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# LITIGATION COST ALLOCATION RULES AND COMPLIANCE WITH THE NEGLIGENCE STANDARD

KEITH N. HYLTON\*

## I. INTRODUCTION

THIS article examines compliance, incentives to bring suit, and incentives to settle in a negligence regime under alternative litigation cost allocation rules. Four allocation rules are considered: the American rule, which requires each party to pay his own costs; the British rule, which requires the losing party to pay the winning party's costs in addition to his own; the prodefendant rule, which requires the defendant to pay only his own costs if he loses and nothing otherwise; and the proplaintiff rule, which requires the plaintiff to pay only his own costs if he loses and nothing otherwise.<sup>1</sup>

Previous theoretical research in this area has examined the effects of fee shifting on incentives to litigate and to settle and on the amounts

\* Northwestern University School of Law. This article has benefited from comments made by participants at the first meeting of the American Law and Economics Association and at faculty workshops at the University of Southern California Law Center and the Northwestern University Economics Department. I thank Richard Craswell, Maria O'Brien Hylton, Ed McCaffery, Judith Resnik, and Peter Siegelman for helpful comments on an earlier draft of this article. I am especially indebted to Matt Spitzer for pointing out an error in a previous draft. Taso Gregariades and Sheoli Pargal carried out the model simulations, and David Waterstradt helped with the legal research. I am, of course, responsible for remaining errors.

<sup>1</sup> This is a simplified description of the American and British practices. The British rule, as described in the text, is better thought of as merely the "background" rule in England because the awarding of costs is within the discretion of courts. Similarly, although the American rule is a fair description of the American treatment of costs, insignificant portions are shifted under most American jurisdictions. For example, in the federal courts, filing fees are generally shifted to the losing party. See Charles T. McCormick, *Counsel Fees and Other Expenses of Litigation as an Element of Damages*, 15 Minn. L. Rev. 619, 620-21 (1931).

parties spend in litigation.<sup>2</sup> This article also examines these issues but adds an analysis of the influence of fee shifting on compliance with legal standards.<sup>3</sup>

I use a model of litigation to examine the incentive effects of fee shifting. I allow for both legal error and asymmetrical information, in the sense that the defendant knows whether he has violated the legal standard and the plaintiff does not.<sup>4</sup> Assuming parties form their expectations rationally, the plaintiff's estimate of the probability of prevailing at trial, and hence the probability that suit will be brought, is then a function of the equilibrium rate of compliance.<sup>5</sup>

The main results of my model are as follows. First, one cannot properly compare incentives to bring suit across different litigation cost allocation regimes without taking into account the influence of the allocation rule on equilibrium compliance. Previous analyses have compared incentives to bring suit under the assumption that the plaintiff's estimate of the probability of prevailing is the same under every allocation rule. But if the equilibrium rate of compliance changes when the allocation rule changes, this approach is inappropriate. Second, the incentive to settle,

<sup>2</sup> Philip J. Mause, *Winner Takes All: A Reexamination of the Indemnity System*, 55 Iowa L. Rev. 26 (1969); Steven Shavell, *Suit, Settlement, and Trial: A Theoretical Analysis under Alternative Methods for the Allocation of Legal Costs*, 11 J. Legal Stud. 55 (1982); Ronald Braeutigam, Bruce Owen, & John Panzar, *An Economic Analysis of Alternative Fee Shifting Systems*, 47 L. & Contemp. Probs. 173 (1984); Lucian Bebchuk, *Litigation and Settlement under Imperfect Information*, 15 Rand J. Econ. 404 (1984); Avery Katz, *Measuring the Demand for Litigation: Is the English Rule Really Cheaper?* 3 J. L. Econ. & Org. 143 (1987); Jennifer Reinganum & Louis L. Wilde, *Settlement, Litigation, and the Allocation of Litigation Costs*, 17 Rand J. Econ. 557 (1986); John J. Donohue III, *Opting for the British Rule, or If Posner and Shavell Can't Remember the Coase Theorem, Who Will?* 104 Harv. L. Rev. 1093 (1991); John C. Hause, *Indemnity, Settlement, and Litigation, or I'll Be Suing You*, 18 J. Legal Stud. 157 (1989).

<sup>3</sup> The notion that fee shifting may affect compliance with the law has been discussed in several court opinions. For example, in *Atchison, Topeka & Santa Fe Railroad Co. v. Matthews*, 174 U.S. 96 (1899), the railroad made an equal protection argument against a Kansas statute that required the railroad to pay the attorney's fees of any successful plaintiff who was injured by a fire caused by the railroad's operation. The railroad claimed that the statute violated the Fourteenth Amendment because it arbitrarily singled out railroads to be penalized for failing to pay debts. The Court's response was that the purpose of the statute was to "secure the utmost care on the part of railroad companies to prevent the escape of fire from their moving trains," 174 U.S. at 98, and, therefore, the statute was a valid police regulation. For similar rejections of equal protection based attacks on fee shifting, see *Hindman v. Oregon Short Line R. Co.*, 32 Idaho 133, 178 Pac. 837 (1919); *Daly v. Look*, 267 S.W.2d 77 (1954).

<sup>4</sup> The model of negligence is based on that presented in Keith N. Hylton, *Costly Litigation and Legal Error under Negligence*, 6 J. L. Econ. & Org. 433 (1990).

<sup>5</sup> This was first demonstrated in Janusz A. Ordover, *Costly Litigation in the Model of Single Activity Accidents*, 7 J. Legal Stud. 243 (1978).

which is determined by the parties' expectations concerning the trial outcome, is also influenced by the equilibrium rate of compliance. Again, an approach that assumes the plaintiff's estimate of the probability of prevailing is the same under different allocation rules is invalid.

I also generate comparative static results by simulations of the model. First, I find that compliance rates fall as litigation costs increase. As a result, the British rule leads to greater compliance than the American rule in high litigation cost (low compliance) regimes because optimistic plaintiffs have a greater incentive to sue under it than under the American rule. Conversely, the American rule generates greater compliance when litigation costs are low. Second, compliance rates under the British and American rules are fairly close. As a result, the influence on the parties' incentives to settle that matters most is the tendency of the British rule to increase the stakes of litigation. The probability that a dispute will result in litigation is therefore higher under the British than the American rule.<sup>6</sup> Third, the proplaintiff rule generates the highest level of compliance and the least litigation. Because compliance rates are highest, plaintiffs' estimates of the probability of prevailing at trial are low, which narrows the settlement gap and encourages settlement.

