The Theory of Fee Regulation in Class Action Settlements

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THE THEORY OF FEE REGULATION IN CLASS ACTION SETTLEMENTS

BRUCE L. HAYS

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INTRODUCTION

Class actions have long been thought to raise acute principal-agent issues because the class members may have little control over the actions of their representative in the litigation.¹ This concern arises most prominently in the context of class action settlements. A widely recognized risk is that the class counsel may in effect "sell out" or enter into a "collusive" settlement, thus yielding the class members an amount much smaller than the actual value of their claims.² A number of recent class action settlements have prompted the charge that the class members received only a small fraction of what they would have received (in expected terms)³ had the case gone to trial.⁴ Yet courts understandably are reluctant to discourage or abandon class action settlements as a means for resolving large-scale mass disputes, for the simple reason that the alternatives, class trials or

³ That is, taking into account the possibility that they would have lost at trial.
individual litigation, generate enormous administrative costs that the class members substantially bear themselves.\(^5\)

Emblematic of this dilemma is the debate over the so-called "settlement class action" that has recently been waged before both the Supreme Court\(^6\) and the drafters of the Federal Rules of Civil Procedure.\(^7\) With this device, courts simultaneously certify a class in, and approve a classwide settlement of, a set of suits brought by a large group of plaintiffs.\(^8\) This occurs even though the suits might not be amenable to class certification for purposes of trial. Proponents of the settlement class action tout its efficiency; it saves the costs of resolving thousands of suits that would have to be litigated separately were the device unavailable.\(^9\) Opponents of the procedure argue that it is peculiarly susceptible to the problem of collusive settlement because the defendant in effect "handpicks" the class counsel.\(^10\)

The principal-agent problem hardly is confined to the settlement class action context, however. In any class action setting, there exists the temptation for the defendant and the class counsel to strike a bargain in which the class counsel, for a price, agrees to settle the case on terms relatively disadvantageous to the class members. The class members are often unable to protect themselves against this danger; and courts, in policing settlements to safeguard the class members' interests, frequently lack the information necessary to

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6. In Amchem Products, Inc. v. Windsor, 117 S. Ct. 2231, 2244 (1997), the Supreme Court disallowed class certification in a mass settlement of current and future claims for asbestos-related injury, on the grounds that the proposed class failed to satisfy Federal Rule of Civil Procedure 23's issue commonality and adequacy of representation requirements. The Court did not address the circumstances in which a class might be certified for purposes of settlement even though it could not be certified for purposes of trial. See id. at 2247-48.


10. See In re Asbestos Litig., 90 F.3d 968, 988 (5th Cir. 1996); Coffee, supra note 2, at 1378; Letter from Steering Committee to Oppose Rule 23 (June 1, 1996) (on file with author). The settlement struck down in Amchem had been criticized extensively for its alleged collusiveness. See, e.g., Coffee, supra, at 1373-75 & n.110; Susan P. Konniak, Feasting While the Widow Weeps: Georgine v. Amchem Products, Inc., 80 Cornell L. Rev. 1045, 1048 (1995); Konniak & Cohen, supra note 4, at 1113.
detect instances in which the class members are receiving less than their claims are worth. Yet prohibiting or discouraging classwide settlements scarcely is desirable from the class members' standpoint because the cost savings resulting from settlement benefit them as much as anyone else. Therefore, regardless of how the controversy over settlement class actions is resolved, there will remain the tension between reaping the cost savings that class settlements promise while at the same time protecting the class members from being sold out in the process.

This Article examines how to mediate this conflict through judicial regulation of class counsels' fees. The Article's central theme is that proper regulation of the counsel's fee is both necessary, and within limits, sufficient to mediate the tension between the goals of facilitating settlement and protecting the class against collusion. On the one hand, effective fee regulation is a prerequisite for avoiding collusive settlements; in many settings, alternatives to fee regulation may furnish only weak protection for the class. On the other hand, proper regulation of the counsel's fee can largely protect the class against collusive settlements without blocking class settlements altogether. In other words, effective regulation of the counsel's fee in class settlements makes it possible to capture the benefits of settlement, such as reduced administrative costs, without sacrificing the interests of the class members as a group.

To develop this argument, this Article analyzes a fee regulation technique by which the court "caps" the counsel's fee so that it does not exceed a certain percentage of the amount the class receives. The use of a percentage-of-the-recovery system is of course not new; it figures prominently in existing court fee award practices. The

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11. See infra Parts IV-VI.

