

The employment of PhDs in firms: trajectories, salaries and gender inequality

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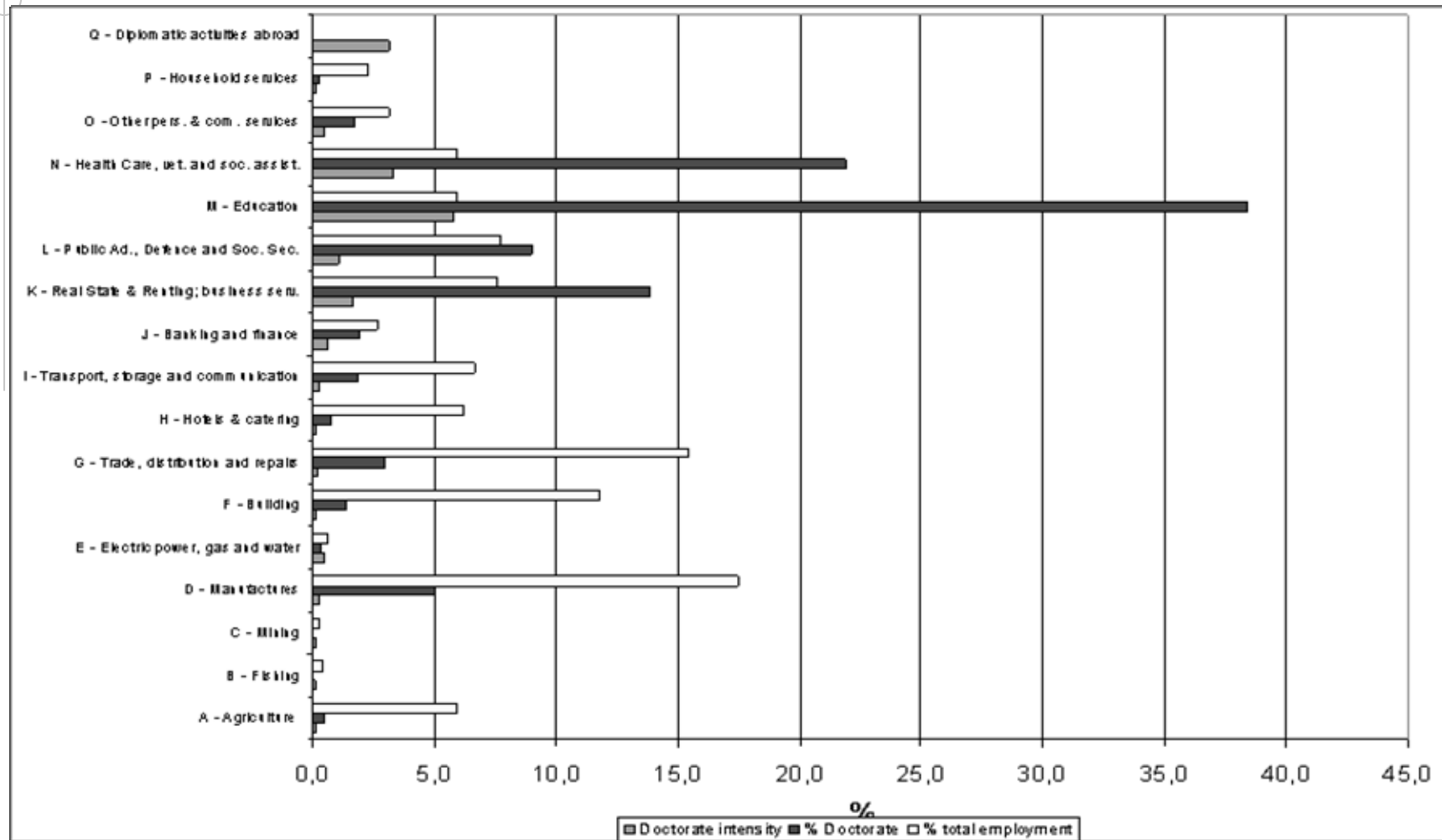
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Doctorate holders employed by sector. Spain. 2001



Some features of the doctorate holders employed. Spain 2001

- ◆ Total 145.308 doctorate holders
- ◆ 0,89 % of total employed population
- ◆ 6,7% not born in Spain
- ◆ Below 34 years old more females within their cohort
- ◆ 60% of all PhD are in Education (80) and Health care (85)
- ◆ Business Services (74) and Public Administration (75) with 11,3% and 9% respectively
- ◆ Manufacturing Industries (7.300) represent 5%, being the chemical industry the main one

