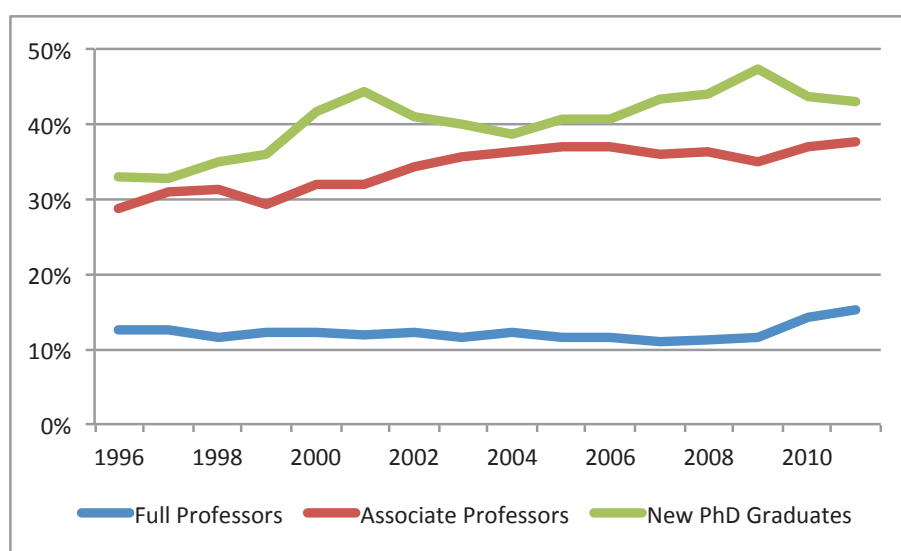


## The Status of Women in Economics in Spain

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The Committee on the Status of Women in the Economics Profession in Spain (COSME) monitors the status of women in the profession on behalf of the Spanish Economic Association. In this article we describe how the representation of women in Economics in Spain has evolved during the last fifteen years. We examine the presence of women at several academic rungs: among (i) new Ph.D. graduates, (ii) Associate Professors, and (iii) Full Professors.

Figure 1 – Share of women among new Ph.D. graduates, Associate Professors and Full Professors in Economics, years 1996-2011.



Note: The figure provides information about the share of women among Associate Professors and Full Professors in the areas of Economics and Applied Economics. This information comes from “Higher Education Statistics in Spain”, *National Statistical Institute*, several years. We consider dissertations that have been classified within the chapter *Economics*, code 53 of the Unesco classification, as provided by the TESEO database of Ph.D. dissertations, Ministry of Education, Culture and Sports.

The percentage of women among Ph.D. graduates in Economics has increased significantly, from 32% in 1996 up to 44% in 2011 (Figure 1).<sup>1</sup> The pattern is very similar among Associate Professors.<sup>2</sup> Between 1996 and 2011 the incidence of women among Associate Professors has increased from 29% to 38%.<sup>3</sup> However, the degree of feminization of the upper echelon of the academic

<sup>1</sup> Source: Database on Ph.D. dissertations “TESEO”, Ministry of Education, Culture and Sports. We consider dissertations that have been classified within the chapter *Economics*, code 53 of the Unesco classification.

<sup>2</sup> In Spain there are nearly two hundred legally defined academic disciplines. Here we consider professors in *Economics* (*Fundamentos de Economía*) and in *Applied Economics* (*Economía Aplicada*).

<sup>3</sup> Source: Higher Education Statistics in Spain, National Statistical Institute, several years.

career, Full Professorship, is significantly lower, and it has remained stagnant during the last fifteen years. In 1996 only 13% of Full Professors were women. In 2011 the figure was practically the same: 15%. While in the last fifteen years the incidence of women in the lower and the middle rungs of the profession has steadily increased, the incidence of women among Full professors appears to remain unchanged.

The low incidence of women on the upper echelons of the academic career may partly reflect the late transitioning of women into academia. In order to understand how “leaky” the pipeline is, we track the progress of academic cohorts over time using two approaches. First, we use a bare-bones model of lock-step progression through the ranks.<sup>4</sup> Second, we analyze the information provided by the Survey on Human Resources in Science and Technology. This survey provides information about the labor market outcomes of a representative sample of Ph.D. graduates that graduated between 1990 and 2006 (Spanish Statistical Bureau).

The model assumes that movements through the ranks occurred as follows. Ph.D. graduates may become Assistant Professors and remain in that category for seven years. After this period, they might be promoted to the level of Associate Professor. In another seven years, Associate Professors might, in turn, be promoted to the level of Full Professor. Under these assumptions we can track the representation of women in a cohort that obtained a Ph.D. in year  $t$  by looking at Assistant Professors in  $t+7$  and Associate Professors in  $t+14$ .<sup>5</sup> Figure 2 presents information of such model.

The proportion of women among Associate Professors is very similar to the proportion of women among new Ph.D. graduates seven years earlier. For instance, in 2004, 39% of new Ph.D. graduates in Economics were women. Seven years later the share of women among Associate Professors was almost identical, about 38%. The situation is very different when we examine the transition to Full Professorship. The share of women among Full Professors is systematically lower than the share of women among Associate Professors seven years earlier (or among new Ph.D. graduates fourteen years earlier). Moreover, this gender gap, almost inexistent in the early 1980s, has dramatically increased over time. The degree of feminization of the higher echelon of the academic career has not experienced practically any progress in the last fifteen years, despite continuous growth in the number of women joining academia over the last thirty years. For instance, in 1982 the share of women among new Ph.D. graduates was equal to 15%. Fourteen years later, the proportion of women among Full Professors in Economics was very similar, around 13%. However, while the cohort of new

