

WORKING P A P E R

Bargaining in the Shadow of the Website

Disclosure's Impact on Litigation Behavior

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Bargaining in the Shadow of the Website: Disclosure's Impact on Litigation Behavior

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Abstract

This study investigates the significance of secrecy and disclosure for medical malpractice litigation. Starting in the mid-1990s, seventeen states began posting information on a doctor's specific history of medical malpractice claims on state-run websites. The laws creating these sites altered the level of secrecy that would accompany litigation and settlement. Taking into account the varying disclosure requirements across the states, we estimate the impact of the altered levels of secrecy on litigant behavior. We find that website disclosure reduces settlement amounts for doctors with multiple payments. We also find evidence supporting two, non-exclusive explanations for the decline. The first is that defendants value secrecy and are no longer willing to pay a secrecy premium after website disclosure. The second is that website disclosure changes the composition of cases, skewing it toward more low-quality claims.

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I. Introduction

Questions about the desirability of secret settlements in civil litigation are issues of robust debate in the academic and policymaking communities. Recent revelations about secret settlements involving exploding car tires and clergy sexual abuse have led some commentators to call for prohibiting, or otherwise limiting, such settlements. They stress, among other things, the danger of continuing hazards to public health and safety brought about by the lack of disclosure, and the public's right to know about the work of the courts as public institutions. Others oppose restrictions on secret settlements. They maintain that limits on secrecy would, *inter alia*, violate litigant autonomy and privacy and encourage frivolous "copycat" litigation. While secret settlement debates involve contested normative conceptions of the proper role of courts and civil litigation in our society, they also reflect conflicting positive claims about secrecy's significance for litigant behavior. Generally missing from the debates is empirical study that tests the conflicting claims. This paper begins to address that omission. It investigates the following set of questions. First, does secrecy affect settlement values? That is, do parties settle for less when settlements will not remain secret? Second, if so, why? Do defendants actually value secrecy, such that they are no longer willing to pay a premium when it is unavailable? Also, does increased disclosure, or the decrease in secrecy, encourage lower-quality suits (which dampen settlement values)?

The absence of relevant empirical studies is hardly surprising. Because parties seek to conceal settlements, the available data directly concerning secret settlements are lacking. Though some states, such as Florida and Texas, have passed sunshine laws and rules restricting the secrecy of some settlement information,¹ it is difficult to study the impact of those laws because the data on settlements and litigation more generally in

¹ See Fla. Stat. Ann. §69.081(3) (West 2004); Tex. R. Civ. P. 76a(2)(b).

those states prior to the laws' passage remain limited. One federal district court, South Carolina, has recently banned court-approved secret settlements, and there are some measures for which data is available both pre- and post-ban. Yet because the ban applies exclusively to court-approved settlements, and because court-approved secret settlements make up less than .5% of all federal cases, analyzing the South Carolina data can provide only a very incomplete picture of the significance of secrecy for litigant behavior.²

To investigate the significance of secrecy for civil litigation, we take a different tack. We analyze the effects of state medical malpractice disclosure websites on civil litigation. Starting with Massachusetts, California, and Florida in 1997, seventeen states now post individual doctor's malpractice records on publicly available, state-administered websites. The state websites provide varying degrees of information about doctor's malpractice histories. While a few states disclose all reported medical malpractice claims against a provider, most restrict those disclosures in some way, depending on, for instance, whether the claim resulted in a payment or whether the malpractice payment exceeded a threshold amount. In disclosing via websites, all the states have dramatically lowered the costs of obtaining information on doctor's malpractice records. In other words, these sites have made it more difficult for parties to keep some of their cases secret.

Further, the websites' variation presents a quasi-experiment that tests the significance of secrecy for settlements in particular. Most state websites come in essentially two varieties. One version discloses all types of payments made to satisfy malpractice claims, and another discloses payments resulting from court judgments and arbitral awards, but not settlements. Put another way, the first set of states effectively ban secret settlements, while the other set enables them. The latter creates a regime in which

² See DIST. S.C. LOCAL CIV. R. 5.03(E) and Reagan (2004)

settlements may be kept secret while trial judgments and arbitral award necessarily become public.

Using an original compilation of data on the state websites' disclosure requirements and several other widely available databases discussed below, we examine the impact of the threat of website disclosure on various aspects of medical malpractice litigation. In particular, we estimate the threat's impact on the amount paid in settlements, the probability that a settlement payment falls below the threshold disclosure amount, the probability of settlement and dropped cases, the number of suits per doctor in a given state for a given year, and the likelihood of subsequent suit for doctors who have already made a malpractice payment.

We find that the threat of disclosure, or, in other words, the diminished ability to keep cases secret, affects litigant behavior. This effect manifests most clearly with respect to payment amounts and the likelihood of suit against a physician. We find that settlement payments are lower for doctors who already have at least one malpractice payment prior to suit if a website will disclose the settlement outcome. In addition, we find that anticipated website disclosure has less of an effect on payments by doctors in the high-risk specialties of obstetrics and surgery than on payments by other doctors. Further, we find that the threat of disclosure affects the distribution of payments. Parties that settle are more likely to agree on payments that fall below the threshold disclosure amount. We also find some evidence that the existence of a state-run website increases the likelihood a doctor has a subsequent payment in the data. We find that having a payment qualifying for disclosure on a web page increases the likelihood of a subsequent payment even further. For the one state in which we have the complete distribution of claims, Florida, we find that, after the introduction of web disclosure of cases with

payments over five thousand dollars, overall payments went down.³ We also find that settlement rates declined, but the percentage of dropped cases remained the same.

To be clear, our study focuses on the impact of medical malpractice website disclosure regimes, and not of secret settlement bans more generally. This is significant for two reasons. First, whereas the website regimes actually involve affirmative disclosures, secret settlement bans simply preclude litigants from contracting for silence. Some argue that secret settlement bans will in reality have little effect because the default position for most settlements is in effect non-disclosure, and a secrecy ban would leave that position unaffected (Fromm 2001; Zitrin 2004). Although our study does not identify the actual impact of a secret settlement ban, it does tell us about its strongest potential effects in the malpractice context. That is, it assesses the impact of forced disclosure of litigation outcomes, and thus analyzes the effects of making secret settlements public.

Second, the generalizability of our findings on medical malpractice litigation to other types of litigation that are frequently the subject of secret settlement debates, such as product liability or toxic tort suits, is unclear. On the one hand, some aspects of medical malpractice litigation suggest that doctors would be willing to pay more for secrecy than would other defendants. For example, because doctors very rarely pay beyond insurance policy limits (Zeiler et al. (2007)), and because medical malpractice policies are not experience-rated (Sloan & Chepke (2008); Dranove & Watanabe (2007)),⁴ doctors with a malpractice payment typically face no direct cost of settlement. Concerned with reputational penalties, doctors, who anticipate perfect indemnification,

³ Because we know the exact date the case was settled in the Florida closed claim data we are able to restrict the sample to cases filed before the policy of web disclosure was announced. Thus for Florida our sample of cases is not contaminated by any changes in the composition of cases resulting from web disclosure.

⁴ It is the case that malpractice insurers may decline to cover doctors with a high number of lawsuits. In interviews with malpractice insurers this appears to be fairly rare.

might be more willing than other defendants to pay a secrecy premium. On the other hand, other features of medical malpractice litigation suggest that doctors would be willing to pay less. Since 1990, federal law has required the disclosure of most medical malpractice payments in a national database available to state licensing boards, professional societies, and prospective employers like hospitals and other health care entities; since then, doctors could therefore bargain for secrecy only vis-à-vis patients and the broader public, not vis-à-vis those with access to the database. Because doctors could secure only partial secrecy before the websites' introduction, the impact of website disclosure might be less in the medical malpractice context than in other areas of litigation, in which greater secrecy could be secured for settlements. Despite these distinctive features of medical malpractice litigation, we believe that there are sufficient similarities in the various litigation contexts (e.g., defendants have strong reputational interests at issue, and defendants have aggressively opposed policies increasing settlement disclosure) to make medical malpractice litigation a meaningful focus for examining secrecy's significance for litigation.

This paper proceeds in four sections. In the next section, we provide background. We start by providing detailed information on the state websites, and evidence that they have decreased the secrecy of medical malpractice litigation. We then describe the websites' expected impact on litigant behavior and the issues examined by our study. In section III, we discuss the data used in the analysis. Section IV presents our results, and a brief conclusion follows.

II. Background

A. *Secrecy and the State Medical Malpractice Websites*

1. Website Content

Seventeen states maintain websites providing medical malpractice data.⁵ Those sites enable users to enter in names of individual doctors or osteopaths and then access their medical malpractice histories.⁶ Massachusetts, Florida, and California introduced the first such websites in 1997,⁷ and Oregon instituted one most recently in late 2005.⁸ Table 1 presents a summary of the state websites, listing the date that they became operational and the types of malpractice outcomes that they disclose.

As Table 1 indicates, the websites vary substantially in the type and extent of information they provide. For example, some states specify the precise amount of payments made to resolve malpractice claims, while others simply note a payment or classify them into categories of “below average,” “average,” or “above average.” A few states describe the alleged malpractice, while others offer no details. Also, some websites have themselves changed over time, altering their policies on what information to disclose. Notwithstanding their significant differences, the websites fall essentially into two main categories: those that preclude secrecy for settlement outcomes and those that tend to preserve it. Among the former, most disclose malpractice information concerning all types of payments on behalf of doctors—*e.g.*, court judgments, arbitral awards, and settlements, or if they selectively disclose payments, apply the same limits to all types. Among the latter, some disclose judgments and awards, but not settlements, while others

⁵ See Appendix 1 for the details of the state websites.