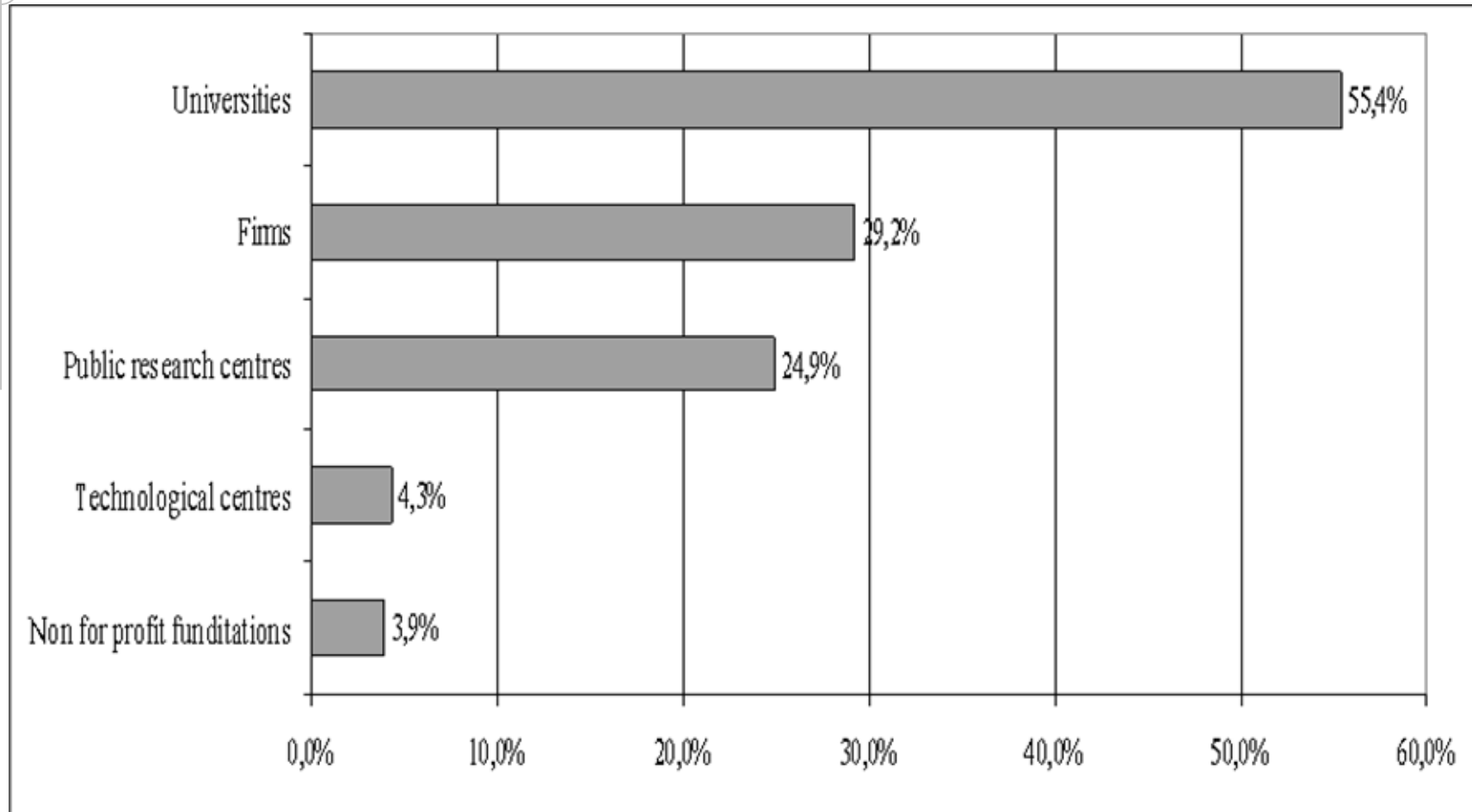
Some research and policy questions on PhD holders in the private sector

- ◆ What are the motivations for PhDs to enter the private sector?
- ◆ Does it pay to choose the private sector of employment?
- ◆ Are there mismatches between PhD skills and R&D jobs' content in private companies?
- ◆ Are there significant gender differences in the employment of PhDs in firms?

The value of the PhD in a traditionally segmented labour market

- ◆ Slow transformation in the traditional segmentation model of the research labour market where the doctorate was only valuable in the academic sector.
- ◆ This change is more visible in some industries in which new knowledge demands of companies have allowed for the transfer of highly qualified S&T human capital, for instance biomedical and biotech firms.

