Mobility and career concerns of USPTO Examiners

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(Work in progress)

How does the behavior of patent examiners affect the economy through innovation? Examiner behavior can be strategic and might be driven by mobility and career concerns.

Examiners grant patents to innovators, and therefore allow firms temporary monopoly power. The deliverance of too many non-deserving patents negatively impacts the economy. Hence, patent examiners have a key role to play, and it is fundamental to have a better understanding of the mechanism by which patents are granted. Furthermore, a 2005 report on the progress of the implementation of a modernization plan at the U.S. Patent and Trademark Office (USPTO) points out the difficulty of retaining a skilled workforce. Patent examiners have outside options, and may behave strategically.

Recent empirical studies have started to open the "black box" of the process of patent examination (Cockburn, Kortum and Stern 2002; King 2003; Sampat 2005; Alcacer and Gittelman 2006). However, none of these studies analyze the strategic behavior of examiners. There also exist complete and concise patent databases (e.g., Hall et al. 2001), but they do not contain information about examiners.

The objective of this paper is to empirically explore problems linked to examiner mobility, and to address the following questions: does the technological field have an impact on the mobility of examiners? Is there a correlation between number of years at USPTO, number of granted patents, pendency time, number of claims, and examiner mobility? If examiners send a signal to the job market, which signal is it? To answer these questions, I must first collect data, and construct a dataset. Then, relying on the theoretical framework developed in Langinier and Marcoul (2006), where we analyze the reward scheme of examiners when they have career concerns, I plan to empirically analyze the relationships between mobility and other variables.

I have started to collect data from the USPTO web site. The sample contains 650 examiners who have granted 1,339,409. In September 2006, 37% of the examiners in the sample had left the USPTO, 49% were still examiners and 10% had been promoted. On average, they spent about 19 years at the USPTO, with a minimum tenure of 1 year and a maximum of 30 years (which corresponds to the maximum number of years available in the data set of the USPTO).

For each examiner, I have collected: number of granted patents, number of years at the USPTO (as primary or assistant examiner), and whether she is still granting patents. If she does not grant patents it is either because she has been promoted or has left the USPTO. I use current information about USPTO employees to determine if an examiner has become a director and collect information about Art Unit where each examiner works.

For each examiner I am gathering the following information per patent: filing date and granted date (to determine the pendency time), classification (using the classification of Hall et al. 2001), number of claims, prior art (U.S. patents, non U.S. patents and others), references cited (using forward and backward citations index), names of innovators, name of assignee, and firms that file the patent application.

This is an ongoing project in which the data collection is a very time-consuming task.