

*From PI to IP: Yet Another Unexpected Effect of Tort Reform*

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**[DRAFT: PLEASE DO NOT CITE OR QUOTE WITHOUT PERMISSION]**

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## Abstract

Is there a connection between state-law tort reform and the explosive growth of U.S. intellectual property (IP) litigation? The literature has established that the number of tort claims in states with tort reform has gone down. How do personal injury (PI) plaintiff lawyers deal with the decrease in the demand for their services? Could a significant number of them end up shifting their practice toward IP law? Although David Schwartz's interviews with contingent-fee litigators have led him to suggest that "[m]ost lawyers whose practice consists of substantially all patent contingent litigation are primarily and historically patent litigators,"<sup>1</sup> there is pre-existing anecdotal evidence that some proportion of PI lawyers have switched substantially to IP.

Using data gathered from various sources, including Lex Machina and the Database of State Tort Law Reforms, we find more systematic evidence of a related proposition—namely, that state tort reform significantly and substantially increases copyright and patent filings in U.S. district courts in the states where tort reform has occurred. In contrast, the evidence does not indicate a similarly significant effect on trademark and trade-secret filings. One potential explanation for the apparently different results for copyright and patent as opposed to trade secret and trademark is that, to the extent tort reform has produced an increase in trademark or trade-secret filings, that increase has been concentrated in state courts, rather than federal district courts that have exclusive jurisdiction over patent and copyright cases. Alternatively, it could be that PI attorneys moving into other areas of practice are more likely to gravitate toward patent litigation and copyright litigation, rather than trademark litigation or trade-secret litigation, perhaps because patent litigation and copyright litigation offer more opportunities for lucrative suits brought by non-incumbent industry players (e.g., independent inventors or startup firms) who might be most likely to seek the services of former PI attorneys. Finally, it should be noted that the apparent differential growth of patent and copyright litigation in states that have undergone tort reform might not be explained substantially by a lawyer-based shift from PI to IP at all. Instead, the primary mechanism for such differential growth could be court-based: for example, a post-reform decrease in docket congestion could make a state's U.S. district courts significantly more attractive for IP filings, either directly by making litigation in those courts speedier or indirectly by freeing time for the courts to adopt rules for IP litigation that parties find attractive. This paper discusses such potential explanations and considers their plausibility in light of the paper's new empirical evidence as well as other available data.

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<sup>1</sup> David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, ALA. L. REV. (forthcoming), available at <http://ssrn.com/abstract=1990651>.

“The first two thirds of my career were PI, and now it’s IP”<sup>2</sup>

## I. Introduction

Reforms of medical malpractice law have held a central place on many state legislative agendas. Dozens of different reforms have been enacted, struck down, or reenacted in the recent decades (Avraham 2010). Even at the national level, tort reform has made an appearance. Indeed, no fewer than 16 bills to federalize the various aspects of medical malpractice law (currently governed by state common law) have been debated in the U.S. Congress over the last decade. The Republicans made tort reform a major component of the 2010 midterm elections. Indeed the U.S House Judiciary Committee approved recently a reform bill seeking to cap damages in medical malpractice suits.

The various impacts of tort reform have been widely explored. Previous scholarship has indicated that tort reform, especially caps on noneconomic damages or on overall payments, decreases payouts.<sup>3</sup> One of the most established findings, and one which makes total sense, is that tort reform reduces the number of medical malpractice claims (Paik, Black, Hyman, Sage & Silver 2010; Avraham 2007). Because tort reform reduces plaintiffs’ recoveries and/or the probability of recovering, and because plaintiff lawyers work on a contingency fee basis, tort reform likely makes it harder for many plaintiffs to find a lawyer who will take their case.<sup>4</sup>

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<sup>2</sup> Carl Roth, one of the best known personal injury (PI) plaintiff’s lawyers in Marshall, Texas, has become, after Texas 2003 reform, the go-to local lawyer for companies bringing intellectual property (IP) cases.

<sup>3</sup> See, e.g., Frank A. Sloan, Paula M. Mergenhagen & Randall R. Bovbjerg, *Effects of Tort Reforms on the Value of Closed Medical Malpractice Claims: A Microanalysis*, 14 J. HEALTH POL. POL’Y & LAW 663, 674-78 (1989) (discussing observed impacts of various types of reforms and noting that “[l]imits on payment, particularly caps on total payment, generated substantial savings”). But cf. Stephen Daniels & Joanne Martin, *The Texas Two-Step: Evidence on the Link Between Damage Caps and Access to the Civil Justice System*, 55 DEPAUL L. REV. 635, 642 (2006) (contending that “the connection between damage caps and insurance rates and between damage caps and [various other concerns] remains empirically murky”).