⁶ Most sites also include information concerning board actions against individual doctors. Some states, for example, Alaska, <http://www.dced.state.ak.us/occ/pmed.htm>, and Hawaii, <http://pvl.hawaii.gov/pvlsearch/app>, provide medical board information, but not malpractice data.

⁷ See Ethan Rarick, *Doctor Background Is Available on the Web*, WEST COUNTY TIMES, May 6, 1997, at A04; *State Insurance Department Now Online With Data*, BRADENTON HERALD (Fla.), July 30, 1997, at L2; Michael Lasalandra, *Mass. Docs' Profiles Now Available on the Internet*, BOSTON GLOBE, May 1, 1997

disclose all judgments and awards, but reveal settlements only if there have been multiple settlements on the doctor's behalf. Along similar lines, some states have threshold disclosure requirements, but have higher thresholds for settlement payments than for judgments or awards. In other words, the latter websites tend to afford greater secrecy to settlement outcomes than to trial or arbitration results.

Our database documents in detail the information provided by the state websites until December 2006.⁹ The variation in web disclosure provides our identification strategy for the multistate analysis.¹⁰ To control for differences in the litigation environment we include state fixed effects. This leaves us with two sources of variation. The first is the simple difference between settlement amounts within the states that have web disclosure in a given year and those states which do not. In this case we estimate the model using the payment levels before and after the website's announcement. If the timing of the website's creation results from endogenous factors, such as rising awards, our fixed effects regressions will be biased. For some states we have an additional source of variation. Specifically many states require disclosure only if a doctor has already made previous payments. Thus web disclosure in these states affects different groups depending on the state in which the doctor resides. For one state, Florida, our data allows us to treat the time of the settlement vis-a-vis the website's creation as endogenous.

Table 2 offers a summary litigation picture of the 17 states with websites and the number of cases that would qualify for disclosure under the state's governing rules. The first column presents the average number of doctors, from the American Medical Association Master File, between 1991 and 2006. Column 2 sets forth the total number of cases resulting in payment from the National Practitioner Data Bank (see below).

⁸ See Dan Colburn, Kaiser, *OHSU Will Release Data on Malpractice*, OREGONIAN, Nov. 17, 2005, at A01

⁹ The National Practitioners Data Bank that we used for our study includes data until December 2006.

Column 3 states the number of cases that have been resolved since the website's creation. Column 4 presents the number of those cases that would have qualified for disclosure under the states' disclosure criteria.

Figure 1 illustrates the significant variation among the states in the percentage of cases since the website's creation that would qualify for disclosure. Of course, the percentages are certainly an overestimate. Many states provide the agency operating the website some discretion over which cases to disclose. This discretion is almost always in only one direction: removal. In only one state, New York, can the website administrator add a case if it is deemed in the public interest. Nevertheless Figure 1 suggests that states differ greatly in terms of the comprehensiveness of their disclosure of malpractice cases. Clearly, California, Georgia, Idaho, Maryland and Texas disclose far fewer cases than do other states.

2. The Websites' Impact on Secrecy

The websites have made it far easier for consumers to access malpractice information for specific doctors. In some states, such as Arizona and Georgia, the malpractice data was simply unavailable to the public, and the states made the information accessible to the public for the first time through the websites.¹¹ In other states, including New Jersey and Florida, the information was available, but accessing it required considerable time and expense. In New Jersey, for instance, prior to the website's introduction, consumers had no access to settlement information through the

¹⁰ Another strategy would involve examining cross-sectional differences in settlement amounts between states with and without web disclosure. That would require a richer set of controls than are available in any of our datasets.

¹¹ See Howard Fischer, Panel Votes to Ease Access to Information on Doctors, *Arizona Daily Star*, Feb. 17, 1999, at 1A; Jodie Snyder, More Data on Your Doctor? Bill Would Have Boards Boost Background and Criminal Info, *Arizona Republic*, Feb. 17, 1999; Georgia Lawmakers Want Doctors' Records Available to Patients, *Columbus Ledger-Enquirer*, Jan. 13, 2001, at A1; Debbie Gilbert, Bill Proposes Better Records of Ga. Doctors, *The Times* (Gainesville, GA), Jan. 23, 2001, at 1A; Carrie Teegardin, Secrecy Laws Shield State's Physicians - Slow and Private: That Describes Most of the Medical Board's Work in Investigating Complaints, *Atlanta Journal and Constitution*, May 2, 1999, at A1.

state's medical board,¹² and could learn about trial awards only by contacting the state's twenty-one counties separately.¹³ In Florida, before the state's Department of Insurance provided access to malpractice information, people had to visit the Insurance Department's headquarters in Tallahassee in order to view the files in person.¹⁴

The websites have also received significant public attention and news coverage. In many states, efforts to create the websites prompted significant opposition from doctors' groups and insurance companies.¹⁵ For example, when California first began operating its website, a legal loophole meant that only judgments and awards were reported on the medical board's web site. Settlements, including those that were conditioned on the judge's nullification of a judgment, did not appear on a doctor's profile. Though California amended the law in 2002 to require disclosure of some settlements,¹⁶ a coalition of medical malpractice insurance companies and the California Medical Association strongly opposed those efforts.¹⁷ In addition, local newspapers in all

¹² See Paul D'Ambrosio & James W. Prado, *Public's Right to Know Seldom Applies to Physicians*, ASBURY PARK PRESS (Neptune, N.J.), Jan. 27, 2002, at C01; Mary Jo Layton & Benjamin Lesser, *Prescription for Peril: Malpractice in Doctors' Past Gets Lost in the System*, RECORD (Hackensack, N.J.), Aug. 3, 2003, at A01.

¹³ See Wendy Ruderman, *Senate Passes Bill Allowing Patients to See a Doctor's Past*, RECORD (Hackensack, N.J.), June 21, 2002, at A01.

¹⁴ See Alan Judd, *Medical Cases Listed Online All Medical Malpractice Settlements in Florida Since the Early 1970s Can Be Accessed by Personal Computer*, SARASOTA HERALD-TRIBUNE (Fla.), July 30, 1997, at B1.

¹⁵ See, e.g., *The Place for Public Documents: On File or Online?*, N.Y. TIMES, Mar. 19, 2002, at F6; Op-Ed., *Doctor Disclosure Gutted*, CONTRA COSTA TIMES, May 13, 1997, at A15; Mary Anne Ostrom, *Figueroa Drops Bill Provision: Malpractice Deals Won't Go on Internet*, SAN JOSE MERCURY NEWS (), May 7, 1997, at 3B; Todd Wallack, *Law Lets Patients See Malpractice Settlements*, S.F. CHRON., Oct. 1, 2002, at B3; Bill Ainsworth, *Assembly Panel OKs Bill to Tell Public More About Bad Doctors*, SAN DIEGO UNION-TRIBUNE, June 19, 2002, at A5; Cheryl Clark, *Loophole Leaves Some Medical Suits Off Web Site*, SAN DIEGO UNION-TRIBUNE, Apr. 29, 2002 at A1; Jim Hinch, *Board OKs Big Change in Physician Disclosure: If the New Policy Becomes Law, Malpractice Outcomes Would Be Fully Reported for the First Time in State History*, ORANGE COUNTY REGISTER, May 12, 2002; Tom McGhee, *An Rx for Health Care: Openness, Access Sought to Doctors' Histories, Errors*, DENVER POST, Oct. 6, 2002, at A01; James Fuller, *Doctors Who Err Still Get Clean Bill of Health*, CHICAGO SUN-TIMES, June 24, 2001, at 6; Editorial, *Make Information on Doctors Available*, STATE J.-REGISTER (Springfield, Ill.), Mar. 11, 2001, at 14; *Physician Web Page Limits Its Data—Maryland Board Won't Give Charges, Lawsuits Online*, BALTIMORE SUN, Dec. 27, 1997, at 1A; Carol Ann Campbell, *Profiles of Doctors About to Go Online, Despite Protests, Data to Debut Wednesday*, STAR-LEDGER (Newark, N.J.), June 19, 2006 at 19; Sylvia Wood, *Poll: Consumers Want Access to Malpractice Records*, TIMES UNION (Albany, N.Y.), May 11, 2000, at B12; Spencer Hunt, *Bill Asks to Post Medical Lawsuits*, CINCINNATI ENQUIRER (Ohio), Nov. 6, 1999, at 01A.

¹⁶ See CAL. BUS. & PROF. CODE § 2027(b)(1) (2007) (added by 2002 Cal. Legis. Serv. ch. 1085, § 13 (West) (filed Sept. 29, 2002)) ("Settlement information shall be posted as described in paragraph (2) of subdivision (b) of Section 803.1."); *id.* § 803.1(b). For further details; see Todd Wallack, *Law Lets Patients See Malpractice Settlements: State Medical Board Will Reveal if a Doctor Has Been Repeatedly Sued*, S.F. CHRON., Oct. 1, 2002, at B3.