The article is organized as follows. Section II of this article reviews the theoretical literature. Section III presents a model of litigation and discusses the implications of the model for the incentive effects of fee shifting. Section IV presents simulation results, and discusses policy implications. I suggest that the case for switching from the American to the British rule is weak. The case for the proplaintiff rule, on the other hand, appears to be considerably stronger than previous commentators have thought. Section V presents the conclusion.

## II. PRIOR THEORETICAL ANALYSES OF FEE SHIFTING<sup>7</sup>

I briefly review the analysis of fee shifting, under the standard litigation model. Let  $P_p$  be the plaintiff's estimate of the probability of a verdict in his favor and  $P_d$  be the defendant's estimate of the probability of a verdict in the plaintiff's favor. Let  $C_p$  be the plaintiff's cost of litigating and  $C_d$

<sup>6</sup> This is the result suggested by the standard analysis, which does not take equilibrium compliance effects into account; see Shavell, *supra* note 2.

<sup>7</sup> The first economic analysis of fee shifting was presented in Mause, *supra* note 2. The basic framework for later analyses was established in Shavell, *supra* note 2, who relied on the litigation model developed by Landes, Posner, and Gould; see William M. Landes, An Economic Analysis of the Courts, 14 J. Law & Econ. 61 (1971); John P. Gould, The Economics of Legal Conflicts, 2 J. Legal Stud. 279 (1973); Richard A. Posner, An Economic Approach to Legal Procedure and Judicial Administration, 2 J. Legal Stud. 399 (1973).

be the defendant's cost of litigating. Let  $J$  be the judgment. Suit will be brought under the American rule when

$$P_p J - C_p > 0 \quad (1)$$

and under the British rule when

$$P_p J - (1 - P_p)(C_p + C_d) > 0. \quad (2)$$

Comparing the two conditions, suit is more likely under the British system if and only if

$$P_p > C_d / (C_p + C_d). \quad (3)$$

Thus, the more optimistic the plaintiff, other things being equal, the more likely a suit will be brought under the British rule.<sup>8</sup>

A settlement occurs if the plaintiff's minimum demand is less than the defendant's maximum offer. Under the American rule, the plaintiff's minimum demand is  $P_p J - C_p$ . The defendant's maximum offer is  $P_d J + C_d$ . Given suit, settlement occurs if and only if

$$(P_p - P_d)J \leq (C_p + C_d). \quad (4)$$

Under the British system, the plaintiff's minimum settlement demand is  $P_p J - (1 - P_p)(C_p + C_d)$ , the defendant's maximum settlement offer is  $P_d J + P_d(C_p + C_d)$ , and, given suit, settlement occurs if

$$(P_p - P_d)J \leq (1 - P_p + P_d)(C_p + C_d). \quad (5)$$

These conditions imply that settlement is generally more likely under the American system. The reason is that mutual optimism ( $P_p > P_d$ ) is a necessary (but not sufficient) condition for litigation. Thus, if  $P_p < P_d$ , the parties settle under both the American and British rules. However, if  $P_p > P_d$ , settlement is less likely under the British rule because it has the effect of reducing the sum of expected legal costs. Alternatively, the British rule raises the stakes,<sup>9</sup> which makes litigation more attractive to the parties when the plaintiff places a higher estimate on the likelihood of his winning than does the defendant.

Whether the British system tends to discourage litigation is unclear. The total volume of litigation depends on two terms: the number of suits and the frequency a suit leads to a litigated trial rather than settlement.

<sup>8</sup> Obviously, the more optimistic the plaintiff, the greater  $P_p$  and the more likely a suit under both systems. As stated in the text, the positive effect of optimism is greater under the British rule.

<sup>9</sup> To see this, divide both sides of (5) by  $(1 - P_p + P_d)$  so that the stakes under the British rule become  $J/(1 - P_p + P_d) > J$ .

Under the British system, the frequency of litigation given suit is higher. But it is unclear whether the number of suits is higher under the British system. That cannot be answered, in the analysis by Steven Shavell and Philip Mause, without information on plaintiffs' perceptions of winning.

### III. A NEW MODEL OF LITIGATION

In this section I present a model of litigation in which the plaintiff's estimate of the probability of victory is determined in equilibrium by the frequency with which injurers violate the legal standard. Under this model, comparing the American and British rules requires comparing the equilibrium compliance rates under the two regimes. I also allow for the possibility of legal error and asymmetric information.

#### A. Basic Features

All actors in this model are risk neutral. I assume that victims (plaintiffs) suffer losses from accidents, that the risk of loss to victims can be reduced by the exercise of precaution by potential injurers (defendants), and that it is costly for injurers to take care. Let  $p$  = the probability of loss if potential injurers do not take care,  $p > 0$ , and  $q$  = the probability of loss if injurers do take care,  $p > q > 0$ . Let  $v$  = the loss suffered by an accident victim,  $v > 0$ . The variable  $v$  is assumed to be random, with distribution function  $H(v)$ . Let  $x$  = the cost to a potential injurer of taking care, where  $x > 0$ . I assume  $x$  is random, with distribution function  $G(x)$ , and unobservable to potential victims. Injurers, however, know their cost of care.

A victim sues for his loss,  $v$ . I assume that courts occasionally make mistakes in deciding liability. With this in mind, let  $Q_1$  = the probability of type 1 error, that is, that the court erroneously fails to hold a defendant liable,  $0 < Q_1 < 1$ . Let  $Q_2$  = the probability of type 2 error, that is, that the court erroneously holds a defendant liable,  $0 < Q_2 < 1$ . I assume that victims and injurers know  $Q_1$  and  $Q_2$  and that  $1 - Q_1 > Q_2$ .

An injurer will be held liable only when he fails to comply with the due-care standard, which is provided by the Hand formula for negligence. Under the Hand formula, an actor is negligent if he fails to take care when the cost of taking care is less than the increase in expected accident losses, that is, when  $x < (p - q)E(v)$ .

#### B. Equilibrium Compliance, Settlement, and Litigation

Let  $W$  = the probability, given an accident, that the injurer did not comply with the due-care standard. If  $P_p$  is the plaintiff's rational estimate

of the probability of a verdict in his favor, then  $P_p = W(1 - Q_1) + (1 - W)Q_2$ . Since I assume that the defendant knows whether or not he complied with the due-care standard,  $P_d = 1 - Q_1$  when the defendant did not comply with the standard and  $P_d = Q_2$  when the defendant did comply with the standard.

