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**The private costs of patent litigation**

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# The Private Costs of Patent Litigation

Working Paper

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By James Bessen and Michael J. Meurer\*

**Abstract:** This paper estimates the total cost of patent litigation. We use a large sample of stock market event studies around the date of lawsuit filings for US public firms from 1984-99. Even though most lawsuits settle, we find that the total costs of lawsuits are large compared to estimated legal fees, estimates of patent value, and R&D spending. By the late 1990s, alleged infringers bore expected costs of over \$16 billion per year. These estimates support the view that infringement risk should be a major concern of policy.

**Keywords:** patent, litigation, litigation cost, property rights

**JEL Classifications:** O31, O34, K41

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## 1 Introduction

Like any regulatory mechanism, the patent system has benefits and costs, both private and social. Yet little empirical evidence exists about the magnitude of some of these costs, leaving policy analysts to sometimes rely on guesswork. For example, recent policy analysis of a patent opposition proceeding in the US (Levin and Levin 2002, Hall et al. 2004) has been based on rough estimates of the costs of patent litigation and the social costs of inappropriately-granted patents.

In contrast, there is a significant literature estimating benefits of the patent system, especially private benefits in the form of estimates of patent value<sup>1</sup> or of the patent premium (Arora et al. 2005). However, without comparable estimates of private and social costs, it is difficult to conduct either analysis of specific policy changes or a normative analysis of the patent system in comparison to other means of encouraging innovation. For example, Schankerman (1998) suggests that the ratio of aggregate patent value to R&D constitutes an upper bound measure of the subsidy that patents provide to R&D. He asserts that this ratio can be used to compare patents to other forms of appropriating returns on invention. But surely this is only an estimate of a *gross* subsidy against which private costs of patents need to be netted out.

This paper takes a step toward quantifying costs by estimating the private costs of patent litigation. Using event study methodology to analyze patent lawsuit *filing* we find the expected joint loss to the litigating parties is large, and probably much larger than the expected attorneys' fees. This result is a bit of a surprise because most patent lawsuits settle short of trial, and thus it might seem that average patent litigation costs would not be large.

But attorneys' fees can be high even when a patent lawsuit settles before trial, and the indirect costs of litigation can also be high before trial. Indirect business costs of patent litigation take many forms. Business can be disrupted as managers and researchers spend their time producing documents, testifying in depositions, strategizing with lawyers, and appearing in court. Litigation strains the relationship between the two parties and may jeopardize cooperative development of the patented technology or cooperation on some other front. Firms in a weak financial position might see their credit costs soar because of possible bankruptcy risk created by patent litigation.

Alleged infringers face additional costs. Preliminary injunctions can shut down production and sales while the litigation pends. But even without a preliminary injunction, customers may stop buying a product. Frequently, products require customers to make

<sup>1</sup>This literature began with Pakes and Schankerman (1984). See Bessen (2008) for a survey of this literature.















































































