

Do Conflict of Interests Disclosures Work? Evidence From Citations In Medical Journals

Based on BFI Working Paper 2023-15, *“Do Conflict of Interests Disclosures Work? Evidence From Citations In Medical Journals,”* by Christian Leuz, Chicago Booth; Anup Malani, UChicago Law School; Maximilian Muhn, Chicago Booth; and Laszlo Jakab, Analysis Group

Disclosures of financial ties between drug companies and researchers in medical journals negatively affect readers’ citation behavior, consistent with the hypothesis that other researchers discount articles with disclosed conflicts.

What are the effects of financial ties between drug companies and the medical community? On the one hand, financial ties between drug companies and medical researchers might bias researchers’ judgments about the company’s drugs. Studies have shown that clinical trials funded by drug companies are more likely to find favorable treatment effects. This problem suggests an easy fix: Ban all financial ties between drug companies and researchers.

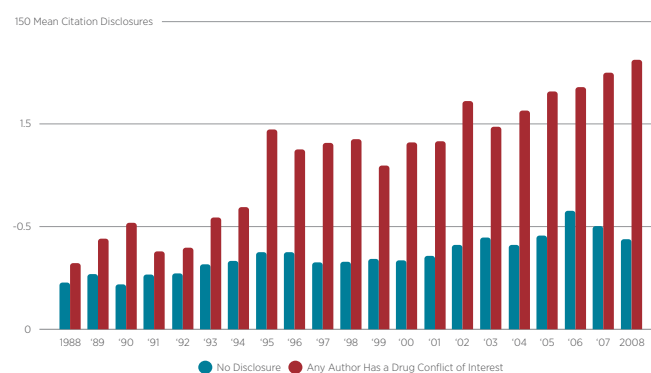
On the other hand, such financial ties can produce benefits. For example, about two thirds of the roughly \$200 billion in annual US medical research is funded by drug companies and, in 2014, pharmaceutical money funded 6,550 human trials as compared to 1,048 by the National Institute of Health. Besides, so many doctors have ties to drug companies that attempts to ban conflicted doctors from medical journals and advisory committees left those journals and committees wanting for contributors, and such bans were subsequently relaxed.

An alternative to a ban on financial ties is to disclose such conflicts to relevant parties. Such a policy allows readers to interpret findings in light of perceived conflicts and to discount articles with such conflicts, while also providing researchers with incentives to choose financial ties with drug companies judiciously. Disclosure regulation is often viewed as preserving the

potential benefits of financial ties between drug companies and the medical community, while also addressing concerns about possible conflicts of interest.

Is such disclosure regulation effective? The authors of this new work acknowledge that this is still an open question, but they offer a unique method to examine the question: They study whether conflict of interest disclosures in scholarly articles in medical journals affect citations to those articles by other medical

Figure 1 • Average Three-Year Citations to Articles With and Without Conflict Disclosures



Note: This figure plots the average 3-year citations (adjusted for self-citations) to articles over the authors’ sample years (1988-2008) depending on whether any of the article’s authors disclose a drug-industry related conflict of interest. The authors calculate 3-year citations by summing the number of citations across the three calendar years following the article’s publication, plus any citations received in the year the article was published.

researchers. Some prior research suggests that doctors view hypothetical articles more negatively if they disclose drug company funding. This new research offers evidence on actual behavior toward actual articles (what economists call a revealed-preference approach). Specifically, they infer from citations the potential “discount” that fellow researchers attach to articles by authors who have conflicts. Moreover, citation behavior is economically important: they are employed by universities in making tenure and salary decisions.

The authors test the relationship between the disclosure of financial ties and citations by using data on over 17,000 research and review articles in seven medical journals from 1988 to 2008, when disclosure of conflicts substantially increased because medical journals introduced conflict of interest disclosure policies. A challenge to estimating the impact of disclosures on citations is selection bias: drug companies seek out and fund higher-quality authors because those individuals typically garner more citations. This selection can generate a positive relationship between disclosures and citations, and mask any negative causal effect of disclosures on citations due to readers discounting the information value of articles by conflicted authors. The authors confirm this positive association is due to selection. To determine whether readers discount articles with conflicts, they perform three tests to filter out selection and find the following:

- First, they examine review articles, which are thought to be more susceptible to bias due to financial ties. They show that, when one controls for the quality of authors to eliminate selection bias, conflicts disclosures in reviews are associated with a reduction in citations.
- Second, they examine a sample of articles that have been screened by doctors based on quality, so are unlikely to be subject to selection bias, and track expert recommendations of those articles (as opposed to citations of those articles). They show that articles that disclose conflicts are less likely to be recommended by experts.
- Third, they examine how the citations an author receives for an old article change when that same author discloses a conflict in a different article. This analysis controls for selection by looking at the same author and article’s citations, before and after other researchers learn that the author actually has a conflict. They find that an author’s disclosure of a conflict in a new article reduces citations to that author’s older work.

This is a brief summary and readers are encouraged to read the full working paper to understand the details of their analysis.

Bottom line: This work finds evidence that disclosures negatively affect readers’ citation behavior, consistent with the notion that other researchers discount articles in which authors have disclosed conflicts.

READ THE WORKING PAPER

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