

# Death squad or quality improvement? The impact of introducing post-grant review on U.S. patent quality

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## Abstract

Increasing evidence indicates that a large share of granted patents are “undeserved” because they do not meet the criteria of novelty or non-obviousness. In recent decades, many jurisdictions introduced patent reforms to avoid weak patent applications and improve legal patent quality. In particular, the Leahy-Smith America Invents Act (AIA), enacted into law in 2011, introduced the post-grant validity challenge at the United States Patents and Trademarks Office (USPTO). This procedure allows any third party to question granted patents, possibly leading to patent revocation or scope reduction. This paper aims to provide evidence of the impact of such policy change on the legal quality of the patent system. To identify the policy effect we exploit the fact that the same invention is patented in different legislation and that not all of them have post-grant review procedures. In particular, we compare the same patent filed at the USPTO and the Canadian Intellectual Property Office (CIPO). In this setting, we apply standard Diff-in-Diff analysis to estimate the effect of the post-grant validity challenge on the patent scope. Our results indicate that the AIA reform contributed to a reduction of U.S. patent scope in the last decade, indeed increasing the legal quality of the patent system.

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