¹⁷ Cheryl Clark, *Loophole Leaves Some Medical Suits Off Web Site*, SAN DIEGO UNION-TRIBUNE, Apr. 29, 2002 at A1.

but two of the states reported on the websites.¹⁸ According to those reports, the public has shown significant interest in the sites. In Florida, there were 600,000 hits in the first 48 hours of the websites' operation.¹⁹ There were 3 million searches in California in 2001,²⁰ and 10.2 million hits in the first ten years of operation for Massachusetts.²¹

The evidence suggests that the state websites have had a significant impact on the “secrecy” associated with medical malpractice litigation. Insofar as the websites disclose payments resulting from trials, settlements, or arbitrations, they have increased the transparency of trial outcomes, which for the most part were already public records, and precluded the “secrecy” of secret settlements or private arbitrations. By contrast, if the websites disclose only trial outcomes or arbitral awards, or more information relating to trials and arbitrations than to settlements, they then have increased the transparency of trial outcomes and arbitrations while allowing settlements to remain relatively private. Put another way, the latter arrangements may actually increase the value of settlement to a publicly conscious defendant.

¹⁸ Idaho's and Nevada's websites did not receive any coverage in the state newspapers. In Nevada's case, the Board of Osteopathic Medicine's Licensee Search, <http://www.osteop.state.nv.us>, was not reported in either of the state's two major papers: *Las Vegas Review Journal*, and *Reno Gazette-Journal*. Catryna Kelly, Nevada State Board of Osteopathic Medicine's executive administrator confirmed that the new feature was not publicized to the general public.

¹⁹ See *Florida Dept. of Insurance Web Site With Negligence Complaints Receives 592,792 'Hits'*, PR NEWSWIRE, July 31, 1997; David Cox, *Malpractice list Draws Attention, Fire*, TAMPA TRIBUNE, Aug. 4, 1997, Metro, at 1.

²⁰ See Todd Wallack, *Patients Don't Get Full Story on Doctors: Many Malpractice Verdicts Not on State Board's Web Site*, S.F. CHRON., Jan. 6, 2002, at A1 (“The board's consumer hot line received 130,000 calls last year, while consumers searched the online database 3 million times.”).

See Paul D'Ambrosio & James W. Prado Roberts, *Little Data on Doctors on N.J. Site: Other States' Websites Tell More About Doctor Disciplinary Matters*, ASBURY PARK PRESS (Neptune, N.J.), Jan. 31, 2002, at A01 (quoting Claudette Houle, a spokeswoman for the Massachusetts Board of Registration, which licenses and regulates doctors in that state); see also Michael Lasalandra, *Web Site on Doc Errors Hasn't Hiked Suits*, BOSTON HERALD, Mar. 1, 2000, at A1 (reporting that “the Massachusetts Web site has been a great success, having drawn more than 4 million ‘hits’ since its inception.”); *Doctor Info Program Faces State Budget Tax*, WORCESTER TELEGRAM & GAZETTE (Mass.), June 5, 2002, at A2 (reporting that “the Web site has been getting about 22,000 inquires a day.”).

B. Secrecy and Medical Malpractice Litigation

1. Secrecy and the Stages of a Medical Malpractice Claim

To understand the impact of secrecy on litigant behavior and litigation outcomes, we provide here a stylized description of how a medical malpractice claim progresses, and a brief discussion of secrecy's potential impact on the various stages.

Stage 1: A person goes to see a doctor, who then provides, or does not provide, some treatment.

Stage 2: Something adverse happens to the patient, who then decides to contact a lawyer.

Stage 3: A lawyer decides to take the case, and then files, or threatens to file, a claim against the doctor.

Stage 4. The doctor or malpractice insurer decides whether to settle the claim.

Stage 5. Cases that are not settled or dropped by the plaintiff are resolved through a trial or arbitral process, and possibly an appeal.

Secrecy, or the lack thereof, might affect the decisions at all stages of the process. We focus here on the potential impact of website disclosure on three factors: the quantity and quality of cases; settlement values, and settlement rates.

The quantity and quality of claims. Website disclosure might affect both the quantity and quality of malpractice cases filed or threatened by patients. At stage 1, website disclosure might influence individual selection of doctors. Insofar as individuals avoid doctors who have prior malpractice payments, and those doctors are more likely to be negligent, then disclosure might drive down the number of filed or threatened cases. Also, website disclosure might affect the doctors' conduct. The threat of disclosure

might lead doctors to practice medicine more carefully or practice more “defensive medicine,” and thus might in this way also reduce the number of case filings or threats.

At stage 2, website disclosure might have an opposite effect, driving up the number of cases. Informed by a website of a specific doctor’s previous malpractice payments or of the prevalence of suits and payments more generally, an individual might be more likely to contact a lawyer about filing suit.

At stage 3, the impact of website disclosure is less clear, and commentators have taken divergent views. Because almost all medical malpractice lawyers work on a contingency fee basis, their decision to take a case depends on their valuation of a case relative to the costs of pursuing it. If expected case values decline because the websites remove any secrecy premium that was previously available, then, all else held constant, lawyers may take fewer cases. But, as discussed above with respect to stages 1 and 2, all else is not held constant, and web disclosure may in fact generate additional cases.

Scholars and other commentators have emphasized opposing effects on the quality of cases engendered by disclosure. On the one hand, disclosure might increase the likelihood of frivolous or low-quality suits (Posner (2003); Epstein (2002); Lothes (2005); Rosenberg and Shavell (1985)). By identifying defendants as “easy targets,” or parties who are presumably willing to pay potential plaintiffs to make claims go away, website disclosure might encourage parties with weak or frivolous cases to file suits while hoping to reach quick settlements. On the other hand, disclosure might also encourage meritorious suits. It might alert plaintiffs who would have been unaware of their malpractice claims’ legitimacy (Daughety and Reingnum (2002); Lothes (2005); Moss (2007)), and provide information about prior cases and thereby decrease litigation uncertainty (Moss (2007)). In disclosing individuals doctor’s claim history and

payments, the websites might thus lead patients to pursue valid claims that they otherwise might have overlooked, and to have more accurate or realistic expectations of case value.

Settlement values: Website disclosure might affect settlement amounts in two principal ways. First, as discussed above, disclosure might affect the quality of claims threatened or filed by patients. If disclosure encourages more lower-quality claims overall, then it will drive average settlement values down. If disclosure has the opposite effect, then it should drive those values up.

Second, at stage 3, disclosure might also affect the amounts that doctors or their insurers are willing to pay to settle. According to many commentators, defendants value secrecy and are willing to pay plaintiffs a premium for their silence (Daughety and Reinganum (2002); Doré (1999); Fromm, (2001); Lothes (2005); Shavell, (1997)). On this view, though doctors are willing to pay a secrecy premium to protect their reputations and deter frivolous suits, they will be unwilling to do so with website disclosure; in other words, settlement values will fall.

Others commentators dispute the existence of a secrecy premium.. They assert that secrecy is significant in only a very small subset of cases, and thus efforts to ban secrecy or compel disclosure would have limited effect on settlement awards (Darling (2004)). Most defendants do not deliberately try to avoid publicity, or at least are unwilling to pay a bounty for it (Zitrin (2004)). Because few suits receive publicity, and the costs for potentially interested parties to gather litigation information are very high, many defendants, they argue, expect their lawsuits to remain largely secret even without contracting for it (Fromm (2001)). On this view, because doctors or insurers were not paying a secrecy premium prior to the websites' introduction, disclosure will not affect the settlement amounts that they are willing to pay.

Settlement rates. At stages 4 and 5, website disclosure might affect doctors or their insurers' willingness to settle at all. The literature offers contrasting views on this matter. On one account, the ability to contract for silence, or to avoid the publicity of suit, provides an important incentive to settle (Fromm (2001)). Unable to procure secrecy, some defendants will decline to settle and seek to vindicate their reputation at trial (Moss (2007)). On this view, website disclosure of settlements will lead to falling settlement rates (Lothes (2005); Dana and Koniak (2003)); at stage 5, it will also mean that doctors who lose at trial are more likely to appeal.

Others challenge that account. Without questioning whether defendants are willing to pay more secrecy, they minimize the role of secrecy as a condition for reaching settlement (Epstein (2003)). They question "how critical confidentiality really is to the compromise of most cases when trial represents a lengthy, expansive, and risky alternative (Doré (1999))." On this view, website disclosure will have little effect on settlement rates, and on appeals.

2. Studying the websites' impact on medical malpractice litigation

Our study principally examines the websites' impact on medical malpractice payments in three ways. First, we examine whether the threat of website disclosure affects settlement payment amounts. That is, is there any evidence that the websites' introduction has changed average settlement amounts? If, as we discuss above, defendants pay a secrecy premium for settlement, or disclosure affects claim quality, then, assuming the two effects do not cancel each other out, website disclosure ought to affect average settlement amounts.

Then, we examine whether there is evidence supporting the secrecy premium or claim quality accounts. While limitations in the available data preclude us from determining the precise effects of those two factors, the data nevertheless enable us to

examine whether each factor may be in play. To test the secrecy premium account, we analyze the websites' impact of on the distribution of settlement payments in those states that have threshold disclosure amounts. If defendants value secrecy as a condition of settlement, then the threat of website disclosure ought to have a greater depressive effect on settlements above the disclosure thresholds. In particular, lower disclosure thresholds ought to result in lower settlement amounts, and the probability that a settlement will fall under the disclosure threshold should increase after the website's creation.

