

SEPTEMBER 19, 2018 | NUMBER 131

From Revolving Doors to Regulatory Capture?

Evidence from Patent Examiners

BY HARIS TABAKOVIC, HARVARD BUSINESS SCHOOL AND THE BRATTLE GROUP; AND
THOMAS G. WOLLMANN, UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS

Many regulatory agency employees follow brief, public-sector experience with more lucrative work at the firms they used to regulate. In several industries, the practice is so common that these agencies appear to have “revolving doors.” This may begin with—and partly be motivated by—firms’ desires to hire workers with agency experience. The concern, however, is that it leads to a quid pro quo: lax supervision is exchanged for future employment. Whether explicit or tacit, this arrangement can have first-order welfare consequences stemming from policies that are ineffective at correcting market failures and unmotivated to protect the public interest. Despite this concern, there is no empirical work studying individual public- to private-sector transitions among regulatory agency employees at the decision level.

One agency that both regulates a significant share of

commerce and employs a large number of revolving-door workers is the United States Patent and Trademark Office (USPTO). The agency is tasked with issuing patents, which incentivize effort and reward disclosure by granting inventors a temporary right to exclude others from using the idea. When a patent application arrives at the agency, it is quasi-randomly routed to a USPTO employee, called an examiner. These examiners decide whether or not to grant a patent to the inventor(s), so their decisions affect investment, the rate and direction of innovation, labor income, entrepreneurial activity, and ultimately, industrial organization and economic growth. Many examiners, though, leave the agency to join private-sector law firms as patent practitioners—licensed specialists who represent others in the patenting process. This provides increased pay and mobility but creates a potential conflict of interest, since many examiners evaluate the applications of firms for whom they would like to work.

To study these transitions, we construct an original dataset that links patent grant decisions to the examiners who made them, and then ties these examiners to the firms that hired them. In particular, we observe, for more than one million applications, the name and address of the filing firm, the name and unique identifier of the examiner, the decisions he or she made, and the dates on which they were made. For applications that receive grants, we observe the number of citations that the patent receives, which provides a commonly used proxy of quality. Separately, we observe periodic snapshots of the full list of licensed practitioners, including their name and unique identifier, as well as the name and address of their employer. We also supplement this data with biographical information (where available). In broad terms, the data links, at the decision level, the individuals setting regulation and the firms affected by that regulation to the individuals hired away from the regulator and firms hiring those individuals. To our knowledge, this is the first research to make these connections.

We investigate whether revolving-door examiners behave differently toward future and prospective employers, whether these differences are suggestive of regulatory capture, and whether they affect the quality of regulation. Answering the first question establishes an empirical fact that we feel is important on its own, because of the importance of regulatory consistency. The second presents more of a challenge. It requires distinguishing between actions whose intent is to gain favor with a potential employer and those that merely reflect employee preferences or reverse causality. The last question requires us to rule out that examiners merely appear favorable by selecting high quality, easy-to-grant applications from the queue. This would affect grant rates specific to certain examiner-firm pairs, but on its own it would have no real effect. The allocation of applications to examiners at the USPTO, however, is quasi-random.

We begin by showing that revolving-door examiners grant 12.6–17.6 percent (8.5–11.9 percentage points) more patents to firms that later hire them. This result is robust to varying the level of controls: for example, the inclusion or exclusion of examiner and firm fixed effects, or limiting the sample to only firms that hire at least one examiner, which cuts the sample by roughly two-thirds. While the “headline” number alone is not proof of capture, the robustness does suggest that unobservable differences—at least along the aforementioned dimensions—are very small.

We next ask whether revolving-door examiners extend this leniency to prospective employers as well. Here we rely on two premises: first, that examiners face uncertainty about which firms will have future job openings and, second, that

conditional on the type of work, an employer’s location is the most important attribute on which workers base their choices. Thus, we test whether they grant more patents to other firms in close proximity to the firm that hired them (after excluding any observations where the filing firm later hired the examiner). We find that examiners extend much of the leniency afforded to their future employers to other firms that are nearby. To be indicative of regulatory capture, this approach requires only that examiners’ match-specific preference shocks are independent across locations, rather than across firms. Hence it provides somewhat stronger evidence.

Finally, we ask whether this behavior results in lower quality patent grants. Examiner leniency lowers the threshold for which an application results in a grant, so patents granted by revolving-door examiners to their future and prospective employers should receive fewer citations. In line with prior findings, the results here indicate that patents granted to the firm that later hires a revolving-door examiner receive 21–27 percent fewer citations. Those granted to firms located near the one that hires the revolving-door examiner receive many fewer citations as well.

We argue that these results, taken together, suggest regulatory capture. The relative narrowness of the examiner-practitioner pay gap means we likely understate the problem relative to many other regulator-regulated relationships, although our results should be interpreted carefully. First, while the firms may not be blindly hiring examiners who treat them favorably, we believe that their ability to tell good from bad potential employees is not significantly hindered by this behavior. Several facts support our claim. Firms have access to examiners’ responses to all applications, not just their own, so there are many other observations on which they can gauge ability or ambition. Also, examiners can presumably still signal their type while granting a patent. (In the academic profession, this would be akin to submitting a referee report that acknowledges a paper’s weaknesses in a sophisticated way but ultimately dismisses those shortcomings.) Moreover, firms still subject ex-examiners to an interview process as they would any other prospective employees. Beyond all this, patent practitioners face steep quotas on observable quantity and quality measures. Thus, self-selection may limit how careful firms must be in screening potential workers. Also, examination leniency may not be the primary motivation for hiring examiners. Law firms focusing on intellectual property protection independently value agency experience. Whether or not regulatory capture is the main reason for the USPTO’s revolving door should not diminish interest in quantifying its effects (although it will affect how policy addresses it). Further,

note that nothing here implies explicit collusion. Finally, the preferential treatment of prospective employers is probably not the most pressing problem faced by this particular agency. Instead, we see the USPTO as a data-rich setting to answer basic questions about regulator behavior.

In terms of policy, we caution that that these results do not, in themselves, suggest immediate changes, for example, the implementation of a cooling-off period akin to the ones faced by accountants and lobbyists. Altering employment contracts to prohibit examiners from working in private-sector roles for which they are best suited can dissuade talented people from joining the USPTO in the first place.

Even if revolving-door examiners are biased toward some firms, their work may be higher quality overall. The variation we exploit cannot cleanly evaluate competence-collusion tradeoffs, although we argue it provides evidence suggestive of regulatory capture and should merit additional scrutiny.

NOTE

This research brief is based on Haris Tabakovic and Thomas G. Wollman, “From Revolving Doors to Regulatory Capture? Evidence from Patent Examiners,” NBER Working Paper no. 24638, May 2018, <http://www.nber.org/papers/w24638>.