Suit is brought if the plaintiff's expected judgment,  $P_p v$ , exceeds the expected cost of bringing suit or, alternatively, if  $v$  exceeds a certain threshold level equal to  $v_1$ . The value of  $v_1$  depends on the cost allocation rule in effect. Under the American rule  $v_1 = C_p/P_p$ , but under the British rule it is equal to  $(1 - P_p)(C_p + C_d)/P_p$ .

A threshold level  $v_2$  above which settlement will not occur can also be defined. The set of mutually acceptable settlement agreements (the contract zone) is empty if the difference between the parties' expected judgments,  $(P_p - P_d)v$ , exceeds the sum of expected litigation costs. Assuming  $P_p > P_d$ , the value of  $v_2$  will depend on the parties' probability estimates and on the cost allocation rule in effect. Under the American rule,  $v_2 = (C_p + C_d)/(P_p - P_d)$ ; under the British rule,  $v_2 = (1 - P_p + P_d)(C_p + C_d)/(P_p - P_d)$ .

Given suit, if the injurer did not take care, settlement will occur with probability 1 because a necessary condition for litigation,  $P_p > P_d$ , will not hold. If the injurer did take care, settlement will occur for all  $v_1 < v < v_2$ . Finally, if the injurer did take care, then for any  $v > v_2$ , suit will be brought and settlement will not occur. Figure 1 illustrates the process.

Let  $\sigma$  = the expected cost of litigation to the defendant (which will depend on the cost allocation rule in effect). Let  $S_1$  = the expected settlement amount when the defendant did not comply with the due-care standard. Let  $S_2$  = the expected settlement amount when the defendant did comply with the due-care standard.

Using the terms just defined, a general description of equilibrium under negligence is as follows:<sup>10</sup>

$$W = p[qg + (1 - g)p]^{-1} \int_{p(1 - H(v_1))S_1 - q\{[H(v_2) - H(v_1)]S_2 + [1 - H(v_2)][Q_2 E(v|v > v_2) + \sigma]\}}^{(p - q)E(v)} dG(x), \quad (6)$$

<sup>10</sup> The derivation of the equilibrium solution is presented, in a simpler version of this model, in Hylton, *supra* note 4. Intuitively, (6) says that in equilibrium the expected frequency of negligence equals the objective frequency. The upper and lower bounds of the integral on the right-hand side of (6) are determined by the result that negligent injurers are those for whom  $x < (p - q)E(v)$  and for whom the threat of liability is insufficient to induce care. The lower limit of the integral is the marginal liability incurred by an injurer who does not take care.

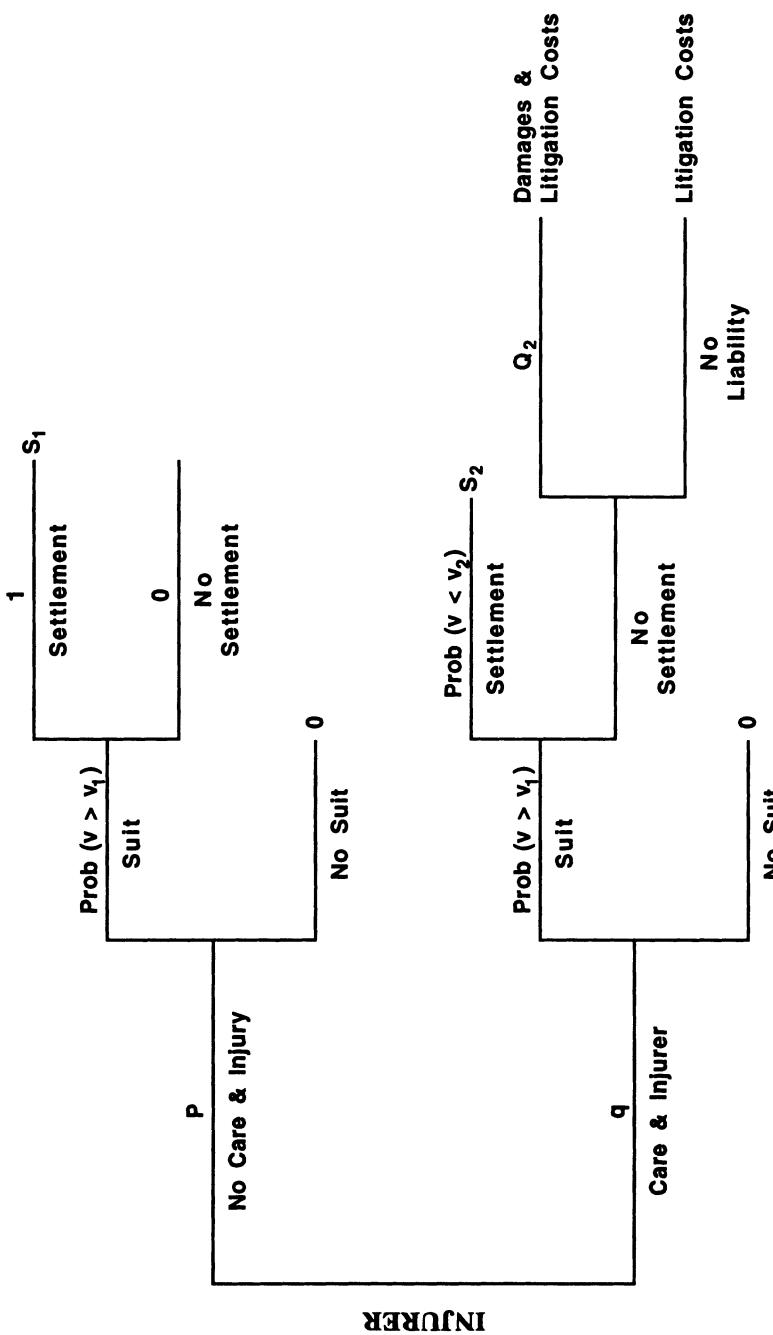


FIGURE 1

where  $g$  is the probability that a potential injurer will be led by the threat of liability to take care and is given by

$$\begin{aligned} g = & G[p(1 - H(v_1))S_1 \\ & - q([H(v_2) - H(v_1)]S_2 + [1 - H(v_2)][Q_2E(v|v_2) + \sigma])]. \end{aligned} \quad (7)$$

The Appendix presents the equilibrium solutions under the four litigation cost allocation regimes considered.

