every report since 2012-13, as well as the percentage of those professors who are women.

We sent out the 2018-19 survey to all departments listed in the Appendix. Web data was collected for departments that did not respond to the survey. Web data was not collected for the 2012-13 report, but z-tests showed that the sample of respondents to the 2012-13 survey was comparable to the 2018-19 sample.

Figure 3: Proportion of women in tenured or tenure-track university positions with voting rights, by rank

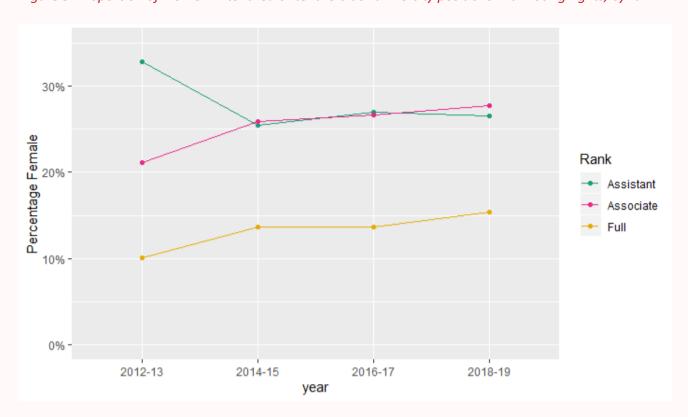




Figure 3 shows the time trend in the percentage of professors who are women by academic rank, for assistant, associate and full professors. Points were plotted for the four reports conducted since 2012-13.

There seem to have been improvements in female representation at the associate and full professor levels over the past few years, though we are still far from parity, with women still representing only 15.4% of all full professors and 27.7% of associate professors in 2018-19. The proportion of female assistant professors seems to have been levelling off, which could dampen female representation in more senior ranks in the coming years.

Figure 4: Proportion of women in tenured or tenure-track university positions with voting rights in Canada and the US, by rank

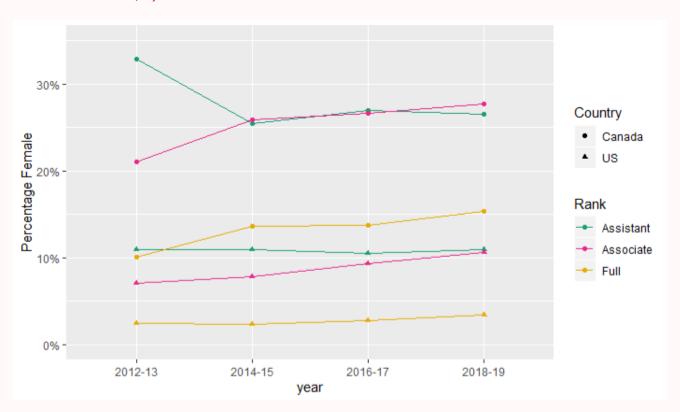


Figure 4 shows the time trend in the percentage of professors who are women by academic rank for assistant, associate and full professors, in Canada and the US. Again, points were plotted for the four reports conducted since 2012-13.



At every academic rank, the representation of women is lower in American institutions compared to Canadian ones. The job markets for the two countries are interconnected (CWEC Report 2017), so it is not surprising that there seem to have been similar improvements in female representation at the associate and full professor level, and a similar levelling off of female representation at the assistant level in the US.

Figure 5: Proportion of women in tenured or tenure-track university positions with voting rights, by rank and discipline, 2018-19

