A Game Changer for Attorney Fees:

Benchmarking Against Settlement Offers*

Kathryn E. Spier† David Rosenberg‡

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Abstract

We propose a new and better way to align the interests of lawyers and clients. A lawyer, representing a plaintiff, enjoys de facto control over the effort spent pursuing the case and over settlement decisions. It is well-known that hourly fees may create incentives for over-lawyering and excessive delay, while percentage fees may create incentives for under-lawyering and early settlement at disadvantageous terms. With our new method, the lawyer is paid by the hour but their pay is capped by the plaintiff's net recovery in excess of the rejected settlement offer. Benchmarking against the defendant's settlement offers aligns the lawyer's incentives with the plaintiff's, avoids windfall attorney fees, and gets the defendant to make early and reasonable settlement offers. Our method harnesses the information and incentives of the defendant to solve agency problems between the plaintiff and their lawyer, to promote the cost-effective private enforcement of contracts and laws, and to reduce the administrative burden on the court.

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†Domenico De Sole Professor of Law, Harvard Law School and NBER. kspier@law.harvard.edu.

‡Lee S. Kreindler Professor of Law, Emeritus, Harvard Law School. mdr@law.harvard.edu.

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1 Introduction

Accident victims and others who have suffered harm often rely on an attorney's advice about whether to bring a lawsuit, how much time and money to invest in the litigation, and whether to settle out of court.[1] This makes sense, as lawyers are typically at an informational advantage by virtue of their specialized training and practice experience. Although clients have formal veto power over their lawyers' recommendations, lawyers often enjoy de facto control. In lawsuits, as in public corporations, the fundamental separation between ownership and control can lead to "self-dealing" and other agency problems.

Plaintiffs' lawyers are typically compensated in one of two ways: hourly fees where pay is proportional to hours worked, or percentage fees where pay is a fraction of the client's gross return. Hourly fees can create perverse incentives for lawyers to spend too much time on tasks that give their clients little economic benefit and create excessive delay. "Once time is equated with money, unmonitored lawyers have reason to engage in 'makework' or overstaffing."[2] With the standard percentage fee, lawyers bear 100% of their own time costs but capture a smaller share, say 25% to 40%, of the client's gross return.[3] As a consequence, lawyers may spend too little time and effort fighting for their clients and may capitulate too easily in settlement negotiations.[4] In short, neither the hourly fee nor the percentage fee aligns the lawyer's financial interests with their client's.

With our *value-added hourly method*, the lawyer charges by the hour but their pay is capped by the extra value that they create, relative to previous offers of settlement. Suppose for example that a defendant offers to settle a case for $40 thousand. If the lawyer rejects the offer (or, more accurately, advises their client to reject the offer) and invests another $30 thousand in hourly work, the plaintiff wins a trial verdict of $60 thousand. The net benefit of rejecting the offer, the $60 thousand trial verdict minus the $40 thousand offer, is smaller than the lawyer's bill of $30 thousand. If paid by the hour, the lawyer — wanting to make more money — would advise the client to reject

[1] "As a matter of reality, it is the attorney who controls the settlement process — not the client." Brickman (1996; 284).

[2] See Coffee (1987; 888).

[3] Miller (1980; 201).

[4] See e.g., Schwartz and Mitchell (1970; 1138-39). Financial interests would be aligned if the lawyer purchased 100% of the gross return. See Schwartz and Mitchell (1970; 1154); Shukaitis (1987); Fitzpatrick (2021; 1158). In the United States, doctrines of champerty put limitations on the outright sale of claims. See 14 Am. Jur. 2d, *Champerty and Maintenance*, sections 1-15 (2000). For historical background and additional discussion see Steinitz (2010) and Reinker and Rosenberg (2007).

the settlement offer, to the detriment of the client.[5] But with our value-added hourly method, the lawyer's fee for work performed after rejecting the settlement offer would be capped $20 thousand.[6] The lawyer, anticipating that they will "go in the hole" if the case proceeds, would advise their client to accept the offer of settlement.

The value-added hourly fee serves the client's interest in several ways. First, our method discourages the lawyer from wasting their time and billing the client for things that deliver little value-added. Second, the method encourages the lawyer to promptly accept reasonable settlement offers, reducing delay. Third, and perhaps less obviously, the method gives *the defendant* an incentive to make fair and timely offers. From the defendant's perspective, raising the settlement offer has the strategic benefit of making the plaintiff's lawyer less aggressive in trial preparation. This helps the plaintiff, too, as it lowers the lawyer's bill. Indeed, with our method, the plaintiff does just as well as they would in a world where the plaintiff had the expertise to monitor and control the lawyer directly. Our method effectively harnesses the information and incentives of the defendant to solve the agency problem between the plaintiff and their lawyer.

Our method is very general and may be used in all types of civil litigation including personal injury, securities law, contracts, antitrust, and intellectual property. The plaintiffs could be private individuals, government agencies, corporations, or insurance companies. The lawyers could be sole practitioners or big law firms. Our method could be applied in risky settings where the lawyers' pay is contingent on winning the case. In risky settings, the method would employ a fee multiplier where the lawyer's hourly pay is enhanced to reflect the risk. It could be used by a single plaintiff pursuing an individual claim or by a large group of plaintiffs in a class action or multidistrict litigation (MDL). Indeed, our method would be particularly valuable in aggregate settings where the agency problems are severe. Finally, the value-added hourly method may be used by defendants when paying their lawyers, too. Benchmarking the defense attorney's performance against the plaintiff's settlement demands gives the defense attorney the incentive to economize on their efforts and reduce unnecessary delay.

Related Literature. There is a large theoretical literature exploring lawyer incentives

[5]The lawyer would be paid for all hours worked, both *before and after* rejecting the offer of settlement.

[6]The lawyer would be paid by the hour for all of the hours worked *before* the offer of settlement, but their pay would be capped for work performed *after* the offer of settlement. The legal fees for hours worked before the settlement would be subject to legal oversight of "reasonableness." Note that all lawyer fees are subject to regulatory oversight, either directly in court (e.g., in class actions or MDLs) or through bar associations or legal malpractice claims.

in civil litigation.[7] By linking pay to performance, contingent fees can help to address attorney moral hazard (Schwartz and Mitchell, 1970). The lawyer's incentives are compromised, however, because the lawyer bears all of their time costs but receives only a share of the gross return.[8] Barring an outright sale of the claim to the attorney, the attorney will tend to invest too little in litigation (Clermont and Currivan, 1977) and capitulate to offers that their clients would not agree to (Miller, 1987).[9] Contingent fees may also help to address adverse selection problems when lawyers are at an informational advantage relative to their clients.[10] Dana and Spier (1993) show that contingent fees gives lawyers an incentive to share bad news with their clients, leading to less frivolous litigation.[11]

Empirical research on attorney fees reveals an association between contingent fees and attorney effort. Kritzer et al. (1985) find that contingent fee lawyers put in fewer hours than their hourly-fee counterparts, especially for cases of modest size. Thomason (1991) finds that plaintiffs who are represented by lawyers tend to do worse than *pro se* plaintiffs who represent themselves.[12] Other scholars have found an association between contingent fees and the quality of litigation. Danzon and Lillard (1983) find that contingent fees are associated with a higher drop rate, and Helland and Tabarrok (2003) find that contingent fees are associated with higher-quality cases and a faster case resolution.

[7] See Helland and Seabury (2013) for a survey of the contingent fee literature. Emons and Garoupa (2004) compare contingent fees to conditional fees that pay the lawyer a bonus if the case is won. Choi (2003) explores some of the strategic benefits of delegating control to the lawyer in litigation.

[8] Contingent fees can also lead to lawyer "windfalls" as the lawyer may get paid for doing little or no productive work. Danzon (1983, 216) suggests that the moral hazard problem is overstated. In a competitive market where lawyers can compete on the net returns offered to clients, and can implicitly commit in advance to their labor inputs, alignment will be obtained.

[9] This latter issue may be mitigated with a sliding scale. See Coffee (1986), Hay (1997), Fisch (2002) and discussion in Section 5.3. Regulations that place arbitrary limits on contingent fees (such as 40% or 50%) compromise the lawyer's incentives.

[10] Rubinfeld and Scotchmer (1993) show that attorneys offer a "menu" of contracts: one with a high percentage and one with a low percentage. The menu induces a separation of types.

[11] If paid by the hour, a lawyer would have little incentive to reveal to their client that the case lacks merit and would pursue even claims with negative expected value. Thus, contingent fees may lead to less (rather than more) litigation than otherwise. See also Miceli (1994). Dana and Spier's (1993) model features equilibrium wages above the lawyers' opportunity cost of time. These attorney rents may result from fixed costs associated with overhead, case management, or perhaps education. Hourly fees would align the interests of lawyers and clients if they could be set to exactly equal the attorney's opportunity cost of time (see Emons, 2000), rendering the lawyer indifferent.

[12] "The empirical data presented in this paper confirm the existence of a phenomenon already suspected by theorists: that a contingent-fee structure alters attorney incentives so as to create a conflict of interest between the attorney and his or her client." Thomason (1991; 221-22). While these results are suggestive, the design of these studies prevent one from drawing conclusions about the causal impact of contingent fee versus hourly fee arrangements. See Helland and Seabury (2013; 406-407).

Several prominent studies offer clever alternatives to the traditional fee structures. Clermont and Currivan (1977) propose a mechanism with two components: (1) an hourly rate *exactly equal to the opportunity cost of the lawyer's time*, and (2) a percentage of the net recovery (the client's gross recovery minus the lawyer's opportunity cost).[13] By itself, the first component would render the lawyer *indifferent* between the number of hours spent, while the second component brings the lawyer's interests into alignment with the client's. As noted by Clermont and Currivan, the success of their mechanism hinges on the hourly rate being calibrated precisely to the opportunity cost of the lawyer's time.[14] Such a calibration would require that the judge be able to verify this information.[15] By contrast, our mechanism does not rely on the hourly rate being equal to the lawyer's opportunity cost and places a lower burden on the court.

Polinsky and Rubinfeld (2003) propose a mechanism which they call the *no conflict fee system.* In contrast to the traditional contingent fee system where the lawyer gets a fraction (say one third) of the gross recovery but bears 100% of their own time cost, the lawyer would bear the same reduced fraction (one third) of their own time cost, too. This could be accomplished with a mechanism with two components: (1) an hourly rate equal to two-thirds of the lawyer's opportunity cost and (2) a one-third percentage of the client's gross recovery. This mechanism brings the lawyer's interests into alignment with the client's.[16] As in Clermont and Currivan (1977), Polinsky and Rubinfeld's mechanism assumes that the lawyer's billing rate is exactly equal to the opportunity cost of the lawyer's time.[17] As noted by Wickelgren (2004), their mechanism is not robust to the

[13]Clermont and Currivan call this mechanism the "contingent-hourly percentage fee." Clermont and Currivan (1977; 546). See Section 5.2 for further analysis and discussion.

[14]Clermont and Currivan (1977; 555-56). Setting the hourly rate equal to the lawyer's opportunity cost would lead to lawyer indifference as to the number of hours worked, but for the contingent percentage of the net recovery. In the words of Clermont and Currivan, "indifference is a dream induced by the economic model; returning to the real world shatters that dream." Clermont and Currivan (1977; 554).

[15]See the discussion in Fitzpatrick (2021; 1159). "[Clermont and Currivan's mechanism] introduces a new monitoring need: the client needs to verify that the lawyer's lodestar is not inflated." Fitzpatrick surveys the empirical literature and finds no evidence that the Clermont and Currivan mechanism is used in practice. Fitzpatrick (2021; 1160). He speculates that this is due to the difficulty in monitoring the lawyer's lodestar calculation, compared to other methods. Fitzpatrick (2021; 1162).

[16]The lawyer "will have an incentive to do exactly what a knowledgeable client would want him to do with respect to accepting the case, spending time on the case, and settling the case." Polinsky and Rubinfeld (2003; 165-66). See Section 5.2 for further analysis and discussion.

[17]See Polinsky and Rubinfeld (2003; footnote 13). If the percentage was in fact one-third, and the up-front costs of effort were small, the lawyer would be getting a windfall above and beyond their opportunity cost. Polinsky and Rubinfeld assume that competitive bidding among similarly-situtated lawyers would shift value back to the plaintiff. Their broader proposal involves an active third party administrator who can make side payments to the lawyer and client. Cooter and Porat's (2002; 219-20) analysis of third parties, called "anti-insurers," would raise the lawyer's stake in the case to 100%.

possibility that the lawyer has private information regarding their opportunity costs.

Our mechanism bears some resemblance to certain rules that allocate costs between the plaintiff and defendant. Although the standard rule in the United States is that each side pays their own legal costs (the so-called "American Rule"), there are notable carveouts. For example, Rule 68 of the Federal Rules of Civil procedure allows for the shifting of certain costs (including court fees and expert witness fees but not lawyer fees) from the defendant to the plaintiff if the plaintiff refuses a formal settlement offer and then does worse at trial.[18] Holding the settlement offers fixed, Rule 68 is thought to serve the public interest by encouraging plaintiffs to accept early settlement offers.[19] However, Rule 68 could give the defendant an incentive to make low-ball settlement offers, attenuating – or perhaps flipping – these benefits.[20] Our value-added hourly method shifts costs between the *plaintiff and their own lawyer*, not between the plaintiff and the defendant, thereby solving fundamental agency problems.[21]

The paper is organized as follows. Section 2 presents a simple numerical example to illustrate the effects of our value-added hourly method. Section 3 demonstrates the fundamental advantages of our method over traditional hourly fees and percentage fees in a more general setting. Section 4 extends the model to consider the timing of settlement offers, litigation risk and fee multipliers, the lawyer's incentive to be truthful, and loser-pays rules. Section 5 compares and contrasts our method with other proposals for reform, including Brickman et al. (1994), Clermont and Currivan (1977), and Polinsky and Rubinfeld (2003). Section 6 discusses attorney fee requests in class action litigation. Section 7 concludes.

[18] See Bone (2008) for a history and analysis of this rule. Many states have adopted similar provisions with two-way fee shifting. See Yoon and Baker (2006) footnote 23 and surrounding text.