<sup>4</sup> Daniels & Martin, *Texas Two-Step*, *supra* note 3, at 643-45 (discussing studies and reports indicating that tort reform reduces the number of medical malpractice cases that attorneys are willing to take on a contingency-fee basis, with a disproportionate effect on

Indeed, this effective restriction of access to legal services, as well as the associated displacement of attorneys to other work, is presumably an intended result of much tort reform. Stephen Daniels and Joanne Martin have described the logic of an apparently typical pro-reform argument as follows: “If medical malpractice cases become less profitable, then plaintiffs’ lawyers (presumed to be rational, self-interested actors) will be less interested in handling such cases and move on to other, more profitable markets.”<sup>5</sup> The result can be “real change in the civil justice system as lawyers move to new practice areas and away from older ones.”<sup>6</sup>

When state tort reform discourages plaintiffs’ lawyers from taking on personal injury cases or other cases affected by the reform, what do they do? There is some evidence that some of them go to states without tort reform and that many of them retool in order to switch specialty (Carter 2006; Daniels & Martin 2002; Daniels & Martin 2006). There is some anecdotal evidence that one of the areas which personal injury (“PI”) lawyers gravitate towards is intellectual property (“IP”) (Carter 2006).<sup>7</sup> Such gravitation might reflect rational economic behavior as tort lawyers (or otherwise tort-lawyers-to-be) look for a next-best specialty area that offers viable work opportunities with the prospect of a relatively high rate of remuneration.<sup>8</sup> Of course, whether an area like IP offers viable work

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access to legal services for “women, children, and the elderly”); *id.* at 651-61 (discussing plaintiffs’ lawyers’ screening of cases to ensure economic viability); *see also* Jerry Van Hoy, *Markets and Contingency: How Client Markets Influence the Work of Plaintiffs’ Personal Injury Lawyers*, 6 INT’L J. LEGAL PROF. 345, 364 (1999) (suggesting that medical-malpractice reforms in Indiana had “raise[d] the costs associated with providing [legal] services” and thereby caused lawyers “to avoid that area of practice”).

<sup>5</sup> Daniels & Martin, *Texas Two-Step*, *supra* note 3, at 636.

<sup>6</sup> Stephen Daniels & Joanne Martin, *It Was the Best of Times, It Was the Worst of Times: The Precarious Nature of Plaintiffs’ Practice in Texas*, 80 TEX. L. REV. 1781, 1824 (2002).

<sup>7</sup> Instead of abandoning personal injury practice entirely, lawyers or law firms might maintain or develop an identity as multipurpose plaintiffs’ lawyers, cherry-picking economically viable plaintiffs’ cases from a variety of different fields while opening IP litigation as a new area of practice. *Cf.* Steven T. Taylor, *As Plaintiffs Firms Seek a Share of the IP Litigation Workload, They Hire Away Big-Firm Attorneys to Help Them*, OF COUNSEL, June, 2010, at 1, 2 (2010) (“[W]e’ve seen more and more plaintiffs firms getting into the IP game ....”).

<sup>8</sup> Among 48 specialty areas listed in a report on the State Bar of Michigan’s 2010 Economics of Law Practice Survey, “Intellectual Property/Trade Secrets” had average and median hourly billing rates of \$268 and \$287, respectively, that were only jointly exceeded

opportunities will depend on whether the work opportunities available are suitable for tort attorneys' skill sets or, at least, the skill sets of talent that they can purchase while maintaining the economic desirability of the enterprise.<sup>9</sup> We suggest below that at least high-end plaintiffs' attorneys, accustomed to complex litigation and the need to work with hired experts, will often find the leap to IP substantially less than insurmountable.

We explore the impact of tort reform on patent filings by exploiting two datasets: first, the Database of State Tort Law Reform ("DSTLR 4th"), a dataset that documents dozens of reforms in all 50 states and Washington, D.C., since the 1980s; and second, a new

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by eight other listed practice areas: (1) "Medical Malpractice (Plaintiff)," having average and median rates of \$400 and \$374, respectively; (2) "Condemnation Law," having average and median rates of \$333 and \$343, respectively; (3) "Auto Law (not including lemon law)," having average and median rates of \$300 and \$358, respectively; (4) "Personal Injury (Plaintiff)," having average and median rates of \$300 and \$327, respectively; (5) "Consumer Law (including lemon law)," having average and median rates of \$300 and \$301, respectively; (6) "Securities Law," having average and median rates of \$290 and \$287, respectively; (7) "Probate, Trust Litigation," having average and median rates of \$288 and \$298, respectively; and (8) "Tax Law," having average and median rates of \$400 and \$374, respectively. State Bar of Michigan, *Economics of Law Practice in Michigan: 2010 Attorney Income and Billing Rate Key Findings Report*, 90-FEB MICH. B.J. 14 (2011). Tort reform might be understood to target at least plaintiffs' medical-malpractice, personal-injury, and consumer practice—items (1), (4), and (5) on this list. Probate, trust, and condemnation law—items (2) and (7)—would seem to provide relatively limited opportunities for litigation compared to other practice areas. Securities and tax law—items (6) and (8)—might have provided comparatively little opportunity for "migrating" tort lawyers, whether because their specialized bars already tended to meet any lucrative demand or because their specialized areas of practice, involving robust federal regulatory agencies, presented relatively high entry barriers for tort lawyers. This leaves item (3) on the list—"Auto Law"—or as perhaps the next most lucrative option, "Intellectual Property/Trade Secrets," an area of law that contrasts with securities and tax law in its lack of a comparatively robust federal agency, *see* John F. Duffy, *The FCC and the Patent System: Progressive Ideals, Jacksonian Realism, and the Technology of Regulation*, 71 U. COLO. L. REV. 1071, 1134 (2000) ("Unlike the sweeping delegations conferred in the Progressive and New Deal eras, the delegations of governmental power for the patent system were, and still are, extraordinarily narrow."); John M. Golden, *Patentable Subject Matter and Institutional Choice*, 89 TEX. L. REV. 1041, 1045 (2011) ("A key aspect of patent law's distinctiveness is the USPTO's lack of substantive rulemaking power.").