### C. Implications for the Probability of Suit and the Probability of Settlement under the American and British Rules

1. *The Probability of Suit.* The analyses by Mause and Shavell concluded that the more optimistic the plaintiff, other things being equal, the more likely that the probability of suit will be higher under the British than American rule. In addition, Shavell determined a threshold level of plaintiff optimism: if the plaintiff's estimate of the likelihood of prevailing exceeds the defendant's share of the total cost of litigating, suit is more likely under the British rule.

In an equilibrium model of negligence, the conclusion concerning the general effect of optimism remains, but the threshold level of plaintiff optimism does not because  $P_p$  will depend on the particular cost allocation rule.<sup>11</sup> Let  $P_p^A$  be the plaintiff's estimate under the American rule, and let  $P_p^B$  be the plaintiff's estimate under the British rule. Suit is more likely under the British rule if

$$(P_p^A/P_p^B)(1 - P_p^B) < C_p/(C_p + C_d). \quad (8)$$

It follows from (8)<sup>12</sup> that, other things being equal, the greater  $P_p^A$  relative to  $P_p^B$  the more likely that the probability of suit will be higher under the British rule. Thus, the plaintiff's "relative optimism"—the difference

<sup>11</sup> However,  $P_d$  will not depend on the particular cost allocation rule in this model. The reason is that the defendant has an informational advantage. The defendant's estimate of the trial outcome is not a function of the equilibrium rate of compliance.

<sup>12</sup> Shavell's result concerning the threshold level of optimism is a special case that holds when  $P_p^A = P_p^B$ . Note also that if parties invest in litigation in order to influence the outcome, then suit is more likely under the British rule if and only if

$$(P_p^A/P_p^B)(1 - P_p^B) < C_p^A/(C_p^B + C_d^B),$$

where  $C_p^A$  is the amount the plaintiff spends on litigation under the American rule,  $C_p^B$  is the amount of the plaintiff spends on litigation under the British rule, and  $C_d^B$  is the amount the defendant spends on litigation under the British rule.

between the plaintiff's levels of optimism under the British and under the American rules—matters in this more general formulation.<sup>13</sup>

2. *The Probability of Settlement.* The settlement-versus-litigation question arises only if the plaintiff is willing to sue. Here I assume that the plaintiff has an incentive to bring suit. Under the American rule, the parties will choose to litigate rather than settle if, given suit,  $(P_p^A - P_d)J > (C_p + C_d)$ . But if the defendant is guilty, his estimate of the likelihood of a verdict in favor of the plaintiff will exceed the plaintiff's, so the parties will settle. Should one conclude then that litigation will involve only innocent defendants? The problem is that this leads to unraveling: guilty defendants would reveal their status by settling, which would in turn reveal the status of innocent defendants (the ones who refuse to settle). There would be no litigation in equilibrium because at the end of settlement negotiations plaintiffs' and defendants' estimates of the likelihood of the plaintiff prevailing would not differ.

Instead of an equilibrium in which guilty defendants reveal their status, I assume that the more likely outcome is a pooling equilibrium in which some guilty defendants falsely signal innocence by rejecting settlement demands.<sup>14</sup> Under reasonable assumptions, litigation may result. Further, I assume that the total number of litigants is directly proportional to the number of innocent defendants. Thus, the frequency of litigation is assumed to be greater under regimes in which a larger number of litigants cannot reach a settlement agreement. The probability of litigation is equal to the probability that the parties choose to litigate multiplied by the probability that the defendant is innocent. In terms of the variables defined earlier, the probability of litigation, given an injury, under the American rule is<sup>15</sup>

<sup>13</sup> To see this, suppose there are only two possible numerical estimates of the likelihood of prevailing, an optimistic estimate of .9 and a pessimistic estimate of .1. If the plaintiff is optimistic under the American rule equilibrium (that is, estimates his probability of winning as .9) and pessimistic under the British rule equilibrium, then  $(P_p^A/P_p^B)(1 - P_p^B) = 8.1$ , which implies that the probability of suit will be higher under the American rule, regardless of the size of plaintiff's share of the total cost of litigating.

<sup>14</sup> Ivan Png, *Litigation, Liability, and Incentives for Care*, 34 J. Pub. Econ. 61 (1987); Kathryn E. Spier, *The Dynamics of Pretrial Negotiation*, 59 Rev. Econ. Stud. 93 (1992); Keith N. Hylton, *Asymmetric Information and the Selection of Disputes for Litigation*, 22 J. Legal Stud. 312 (1993).

<sup>15</sup> Generally, the probability of litigation is equal to the probability that the parties choose to litigate, given that suit is brought, multiplied by (1) the probability that suit will be brought and (2) the probability that the defendant is innocent. In terms of the variables defined earlier, the probability of litigation under the American rule is given by

$$\text{prob}[(P_p - P_d)J > (C_p + C_d) | P_p J > C_p] \text{prob}[P_p J > C_p](1 - W).$$

However, because  $(P_p - P_d)J > (C_p + C_d)$  implies  $P_p J > C_p$ , the definition stated in the text is valid.

$$\text{prob}[(P_p^A - P_d)v > (C_p + C_d)(1 - W^A)], \quad (9)$$

where  $W^A$  is the probability of noncompliance under the American rule. Using the definition of  $H$ , the probability of litigation occurring in a given dispute under the American rule is

$$\{1 - H[(C_p + C_d)/W^A(1 - Q_1 - Q_2)]\}(1 - W^A). \quad (10)$$

Under the British rule, the probability of litigation, given an injury, is

$$\text{prob}[(P_p^B - P_d)v > (1 - P_p^B + P_d)(C_p + C_d)](1 - W^B), \quad (11)$$

where  $W^B$  is the probability of noncompliance under the British rule. An equivalent expression is

$$\{1 - H[(1 - W^B(1 - Q_1 - Q_2))(C_p + C_d)/W^B(1 - Q_1 - Q_2)]\}(1 - W^B). \quad (12)$$

Two considerations determine the probability of litigation: (1) The proportion of innocents in the population of injurers, which determines the probability of litigation directly because the settlement zone is empty only in cases involving innocent defendants and indirectly by affecting the divergence between the plaintiff's and defendant's estimates of the likelihood that the plaintiff will prevail. (2) Given that the plaintiff's estimate of the likelihood of a verdict in his favor exceeds the defendant's, which is a necessary condition for litigation, expected litigation costs are lower under the British rule. This is the factor identified by Mause and Shavell.