[19] See Miller (1986). Empirical evidence from automobile insurance litigation suggests that "offer-of-judgment" rules are associated with less delay and lower attorneys' fees (Yoon and Baker, 2006). See Anderson and Rowe (1995) for experimental evidence.

[20] Miller (1986; 95) argues that "Rule 68's primary effect is to skew the expected economic returns of the litigation in defendants' favor," not to increase the settlement rate. See also Priest (1982). Spier (1994) shows that Rule 68 lowers the settlement rate in an asymmetric information model when liability is in dispute. This is consistent with theoretical studies of the English Rule with asymmetric information, including Bebchuk (1984) and Reinganum and Wilde (1987), and with optimistic litigants, Shavell (1982). Bebchuk and Chang (1999; 489) explore the effects of offer-of-settlement rules on the terms of settlement in more general settings and show that one can "design such rules to neutralize the advantage that parties with lower litigation costs would otherwise enjoy."

[21] Since higher settlement offers dilute the plaintiff attorney's effort incentives, the defendant has an incentive to make higher settlement offers.

Lawyer Effort	Lawyer Cost	Damage Award	Net Value
Low	1	30	29
Medium	10	50	40
High	30	60	30

Table 1: Simple Numerical Example

2 Numerical Example

This section presents a simple numerical example to illustrate how the value-added hourly fee would work and its advantages over traditional methods. Future sections will demonstrate the generality and robustness of the insights.

Suppose that a lawyer is representing a plaintiff in a lawsuit. Table 1 shows how the lawyer's effort affects the damage award, where all of the entries are measured in dollar terms. Consider the first row. If the lawyer puts in low effort at a cost of 1, then the court will award damages of 30, and the net value created for the plaintiff and lawyer is $30 - 1 = 29$. If the lawyer puts medium effort (the second row), the cost is 10, the court will award 50, and so the net value created is 40. Putting in high effort (instead of medium) is wasteful "overlawyering" since the incremental cost, $30 - 10 = 20$ is larger than the incremental benefit, $60 - 50 = 10$. If the lawyer puts in high effort (the third row), the net value would fall to $60 - 30 = 30$. The net value is highest when the lawyer's effort is medium.

To begin, suppose that there are no agency problems. The plaintiff fully understands the value of the claim and the impact of lawyer effort on the damage award. The plaintiff directs the lawyer how hard to work and pays the lawyer for their effort cost.[22] Since the plaintiff internalizes both the benefits and the costs of lawyer effort, then plaintiff would simply tell the lawyer to put in medium effort and work 10 hours. The defendant would pay 50 in damages, the lawyer would be paid 10, and the plaintiff would get the net benefit of $50 - 10 = 40$. Now consider the settlement incentives. If the defendant has the power to make a final settlement offer in advance of the lawyer spending any effort, the defendant might offer to settle with the plaintiff for a little bit over 40, say $s = 41$. The plaintiff is better off settling for 41 than going to trial and getting $50 - 10 = 40$, and the defendant is better off, too. This is shown in the first row in Table 2.

Now suppose instead that there are agency problems. The lawyer, acting in their

[22] In this scenario, the lawyer is breaking even.

	Lawyer Effort	Case Outcome	Net Value	Lawyer's Share	Plaintiff's Share
No Agency Problems	Medium	Settlement	41	0	41
Percentage Fee (30%)	Low	Settlement	30	9	21
Hourly Fee	High	Trial	30	0	30
Value-Added Hourly Fee	Medium	Settlement	41	0	41

Table 2: Comparison of Fee Structures

own self-interest, can decide how many hours to spend on the case and controls the decision to settle out of court. We will consider three methods for compensating the lawyer: a percentage fee that is proportional to the plaintiff's recovery, an hourly fee where the lawyer is paid by the hour, and a value-added hourly fee where the lawyer's compensation is capped by the value that the lawyer has created, relative to any rejected offer of settlement. For simplicity, we will assume that the lawyer's hourly wage is slightly higher than the opportunity cost of the lawyer's time. This assumption implies that all else equal, the lawyer will have a financial incentive to work too hard and bill the client for too many hours.

Percentage Fee. When paid a flat percentage of the plaintiff's recovery, the lawyer will tend to work too few hours and the case will settle for too little. Suppose for example the lawyer will get 30% of any award or settlement. If the case fails to settle, the lawyer will put in a low level of effort and will net $30\% \times 30 - 1 = 8$. If the lawyer put in medium effort instead, they would do worse since $30\% \times 50 - 10 = 5$.[23] The defendant knows that the lawyer's incentives are compromised, and will offer to settle for about 30 and the lawyer will accept (since $30\% \times 30 = 9 > 8$). The lawyer is getting a windfall for no effort, and the plaintiff gets $70\% \times 30 = 21$.[24] This is shown in the second row in Table 2.

Hourly Fee. When paid by the hour, the lawyer will tend to work too many hours and forego out-of-court settlement. In the example in Table 1, the lawyer would prefer to put in high effort and bill for 30 hours. This is of course wasteful from the plaintiff's perspective, as the additional $30 - 10 = 20$ hours do not bring enough additional value to the case, $60 - 50 = 10$ to justify the additional pay. If the defendant offered to settle out of court even for the full amount of 60, the lawyer would reject the offer. If the lawyer

[23]The lawyer would do even worse with high effort, since $30\% \times 60 - 30 = -12$.

[24]Taken together, the lawyer and client are getting $21 + 9 = 30$.

accepted this very generous offer, the lawyer would not get paid! So the lawyer puts in too many hours and the plaintiff nets $60 - 30 = 30$. See the third row of Table 2.

Value-Added Hourly Fee. With our proposed *value-added hourly method*, the lawyer is paid by the hour but their compensation is capped by the value added: the damage award minus the rejected settlement offer. For example, if the damage award is 50 and the settlement offer is s, the lawyer's pay is capped at $50 - s$. With this method, the lawyer is rewarded only for adding value relative to the rejected offer of settlement. The value-added hourly method aligns the lawyer's incentives with the plaintiff's. As outlined in the following three bullet points, this method constrains the lawyer's natural tendency to overinvest in litigation, gives the lawyer an incentive to accept reasonable offers (that is, offers above 40), and gives the defendant an incentive to make reasonable settlement offers.

1. *Improved effort incentives.* The lawyer no longer has an incentive to waste valuable time on activities with little economic benefit. To illustrate, suppose that the lawyer has rejected an offer to settle for $s = 35$. The lawyer will certainly not exert high effort. With high effort, the lawyer couldn't recoup their effort cost since $d - s = 60 - 35 = 25$ is less than their cost of effort, 30. With medium effort, however, the lawyer's value added $d - s = 50 - 35 = 15$ is sufficient to cover their effort cost of 10. So the lawyer chooses medium effort as they should.[25]

2. *Improved settlement incentives.* Recall that if there were no agency problems, the plaintiff would be willing to settle for anything above 40, but not for less. With the value-added hourly fee, the lawyer has the right incentives. To see why, suppose that the defendant offers to settle for $s = 35$. The lawyer will reject this offer and put in medium effort because the lawyer's value added relative to the offer, $d - s = 50 - 35 = 15$, exceeds the lawyer's opportunity cost of medium effort, 10. If the defendant raises the offer to $s = 45$ then the lawyer will accept the offer, as they should. If lawyer rejected this offer and put in medium effort, the lawyer would lose money since the lawyer's value added $50 - 45 = 5$ is smaller than the lawyer's opportunity cost of 10.[26]

[25] With low effort, the damage award $d = 30$ would be less than the settlement offer, so lawyer wouldn't be able to recoup their effort cost.

[26] If the lawyer rejected the offer and put in high effort, the lawyer would do even worse. The value added $d - s = 60 - 45 = 15$ is less than the lawyer's effort cost of 30.

3. *Reasonable settlement offers.* The defendant, who understands the value of the lawsuit, has an incentive to make reasonable settlement offers. If the defendant offers too little, $s < 40$, then the lawyer will reject the offer and go to trial and the defendant will pay 50. If the defendant makes a settlement offer $s > 40$, then the lawyer will accept the settlement offer (as they could not recoup their costs at by proceeding). Thus, the defendant offers to settle for just above 40, say $s = 41$.[27]

This example, while very simple, highlights the virtues of the *value-added hourly method*. As shown in Figure 2, the value-added hourly method brings the lawyer's investment and settlement incentives into alignment with the plaintiff's and gets the defendant to make reasonable settlement offers, and implements the very same outcome that would be obtained in the absence of agency costs. Finally, notice that the value-added hourly method prevents the lawyer from capturing any windfall gains. These insights apply much more generally. Future sections will demonstrate how the value-added hourly method can account for other factors, including the use of fee multipliers to address litigation risk.[28] Furthermore, we argue that our method promotes the cost-effective private enforcement of contracts and laws and reduces the administrative burden on the court.

3 Model

Consider a game with three players: a plaintiff, the plaintiff's lawyer, and a defendant.[29] We assume that the plaintiff's lawyer and the defendant are sophisticated and self-interested, and share a common understanding of the parameters of the model and structure of the game.[30] There is separation of ownership and control of the litigation: The plaintiff must rely on the lawyer's judgment about whether to settle the case (and for how much) and how much time to spend preparing for trial.

[27] More generally, the defendant gets a strategic benefit from making higher settlement offers, even if the offers are rejected. If the defendant makes a higher offer of settlement, the lawyer will reduce their effort and reduce the damage award paid by the defendant.

[28] Section 3 presents a more general model where the damage award depends on lawyer effort. Section 4 explores fee enhancements in risky environments where the plaintiff may lose. Section 6 demonstrates the practical relevance of our method for class action litigation.

[29] We are ignoring any agency problems between the defendant and their lawyer and focusing instead on plaintiff-side conflicts of interest. Our method may also be used to mitigate defendant-side agency problems. See the discussion in the Conclusion.

[30] We assume that the defendant knows the plaintiff's fee arrangement and the other parameters of the model. The lawyer is motivated by financial self interest only, not by ethical considerations. Collusion between the defendant and the plaintiff's attorney is discussed in Section 3.4.

The amount of time that the lawyer spends preparing the case for trial is a key factor in the value that the plaintiff can expect to win at trial. Let $e \in [\underline{e}, \infty)$ be the lawyer's effort, which we can think of as the number of hours the lawyer will spend on the case. We suppose that $\underline{e} > 0$, so some of the lawyer's effort is fixed and unavoidable. For now, we assume that liability is not contested, and effort will impact the size of the damage award only. If the case goes to trial, the damage award is increasing and convex in the lawyer's effort and satisfies $d(\underline{e}) = 0, d'(e) > 0$, $\lim_{e \to \underline{e}} d'(e) = \infty$, $\lim_{e \to \infty} d'(e) = 0$, and $d''(e) < 0$. Section 4 shows how our results extend to settings where effort can raise the probability of winning, too.

Effort is costly for the lawyer; the lawyer's opportunity cost is $w_0 > 0$ for each unit of time. We will assume for the time being that the lawyer's effort level is observable, so the lawyer cannot lie and pretend to put in more hours.[31] We will also assume that the lawyer's hourly wage exceeds the opportunity cost $w > w_0$. The lawyer is earning a markup over their incremental cost of working on the case. In practice, this can happen for a variety of reasons. In some regions or practice areas, lawyers may enjoy some degree of market power. But even in competitive settings, lawyers often have significant *fixed costs* including office overhead, advertising, and their own rainmaking efforts. As explained by Miller (1987; 203), it "is likely that the lawyer in hourly fee cases is usually making more from the case than could be made through alternative uses of his or her time, either because of imperfections in the market or because of the transaction costs of substituting a new client for the existing one." In short, the assumption that $w > w_0$ could reflect the need for lawyers to cover their *average cost* in providing services.

The timing of the game is as follows.

1. The plaintiff, represented by a lawyer, initiates a lawsuit against the defendant.
2. The defendant offers to settle for $s \geq 0$.
3. The lawyer decides whether to accept or reject the settlement offer, s. If the offer is accepted, the game ends. If the offer is rejected, the game continues.
4. The lawyer chooses to invest $e \in [\underline{e}, \infty)$ and the court awards damages $d(e)$.
5. The lawyer is paid using one of three methods:[32]

[31] Section 3.4 shows that with the value-added hourly method, the lawyer would have no incentive to lie about the number of hours.

[32] There are of course other methods that could be used. See Section 5 for discussion of alternatives including hybrid schemes and tiered percentage fees.

(a) **Percentage Fee:** Compensation is fraction $\theta \in (0,1)$ of plaintiff's recovery.

(b) **Hourly Fee:** Compensation capped by the damage award, $\min\{we, d(e)\}$.[33]

(c) **Value-Added Hourly Fee:** Compensation capped by the damage award in excess of the rejected settlement offer, $\min\{we, \max\{0, d(e) - s\}\}$.

Note that in our model, the lawyer exerts effort *after* rejecting the defendant's settlement offer. In practice, before bringing suit or engaging in settlement negotiations, the lawyer may have invested time and effort to identify and evaluate the lawsuit. Our model may be extended to include hourly fees for these up-front costs.[34] Our assumption that the lawyer only exerts effort after rejecting the defendant's settlement offer streamlines the analysis and allows us to focus on the agency problems in settlement. The timing of settlement offers is discussed further in Section 4.1.

The equilibrium concept is subgame-perfect Nash equilibrium. Our social welfare concept is the aggregate value captured by all players: the plaintiff, the lawyer, and the defendant. All players are weighed equally in the social welfare function.

We begin by presenting a simple benchmark. Suppose that the plaintiff and the lawyer have interests that are perfectly aligned. When making their effort and settlement decisions, the lawyer considers the well-being of the plaintiff, too. One could imagine a setting where the plaintiff serves as their own lawyer. Alternatively, one could imagine that the plaintiff and lawyer engage in Coasian bargaining and choose actions that are in their joint interest at every stage. To analyze the game between the plaintiff-lawyer team and the defendant, we start at the end of the game and work backwards.