<sup>9</sup> *Cf.* Taylor, *supra* note 7, at 1 (observing that, because "most plaintiffs firms don't have the expertise required to successfully try ... complex, high-tech, top-dollar [patent] cases," "they're looking for patent litigators").

dataset, the Lex Machina database originally known as the Stanford Intellectual Property Litigation Clearinghouse).<sup>10</sup> Lex Machina purports to provide a comprehensive electronic data on patent lawsuits and substantial but less comprehensive coverage of copyright, trademark and trade secret lawsuits filed in U.S. district courts since 2000—more than 25,000 suits in all.<sup>11</sup> We find that tort reform is associated with a substantial and statistically significant increase in copyright and patent filings but has no effect on trademark and trade secret filings. The impact on patent and copyright filings is statistically significant at the 1% level and robust to various ways of capturing tort reform. One potential explanation is that, to the extent tort reform produced an increase in trademark or trade secret filings, that increase was concentrated in state courts (which Lex Machina does not cover), rather than federal district courts which have exclusive jurisdiction over patents and copyright cases.

## **II. The Impact of Tort Reform on PI and IP Filings - Literature Review**

Avraham (2006) has explored more than 100,000 medical malpractice payments in all 50 states over a period of 8 years and concluded tort reforms reduced the number of annual payments by 10%-13%. Paik, Black, Hyman, Sage & Silver (2010) have documented a reduction in frequency of malpractice claims of 64% for adults and 40% for babies in Texas after the 2003 tort reform.<sup>12</sup>

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<sup>10</sup> Lex Machina, *The Genesis of Lex Machina*, <https://lexmachina.com/about/genesis> (visited on June 27, 2011) (describing Lex Machina’s origins at Stanford University as the “IP Litigation Clearinghouse,” “launched in December 2008 as a fully searchable web-based ‘almanac’ on U.S. IP litigation”).

<sup>11</sup> See Lex Machina, *Need to Know? Get Access*, <https://lexmachina.com/database/features> (visited on June 27, 2011) (indicating that Lex Machina provides “access to every electronically available patent infringement case and docket event from 2000 to the present”); Lex Machina, *About: Stanford IPLC & Lex Machina*, <http://www.lexmachina.org/about> (visited on June 27, 2011) (“The IPLC has been designed to make IP litigation more transparent, covering all (1) patent infringement, (2) manifest copyright, (3) manifest trademark, (4) manifest antitrust, and (5) certain trade secret lawsuits filed in the U.S. District Court from January 1, 2000 to the present,” and including a study of “over 25,000 [patent] infringement outcomes”).

<sup>12</sup> Cite more studies. Use Mello’s recent survey.

One of the less discussed impacts of the reduction in medical malpractice lawsuits is plaintiff lawyers' loss of cases. Personal injury (PI) lawyers are specialists. For many of them 85% to 95% of their cases are personal injury cases.<sup>13</sup> One personal injury Texas lawyer described the consequent impact of Texas tort reform as follows: "My income has dropped to probably 10 percent of what I made in 2003" (Cater 2006).

What did personal injury lawyers in states that enacted tort reform do? Some solo practitioners closed their practice. Others reduced the size of their firm, especially by cutting support stuff. Others increased advertising and started to cherry-pick cases with well-off clients who could show economic damages.<sup>14</sup> According to Stephen Daniels and Joanne Martin, some "mov[ed] out of the market altogether and look[ed] into other areas of contingency fee work, like business litigation."<sup>15</sup> Indeed, there is anecdotal evidence that a number of plaintiff medical-malpractice lawyers began showing up at intellectual property seminars (Carter 2006). Indeed, as another personal injury Texas lawyer has explained: "You just have to replace practice areas the law takes away from you. We've added a business section doing contingency fee cases, including intellectual property." (Carter 2006). News stories in Texas have painted Marshall, a city in East Texas that is the seat of a U.S. District Court, as the destination for Texas lawyers hurt by tort reform who are eager to get in on intellectual property litigation (Cohen (2005), Carter (2006), Creswell (2006)).<sup>16</sup> Although some might

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<sup>13</sup> Stephen Daniels & Joanne Martin, *Texas Plaintiffs' Practice in the Age of Tort Reform: Survival of the Fittest -- It's Even More True Now*, 51 N.Y.L. SCH. REV. 285 (2006-2007).

<sup>14</sup> Daniels & Martin, *Texas Plaintiffs' Practice*, *supra* note 13, at 306-09.

<sup>15</sup> Daniels & Martin, *Texas Two-Step*, *supra* note 3, at 662; *cf. Tribalism and Customary Practices of the EDTX*, 14 SMU SCI. & TECH. L. REV. 239, 243 (2011) (conference session transcript) (quoting Otis Carrol, a trial lawyer from East Texas, as saying, "[B]efore tort reform, a lot of us used to try tort cases, but not anymore. And likely the time will come when patent reform happens and maybe we will not try patent cases anymore.").