Place of postdoctoral employment or fellowships for those who had previous experience (73,5%) before moving into a firm



Motivations to move to a firm

- ◆ Motivations to work in the private sector are not primarily related to economic factors. Low relevance of the wage level as a motivation (Mentioned first by 3,6% and second by 14%).
- ◆ Motivations to work in firms related to “get experience in the private sector” and to “have a stable employment”.
- ◆ 3 out of 4 PhDs with preference for PRS mentioned lack of stable employment as the first motivation to work on firms.

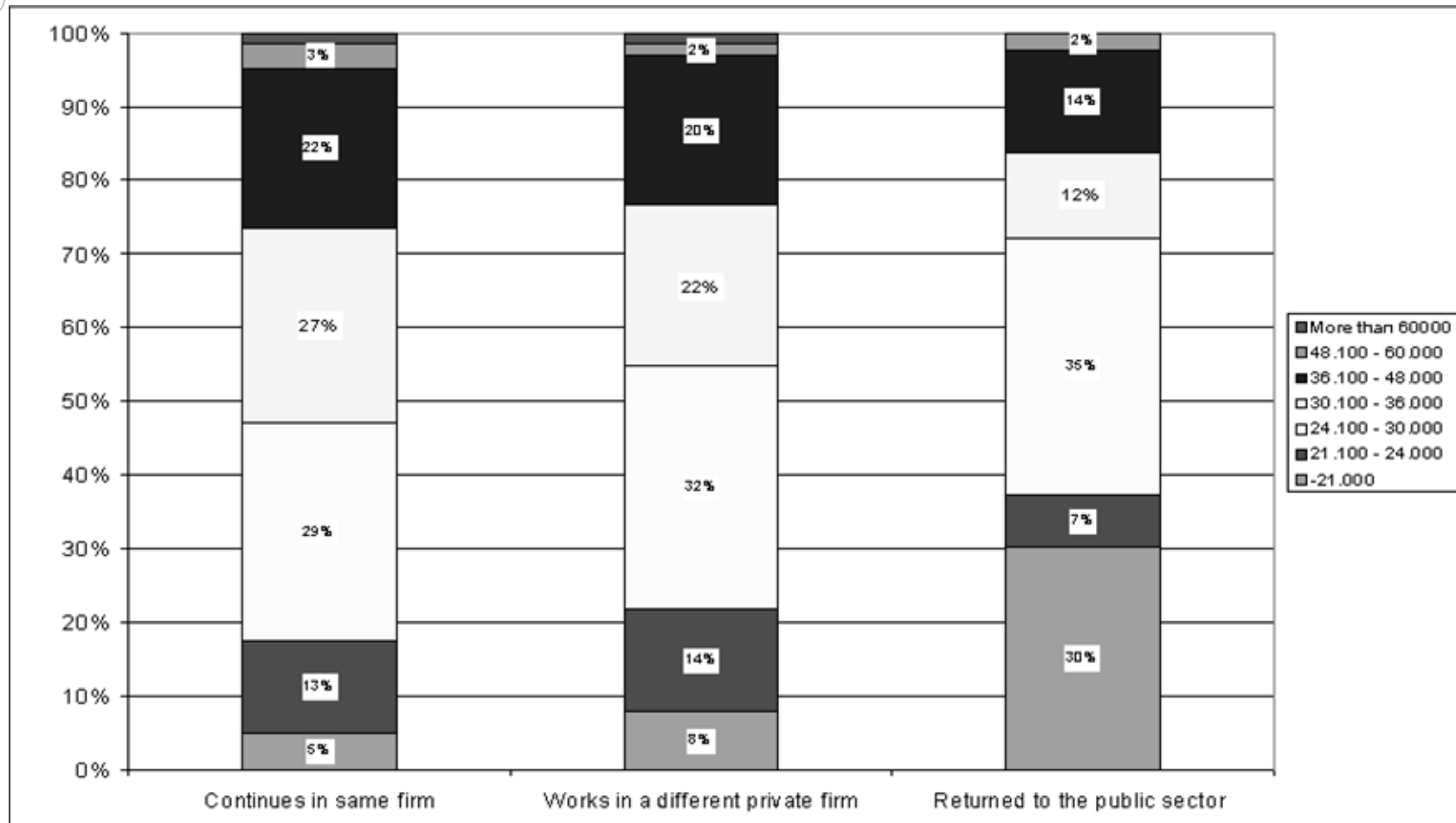
Segmented labour markets?