To see how these factors influence the probability of litigation, consider the following example. Suppose, in equilibrium, there are more innocent injurers under the British than American rule. Then the divergence between the plaintiff's and the defendant's expectations will be smaller under the British rule, and this will, other things being equal, tend to lessen the probability of litigation. However, the greater number of innocents under the British rule will tend to increase the frequency of litigation by increasing the number of cases in which the settlement zone is empty. The third influence, the one identified by Shavell, is that the reduction in expected costs (or the increase in the perceived stakes) tends to subsidize litigation under the British system. If the second effect (the number of innocents) outweighs the first (the divergence in expectations), one will observe more litigation under the British rule.

#### IV. SIMULATION RESULTS AND POLICY IMPLICATIONS

##### A. *Simulation Results*

In this section I discuss the results of simulating the model of litigation under the four cost allocation rules (British, American, proplaintiff, and

prodefendant).<sup>16</sup> Some details of the simulated model are presented in the Appendix.

1. *Compliance Rates.* In each of the simulations carried out, non-compliance rates rose with litigation costs. The reason is that the influence of litigation costs on the probability that suit will be brought is the dominant influence on equilibrium compliance in this model. When litigation costs are high, relatively few plaintiffs bring suit, and therefore relatively few defendants have an incentive to take care. As a result, the British rule leads to greater compliance than the American rule in high litigation cost (low compliance) regimes<sup>17</sup> because optimistic plaintiffs have a greater incentive to bring suit under it than under the American rule. Conversely, the American rule performs better on deterrence grounds when litigation costs are low.

The equilibrium noncompliance rates under the British and American rules were fairly close in the simulations. Noncompliance rates were lower under the American than the British rule when litigation costs were small in relation to the average injury loss, and, conversely, equilibrium noncompliance rates were lower under the British rule than the American when litigation costs were large in relation to the average injury loss. Noncompliance rates were highest under the prodefendant rule and lowest under the proplaintiff rule.

2. *Frequency of Litigation.* Using the equilibrium noncompliance rates, I calculated the probability of litigation, given an injury, under the four litigation cost allocation rules. The ranking that emerged is (from the regime in which settlement in a given dispute is most likely to the regime in which it is least likely) proplaintiff, American, prodefendant, British. This should be compared to the ranking derived by Shavell.<sup>18</sup> Examining the effects of cost shifting on the perceived stakes, Shavell demonstrated that the feeshifting rules can be ranked in the following order (that is, from the case in which settlement is most likely, given a dispute, to the case in which it is least likely): American, prodefendant and proplaintiff, and British.<sup>19</sup>

<sup>16</sup> One comment concerning the generality of the results is in order. Although the model is one of negligence, it should be clear that the implications are more general. There are few, if any, areas of the law in which absolute liability is the rule. In almost every dispute, the issue is whether the defendant violated a standard of conduct. The negligence model simulated in this article can be interpreted as an example of the cost-benefit balancing tests observed in many areas.

<sup>17</sup> In the simulated model, "high litigation cost" regimes were those in which the plaintiff's cost of litigating is greater than the average injury loss (the average damages claim).

<sup>18</sup> Shavell, *supra* note 2, at 79.

<sup>19</sup> Settlement is equally likely under the prodefendant and proplaintiff rules. This is the ranking derived by Shavell under the assumption that  $P_p > P_d$  and  $C_p = C_d$ , see *id.* at 78–79. If  $P_p < P_d$ , then Shavell's ranking is British, prodefendant and proplaintiff, and

One might argue that my ranking seems counterintuitive because the proplaintiff rule should generate more litigation than any other cost allocation rule. This would be true in a strict liability regime, in which the probability of compliance is not an issue. However, the argument is incorrect when compliance with a due-care standard is the issue that determines liability. In this case, the proplaintiff rule has the dual effect of encouraging suit and also encouraging settlement. Settlement is encouraged because low noncompliance rates feed into low predicted probabilities of success, which in turn reduces the settlement gap between the typical plaintiff-defendant pair.

### B. Comparing Cost Allocation Regimes

The simulation results imply that the case for switching from the American to the British rule is weaker than previous commentators have suggested. The British rule performs better on deterrence grounds when compliance rates are low, which, in this model, occurs when litigation costs are high relative to damage awards. However, compliance rates under the British and the American rules did not differ much in the simulations. In contrast, the British rule is unambiguously inferior on administrative cost grounds. Litigation rates were consistently higher under the British than any of the other cost allocation rules. The reason is that the British rule discourages settlement by increasing the perceived stakes of litigation more than any other rule.

The second interesting implication is that the proplaintiff rule dominates the others. Compliance rates are highest and litigation rates are lowest under the proplaintiff rule.

One restrictive assumption of the model is that the cost of litigating is fixed. This raises the question whether the rankings of the litigation cost allocation rules would change if the model allowed parties to choose levels of litigation expenses with a view toward influencing the plaintiff's likelihood of prevailing.

John Hause has shown that in a model in which parties invest in litigation, the standard result that settlement is less likely under the British rule is reversed.<sup>20</sup> Settlement is more likely under the British rule because parties spend more in litigating,<sup>21</sup> and this tends, other things being equal, to narrow the settlement gap. This argument suggests that my ranking of

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American. The assumptions  $P_p > P_d$  and  $C_p = C_d$  are consistent with the assumptions underlying the simulations in this article.

<sup>20</sup> See Hause, *supra* note 2; see also Philip L. Hersch, Indemnity, Settlement, and Litigation: Comment and Extension, 19 J. Legal Stud. 235 (1990).

