Empirical Analysis of Career Transitions of Sciences and Engineering Doctorates in the US

Natalia Mishagina,*
Queen’s University †
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Abstract

This paper studies the career choices and mobility of white male doctorates in sciences and engineering (S&E). Relevance of employment to R&D and S&E is evaluated using an alternative approach that uses activities on the job rather than occupations. Transitions between tasks were assessed using a duration model with competing risks estimated on the Survey of Doctorate Recipients (1973-2001). It was found R&D tasks employ only 57% of S&E doctorates, and this number varied over time. Most transitions out of R&D happen when doctorates are young. Decisions to switch tasks are affected by demographics, performance on the job, and general economic conditions.

Keywords: Occupational transitions; duration analysis; competing risks; science and technology workforce; high-skilled labor.

JEL Classification Codes: C41, J24, J44.

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†Queen’s University, Dunning Hall, Room 209 Kingston, ON, K7L 3N6 Canada Tel: (312) 533-2250. Email: mishagin@econ.queensu.ca