- ◆ Entry jobs within the firms are R&D jobs for almost all surveyed PhDs (85%).
- ◆ No evidence of mismatches between PhD skills and job content independently of previous employment experience or firm size, highlighting the transversal and transferable nature of doctoral qualifications.
- ◆ Our findings for natural and life sciences PhD graduates do not support the hypothesis of segmentation

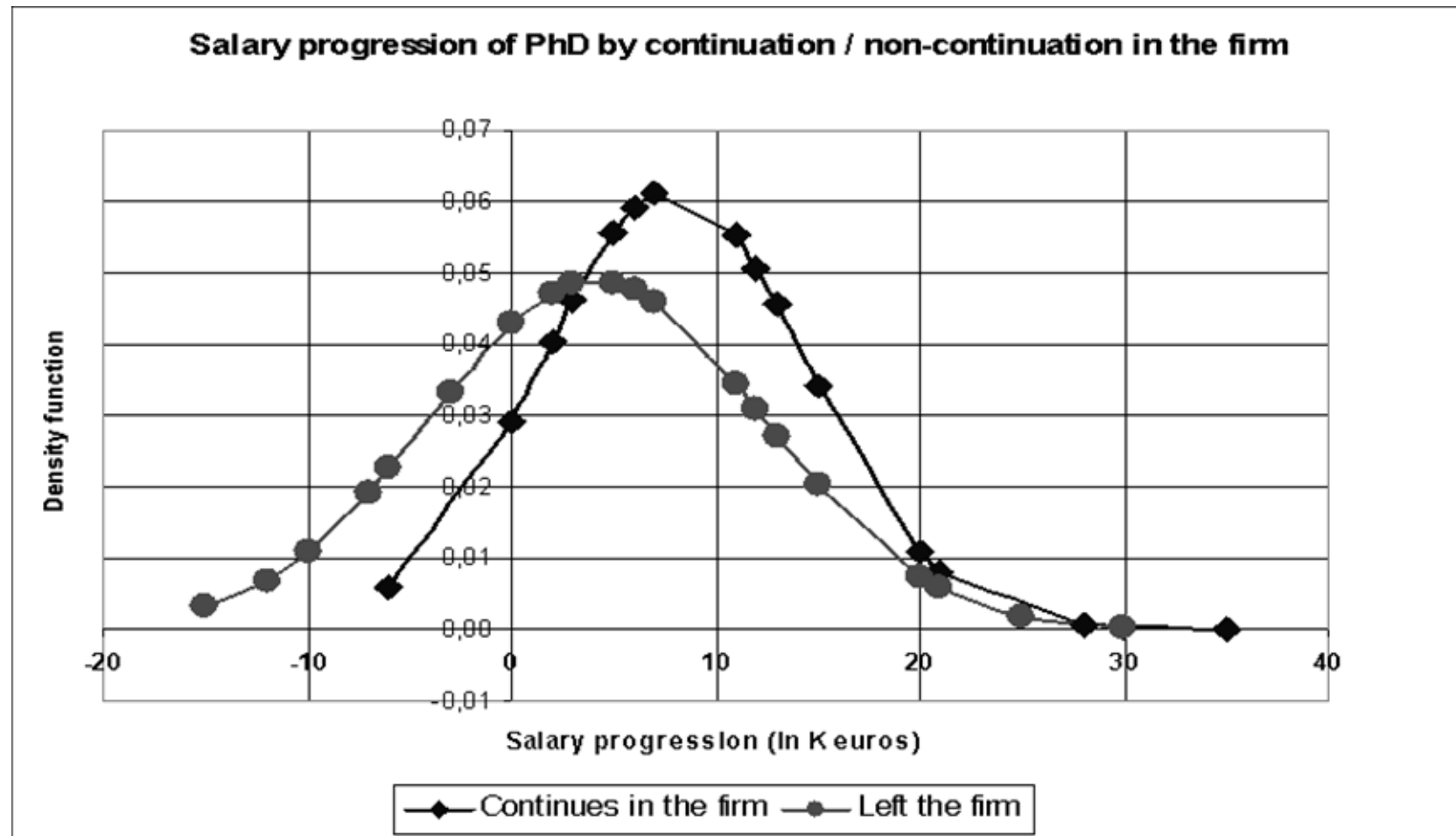
PhDs flexible trajectories

- ◆ In the context of stagnation of stable employment opportunities in the academic sector, trajectories are not inflexible even after the completion of a doctorate degree.
- ◆ Doctorate holders make value of their PhD degrees in the private sector.
- ◆ Entry salaries are similar to those of the public sector but salary progression is higher and faster
- ◆ However, as in the public sector, mobility does not seem to positively affect salary

PhD holders current wages by professional trajectories (2004)