Suppose that the case fails to settle out of court. The plaintiff-lawyer team chooses effort to maximize their joint net payoff,

$$d(e) - w_0 e, \tag{1}$$

the damage award d minus the opportunity cost of the lawyer's time, $w_0 e$.[35] The plaintiff-

[33] Our qualitative results for the hourly fee do not depend on having a cap $d(e)$ on total wage income. Without this cap, the lawyer would put in an unbounded amount of effort, reinforcing our results. In real-world settings, plaintiffs are often liquidity constrained and lawyers' fees are drawn from the settlement or damage award. In class action litigation it is impossible (or impractical) for an lawyer to seek compensation beyond the damage award.

[34] In class action settings, payments for case preparation would come out of any future settlement or judgment. See Section 6.

[35] Notice that their choice depends on the lawyer's opportunity cost w_0, not the lawyer's market wage w. The market wage w does not appear in this expression because it is a transfer from the plaintiff to the lawyer.

lawyer team would invest to the point where the incremental damage award is exactly offset by the lawyer's opportunity cost,

$$d'(e^*) = w_0. \tag{2}$$

Our earlier assumptions imply that the lawyer's effort is above the minimum level, $e^* > \underline{e}$.

Next, consider the settlement decision. Knowing that they will spend e^* if they reject the settlement offer, the plaintiff-lawyer team would accept any settlement offer that meets or exceeds $d(e^*) - w_0 e^*$. The defendant is sophisticated and rationally anticipates that the plaintiff and lawyer will choose e^* at the trial stage should negotiations break down.[36] The defendant therefore offers to settle for $s^* = d(e^*) - w_0 e^*$ (plus a little more perhaps) and the plaintiff-lawyer team accepts in the subgame-perfect equilibrium of the game.

Going forward, we will assume that the lawyer's hourly wage $w > w_0$ is not too large and satisfies:

Assumption 1: $d(e^*) - we^* > 0$.

In Figure 1, this corresponds to the damage award curve $d(e)$ being above the wage line we for some range of effort levels. This assumption has two important implications. First, since $w > w_0$, Assumption 1 implies that $d(e^*) - w_0 e^* > 0$. In other words, the plaintiff-lawyer team would jointly benefit from pursuing the lawsuit rather than dropping it. Second, the assumption implies that if the lawyer invests efficiently at trial (by choosing e^*), then the plaintiff and hourly-fee lawyer would each get a strictly positive benefit from the litigation.[37]

We will now proceed to evaluate the three methods proposed above: the percentage fee, the hourly fee, and the value-added hourly fee. We will maintain the assumption that the plaintiff cannot directly monitor the lawyer. In contrast to our earlier benchmark, there is a fundamental separation between ownership and control of the lawsuit. The lawyer makes their effort and settlement decisions to advance their own private interests, without regard for the well-being of the plaintiff.

[36] The defendant wants to minimize their overall payment to the plaintiff. Since the plaintiff and the lawyer are making decisions that are in their mutual interest, the lawyer's compensation scheme does not affect the plaintiff-lawyer team's decision to accept or reject an offer.

[37] If this assumption did not hold, then the plaintiff would get nothing and the lawyer would be the residual claimant of the entire case. As a 100% owner, the lawyer would choose e^* at trial, as they should.

3.1 Percentage Fee

This section explores the impact of the percentage fee method in our framework, briefly synthesizing and confirming well-known results from the literature.

Suppose that the lawyer is paid fraction $\theta \in (0, 1)$ of any settlement or damage award. We can solve the game by starting at the end and working backwards. We first explore how much effort the lawyer would invest should settlement negotiations break down. Then, we explore the lawyer's incentive to accept settlement offers and the defendant's choice of offer.

If negotiations fail, the lawyer chooses effort e to maximize their private net return,

$$\theta d(e) - w_0 e. \tag{3}$$

Comparing this expression to (1) reveals a fundamental conflict of interest. With the percentage fee, the lawyer captures only a fraction θ of the client's gross return but bears 100% of the costs. The lawyer will choose an effort level e^p that satisfies

$$\theta d'(e^p) = w_0. \tag{4}$$

Comparing (4) to (2) reveals that the lawyer will underinvest in the case, relative to what is in their joint interest, $e^p < e^*$.

Now consider the settlement negotiations between the defendant and the lawyer. Suppose hypothetically that the defendant offers to settle for a little more than $d(e^p) - w_0 e^p$, the net payoff of the plaintiff-lawyer team. If the plaintiff and lawyer were making a joint decision, they would be (just) willing to accept this offer. But this is would be a windfall for the lawyer, as the lawyer will save considerable time and effort! The defendant, knowing that the lawyer is in charge and that the lawyer is getting θ of the gross return, would offer to settle for much less. The defendant will offer to settle for an amount, s, that makes lawyer (just) willing to accept, $\theta s = \theta d(e^p) - w_0 e^p$, or

$$s = d(e^p) - w_0 e^p/\theta. \tag{5}$$

So the defendant makes low-ball offer and the lawyer accepts. The lawyer, acting in their own self-interest, has effectively "sold out" their client.[38]

[38]The settlement offer defined in (5) is smaller than the "ideal" settlement offer, $s^* = d(e^*) - w_0 e^*$. The proof is straightforward. By definition of e^* in (2), $s^* = d(e^*) - w_0 e^* > d(e^p) - w_0 e^p$ and, since $\theta \leq 1$, $d(e^*) - w_0 e^* > d(e^p) - w_0 e^p/\theta$.

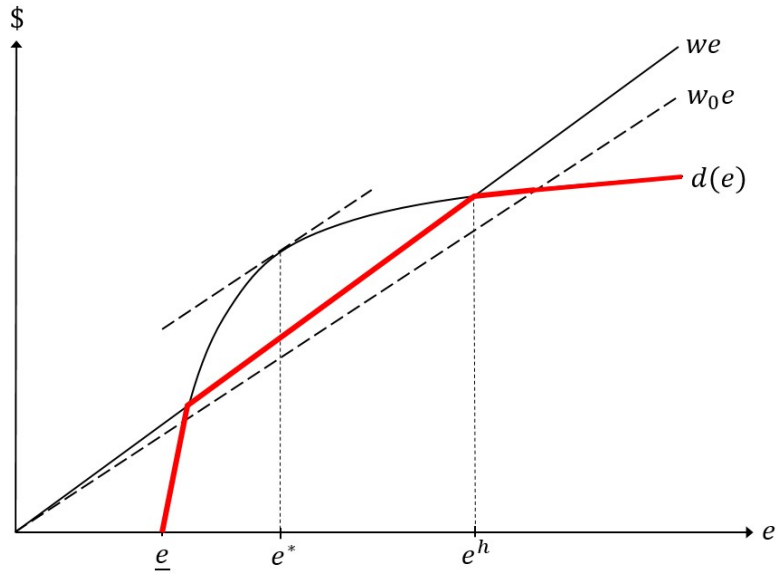


Figure 1: Hourly Fee

Proposition 1. *The percentage fee method does not align the lawyer's interests with the client's. The lawyer's effort incentives are insufficient,* $e^p < e^*$*, and they settle for too little,* $s = d(e^p) - w_0 e^p/\theta$*. The lawyer's payoff is* $\theta d(e^p) - w_0 e^p > 0$*, the plaintiff's payoff is* $(1-\theta)d(e^p) - (1-\theta)w_0 e^p/\theta$*, and the defendant's payoff is* $-d(e^p) + w_0 e^p/\theta$*.*

3.2 Hourly Fee

We now explore the hourly fee method of compensation. The analysis presented in this section confirms the basic insights made Schwartz and Mitchell (1969) and Clermont and Currivan (1977), among others.

With the hourly method, the lawyer's compensation is capped by the dollar value of the damage award, $\min\{we, d(e)\}$, as illustrated by the red line in Figure 1. If the lawyer put in the minimal effort and no more, then $d(\underline{e}) = 0$ and the lawyer receives no compensation at all. The lawyer is losing money in this case. If the lawyer invests efficiently, e^*, then Assumption 1 guarantees that there would be sufficient funds to pay the lawyer's wage bill in full, $d(e^*) > we^*$. The lawyer would earn a net payoff of $(w - w_0)e^*$ in this scenario. If the lawyer puts in far too much effort, $e > e^h$, then the wage bill would exceed the damage award and the lawyer's compensation is capped at $d(e)$.

We can solve the game by starting at the end and working backwards. If negotiations fail, the lawyer chooses effort e to maximize their private net return,

$$\min\{we, d(e)\} - w_0 e. \tag{6}$$

Comparing this expression to our earlier analysis reveals a potential conflict of interest. In (1), the plaintiff-lawyer team was seeking to maximize their *joint net benefit*, $d(e) - w_0 e$. By contrast, in (6), the lawyer is seeking to maximize their *private net benefit*, $\min\{we, d(e)\} - w_0 e$.

With the hourly fee method, the lawyer has an incentive to overinvest in the case, relative to the what is in their joint interest. In Figure 1, the lawyer invests to the point where the distance between their gross compensation (the red line) and their opportunity cost $w_0 e$ (the dashed line) is largest. This point is $e^h > e^*$ where the wage bill, we, exhausts the damage award, $d(e)$. With the hourly fee method, the lawyer gets net payoff $(w - w_0)e^h$ and the plaintiff gets nothing.[39]

Now consider the negotiations between the defendant and the lawyer, prior to the lawyer choosing to invest $e^h > e^*$. Suppose that the defendant offered to settle for a little more than $s = d(e^h) - w_0 e^h$, the net payoff of the plaintiff-lawyer team. This offer would be acceptable to the plaintiff-lawyer team. This offer is not acceptable to the lawyer, however. If the lawyer accepts a settlement offer, the game ends and the lawyer cannot bill for any more hours! By contrast, if the lawyer rejects the defendant's offer, the lawyer puts in e^h hours and earns $(w - w_0)e^h > 0$. More generally, a self-interested lawyer would reject the plaintiff's offer to settle, to the detriment of plaintiff.

Proposition 2. *The hourly fee method does not align the lawyer's interests with the client's. The lawyer's effort incentives are excessive, $e^h > e^*$, and they reject offers to settle. The lawyer's payoff is $d(e^h) - w_0 e^h < s^*$, the plaintiff's payoff is zero, and the defendant's payoff is $-d(e^h)$, minus any litigation costs.*

3.3 Value-Added Hourly Fee

We now explore the value-added hourly method of compensating lawyers. If the lawyer rejects a settlement offer s, the lawyer's compensation is capped by the gross return $d(e)$ relative to the rejected settlement offer, s. Technically, if the lawyer invests e, the lawyer's compensation is $\min\{we, \max\{0, d(e) - s\}\}$. With this mechanism, the plaintiff is getting

[39]This may be proven algebraically. Assumption 1 implies that $d(e^*) > we^*$, so the lawyer's net payoff when $e = e^*$ is $\min\{we^*, d(e^*)\} - w_0 e^* = (w - w_0)e^*$. The lawyer certainly has an incentive to increase effort to e^h. Since $d'(e^*) = w_0$ by construction, and $d(e)$ is concave, we have $d'(e^h) < d'(e^*) = w_0$. For effort levels $e > e^h$, the lawyer's marginal benefit $d'(e)$ is smaller than the lawyer's opportunity cost w_0.

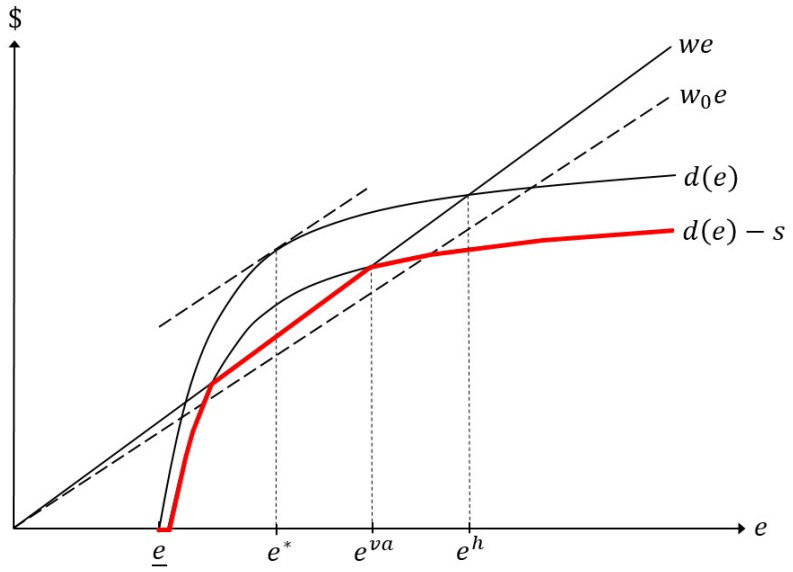


Figure 2: Value-Added Hourly Fee

the first s dollars of any damage award, before the lawyer can get paid. In other words, the lawyer must pay the plaintiff s if the case goes to trial, before collecting any further compensation for themselves.

Figure 2 illustrates the value-added hourly method when the settlement offer s is relatively small.[40] As before, the red line shows how the lawyer's compensation would vary with the number of hours worked. Notice that if $s = 0$, then the value-added hourly method and the traditional hourly method coincide. However, when the settlement offer s rises, the lawyer's compensation will tend to fall. Intuitively, the lawyer's value added for the plaintiff is smaller when the defendant's settlement offer is larger.

We now solve for the subgame-perfect Nash equilibrium by starting at the end of the game and working backwards.

Lawyer Effort. If negotiations fail, the lawyer chooses effort e to maximize their private net return,

$$\min\{we, \max\{0, d(e) - s\}\} - w_0 e. \tag{7}$$

If the defendant offers $s = 0$, then this is identical to (6) in the hourly fee analysis above and the lawyer would choose $e^h > e^*$ and collect compensation we^h, exhausting the damage award. If s rises a little bit, then as shown in Figure 2 the $d(e) - s$ curve falls and the lawyer will choose effort $e^{va} < e^h$. This is where the wage bill exhausts the

[40] In Figure 2, the curve $d(e) - s$ is fairly close to the curve $d(e)$.

residual damage award, $we^{va} = d(e^{va}) - s$. As shown in Figure 2, when s is small the lawyer captures a positive net benefit. If s rises more, then the $d(e) - s$ curve would below the lawyer's hourly billing line, we, but above the lawyer's opportunity cost line, $w_0 e$. In this case, the lawyer is the residual claimant of the damage award and would invest e^*.[41] The following lemma describes how the lawyer's effort depends on s.

