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Women's odds in academia

Research suggests that having a higher proportion of women in a field does not guarantee female scholars an advantage in reaching the top of their career

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Research findings published in the *Dados* journal suggest that gender inequality has a more complex effect on academic careers in Brazil than literature on the subject usually indicates. The article, which was written by the sociologist Marília Moschkovich and her adviser, Professor Ana Maria Fonseca de Almeida of the School of Education at the University of Campinas (Unicamp), analyzed data on the careers of male and female professors at Unicamp their conclusions were surprising. The findings showed that even when women constitute the majority of researchers in a field, they do not necessarily ascend to top positions. The study analyzed the chances of both male and female faculty members reaching Unicamp's highest career level in each of the university's 27 divisions. It found that female professors are less likely than male professors to advance to the top positions in the Linguistics, Education, and Medicine programs, even

though most of the faculty members are women. Conversely, women professors have a greater chance of reaching top positions in the Mechanical Engineering and Agriculture programs, where, paradoxically, they constitute a clear minority.

"Patterns of inequality differed among the disciplines, suggesting that other factors may also influence faculty careers according to gender," says Marília Moschkovich. Focusing on data from three other public universities (yet to be defined), the next stage of the research aims to determine field-specific influences on career paths by comparing other facets of academic careers, such as publication patterns and relationships between each field and the non-academic labor market. "An academic career may not play the same 'role' in the general labor market in each area. Studies have shown, for example, that women encounter various obstacles in the corporate job market for engineering, where wages are higher than those

in academic engineering, for example. It may be that women who excel as undergraduates in some branches of engineering head into academia, whereas men in the same condition head into the corporate world, which is more open to them. This pattern, in theory, might promote a certain 'climate' within the academic work environment. The first stage of research confirmed, however, that an academic career is not necessarily less competitive for women, nor friendlier," says Almeida, an coordinator of Social and Human Sciences at the São Paulo Research Foundation (FAPESP). "Since this pattern hasn't been observed in all fields, more thorough and focused research is needed."

The effect of a researcher's social background on the pace of his or her career progress will likewise be studied. According to the authors, it is reasonable to assume that a professor who comes from an environment which is connected to universities –those whose



parents were professors, for instance – will be more familiar with the rules of academia and will excel at gaining peer recognition a faster rate than someone with less experience in the academic world, who might take slightly longer to understand how one should impose oneself within his specific environment, and quickly ascend the career

ladder. “The ability to manage a career can be acquired during graduate studies or possibly earlier, during undergraduate studies. But the codes that are needed to understand career demands are not always accessible to everyone, and this might influence career progression,” says Almeida. The researchers plan to monitor young male and female professors in order to assess the challenges they face at the outset of their careers and to ascertain whether their situation has changed when compared to that of older professors. “The goal is to understand what men and women must do to fit in and earn respect,” says Moschkovich.

The pursuit of gender equality in academia is not only relevant from a civil rights perspective; it is also important for increasing dynamics within university environment. “Ensuring accessibility for researchers and faculty members with different backgrounds and experiences helps each field diversify its research problems and subjects and, the approaches it takes and its work methods,” says Almeida. In Brazil, most new doctorate degrees go to women (51.5%) and, likewise, most faculty members at higher education institutions are women (55%), according to 2008 data from the National Institute for Educational Studies and Research (Inep). The ratio is lower at Brazil’s public colleges, where women account for 45% of the faculty. At Unicamp, they represent 35%.

“Some people say these differences are just the way things are – that they reflect the fact that women have only recently taken up careers in academia and that the situation is changing for younger generations, but the truth is that this is not merely a generational problem,” says Elizabeth Balbachevsky, a professor at the School of Philosophy, Literature and Human Sciences of the University of São Paulo (USP) whose topic of study is academic careers. “Women face major obstacles when trying to find a place for

themselves in academia and climbing the career ladder and evidence suggests that these obstacles are increasing as these careers become more competitive.”

The authors chose to focus on faculty members at Unicamp because they believe that this cross-section of a Brazilian public university might contribute to the international debate on the relationship between gender and scientific careers. In this context, it is possible to control for variables that lie at the heart of the discussion on policies that are designed to promote equality in universities in other countries. In the United States, for example, there is an ongoing debate concerning the extension of women’s probationary periods, which is the stage during which researchers devote themselves intensely to their work. When the probationary period ends, they are evaluated and possibly granted tenure. It is argued that the advancement of female professors is jeopardized because they are in their reproductive years and are responsible for childcare. In public colleges in Brazil, the impact of job stability for female professors can be controlled because women, like men, are tenured as soon as they pass their qualifying exam.