12. In early class action practice, courts typically calculated the counsel's fee on a simple percentage-of-the-award basis. See ARTHUR R. MILLER, ATTORNEYS' FEES IN CLASS ACTIONS: A REPORT TO THE FEDERAL JUDICIAL CENTER 23 (1980); John P. Dawson, Lawyers and Involuntary Clients in Public Interest Litigation, 88 HARV. L. REV. 849, 876 (1975) (remarking how percentage-of-benefit formula to determine attorneys' fees has assumed prominence in past twenty years). Since the mid-1970s, many courts have preferred to employ an hourly-rate formula. In employing this method, however, courts apparently often check the result against an implicit percentage-of-the-award baseline, and generally award between 20% and 30% of the recovery. See 1 ALBA CONTE, ATTORNEY FEE AWARDS 51-52 (2d ed. 1993); William J. Lynk, The Courts and the Plaintiffs' Bar Awarding the Attorney's Fee in Class-Action Litigation, 23 J. LEGAL STUD. 185, 209 (1994); Thomas E. Willging et al., An Empirical Analysis of Rule 23 to Address the Rulemaking Challenges, 71 N.Y.U. L. REV. 74, 155-65 (1996). As one court has observed, "[W]hat is curious is that whatever method is used and no matter what billing records are submitted to [the court], the result is an award that almost always hovers around 30% of the fund created by the settlement." In re Activision Sec. Litig., 723 F. Supp. 1373, 1375 (N.D. Cal. 1989); see also 1 CONTE, supra, at 51-52 (noting that attorney's recovery may be closer to 5% or 10% in very large class recoveries).
key, however, is to identify the right percentage to award. If the percentage is too high, class counsel will have an incentive to settle the case for too little; if the percentage is too low, the case may not settle at all. The optimal percentage may differ dramatically among cases and among lawyers. This Article's intended contribution is to derive the structure of the optimal fee cap and show how it would be determined in practice.

Attorney's fees often occupy center stage in studies of the problem of class action settlements. Among critics, the contention that class members have received too little in a class settlement almost always is accompanied by the corresponding charge that the class' counsel has received too much; in other words, the settlement has resulted in handsome fees for the lawyers but inadequate relief for the class members. Courts, also, worry that the prospect of earning a "juicy" fee in settlement may give class counsel an interest in settling on terms unfavorable to the class. As a result, courts devote considerable energy to scrutinizing the counsel's fee in settlement to ensure it is "reasonable" rather than "excessive" compensation. Yet it appears that no court or commentator systematically has investigated how the counsel's fee should be structured in order to give her the proper incentives in negotiating a class settlement.

13. The titles of recent articles capture this concern quite vividly. See Dawson, supra note 12 ("Lawyers and Involuntary Clients in Public Interest Litigation"); Koniak, supra note 10 ("Feasting While the Widow Weeps"); Meier, supra note 4 ("Millions for Class-Action Lawyers, Scrip for Plaintiffs"); see also MILLER, supra note 12, at 296.

14. See Alleghany Corp. v. Kirby, 333 F.2d 327, 347 (2d Cir. 1964) (Friendly J., dissenting) ("[A] juicy bird in the hand is worth more than the vision of a much larger one in the bush . . . ."). For more recent expressions of this concern, see General Motors Corp. v. Bloyed, 916 S.W.2d 949, 954 (Tex. 1996); In re General Motors Corp. Pick-Up Truck Fuel Tank Prods. Liab. Litig., 55 F.3d 768, 801-05 (3d Cir. 1995), cert. denied, 116 S. Ct. 88 (1995); In re General Motors Corp. Engine Interchange Litig., 594 F.2d 1106, 1131 (7th Cir. 1979).


16. Previous analyses have shown that the prevailing methods of calculating fee awards, awarding either an hourly rate or a fixed percentage of the recovery, may lead counsel to settle for too little. See John C. Coffee, Jr., Understanding the Plaintiff's Attorney: The Implications of Economic Theory for Private Enforcement of Law through Class and Derivative Actions, 86 Colum. L. Rev. 659, 717 (1986); Jonathan R. Macey & Geoffrey P. Miller, The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendations for Reform, 58 U. Chi. L. Rev. 1, 22-23 (1991) (discussing incentives for plaintiffs' attorneys to settle for lesser amounts on eve of trial in order to guarantee benefits while downsizing risks); see also In re General Motors Corp. Pick-Up Truck Fuel Tank Prods. Liab. Litig., 55 F.3d at 802. These studies have generally not examined designing the fee to avoid this difficulty. See Macey & Miller, supra, at 105-16 (urging the auction of plaintiffs' claims to lawyers, thereby eliminating the need for a fee at all); see also Coffee, supra, at 692.