To test the claim quality account, we study the websites' impact on subsequent litigation. We observe the number of cases per physician before and after the website's implementation. If disclosures encourage additional litigation, then a state's posting of malpractice information online ought to lead to an increase in the number of cases per physician. We then look to the likelihood of a subsequent payment once a doctor has already made a prior payment qualifying for disclosure. If disclosures encourage copycat suits, then the doctors who have a payment disclosed on a state website should face a higher likelihood of a subsequent payment than should doctors without a disclosed payment.²²

As we discuss in more detail in the next section, the bulk of our data on medical malpractice suits includes only cases that resulted in payments. In other words, it does not include data on dropped cases or cases in which the defendant ultimately prevailed. For one state, Florida, we have data on the complete distribution of claims. For Florida, we examine the websites' impact on not only settlement values, but also on rates of settlement and dropped cases. If, as commentators argue, defendants are less likely to settle absent an expectation of secrecy, then the settlement rates should decline. Also, if disclosure encourages frivolous litigation, then the percentage of dropped cases, which

serve as a proxy for low-quality cases, ought to increase. If, however, the percentage of dropped cases remains constant, and defendants pay a secrecy premium, then disclosure ought to lower settlement values.

III. DATA

This study draws on several databases. We describe each databases, and our uses of them, in turn.

A. *State Website Database*

We constructed an original database that incorporates information from the 17 state medical malpractice websites as of December 2006. This database includes several measures of a state website's impact on the case in question. Our first variable is the most general. This indicator variable equals one if the state's webpage would disclose the resolution of a malpractice claim in any way.²³ For many states, this variable equals one for the periods in which the state has a website. This first variable equals one for 1999 cases in Arizona, for example, because any 1999 case bears the risk of appearing on the state's webpage. In some cases, the variable is more complicated. Because the New York web page posts any judgments or awards but generally discloses settlements only if there have already been two or more settlements for the physician in question, the variable would equal one for a more limited subset of cases after 2000.

The second variable represents the number of previous cases that potentially appear on the webpage. Because the NPDB does not contain physician-identifying information, we are unable to confirm whether the cases actually appear on the state

²² We assume here that all the copycat litigation that might ensue would not be so frivolous as to result in no payments.

²³ The variable does not use threshold information that can only be determined after the case is resolved (i.e. all cases settling for over five thousand dollars are disclosed). For these cases we treat the case as facing web disclosure and examine the likelihood it falls below the threshold in subsequent regressions.

website. Our measure simply calculates the number of cases that could appear based on the state's criteria. Given the restrictive nature of many state webpage disclosures, this number is considerably smaller than the number of cases taking place in states with websites.

B. National Practitioner's Data Bank

Under the Health Care Quality Improvement Act of 1986, insurers must report all medical malpractice payments made on behalf of individual practitioners to the Department of Health and Human Services (HHS), and HHS then publishes that information on a quarterly basis in the National Practitioner Data Bank Public Use Data File (NPDB).²⁴ The December 2006 database, which we use for this study, contains information on over 200,000 medical malpractice payments made on behalf of practitioners in all 50 states and the District of Columbia between September 1, 1990, and December 2006. Because the database's September start date truncates the available cases from 1990, we limit our analysis to data from 1991 to 2006. Because the websites generally include information on only physicians and osteopaths, we delete all non-physicians and non-osteopaths from the data. The database includes, among other things, extensive information on the demographic characteristics of the practitioner on whose behalf payment was made, the amount of payment, the demographic characteristics of the injured plaintiff, and the state in which the incident occurred. Critically relevant to our analysis here, the public version of the NPDB contains only an identification code, and not the practitioner's name. Hence members of the public accessing the NPDB can not use it to determine a physician's malpractice payment history.

The NPDB has several well-known limitations (Helland et. al. (2005)). First, it under-reports payments made to satisfy medical malpractice claims. This omission

results primarily from the fact that, under the Health Care Quality Improvement Act, self-insured defendants have no obligation to report malpractice payments. Further when a claimant seeks damages against only a hospital and not its physicians, or, more significantly, when a hospital alone settles a suit and the complainant drops its claims against any physicians, the insurer need not report the malpractice payment. Because of this omission, some have questioned whether doctors seek to avoid disclosure in the NPDB by securing a settlement in which only the hospital pays the defendant while leaving the doctor out of the agreement (Bhagwan (2004)). We cannot examine this possibility directly, but we do examine the state websites' impact on the probability that a doctor will have a subsequent case in the NPDB. Website disclosure may increase the likelihood of subsequent cases because the websites typically do not have the same provision as the NPDB, making hospital-only settlements less attractive to doctors.

Second, for payments made prior to 2003, when insurers made installment payments to satisfy a settlement or judgment, the NPDB reports only the first payment, not the total. This problem was resolved in 2003, and the NPDB report total payments for all payments made after January 2003. Others have suggested a variety of methods to address this problem with the data (Avraham (2006)), but all involve using the post-2003 data to impute the case's value from the initial payment. Given the importance of the value of the total payment both as a dependent variable in several of our regressions and an independent variable in determining which cases will be disclosed on the webpage, we believe that imputing the data would be inappropriate here. For this reason, we discard all cases before or after 2003 which were not made in a lump sum payment. Between 1991 and 2006 there were 15,122 multiple payments out of 221,011 cases. This is about 6.8% of the total cases. This creates two potential problems for the analysis neither of

²⁴ The database is available at <http://www.npdb-hipdb.com>.

which we can address. First it may cause us to undercount cases disclosed on the web. Given the small number of cases actually disclosed, and the small number of cases deleted due to multiple payments this would appear to be a minor problem. When we use the post 2003 total payment amounts we find only 123 cases with multiple payments that would have been disclosed and all were for doctors with no other payments in the data. The second issue is that this may truncate the sample in favor of smaller awards. We have no way of determining if the deletion of multiple payments truncates the sample and we simply note the possible bias created by the truncation.

Two other factors about the NPDB bear mentioning. The first is that the NPDB is a closed claim database and lists claims according to their closure date. Thus a claim closed in 2004 could have been filed several years before. As several states, including California, retroactively disclosed cases resolved in the years prior to the website becoming operational, it appears that state websites typically determine disclosure based on the case's closure date. For this reason, we use a case's closure date to determine if settlement negotiations took place in the "shadow of the website."

Our final concern is that the NPDB includes only claims for which a payment was made. It omits claims that are unilaterally dropped by the plaintiff, those in which the claimant secures non-monetary relief, or those in which the defendant prevails. This means that dropped cases or defendant victories at trial are not in the sample. Since the vast majority of cases settle, we do not believe that this omission prevents us from assessing the state websites' impacts on payment amounts. The omission does inhibit, however, our ability to study the websites' impact on settlement rates. It also prevents us from determining whether any changes in settlement amounts result from changes in case quality or from changes in the willingness to pay because of website disclosure.

C. National Center for State Courts Database

We use the National Center for State Courts State Court Caseload Statistics (NCSC) to construct a count of medical malpractice filings and dispositions. The NCSC, which includes information on twenty-two states for various years from 1991 to 2006, standardizes the data collected by several state court administrative offices to construct a time series of filings and dispositions.²⁵ In particular, for civil cases, the NCSC includes cases dropped unilaterally by the plaintiff, cases settled by the plaintiff and defendant, consolidated cases, and cases terminated by the courts for inactivity or other related reasons. We use the NCSC data as a check on the increased incidence of litigation.

D. Database of State Tort Law Reforms

Ronen Avraham's Database of State Tort Law Reforms (DSTLR) is a comprehensive reference of changes in state tort law from 1980 to the present.²⁶ We rely on this data to control for payments changes that are not attributable to the websites. The DSTLR contains information about state caps on punitive damages, caps on total damages, and caps on non-economic damages. We do not differentiate the level of the cap in the reported regressions as the website results were not altered by further differentiation. We also include information on which states limited joint and several liability. Typically these statutes limited the liability exposure of defendants found responsible for less than 50% of the damages. We also include a control for those states that enacted periodic payment statutes forcing plaintiffs to receive certain settlements intermittently rather than as a lump sum. We include controls for states that have

²⁵ The database is available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=902711. The 22 states include Alabama, Arkansas, Arizona, Colorado, Connecticut, Washington DC, Georgia, Maryland, Minnesota, Missouri, Montana, North Carolina, New Hampshire, New Jersey, New Mexico, Ohio, Pennsylvania, South Carolina, South Dakota and Wisconsin.

²⁶ The dataset is available from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=902711.

changed the standard necessary to receive punitive damages and states that divide punitive damages between the plaintiff and the state.

We further include controls for states that have altered the collateral sources rule in order to prevent plaintiffs from collecting from both a defendant and insurance. We include an indicator variable if the state has limited the contingent fee that plaintiff's attorneys are allowed to charge. Finally we include an indicator variable if the state has created a patients' compensation fund to pay damages in support of plaintiff verdicts above a certain threshold amount.

Avraham (2006) has argued that these reforms are typically enacted in combination with other reforms, and thus it is difficult to determine the independent effect of each reform. Since we are interested in the impact of only website disclosure, we do not attempt to disentangle the colinearity of the laws and do not report coefficient estimates for them. One might question whether legislatures enact webpage laws at the same time as other tort reforms. Comparing the DSTLR with our websites database suggests that that concern does not apply here. The political constituencies for web disclosure and tort reform may diverge such that the coalitions necessary for passing legislation are distinct, thus diminishing the likelihood that legislatures would combine webpage efforts with tort reform. Regardless, the websites' implementation does not appear highly correlated with other law changes.