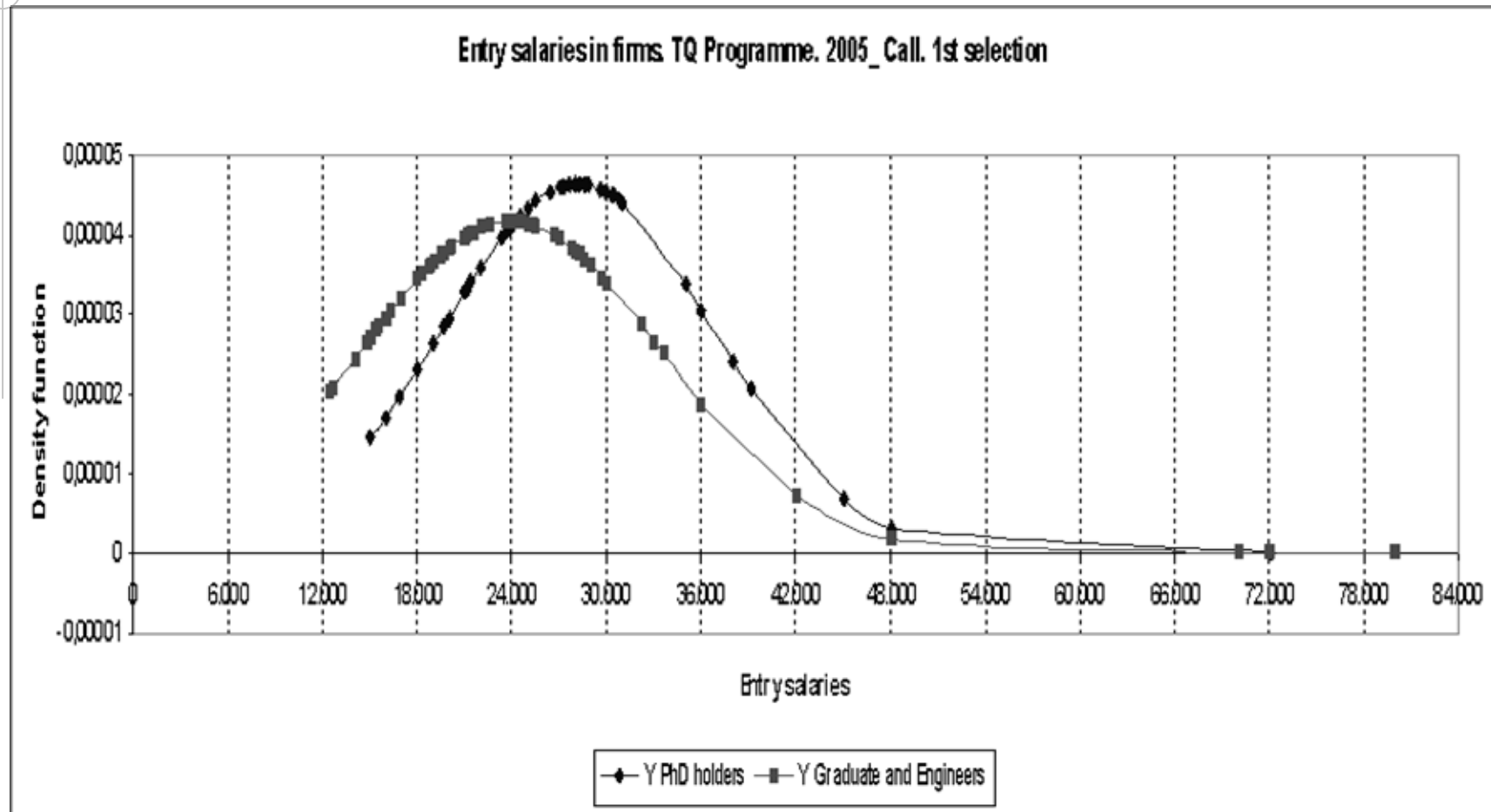
Mobility and salaries (in K euros) 4 years period



Gender inequality

- ◆ There are no gender differences in the access of individuals to private sector research jobs. Male and female PhDs have similar previous trajectories.
- ◆ However, once contracted by the firms, female PhDs have lower entry salaries, and their salary progression is also lower, even for those who stay in the firm after two years.
 - **Below 24.000 €: males (8%), females (32%)**
 - **More than 36.000 €: males (34%), females (15%)**
- ◆ Gender Differences in entry salaries in the private sector research are also evident in recent calls of a similar programme, for PhDs and for technologists.

Entry salaries for PhDs (D) and S&T graduates (T). 2005



Entry salaries for PhDs (D) and S&T graduates (T) by gender. 2005