<sup>21</sup> See also Katz, *supra* note 2; Braeutigam, Owen, & Panzar, *supra* note 2.

the British and American rules could be reversed if the model allowed for varying levels of investment in litigation. In any event, it is difficult to evaluate the implications of Hause's argument for this model. Hause assumes that, for both parties, the estimated probability of a verdict for the plaintiff is a stationary function of the level of litigation expenditures. In this model, the plaintiff treats the probability of a verdict in his favor as largely determined by the expected frequency of noncompliance, which is itself determined in equilibrium. The model could be altered to allow investment to influence the probability of a verdict for the plaintiff, but the influence would have to operate through the error terms—that is, by affecting the probability of legal error. Thus, if the influence of investment were taken into account in this model, a change in the fee-shifting rule would affect both the expected rate of noncompliance and the amount invested. If, for example, the expected rate of noncompliance rises under the British rule and the amount invested in litigation also rises, the net effect could still be an increase in the perceived stakes of litigation.<sup>22</sup>

### C. *The Debate over Cost Shifting*

The simulation results have implications for the literature on cost shifting. Although there are exceptions, the articles have generally argued for switching from the American to the British rule, on either justice or efficiency grounds.<sup>23</sup> Most of the weaknesses in the justice and efficiency arguments were exposed by Mause.<sup>24</sup> Mause's suggestion that the British rule may be superior to the American in cases involving small claims is confirmed in the simulations of this model, though the model makes the

<sup>22</sup> In other words, in my model it is quite possible that the "increased stakes" effect would outweigh the effect of increased investment. A recent empirical study of litigation concludes that in the sample examined, the increased stakes effect outweighs the investment effect. See Edward A. Snyder & James W. Hughes, *The English Rule for Allocating Legal Costs: Evidence Confronts Theory*, 6 J. L. Econ. & Org. 345 (1990). Additional empirical support for the standard prediction that the British rule encourages litigation is provided in Gary M. Fournier & Thomas W. Zuelhke, *Litigation and Settlement: An Empirical Approach*, 71 Rev. Econ. & Stat. 189-95 (May 1989).

<sup>23</sup> The interesting exception is the argument that some areas of litigation should be publicly funded. Because litigation is the result of legal uncertainty, goes the argument, the state should bear the costs of the uncertainty for which it is responsible. The argument seems to have first been put forward in Sheldon Amos, *Science of Law* 316-17 (1881). A more sophisticated treatment of the issue can be found in Kenneth Dayton, *Costs, Fees, and Expenses in Litigation*, 167 Annals 32, 32-33 (1933). Dayton distinguishes disputes that result from factual uncertainty from those that result from legal uncertainty. The costs of the former should be borne by the parties, while the costs of the latter should be borne by the state. Dayton notes that the reason for making the state bear the costs of litigation which results from legal uncertainty is that this type of litigation provides a public good. Resolution of legal uncertainty generally benefits a large group of potential litigants.

<sup>24</sup> Mause, *supra* note 2.

definition of "small claim" clearer. My results suggest that the British rule is superior on deterrence grounds when claims are small relative to damages.

The results support unilateral fee shifting in favor of the plaintiff. However, it is important to note that the model assumes that the defendant has the informational advantage in litigation. Thus, to the extent that my results provide an endorsement of the proplaintiff rule, the endorsement should be viewed as limited to areas in which defendants have the informational advantage in litigation.

Few of the articles in the fee-shifting literature argue for adoption of the proplaintiff rule generally.<sup>25</sup> This is interesting for two reasons. First, the proplaintiff rule is an obvious potential solution to the justice problems discussed in the literature. Indeed, one of the recurrent concerns in this area, "access to justice,"<sup>26</sup> is best solved by adopting the proplaintiff rule. Second, the proplaintiff rule seems to have been the common-law practice regarding costs.<sup>27</sup> The British rule was the result of a series of statutes defining new categories of litigants who were to be awarded costs if successful.<sup>28</sup> If the common law tends toward economic efficiency—or any other desirable property—then the fact that the proplaintiff rule developed through the common-law process should be a very strong point in its favor.

In light of these considerations, why is the proplaintiff rule not the general rule regarding litigation costs? One possible answer is that the statutes leading to two-way fee shifting in England and the Colonial period statutes controlling attorneys' compensation<sup>29</sup> in America may have

<sup>25</sup> The one of which I am aware is John Leubsdorf, Recovering Attorney Fees as Damages, 38 Rutgers L. Rev. 439 (1986). A few recent articles have defended fee shifting in civil rights litigation. See Jeffrey S. Brand, The Second Front in the Fight for Civil Rights: The Supreme Court, Congress, and Statutory Fees, 69 Tex. L. Rev. 291 (1990); James Kraus, Ethical and Legal Concerns in Compelling the Waiver of Attorney's Fees by Civil Rights Litigants in Exchange for Favorable Settlement of Cases under the Civil Rights Attorney's Fees Awards Act of 1976, 29 Vill. L. Rev. 597 (1984).

<sup>26</sup> See, for example, Albert A. Ehrenzweig, Reimbursement of Counsel Fees and the Great Society, 54 Cal. L. Rev. 792 (1966); Arthur L. Goodhart, Costs, 38 Yale L. J. 849, 874-75 (1929); Reginald Heber Smith, Justice and the Poor (1919).

<sup>27</sup> McCormick, *supra* note 1, at 619; 2 F. Pollock & F. Maitland, History of English Law 597 (2d ed. 1899); 3 William Blackstone, Commentaries on the Laws of England 399; John Hullock, Law of Costs 4 (1793).

<sup>28</sup> See, for example, William B. Stoebuck, Counsel Fees Included in Costs: A Logical Development, 38 Univ. Colo. L. Rev. 202, 204-5 (1966); Note, Distribution of Legal Expense among Litigants, 49 Yale L. J. 699, 700 (1940).

<sup>29</sup> See John Leubsdorf, Toward a History of the American Rule on Attorney Fee Recovery, 47 L. & Contemp. Probs. 9 (1984); Goodhart, *supra* note 26, at 873.

been the results of special interest group efforts. Under this theory, the common-law proplaintiff rule was replaced by rules that are inferior on welfare grounds because the new rules were in the interests of dominant political groups.

Alternatively, the proplaintiff rule may not be socially desirable. One reason offered in the literature is that in view of the uncertainty surrounding litigation, it would be unfair to saddle the losing defendant with the plaintiff's cost of litigating.<sup>30</sup> The characteristic response to this is that if litigation is "so much a matter of luck, it would be cheaper, and certainly less dilatory, to spin a coin."<sup>31</sup>

The model presented here and the Priest-Klein model provide rigorous defenses to the seemingly naive position that cost shifting would be unfair because trial outcomes are uncertain. The Priest-Klein hypothesis predicts that observed win rates should approach 50 percent because disputes in which the outcome is more certain would settle out of the system. If the hypothesis were valid, then one could not argue that fee shifting generally taxes the wrongdoer. The results of this article provide a potentially stronger defense to the naive view: the disputes in which there is no incentive to settle, in this model, are those in which the defendant is innocent.<sup>32</sup> If this set makes up the majority of litigated disputes, then litigation costs under the proplaintiff rule could fall largely against innocent defendants.