One exception is Kevin M. Clermont & John D. Curran, Improving on the Contingent Fee, 63 Cornell L. Rev. 529, 530 (1978), who urge a hybrid hourly-rate/percentage-of-the-award fee as a means of solving the principal-agent problem in settlement. See id. at 530. Their analysis, however, does not take into account the choice between settling and going to trial; indeed, their
The absence of systematic analysis of this design problem has produced two consequences, both potentially unfortunate. First, it has led courts to focus on the wrong matters in regulating counsel's fee in class settlements. Proper regulation of the fee requires the court to adopt an ex ante perspective on settlement negotiations. In essence, the court must ask how counsel's anticipated fee determines her settlement demands. The conventional practice of the courts, however, is to look at the fee award in purely ex post terms. They ask, in essence, whether a fee award represents a fair distributional share of the amount obtained, taking the settlement amount as given, and whether the counsel is being overpaid for the work she invested in the case.\(^\text{17}\) When the objective is to protect the class against inadequate settlements, these are the wrong questions to ask and they frequently yield the wrong answers. A fee calculation system yielding awards that seem entirely appropriate when viewed ex post may, nonetheless, encourage counsel to settle for much less than the case is worth to the class.\(^\text{18}\) This may well justify critics' fears that class members are shortchanged under the current system.

Second, the lack of systematic analysis of fee design may have fostered undue skepticism toward the use of class actions as a device for resolving large-scale disputes. Some courts and commentators have advocated more sparing use of the class action, particularly the settlement class action, out of a fear of collusive settlements.\(^\text{19}\) Perhaps there are some inherent problems with the class action that warrant restricting its use,\(^\text{20}\) but the unavoidability of collusive settlements is not one of them. The problem of collusive settlement

\(^{17}\) See 1 CONTE, supra note 12, at 45-60 (providing survey and summary of courts' emphasis on ensuring that counsel's fee is appropriate in relation to amount class receives and amount of work done).

\(^{18}\) See infra note 139 and accompanying text. This point is pursued at greater length in a separate essay. See Bruce L. Hay, Asymmetric Rewards: Why Class Actions (May) Settle for Too Little, 48 HASTINGS L.J. 479, 481-82 (1997).

\(^{19}\) See In re General Motors Corp. Pick-Up Truck Fuel Tank Prods. Liab. Litig., 55 F.3d at 801-03; Bloyd, 916 S.W.2d at 952-54; Coffee, supra note 2, at 1373-74.

\(^{20}\) Some voice concern, for example, that the class action may be used as a blackmail device to extort unjustified payments from the defendants. See In re Rhone-Poulenc Rorer, Inc., 51 F.3d 1298, 1298 (7th Cir.), cert. denied, 116 S. Ct. 184 (1995). Other common concerns are that use of the class action device produces excessive costs and is unfair to individual litigants. See Barry F. McNeil & Beth L. Fancsali, Mass Torts and Class Actions: Facing Increased Scrutiny, 167 F.R.D. 483, 490-91 (1996); David Rosenberg, Individual Justice and Collectivizing Risk-Based Claims in Mass-Exposure Cases, 71 N.Y.U. L. REV. 210, 252 (1996). These issues are not addressed in this Article.
can be fixed without jettisoning the class action device, thus making it possible to reap the potential benefits of class treatment without shortchanging the class in settlement.

To be sure, fee regulation is not a magic potion guaranteeing that class members will never come up short in settlement. For instance, getting the counsel’s fee "just right" would require the court to know, among other things, the value of the class members’ claims. Yet the problem of collusive settlements arises precisely because courts lack this information. If the court knew the value of the class members’ claims, preventing settlements that offered less than that amount would be a trivial problem. The most we can ask of the optimal fee regulation system is that it will get things approximately right and generally counteract any incentive to settle for less than the case is worth, without discouraging settlement altogether.

Another, perhaps more important, difficulty involves protecting individual members or subsets of a class. The fee-capping technique can ensure, in principle, that the class counsel does not shortchange the group in settlement. It does not, however, solve the problem of dividing that recovery among the class members. To the extent the class is heterogeneous, in that some members have stronger claims than others, the fee cap does not necessarily ensure that each subclass will get the full value of its claims. Thus, the technique examined here should be understood to offer protection to the group as a whole, but not necessarily to each member of the group.