<sup>16</sup> Adam D. Kline, *Any Given Forum: A Proposed Solution to the Inequitable Economic Advantage That Arises When Non-Practicing Patent Holding Organizations Predetermine Forum*, 48 IDEA 247, 248 n.6 (2008) ("In Marshall, an oft-told joke is that the passage of tort reform was when many local lawyers made the trip from P.I. to I.P.—that is, they moved out of personal injury and into intellectual property." (quoting Creswell)); Elizabeth P. Offen-Brown, Note, *Forum Shopping and Venue Transfer in Patent Cases: Marshall's Response to TS Tech and Genentech*, 25 Berkeley Tech. L.J. 61, 71 (2010) ("Marshall, Texas used to be a hotbed for

wonder about the competence of tort attorneys moving into IP litigation, high-end plaintiffs’ attorneys, such as many medical-malpractice attorneys, are commonly accustomed to complex litigation on technical matters that require significant evidentiary development and use of outside experts.<sup>17</sup>

### III. Forming Hypotheses

Under 28 USC sec. 1338, federal courts have exclusive jurisdiction over patent and copyright claims. In contrast, trademark claims can be brought in both federal and state courts whereas trade secrets are primarily protected by state law.<sup>18</sup> If PI lawyers are best tooled for state courts, we might expect that, when they switch to IP, they will favor state courts whenever they can pursue IP claims in state courts and that they will favor federal courts otherwise. Thus, since our dataset is comprised of only federal courts filings we expect tort reform to have a substantially larger impact on patent and copyright filings than on trademark and trade secret filings. To the extent tort reform impacts trade secret and trademark filings we would expect to see that effect in state and not in federal courts.

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personal injury lawyers, but broad tort reform shifted the town’s legal focus ‘from P.I. to I.P.—that is, they moved out of personal injury and into intellectual property.’”); Li Zhu, Note, Taking Off: Recent Changes to Venue Transfer of Patent Litigation in the Rocket Docket, 11 Minn. J.L. Sci. & Tech. 901, (2010) (“Local lawyers often joke that the passage of tort reform encouraged many in their profession to make the trip from P.I. to I.P.—that is, they moved out of personal injury and into the realm of intellectual property. Such humor, however, reflects much of the truth.”).

<sup>17</sup> Daniels & Martin, *Texas Two-Step*, *supra* note 3, at 657 (discussing how medical-malpractice lawyers form a specialized group within the plaintiffs’ bar, in substantial part because “medical malpractice cases are very hard to prove and expensive to properly prepare”); *see also id.* at 668-69 (quoting “an East Texas lawyer” as characterizing “business litigation” as likely to be less difficult to litigate than a recent nursing-home case that involved 43 depositions).

<sup>18</sup> About 46 states use a version of the Uniform Trade Secret Acts (available at <http://stepstoatradesecret.com/Uniform%20Trade%20Secrets%20Act.pdf>). 18 U.S.C Sec 1831-1839 is a criminal federal statute which makes it a felony to sell or otherwise deal in trade secret without owner’s consent.



#### IV. Identification Strategy

We count the number of patent, copyright, trademark and trade secret filings using the Lex Machina database formerly known as the Stanford Intellectual Property Litigation Clearinghouse (“IPLC”). Lex Machina purports to provide comprehensive electronic data on every patent lawsuit filed in every district court in all 50 states (plus Washington, D.C) since 2000—more than 25,000 suits in all. Over the past three years, a number of scholars have used Lex Machina or its predecessor, IPLC, in their research.<sup>19</sup> While the data covers filings until 2010, we use it only for the years 2000-2008 because reviewing the data suggests that 2009 and 2010 are most likely not complete yet, and because our state tort reform dataset goes only until 2008. The Lex Machina database also contains records on copyright, trademark, trade secret and antitrust filings, although they are not as comprehensive as patent filings.

Our tort reform dataset comes from the third edition of the Database of State Tort Law Reforms (“DSTLR 4th”). This dataset, discussed at length in Avraham (2010), was assembled by reviewing the laws and court cases of the 50 states (and the District of Columbia) from 1980 to 2010 and comparing them to existing tort law compilations.<sup>20</sup> The process revealed that commonly used dating schemes suffer from missing reforms, missing or erroneously coded effective dates of reforms, and missing or erroneously

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<sup>19</sup> Jeanne C. Fromer, Patentography, 85 N.Y.U. L. Rev. 1444, 1493 & nn. 269-270 (2010); Tejas N. Narechania, Note, An Offensive Weapon?: An Empirical Analysis of the "Sword" of State Sovereign Immunity in State-Owned Patents, 110 Colum. L. Rev. 1574, 1594 (2010); Daralyn J. Durie & Mark A. Lemley, A Structured Approach to Calculating Reasonable Royalties, 14 Lewis & Clark L. Rev. 627, 634 (2010) ("The Stanford IP Litigation Clearinghouse collects data on every patent lawsuit filed in the United States since 2000."); Ted Sichelman, 43 Loy. L.A. L. Rev. 1161, 1169 (2010) (relying on Lex Machina-derived data for the statement that, "[o]ver the last decade, [patent] plaintiffs have increasingly chosen the remote Eastern District of Texas, with 860 percent more cases filed there in 2009 than in 2000, while the background growth in total cases filed nationwide was only 15 percent"); Elizabeth P. Offen-Brown, 25 Berkeley Tech. L.J. 61, 70 (2010) (providing statistics on "Top Patent Litigation Districts" based on data from Lex Machina); John R. Allison, Mark A. Lemley & Joshua Walker, Extreme Value or Trolls on Top? The Characteristics of the Most-Litigated Patents, 158 U. Pa. L. Rev. 1, 5 (2009) (using the Stanford IP Litigation Clearinghouse to "identif[y] every patent that has been litigated eight or more times between 2000 and 2007"); Colleen V. Chien, Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents, 87 N.C. L. Rev. 1571, 1571 (2009) ("us[ing] data from the Stanford Intellectual Property Clearinghouse for cases initiated in U.S. District Courts from January 2000 through March 2008").