Lemma 1. *(Value-Added Hourly Method.) Suppose that the lawyer rejects the defendant's offer to settle. The lawyer's effort choice e^{va} depends on the defendant's settlement offer s as follows:*

1. *If $s \in [0, d(e^*) - we^*]$ the lawyer chooses effort $e^{va} \in (e^*, e^h]$ that satisfies $we^{va} = d(e^{va}) - s$. The lawyer's effort e^{va} is strictly decreasing in s with $e^{va} = e^h$ if $s = 0$ and $e^{va} = e^*$ if $s = d(e^*) - we^*$. The lawyer's (plaintiff's) net payoff is positive (positive) and decreasing (increasing) in s.*

2. *If $s \in (d(e^*) - we^*, d(e^*) - w_0 e^*]$ the lawyer chooses effort $e^{va} = e^*$. The lawyer's (plaintiff's) net payoff is positive (positive) and decreasing (increasing) in s.*

3. *If $s > d(e^*) - w_0 e^*$ the lawyer chooses effort $e^{va} = e^*$. The lawyer's (plaintiff's) net payoff is negative (positive).*

This lemma delivers some important insights. First, in Case 1 when the settlement offer is relatively small, the lawyer's effort level and damage award are decreasing functions of the settlement offer s. The reason may be seen in Figure 2. When s increases, the lawyer has less of an incentive to waste money preparing for trial. Since the lawyer's incentives are diluted, the ultimate damage award is lower, too. Indeed, when s approaches $d(e^*) - we^*$, the lawyer's effort converges to the e^*, the effort that would be obtained if there were no agency problems, so the lawyer's incentives are perfectly aligned with the plaintiff's.

Second, even if the case goes to trial, the plaintiff benefits when the defendant makes a higher settlement offer. With the value-added hourly method, the plaintiff is entitled to receive payment of s from the damage award, before the lawyer is entitled to any compensation at all. Thus, holding the lawyer's effort fixed, when the settlement offer increases the plaintiff is better off and the lawyer is worse off. Perhaps curiously, the plaintiff also benefits from the lower effort of the lawyer, since the hourly wage of the lawyer exceeds the incremental revenue enhancement $d'(e)$ when $e > e^*$.

[41] If the $d(e) - s$ curve lies below the lawyer's opportunity cost line $w_0 e$ then lawyer would lose money. If forced to litigate, effort e^* would minimize the lawyer's losses.

Settlement Bargaining. Settlement negotiations between the lawyer and the defendant take place in the shadow of litigation as described in Lemma 1. We consider each of these cases in turn.

To start, suppose that the defendant offers to settle for $s < d(e^*) - we^*$, so we are in Case 1. Would the lawyer accept this settlement offer? The answer is no. If the lawyer accepts the offer, the game ends and the lawyer foregoes any further compensation. If the lawyer rejects the settlement offer, the lawyer will invest e^{va} and earn a net payoff of $(w - w_0)e^{va} > 0$. Interestingly, the defendant has an incentive to raise the settlement offer in Case 1, knowing full well that the lawyer will reject the settlement offer. Starting at $s = 0$, raising the settlement offer has strategic value. Raising the offer dilutes the lawyer's incentive to invest effort preparing for the case, and and the damage award falls. This obviously benefits the defendant. Thus, the defendant has an incentive to raise the settlement offer up to $s = d(e^*) - we^*$.

Next, consider Case 2 where $s \in [d(e^*) - we^*, d(e^*) - w_0e^*)$. The lawyer would reject settlement offers in this range, too, for the same reason as in Case 1. If the lawyer accepts an offer, they forego further compensation. If the lawyer rejects the offer, then the lawyer will capture the residual value $d(e^*) - s - w_0e^* > 0$. In this range, there is no benefit of increasing the settlement offer since the lawyer's effort and damages remain fixed.

Now consider Case 3 where the settlement offer $s > d(e^*) - w_0e^*$. In Figure 2, this would correspond to the lawyer's opportunity cost line w_0e lying everywhere below the curve $d(e) - s$. In this case, the settlement offer is so high that the lawyer cannot benefit from going to trial, even if they choose effort e^*. Indeed, if the lawyer rejects the settlement offer and invests efficiently, the lawyer would earn a negative net surplus. So, the lawyer will accept the settlement offer.

Finally, we analyze the defendant's settlement strategy. If the defendant offers $s < d(e^*) - w_0e^*$ as in Cases 1 and 2, the lawyer will reject the offer and the defendant will pay damages of at least $d(e^*)$, plus their own litigation costs (which are unmodeled). If the defendant offers $s \geq d(e^*) - w_0e^*$, then the lawyer will accept the offer. It follows that the defendant will offer to settle for $s = d(e^*) - w_0e^*$ and the lawyer will accept. Out-of-court settlement can avoid the opportunity cost of the lawyers' time, w_0e^*, and the defendant is able to capture this benefit. The equilibrium is shown in Figure 3.

Proposition 3. *The value-added hourly method aligns the lawyer's incentives with the client's. The defendant offers to settle for $s^* = d(e^*) - w_0e^*$ and the lawyer accepts. The lawyer's net payoff is zero, the plaintiff's net payoff is $s^* = d(e^*) - w_0e^* > 0$, and the*

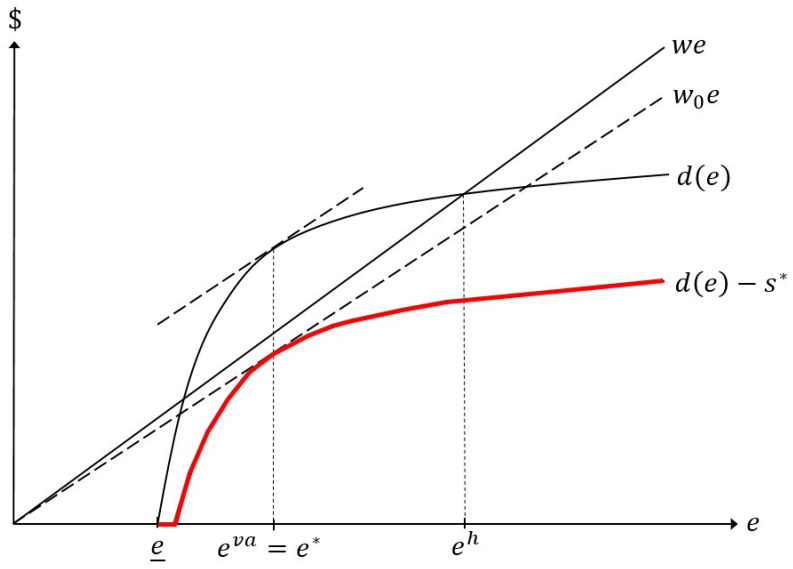


Figure 3: Equilibrium with Value-Added Hourly Fee

defendant's net payoff is $-s^* = -d(e^*) + w_0 e^* < 0$*, minus any litigation costs.*

This result is striking: The value-added hourly method controls the bill-padding problem, gets the defendant to make a reasonable settlement offer, and gets the lawyer to accept the settlement offer. This result holds even if the hourly fee exceeds the lawyer's opportunity cost, $w > w_0$. With our mechanism, the informational burden on the plaintiff is relatively small. The plaintiff does not need to know the lawyer's opportunity cost or whether the extra hours spent by the lawyer are reasonable. Instead, the mechanism harnesses the defendant's information about the case and the defendant's private incentives to avoid trial.

3.4 Discussion

Fabricating Hours Worked. The value-added hourly method discourages the lawyer from fabricating their records and billing the plaintiff for fake hours.[42] To see why, suppose that the defendant offers s^*, the lawyer rejects the offer and puts in effort e^*, and the court awards damages $d(e^*)$. Next, the lawyer presents the wage bill to the client. The number of reported hours, $\widehat{e}$, may or may not reflect the truth. With the value-added hourly method, the lawyer gets $w\widehat{e}$ or $d(e^*) - s^*$, whichever is smaller. Since the

[42]Fabricating records is of course both unethical and illegal. The point here is that our method also discourages lawyer misbehavior.

defendant has the information to set an accurate settlement offer, $s^* = d(e^*) - w_0 e^*$, we have $d(e^*) - s^* = w_0 e^*$. Therefore the lawyer who reports that worked $\widehat{e}$ will receive

$$\min\{w\widehat{e}, w_0 e^*\}. \tag{8}$$

Written this way, one can see very clearly that best the lawyer can possibly do is get $w_0 e^*$. The lawyer would not want to under report their hours, as that would get them less than $w_0 e^*$. There's no advantage for the lawyer of exaggerating, either, since the lawyer's fee is capped at $w_0 e^*$.

Nuisance Activities. The value-added hourly method discourages the plaintiff's lawyer from engaging in "nuisance activities" that place an undue burden on the defendant. When the plaintiff's lawyer makes a discovery request, for example, the defendant often must bear significant compliance costs to avoid losing the case. Indeed, the costs imposed on the defendant in responding to the plaintiff's requests often swamp the plaintiff's costs of making the request. Our proposal nips these nuisance activities in the bud. Since the plaintiff's lawyer fees are capped at the value added, the lawyer's private incentive to engage in nuisance activities are greatly reduced.

Benchmarking Against Lawyer's Demand. With the value-added hourly method, the lawyer's pay depends on *defendant's settlement offer*. What if instead the lawyer's pay depended on the *lawyer's own settlement demand*? With this alternative method, the lawyer's pay would be capped at the value-added relative to the rejected demand. Note that the lawyer would have little incentive to make a demand in this scenario. Making a demand could only serve to reduce the lawyer's pay! If the defendant accepts the demand, the laywer's gig would end; if the defendant rejects, then the lawyer would earn less money than they would if the made no demand at all. But what if the lawyer was *compelled* to make a settlement demand? Any demand above $s^* = d(e^*) - w_0 e^*$ would put the lawyer "in the hole" if the case went to trial. So the lawyer would demand less than s^* and the case would settle.[43]

Collusion Between Lawyer and Defendant. On concern in litigation is that the plaintiff's lawyer may collude with the defendant, to the detriment of the plaintiff.[44] In

[43]The lawyer would be indifferent over all demands below s^*.

[44]Collusion could be explicit, or implicit and enforced by reputation or repeated interactions. Note that it would be blatantly unethical and illegal for the defendant to pay the lawyer under the table to drop the case.

practice, the defendant and lawyer might agree to postpone settlement talks until the lawyer has run up a hefty hourly bill, after which they settle on defendant-friendly terms. In our model, with the value-added hourly fee in place, the lawyer and defendant might strike a "deal" with the following characteristics. The defendant would propose a low settlement offer (or ideally no offer at all), the lawyer would reject the offer and, at trial, put in *less than optimal effort*, $e < e^*$. With this collusive scheme, the defendant pays less than $d(e^*)$ and the lawyer gets paid for time spent after rejecting the offer. Note that the lawyer would have a strong temptation to deviate from the collusive game plan. In particular, with a low-ball settlement offer on the table, the lawyer would want to invest *more than the optimal effort*, $e > e^*$, to the detriment of the defendant. For collusive schemes to work, there would need to be a high level of trust and commitment between the lawyer and the defendant.

Auction Interpretation. Our value-added method is analogous to a second-price auction between the defendant and the lawyer. Suppose that the defendant and the lawyer are bidding for 100% of the plaintiff's claim.[45] If the defendant wins, the case is sold to the defendant (i.e., the case settles) and if the lawyer wins, the case goes to trial. Since the lawyer will invest efficiently if they own 100% of the case, the lawyer's reservation value is $\underline{s} = d(e^*) - w_0 e^*$. Knowing that the lawyer would invest e^*, the defendant's reservation value is $\overline{s} = d(e^*)$ (plus any defense-side litigation costs). In equilibrium, the defendant would win the second price auction by bidding just over the lawyer's reservation value, $s^* = d(e^*) - w_0 e^*$. The defendant would pay s^* to the plaintiff, thus ending the litigation.

4 Extensions

This section describes how our method may be adapted to account for several other relevant factors.

4.1 The Timing of Settlement Offers

Our simple proposal may be extended to account for a multiple settlement offers. Suppose that the defendant can make two settlement offers, one before the plaintiff has put in effort and one after the defendant has put in the effort but before the court awards damages. Call the early settlement offer s_1 and the late settlement offer s_2. With our proposal, if

[45] In practice, there can be limits to the outright sale of claims. See discussion in the Introduction.

the lawyer rejects the early offer and accepts the late one, then the lawyer's pay is capped at $\min\{we, s_2 - s_1\}$.[46] If the lawyer rejects both offers and the case goes to trial, then the lawyer's pay is capped at $\min\{we, d(e) - s_1\}$. Since the lawyer exerts effort before receiving the late offer, s_2 has no bearing on the lawyer's fee if the case goes to trial.

We can solve this game by starting at the end and working backwards. Suppose that the lawyer rejects the early offer s_1 and invests e preparing for trial. The lawyer would be willing to settle for s_2 if it makes the lawyer at least as well off as they would be made if the case went to trial. So, the defendant will offer to settle for $s_2 = d(e)$, and the lawyer would be willing to accept because the lawyer will get $\min\{we, d(e) - s_1\}$ either way. The lawyer's incentives are exactly the same as they were in Section 3.3. In the subgame-perfect Nash equilibrium, the defendant offers $s_1 = d(e^*) - w_0 e^*$ and the lawyer accepts.[47]

This simple extension underscores a very important point: Our value-added hourly method gives the defendant a strong incentive to make early offers of settlement, before the lawyer has had time to invest effort in the plaintiff's case. The reason is that an early offer dilutes the plaintiff's incentives to overinvest in the future, as their compensation is capped at the value added. By making an early settlement offer, the defendant can change the future play of the game to their own advantage.

