

Who Invents and Where?

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ABSTRACT

While patent data has been used extensively for the empirical study of innovation, only recently have researchers begun to utilize the information on the patent inventors that the data contains. We construct a unique dataset on inventors by identifying the Finnish inventors in the NBER patent data and matching their patent information to the employee records in the Finnish Longitudinal Employer-Employee Data (FLEED) at the Statistics Finland. The FLEED is a register-based dataset of the Finnish working-aged population, containing detailed information on individuals and their employers.

In this paper, we study one of the central questions of economics of innovation, the propensity to patent, but unusually at the level of the individual inventor. As inventions are a product of human capital, brought about by the skill and effort of individuals, such analysis offers important insights into the sources of innovation. Our data allows us to study the determinants of individuals' inventive productivity using both cross-section and panel data analyses. We analyze how personal characteristics, including individuals' education and experience, affect the propensity to invent – that is the “who invents” question. We also address the “where” question by studying how the characteristics of the employer and other employees, and interactions among these, affect the propensity to invent of an individual.

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