

Who Has Priority? An Empirical Exploration of the First to File Rule

David S. Abrams and Polk Wagner

Recently a bill was introduced into the U.S. House of Representatives that could lead to the biggest change in U.S. patent law in over 50 years. One of the important components of the bill is changing the way patent priority is determined. Unlike all other centers of innovation, the U.S. uses a “first to invent” method rather than “first to file”. Opponents of the change argue that first to file disadvantages small inventors and leads to lower quality patents. Those in favor emphasize the clarity and administrative simplicity of first to file. While there has been some theoretical work on this topic, in this paper we use a natural experiment in Canada to shed the first empirical light on the question.

Our analysis uses a difference-in-difference framework to estimate the impact of the Canadian law change on small inventors. We obtain data on hundreds of thousands of patent grants from the Canadian IP Office as well as the US Patent and Trademark Office. We find a significant drop in the fraction of patents granted to small inventors in Canada around the time of the law change, and a much smaller contemporaneous decline in the U.S. The results are robust to several different specification checks. In work currently in progress, we additionally examine measures of patent application quality, including number of citations, and use variation by patent class to get further purchase on the impact of the priority system. The findings from this paper should be informative as the U.S. considers this major patent reform.