E. Florida Closed Claims Database

Since 1975 Florida has required that malpractice insurance companies notify the Department of Insurance about any allegation of malpractice, and this data is maintained in the Florida Closed Claim Database.²⁷ The Florida database thus includes the total population of medical malpractice allegations and covers these allegations from inception

to ultimate disposition. We use this database to compare the settlement amounts, settlement rates, and the rates of dropped cases for cases filed before May 30, 1997, and resolved within one year of that date (*i.e.*, resolved either one year before or after May 30). On that day, the state of Florida announced that it would disclose medical malpractice cases with settlements exceeding five thousand dollars on a state web site. .

Two factors limit the Florida data. First, because the 1997 disclosure limit was quite low, five thousand dollars, and applied to all cases, we have only a difference regression not the difference in difference as we have with the NPDB.²⁸ Second, the timing of the settlement is potentially endogenous. Attorneys might have altered their settlement behavior before May 30, 1997, because they knew of the possibility of increased disclosure. We address this issue by using an instrumental variables approach, in which the time since the injury occurred serves as our instrument. The logic here is that, as the time since the injury passes, the likelihood of a trial increases and hence there is less flexibility in delaying a case. Since the time of injury is exogenous to the timing of the website's creation, our instrument measures litigants' ability to move the case to either side of the disclosure cutoff.

Table 3 presents the summary statistics for the NPDB; Table 4, the summary statistics for the state court data; and Table 5, the summary statistics for the Florida data.

IV. RESULTS

This section presents the results of our regressions. We briefly note the problem of clustering in the standard errors. The websites are state-specific and hence state-level factors that are not controlled by other variables will cause us to overstate our estimates' precision. Ordinarily clustering the standard errors on the state solves this problem, but

²⁷ This database is available from the Florida Department of Insurance.

there are also similar correlations within years. Because of these dual concerns, we prefer clustering on year and state. Cameron, et. al. explain the attractiveness of two-way clustering.²⁹ They demonstrate that if there are $y \in \{1, \dots, Y\}$ year clusters and $s \in \{1, \dots, S\}$ state clusters, then $V^{SY} = V^S + V^Y - V^{S \cap Y}$ represents an estimate of the variance-covariance matrix. This equation combines the standard errors clustered by state with the standard errors clustered by year. The first term captures the unspecified correlation between cases within the same state while the second captures the unspecified correlation between cases resolved in the same year. Since both the state- and year-clustered variance-covariance matrices include the diagonal of the variance-covariance matrix, we subtract off the state-year cluster to avoid double counting.

A. *The Websites' Impact on Medical Malpractice Litigation*

This section describes our results of regressions using the NPDB data and, where indicated, the data from the NCSC.

1. Payment amounts

The basic payment regressions take the form,

$$\ln(\text{payment}_i) = \beta_1 \text{web_page}_{ist} + \beta_2 \text{web_trial}_{ist} + \delta X_i + \gamma Z_{st} + \lambda_s + \delta_t + \varepsilon_{ist}$$

where $\ln(\text{payment}_i)$ is the log of the real settlement payment in 2007 dollars. The variable web_page_{ist} is an indicator variable equal to one if case i in state s at time t would be disclosed on the state's website. The variable web_trial_{ist} is similarly structured but equals one if the case will be disclosed only if it goes to trial. The matrix X_i consists of several case-specific control variables, which represent whether the physician in the case has had more than one malpractice payment, whether the physician has had more than

²⁸ Because the new website disclosed almost all cases, we are unable to compare defendant physicians facing disclosure after the webpage's announcement with those not facing such disclosure.

four payments,³⁰ the patient's age as a control for the size of lost wages or other factors that affect the size of compensatory damages, the physician's age, the physician's graduation year from medical school, and the nature of the malpractice allegation (either diagnosis, anesthesia, surgery, medication, iv & blood products, obstetrics, treatment, monitoring, equipment, or behavior related).³¹ In addition, we include an indicator variable for states that allow medical malpractice insurers to limit the defendant doctor's ability to reject a malpractice insurer's proposed settlement. Historically, most medical malpractice policies authorized doctors to decline settlement in favor of going to trial. Now, some states forbid such policies. The matrix Z_{st} represents the matrix of tort law reforms discussed above. Finally λ_s are state fixed effects, δ_t are year fixed effects, and ε_{ist} are the standard errors clustered on state and year.

Table 6, column 1, provides the results of the basic regression. The threat of website disclosure reduces the settlement payment in column 1, but the impact is not statistically significant. In cases in which settling would avoid disclosure but going to trial risks it, the threat of website disclosure increased the expected payment by about 5.8%, but again the result is not statistically significant.

In column 2 we decompose the results in a different way. Specifically we interact the threat of disclosure with the number of previous payments by the practitioner. Daughety and Reinganum (2002) suggest that disclosure is most costly to those defendants who in effect "have something to hide." As Adams and Garber (2007) point

²⁹ A. Colin Cameron, Jonah B. Gelbach, and Douglas L. Miller, (2006) Robust Inference with Multi-way Clustering, UNIVERSITY OF CALIFORNIA-DAVIS WORKING PAPER.

³⁰ We tried several different versions of the number of cases the doctor has in the NPDB. There are relatively few doctors with more than two cases and the choice of the subsequent break point (*e.g.*, 5 versus 4) does not materially affect the results.

³¹ The physician's specialty is not available in the NPDB. In subsequent regressions we examine the impact of web disclosure on two high litigation specialties, surgery and obstetrics, by treating the nature of the malpractice allegation as a proxy for the physician's specialty.

out, one malpractice payment tells you almost nothing about the quality of a physician. Multiple payments, however, may reveal a doctor's inferior competence. For defendants who have already made at least one payment in a previous case, website disclosure has a negative and statistically significant impact on settlement payment amount. Repeat defendants typically pay 7-13% more than other similarly situated defendants. But the threat of disclosure on the state's website reduces that expected payment by 15%, almost completely eliminating the premium paid to plaintiffs litigating against defendants with previous medical malpractice payments. The results indicate that the threat of website disclosure reduces settlement amounts by over \$4,000. One interpretation of this result is that these repeat defendants had a heightened reason to value whatever degree of secrecy existed before web disclosure. No longer able to purchase this secrecy, repeat defendants are no longer willing to pay a settlement premium. Another interpretation, which is not mutually exclusive with the prior one, is that, as a result of website disclosure, these repeat defendants are more likely to become defendants in weak, low-value cases.

In column 3, we further decompose this effect by looking at two identifiable specialties in the NPDB: surgeons and obstetricians. The NPBD identifies the nature, or general subject matter, of the malpractice allegation, but not the defendant practitioner's specialty. As mentioned above, the subject matter categories of malpractice allegations include: diagnosis, anesthesia, surgery, medication, iv & blood products, obstetrics, treatment, monitoring, equipment, or behavior-related. For our purposes, we assume that allegations concerning obstetrics and surgery involve obstetricians and surgeons, respectively,³² and thus identify the two specialties in the database. Because obstetricians

³² In the case of surgeons, this assumption is likely to be true since non-surgeons typically do only the most routine surgeries. In the case of obstetrics, by contrast, general practitioners deliver a number of babies, thus rendering the "obstetrics" category less an indicator of a doctor's specialty than of her type of practice. Nevertheless, doctors who practice in surgery and obstetrics are on average more likely to be sued, *see infra* note __, and hence the two categories are valuable for our paper.

and surgeons are among the specialties at highest risk of litigation (Helland and Showalter (2008)), we interact these specialties with the threat of disclosure.

We find, again, that defendants outside these two specialties with more than one payment pay about 15% less in states with website disclosure than in states without it. We also find that those with 5 or more payments pay a further 13% less. This is a substantial reduction, totaling 28% less, or almost \$6,500 per case. By contrast, obstetricians show no reduction in payment in states with disclosure. For those obstetricians with five or more cases, the expected payment rises by 25% with web disclosure. Surgeons do pay less in the face of disclosure—an 8% decline in payments. Yet this effect is reversed for surgeons with 2 or more payments and again, with those having 5 or more payments. The results conflict with our intuition that obstetricians and surgeons have stronger reputational concerns than do many other doctors (in part because they have greater reason to fear copycat suits and in part because patients seem more likely to “shop around” for their services than for, say, an anesthesiologist, endocrinologist, or even general practitioners) and thus might be willing to pay a greater secrecy premium. The results suggest instead that these doctors are largely unaffected by mandatory disclosure. Given the high rates of litigation faced by doctors practicing in these specialties, doctors (and their insurers) might be less worried about the adverse impact of disclosure and thus less willing to pay a secrecy premium. Alternatively, or in addition, the high rates of litigation already experienced by these doctors may mean that disclosure does not have much of an effect in encouraging frivolous, copycat litigation.

In column 4, we estimate the model examining the impact of previous payment disclosures on payment in a future case. Using the information on the defendant’s previous cases in the NPDB, we can identify which of the defendant’s cases are

candidates for web disclosure. We find that having previously disclosed payments increases, rather than decreases, the amount a physician pays in a subsequent case. We now turn to the results on the probability a case will settle for a payment under the threshold for disclosure.