To see this clearly, suppose that the defendant chooses to forego making the early settlement offer s_1, and instead waits until after the lawyer has already invested time and effort to make the late settlement offer s_2. When the defendant offers s_2, the lawyer's costs are sunk. So, with our proposal, the lawyer's compensation is $\min\{we, d(e)\}$, just as in the analysis of the hourly fee. As in Section 3.2, the lawyer will work to the point where their wage bill we^h exhausts any damage award $d(e^h)$, so $e^h > e^*$. As a consequence, after sinking their effort costs, the lawyer would not settle for anything less than $s_2 = d(e^h)$. Since $d(e^h) > d(e^*) - we^*$, the defendant is much better off settling early for $s_1 = d(e^*) - we^*$ than waiting and settling late for $s_2 = d(e^h)$.[48]

[46] For expositional simplicity, this expression assumes that $s_2 \geq s_1$, which will hold in equilibrium.

[47] More generally, one can extend the value-added hourly method so the lawyer's compensation for effort taken is capped by the value added relative to the prior offer of settlement. Suppose the lawyer rejects a sequence of settlement offers $s_i, i = 1, ...T$ and achieves damage award $d(e)$. The lawyer's pay for effort taken after rejecting offer s_i would be capped at $d(e) - s_i$ for all i. If the lawyer accept offer s_t where $t \leq T$, the lawyer's pay for effort taken after rejecting s_i would be capped at $s_t - s_i$ for all $i < t$.

[48] This result would be even stronger if the defendant also had costs of preparing for trial.

4.2 Litigation Risk and Fee Multipliers

The earlier sections analyzed the value-added hourly fee in environments where the litigation was risk-free in the sense that that the plaintiff was assured a non-zero recovery (assuming the lawyer did their job). That assumption may be appropriate in some settings where the defendant's fault is clear, or where liability has been conceded as part of a deal to de-escalate the conflict. As we will see, our basic method may be adapted to risky cases where there is a meaningful chance that the plaintiff will lose the case and get nothing.

Here is how it would work. Suppose $\pi(e) > 0$ is the probability that the plaintiff will win damages $D(e) > 0$ at trial, so the expected damages are $d(e) = \pi(e)D(e) > 0$. Note that the lawyer's effort can raise the probability of winning, the damage award, or both. Suppose that the lawyer's hourly market wage (before any adjustment is applied) is $w > 0$ and the settlement offer is s. If the lawyer rejects the offer and loses they do not get paid. If the lawyer rejects the offer and wins, then one needs to make adjustments to account for the risk. Assume for the moment that the parties have a good, unbiased ex post signal or estimate of the probability $\pi(e)$ and use this value to enhance the lawyer's fee by a risk factor of $1/\pi(e)$. In particular, the lawyer is paid an inflated wage $w/\pi(e)$ for each hour worked, but their total pay is capped by the value created relative to the *inflated settlement offer*, $D(e) - s/\pi(e)$.

With our method, the lawyer would choose e to maximize their expected net payoff,

$$\pi(e) \min \left\{ \frac{we}{\pi(e)}, D(e) - \frac{s}{\pi(e)} \right\} - w_0 e. \tag{9}$$

Since $\pi(e)D(e) = d(e)$, this is equivalent to

$$\min \{we, d(e) - s\} - w_0 e, \tag{10}$$

just as in (7) above. In other words, applying the multiplier $1/\pi(e)$ to both the hourly wage and the settlement offer adequately accounts for risk and aligns the incentives of the lawyer with the client. So, as in our main analysis in Section 3.3, the defendant will offer $s^* = d(e^*) - w_0 e^*$ and the lawyer will accept this offer.[49] All of our earlier results

[49]There is an alternative but equivalent method that one could employ. One could deflate the damage award $D(e)/\pi(e) = d(e)$, and then calculate a payment equal to the maximum of the (uninflated) wage bill to the value added. If $we \leq d(e) - s$ then the lawyer would get their lodestar wage of $we/\pi(e)$ and if $we > d(e) - s$ the lawyer would get $(d(e) - s)/\pi(e)$. While the accounting is different, the end result is identical.

carry through.

Our proposal is not far-fetched. Indeed, our method for addressing litigation risk is familiar from how courts have historically handled attorney fee requests in class action litigation. As described in Section 6, with the so-called "lodestar method," courts regularly adjust the class action lawyer's hourly fee upward to reflect the inherent risk of the lawsuit.[50] These so-called fee enhancers make economic sense. If a lawsuit has say a four-fifths or 80% chance of success, then granting the lawyer an hourly fee that is 25% higher than their regular fee would adequately account for the risk.[51] To maintain appropriate effort incentives, the lawyer's hourly rate should be inflated by a multiplier equal to the reciprocal of the probability of success, or 5/4 in our example.[52] Our method is taking the standard method a step further, by incorporating the settlement offer into the calculation as well.

4.3 The Lawyer's Incentive to Tell the Truth

Another advantage of our method over traditional methods is that it mitigates the lawyer's incentive to lie. We saw a hint of this in Section 3.3 above, where we established that the lawyer had little incentive to fabricate their hours. We now explore the lawyer's broader incentives to tell the truth in the risky setting described in Section 4.2.

To implement our proposal in risky settings, one would need to apply a multiplier to both the lawyer's hourly wage and the settlement offer. As shown in Section 4.2, the appropriate multiplier is the reciprocal of the probability that the plaintiff will win, π. In some settings, this probability may be known ex ante when the plaintiff retains the lawyer's services. In this case, the multiplier could be included in the retainer agreement. In other cases, the multiplier will be determined ex post, and could depend on the lawyer's effort. While determining the risk multiplier ex post may seem daunting, on reflection it

[50] "[C]ourts have routinely enhanced the lodestar to reflect the risk of non-payment in common fund cases." *Vizcaino v. Microsoft Corp.*, 142 F.Supp.2d 1299 (W.D.Wa.2001) at 1300. In common fund cases, "attorneys whose compensation depends on their winning the case[ ] must make up in compensation in the cases they win for the lack of compensation in the cases they lose." *Id.* at 1300-01.

[51] Courts also play an important role in determining reasonable fees in fee-shifting settings. Certain statutes (e.g., the Clean Water Act) have been interpreted to preclude the court from enhancing attorney fees. See *City of Burlington v. Dague*, 505 U.S. 557 (1992). As discussed in Section 4.3, the court might not need to spend time figuring out the right multiplier to "enhance" the fees. Instead, the court could solicit the information from the lawyers themselves. Lawyers are deterred from inflating their wages as the risk multiplier would reduce their value added and their take home pay.

[52] To see this concretely, suppose that a lawyer's regular rate is \$1,000 per hour. If the lawyer only gets paid if the case succeeds, then an hourly rate of \$1,250 gives thee lawyer 80% $\times$ \$1,250 = \$1,000, on average.

might not be as difficult as it first appears. One can get information about the probability by simply asking the lawyer. As we will see, our value-added hourly method deters the overstatement of risk (a lower π) because doing so reduces amount available to cover lawyer's bill for hourly investment.

Let's consider the lawyer's incentive to tell the truth about the probability of success. Suppose that the lawyer has rejected the defendant's equilibrium offer to settle for s^*, invests e^*, and then gets lucky and wins damage award $D(e^*)$ at trial. Suppose for now that the lawyer tells the truth about the amount of time that they spent after rejecting the offer, e^*, but may misrepresent the probability $\pi(e^*)$. The lawyer's report, $\widehat{\pi}$, may be too high or too low. Applying the value-added hourly method, the lawyer's compensation is given by:

$$\min\left\{\frac{we^*}{\widehat{\pi}}, D(e^*) - \frac{s^*}{\widehat{\pi}}\right\}. \tag{11}$$

Notice that the first term in (11) is a decreasing function of the court's multiplier $\widehat{\pi}$ and the second term is an increasing function of $\widehat{\pi}$.

The lawyer, who knows the actual probability $\pi(e^*)$, has potentially offsetting incentives when reporting the probability. If the first term in (11) is smaller, so the lawyer is getting their hourly wage, then the lawyer has an incentive to report a *lower* value of π. If the second term is smaller, so the lawyer is getting the value added, then the lawyer has an incentive to report a *higher* value of π. So, the lawyer will choose a probability at the peak, where reporting a little bit less or a little bit more would reduce the lawyer's take home pay.

To better understand the lawyer's incentives when reporting the probability, let's rewrite the expression in (11). Since $D(e^*) = d(e^*)/\pi(e^*)$ and $s^* = d(e^*) - w_0e^*$, the lawyer's compensation (after winning the case) in equation (11) may be written as:

$$\min\left\{\frac{we^*}{\widehat{\pi}}, \frac{d(e^*)}{\pi(e^*)} - \frac{d(e^*) - w_0e^*}{\widehat{\pi}}\right\}. \tag{12}$$

Setting the two terms in equation (12) equal and solving for $\widehat{\pi}$, the lawyer would like the court to apply the following multiplier:

$$\widehat{\pi} = \pi(e^*)\left[1 + \frac{(w - w_0)e^*}{d(e^*)}\right]. \tag{13}$$

This expression provides us with useful insights into the lawyer's truth-telling incentives. First, if $w > w_0$, the term is square brackets is larger than 1 so the lawyer would

exaggerate the probability of winning, $\widehat{\pi} > \pi(e^*)$. However, if the wage w is close to w_0 then the lawyer will come close to telling the truth. And in the limit where $w = w_0$, the lawyer *perfectly* reveals the truth.[53] So, if the plaintiff has a good handle on the number of hours the lawyer has actually worked, e^*, and on the lawyer's opportunity cost, w_0, then the plaintiff can rely on the lawyer to tell the truth about the probability of success.

There are limits to the information that can be elicited from the plaintiff's lawyer, however. If the lawyer can lie along multiple dimensions then the lawyer could potentially capture a windfall.[54] Consider the lawyer's payoff in (11) above. Suppose one were to ask the lawyer to report the probability of success ($\widehat{\pi}$), the hours spend on the case ($\widehat{e}$), and their opportunity cost ($\widehat{w}$). The lawyer would make out like a bandit if they grossly inflated both the wage bill $\widehat{w} \times \widehat{e} > w_0 e^*$ and probability of success, $\widehat{\pi} > \pi(e^*)$. So although the lawyer's truth-telling incentives are improved with our method relative to the alternatives, there is still room for misbehavior.

4.4 Loser-Pays Rules

In the United States, it is standard practice for the plaintiff and the defendant to pay their own litigation costs, regardless of who wins and who loses. There are many exceptions to this so-called *American Rule*, however. Depending on the type of lawsuit and the jurisdiction, the court may shift the winner's legal expenses to the loser (the *English Rule*). For example, in non-common fund litigation, the losing defendant pays the class action attorney fees directly rather than the lawyer drawing their fees from a common pool.

Our basic proposal applies to fee-shifting environments, too. To see why, imagine a scenario where settlement negotiations fail, the plaintiff's lawyer spends we preparing for trial, and the court orders the defendant to pay $d(e)$ in total. The losing defendant's total payment $d(e)$ would include the direct payments to the plaintiff plus any direct payments to the plaintiff's lawyer. Under the American Rule, the defendant would pay $d(e)$ to the plaintiff and the plaintiff would pay we to the lawyer (assuming the lawyer wasn't padding the bill). Under the English Rule, the defendant would pay $d(e) - we$ to the plaintiff and the remaining we to the lawyer. Regardless of which rule is in place, the defendant pays

[53] Clermont and Currivan (1977) and Polinsky and Rubinfeld's (2003) proposals *assume* that $w = w_0$. See Section 5.2 below.

[54] A comprehensive analysis of the game with the lawyer misreporting is beyond the scope of the paper. The lawyer's misreporting would have important feedback effects on the defendant's settlement offers.

$d(e)$, the plaintiff gets $d(e) - we$, and the lawyer gets we.[55] When framed in this way, it becomes clear that the English Rule does not change how the value is allocated among the parties. The two rules differ in who is (formally) paying the lawyer.

Now consider how our proposal would work in conjunction with the English Rule. Suppose that the defendant offers to settle the case for s. If the lawyer accepts this settlement offer, the defendant would pay the lawyer for any services performed before the settlement offer was made and the plaintiff would get the residual.[56] With our proposal, if the lawyer rejects the settlement offer s and the case goes to trial, then the court would determine the defendant's *total* liability exposure, $d(e)$. The defendant would pay the lawyer $\min\{we, d(e) - s\}$, the lawyer's hourly wage bill capped at their value added relative the defendant's settlement offer. After paying the lawyer in this way, plus any fees for services performed before the settlement offer, any leftover money would go to the plaintiff. This method controls the lawyer's incentive to pad their hours, prevents attorney windfalls, and gives the defendant the incentive to make fair and early settlement offers.[57]

5 Comparison with Alternative Proposals

We now describe several proposals for improving the percentage fee method.

[55] Reconsider our simple numerical example. If the lawyer invested medium effort of 10 then court will award damages of 50. Suppose that the lawyer is paid by the hour for their time. With the American Rule, the plaintiff would receive the 50 damage award and would be responsible for paying the lawyer's 10 wage bill. With the English rule, the defendant would be responsible for paying the lawyer's 10 wage bill. In this latter case, the defendant would pay 40 to the plaintiff and 10 to the lawyer, for a total of 50.

[56] In a class action setting, the defendant's offer may designate the payments s_L and s_P for the lawyer and plaintiff, respectively, pending court approval.

[57] Courts are often tasked with checking the plaintiff attorneys' risk assessment in the normal course of determining reasonableness of their hourly rate requests in fee-shifting settings. In *City of Burlington v. Dague*, 505 U.S. 557 (1992), the court opined that we should not burden the court with determining wages, and furthermore that "enhancement would make the setting of fees more complex and arbitrary, hence more unpredictable, and hence more litigable. It is neither necessary nor even possible for application of the fee-shifting statutes to mimic the intricacies of the fee-paying market in every respect." In *Dague*, the traditional hourly fee method invites attorneys to overstate the risk to obtain a bigger enhancement. By contrast, our value-added hourly method deters the overstatement of risk. Because other benefits such as reducing administrative costs and deterring defendant-plaintiff attorney collusion may accrue, further consideration of combining *Dague* approach and our proposal seems warranted.

5.1 Value-Added Percentage Fees

Brickman, Horowitz, and O'Connell (1994) offer a broad proposal (hereinafter the Brickman proposal) to rein in windfall attorney fees.[58] With their method, if the lawyer rejects an early settlement offer, then the lawyer would get a percentage of the recovery *in excess of any early settlement offer*.[59] While our proposal is based on the lodestar method, Brickman's method is based on the percentage method.

