

Veselin Jungić (Simon Fraser University)

Lauren DeDieu (University of Calgary)

Andrijana Burazin (University of Toronto, Mississauga)

Miroslav Lovrić (McMaster University)

Education Notes bring mathematical and educational ideas forth to the CMS readership in a manner that promotes discussion of relevant topics including research, activities, issues, and noteworthy news items. Comments, suggestions, and submissions are welcome.

John Grant McLoughlin, *University of New Brunswick* (johngm@unb.ca)

Kseniya Garaschuk, *University of Fraser Valley* (kseniya.garaschuk@ufv.ca)

In this article we report on a recent survey conducted among mathematics and statistics teaching faculty at Canadian universities. To provide context for our analysis, in the opening section we offer a few references and background information about the so-called teaching-stream faculty in general. Next, we discuss the findings of our survey and comment on certain developments in the Canadian community of mathematics and statistics teaching-stream faculty. We finish this article with a call for action with an aim to further improve students' undergraduate learning experience by strengthening the position of the teaching-stream faculty at their institutions.

Introduction: From casual appointments to teaching stream

It is a well-documented fact (Mohamed, 2022), that over the years and across the world the proportion of the full-time tenure-track faculty in academia has declined. This trend has been present in Canada as well.

For many years, universities in Canada have been relying on a precarious workforce (non-permanent, part-time, casual, contract, temporary type employment, with, in general, teaching rather than research assignments) to fill in ever-increasing demands for classroom instruction (Pasma & Shaker, 2018, Murray, 2019).⁹

In the report published by the Canadian Association of University Teachers (Foster & Birdsell Bauer, 2018), which draws data from the Statistics Canada 2016 Census, we read: "The drop in full-time, full year positions is evident, for instance, in the Census which shows a decline of 10% from 2005 to 2015. During the same period, university professors working part-time, part-year increased by 79%." The paper by Rose (2020) reports on the "extent of the reliance on precariously employed contract faculty across Canada."

A 2018 study by the Council of Ontario Universities (COU, 2018) establishes that only 42.3% of academic staff in Ontario are tenure track or tenured, 5.8% are full-time non-tenured stream, and 51.9% are precarious academic workers. Statistics from the Canadian Union of Public Employees (Pasma, 2019) shows that Ontario is between the extremes: Quebec universities rely the most of all Canadian provinces on precarious faculty, and only about 40% of their faculty are tenure track or tenured. At the other end, in Alberta and Prince Edward Island, a bit over 60% of faculty are tenure track or tenured.

The COU study states that “Part-time instructors teach 45% of all students, focusing particularly on the undergraduate level – where they teach 46% of students and 50% of courses” (COU, 2018). In discussing the situation, the authors have been trying hard to convince us that many part-time instructors are “very likely unqualified for a tenure-stream appointment” and that “a minority of part-time instructors (9% to 23%) would potentially fit the common public perception of part-time instructors seeking to make a full-time academic career.” This, in our view, narrow data interpretation cannot hide the fact that the tenure-track professoriate meets, at best, one half of the current university teaching commitments.

One may wonder why the employment of tenure-track and tenured faculty at Canadian universities did not keep up with the pace of the growth of the student body (see the above employment Census data as reported in Foster & Birdsell Bauer (2018), contrasted with an evident increase in the number of students at Canadian universities). The Canadian Association of University Teachers (CAUT) document “Out of the shadows: Experiences of contract academic staff” (Foster & Birdsell Bauer, 2018) offers a possible explanation:

At Canadian universities, academic rank salaries as a percentage of total expenditures have steadily declined from 34% in 1973 to 23% in 2016. Spending on academic rank salaries increased by 166% in constant 2015 dollars from 1972 to 2016, while spending on administration and general funds increased by 228% during the same period. Other expenses also showed a higher percentage of growth during the period. Building, land and land improvements grew by 366%, for example. The casualization of the academic labour force is therefore only one component of the shift in priorities at Canadian universities.

Hence, as a manifestation of “the casualization of the academic labour force,” part-time instructors became an instrumental component of Canadian academia and its business model.