#### D. Rules versus Discretion

Another set of issues raised by the results can be grouped under the heading "certainty of fee shifting." One issue is whether fee shifting in favor of the plaintiff should be implemented in an after-the-fact, case-by-case fashion, as would inevitably result if it were accomplished through courts exercising equitable powers. A second issue is whether, under a proplaintiff rule, permitting settlements conditioned on waiver of the right to collect attorneys' fees would be advisable.

The first issue was addressed by the Supreme Court in *Alyeska Pipeline Service Co. v. Wilderness Society*,<sup>33</sup> which denied federal courts the

<sup>30</sup> Linton Satterthwaite, Increasing Costs to Be Paid by Losing Party, 46 N.J. L. J. 133 (1923).

<sup>31</sup> Goodhart, *supra* note 26, at 877.

<sup>32</sup> See Hylton, *supra* note 14.

<sup>33</sup> 421 U.S. 240 (1975).

authority to shift fees under the "private attorney general" doctrine.<sup>34</sup> Under the private attorney general doctrine, the prevailing plaintiff could recover fees if he "vindicated a right that (1) benefits a large number of people, (2) requires private enforcement, and (3) is of societal importance."<sup>35</sup> The remaining doctrines supporting the exercise of equitable fee-shifting powers are the common fund<sup>36</sup> and bad faith doctrines.

The model of deterrence presented in this article lends support to the theory underlying a private attorney general doctrine. When rights benefit a large number of people, enforcement is a public good, and fee shifting offers an obvious solution to the incentive problems. Further, if a right is of "societal importance," presumably this means that a high level of compliance is socially desirable. Fee shifting may, as this model suggests, result in an equilibrium in which compliance levels are considerably higher than observed under alternative cost allocation rules.

The problem with the private attorney general doctrine is that it sets up a regime in which it is uncertain whether a prevailing plaintiff will be awarded a fee. Fee shifting in favor of the plaintiff could, at least in theory, be the general rule with respect to a certain class of claims in one circuit and not so in another.

Although the effect of uncertainty with respect to fee shifting on compliance is unclear, one can imagine situations in which it would tend to sharply diminish the deterrent effect of fee shifting. Suppose, for example, that potential defendants could not determine *ex ante* whether a potential claim would fall under the private attorney general doctrine. They would discount the probability of being saddled with fees and therefore would have less incentive to take care than under a clear proplaintiff rule. If the vast majority of potential claims resulting from the violation of a certain legal standard would not be eligible for fee shifting under the private attorney general doctrine, potential defendants would have little incentive to take precautions that would not be taken under the American rule.

In *Evans v. Jeff D.*,<sup>37</sup> the Court held that federal courts have the discre-

<sup>34</sup> *Newman v. Piggie Park Enterprises, Inc.*, 390 U.S. 400 (1968). The private attorney general doctrine was developed by the federal courts that adopted reasoning similar to that in *Newman* to justify the exercise of equitable powers to shift fees in civil rights cases in the absence of an applicable fee-shifting statute. See, for example, *Evans v. Jeff D.*, 475 U.S. 717, 747 (1985) (Brennan, J., dissenting).

<sup>35</sup> Note, Important Rights and the Private Attorney General Doctrine, 73 Cal. L. Rev. 1929, 1929 (1985).

<sup>36</sup> The treatment of attorney's fees in shareholder derivative suits is consistent with the common fund doctrine. On the common fund doctrine generally, see McCormick, *supra* note 1, at 622.

<sup>37</sup> 475 U.S. 717 (1986).

tion to approve settlements conditioned on waiver of fee awards under the Civil Rights Attorney's Fee Awards Act of 1976.<sup>38</sup> Since the policy arguments for and against the decision have been examined in the literature,<sup>39</sup> I will focus on one issue: whether settlement is encouraged, and court congestion reduced, by permitting conditional fee waivers.

The results of this article lend support to the less intuitive answer that court congestion may be a greater problem in a regime in which conditional fee waivers are permitted.<sup>40</sup> Under the rigid proplaintiff rule examined in the previous section, the deterrent effect of fee shifting feeds into desirable settlement results. One of the consistent results of the model is that the rate of settlement, given an injury, is higher under the proplaintiff rule because plaintiffs expect a high compliance rate in equilibrium, and this reduces the gap between the settlement demands of the plaintiff and the offers of the innocent defendant.

Previous commentators have made the point that compliance would increase under the proplaintiff rule and that greater compliance may result in an overall drop in the amount of litigation by reducing the number of disputes.<sup>41</sup> The model presented here suggests that the litigation-reducing effect of the proplaintiff rule could be considerably stronger than suggested by these commentators.

## V. CONCLUSION

This article has examined the effects of fee shifting on the incentives to bring suit, settle disputes, and comply with the due-care standard. The theoretical examination revealed that one cannot properly compare incentives to bring suit and to settle without also taking into consideration the effects of a change in the cost allocation rule on parties' expectations concerning the trial outcome. Simulation results suggest that the British rule and the American rule lead to similar levels of compliance, so the only important difference is that the British rule leads to more litigation. The proplaintiff rule performs better than all others on compliance and administrative cost grounds.

<sup>38</sup> 42 U.S.C. § 1988.

<sup>39</sup> Thomas D. Rowe, *The Supreme Court on Attorney Fee Awards, 1985 and 1986 Terms: Economics, Ethics, and Ex Ante Analysis*, 1 Geo. J. Legal Ethics 621 (1988); Kraus, *supra* note 25.

<sup>40</sup> The more intuitive position that banning conditional fee waivers would reduce the likelihood of settlement was the fundamental policy argument offered by the Jeff D. majority, 475 U.S. at 732–38. See also *Marek v. Chesny*, 473 U.S. 1, 6–7 (1985).

<sup>41</sup> See, for example, Kraus, *supra* note 25, at 644.