In other places, such as European countries and Australia, the discussion revolves around how to guarantee equal wages for both men and women in an

Obstacles are increasing for women as academic careers become more competitive, says Elizabeth Balbachevsky

environment where female researchers have trouble negotiating promotions and salaries as efficaciously as men, putting them at a disadvantage. In Brazil’s public universities, the situation can be analyzed in an environment where this variable carries practically no weight, because by law, men and women occupying equivalent posts receive the same salary. Furthermore, identical rules for promotions, which are defined by collegiate bodies comprising the faculty members themselves, apply across the board. Finally, the authors note, because of Brazil’s economic class inequality, female professors can rely on maids to help with the tasks that are socially assigned to women, such as childcare and housework, which is not usually an option in developed nations. “[In Brazil], at least hypothetically, an academic career may be more favorable to overcoming the female disadvantages, which have been noted in other contexts,” says Moschkovich.

The study addressed three specific questions. First, it assessed the likelihood of both male and female professors reaching the highest career and management positions at Unicamp. Second, it verified how fast both faculty members of each gender arrived at the top. Third, it analyzed whether the likelihood and speed of career advancement varied in relation to the proportion of women in each school or institute, since women constitute the overwhelming majority in fields such as Dance or Language and Literature, while in other fields, such as Electrical Engineering, they represent barely 10% of the faculty (*see table*).

The main finding was that women are clearly disadvantaged. Women account for a smaller proportion in relation to men at all three career levels, but men have the greatest advantage at the top, where 73.8% are male and 26.2% female. Regarding the chances of achieving an administrative post, men are ahead as unit directors or coordinators at the graduate level, while women are more likely to become undergraduate coordinators. No woman has ever served as president of Unicamp. “This illustrates how much harder it is for female professors to hold positions of greater power within the university,” says Almeida. A recent development involves the school’s five dean offices: three of those posts are currently held by women faculty members.

Unequal presence and advancement

Likelihood of male and female faculty members at Unicamp reaching the top level of their career in different divisions (%)

	FEMALE	MALE
Economics	0	22.2
Electrical engineering	0	63.8
Physics	0	40.4
Mediology	0	50
Applied mathematics	12.5	29.4
Civil engineering	33.3	52.9
Philosophy	100	100
Computer science	33.3	31.6
Mathematics	40	36.8
Agricultural engineering	50	42.3
Mechanical engineering	60	31.3
↑		
Biology	37.8	59
Literary theory	50	75
Food engineering	38.5	53.3
Dentistry	53.3	71.9
Chemistry	41.2	54.3
Social sciences	85.7	90
Geosciences	50	47.1
History	100	62.5
Chemical engineering	60	33.3
Physical education	100	50
Pharmacy	100	33.3
Statistics	50	12.5
↓		
Medicine	18.5	30
Education	45.5	55.6
Linguistics	60	66.7
Architecture	66.7	0
↓		
Language and literature	55.6	0
↓		
Unicamp	54.1	55.1

up to 25% female professors

26 to 50% female professors



51 to 75% female professors

over 76% female professors

To calculate the rate of advancement, the authors used as reference the most recent year in which professors, at the height of the career ladder, defended their doctoral thesis. They presupposed that all other professors who earned PhDs that same year or earlier would, hypothetically, have also had the chance to make it to the top. The number of professors surveyed in each school or institute varied, reaching 79% in Agricultural Engineering and over 50% in two-thirds of Unicamp's 27 divisions. The most surprising result concerned the likelihood of climbing the career ladder. The rates of faculty members considered eligible to attain the highest level were similar for men (55.1%) and women (54.1%) across the university as a whole. But, the numbers fluctuated from field to field, and this fluctuation was not always related to the proportion of women. Female professors reached the highest level at a faster rate than men in seven divisions, at the same rate in two divisions, and at a slower rate in fourteen division.

Marília Pinto de Carvalho, a professor at the USP School of Education, investigates differences in elementary school performance between boys and girls. In her opinion, one of the article's merits is that it clearly demonstrates the absence of any direct relationship between having a larger number of women in a particular career and their chances of career advancement. "In some cases, it's just the opposite. Given the type of data studied, we can't delve into the reasons, but the research reveals a challenging picture," she says. The fact that the study was limited to a single university, according to Carvalho, is a strength rather than a weakness. "If they had pursued more generic data, they might not have documented these phenomena."

Balachevsky says the novelty of the study lies in the fact that it shows how the cultures in different fields affect both the incorporation of women into academia and their career prospects. "There's a tendency to say that the hard sciences are tough for women, while the humanities are friendlier. The data show it's not quite like that," she states. "One valuable thing about this study is that it shows the level of competition in academic careers in Brazil. Competition exists; it is substantial at a research university, and it can vary from field to field," she says. ■