Part I of this Article furnishes a brief overview of the problem and provides five major analytical conclusions. Part II describes the framework for analysis, specifying the court’s objective in fee regulation and the constraints under which it is assumed to operate. The analysis then proceeds in five stages. In Part III, the theoretical basis for capping the class counsel’s fee in settlement is examined by describing the incentives that would exist if the court did not regulate the fee. In Part IV, the effects that a policy capping the class counsel’s fee creates on settlement behavior are discussed.

21. See infra Part V.
22. Because court approval is a prerequisite to effecting a settlement, courts could solve the problem by vetoing inadequate settlements. See infra Part V.
23. If all class members are identical, an equal division of the recovery presumably solves the distribution problem.
24. See infra Part VII.
25. For an argument that class action rules should be concerned primarily with protection of the class as an entity, rather than with protection of individual class members, see David L. Shapiro, Class Actions: The Class as Party and Client, 40 ARIZ. L. REV. (forthcoming 1997).
This Article then focuses on the problem of designing the appropriate fee cap. In Part V, the basic structure of the optimal cap is derived. This analysis includes a discussion of the proper percentage to award counsel and the central factors affecting the optimal cap. Part VI addresses how the court would, in practice, estimate the optimal cap in a given case. Finally, in Part VII, this analysis is extended to settlements involving subclasses, and the limitations of the Article's prescriptions when a single counsel represents more than one subclass are investigated.

One further prefatory note may be in order. The analysis to follow employs a cold-blooded assessment of attorney incentives in the class settlement process. It focuses on the financial payoffs facing the class counsel and proceeds on the assumption that these payoffs influence her decisions. This does not deny that ethical considerations will, in many cases, lead counsel to act in the class's interests even if it is not in her financial interest. Nonetheless, it is probably inappropriate to have the attorney's financial interest conflict with the class's interests, so that she must choose between her own welfare and that of her client. The purpose is simply to align, to the extent possible, the attorney's financial interests with those of the class in the settlement process.

I. THE FEE REGULATION PROBLEM

A. The Potential for Collusion

The central agency problem in class action settlements may be stated simply. There is some amount of money that the class members will recover, in expected terms, from the defendant if the case goes to trial. The defendant and the class counsel have a financial incentive to split that amount between themselves by settling the case and giving the class members as little as possible. That is, the defendant and the class counsel will be tempted to enter into a settlement that leaves both class counsel and the defendant better off than if they went to trial, at the expense of the class members.

Consider the following example. A class of plaintiffs brings suit against a defendant. If the case goes to trial, the class expects to recover $100 million. Assume the class counsel will recover, in expected terms, profits of $5 million. There will exist an enormous temptation for the defendant and the class counsel to "sell out" the

class members, that is, to enter into a settlement that gives the class less than $100 million. The defendant and class counsel might, for example, agree to a settlement that gives the class counsel a payment of $10 million, but gives only $50 million to the class members. Such a settlement would place the class counsel and the defendant in a much better position financially than if the case went to trial.

This risk of collusion arises out of the divergent interests between the class members and the class counsel. Because the class counsel does not "own" the class's claims, she has no incentive to maximize the class's return on the claims. This problem may arise, of course, in any litigation setting. Three factors, however, make it particularly acute in the class action context.

First, there is no contractual relation between principal and agent. The class typically does not "hire" class counsel. As a result, class members cannot contractually protect themselves. They cannot structure the counsel's fee in a way that ensures she will act in their interests. Class counsel, therefore, has no contractual incentive to maximize the class's recovery.

Second, the court, which is responsible for protecting the class's interests, has only limited ability to detect a collusive settlement. When called upon to approve the settlement, the court may be highly uncertain about the aggregate value of the class's claims, such as the number of claimants and the strength of their claims. In addition, the court may have difficulty assessing the true value of the settlement, that is, determining how much the plaintiffs will be paid. Under these conditions, the court might approve a settlement that,

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27. See id. at 201.
28. Some class members may have hired the class counsel as their personal lawyer, but generally not all of them.
29. Similarly, class members cannot choose, from a group of competing lawyers, the best contractual terms.
30. See Fed. R. Civ. P. 23(d)-(e). Most states have analogous provisions.
32. See id. This is particularly true in the context of settlement class actions. See Coffee, supra note 2, at 1380; FEDERAL JUDICIAL CENTER, MANUAL FOR COMPLEX LITIGATION THIRD 243-44 (1995).
33. In many settlement agreements, the defendant creates a settlement fund to pay the plaintiffs. Rigid eligibility requirements, however, may exist that prevent many plaintiffs from collecting from the fund. These unclaimed funds would revert to the defendant. The court may have difficulty assessing how onerous the eligibility requirements will be in practice, and thus, may have difficulty ascertaining how much will actually go to the plaintiffs rather than revert back to the defendant. See Coffee, supra note 2, at 1377. Problems of determining a settlement's value also arise when it consists of nonmonetary relief, such as vouchers or coupons toward the purchase of some product, typically the defendant's.
unbeknownst to the court, gives the class less than the value of its claims.\footnote{34}