CAUT¹ data indicates that a sessional instructor is currently paid between \$5,000-\$10,000 (Canadian dollars) per one-semester course. This agrees with the comment made by the authors of the Centre for the Study of Canadian and International Higher Education (CIHE) publication “A Survey of Sessional Faculty in Ontario Publicly Funded Universities” (Fields & Jones, 2016):

For many instructors, income levels from part-time² sessional contracts are significantly less than the low-income measure after tax (LIM-AT) measure of the poverty line.³

We wonder if there is any other occupation in Canada where a group of highly educated individuals would be expected to provide a first-class “product” for a salary that would keep them around the poverty line, and with no job security whatsoever.

This absurd, unfair, and unsustainable situation (see the CBC News article “Ontario college strike spotlights ‘new norm’ of precarious labour in academia,” published in 2017⁴) has led to a gradual but steady acceptance of the fact that the creation of continuous teaching-stream faculty positions would bring multiple benefits to the entire university teaching and learning practice.

For example, Vajoczki, Fenton, Menard, and Pollon (2011) stated that

Protecting the rights and privileges of instructors, by creating TSF [teaching-stream faculty] positions rather than large numbers of adjunct positions ultimately benefits students and has a positive impact on teaching and learning. Faculty members who have

secure employment commit to students, the department and their institutions because they have the time to invest in their role and develop their pedagogical expertise.

The process of establishing teaching-stream faculty positions has been challenged, often by the tenure-track research faculty. In the 2013 *The Globe and Mail* article “For a new kind of professor, teaching comes first”⁵ we read:

“When you’re also a researcher, you’re a different kind of teacher. You’re bringing something else to the classroom,” said Jim Turk, executive director of the Canadian Association of University Teachers. “It’s what distinguishes a university. Otherwise, it really is no different than a high school.” [...] faculty at the University of Ottawa are not persuaded. Last week, they rejected a university proposal to make 10 per cent of professorial jobs teaching focused by 2020. Christian Rouillard, president of the university’s faculty association, echoed Mr. Turk’s fears, and worried a teaching stream would create “Balkanization” among professors. In 2008, faculty at the University of Windsor turned down a similar proposal.

Putting aside the fact that Turk and Rouillard’s statements were made at the time when, as we learn from COU (2018), about 50% of undergraduate classes in Ontario were taught by part-time instructors, we observe that “Balkanization” among academic staff was already there. At about the same time Vajoczki, Fenton, Menard, and Pollon (2011) wrote:

Some CAS [contract academic staff] reported feeling invisible and disrespected at work. In some of the answers to survey questions, CAS self-describe as “second class citizens” and “untouchables,” and say they are treated with “contempt” because of their contract status.

Mathematics and Statistics Teaching-Stream Faculty

In 2017, two co-authors of this article (Jungić & Lovrić, 2017) published the “Call for National Dialogue: The Present and Future of Teaching First Year Mathematics at Canadian Universities.” The call ended with the statement:

Therefore, first-year math courses present unique opportunities and challenges to substantially influence Canadian students regarding their attitude towards, and knowledge and significance of mathematics. To use this opportunity and meet the challenge

in this fast-changing academic world, all of us who teach, or are otherwise involved in post-secondary math courses in Canada must communicate, share our experiences, coordinate our efforts, and work together.

It turned out that post-secondary mathematics teaching practitioners were ready and eager to establish a platform for a dialogue. Over the last several years, members of the grassroots teaching community First-Year Math & Stats in Canada (FYMSiC)⁶, have organized annual conferences and workshops and have been running a well-attended online seminar series; they established an online repository of the first-year mathematics and statistics courses taught at Canadian universities, and have been publishing a newsletter. For further information about FYMSiC, see the article by Burazin, Jungić, and Lovrić (2020).

As well, the Canadian Mathematics Society has witnessed a large increase in education activities. One half of the presentations in the first virtual CMS meeting (CMS COVID-19 Research and Education Meeting) in 2020 were related to mathematics education. CMS meetings now routinely host between 3 and 5 education sessions, which, in terms of attendance, are often the largest sessions.

Even though the FYMSiC events are attended by teaching practitioners from all walks of academic life, including retirees, graduate students, college instructors, and tenured-track faculty, the core of the community is comprised of teaching stream faculty, both continuing and part-time. For this reason, a session at the May 2022 online FYMSiC conference was devoted to the discussion about the teaching faculty ranks across Canada.

In preparation for the conference, members of the FYMSiC community were invited to complete a short survey about the status of the teaching-stream faculty ranks at their institutions. There were 12 complete responses, coming from 12 universities (a mix of medical-doctoral, comprehensive and primarily undergraduate universities) located in six Canadian provinces.