## APPENDIX

### DESCRIPTION OF COMPLIANCE EQUILIBRIA AND MODEL SIMULATION

#### I. COMPARISON OF COMPLIANCE EQUILIBRIA UNDER ALTERNATIVE LITIGATION COST ALLOCATION RULES

I present the equilibrium solutions under the four cost allocation rules under the assumption that the plaintiff settles for the amount that the defendant would expect to pay (expected liability plus litigation costs) if suit were brought and pursued through judgment. The sole reason for making this assumption is to simplify the solutions.

##### *A. American Rule*

Under negligence, the victim has an incentive to bring suit whenever

$$P_p v > C_p.$$

Thus, the probability that suit will be brought given that an accident leads to loss is  $1 - H(C_p/P_p)$ .

Given the definition of negligence, equilibrium under the American rule requires

$$W = p[qq + (1 - q)p]^{-1} \int_{\{1 - H(C_p/P_p)\} \{(p(1 - Q_1) - qQ_2) \\ \cdot E(v|v > C_p/P_p) + (p - q)C_d\}}^{(p - q)E(v)} dG(x),$$

where  $g$  is the probability that a potential injurer will be led by the threat of liability to take care and is given by

$$g = G([1 - H(C_p/P_p)] \\ \times \{[p(1 - Q_1) - qQ_2]E(v|v > C_p/P_p) + (p - q)C_d\}).$$

##### *B. British Rule*

Let  $C = C_p + C_d$ . The victim has an incentive to bring suit whenever

$$P_p v > (1 - P_p)C.$$

Thus, the probability that suit will be brought given that an accident leads to loss is  $1 - H[(1 - P_p)C/P_p]$ .

Equilibrium under the British rule requires

$$W = p[qq + (1 - q)p]^{-1} \int_{\{1 - H[(1 - P_p)C/P_p]\} \{p(1 - Q_1) - qQ_2\} \\ \cdot \{E(v|v > (1 - P_p)C/P_p) + C\}}^{(p - q)E(v)} dG(x),$$

where  $g$  is given by

$$g = G(\{1 - H[(1 - P_p)C/P_p]\} \\ \times \{[p(1 - Q_1) - qQ_2]E[v|v > (1 - P_p)C/P_p] + C\}).$$

##### *C. Proplaintiff Rule*

The victim has an incentive to bring suit whenever

$$P_p v > (1 - P_p)C_p.$$

Thus, the probability that suit will be brought given that an accident leads to loss is  $1 - H[(1 - P_p)C_p/P_p]$ .

Equilibrium under the plaintiff rule requires

$$W = p[gq + (1 - g)p]^{-1} \int_{\{1 - H[(1 - P_p)C_p/P_p]\} \{(p(1 - Q_1) - qQ_2) \\ \cdot [E(v)|v > (1 - P_p)C_p/P_p] + C_p\} \\ + (p - q)C_d\}}^{(p - q)E(v)} dG(x),$$

where  $g$  is given by

$$g = G(\{1 - H[(1 - P_p)C_p/P_p]\}) \\ \times \{[p(1 - Q_1) - qQ_2][E(v)|v > (1 - P_p)C_p/P_p] + C_p\} + (p - q)C_d\}).$$

#### D. Prodefendant Rule

The victim has an incentive to bring suit whenever

$$P_p v > C_p + (1 - P_p)C_d.$$

Thus, the probability that suit will be brought given that an accident leads to loss is  $1 - H[(C_p + (1 - P_p)C_d)/P_p]$ .

Equilibrium under the prodefendant rule requires

$$W = p[gq + (1 - g)p]^{-1} \int_{\{1 - H[(C_p + (1 - P_p)C_d)/P_p]\} \\ \cdot \{(p(1 - Q_1) - qQ_2)[E(v)|v > (C_p + (1 - P_p)C_d)/P_p] + C_d\}}^{(p - q)E(v)} dG(x),$$

where  $g$  is given by

$$g = G(\{1 - H[(C_p + (1 - P_p)C_d)/P_p]\}) \\ \times \{[p(1 - Q_1) - qQ_2][E(v)|v > (C_p + (1 - P_p)C_d)/P_p] + C_d\}).$$

## II. SIMULATED MODEL

For the simulations of the model, I assumed that the functions  $H$  and  $G$  were exponential distributions, that is, of the form  $1 - \exp\{-jZ\}$ , where  $j$  is the exponential parameter and is equal to one over the mean of the random variable  $Z$ . The exponential parameter for  $H$  was set at one and the parameter for  $G$  set at two. I assumed also that  $C_p = C_d$  and  $Q_1 = Q_2 = 1/8$ . The assumptions concerning the parameters of the distribution functions imply that the cost of taking care for the average potential tortfeasor,  $E(x)$ , is half the injury loss of the average victim,  $E(v)$ . I chose the exponential distribution because it was relatively easy to use in this exercise and because it seems to provide a reasonable description of the distributions of injury losses.

I allowed the level of litigation costs and the productivity of precaution to vary in the simulations. The cost of litigating was allowed to vary between \$0.3 and \$3 (or from roughly one-third to three times the average injury loss). Let  $p$  = the probability of injury occurring if the injurer fails to take care, and let  $q$  = the probability of an injury occurring if the injurer takes care. I varied the productivity of care by letting the difference  $p - q$  vary in the simulations. The  $(p, q)$  combinations used in the simulations were (.9, .1), (.75, .25), (.6, .4), and (.55, .45).

The simulations discussed in the text were carried out under the assumption that the plaintiff settles for the amount that the defendant would expect to pay (expected liability plus litigation expenses) if suit were brought and pursued to

judgment. Thus, the simulations discussed were carried out under the assumption that the plaintiff receives the entire settlement surplus. I also solved the model under the assumption that the defendant receives the entire settlement surplus and under the assumption that the parties split the settlement surplus in half. The results were similar to the case in which the plaintiff receives the entire settlement surplus.

The equilibrium under each rule could be described as the noncompliance rate  $W$  that solves  $W = F(W)$ . For example, under the American rule (and assuming that the plaintiff receives the entire settlement surplus),

$$F(W) = p[gq + (1 - g)p]^{-1} \int_{\{1 - H(C_p/P_p)\} \cup \{p(1 - Q_1) - qQ_2\}}^{(p - q)E(v)} dG(x) \\ \cdot E(v | v > C_p/P_p + (p - q)C_d}$$