Should Patent Examiners Get More Time?

Author : Lisa Larrimore Ouellette

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Michael D. Frakes & Melissa F. Wasserman, *Irrational Ignorance at the Patent Office*, **72 Vand. L. Rev. __** (forthcoming 2019), available at SSRN.

How much time should the U.S. Patent & Trademark Office (USPTO) spend evaluating a patent application? Patent examination is a massive business: the USPTO employs about 8,000 utility patent examiners who receive around 600,000 patent applications and approve around 300,000 patents each year. Examiners spend on average only 19 total hours throughout the prosecution of each application, including reading voluminous materials submitted by the applicant, searching for relevant prior art, writing rejections, and responding to multiple rounds of arguments from the applicant. Why not give examiners enough time for a more careful review with less likelihood of making a mistake?

In a highly-cited 2001 article, Rational Ignorance at the Patent Office, Mark Lemley argued that it doesn't make sense to invest more resources in examination: since only a minority of patents are licensed or litigated, thorough scrutiny should be saved for only those patents that turn out to be valuable. Lemley identified the key tradeoffs, but had only rough guesses for some of the relevant parameters. A fascinating new article suggests that some of those approximations were wrong. In Irrational Ignorance at the Patent Office, Michael Frakes and Melissa Wasserman draw on their extensive empirical research with application-level USPTO data to conclude that giving examiners more time likely would be cost-justified. To allow comparison with Lemley, they focused on doubling examination time. They estimated that this extra effort would cost $660 million per year (paid for by user fees), but would save over $900 million just from reduced patent prosecution and litigation costs.

Litigation savings depend on Frakes and Wasserman's prior finding that time-crunched patent examiners make mistakes, and that they are more likely to erroneously allow an invalid patent than to reject a valid one. When examiners are promoted up a step on the USPTO pay scale, they suddenly receive less time per application. Frakes and Wasserman found that they manage the increased workload by spending less time searching prior art and granting more patents. Based on both subsequent U.S. challenges and comparisons with parallel applications at foreign patent offices, these extra patents seem to involve more mistakes. Patents *rejected* by time-crunched examiners, on the other hand, are no more likely to be appealed within the USPTO. Extrapolating from these results, Frakes and Wasserman estimate that doubling examination times would lead to roughly 80,000 fewer patents granted and 2,400 fewer patent/lawsuit pairs each year, translating to litigation savings above $490 million. Similar calculations suggest about 270 fewer instituted PTAB challenges, for an annual savings above $110 million.

These savings alone might not quite justify the $660 million pricetag. But Frakes and Wasserman also suggest that giving examiners more time may lead to decreased prosecution costs for applicants. In a different earlier paper, they found that examiners often make rushed, low-quality rejections under time pressure near deadlines, which increases the number of rounds of review and the time the application is pending at the USPTO. Here, they predict that doubling examination time would be associated with 0.56 fewer office actions per application, translating to around $300 million per year in additional savings. (If this is right, should applicants be allowed to pay the USPTO for a more thorough initial examination?)

As Frakes and Wasserman note, increasing examination time is even more likely to be justified under a correct application of cost-benefit analysis that accounts for the broader social costs of erroneously issued patents. Through the supracompetitive pricing they enable, patents impose costs on both end users and follow-on innovators. Patents that do not satisfy the legal standards of patent validity are less likely to have innovation incentive benefits that

outweigh these costs. These costs are difficult to quantify (and are the subject of active study) but that does not mean the USPTO should ignore them.

To be clear, this doesn't mean the USPTO should immediately double its workforce. There are a lot of assumptions built into Frakes and Wasserman's estimates, including that the effects they observed from examiners before and after promotion are generalizable. Could the agency hire additional examiners of similar quality? How will recent changes in patent law and litigation practice affect the benefits of increasing examination time? Is it really true that increasing examination time leads to fewer office actions? On the cost side, the $660 million pricetag for doubling examination time seems plausible based on examiner salaries and overhead expenses, but is significantly less than the nearly $3 billion the USPTO currently budgets for patent programs. Could greater efficiency be achieved without raising user fees, or is $660 million too low? Empiricists will surely quibble with many details of their methodological choices.

But an immediate doubling of the examiner corps isn't Frakes and Wasserman's goal. Despite remaining empirical uncertainties, they have produced the most evidence-based estimates to date of the tradeoffs between ex ante administrative screening and ex post review during litigation. The USPTO should take notice. Examination effort can be increased gradually: Frakes and Wasserman argue that increasing examination time is even more likely to be cost-justified if one focuses just on a marginal dollar for more examination. And there are open questions on the best way to spend this marginal dollar. Which examiners should get more time? Does investing more time up front on "compact prosecution" help? Could errors be reduced more through internal peer review? Peer review from outside experts? Technical experts within the agency to help with difficult cases?

Most importantly, any of these interventions should be implemented in a way that aids robust empirical evaluation. The USPTO has shown an encouraging willingness to experiment with pilot programs that might improve examination, but has not implemented them in ways that make it easy to evaluate their effectiveness, such as by randomizing over applicants who want to opt in to the programs. Rigorous pilot programs may be both financially and politically costly, but how much effort to spend on examination is a core question of patent policy with tremendous financial implications. And I'm sure the USPTO could easily find free help from academics—perhaps including Frakes and Wasserman—excited to help design and evaluate these initiatives.

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