

Exploring Difference: How to become a professor? Career Paths in Higher Education, 7 Nov 2016, Embassy of Canada Berlin

Executive Summary

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National Backgrounds

Universities in the **United Kingdom** ended their tenure track system in 1987, but there is still a career ladder for permanent positions in research intensive universities: from lecturer to senior lecturer to reader to full professor. It is possible to go straight from senior lecturer to full professor. In addition, there are pathways for academic faculty to advance both internally within a single university and by moving between universities.

Promotions are driven by the UK wide Research Excellence Framework, which among other things includes assessing research outputs using peer review by subject specialists, looking at research grants received. It also looks at the number of successful doctoral students supervised by the candidate, and the involvement of the candidate with external parties around his or her research findings (known as 'non-academic impact').

But there are also a significant number of non-permanent academic positions, both for research and for teaching. Around 50 percent of all academic staff in the United Kingdom hold temporary positions, and the challenge for graduates of doctoral programs is to secure their first permanent position before too much time has elapsed after the completion of their doctorate.

Canada has a tenure track system where assistant professors will apply for tenure within 4 to 8 years and then progress to be a full professor within another 5 to 10 years. Until the early 2000s, Canada had produced a fairly low number of doctoral graduates. Now, that number has doubled from 26,000 doctoral graduates to 50,000 today, but the number of professorships has not changed in that time. Currently, some 7,000 new doctoral graduates apply for 1,500 to 2,000 faculty positions each year, meaning that the vast majority will not successfully secure a position.

The system is just beginning to grapple with the implications of the increase in the number of doctoral graduates. Professors and doctoral candidates both perceive doctoral degrees as an apprenticeship to the professoriate despite the lack of available positions. Universities do employ some part-time contract faculty, known as sessional instructors, but their numbers are limited by the contracts negotiated with professors' unions.

Universities in **France** are just one of three types of higher educational institutions. The others include grandes écoles and national research institutes, both of which have unique career paths. At universities, more than 75 percent of academic staff are public servants. The other quarter include postdoctoral fellows that work on a sessional basis, and around 3,000 “associated professors” (professeurs associés). Many “associated professors” work half-time at the university and half-time in industry for three-year contracts that can be renewed three times. Among the permanent public servants, some are high school teachers with mainly teaching duties, others are maîtres de conférences and then finally, there are professors.

The path to a professorship begins with a PhD. The next step is to secure a maître de conférences position. To do so, an individual must seek qualification from a national body – the Conseil National des Universités (CNU). The criteria and decision boards are discipline based and candidates submit their publications, an outline of courses they have taught, and their dissertation. University professors on these boards are in part elected by academics (often as candidates in the name of a union) and in part appointed by the Ministry of Higher Education and Research. Once a candidate has received a qualification, they may then apply to available maître de conférences positions.

The number of maître de conférences positions has decreased by about a third in the last ten years, making them more competitive. Maître de conférences positions are permanent, but most individuals will try to go on to attain a professorship. The criteria for advancement are discipline specific, but usually, an individual must write their second book, a habilitation, or pass a highly selective exam, the agrégation. Then, they must again seek qualification from the CNU before they can apply for professorship positions.

The path to professorship in the **United States** is through securing a tenure track position. Within six years, an assistant professor will know if he or she will be tenured. Reviews occur at the second and fourth year, and often faculty know in the fourth year if they are not likely to earn tenure. If not, they can seek a position at another university, but in general, the number of tenure-track positions has diminished. In 1975, 45 percent of university faculty was tenure track or tenured professors as compared to 30 percent in 2014.

As a result, there are a growing number of non-professor usually teaching-focused positions at universities. Most workers in these roles have completed a doctoral program and have fixed-term or part-time contracts. Contracts can either be year-to-year or they can last for between three and five years renewable. It is unusual for fixed-term staff to secure a tenure track position because the research requirements are too high given their teaching load.

Germany produces a relatively high number of graduates with doctoral degrees and it often takes many years before an individual will know if they can secure a

permanent position in academia. Doctoral candidates are not registered at universities, so there are no precise statistics about how many there are. Usually, upon completion of their doctorates, individuals will apply for post-doctoral positions. These post-doctoral fellows perform a lot of work at universities that supports the research of professors. Even as they work in academia, they do not necessarily have a career path to becoming a professor.

From there, post-doctoral fellows may apply for junior professorship positions. These are seldom tenured (only in about 13% of the cases), and there is not a clear career progression to a professorship from a junior professor position. The criteria used to judge who is a good researcher or who is an effective teacher are not transparent. Usually, individuals need to switch universities to advance, but this can be logistically difficult and uncertain. The hiring cycle for professors is also quite long, usually taking one or two years from application to the first day of instruction. Given that there are so few permanent professor positions, only 17% of the scientific staff are tenured and full-time employed, and 90% of the scientific staff that have no professorship have a temporary contract.