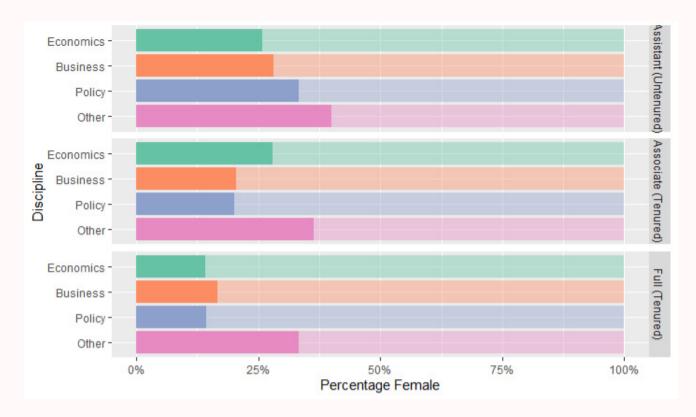


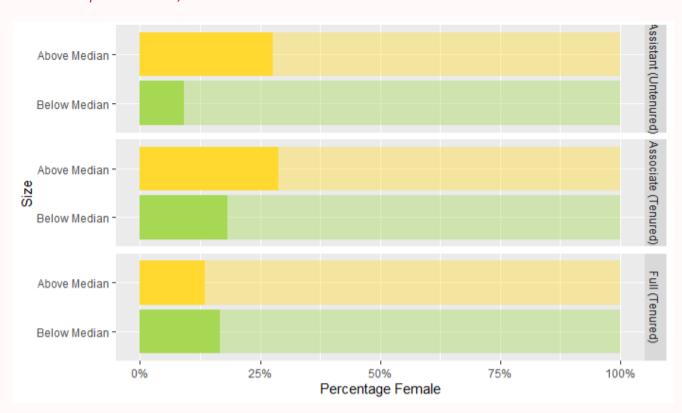
Figure 5 shows the percentage of professors who are women by academic rank and discipline in 2018-19. We considered four types of departments which commonly employ economists: economics, business, policy and "other" departments. The "other" category is heterogeneous: it includes university colleges within larger institutions (Huron University College at the University of Western Ontario and St. Thomas More College at the University of Saskatchewan) as well as departments whose discipline does not fall into any of the other categories (Faculty of Land and Food Systems at UBC, Dalla Lana School of Public Health, and the Department of Economics, Philosophy, and Political Science at UBC-Okanagan).



Female economics professors are underrepresented in economics and non-economics departments alike. Assistant and full professors in economics departments have the least female representation, compared to other disciplines.

For business and policy departments, the proportion of female professors drops as they progress through the academic ranks. For economics departments, female representation improves slightly at the associate level, then drops by about half at the full professor level.

Figure 6: Proportion of women in tenured or tenure-track university positions with voting rights, by rank and department size, 2018-19



Figures 6 to 9 only include professors employed by economics departments.

Figure 6 shows the percentage of professors who are women by academic rank and department size in 2018-19. Department size is measured by the number of tenure and non-tenure track faculty employed by the department. We divided departments into two categories: small departments with less than the median number of faculty, and large departments with more than the median number of faculty.



Female junior professors are better represented in larger departments, while female full professors are slightly better represented in smaller departments. In large departments, the percentage female of assistant professors is similar to that of associate professors, and twice the percentage female of full professors. On the other hand, in small departments, the percentage female of associate professors is similar to that of full professors, and twice the percentage female of assistant professors.

Figure 7: Proportion of women in tenured or tenure-track university positions with voting rights, by rank and whether department offers PhD, 2018-19

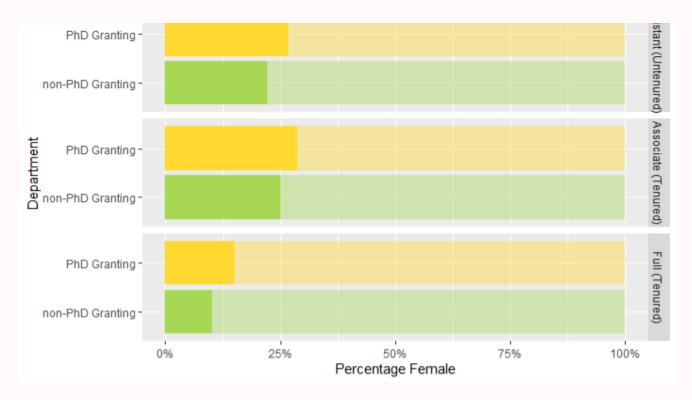
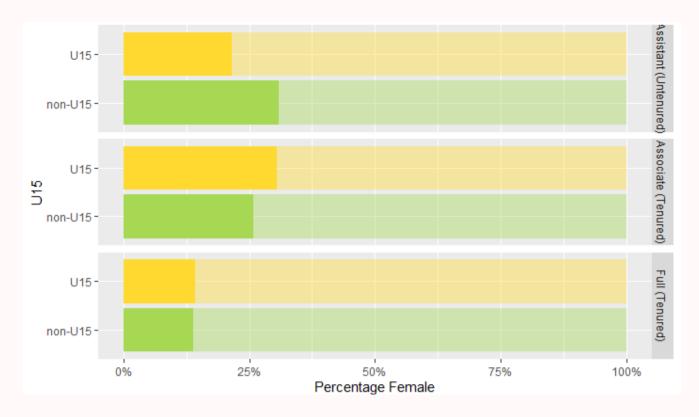


Figure 7 shows the percentage of professors who are women by academic rank, for PhD-granting and non-PhD granting departments in 2018-19.

