

Title

Gender and international mobility among scientific researchers

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Extended Abstract

International mobility of researchers is a key factor supporting the internationalization of research systems, encouraging trans-national flows of knowledge, and enriching professional careers and networks (Edler et al. 2011). International mobility enhances all dimensions of scientific and technical human capital, conceptualized by Bozeman and colleagues (2001). Mobility contributes to the transfer of technical and scientific knowledge but also, and sometimes most importantly, to the development of social knowledge. Recently, scholars and policy makers have addressed forms of international scientific mobility that are clearly distinct from migration, namely, 'shuttle stays' (CEC 2008) and temporary research visits (Ackers 2010; MORE 2010) that are often repetitive and circulatory (Jöns 2007).

In this paper, we analyze women's, compared to men's, temporary mobility patterns, by discipline – testing the hypothesis that women's mobility is particularly characterized by shorter visits and closer destinations. Prior research points to women scientists' decline in migration in the postdoctoral period, even if they are as likely as their male counterparts to migrate in earlier career-stages (Acker, 2004). However, to the best of our knowledge, gender and temporary migration have not been addressed previously.

In this paper, the data are based on the population of a regional research system, namely all PhD holders registered in the Scientific Information System of Andalusia (SICA), and specifically, international research visits from researchers' electronic curricula vitae (CVs). The population under study includes approximately 5,000 mobile PhD holders, of whom 38% are women. The total population sums over 10,300 research visits. Previous research using this database allowed us to identify different temporary mobility profiles according to discipline (Cañibano et al., 2011). Following Edler's et al (2011) terminology, we distinguished between disciplines seemingly characterized by mobility *frequency* (higher number of short visits) and those characterized by mobility *intensity* (few longer visits). The human and social sciences were among the former, and the biological and mathematical sciences among the latter.

With this approach, the paper presents a systematic analysis of *internationalization rates* (ratio of time spent abroad) by gender, as well as age and career phase (pre/post doctoral). It also analyzes frequency of visits, duration of stays, and the distribution of geographical destinations, by gender, for the Andalusian research system. Findings have implications for policy in human resources for research and development.

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