

A WORD FROM...

David Crombecque, Professor of Teaching



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Photo courtesy of the author.

Who Are the Professors of Teaching?

They are called lecturers, instructors, teaching professors, professors of the practice (and more rarely in departments of mathematics, clinical professors or research professors). They are faculty holding full-time fixed terms or renewable appointments but are usually NOT eligible for tenured or tenure-track positions at their institutions. (They are NOT postdoctoral fellows). According to the Departmental Report of the Mathematical and Statistical Sciences Annual Survey of 2018, they represent roughly 33% of all the full-time faculty in mathematics and statistics throughout the country. In 2018, according to the survey, there were 5826 of them on renewable appointments (plus 1062 on fixed terms) while there were a total of 17,184 faculty with tenure or on tenure-track positions. It is to be noted that departments in large private and public research institutions have many such positions with non-tenure-track faculty representing 50% of the full-time faculty overall at mathematics or statistics departments in such institutions. While this number includes 1607 postdoctoral positions in 2018, the number of non-tenure-track faculty on renewable

appointments was more than three times the number of postdoctorate faculty. 20% of them hold a master's degree in the mathematical sciences (including statistics) as their highest degree while 80% have a PhD. There are many discussions to be had about the trends institutions of higher education are following and the perceived threat to the tenure system, but I want to focus here on those lecturers, teaching professors, and professors of the practice: who they are, their plight, and their unrealized potential. The article below reflects the author's own experiences and his understanding of the shared experiences of some other colleagues in similar positions in a few departments of mathematics all within large private and public research institutions.

Who Are the Non-tenure-track Faculty in Mathematics?

Whatever labels their positions are given, these faculty chose to pursue an academic career focused on teaching mathematics. While teaching faculty positions are sometimes not an individual's first choice, many chose such jobs because of their passion for teaching. This is especially the case among recent graduates. Some made the decision to seek such positions during their PhD program (and some during their postdoctorate years). While they were working on their thesis and being trained to become researchers, they realized that their love for mathematics did not have to express itself solely through active research, and that they were passionate about teaching mathematics at their very core. While some still pursue some mathematical research and publish in mathematical sciences journals, their passion is in teaching mathematics at the college level.

Students usually are not aware of the difference between the non-tenure-track faculty and their tenured or tenure-track colleagues. But if they did, they might notice that the non-tenure-track faculty who teach them look more diverse. For instance, according again to the Departmental Report of the Mathematical and Statistical Sciences Annual Survey of 2018, close to 70% of the mathematics faculty with a PhD in non-tenure-track renewable positions are women, while only 30% of tenured faculty are women.

David Crombecque is a professor of teaching at the University of Southern California. His email address is crombecq@usc.edu.

While their teaching assignments are often focused on undergraduate courses, especially lower-division courses such as Calculus, they also teach undergraduate courses for mathematics majors. They may develop new courses or modernize existing classes and they provide service to the department and the university at large, such as managing a math lab or a math center or running a math club. Many of these faculty are eager to engage with students, not only on the subject of mathematics but also on the subject of the student's college experiences and future goals. These faculty often have much more contact with students and become de facto unofficial advisors and mentors for many undergraduate students.

Their teaching loads are two to three times those of tenured faculty, but many will still pursue scholarly work. Some continue to do research in mathematics or mathematics education, present at conferences, and publish their research. Some will engage in mathematics outreach not just on campus but in the communities around campus. While teaching math classes at their institutions is the main requirement of their position, many actually do much more.

What Does Their Career Look Like?

Many institutions (in particular large private and public universities) offer different paths to promote the non-tenure-track professors. Some offer a path similar to the tenure system with ranks such as assistant, associate, and full professor. Often, promotions to a higher rank lead to a new contract with longer duration (such as renewable three- or five-year contracts). In some cases, such as in the UC system, the institution provides a path to what is referred to as "security of employment" (which is not the same as tenure). In many cases, the evaluation process leading to promotion includes class observations from other (often tenured) colleagues and focuses on student evaluations and evaluation scores. As such, those faculty work hard to develop their teaching skills and generally strive for impressive teaching records. Yet, unlike the tenure-track faculty who are usually assigned a senior faculty mentor, many departments lack mentorship opportunities for the non-tenure-track faculty. The norm is that they also do not get sabbaticals and are thus often not able to participate or engage in deeper professional development opportunities to improve their teaching skills (whether at their own institution or outside). It is more difficult for them to know about the different types of scholarly work and activities they can pursue. This is a huge impediment to those in their early career trying to move up the ranks or simply trying to keep their job.