At all ranks, PhD-granting departments have a higher proportion of women compared to non-PhD granting departments. For both PhD-granting and non-PhD granting departments, the percentage female for associate professors is slightly higher than the percentage female for assistant professors. For PhD-granting departments, the percentage female of full professors is about half the percentage for associate professors, and for non-PhD-granting departments, the percentage female of full professors is less than half the percentage for associate professors.



Figure 8: Proportion of women in tenured or tenure-track university positions with voting rights, by rank and U15 Membership, 2018-19



The U15 is a group of 15 Canadian research universities. Figure 8 shows the percentage of professors who are women by academic rank, for departments in U15 and non-U15 universities in 2018-19.

The female representation of assistant professors is lower in U15 institutions, that of associate professors is higher in U15 institutions, and that of full professors is similar to non-U15 institutions. In U15 institutions, similar to the trend for economics departments overall, women are slightly better represented at the associate compared to the assistant level, and much more poorly represented at the full compared to the associate level, with the percentage female of full professors well under half the percentage female of associate professors. In non-U15 institutions on the other hand, the percentage of women continues to fall as they progress through the academic ranks.



Figure 9: Proportion of women in tenured or tenure-track university positions with voting rights, by rank and region, 2018-19

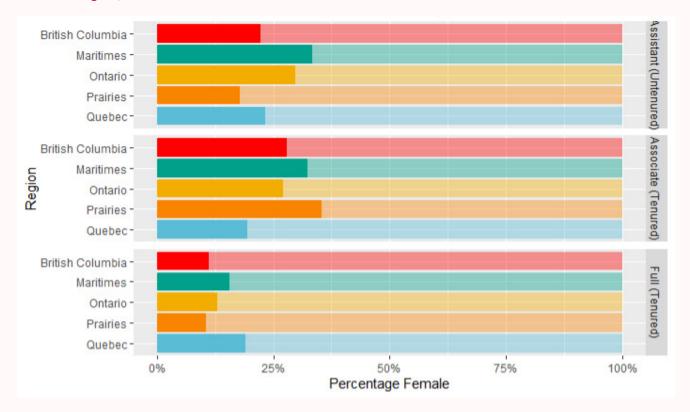


Figure 9 shows the percentage of professors who are women by academic rank and geographical region in 2018-19. We considered five regions: British Columbia, the Maritimes, Ontario, the Prairies and Quebec.

In all provinces, there was a fall in female representation from associate to full professor. Only in Quebec was there only a slight difference between female representation of associate and full professors. In Ontario, the Maritimes and Quebec, female representation was similar for assistant and associate professors, whereas for British Columbia and the Prairies, female representation increased from assistant to associate professor.



Economists in Academic Jobs

Figure 10: Female representation among economics students, 2018-19

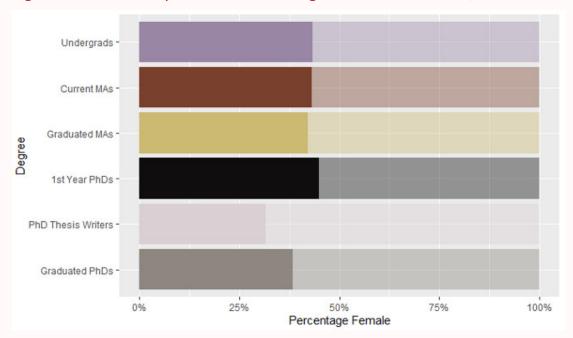


Figure 10 shows the percentage of economics students who are female, at various levels of education in 2018-19. We considered undergraduates, current and recently graduated MA students, current PhD students including 1st year PhD students and registered thesis writers, and recently graduated PhD students.

In 2018-19, female economics students were underrepresented at all stages of their education. Female enrolment is stable throughout the undergraduate and master's, and weakest at the later stages of the PhD. This indicates that women drop out as they go through the academic pipeline. Surprisingly, 1st year PhDs had the strongest female enrolment at 45.0%, surpassing that of undergraduates (43.3%) and master's (43.2%). It is possible that the latest cohort of incoming PhDs was more female than previous cohorts. Women might also face a variety of gender-specific challenges as they go through the PhD which might make them more likely to drop out from the PhD than men. Another potential explanation is that women may be more likely to pursue opportunities outside of academia and interrupt their PhD.