2. Probability of payment under the disclosure threshold

In this subsection, we estimate the impact of web disclosure on the distribution of settlement payments. Specifically we estimate the probability that a nominal payment will fall under the threshold amount that would trigger web disclosure. We estimate a linear probability model with the probability of being under the limit as

$$\Pr(\text{under limit}_i) = \beta_1 \text{web_page}_{ist} + \beta_2 \text{web_trial}_{ist} + \delta X_i + \gamma Z_{st} + \lambda_s + \delta_i + \varepsilon_{ist}$$

in which, again, the variables retain their meanings. The variable *under_limit_i* equals one if the case would have fallen under the state threshold amount regardless of whether the webpage existed in the state during that year. We estimate the model using only those state websites that have a threshold disclosure amount greater than one dollar. The question is whether payments in the state are more likely to fall under the threshold amount following the websites' implementation of the threshold requirements (this moment generally coincides with the web's creation, unless the state amended its rules to implement threshold requirements after the websites were already disclosing malpractice information).

The results in Table 7, column 1, suggest that there is no statistically significant change in the likelihood that a case falls below the limit after a website's implementation of the threshold requirements. Column 2, however, decomposes the results by the number of previous payments made by the defendant. Interestingly those defendants who have made at least one previous payment are more likely to make payments under the

limit, and hence to avoid disclosure. This suggests a more complicated motivation for the decline in payments than we observed above. Specifically these defendants are avoiding disclosure by paying less than they had previously. Again the effect appears confined to physicians who are neither surgeons nor obstetricians, as payments on behalf of practitioners in those specialties appear less likely to fall below the limit after the website's implementation of threshold disclosure requirements.

In column 4, we again estimate the impact of previous cases that are potentially already on the website. This is distinct from the number of prior medical malpractice payments made by a defendant because not all payments are subject to disclosure. We find no effect of having a previously disclosed case on the likelihood that a payment is below the limit.

3. Subsequent Litigation

As a means of examining whether the websites encourage additional litigation, we look at two sets of measures: the number of malpractices cases per doctor before and after the websites' implementation and the likelihood of a subsequent payment for doctors who have and do not have payments qualifying for disclosure.

a. Suits per doctor

We use two data sources to examine the websites' impact on the number of malpractice cases per doctor. The first is simply the annual count of payments per state in the NPDB. This number is an undercount because, as described above, the NPDB does not include cases that are filed and subsequently dropped without payment (almost 30% of all filings). Our second measure is the number of malpractice filings and disposed cases compiled by the National Center for State Courts. We estimate these models as

$$case_{st} / doctors_{st} = \beta_1 web_page_{st} + \gamma Z_{st} + \lambda_s + \delta_t + \varepsilon_{st}$$

where the $case_{st}/doctors_{st}$ is the number of cases per doctors using both of our measures of cases, and the other variables retain their meaning from above.

Table 8 presents the results. Columns 1-3 provide estimates of the number of cases per doctor using the NCSC count of the number of filings. A website's impact, although positive, is not statistically significant. Column 2 presents the results for the number of cases disposed per physician. The impact is statistically significant and positive indicating that the presence of a web page increases the number of cases per physician that are resolved in a given year. It increases that number by 18%.

For the NPDB regressions, presented in columns 3, a website's impact is positive and statistically significant: the presence of a state website increases the number of payments per physician. The NPDB showed a 10% increase in the per doctor number of payments.

b. Likelihood of a subsequent suit

We rely on the NPDB to examine whether litigants target physicians with a disclosed payment. The NPDB contains a physician-level id that enables us to determine

the number of payments by an individual doctor and the year in which the payment was made. Our aim here is to estimate not the probability of suit against a physician in a given year but instead the change in the likelihood that a physician with a previous payment makes a subsequent payment when the state adopts web disclosure. In particular, we estimate the websites' impact on the likelihood that a physician makes a payment conditional on having already had one payment in the NPDB qualifying for disclosure.

We estimate the model as

$$\Pr(\textit{subsequent suit}_i) = \beta_1 \textit{web_page}_{ist} + \delta X_i + \gamma Z_{st} + \lambda_s + \delta(t) + \varepsilon_{ist}$$

in which j is the doctor identifier and *subsequent suits* is equal to one if the doctor paid a claim in year t . The model is a discrete time hazard model of the kind estimated in Meyer (1990). A principal advantage of the technique is that the parameters of the covariates are invariant to the choice of time intervals. We define 16 discrete periods to form a settlement spline, $\delta(t)$. Periods 1 to 16 capture the years elapsed since the first payment by a physician. We treat the doctor as entering the sample with his or her first payment and then track her litigation history until 2006. Thus, if hypothetical doctor 2345 makes her first payment in 1994, we estimate the probability that she makes a payment in any subsequent year from 1995 to 2006. The other variables retain their meanings from above. We present the results in Table 9.

In column 1, we find that the presence of a website in a state increases, by about 1% per year, the likelihood that a doctor, who has already made a payment, will face suit again. This effect occurs regardless of whether the previous payment was disclosed. In column 2, we decompose that result by looking at the number of cases likely to be disclosed on the webpage. The impact of a state webpage retains its significance, but the first payment qualifying for disclosure increases the likelihood of a subsequent suit by

2%. A second payment qualifying for disclosure increases the likelihood of a subsequent suit by .9%. This suggests that while the creation of a website increases the likelihood of a subsequent payment by 1% even for physicians without a potentially disclosed payment, the website increases the likelihood of a subsequent payment even more for those physicians with payments qualifying for disclosures.

B. Evidence from the Florida Data

This subsection examines the Florida Closed Claim database because it, unlike the NPDB, includes information on malpractice claims that did not result in filings or payment. Florida announced it was creating a web page of medical malpractice payments over five thousand dollars on May 30, 1997. In Table 10, we present the results of the following regression

$$y_{it} = \beta_1 \overline{web_page}_{it} + \delta Z_{it} + \varepsilon_{it}$$

where y_{it} is one of three outcome variables: the log of the settlement amount, the case's status as dropped or not dropped, the case's status as settled or not settled. The variable $\overline{web_page}_{it}$ is an indicator variable equal to one if the case settles after May 30, 1997. We treat the variable as endogenous and use the elapsed number of days since the injury as an instrument for whether the case is subject to web disclosure. The control variables Z_{it} include the location of the injury (ER, outpatient clinic, etc.), the severity of the injury (death, major, minor, emotional), the specialty of doctor, and the gender of the patient.

We restrict the sample to those cases resolved within 365 days of May 30, 1997. We further restrict the sample to those cases filed before the announcement date. The logic for this restriction is that these cases are not subject to the sample selection which might result from the existence of web disclosure. Finally we restrict the sample to cases against doctors.

In column 1 of Table 8 we present the IV results of the linear probability model of settlement. The coefficient indicates a 33% reduction in the probability of settlement once a case is subject to web disclosure. Column 2 presents the results for the payment regressions, which indicate a 37% drop in payment amount. Finally, in column 3, we find no impact of web disclosure on the probability of dropped cases. Because the number of dropped cases remained the same after the websites' implementation, the results suggest that the quality or composition of cases did not change. The constant percentage of dropped cases, in combination with our finding of dropped payment amounts, provide some support for the secrecy premium account: namely, that at least some of the change in settlement values following website disclosure results from a willingness of doctors and their insurers to pay less. Yet, because the change in payment amount in the Florida data substantially exceeds the change in payment amounts that we found in the NPDB data, which resulted from a difference-in-difference analysis, we have to reason to question the robustness of our findings.

5. Conclusion

We find that website disclosure results in lower settlement values for doctors with multiple payments. Our results suggest two, not mutually exclusive explanations for this decline. First, our finding of increased probability of payments under disclosure thresholds suggest that doctors value secrecy. That is, doctors with multiple payments might have paid a secrecy premium prior to the websites' implementation, and then stopped offering such premiums when the websites would disclose the settlement. Our results from the Florida data, which indicate that settlement values declined after web disclosure, even among those cases filed before the state announced the websites' introduction, also support this interpretation. That is, even for that set of case *filings*

unaffected by web disclosure (*i.e.*, the case quality is constant), the average settlement values declined.

Second, our findings concerning subsequent litigation support another explanation, namely, that the decline in payments result in part from more filings of weaker claims. We find that the websites encourage medical malpractice litigation. The number of disposed cases per physician in a state rises by 18%, and the number of payments per physician in a state rises by 10%. We also find evidence that plaintiffs may target doctors whose payments have been disclosed. Physicians with at least one payment qualifying for website disclosure are more likely to make a second payment than are physicians with payments that do not qualify for disclosure. We have no direct evidence that the additional filings are of weaker quality, and indeed, our Florida finding that the website there had no effect on the probability of dropped cases, does not support that interpretation. Yet, because our findings indicate that the websites led to a substantial increase in litigation, we cannot rule out the possibility that the reduction in average settlement payments resulted at least in part from changes in the overall composition of cases.

Our study on the impact of medical malpractice disclosure regimes raise questions about claims that secret settlement bans are unworkable or would overwhelm the civil justice system. Our study suggests that average settlement values would decline, and there would be an increase in litigation; the normative attractiveness of those consequences are open to debate. What seems beyond debate is the need for more systematic empirical study of the actual effects of secret settlement bans and other disclosure regimes. State and federal jurisdictions have in fact adopted a broad variety of initiatives regulating secrecy and disclosure in settlements. But the data to measure the effects of those policies are largely unavailable. In undertaking such initiatives,

policymakers should take care to adopt rules or practices that will make relevant data available and the policies thus subject to proper evaluation and revision.