Of the 12 universities covered in the survey, eight had a collective agreement between the university and the local faculty association that included teaching-stream faculty; one was in the process of negotiating such an agreement; one opted for using the term “academic teaching staff” rather than “teaching faculty;” and two universities did not have any kind of recognized continuous teaching-stream faculty

In general, responses by our colleagues from institutions with the established teaching streams indicated a variety of approaches when defining the teaching-stream faculty ranks, their workload, job expectations (including the level of courses taught), and so on. This is in line with research conducted by Mohamed (2022).

We now summarize the responses to our survey.

Ranks: In Table 1 we present different approaches in defining teaching ranks.

In general, there are three levels, mimicking the ranks of tenure-track faculty. From the survey responses and from the discussion during the FYMSiC conference session in May 2022, it became clear that the most common approach to naming teaching ranks is to use the traditional ranking (assistant professor – associate professor – professor) and add, or insert, “of teaching,” or “teaching,” or “teaching stream.”

We have also learned that there are different approaches towards granting tenure, i.e., the permanent employment status, to the teaching-stream faculty. Some universities do not have that as an option, such as those classified under ‘C’ and ‘D’ in Table 1; some treat the highest rank as tenured (‘A’), and some mirror the research-stream pattern and award tenure at the second rank level (‘B’ and ‘E’).

Sometimes the term “tenured” is avoided, even though the position is permanent. One of the survey respondents said:

Every Assistant Teaching Professor is required to eventually apply for “continuing” status, and the definition of “continuing status” in our collective agreement is word-for-word the same as the definition of “tenure.” In addition, we have the option of applying to the rank of Teaching Professor, which confers tenure.

University	A	B	C	D	E
Ranks	Lecturer	Instructor	Instructor I	Lecturer	Assistant Professor of Teaching
Ranks	Senior Lecturer	Senior Instructor*	Instructor II	Assistant Professor of Academic Programming	Associate Professor of Teaching*
Ranks	University Lecturer*	Teaching Professor*	Senior Instructor	Associate Professor of Academic Programming	Professor of Teaching*

Table 1 Teaching stream faculty ranks at various Canadian universities, from the lowest to the highest. Ranks marked by a (*) are tenured

Workload: We asked our survey participants about the standard teaching-stream faculty workload split. Table 2 summarizes their responses.

Teaching	Service	Educational Leadership and Scholarship	# of responses/8
80%	20%		5
85%	15%		1
70%	20%	10%	2

Table 2 Workload split for teaching stream faculty

Teaching: The teaching load (“Teaching” column in Table 2) amounts to teaching six one-semester courses per year or fewer, in which case the remaining load consists of performing “equivalent” duties. Those duties may include math help centre coordination; coordination of courses offered in the multi-section mode and taught by multiple instructors; major administrative duties, such as chairing the undergraduate studies committee; teaching releases for various projects; teaching large classes; supervision of graduate students and supervision of undergraduate research projects; and education-related research.

Our discussion during the FYMSiC Conference in 2022 suggested that, in a typical semester, a teaching-stream faculty member can expect to teach courses as well as, for example, coordinate the work of teaching assistants and tutors in a math help centre.

Our survey also asked about the range of mathematics courses that the teaching-stream faculty typically teach. The consensus was that “this was not set in stone.” Nevertheless, the following quote provides the best summary of the responses:

Due to the large number of service courses we teach, I think that almost all research-stream faculty teach some first-year courses. I've never seen a teaching-stream faculty member teaching a graduate course, and the majority of us are only teaching first- and second-year courses (e.g. I taught an upper-division abstract algebra course once, but now it's taught by our new abstract algebra research-stream hire). The majority of teaching-stream faculty also coordinate the majority of our large multi-section courses.

Service: This component includes serving on various institutional and/or professional committees and bodies, as well as serving the community at large. Such an involvement may range from the departmental level to the national level. In addition, it is common to see the members of the teaching-stream faculty as leads on various outreach and professional development initiatives.

Educational Leadership and Scholarship: Defining the expectations of the tenure-stream faculty, McMaster University regulations about tenure and promotion⁷ state:

“The role of teacher is the principal one; the expectation for a permanent Teaching Professor is continued exceptional teaching as the primary way by which academic excellence is demonstrated. In keeping with the research-intensive nature of McMaster, this teaching role will ideally (but not always) be complemented by scholarship related to teaching. Examples include contributions to curriculum development beyond the course level, and presentations or publications on teaching or pedagogy.”