<sup>20</sup> The dataset is available for free download at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=902711](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=902711).

coded state supreme court decisions striking down or upholding reforms. The DSTLR 4th edition is the most comprehensive and accurate dataset on tort reform legislation to date.

Table A of the Appendix lists the states that enacted and repealed reforms during our study period.<sup>21</sup> As Table A reveals, state legislatures enacted or struck down nine types of tort reform during the period under study. However, because we use a difference-in-differences approach, we have sufficient variation during the study period (2000 to 2008) to analyze only three in detail: caps on noneconomic damages, periodic payment reform, and limits on joint and several liability. In addition to our single-reform specifications we also estimate models using a count of these three major reforms as well as a count of all nine reforms enacted during our study years.

#### **a. Reforms**

*Caps on Noneconomic Damages.* Noneconomic damages encompass pain and suffering, loss of enjoyment of life, and loss of consortium. Such damages can comprise a significant fraction of total damage awards and have often been the focus of tort reform advocates.<sup>22</sup> Caps vary across many dimensions. Some reforms impose a cap of a fixed dollar amount, while others use a multiplier of the economic damages. Some are indexed to inflation, some are not. In addition, the levels of the caps vary from state to state. By 2008, thirty states had capped noneconomic damages. Between 2000 and 2008 ten states enacted or struck down caps on noneconomic damages.

*Periodic Payment.* Periodic payment reform allows or requires courts to award future damages that are above some threshold, usually \$200,000, in periodic installments. This reform eases the burden on the defendant, who can purchase an annuity for that purpose, and potentially increases the burden on the plaintiff, who has to wait longer for complete payment. The reform can help the

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<sup>21</sup> Note that reforms are coded as of July 1 and refer to effective dates as opposed to enactment dates.

<sup>22</sup> Avraham (2006) cites sources claiming that noneconomic damages account for up to 50% of total recoveries in product liability cases.

defendant in another way by potentially relieving the defendant of a portion of his or her due damages if the plaintiff dies before the damages are fully awarded. Eighteen states have enacted laws requiring periodic payment of large future damage awards. Between 2000 and 2008, five states enacted this reform.

*Joint and Several Liability.* Under the common law rule of joint and several liability, the plaintiff can collect the entire damages award from any of the defendants found liable in the lawsuit, regardless of a specific defendant's percentage of liability. This allows plaintiffs to pursue defendants with "deep pockets" and collect the full recovery from them. In medical malpractice cases, the deep pockets are likely hospitals and practice groups. States have limited plaintiffs' access to deep pockets by modifying the joint and several liability rule in various ways, primarily by limiting each defendant's liability to its proportional share of responsibility. However, doctors are not deep pockets, and recoveries from them are often limited to their insurance coverage policy limits even if it is smaller than their actual legal liability. (See Hyman et. al (2007) for a discussion.) Therefore, joint and several liability reform may in effect limit the amount of recovery a plaintiff can receive, not unlike a cap. Between 2000 and 2008 three states enacted reforms of the joint and several liability rule.

## **b. Specifications**

Our primary specification regresses the number of cases filed in a state on various measures of tort reforms, which vary at the state-year level. We use Poisson regressions although our results do not change qualitatively when we use negative binomial or ordinary least square regressions. We report standard errors clustered by state to allow for correlation in the error terms across districts within the same state. The baseline specification is as follows:

$$(1) \quad \text{NumOfFilings}_{it} = \alpha + \gamma \times \text{Tort Reform}_{it} + \beta \times \text{Year}_t + \delta \times \text{State}_i + \varphi \times \text{demographics}_{it} + \varepsilon_{it}$$

The subscript  $i$  refers to the state and  $t$  to the year. *TortReform* is an indicator variable that takes a value of 1 in the year of the implementation of the reform in question. We present estimates including each of the three reforms described above singly as well as altogether. In addition, we report specifications using the sum of these three major reforms. This index allows us to test the average impact of introducing an additional liability limitation. Equation 1 includes state and year fixed effects. In addition, we estimate all models with state-specific time trends. Equation 1 also includes a time-varying state-specific measure: demographics. Our demographics vector includes population, number of lawyers and disposable income.

## **V. Results**

We start by showing the effect of tort reform in Texas, which is the state from which we drew most of the anecdotal evidence described above. Figure 1 shows that trademark and trade-secret filings did not change much after 2003, whereas patent and copyright filings significantly increase after the 2003 reform (the reduction in filing in after 2006 might be caused by other developments or by incomplete data for those years).