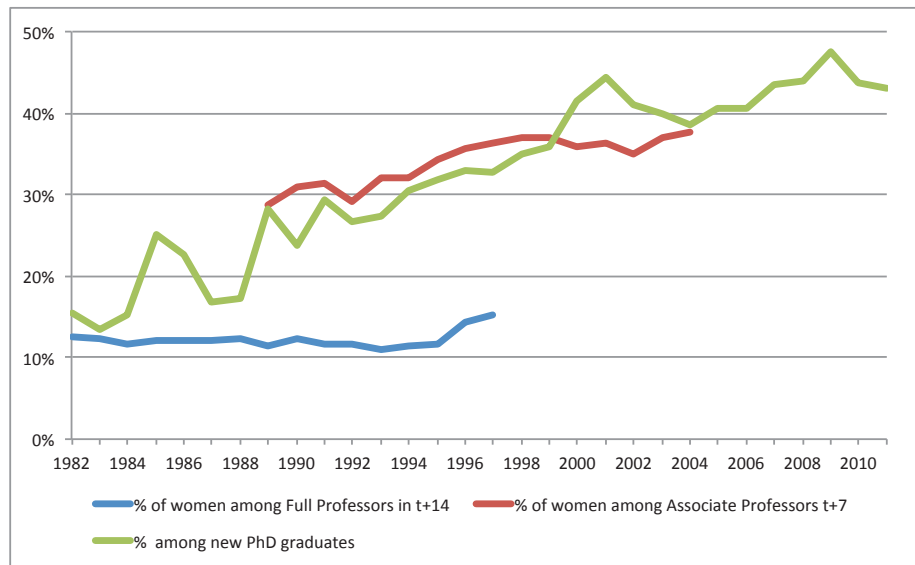
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<sup>4</sup> This model is qualitatively similar to the model proposed by the Committee on the Status of Women in the Economics Profession of the American Economic Association (Newsletter Winter 2013). Ideally, we would want to observe disaggregated information by rank and by age. Unfortunately, in the absence of this information the model only provides an approximation, and its interpretation depends on how the chances of success of men and women have evolved over time.

<sup>5</sup> This timing is consistent with the available information about the age at Ph.D. graduation, tenure and access to Full Professorship in the context of Spain.

Ph.D. graduates in 1997 included 33% of women, fourteen years later the share of women among Full Professors was only 15%.<sup>6</sup>

Figure 2 – Tracing Women from the  $t^{\text{th}}$  Cohort of New Ph.D. graduates



Note: The figure provides information about the share of women among Associate Professors and Full Professors in the areas of Economics and Applied Economics. This information is available at the publication Higher Education Statistics in Spain (National Statistical Institute, several years). We consider dissertations that have been classified within the chapter *Economics*, code 53 of the Unesco classification, as provided by the database on PhD dissertations TESEO (Ministry of Education, Culture and Sports).

Additionally, we also analyze the information provided by the Survey on Human Resources in Science and Technology, which was conducted in years 2006 and 2009. This survey provides information on 946 graduates in Economics or Business who had obtained their Ph.D. degrees during the period 1990-2006. First, we analyze the career choices of graduates. Female graduates are more likely to follow an academic career than men: 83% vs. 70%, respectively. Conditional on this initial choice, we do not observe any significant gender differences in the early stages of the academic career.

Approximately 62% of male Ph.D. graduates had been granted tenure at the time of the survey. The figure for female Ph.D. graduates is practically identical, 63%. This evidence is consistent with the above model of lock-step progression. It would also be interesting to analyze promotion to Full Professor but, unfortunately, at the time of the survey individuals were still at an early stage of

<sup>6</sup> Analyzing why women do not reach the upper rungs of the academic career is beyond the scope of this article. The literature has identified several factors at play, including the existence of gender roles at the household level, the lack of appropriate research networks and role models, the potential existence of discrimination and the absence of women in the committees deciding on hiring and promotion (Natalia Zinovyeva and Manuel Bagüés (2011), “Does gender matter for academic promotion? Evidence from a randomized natural experiment”, IZA WP #5537.)

their career and only in very few cases can we observe transitions to Full Professorship.<sup>7</sup>

Finally, Table 1 provides information on the situation of women in the Economics profession compared with the situation of women in other academic fields. Economics is relatively less feminized. In the overall Spanish system of higher education, approximately half of new Ph.D. graduates, 39% of Associate Professors, and 18% of Full Professors are women, compared to 43%, 38% and 15% of women, respectively, in Economics.<sup>8</sup> However, the share of female economists in Spain is relatively larger than in the U.S.. In the latter, only 35% of new Ph.D. graduates, 22% of Associate Professors, and 13% of Full Professors are women.<sup>9</sup>

Tabla 1: Percentage of women in academia, 2011.

	All disciplines	Economics, Spain	Economics, U.S.
New PhD Graduates	49%	43%	35%
Associate Professor	39%	38%	22%
Full Professor	18%	15%	13%

Source: Higher Education Statistics in Spain, National Statistical Institute, several years; database on PhD dissertations TESEO, Ministry of Education, Culture and Sports; Committee on the Status of Women in the Economics Profession, Newsletter Winter 2013.

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<sup>7</sup> The average respondent graduated seven years earlier. The sample includes only four male and one female Full Professors. This difference is not significant at standard levels.

<sup>8</sup> The “White paper on the Status of Women in Science in Spain” (2011), edited by Inés Sánchez de Madariaga, Sara de la Rica and Juan José Dolado, provides a very complete description of the situation of women in Spanish academia.

<sup>9</sup> The Committee on the Status of Women in the Economics Profession of the American Economic Association regularly provides information in its Newsletter on the situation of women in U.S. academia.