For faculty who stay in these positions at the same institution for a long time, they accumulate a lot of experience and knowledge of their institution. But unlike tenured faculty, whether or not they can seek and be awarded managerial and administrative positions (for example as vice chair for undergraduate affairs of a department, associate dean, vice dean, or dean) depends on the institution. This definitely constitutes a glass ceiling for those faculty.

Finally, as full-time professors, they usually receive benefits similar to tenured/tenure-track faculty (health care, retirement benefits), but their salaries are noticeably lower than those of their tenured/tenure-track colleagues. For example, according to the 2019–2020 Faculty Salaries Report from Mathematical and Statistical Annual Survey, for the year 2018–2019, the mean salary for new tenure-track faculty in mathematics departments at large public institutions was \$95,340, while for non-tenure-track faculty (which includes postdoctorate fellows but does NOT include part-time faculty), the mean salary was \$61,160. At large private institutions, the mean salary was \$93,390 for new tenure-track faculty and \$71,400 for non-tenure-track faculty. This can be demoralizing for this group of faculty as it can be interpreted as a signal that their institution values its education mission less than its research mission (even though universities generate substantial tuition revenue, especially private universities) and thus that their work is of lesser value than their tenure/tenure-track colleagues. More importantly, it can simply be difficult for them to make ends meet financially causing them financial hard-ship (though this is nothing compared to the plight of part-time faculty). They might have to rely on teaching overloads (if even available) which in turn can lead to lower teaching evaluations and thus hinder their chances of promotion. Or they simply might need to look for another job. The covid pandemic has made this worse in many places where salaries were frozen or benefits were cut (this was also the case for tenure/tenure-track faculty but the pain was greater for the non-tenure-track as their salaries were already lower).

Time for Progress

As many universities and departments rely more and more on faculty in these positions, we need to stop seeing such positions as some sort of failure and instead recognize the value and hard work of these faculty and more fully support them in achieving successful careers. This can start in graduate programs. While PhD advisors want to see their students obtain tenure-track positions, we have to face the reality of numbers. A significant proportion of PhD students will end

up in non-tenure-track positions, whether it is what they wanted or not. It should then be up to the PhD program to provide training opportunities to PhD students to prepare them for such positions.

Institutions and departments should provide articulated career ladders which include service, outreach, and education, but with flexibility to allow for the myriad kinds of academic endeavors that faculty may choose to engage in. Outreach and communication with society at large about the sciences and mathematics are becoming essential. Departments could encourage and support those faculty who choose to engage in activities such as creating bridges with K–12 education (math circles and math teacher circles), outreach with the local community, adult education, diversity initiatives at the university, and service outside of the math department, including faculty governance.

The evaluation of such faculty for promotion should consider everything they are doing. The teaching evaluation of these faculty should include a lot more than just student evaluations and an occasional in-class observation. For instance they may include teaching portfolios put together by the faculty with teaching statements, materials they develop, experiments they have tried, and so on. If faculty in these positions don't have confidence that their teaching is being evaluated in a holistic way they will not be able to afford to experiment with teaching and improve. Mentoring and professional development should be provided to faculty on these ladders. Universities are in need of teaching methodologies at the undergraduate level (and graduate level for that matter) that can successfully reach an increasingly diverse student body. Teaching loads should be reasonable so that faculty have time for service or to experiment with different teaching modalities. Finally, short of offering them access to tenure eligibility (although some institutions in Canada for instance do include them in their tenure system), universities employing non-tenure-track faculty should offer similar salaries. All of this would help this group of faculty realize their full potential, from which the departments and universities will surely reap the benefit. In many places, this is a work in progress. Let's make sure this progress benefits these faculty, their tenured colleagues, and their students.

References

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