Brickman's method is sometimes used in legal practice. In a survey of Wisconsin contingency fee practitioners, Kritzer (1998) describes an arrangement that involved "an hourly fee up until an initial settlement offer is obtained, and then fifty percent of anything over and above that offer."[60] Another example of Brickman's method comes from airplane crash litigation. Shortly after an accident, the airline's insurer may send letters to the victims' families, advising them to wait to hire an attorney until after an initial settlement offer has been made.[61] The letters sometimes recommend that the contingent fee should reflect the value that the laywer adds to the case, relative to the initial offer.[62] Similar fee structures are used by property owners in government takings[63] and injured workers

[58]The proposal may also be found in Brickman (1996) Appendix B.

[59]Brickman (1996; footnote 52). The American Trial Lawyers Association (ATLA) was opposed, and lobbied for federal legislation to ban the enactment by the states (Horowitz; 1995).

[60]Kritzer (1998; 288). Another respondent described a fee structure where their "fee would be based only on any recovery over and above the offer in hand, with the fee being the lesser of 50% of the additional recovery, or 33% of the total recovery." Kritzer (1998; 286). Such arrangements are unusual, however. Kritzer (1998) found that 58% specified a fixed percentage of the gross recovery, 38% specified a variable percentage, and 3% had some other form.

[61]The first letter along these lines was sent in 1977 by Robert L. Alpert, Senior Vice President and Director of Claims of United States Aviation Underwriters, Inc., following a runway collision at Tenerife in the Canary Islands. See Craft (1981). These letters known as "Alpert letters" or "Tenerife letters."

[62]Brickman (1996; 296). These letters have reportedly had an impact on the magnitude and structure of fees collected by lawyers in aviation litigation. "In cases where airline insurers voluntarily sent out the 'Alpert letter' which makes an early settlement offer and concedes all legal liability, average contingent fee rates dropped to 17% and were often only charged on a portion of the recovery." Brickman (1996) referencing Kreindler (1982). Some victims have followed the advice in these letters and pay their lawyers based on the value added relative to the early offer. See Kakalik et al. (1988), page 45. Interestingly, this approach by the airlines has reportedly also reduced the compensation received by the airlines' defense lawyers in aviation cases. Brickman, Fordham, page 296. Referencing Kreindler (1982) page 10: "The Alpert Approach has also *substantially* reduced the fees of *defense lawyers*." This mechanism arguably gives the airlines a strong incentive to make early settlement offers that are acceptable to the claimants and to their attorneys. See Brickman (1994).

[63]In *Milwaukee Rescue Mission, Inc. v. Redevelopment Auth. of City of Milwaukee*, 468 N.W.2d 663 (Wis. 1991) the contingency agreement specified "one-third of any amount by which the verdict exceeded the jurisdictional offer." See also *Redevelopment Comm'n of Hendersonville v. Hyder*, 201 S.E.2d 236 (N.C. Ct. App. 1973) (stating that one-third of the excess recovered is a standard fee of Lawyers in North Carolina).

seeking worker's compensation.[64]

As with our method, Brickman's method has the virtue of promoting early settlement and preventing windfall gains for unscrupulous attorneys.[65] But since Brickman's method is percentage based, it fails to align the lawyer's incentives with the client's. As with the conventional percentage method, the lawyer would put in too little effort and accept low-ball settlement offers.

The effects of Brickman's method may be seen using our analytical framework.[66] If negotiations fail, the lawyer chooses effort e to maximize their private net return,

$$\theta(d(e) - s) - w_0 e. \tag{14}$$

Notice that the lawyer captures only a fraction θ of the client's net return relative to the offer $d(e) - s$ but bears 100% of the costs. If the case fails to settle, the lawyer will choose the same (insufficient) effort level e^p as defined in (4) above.[67] If the case settles, the lawyer gets nothing. The defendant will raise the settlement offer to the point where the lawyer's return from trial in (14) is zero. The defendant's settlement offer, $s = d(e^p) - w_0 e^p/\theta$ is the same as before in (5). Note that the attorney is making less money than they did with the conventional percentage fee in Proposition 1. Thus, as anticipated by Brickman (1996) and others, this method shifts the outcome in the plaintiff's favor.

While Brickman's method has the virtue of reducing windfall attorney fees, it does not align the attorney's effort incentives with the client's. Since the percentage is less than 100%, the lawyer will tend to put in less effort than is in the plaintiff-lawyer's team's best interest, $e^p < e^*$. Furthermore, the defendant's settlement offer $s = d(e^p) - w_0 e^p/\theta$

[64]See *Spinak, Levinson & Associates v. Industrial Commission* 209 Ill. App. 3d 120 (1990) (describing a standard fee agreement between lawyer and client).

[65]Stephen Susman to the Annual Meeting of the American Bar Association Tort and Insurance Practice Section, "I do a lot of contingent fee work for large corporate plaintiffs and during our fee negotiations, little is left on the table. Often my clients insist on a fee structure not so different from that being proposed. So what's so awful with a rule that assures clients without clout of the same protection against a lawyer windfall?" See Horowitz (1995; 190-91).

[66]In Section 2, our numerical example showed that with a conventional percentage fee of 30% the lawyer would put in too little effort (should the case fail to settle) and the defendant, knowing this, would make a low-ball settlement offer of about $s = 30$. This was great for the lawyer, as they would get paid $30\% \times 30 = 9$ for no work at all, but bad for the plaintiff who only get $70\% \times 30 = 21$. With Brickman's proposal, the lawyer gets nothing if the case settles but 30% of the value added, $30\% \times (d - s)$. The lawyer has a strong incentive to accept the defendant's offer of $s = 30$. If the lawyer rejects it, the lawyer suffers a negative return, $30\% \times (30 - 30) - 1 = -1$. These numbers reflect the lawyer's incentive to put in low effort. With medium effort, the lawyer would net $30\% \times (50 - 30) - 10 = -4$ and with high effort $30\% \times (60 - 30) - 20 = -11$.

[67]From (14), the marginal benefit of effort it $\theta d'(e^p)$ and the marginal cost is w_0.

is too low.[68] This is not just because the lawyer would put in too little effort, but also because the lawyer is capturing a fraction $\theta < 1$ of the common pool. This distorts the lawyer's settlement incentives and their willingness to accept low settlement offers. Our value-added hourly fee method addresses this problem. Our proposal, which is based on the hourly fee, encourages early settlement, prevents windfall attorney fees, and gets incentives just right.

5.2 Hybrid Methods

There have been several prominent proposals to align the effort incentives of lawyers and clients. As described in the literature review in the Introduction, Clermont and Currivan (1977) propose a method with two parts: The lawyer would be paid an hourly wage for their time plus a percentage of the client's net recovery (after subtracting the hourly wage bill from the common pool). The percentage would be chosen by the court to compensate the lawyer for the inherent risk of the lawsuit.[69]

Here is how Clermont and Currivan's method would work in our baseline framework. If the lawyer rejects the settlement offer, the lawyer would choose their effort e to maximize their private net return,[70]

$$we + \theta(d(e) - we) - w_0 e. \tag{15}$$

In this expression, the lawyer is paid their hourly wage we plus a percentage θ of the plaintiff's net return, $d(e) - we$. Combining terms and rearranging this expression, the lawyer's net return can be decomposed into two parts:

$$(1 - \theta)(w - w_0)e + \theta(d(e) - w_0 e). \tag{16}$$

The first part of this expression is the lawyer's profit that is due to the wage markup over their opportunity cost. The second part is the lawyer share of the joint net return, $d(e) - w_0 e$.

Clermont and Currivan explore the special case where the lawyer's hourly wage w is

[68] Together, the lawyer and plaintiffs would be better off rejecting this offer and going to trial.

[69] Clermont and Currivan's proposal has received attention in the literature, but has not been implemented in practice. As described by Fitzpatrick (2021; 1162) "[t]he data we do have forces us to ask why even sophisticated clients eschew the elegance of the contingent-lodestar-plus-percentage formula. One possibility is that the economic modeling is simply missing something. ... Another possibility is path dependence: contingency agreements have been using the percentage method with a one-third percentage for a very long time; maybe inertia explains why that has not changed."

[70] This expression assumes that there are sufficient funds to pay the lawyer from the common pool.

exactly equal to the opportunity cost w_0. If $w = w_0$, the first part of equation (16) drops out and the second part remains. If $w = w_0$, the lawyer would choose their effort to maximize $\theta(d(e) - w_0 e)$. Since θ is a constant percentage, like .33, the lawyer will choose the ideal effort level e^*, just as they should.[71]

Clermont and Currivan's method, while elegant and and insightful, suffers from some practical shortcomings. First, even in the best case scenario with no risk, the success of the mechanism relies on getting the hourly fee just right, i.e., set equal to the lawyer's opportunity cost of their time. If the hourly wage is set too high, the lawyer will spend too much time on the case, and if the hourly wage is set too low, the lawyer will spend too little.[72] Second, one needs to determine the correct percentage for the lawyer. In riskless situations (and assuming that the hourly wage is set just right), the percentage could be very small. But in risky situations, the method would need to raise the percentage to cover the attorney's shortfall from non-recovery of their time cost. Thus, on closer inspection, Clermont and Currivan's proposal raises many of the same challenges as the traditional hourly and percentage fee approaches.

Polinsky and Rubinfeld (2003) propose a clever twist on the percentage fee method to align the lawyer's incentives with the class. Their method is perhaps best illustrated with an example. Suppose that the percentage fee is 30%. With Polinsky and Rubinfeld's method, after the case is resolved, the plaintiffs would reimburse the lawyer 100% − 30% = 70% of their costs in addition to 30% of the common pool. Since the lawyer would bear 30% of the costs and get 30% of the gross benefits, the lawyer will make the right decisions for the plaintiff.

Consider our framework with no risk and suppose that the hourly wage $w > w_0$. With Polinsky and Rubinfeld's method, the lawyer's net payoff would be

$$(1 - \theta)we + \theta d(e) - w_0 e. \tag{17}$$

The first two terms are the payments made to the lawyer (a partial reimbursement of their time cost plus a percentage of the gross award). The third term is the lawyer's true

[71] The lawyer chooses the effort level where the slope of $\theta(d(e) - w_0 e)$ is equal to zero. Since $\theta(d'(e^*) - w_0) = 0$, the lawyer chooses the ideal level e^* defined in equation (2).

[72] The lawyer would choose their effort to maximize their payoff in equation (16). Taking the derivative, the slope is $(1-\theta)(w-w_0)+\theta(d'(e)-w_0) = 0$. By equation (2), if $e = e^*$ then $\theta(d'(e^*)-w_0) = 0$. Thus, if $w - w_0 = 0$ then the lawyer invest efficiently, $e = e^*$; if $w - w_0 > 0$ then the lawyer will overinvest, $e > e^*$; if $w - w_0 < 0$ then the lawyer will underinvest, $e < e^*$.

opportunity cost. This may be rewritten as

$$(1-\theta)(w-w_0)e+\theta(d(e)-w_0e). \tag{18}$$

Notice that this is identical to the lawyer's net payoff with Clermont and Currivan's mechanism in (16) above. If the court can set the wage just right, $w = w_0$, then in this simple, riskless setting, the lawyer would have the correct incentives for effort.[73]

To address the problem of litigation risk, Polinsky and Rubinfeld would augment their mechanism with a third-party administrator who would pay a fraction of the lawyer's time even if the case is lost.[74] To address the problem of windfall attorney fees, Polinsky and Rubinfeld propose that the administrator would solicit bids from different attorneys and choose the attorney with the lowest percentage. Administrators would compete against each other for the right to assist the plaintiff. In their proposal, the competition among administrators and the lawyers would dissipate third-party rents and deliver the maximum possible value to the plaintiffs. By contrast, our value-added hourly method does not require competition among lawyers or a market for third-party administrators.

5.3 Tiered Percentage Fees

As noted above, if paid a fixed percentage fee of say 25% regardless of the recovery or stage at which the case was resolved, the lawyer has a financial incentive to settle earlier than would be ideal.[75] The lawyers' settlement incentives are compromised because the lawyer bears all of their time costs but receives a smaller fraction of the common pool.

Several authors have proposed tiered or graduated percentage fee scales to address the attorney's incentives to accept early, low-ball settlement offers. If the percentage increases with the recovery, the lawyer has a stronger incentive to push forward with litigation rather than cash out early.[76] For example, Coffee (1986) writes: "[T]he most logical answer to this problem of premature settlement would be to base fees on a graduated, increasing percentage of the recovery formula." Graduated scales where percentages increase with

[73] But if the wage diverges from the opportunity cost, the lawyer's incentives will be compromised.

[74] The plaintiff could play the administrator role themselves if they have the resources to pay the lawyer if the case is lost.

[75] See Fitzpatrick (2021; 1158). "[T]he lawyer must bear all the effort of going forward with the litigation while collecting only a fraction of the return on the effort. This incentivizes the lawyer to want to settle prematurely, even if it means a smaller recovery.

[76] See Coffee (1986), Hay (1997) and Fisch (2002). Klement and Neeman (2004) argue that in some settings the percentage should be declining.

the duration and size of the award are observed in practice. For example, Brickman (1996; 287) writes that it is common to have a percentage fee of 33% for cases that settle very early, rising to 40% for cases settled after filing, and maybe up to 50% for cases resolved at trial.[77]

While tiered percentage fees can improve lawyers' incentives relative to fixed percentage fees, they are not a panacea. Unless the top percentage is 100%, the lawyer's effort incentives will be misaligned with the plaintiff's. And since the optimal fee structure would depend on the facts and scale of the lawsuit, one would need to spend energy to determine the appropriate percentages and thresholds for awarding attorney fees. By contrast, by harnessing the information from the defendant's settlement offers, our proposed method involves a lower informational burden.