**Figure 1**

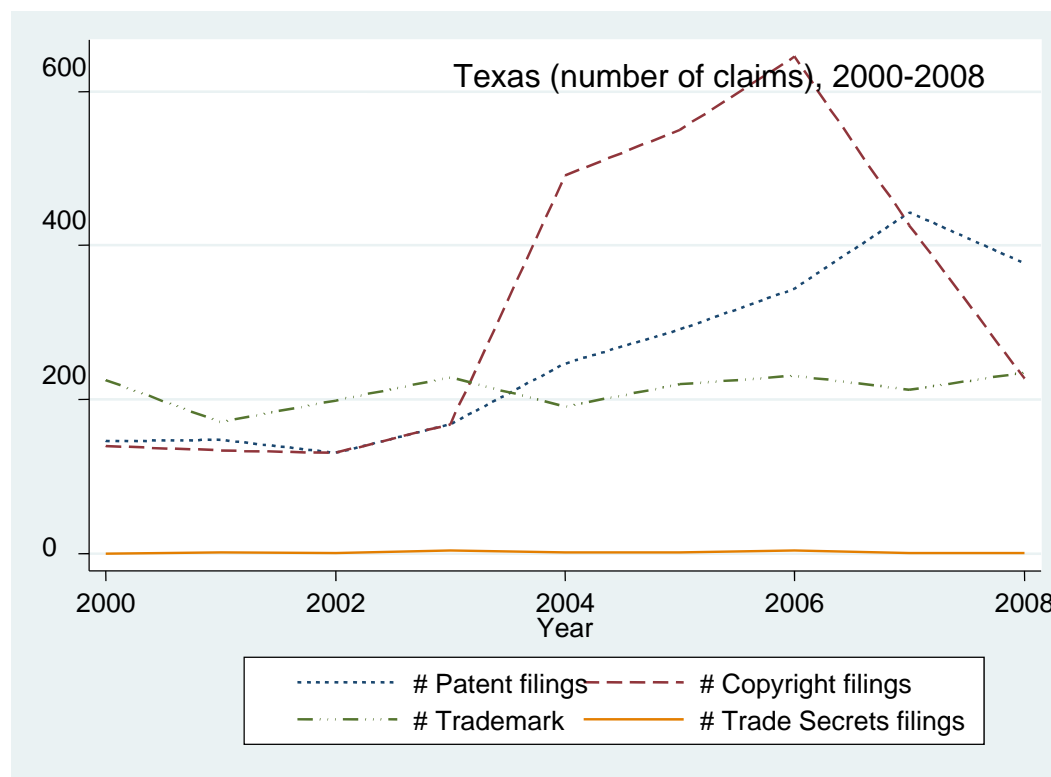


Table 1 and Table 2 show the regression results for patent and copyright filings across the entire U.S. Parallel results for trademark and trade-secret filings do not indicate any effect of tort reform on trademark and trade-secret filings. One potential explanation is that, to the extent tort reform produced an increase in trademark or trade-secret filings, that increase was concentrated in state courts, rather than federal district courts. Tables 1 and 2 therefore present results only for patent and copyright filings, for which federal district

courts have exclusive jurisdiction.<sup>23</sup> Table 1 presents the results for our Poisson regression estimating the impact of tort reform on patent filings. Estimated coefficients transformed to incidence-rate ratios are reported, that is,  $\exp(b)$  rather than  $b$ .

Column 3 in Table 1 shows that periodic payment reform is associated with the largest and most significant change in the number of patent filings. Specifically, enactment of tort reform is associated with the increasing of filings by a factor of 1.58 ( $p < .01$ ). When state-specific time trends are accounted for, the factor decreases a bit to 1.38, yet still remains highly significant (see column 9). When other reforms are controlled for, the factor associated with periodic payment reform becomes 1.52 ( $p < .05$ ) in the basic specification, and 1.34 ( $p < .05$ ) with a state-specific time trend (columns 6 and 12, respectively).

Joint and several liability reform is associated with the increasing of patent filings by a factor of 1.18, yet this result is significant only at the 10% level, and is significant at only the 11% level when state-specific time trends are accounted for. The impact of joint and several liability disappears when we control for the other two reforms (see columns 6 and 12).

The coefficient on reform of caps on noneconomic damages suggests that this reform is associated with the increasing of patent filings by a factor of 1.34, but that this effect is significant only at the 11% level and disappears in the joint specifications.

We also estimated two types of “sum of reforms” variables. The sum of the three major reforms was found to increase patent filings by a factor of 1.14-1.21 ( $p < .01$ , see columns 4 and 10), depending on the specification. This means that, on average, adding one of the three major reforms increases filings by that factor. Our “sum of all 9 reforms” variable suggests that enactment of any one of the nine reforms enacted during the study period is associated with the increasing of patent filings by a factor between 1.10 ( $p < .01$ ) to 1.12 ( $p < .05$ ) depending on the specification (see columns 5 and 11).

Table 2 presents the results for our Poisson regression estimating the impact of tort reform on copyright filings. As before, estimated coefficients transformed to incidence-rate ratios are reported—that is,  $\exp(b)$  is reported rather than  $b$ .

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<sup>23</sup> 28 U.S.C. § 1338(a) (“The district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents, plant variety protection, copyrights and trademarks. Such jurisdiction shall be exclusive of the courts of the states in patent, plant variety protection and copyright cases.”).

Table 2 suggests that the impact of tort reform on copyright filings is much more pronounced. Specifically, periodic payment reform is associated with the increasing of filings by a factor of 1.71 ( $p < .01$ , column 3). The factor increases to 1.86 and remains highly significant when state-specific time trends are accounted for (column 9). When other reforms are controlled for, the factor associated with periodic payment reform becomes 1.41 ( $p < .1$ , column 6) in the basic specification, and disappears when state-specific time trends are accounted for (column 12).

Joint and several liability reform is associated with the increasing of copyright filings by a factor of 2.41 ( $p < .01$ ), and this factor increases to 4.11 ( $p < .01$ ) when state-specific time trends are accounted for. The impact of joint and several liability reform remains similar when we control for the other two reforms (column 6).