The Main Challenge

Transparency in hiring and promoting professors is a concern across higher education systems. In France, the CNU does now list the criteria it uses to judge candidates, but depending on the discipline, individuals may be discouraged by their department from applying for qualification. The positive result of this highly selective system is that individuals know within four years at the most if they have a secure future career in academia.

In contrast, associate professors in the United States will not know if they will be tenured until six years after they are hired. On average in the United States, 48 percent of professors at institutions with tenure are tenured, and **Edmondson**, Pennsylvania State University (US), said this is fair as long as promotion criteria are transparent. Usually, there are multiple reviews before a decision, and the committee also solicits letters from faculty at other universities to assess the impact and quality of a candidate's research. The criteria in the United States to progress to a full professorship are less concretely defined, but usually entail that a candidate's research have a national impact.

In the United Kingdom, the **timeframe** before doctoral candidates know if they have a future as a professor is elongating. Candidates are now doing multiple post-doctoral fellowships as they apply for their first permanent position. If they fail to be hired, they can become a teaching fellow, which has less job security, or seek employment outside of academia. But **Deem**, Royal Holloway University of London (UK), said "We have worked very hard on the issue of transparency," and that there are now clear criteria across research areas for hiring for permanent positions. Hiring decisions are not made solely by departments, but at the administrative level of the university in line with research strategies.

So **who makes it** through these different systems to become a professor? Universities hope that the best candidates, those doing the most important research and who are excellent in teaching, will be selected. But currently it is clear that socioeconomic class, race and gender play a significant role in determining who is hired and tenured as a professor. The United Kingdom is one of the more diverse higher education systems, with 23 percent of its faculty and students coming from abroad. **Deem** emphasized the need for a university-wide hiring strategy that takes into account diversity. “Otherwise, it’s a fast track system for middle class men,” she said. In Germany, while there are many international doctoral candidates, only 6 percent of professors are international and only 18 percent of the full professors are female.

The long odds and uncertainty may also push qualified candidates to seek work outside of academia. **Advising and mentoring** can help keep the best candidates, especially female and minority candidates in academia. In France, there is a trend toward closer supervision of doctoral candidates, but there are still, especially in the humanities, some doctoral candidates who do not have funding or a workspace in their university or department. “How can you have mentoring if you are not interacting with your colleagues?” asked **Musselin**, Science Po (France).

In Canada, the growing number of doctoral candidates makes for an awkward dance. **Charbonneau**, *University Affairs* (Canada), said many professors feel ill-equipped to help them and doctoral candidates do not want to sacrifice potential award nominations or references by preparing for the job market outside of the academy.

National Trends

The 2016 Stern review of practice and process for the next research excellence framework (REF) exercise in the United Kingdom suggests limiting the ability of professors or associate professors to bring their research outputs with them to a new post. Currently, there is an incentive for professors to move between universities to secure promotions, and any change to the REF rules may diminish that incentive.

In the United States, especially in the sciences, recently graduated doctors are seeking multiple post-doctoral fellowships to prove that they can secure funding for their research. This further delays the moment when they know if they will be hired to a permanent position. The number of tenured positions in the United States is not likely to increase again, but **Edmondson** said that it is in the interests of students, faculty and universities to clearly define job expectations and performance criteria for non-tenured faculty.

One semi-private institution in France, Science Po, did introduce tenure track positions in 2009, and this year the assistant professors will receive their tenure

decision. However, these assistant professors already have unlimited contracts, and it is not clear that the university will be able to terminate their positions. Interestingly, 55 percent of the recruited assistant professors were international, and **Musselin** said this was because tenure track positions are appealing, whereas applying for a maître de conférences position would be very difficult as someone coming from outside the French system.

For the first time, the federal government in Germany has allocated funding for 1,000 new tenure track positions. The intention behind this funding is to allow young scientists to have the possibility of earning a professorship earlier than is currently possible in the underfunded German university system. There is some uncertainty about how these new professorships will be implemented, but **Specht**, University of Lübeck (Germany), is hopeful that it will increase career certainty. She said more certainty may help female candidates, who currently leave the academic career track at every promotion level.

Panellists of the 13th ID-E Berlin Conference

- **Léo Charbonneau**, Senior Editor, University Affairs, Universities Canada (CA)
- **Jacqueline Edmondson**, Associate Vice President and Associate Dean (Undergraduate Education), Professor of Education, Pennsylvania State University (US)
- **Christine Musselin**, CNRS Senior Research, Centre de Sociologie des Organisations, Sciences Po (FR)
- **Rosemary Deem**, Vice Principal (Education) & Dean of the Doctoral School, Professor of Higher Education Management, Royal Holloway University of London (UK)
- **Jule Specht**, Associate Professor for Assessment and Differential Psychology at University of Lübeck, member of the German Junge Akademie (DE)
- Chair: **Jan-Martin Wiarda**, Science and Education Journalist

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