6 Application: Class Action Fee Requests

While agency problems arise in all types of civil litigation, they are arguably most severe in class actions or multidistrict litigation (MDLs). In aggregate litigation settings, it is often impractical or impossible for the plaintiffs to contract with the attorneys in advance, to monitor their ongoing activities, or to weigh in on major decisions. Indeed, the plaintiffs may not even be aware that a lawsuit is pending. Since the plaintiffs are largely absent, the court plays an important quasi-fiduciary role in approving settlements and reviewing attorney fee requests.[78]

In class action litigation, lawyers' fees are typically determined ex post, at or near the conclusion of the litigation, in fee request proceedings.[79] Judicial oversight is required to determine whether the class action attorney's fee request is reasonable, given their efforts and the results obtained.[80] Some courts use a so-called lodestar method where the

[77] See Engstrom (2009) for an in-depth discussion of tiered fees in personal injury litigation. It is unusual for percentages to decline with recovery size in class action litigation, although these system have been used on occasion by the 7th Circuit. "In the Seventh Circuit, courts sometimes decrease percentages marginally with recovery size-for example, paying the lawyer one-third of the first $100 million of a recovery and 25 percent of the next $100 million." Fitzpatrick (2021; 1169).

[78] The court "functions as a quasi-fiduciary to safeguard the corpus of the fund for the benefit of the plaintiff class." See In re Fidelity/Micron Secs. Litig., 167 F.3d 735, 736 (1st Cir. 1999). See the broad discussion in Fitzpatrick (2021).

[79] Lawyers' fee requests often "present the conflict between plaintiffs' attorney and client in the most vivid form. Especially in common fund cases, money awarded to the attorney comes directly out of the fund that would otherwise go to the class or corporation." Macey and Miller (1991; 49). See Eisenberg et al. (2017) for further discussion.

[80] The court is put into the position of "a public utilities commission, regulating the fees of counsel after the services have been performed, thereby combining the difficulties of rate regulation with the inequities

hourly rate may be adjusted upwards,[81] while other courts use the percentage method (or a hybrid of the two).[82] Courts do on occasion use the history of settlement negotiations when evaluating the reasonableness of attorney fee requests.[83] Our value-added hourly method has the power to significantly reduce the administrative burden on the court. It can and should be part of the standard judicial toolkit in class action litigation and other forms of claim aggregation.

Under the "common fund doctrine," a class action attorney is entitled to a piece of the pie that they created and may collect reasonable fees and expenses directly out of the common fund.[84] This doctrine is relevant for a broad range of lawsuits, including private antitrust litigation, products liability, and securities class actions.[85] The fact that the attorney is paid out of the common fund puts the attorney in potential conflict with the plaintiffs: Every dollar paid to the attorney comes directly out of their client's pocket. Since the class members are largely absent, the court plays an instrumental role in assessing the reasonableness of the attorneys' fee request and dividing the common fund between the attorneys and the class members.

Starting in the late nineteenth century, lawyers received a set percentage of the common fund.[86] The percentage fee method remained the standard way of compensating lawyers in common fund class actions through the middle of the twentieth century. But by the early 1970s, percentage fees were generating bad press. They were increasingly associated with windfall returns for lawyers, especially in large class actions,[87] and with settings where attorneys "sold out" their clients.[88] There was broad concern that per-

of retrospective rate-setting." *Kirchoff v. Flynn*, 786 F.2d 320, 325 (7th Cir. 1986).

[81]The multiplier could be based on factors such as the skill level of the attorneys and the risk inherent in the litigation, among others.

[82]See Rubenstein (2020) §15:85 ("[M]any courts also undertake a lodestar cross check as a means of ensuring that the percentage award is not a windfall."). See also Fitzpatrick (2021) and Rubenstein (2008).

[83]See e.g. *Thomas v. FTS, USA LLC* 193 F. Supp. 3d 623 (E.D. Va. 2016) and Section 6. See also *Haworth v. State of Nevada*, 56 F.3d 1048, 1051 (9th Cir. 1995); *McKelvey v. Secretary of U.S. Army,* 768 F.3d 491, 498 (6th Cir. 2014); *Gurule v. Land Guardian, Incorporated,* 912 F.3d 252, 260 (5th Cir. 2018).

[84]See *Boeing Co. v. Van Gemert*, 444 U.S. 472, 478 (1980); Alyeska Pipeline, 421 U.S. at 257-59; *Mills v. Electric Auto-Lite Co.*, 396 U.S. 375, 392 (1970).

[85]See Lapointe (1991; 844).

[86]See *Central R.R. & Banking v. Pettus*, 113 U.S. 116, 128 (1885). See discussion in Lapointe (1991; 842-45) and Silber and Goodrich (1998; 528) for general background.

[87]See *Lindy Bros. Builders v. American Radiator & Standard Sanitary Corp.*, 487 F.2d 161, 168 (3d Cir. 1973).

[88]"[T]he court's role as fiduciary is primarily to ensure that the class's own agents – its class representatives and class counsel – have not sold out its interests in settling the case." Rubenstein (2020) §13:40. See Coffee (1986; 725) for an early formal discussion of sell-out settlements, and Lapointe (1991; 873-75)

centage fees reflected badly on the bar and the bench.[89]

The 1970s saw a movement towards the "lodestar" method for compensating lawyers in class actions. With the lodestar method, the lawyer keeps track of the time spent on the lawsuit. After the case is resolved through settlement or trial, the lawyer is entitled to compensation for their time, so long as it was spent in a reasonable way and for the benefit of the common fund. In evaluating the lawyer's fee request, the court multiplies the number of (reasonable) hours by an hourly rate. The court enjoys considerable discretion when applying this lodestar formula. For example, the court may deny hours that seem unreasonable or adjust the lawyer's hourly billing rate to reflect the quality of the work done and the market conditions.[91] Furthermore, the court may enhance the hourly rate with a fee multiplier that reflects the risk associated with the case. Multipliers vary considerably across jurisdictions and cases, with some applying no multiplier and others applying a factor of up to four.[92]

The lodestar method imposes a large administrative burden on the court.[93] When paid by the hour, lawyers have a financial incentive to perform unnecessary work, fabricate their time records, and drag out the process.[94] Thus, in its role as a fiduciary to the class members, the court needs to carefully review the lawyers' hourly records with an eye towards identifying bill padding by unscrupulous attorneys and trimming the excess

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for relevant case law.

[89]One court opined that "unless time spent and skill displayed be used as a constant check on applications for fees Starting in the late nineteenth century, lawyers received a set percentage of the common fund.[90], 487 F.2d 161, 168 (3d Cir. 1973) (quoting *Cherner v. Transitron Elec. Corp.*, 221 F. Supp. 55, 61 (D. Mass. 1963)), aff'd in part and vacated in part, 540 F.2d 102 (3d Cir. 1976). See Lapointe (1991; 845).

[91]Others rely on their own expertise. In the words of one confident California superior court judge, "I've been on the bench 18 years reviewing fee requests on numerous types of cases, being familiar with many law firms practicing in rural areas as well as in the big city south of here [i.e., San Francisco].... I know what the going rates are. I know what lawyers have to do and I know what cases are worth and how much time it takes." See *Ketchum v. Moses*, 24 Cal.4th 1122 (2001).

[92]See Lapointe (1991; footnote 103) for examples. Fitzpatrick (2010; 834) observes lodestar multipliers of up to 10 in his sample.

[93]See Rubenstein (2008; 93-94).

[94]If "class counsel's fee is set by an hourly rate, she has an incentive to run up as many hours as possible in the litigation so as to ensure a hefty fee, even if the additional hours are not serving the clients' interests in any way." Rubenstein (2008; 94). The system "creates an incentive to run up hours, to do too much in relation to the stakes of the case." *Kirchoff v. Flynn*, 786 F.2d 320, 324 (7th Cir. 1986).

hours.[95] Furthermore, the court needs to identify a sensible hourly billing rate[96] and appropriate enhancement multiplier to apply to that rate.[97] The practical implementation of the lodestar requires a detailed understanding of the gross benefits the lawyer's effort, the cost of the lawyer's time, and the risk of non-recovery.

The use of the lodestar method in class action litigation declined in the 1980s following the Supreme Court's decision in *Blum v. Stenson*[98] and a subsequent Third Circuit task force report.[99] In a brief footnote in *Blum v. Stenson*, the court suggested that the percentage fee method is "reasonable" under the common fund doctrine. Some courts, frustrated with the administrative burden and ambiguity of the lodestar method, welcomed the Supreme Court's apparent endorsement of the percentage fee.[100] Instead of scrutinizing the lawyers' billing records and engaging in a complicated lodestar analysis, courts could instead multiply the size of the fund by an appropriate percentage.[101]

But what percentage should courts apply? Some courts adopt the percentages used in similar cases or in private market settings.[102] But many other courts, reluctant to award windfall fees to class counsel, engage in a so-called "lodestar cross-check."[103] With the

[95]Lawyers can easily pad their hours with vague descriptions of the work done (such as "conferring" with others). While some courts do scrutinize the records in detail, others simply defer to the lawyer's report or engage in broad spot checks for duplicate hours and the like. Still other courts impose broad haircuts to the fee awards. See Lapointe (1991; 848-52).

[96]Courts use tools like the "Laffey Matrix" for guidance. *Laffey v. Nw. Airlines, Inc.*, 572 F. Supp. 354, 359 (D.D.C. 1983), aff'd in part, rev'd in part, 746 F.2d 4 (D.C. Cir. 1984). According to Rubenstein (6th ed. 2021), "In the 10-year period from December 1, 2011 through December 1, 2021, the term 'Laffey matrix' appears in 967 reported federal cases on Westlaw; 356 of these references are in the District of Columbia courts, but courts in many circuits have utilized the matrix." An alternative tool is the "Fitzpatrick Matrix," available at U.S. Attorney's Office for the District of Columbia, Civil Division, https://www.justice.gov/usao-dc/page/file/1189846/download. Judges often make adjustments to account for inflation (e.g., the CPI) and local market conditions. See Rubenstein (5th ed. 2019).

[97]Multipliers can differ dramatically across cases. The table presented in *Vizcaino v. Microsoft Corp.*, 290 F.3d 1043 (2002) reveals the use of multipliers up to and even above 19.

[98]465 U.S. 886 (1984).

[99]See *Report of the Third Circuit Task Force on Court Awarded Attorney Fees,* 108 F.R.D. 237, 255 (1986) recommending percentage fees in common fund cases.

[100]According to the Federal Judicial Center (2004; 187), "[a]fter a period of experimentation with the lodestar method . . . the vast majority of courts of appeal now permit or direct district court to use the percentage-fee method in common fund cases."

[101]According to advocates, the percentage method "generally far more straightforward than determining the right number of hours, proper billing rate, and appropriate multiplier." Rubenstein (2008; 94).

[102]Rubenstein (2008; 96).

[103]In a large-scale study of class action attorney fee requests from 2009 to 2013, Eisenberg et al. (2017) found that 53.6% of courts use a pure percentage method while an additional 38.2% of courts used both the percentage and lodestar methods in the same case. Between 2009 and 2013, only 6.3% of courts used a pure lodestar method. Eisenberg et al. (2017; 945) and Table 1. The remaining 1.9% used some other method. Fitzpatrick's (2010; 231) data set of cases from 2006-2007 reveals that 69% used a percentage method (with or without the cross-check) while 12% used the lodestar method. The remainder used

lodestar cross-check, court compares the lawyer's compensation under the pure percentage method to what the lawyers would get paid under the lodestar method. If the lawyer's compensation with the percentage method seems too high (relative to the lodestar cross-check), then the court adjusts the percentage downwards. Thus, even with the percentage method, courts end up scrutinizing the lawyers' records and making the same complex calculations as with the lodestar. And the lawyers, who of course want the court to award a higher percentage, have an incentive to exaggerate the difficulty of the case and the time they spent working on it.[104]

Our value-added hourly method has fundamental advantages over the traditional lodestar and percentage fee methods.[105] Our method works by tapping into the defendant's knowledge and expertise, and their incentives to make reasonable settlement offers. With a reasonable settlement offer on the table, the class action lawyer has no incentive to drag out the process, waste additional time on frivolous tasks, or falsify billing records. The improved incentives frees the court from having to scrutinize the lawyer's billing records for possible misbehavior. The determination of the lodestar multiplier is likely simpler than for the traditional lodestar method, too, as in many settings the lawyer has less incentive to distort the truth.[106] Since the method in effect grants the class members the value of the rejected settlement offer before the lawyer can get paid for additional hours worked, the method avoids attorney windfalls.

Our method should not be difficult for judges to implement in practice. While still far from commonplace, courts do on occasion use the history of settlement negotiations when evaluating the reasonableness of attorney fee requests in class action litigation.[107] For example, in *Thomas v. FTS*,[108] class counsel had rejected the defendant's offer to settle with the class for $1.3 million, which was by all accounts a reasonable sum. After a one month delay, and considerable time and effort, the case was ultimately resolved for the very same $1.3 million. The Court found that, under the circumstances, the lawyer's

unknown or other mixed methods.

[104] Proponents of the percentage method argue that courts should resist the temptation to cross-check the numbers. See Rubenstein (2008).

[105] Our method is also superior to the many proposals that seek to improve upon the traditional methods. See the discussion of Brickman et al. (1994), Clermont and Currivan (1977), Polinsky and Rubinfeld (2003), and Coffee (1996) in Section 5 above.

[106] See Section 4.3.

[107] It is common for courts to use settlement offers when evaluating fee-shifting requests under various State and Federal statutes. See the discussion of Rule 68 in the literature review in Section 1. See Endo (2013) for the broader background of the admissibility of settlement offers as evidence at trial.