Female representation is worse among economics faculty members compared to economics students, indicating that the pipeline is also leaky when students transition into their first academic job.



Conclusion

In 2018-19, women economists in academic jobs remain outnumbered compared to their male counterparts, representing less than 25% of tenured/tenure-track faculty with voting rights. Female representation is even worse at senior ranks, with women representing only 15% of full professors. Women represent less than 50% of economists at every academic rank, no matter how we parsed the data.

Women remain underrepresented as economics students at all stages of their education, though the 2018-19 cohort of first-year PhD students had strong female representation compared to other education levels this year. The representation of women is worse in the academic labour force compared to among economics students. There have been some improvements in female representation at the associate and full professor level since 2012-13, but there has also been a concerning plateau in the representation of female assistant professors. This could be indicative of insufficient support at earlier stages of the pipeline, or a negative perception of women's experience at the later stages of the pipeline.



References

Ceci, Stephen J. (2018). "Women in Academic Science: Experimental Findings From Hiring Studies", Educational Psychologist, 53(1), 22-41. DOI: 10.1080/00461520.2017.1396462

CWEN/RFE (2015). CWEN/RFE Report on the Status of Women in Canadian Economics, 2015. Retrieved on November 26th 2019 from: http://www.cwen-rfe.org/wp-content/uploads/2015/09/CWENRFE-report-2015.pdf

CWEN/RFE (2017). CWEN/RFE Report on the Status of Women in Canadian Economics, 2017. Retrieved on November 26th 2019 from: https://cwec-cfec.ca/wp-content/uploads/2017/12/CWEN-re-port-on-status-of-women-2017.pdf

Duhaime-Ross, Alix (2013). CWEN Survey Report on the Representation of Women Economists in Canada's Universities. Retrieved on November 26th 2019 from: http://www.cwen-rfe.org/wp-content/uploads/2015/04/Report_CWEN_EN_pre.pdf

Lundberg, Shelly (2018). The 2018 Report of the Committee on the Status of Women in the Economics Profession. Retrieved on November 26th 2019 from: https://www.aeaweb.org/content/file?id=9270

Patterson, Martha (2018). "Who works part time and why?", Labour Statistics at a Glance. Retrieved on November 26th 2019 from: https://www150.statcan.gc.ca/n1/pub/71-222-x/71-222-x2018002-eng.htm



Appendix A: Responding Departments

		2012-13	2014-15	2016-17	2018-1
conomics					
University of Alberta	Alberta	Y	Y	Y	Y
University of Alberta, Augustana campus	Alberta				
University of Calgary	Alberta	Y			Y
University of Lethbridge	Alberta		Y	Y	Y
Simon Fraser University	BC	Y	Y	Y	Y
University of British Columbia	BC	Y	Y	y	Y
University of the Fraser Valley	BC	Y			Y
University of Northern British Columbia	BC	Y	Y	Y	Y
Thompson Rivers University	BC				
University of Victoria	BC	y			y
Brandon University	Manitoba	Y			Y
University of Manitoba	Manitoba	Y		Y	Y
University of Winnipeg	Manitoba	y	Y	Y	Y
Mount Allison University	New Brunswick	y			y
Universite de Moncton	New Brunswick				
University of New Brunswick - Fredericton	New Brunswick	Y	y	y	Y
University of New Brunswick - Saint John	New Brunswick				
University of St. Thomas	New Brunswick		Y		
Memorial University	Newfoundland		Y	y	Y
Acadia University	Nova Scotia	Y		y	Y
Dalhousie University	Nova Scotia	y	Y	V	٧
Mount Saint Vincent University	Nova Scotia			-	
Saint Francis Xavier University	Nova Scotia	y	Y	Y	
Saint Mary's University	Nova Scotia		V	V	
Brock University	Ontario		Y		
Carleton University	Ontario	Y	Y		Y
Lakehead University	Ontario				Y
Laurentian University	Ontario	y	Y		
McMaster University	Ontario		V	V	٧
Nippising University	Ontario			100	
Queen's University	Ontario	Y	Y	V	٧
RMC	Ontario		v		٧
Ryerson University	Ontario		У	V	
Trent University	Ontario	У	У		У
University of Guelph	Ontario		y		y
University of Ottawa	Ontario		v		y
University of Toronto	Ontario		*	y	Y
University of Toronto, Mississauga	Ontario		Y		
University of Waterloo	Ontario		1	٧	٧
University of Western Ontario	Ontario	V	V	v	V
University of Windsor	Ontario			<i>f</i> .	
Wilfrid Laurier University	Ontario	y	V	V	٧