As in Table 1, caps on noneconomic damages had the smallest effect. Specifically, the observed coefficient suggests that this reform is associated with the increasing of copyright filings by a factor of 1.39 ( $p < .05$ ), but this relationship disappears in the other specifications.

The sum of the three major reforms was found to be associated with the increasing of copyright filings by a factor of 1.41-1.64 ( $p < .01$ , columns 4 and 10, respectively), depending on the specification. This means, on average, adding one of the three major reforms increases copyright filings by that factor. Our “sum of all 9 reforms” variable suggests that enactment of any one of the nine reforms enacted during the study period is associated with the increasing of copyright filings by a factor of between 1.29 and 1.41 ( $p < .01$ ), depending on the specification.

## **VI. Discussion**

Our preliminary results suggest that tort reform has a large and significant positive impact on patent and copyright filings in U.S. district courts in a state where reform occurs, but that such reform does not have similar impact on trademark and trade secret filings. As discussed above, this might be explained by the fact that federal courts (which unlike state courts are covered by Lex Machina) have exclusive jurisdiction over patent and copyright claims. An alternative hypothesis is that PI attorneys moving into other areas of

practice are truly more likely to gravitate toward patent and copyright litigation, rather than trademark or trade secret litigation, perhaps because patent and copyright litigation offers more opportunities for lucrative suits brought by non-incumbent industry players (e.g., independent inventors or startup firms) who might be most likely to seek the services of former PI attorneys. Further research, including study of IP case filings in state courts, might help suggest which of these hypotheses provides a better explanation.

In the meantime, the fact that the percentage change in copyright filings associated with state tort reform is even greater than the percentage change in patent filings is also a point of interest. To the extent this difference is robust, it could reflect relative ease in filing and financing copyright suits or, alternatively or simultaneously, the fact that patent litigation involves special skills and technical knowledge that are more difficult to pick up when transitioning from a different area of practice.

Of course, rather than being explained by PI lawyers transitioning to new areas of practice, increases in IP filings could be explained by pre-existing IP attorneys simply becoming more active or more new attorneys, who might have otherwise become PI attorneys, starting out with IP-oriented practices. Somewhat related is the possibility of more court-centered explanations for the increases in patent and copyright filings that appear to be associated with state tort reform. To the extent state tort reform decreases the number of state-tort filings in U.S. district courts located in that state, such reform could generate “space” in those courts’ dockets that attract IP cases. Conventional wisdom holds that “plaintiffs are frequently interested in speed” in litigation.<sup>24</sup> Thus, “rocket dockets” are frequently thought to attract IP filings,<sup>25</sup> and the emptying of a court’s docket of state-tort suits could be associated with a greater likelihood that an IP suit filed there will be resolved quickly. Judges with time freed from resolving tort suits might facilitate the filing of IP suits in their districts by adopting local rules or other measures that promise to expedite litigation or to streamline it in other

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<sup>24</sup> Mark A. Lemley, *Where to File Your Patent Case*, 38 AIPLA Q.J. 401, 413 (2010); see also *The History and Development of the EDTX as a Court with Patent Expertise*, 14 SMU SCI. & TECH. L. REV. 253, 254 (2011) [hereinafter *History and Development*] (conference session transcript) (quoting attorney Mike McKool as attributing “the foundation of the Eastern District [of Texas]’ practice” in patent law with the determination by the general counsel of Texas Instruments that he “could go to trial quickly” in patent cases filed in Marshall, Texas, “because it did not have a very big docket”).

<sup>25</sup> Cf. Lemley, *supra* note 24, at 415 (noting the existence of “some notable—and well-known—‘rocket dockets’” for patent litigation).



ways that are desirable to plaintiffs. Statements by judges from the Eastern District of Texas suggest that this judge-centered dynamic might be at least a partial explanation for post-tort-reform growth of patent filings in that district.<sup>26</sup> In short, even without the transitioning of significant numbers of PI lawyers to IP, there could be court-centered mechanisms by which state tort reform leads to increased IP filings. Detailed study of the nature of the lawyers filing IP cases in particular states could help shed light on the significance of such mechanisms as supplements or alternatives to the PI-to-IP mechanism. Such study is a potential avenue for future research.

Meanwhile, we are cautious about our ability to make inferences about the impact of any *specific* type of reform because in our study enactments of different types of reform often correlate with one another. For example, all three joint-and-several-liability reforms enacted during our study years (Nevada 2003, Pennsylvania 2002 and South Carolina 2006) were enacted as part of packages with other reforms. Similarly, in our study, three of the five periodic payment reforms and four out of the ten caps-on-noneconomic-damages reforms were enacted as part of packages with other reforms.

Lastly, some of the results, such as the 4.11 coefficient on the joint and several liability reforms in Table 2, seem too strong and therefore require further investigation.

## VII. Summary

This paper uses a recently created dataset that purports to register every patent case and a substantial fraction of copyright cases filed in US district courts between 2000 and 2008. We found that tort reform causes a large and significant increase in copyright

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<sup>26</sup> See *History and Development*, *supra* note 24, at 255 (quoting Chief Judge David Folsom of the Eastern District of Texas as attributing growth in the district's patent docket to the local rules for patent cases developed by Judge T. John Ward and "tweaked" by Judge Leonard Davis); *id.* at 256 (quoting Judge Davis as stating that, during "lunch one day," Judge Ward "suggested that if I wanted some interesting cases to work on, I might consider adopting these patent rules"); *id.* at 257 (quoting Judge Ward as stating, "I find [patent] cases intellectually challenging. Nothing would be worse than trying nothing but [Federal Employers Liability Act] cases. Products liability dockets are gone and have started to change.").

and patent filings. This result fits some anecdotal evidence that suggests many former PI lawyers who faced decreasing demand for their services after tort reform was enacted switched to IP. We find no effect on trademarks and trade secret filings.