We believe that the terms such as “continued exceptional teaching” and “scholarship related to teaching” have been left vague by design, to keep them open and flexible when interpreted for a specific teaching-stream position.

This, we believe, is true in general: the “educational leadership and scholarship” component of a teaching faculty’s job is not always precisely defined, nor is consistent across universities. For illustration, we offer three responses from our survey:

It's valued but not necessary for promotion. "Educational leadership" is understood to be flexible. Certainly, it's necessary for a faculty member to disseminate their knowledge somehow, but some of this could be done through non-scholarly networks—for example, through administrative work at and beyond the university.

When discussing this with my colleagues, my understanding is that scholarship is broadly defined; in particular, publishing peer-reviewed publications is not required. It is not expected or required that teaching-stream faculty members do mathematics research.

The exact expectation is not clear, but even just attending workshops/ conferences do show that one is mindful of improving their teaching and is looked upon favourably. Presentations and publications of course do carry more weight, but again since there are zero precedent for my type of position, there isn't any concrete cases of what's enough and what's not.

Similarly, one of the leading Canadian universities defines⁸ educational leadership very broadly as:

An activity taken at UBC and elsewhere to advance innovation in teaching and learning with impact beyond one's classroom.

This document provides examples of activities that count as active engagement in the scholarship of teaching and learning: pedagogical innovation and other initiatives that extend beyond the member's classroom; formal educational leadership responsibilities; organization of and contributions to conferences; and contributions to the theory and practice of teaching and learning, including publications.

Promotion Process: Our final survey question inquired about the promotion process. Here is an answer that details the promotion procedure at a Canadian university, often classified as "comprehensive":

Initially you're appointed to a three-year term as an Assistant Teaching Professor, which is renewed for a second term. When the second term is up, you either apply for a second renewal or you apply for promotion. If your renewal is successful, you become an Assistant Teaching Professor with continuing status. If your application for promotion is successful, you become an Associate Teaching Professor with continuing status. If your renewal is not successful, you have a one-year terminal position during which to find another job.

Promotion to Associate rank is like the process for research stream. The only differences are (a) the weight each part of your package carries, and (b) the rules for selecting external reviewers. Teaching stream faculty can have one or two 'external' reviewers who are from [University], which is not allowed for research faculty. I suppose another important difference is that you don't HAVE to do it at all; you can stay a continuing Assistant Teaching Professor forever (but will stop being eligible for pay increases, so it's not in fact a good idea).

Promotion to full Professor rank is like the process for research stream. I don't know anyone in our department who has done that yet; the current collective agreement makes it sound as if you'll have a harder time getting pay increases because the standards will be higher, so it's not well-incentivized currently. You may apply after being Associate for four years, but I gather it is uncommon to do so that quickly (which I gather is the case for research stream folk too). Promotion requires substantial evidence of scholarly work, curriculum development, and service.

We mention that not all universities covered by our survey had a well-established promotion process. One of the survey respondents wrote: "This has been somewhat ad hoc. This issue is currently being addressed."

Call for Action

It is our strong conviction that the significance of the teaching-stream faculty as an integral part of the Canadian post-secondary education system will continue to grow. The reasons for this growth will continue to be:

- Educational: The teaching stream faculty are innovative, dedicated to their teaching, and are continuously exploring and introducing new teaching techniques. Through our FYMSiC events we have witnessed some extraordinary talent among our colleagues that are not just excellent teachers and skilful administrators but also inspiring role-models for their students.
- Economical: Having a group of academics whose primary task is teaching will continue to improve students' learning experience, better meet the learning needs of an already diverse student population, and therefore, increase levels of retention.

Canadian universities should create a respectful and supportive environment for the teaching faculty and offer full-time, permanent employment while allowing for a small number of emergency short-term contractual positions.

By implementing a well-defined set of expectations and a fair and meaningful promotion process, all teaching faculty should be encouraged to continue with their own academic and personal growth for the benefit of their own well-being, their students learning, and their institutions success. Consequently, the teaching-stream faculty should be both encouraged to and awarded for their contributions to educational leadership and scholarship.

Therefore, we invite the entire academic community in Canada, the research-stream faculty, administration, and the teaching-stream faculty to work together to further strengthen the position of the teaching-stream faculty.