References

- Adams, John L. and Steven Garber, (2007) "Reducing Medical Malpractice by Targeting Physicians Making Medical Malpractice Payments," *Journal of Empirical Legal Studies*. 4(1):187-224
- Anderson Jr., Joseph F. (2004) "*Hidden From the Public by Order of the Court: The Case Against Government Enforced Secrecy*" *Southern California Law Review* . 55
- Avraham, Ronen, (2006) "An Empirical Study of the Impact of Tort Reforms on Medical Malpractice Payments," Northwestern Law & Econ Research Paper No. 06-07
- Bhagwan, Satiani, (2004) "The National Practitioner Data Bank: Structure and Function," *Journal of the American College of Surgeons*, 199(6):981-6.
- Cameron, A. Colin, Jonah B. Gelbach, and Douglas L. Miller, (2006) Robust Inference with Multi-way Clustering, University of California-Davis working paper
- Bone, Robert G. (2003) *Civil procedure, The Economics of Civil Procedure*.
- Dana, David A. and Susan P. Koniak, (2003) "Secret Settlements and Practice Restrictions Aid Lawyer Cartels and Cause Other Harms," *University of Illinois Law Review*, 1217:1225.
- Darling, Stephen E. (2004) "Confidential Settlements: the Defense Perspective," *Southern California Law Review*. 55:785
- Daughety, Andrew F. and Jennifer F. Reinganum, (2002) *Informational Externalities in Settlement Bargaining: Confidentiality and Correlated Culpability*, RAND Journal of Economics. 33(4):587-604
- Doré, Laurie Kratky (1999) "Secrecy by Consent: the Use and Limits of Confidentiality in the Pursuit of Settlement," *Notre Dame Law Review*. 74 :283
- Dranove, David and Yasutora Watanabe (2007) Inference and Deterrence: How Obstetricians Respond to Litigation against Themselves and their Colleagues. Working Paper Northwestern University.
- Epstein, Richard (2002) *The disclosure dilemma: Why a ban on secret legal settlements does more harm than good*, *The Boston Globe*, Nov. 3, at D1.
- Fromm, Blanca (2001) "Bringing Settlement Out of the Shadows: Information About Settlement in an Age of Confidentiality," *UCLA Law Review*. 48:663.
- Helland, Eric, Jonathan Klick, and Alexander Tabarrok. (2005). "Data Watch: Tort-uring the Data," *Journal of Economic Perspectives* 19(2):207
- Helland, Eric and Mark Showalter (2006) "The Impact of Liability on the Physician Labor Market," forthcoming *Journal of Law and Economics*.

Lothes, Alison (2005) "Quality, Not Quantity: An Analysis of Confidential Settlements and Litigants' Economic Incentives" *University of Pennsylvania Law Review*. 154(433).

Meyer, Bruce (1990). "Unemployment Insurance and Unemployment Spells." *Econometrica* 58(4):757-782.

Moss, Scott A. (2007) "Illuminating Secrecy: A New Economic Analysis of Confidential Settlements," *Michigan Law Review* 105:867.

Posner, Richard A., (2003) *Economic Analysis of the Law* 6th ed.

Reagan, Robert Timothy, Shannon R. Wheatman, Marie Leary, Natacha Blain, Steven S. Gensler, George Cort, Dean Miletich (2004) *Sealed Settlement Agreements in Federal District Court*, Federal Judicial Center

Rosenberg, David and Steven Shavell, (1985) "A Model in Which Suits are Brought for their Nuisance Value" *International Review of Law and Economics* 5(1):3-13

Shavell, Steven (1997) "The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System," *Journal of Legal Studies*. 26:575.

Sloan, Frank A. and Lindsey M. Chepke (2008) *Medical Malpractice*, MIT Press, Cambridge, MA

Zeiler, Kathryn, Charles Silver, Bernard Black, David A. Hyman, and William M. Sage (2007) "Physicians' Insurance Limits and Malpractice Payments: Evidence from Texas Closed Claims, 1990–2003" *Journal of Legal Studies* 36(s2):S9-S45

Zitrin, Richard A. (2004) "The Laudable South Carolina Court Rules Must Be Broadened," *South Carolina Law Review*, 55:883

Table 1: Summary of State Websites

State	Start of Disclosure	Disclosed Trials	Disclosed All Settlements	Disclose a Subset of Settlements
Arizona	1999	Y	N/Y(01)	NA/N(01)
California	1998	Y	N	NA/Y(03)
Connecticut	2000	Y	Y	N
Florida	1997	Y	N	Y
Georgia	2002	Y	N	Y
Idaho	2000	Y	N	Y
Maryland	2003	Y	N	Y
Massachusetts	1992	Y	Y	N
Nevada	2002	Y	N	N
New Jersey	2004	Y	Y	N
New York	2002	Y	N	Y
Oregon	2005	Y	Y	N
Tennessee	1999	Y	N	Y
Texas	2003	Y	N	NA
Vermont	2002	Y	Y	N
Virginia	2001	Y	N	Y
West Virginia	2005	Y	Y	N

Y=Yes

N=No

NA=Not Applicable

() indicates year of change

Table 2: The number of cases disclosed on state websites

State	Average Number of Doctors 1991-2006	Total Number of Cases 1991-2006	Total Number of Cases since Webpage	Potentially Disclosed
Arizona	9033	3270	1775	1589
California	72791	21861	12625	3434
Connecticut	10086	2185	1230	1230
Florida	32857	15246	10670	7364
Georgia	14349	3715	1604	31
Idaho	1743	418	188	1
Massachusetts	20978	3910	2642	2642
Maryland	16898	3370	902	173
New Jersey	22213	8383	2274	2274
New York	60397	25469	5954	5954
Oregon	6806	1291	159	159
Tennessee	11780	2548	1460	1031
Texas	36811	14934	3597	17
Virginia	15132	2908	1594	1462
Vermont	1567	396	69	69
West Virginia	3762	1857	606	606

Table 3 Descriptive Statistics NPDB Sample

Variable	Full Sample	No Webpage	Webpage
Payment amount	218912.15245 (796.87228)	209684.36197 (898.27886)	249611.90064 (1712.23642)
Case would be disclosed on webpage limit consent	0.23109 (0.00093)		
	0.22148 (0.00092)	0.13391 (0.00086)	0.51285 (0.00230)
Age	48.05590 (0.02319)	47.81584 (0.02660)	48.85123 (0.04713)
Physician graduated prior to 1940	0.00386 (0.00014)	0.00485 (0.00018)	0.00057 (0.00011)
Physician graduated 1940-50	0.02512 (0.00035)	0.03032 (0.00043)	0.00783 (0.00041)
Physician graduated 1950-60	0.10511 (0.00068)	0.11946 (0.00082)	0.05737 (0.00107)
Physician graduated 1960-70	0.23381 (0.00093)	0.24366 (0.00108)	0.20104 (0.00184)
Physician graduated 1970-80	0.31341 (0.00102)	0.31563 (0.00117)	0.30604 (0.00212)
Physician graduated 1980-90	0.25652 (0.00096)	0.23746 (0.00107)	0.31995 (0.00214)
Physician graduated 1990-2000	0.05972 (0.00052)	0.04592 (0.00053)	0.10563 (0.00141)
Physician graduated post 2000	0.00067 (0.00006)	0.00042 (0.00005)	0.00152 (0.00018)
Malpractice occurred in diagnosis	0.33904 (0.00105)	0.34311 (0.00120)	0.32549 (0.00215)
Malpractice occurred in anesthesia	0.03098 (0.00038)	0.03066 (0.00043)	0.03205 (0.00081)
Malpractice occurred in surgery	0.27991 (0.00099)	0.27773 (0.00113)	0.28717 (0.00208)
Malpractice occurred in medication	0.05538 (0.00051)	0.05759 (0.00059)	0.04803 (0.00098)
Malpractice occurred in IV or blood	0.00346 (0.00013)	0.00364 (0.00015)	0.00287 (0.00025)
Malpractice occurred in obstetrics	0.07606 (0.00059)	0.07822 (0.00068)	0.06887 (0.00116)
Malpractice occurred in treatment	0.18104 (0.00085)	0.17811 (0.00096)	0.19078 (0.00181)
Malpractice occurred in monitoring	0.01476 (0.00027)	0.01334 (0.00029)	0.01949 (0.00064)
Malpractice occurred in equipment	0.00392 (0.00014)	0.00398 (0.00016)	0.00369 (0.00028)
Malpractice occurred in physician behavior	0.00056 (0.00005)	0.00032 (0.00004)	0.00137 (0.00017)
State has caps punitive damages	0.48942 (0.00110)	0.50976 (0.00126)	0.42174 (0.00227)
State has caps total damages	0.07776 (0.00059)	0.09102 (0.00072)	0.03365 (0.00083)
State has cap non economic	0.32821 (0.00104)	0.28198 (0.00113)	0.48204 (0.00230)
State limits joint and several liability	0.78807 (0.00090)	0.75698 (0.00108)	0.89152 (0.00143)
State has periodic payments	0.65009 (0.00105)	0.62872 (0.00122)	0.72117 (0.00206)
State has punitive (damages) evidence standard	0.60499	0.58236	0.68030