It is hard to estimate the welfare effect of the switch from PI to IP. For example, if tort law suffers from over-deterrence and IP suffers from under-deterrence than such a switch might be socially efficient. Yet, at least with regard to tort law, most scholars do not believe tort law suffers from over-deterrence.<sup>27</sup> Further, many scholars, private parties, and policymakers worry that IP commonly over-deters innovation and expression that follows and builds on an original idea.<sup>28</sup> In any case, we believe that it should be important for policy makers who consider the enactment of tort reform to take into account this effect.

In the future, we plan to have better control variables, if possible at the district level, to add 2009 to the DSTLR 4th, so that another year of the data could be analyzed. In addition, we plan to look only at the 33 most active districts, as well as to check whether our results are driven by outliers such as Texas, where the city of Marshall has become IP plaintiff lawyers' heaven.<sup>29</sup>

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<sup>27</sup> David Hyman & Charles Silver, *Medical Malpractice Litigation and Tort Reform: It's the Incentives, Stupid*, 59 VANDERBILT L. REV. 1085 (2006).

<sup>28</sup> See, e.g., JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* (2008); LAWRENCE LESSIG, *FREE CULTURE: THE NATURE AND FUTURE OF CREATIVITY* (2005).

<sup>29</sup> Compare Transcript of Oral Argument at 10, *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (No. 05-130) (statement of attorney for petitioners) (“We’re in a world where if a patent holder files a lawsuit in Marshall, Texas, no patent has ever been declared invalid in that jurisdiction, and no patent has ever been found not to [be] infringe[d].”), with *id.* at 10-11 (statements by Justice Scalia) (suggesting that “that’s a problem with Marshall, Texas,” but that patent law perhaps should not be reshaped simply “because we have some renegade jurisdictions”).

Table 1: Effect of Reforms on Patent Filings

	Basic Specification						With State Specific Time Trend					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Caps Noneconomic	1.34					1.08	1.20					1.04
	(0.24)					(0.14)	(0.13)					(0.11)
Joint & Several Liability		1.18*				0.96		1.18				1.01
		(0.11)				(0.16)		(0.12)				(0.12)
Periodic Payment			1.58***			1.52**			1.38***			1.34**
			(0.22)			(0.24)			(0.13)			(0.16)
Sum of 3 major Reforms				1.21***						1.14***		
				(0.08)						(0.05)		
Sum of all 9 reforms					1.12**						1.10***	
					(0.06)						(0.03)	
Joint Test of Reforms (p-value)						0.002						0.001
Number of Observations	459	459	459	459	459	459	459	459	459	459	459	459

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01 Notes: Estimated coefficients transformed to incidence-rate ratios are reported, that is,  $\exp(b)$  rather than  $b$ . Standard errors were similarly transformed. Standard errors in parentheses are clustered by state. All specifications include *demographic factor*, and fixed effects for states and years.

Table 2: Effect of Reforms on Copyright Filings

	Basic Specification						With State Specific Time Trend					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Caps Noneconomic	1.39**					1.07	1.36					1.48
	(0.23)					(0.19)	(0.30)					(0.55)
Joint & Several Liability		2.41***				2.18**		4.11***				4.31***
		(0.70)				(0.67)		(1.66)				(2.37)
Periodic Payment			1.71***			1.41*			1.86***			0.81
			(0.29)			(0.29)			(0.30)			(0.51)
Sum of 3 major Reforms				1.41***						1.64***		
				(0.17)						(0.29)		
Sum of all 9 reforms					1.29***						1.41***	
					(0.11)						(0.13)	
Joint Test of Reforms (p-value)						0.003						0.0002
Number of Observations	459	459	459	459	459	459	459	459	459	459	459	459

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Notes: Estimated coefficients transformed to incidence-rate ratios are reported, that is,  $\exp(b)$  rather than  $b$ . Standard errors were similarly transformed. Standard errors in parentheses are clustered by state. All specifications include *demographic factor*, and fixed effects for states and years.

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## Appendix

Table A- Year of Reform Enactments (Strike-Downs) 2000-2008

<u>CN</u>	<u>PP</u>	<u>JS</u>	<u>CP</u>	<u>CS</u>	<u>SR</u>	<u>PE</u>	<u>CF</u>	<u>PCF</u>	<u>CT</u>
AK 2005	GA 2005	NV 2003	MO 2006	PA 2002	MO 2006	FL 2000	NV 2005	WV 2007	
FL 2003	NY 2004	PA 2002	OH 2005	WV 2003	PA 2002				
GA 2005	OH 2003	SC 2006							
ID 2004	PA 2002								
MS 2003	TX 2004								
NV 2003									
OK 2004									
SC 2006									
TX 2004									
(WI 2006)									

\* Parentheses represent a strike down. CN means Cap on Noneconomic Damages, PP means Periodic Payment reform, JS means Joint and Several Liability reform, CP means Caps on Punitive Damages, CS means Collateral Source reform, SR means Split Recovery reform, PE means Punitive Damages Evidence reform, CF means Contingency Fee reform, PCF means reform of Patient Compensation Fund, CT means Caps on Total Damages.