Hence our call for action:

- Standardize the teaching-stream academic ranks across Canadian universities to Assistant Professor of Teaching, Associate Professor of Teaching, and Professor of Teaching, or equivalent ranks that follow the established ranks for research faculty.
- Standardize the workload split to 70% teaching, 20% service, and 10% scholarship.
- Standardize tenure and promotion processes, to mirror the processes for research faculty.

By mirroring the research-stream faculty ranks, the two ranks, research and teaching, would be both distinguished and better balanced. This would allow for easier mobility across Canadian academic institutions. In addition, it might encourage more young academics to consider joining teaching-stream faculty, thus, through competition, further improve its quality.

References

[1] <https://www.caut.ca/resources/almanac/3-academic-staff>

[2] In this context, an instructor teaching any number of courses smaller than the number that is considered a full-time teaching load is viewed as a part-time instructor.

[3] In 2020 LIM-AT for a 1-person family was \$26,570 and for a 2-person family was \$37,576 (<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110023201>). So, a single parent would need to teach six courses per year at \$8000/course to be, after tax, over the poverty line.

[4] <https://www.cbc.ca/news/canada/ontario-college-strike-academia-1.4364735>

[5] Available at: <https://www.theglobeandmail.com/news/national/education/new-breed-of-university-faculty-puts-focus-on-teaching-over-research/article14117866/>

[6] <https://firstyearmath.ca/>

[7] <https://macfaculty.mcmaster.ca/policies-2/tenure-promotion-policy/>

[8] https://hr.ubc.ca/sites/default/files/documents/Faculty-CA2019-2021_o.pdf

[9] Note: we did not find a (unique) definition of “part-time” related to academic appointments in the documents that we examined. The implicit understanding is that “part-time employee” is an employee who works fewer hours per week than a full-time employee.

Bibliography:

Burazin, A., Jungić, V., & Lovrić, M. (2020). Three Countries, Two Continents: Common Challenges and Opportunities in Teaching First-Year Mathematics, *Notices of the American Mathematical Society*, 67(1). Pp. 64-67.

COU – Council of Ontario Universities (2018). Faculty at Work: The Composition and Activities of Ontario Universities' Academic Workforce. Available at: <https://cou.ca/wp-content/uploads/2018/01/Public-Report-on-Faculty-at-Work-Dec-2017-FN.pdf>

Field, C.C. & Jones, G.A. (2016). *A Survey of Sessional Faculty in Ontario Publicly Funded Universities*. Toronto: Centre for the Study of Canadian and International Higher Education, OISE-University of Toronto.

Foster, K. & Birdsell Bauer, L. (2018). Out of the Shadows: Experiences of Contract Academic Staff. Canadian Association of University Teachers (CAUT). Available at: https://www.caut.ca/sites/default/files/cas_report.pdf.

Jungić, V & Lovrić, M. (2017). Call for National Dialogue: The Present and Future of Teaching First Year Mathematics at Canadian Universities. *CMS Notes*, 49(5). pp 10-12.

Mohamed, A. (2022). Quo Vadis? Part-time faculty: Taking Stock, Looking Forward. In Hughes, J.C., Mighty, J., & Stockley, D. (Eds.), *Taking Stock 2.0. Society for Teaching and Learning in Higher Education* (pp. 374-412). Society for Teaching and Learning in Higher Education, Canada.

Murray, D. S. (2019). The precarious new faculty majority: Communication and instruction research and contingent labor in higher education. *Communication Education*, 68(2), 235–245.

Pasma, E. (2019). Contract U: Shedding Light on Contract Faculty Appointments Across Canada. Available at: <https://cupe.ca/contract-u-shedding-light-contract-faculty-appointments-across-canada>.

Pasma, E. & Shaker, C. (2018). Contract U: Contract faculty appointments at Canadian universities. Canadian Centre for Policy Alternatives. Available at: <https://www.policyalternatives.ca/publications/reports/contract-u>

Rose, D. (2020). A Snapshot of Precarious Academic Work in Canada. *New Proposals: Journal of Marxism and Interdisciplinary Inquiry*, Vol. 11, No. 1, pp. 7-17.

Vajoczki, S. & Fenton, N. & Menard, K. & Pollon, D. (2011). *Teaching-Stream Faculty in Ontario Universities*. Toronto: Higher Education Quality Council of Ontario.