York University	Ontario				
University of Prince Edward Island	PEI	У			y
Bishop's University	Quebec				
Concordia University	Quebec		y		y
HEC Montreal	Quebec	y			
McGill University	Quebec	У		У	y
Universite de Montreal	Quebec	У	y		
Universite de Sherbrooke	Quebec				
Universite du Quebec a Montreal	Quebec	y	y		y
Universite Laval	Quebec	У	y		y
University of Regina	Saskatchewan		y		
University of Saskatchewan	Saskatchewan	y	y	y	У
Other					
Mount Royal U, EconJusticePolicy (new 2018-19)	Alberta				
Alberta, BusinessEconLaw	Alberta	У			y
Alberta, Resource Economics (new 2018-19)	Alberta				y
Calgary, Public Policy (new 2018-19)	Alberta				-
Trinity Western U, Business (new 2018-19)	BC				
UBC, Business Economics	BC				
UBC, Land and Food Systems	BC				
UBC Okanagan	BC				
Vancouver Island University	BC				
Crandall University, Business (new 2018-19)	New Brunswick				
Algoma U College	Ontario				
Carleton University, Public Policy (new 2018-19)	Ontario				
Guelph Ag	Ontario			y	y
Huron University	Ontario	У	y		
King's University College	Ontario	У			
Queen's University, Policy (new 2018-19)	Ontario				
Queen's University, Smith (new 2018-19)	Ontario				
UofT Mississauga, Business (new 2018-19)	Ontario				
UofT Scarborough, Management (new 2018-19)	Ontario				
University of Toronto, Dalla Lana (new 2018-19)	Ontario				
University of Toronto, Rotman	Ontario	У	y		y
U of Western Ontario, Ivey (new 2018-19)	Ontario				
York University, Glendon	Ontario				
York University, Schulich	Ontario	na	na		
Universite du Quebec a Trois Rivieres	Quebec				
St. Thomas More College (new 2018-19)	Saskatchewan				
University of Saskatchewan, Ag (new 2018-19)	Saskatchewan				
Number of Responses					
Economics departments		28	31	22	34
Other		4	2	1	4
Total		32	33	23	38
		_		_	



Appendix B: Survey

r .	2018-19	_		
versity:				
artment:				
nil:				
			2018-2019	
		Total	Male	Female
	nure track jobs with voting rights: istant Professors			
	Untenured			
	Tenured		+	
	ociate Professors			
	Untenured			
	Tenured			
	Professors			
	Untenured			
	Tenured		_	
	renureu			
ulty without votin	g rights:			
Par	t-time/sessional instructors			
Full	-time Instructors, not permanent			
Full	-time instructors, permanent	•		
	Untenured			
	Tenured			
ulty in Department	Administrative Roles			
	partment Chair			
	ociate Chair(s)			
	duate Chair			
Unr	dergraduate Chair			
	er (please specify)			
•				
lergraduate stude	nts - either in final year or recently gr	raduated coh	ort - by progr	am
Ma	jor in Economics			
Hor	nours in Economics			
Oth	er (please specify)			
Ma Hor	jor in Economics nours in Economics	raduated coh	ort - by progra	am



MA (Econ) students							
Current students (2018-19)							
Recently graduated (2017-18)							
PhD students:							
First Year Ph.D. students (2018-19)							
Registered Ph.D. thesis writers (passed							
general exams, 2017-18)							
Left the Ph.D. program in 2017-2018 without							
Graduated in the previous year (2017-18)							
Placement of Ph.D. students on the job market (in the 2017-18 academic year)							
Canadian/US PhD granting department							
Canadian/US non-PhD granting department							
Academic job outside Canada/US							
Canadian/US public sector job							
Canadian/US private sector job							
Non-academic job outside Canada/US							
Are there other departments/schools in your university that house a substantial number of economists?							
(please specify)							
(prease specify)							