[108] *Thomas v. FTS, USA LLC* 193 F. Supp. 3d 623 (E.D. Va. 2016). This case involved the judicial approval of attorneys fees in a class action lawsuit brought against an employer for their hiring practices.

fee request of $500,000 was excessive. While acknowledging their "exceptional experience, reputation and ability," the Court found that the lawyers were "not entitled to their fee for the work they completed after rejecting a reasonable settlement offer." The lawyers' fee award was reduced to $400,000.[109]

7 Conclusion

We are proposing a new and better way to pay lawyers. With the traditional percentage fee, the lawyer will not work hard enough and will accept low-ball settlement offers. With the traditional hourly fee, the lawyer will work too many hours, decline fair offers of settlement, and drag out the litigation. With our method, the lawyer is paid by the hour but their compensation is capped by their value added relative to any rejected settlement offer. Benchmarking against the defendant's settlement offers changes the game. Our method aligns the lawyer's incentives with the plaintiff's, avoids windfall attorney fees, and gets the defendant to make early and reasonable settlement offers. The value-added hourly fee harnesses the information and incentives of the defendant to solve plaintiff-side agency problems. It also serves the public interest by reducing administrative costs and burdens on the court system.[110]

The value-added hourly method may be used by *defendants* when paying their lawyers, too. With our method, the defendant would pay their lawyer by the hour, but cap the lawyer's compensation at the value added relative to the *plaintiff's* settlement demand. Suppose for example that the plaintiff offers to settle for $40 thousand. If the defense attorney advises the defendant to reject the offer and the trial verdict is $30 thousand, then the defense attorney's compensation for time spent after rejecting the plaintiff's settlement demand would be capped at $10 thousand. This would discourage the defense attorney from bill padding and would encourage the defense attorney to accept early and reasonable settlement demands. Importantly, our method would also give the *plaintiff* an added incentive to make reasonable settlement demands.

Our new method should prove particularly valuable in class action and other litigation

[109]The Court compared their approach to those used in fee-shifting cases, including Rule 68. "By excluding fees incurred after rejecting a reasonable offer, the Court encourages Class Counsel to seriously consider the value of continued litigation."

[110]Our method may also help to better deter harmful activities. With the traditional percentage fee, injurers can take advantage of victims by inducing their lawyers to settle claims for significantly less than they are worth. When viewed from an ex ante perspective, defendants may fail to internalize the harms to others and will take inadequate precautions to avoid harm.

settings where there is a pronounced separation of case ownership and control. In class actions, dispersed plaintiffs tend to have neither the ability nor the incentive to monitor the lawyers directly. For this reason, judges play an important quasi-fiduciary role in evaluating attorney fee requests ex post. In practice, judges often spend an inordinate amount of time and effort scrutinizing the lawyers' time keeping records with a keen eye towards identifying frivolous charges, sloppy accounting, and even fraudulent billing. Our method has the potential to significantly lighten the burden on the court and improve the efficiency and expediency of civil litigation.

8 Appendix

Proof of Proposition 2. There exist cutoffs $e_l < e^* < e^h$ where $d(e) \geq we$ if and only if $e \in [e_l, e^h]$. If $e \in [e_l, e^h]$ then (6) becomes $(w - w_0)e$ which is increasing in e and maximized at e^h. If $e \notin [e_l, e^h]$ then (6) becomes $d(e) - w_0 e$. If $e > e^h > e^*$ then $d'(e) - w_0 < d'(e^*) - w_0 = 0$ since $d(e) - w_0 e$ is concave and maximized at e^*. So the lawyer would reduce effort e. If $\underline{e} \leq e < e_l < e^*$ then $d'(e) - w_0 > d'(e^*) - w_0 = 0$. So the lawyer would raise effort e. □

Proof of Lemma 1. We prove the lemma by examining each of the three cases.

Case 1: Suppose $s \in [0, d(e^*) - we^*]$. If the lawyer chooses effort $e > e^*$ then $d(e) - s > d*(e^*) - s \geq d(e^*) - (d(e^*) - we^*) = we^* > 0$. The lawyer's net payoff $\min\{we, \max\{0, d(e) - s\}\} - w_0 e = \min\{we, d(e) - s\} - w_0 e$. Define e^{va} to be the implicit solution to $we^{va} = d(e^{va}) - s$. If $e \in [e^*, e^{va}]$ then $we < d(e) - s$ and so the lawyer's net payoff is $(w - w_0)e$ which is maximized at e^{va}. If $e > e^{va}$ then $we > d(e) - s$ and the lawyer's net payoff is $d(e) - s - w_0 e$ which, since $d'(e) < w_0$ for $e > e^*$, is also maximized at e^{va}. The lawyer would not choose $e < e^*$ (see the proof of Proposition 2).

We now verify that e^{va} is decreasing in s. and define x as the implicit solution to $d(x) - wx = s$. Totally differentiating with respect to x and s gives $\Delta x / \Delta s = (d'(x) - w)^{-1}$. If $x = e^*$ then from (2), $d'(e^*) - w_0 = 0$. Since $w > w_0$ and $d'(x) < d'(e^*)$ for all $x > e^*$ by convexity, $d'(x) - w < 0$ for all $x > e^*$. Therefore the implicit solution to $d(x) - wx = s$ is a decreasing function of s for all $x \geq e^*$.

Case 2: Suppose $s \in (d(e^*) - we^*, d(e^*) - w_0 e^*]$. In this range, $d(e) - s < we$ for all e. If the lawyer chooses effort $e > e^*$ then $d(e) - s > d(e^*) - s > w_0 e^* > 0$. The lawyer's net payoff is therefore $\min\{we, \max\{0, d(e) - s\}\} - w_0 e = d(e) - s - w_0 e$. This expression is maximized at e^*. The lawyer's payoff is $d(e^*) - w_0 e^* - s \geq 0$. The lawyer's payoff is decreasing in s.

Case 3: Suppose $s > d(e^*) - w_0 e^*$. Since the right-hand side is maximized at e^*, we have $s > d(e) - w_0 e$, or $d(e) - s < w_0 e$ for all e. Lawyer's net payoff $\min\{we, \max\{0, d(e) - s\}\} - w_0 e < \min\{we, \max\{0, w_0 e\}\} - w_0 e = \min\{we, w_0 e\} - w_0 e = 0$.

□

References

Anderson, D. A., & Rowe Jr, T. D. (1995). Empirical evidence on settlement devices: Does rule 68 encourage settlement. *Chi.-Kent L. Rev.*, *71*, 519.

Bebchuk, L. A. (1984). Litigation and settlement under imperfect information. *The RAND Journal of Economics*, 404–415.

Bebchuk, L. A., & Chang, H. F. (1999). The effect of offer-of-settlement rules on the terms of settlement. *The Journal of Legal Studies*, *28*(2), 489–513.

Bone, R. G. (2008). To encourage settlement: Rule 68, offers of judgment, and the history of the federal rules of civil procedure. *Nw. UL Rev.*, *102*, 1561.

Brickman, L. (1996). Aba regulation of contingency fees: Money talks, ethics walks. *Fordham L. Rev.*, *65*, 247.

Brickman, L., Horowitz, M., & O'Connell, J. (1994). *Rethinking contingent fees: A proposal to align the contingent fee system with its policy roots and ethical mandates*. Manhattan Institute.

Center, F. J. (2004). *Manual for complex litigation, fourth*.

Choi, A. (2003). Allocating settlement authority under a contingent-fee arrangement. *The Journal of Legal Studies*, *32*(2), 585–610.

Clermont, K. M., & Currivan, J. D. (1977). Improving on the contingent fee. *Cornell L. Rev.*, *63*, 529.

Coffee, J. C. (1987). The regulation of entrepreneurial litigation: Balancing fairness and efficiency in the large class action. *The University of Chicago Law Review*, *54*(3), 877–937.

Coffee Jr, J. C. (1986). Understanding the plaintiff's attorney: The implications of economic theory for private enforcement of law through class and derivative actions. *Colum. L. Rev.*, *86*, 669.

Cooter, R., & Porat, A. (2002). Anti-insurance. *The Journal of Legal Studies*, *31*(2), 203–232.

Craft Jr, R. R. (1981). Factors influencing settlement of personal injury and death claims in aircraft accident litigation (including occasionally disputatious views of excessive fees, unnecessary delays, unreliable advice to clients, and other regrettable improprieties). *J. Air L. & Com.*, *46*, 895.

Dana Jr, J. D., & Spier, K. E. (1993). Expertise and contingent fees: The role of asymmetric information in attorney compensation. *The Journal of Law, Economics, and Organization*, *9*(2), 349–367.

Danzon, P. M. (1983). Contingent fees for personal injury litigation. *The Bell Journal of Economics*, 213–224.

Danzon, P. M., & Lillard, L. A. (1983). Settlement out of court: The disposition of medical malpractice claims. *The Journal of Legal Studies*, *12*(2), 345–377.

Eisenberg, T., Miller, G., & Germano, R. (2017). Attorneys' fees in class actions: 2009-2013. *NYUL Rev.*, *92*, 937.

Emons, W. (2000). Expertise, contingent fees, and insufficient attorney effort. *International Review of Law and Economics*, *20*(1), 21–33.

Emons, W. (2017). Legal fees and lawyers' compensation. *The Oxford Handbook of Law and Economics*, *3*, 247.

Endo, S. K. (2013). Should evidence of settlement negotiations affect attorneys' fees awards. *NYU Ann. Surv. Am. L.*, *69*, 417.

Engstrom, N. F. (2009). Run-of-the-mill justice. *Geo. J. Legal Ethics*, *22*, 1485.

Fisch, J. E. (2002). Lawyers on the auction block: Evaluating the selection of class counsel by auction. *Colum. L. Rev.*, *102*, 650.

Fitzpatrick, B. T. (2009). Do class action lawyers make too little. *U. Pa. L. Rev.*, *158*, 2043.

Fitzpatrick, B. T. (2010). An empirical study of class action settlements and their fee awards. *Journal of Empirical Legal Studies*, *7*(4), 811–846.

Fitzpatrick, B. T. (2020). A fiduciary judge's guide to awarding fees in class actions. *Fordham L. Rev.*, *89*, 1151.

Hay, B. L. (1997). Optimal contingent fees in a world of settlement. *The Journal of Legal Studies*, *26*(1), 259–278.

Helland, E., & Seabury, S. A. (2013). Contingent-fee contracts in litigation: A survey and assessment. In *Research handbook on the economics of torts* (pp. 383–413). Edward Elgar Publishing.

Helland, E., & Tabarrok, A. (2003). Contingency fees, settlement delay, and low-quality litigation: Empirical evidence from two datasets. *Journal of Law, Economics, and Organization*, *19*(2), 517–542.

Hensler, D. R. (1989). Resolving mass toxic torts: Myths and realities. *U. Ill. L. Rev.*, 89.

Horowitz, M. (1995). Making ethics real, making ethics work: A proposal for contingency fee reform. *Emory LJ*, *44*, 173.

Kakalik, J. S., King, E. M., Traynor, M., Ebener, P. A., & Picus, L. (1988). *Costs and compensation paid in aviation accident litigation* (Vol. 3421).

Klement, A., & Neeman, Z. (2004). Incentive structures for class action lawyers. *Journal of Law, Economics, and Organization*, *20*(1), 102–124.

Klement, A., & Neeman, Z. (2005). Against compromise: A mechanism design approach. *Journal of Law, Economics, and Organization*, *21*(2), 285–314.

Kreindler, L. S. (1982). The letter should not be sent. *Brief*, *12*, 5.

Kritzer, H. M. (1997). The wages of risk: The returns of contingency fee legal practice. *DePaul L. Rev.*, *47*, 267.

Kritzer, H. M., Felstiner, W. L., Sarat, A., & Trubek, D. M. (1985). The impact of fee arrangement on lawyer effort. *Law & Soc'y Rev.*, *19*, 251.

Lapointe, M. (1990). Attorney's fees in common fund actions. *Fordham L. Rev.*, *59*, 843.

Macey, J. R., & Miller, G. P. (1991). The plaintiffs' attorney's role in class action and derivative litigation: Economic analysis and recommendations for reform. *The University of Chicago Law Review*, *58*(1), 1–118.

Miceli, T. J. (1994). Do contingent fees promote excessive litigation? *The Journal of Legal Studies*, *23*(1), 211–224.

Miller, G. P. (1986). An economic analysis of rule 68. *The Journal of Legal Studies*, *15*(1), 93–125.

Miller, G. P. (1987). Some agency problems in settlement. *The Journal of Legal Studies*, *16*(1), 189–215.

Polinsky, A. M., & Rubinfeld, D. L. (2003). Aligning the interests of lawyers and clients. *American Law and Economics Review*, *5*(1), 165–188.

Priest, G. L. (1982). Regulating the content and volume of litigation: An economic analysis. *Supreme Court Economic Review*, *1*, 163–183.

Reinganum, J. F., & Wilde, L. L. (1986). Settlement, litigation, and the allocation of litigation costs. *The RAND Journal of Economics*, 557–566.

Reinker, K. S., & Rosenberg, D. (2007). Unlimited subrogation: Improving medical malpractice liability by allowing insurers to take charge. *The Journal of Legal Studies*, *36*(S2), S261–S289.

Rubenstein, W. B. (2008). Why the percentage method? *Class Action Attorney Fee Digest*.

Rubenstein, W. B., Conte, A., & Newberg, H. B. (2020). Newberg on class actions. *(No Title)*.

Rubinfeld, D. L., & Scotchmer, S. (1993). Contingent fees for attorneys: An economic analysis. *The RAND Journal of Economics*, 343–356.

Schwartz, M. L., & Mitchell, D. J. (1969). An economic analysis of the contingent fee in personal-injury litigation. *Stan. L. Rev.*, *22*, 1125.

Shavell, S. (1982). Suit, settlement, and trial: A theoretical analysis under alternative methods for the allocation of legal costs. *The Journal of Legal Studies*, *11*(1), 55–81.

Shukaitis, M. J. (1987). A market in personal injury tort claims. *The Journal of Legal Studies*, *16*(2), 329–349.

Silber, R. W., & Goodrich, F. E. (1998). Common funds and common problems: Fee objections and class counsel's response. *Rev. Litig.*, *17*, 525.

Spier, K. E. (1994). Pretrial bargaining and the design of fee-shifting rules. *The RAND Journal of Economics*, 197–214.

Steinitz, M. (2010). Whose claim is this anyway-third-party litigation funding. *Minn. L. Rev.*, *95*, 1268.

Thomason, T. (1991). Are attorneys paid what they're worth? contingent fees and the settlement process. *The Journal of Legal Studies*, *20*(1), 187–223.

Wickelgren, A. L. (2004). Comment on 'aligning the interests of lawyers and clients'. *American Law and Economics Review*, *6*(2), 434–439.

Yoon, A., & Baker, T. (2006). Offer-of-judgment rules and civil litigation: An empirical study of automobile insurance litigation in the east. *Vand. L. Rev.*, *59*, 153.