	(0.00108)	(0.00124)	(0.00214)
State has split recovery for punitive damages	0.12111	0.13704	0.06811
	(0.00072)	(0.00087)	(0.00116)
State has modified the collateral source	0.67307	0.62614	0.82923
	(0.00104)	(0.00122)	(0.00173)
State has limited contingency fee	0.51306	0.43339	0.77814
	(0.00110)	(0.00125)	(0.00191)
State has a patient compensation fund	0.24848	0.25412	0.22969
	(0.00095)	(0.00110)	(0.00193)
Standard errors of means in parentheses			

Table 4: Descriptive Statistics for State Level Data (NPDB and National Center for State Courts)

Variable	Full Sample	No Webpage	Webpage
NPDB Cases Per Physician	0.01968 (0.00037)	0.01981 (0.00038)	0.01785 (0.00127)
National Center for State Court Filings Per Physician	0.09460 (0.00951)	0.09765 (0.01098)	0.07536 (0.02735)
National Center for State Court Disposals Per Physician	.1017156 (.1405069)	.1117964 (.154421)	.0574687 (.0283424)
Dropped Cases Per Physician	.7476841 (.1914597)	.7547307 (.1969568)	.6793322 (.110582)
AMA Count of Doctors in State	10565.77745 (406.90827)	11346.84692 (575.35765)	28526.13889 (3972.98554)
NCSC Count Filed Cases	820.30317 (84.33247)	792.47500 (94.37366)	1060.20000 (383.73740)
NPDB Paid Claims	261.42092 (13.05406)	226.21068 (12.51966)	477.16364 (47.93925)
Case would be disclosed on webpage	0.14031 (0.01241)	0.00000 (0.00000)	1.00000 (0.00000)
Limit Consent	0.18367 (0.01384)	0.15579 (0.01398)	0.35455 (0.04582)
State has caps punitive damages	0.44005 (0.01774)	0.45549 (0.01920)	0.34545 (0.04555)
State has caps total damages	0.12883 (0.01197)	0.13650 (0.01323)	0.08182 (0.02625)
State has cap non economic	0.35969 (0.01715)	0.35015 (0.01839)	0.41818 (0.04725)
State limits joint and several liability	0.74490 (0.01558)	0.73887 (0.01693)	0.78182 (0.03956)
State has periodic payments	0.59439 (0.01755)	0.61869 (0.01872)	0.44545 (0.04761)
State has punitive (damages) evidence standard	0.63520 (0.01720)	0.64837 (0.01841)	0.55455 (0.04761)
State has split recovery for punitive damages	0.11480 (0.01139)	0.12611 (0.01280)	0.04545 (0.01995)
State has modified the collateral source	0.61352 (0.01740)	0.59496 (0.01892)	0.72727 (0.04266)
State has limited contingency fee	0.30612 (0.01647)	0.26855 (0.01708)	0.53636 (0.04776)
State has a patient compensation fund	0.20791 (0.01450)	0.22255 (0.01603)	0.11818 (0.03092)
Standard errors of means in parentheses			

Table 5 Descriptive Statistics Florida Sample

Payment (1982 dollars)	126757.07914 (4490.05275)
Plaintiff Dropped the case	0.27041 (0.00573)
Case settled before trial	0.66145 (0.00611)
Post 5/30/1997	0.51683 (0.00645)
Injury occurred in ER	0.12329 (0.00424)
Injury occurred in an inpatient facility	0.55165 (0.00642)
Injury occurred in office	0.22592 (0.00540)
Injury occurred in operating room	0.25075 (0.00560)
OB/GYN	0.10313 (0.00393)
Anesthesiologist	0.00933 (0.00124)
Patient Died	0.26708 (0.00571)
Patient suffered emotional distress	0.04615 (0.00271)
Patient suffered permanent grave injuries	0.04349 (0.00263)
Patient suffered permanent serious injuries	0.05382 (0.00291)
Patient suffered permanent minor injuries	0.15545 (0.00468)
Patient suffered permanent significant injuries	0.11746 (0.00416)
Patient suffered temporary minor injuries	0.05398 (0.00292)
Patient suffered temporary major injuries	0.11496 (0.00412)
Patient is male	0.45302 (0.00643)
Standard errors of means in parentheses	

Table 6 Dependent variable log(payment in settlement) NPDB

	(1)	(2)	(3)	(4)
Case would be disclosed on webpage	-0.01806 (0.04389)	0.05916 (0.05357)	0.07529 (0.05457)	0.06324 (0.05321)
Disclosure only if case goes to trial	0.05835 (0.03845)	0.02394 (0.03260)	0.02623 (0.03297)	0.01776 (0.03157)
2 or more previous malpractice payments	0.13939*** (0.04663)	0.16928*** (0.05642)	0.16968*** (0.05678)	0.16910*** (0.05643)
5 or more previous malpractice payments	-0.02028 (0.03570)	-0.03372 (0.04303)	-0.03371 (0.04315)	-0.03337 (0.04298)
2+ payments*web page		-0.15463*** (0.05389)	-0.17497*** (0.05599)	-0.17432*** (0.05332)
5+ payments*web page		0.01235 (0.06518)	-0.17188* (0.08957)	-0.01319 (0.06658)
2+ payments*trial disclosure only		0.07382** (0.03204)	0.07160** (0.03169)	0.08921*** (0.02980)
5+ payments*trial disclosure only		0.06277 (0.08810)	0.05622 (0.08033)	0.07975 (0.09483)
Disclosure*ObGyn			0.02011 (0.11970)	
Disclosure*ObGyn*2+ payments			-0.00315 (0.10411)	
Disclosure*ObGyn*5+ payments			0.24411*** (0.06299)	
Disclosure*Surgery			-0.08633*** (0.03177)	
Disclosure*Surgery*2+ payments			0.09576*** (0.03186)	
Disclosure*Surgery*5+ payments			0.31613*** (0.07421)	
1+ disclosed payments				0.09072*** (0.01501)
2+ disclosed payments				0.01604 (0.06564)
5+ disclosed payments				0.21026 (0.25520)
Observations	204,038			
F test	2.77	47.00	77.82	3.83
Prob > F	0.25	0.00	0.00	0.43
Standard errors in parentheses				
* significant at 10%; ** significant at 5%; *** significant at 1%				

Table 7 Probability case is under the limit for disclosure

	(1)	(2)	(3)	(4)
Case would be disclosed on webpage	0.023	0.015	0.018	0.015
	(0.016)	(0.017)	(0.018)	(0.017)
2+ payments*web page		0.017**	0.024*	0.017**
		(0.008)	(0.014)	(0.008)
5+ payments*web page		-0.023	0.036	-0.021
		(.0307)	(.0307)	(.0313)
Disclosure*ObGyn			-0.037	
			(0.053)	
Disclosure*ObGyn*2+ payments			-0.013	
			(0.079)	
Disclosure*ObGyn*5+ payments			-0.091***	
			(0.021)	
Disclosure*Surgery			-0.004	
			(0.012)	
Disclosure*Surgery*2+ payments			-0.012**	
			(0.005)	
Disclosure*Surgery*5+ payments			-0.090	
			(.0325)	
1+ disclosed payments				-0.004
				(0.012)
2+ disclosed payments				-0.031
				(0.043)
5+ disclosed payments				0.251
				(.2903)
2 or more previous malpractice payments	-0.012**	-0.022**	-0.024**	-0.022**
	(0.005)	(0.010)	(0.011)	(0.010)
5 or more previous malpractice payments	-0.024*	-0.011	-0.012	-0.011
	(0.013)	(0.007)	(.0215)	(0.007)
Observations: 46,139				
Standard errors in parentheses				
* significant at 10%; **				
significant at 5%; *** significant				
at 1%				

Table 8 Medical malpractice cases per physicians

	(1) SCS filings per physician	(2) SCS Disposed cases per physician	(3) NPDB per physician
Case would be disclosed on webpage	0.015 (0.010)	0.018* (0.010)	0.002* (0.001)
% Change from webpage	10%	18%	10%
Observations	154	125	539
R-squared	0.99	0.99	0.78
Robust standard errors in parentheses			
* significant at 10%; ** significant at 5%; *** significant at 1%			

Column 1, 2 and 4 contain the number of medical malpractice filings per capita for the following states AL, AR, AZ, CO, CT, DC, GA, MD, MI, MN, MO, MT, NC, NH, NJ, NM, NY, OH, PA, SC, SD, WI

Table 9: Subsequent Suits and Changing States

	(1)	(2)
State webpage	0.550*** (0.016)	0.539*** (0.016)
1+ disclosed payments		1.055*** (0.064)
2+ disclosed payments		0.930*** (0.121)
5+ disclosed payments		-0.045 (0.512)
Observations 1,219,762	.	.
Table displays marginal effects		
Standard errors in parentheses		
* significant at 10%; ** significant at 5%; *** significant at 1%		

Table 10 Florida Regressions

	IV Pr(Settle)	IV Ln(Payment)	IV Pr(Drop)
Post 5/30/1997	-0.458*** (0.084)	-0.722*** (0.231)	0.146** (0.067)
Observations	2483	1496	2483
Robust standard errors in parentheses			
* significant at 10%; ** significant at 5%; *** significant at 1%			

The models contain controls for injury location, doctor type and injury severity.

Figure 1