Third, the class members only have limited ability to veto or opt out of any settlement that gives them less than the value of their claims.\footnote{35} Sometimes class members lack the information to assess either the value of their claims or the quality of the settlement;\footnote{36} in other instances, the period for opting out may have passed when the settlement is entered.\footnote{37}

An essential premise of this Article is that these factors yield a non-negligible incentive for collusive settlements. The magnitude of this incentive is debatable. In many settings, class counsel's financial interests may not diverge substantially from the class members,\footnote{38} or the threat of judicial scrutiny or class opt out will discipline the class counsel and defendant. For present purposes, it is enough to say that the potential incentive for collusion is substantial.

\section*{B. The Role of Fee Regulation}

The object of this Part is to determine how to counteract the non-negligible incentive for collusion settlements through judicial regulation of the fee that class counsel receives. Because five major conclusions will emerge from the analysis, it may be helpful to summarize them briefly.\footnote{39}

\subsection*{1. Basis for a fee cap}

Where the incentive for collusive settlement is present, appropriate fee regulation is essential to protect the class. To illustrate this point, it suffices to ask: What would happen in an environment where the court did not regulate the class counsel's fee? In that environment, class counsel and the defendant would have a joint incentive to settle for the minimum amount the court permitted. That is, they would have a joint incentive to arrive at a settlement that gave the class

\footnote{34} It is sometimes argued that judges, hoping to ease their workload, are willing to approve a settlement they believe is inadequate. I put this contention aside; whether it is true or not has no bearing on the analysis to follow.


\footnote{36} See Schuck, \textit{supra} note 1, at 964-66; Wolfman & Morrison, \textit{supra} note 4, at 441 (discussing how lack of information among plaintiffs mandates protection for class members whose interests do not coincide with those of class representatives and class attorneys). An extreme example arises in mass tort cases involving future claims of injury. Class members may not be aware of their claim or what they will receive under the settlement. See \textit{id.} at 451-53.

\footnote{37} See Rutherglen, \textit{supra} note 35, at 261.

\footnote{38} For example, perhaps the class counsel wants to develop a professional reputation for effectiveness, which encourages him to obtain large recoveries.

\footnote{39} For development of these points, see \textit{infra} Part III.
members the "bare minimum" that the court would approve. From the standpoint of the defendant and class counsel, no financial reason would exist to give the class members more than that. Any putative settlement that gave the class members more than the "bare minimum" would, in the defendant's and class counsel's view, be a waste; they could split between themselves any excess over the "bare minimum." As a result, the class members would tend to collect too little on average, for two independent reasons. First, courts systematically may tend to underestimate the value of the class's claims, thereby making the "bare minimum" too low. Second, settlement is likely to occur when this underestimation occurs.

2. Effects of a fee cap

A rule that "caps" the class counsel's fee at a specified percentage of the amount paid to the class members can suppress the settling parties' joint incentive to choose the minimum allowable amount for the class. For the class counsel to accept, a settlement must give her at least as much as she would get if she refused to settle. The lower that cap is, the larger the settlement amount must be in order for her to find it acceptable. Thus, the court's imposition of a fee cap on the class counsel encourages her to "hold out" for a relatively generous settlement. If the fee cap is too low, however, counsel's minimum demand will exceed the maximum amount the defendant will pay to settle, thereby making settlement infeasible. Thus, the court's task is to make the fee cap high enough to facilitate settlement, but low enough to discourage the class counsel from accepting a settlement that gives the class less than the value of its claims.40

3. Structure of the optimal fee cap

The optimal fee cap is defined just low enough to ensure that counsel will reject any settlement offer that would give the class members less than the value of their claims. The value of the fee cap depends on how much counsel would have received if there had been no class settlement. In particular, her share of the settlement normally should be no greater than the share of the class members' recovery she would have received if there had been no class settlement. This represents only an approximation of the optimal fee cap, and the precise location will depend on a variety of additional factors.41

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40. See infra Part V.
41. These factors include the relative costs of settling against not settling, and risk aversion. See Koniak & Cohen, supra note 4, at 1115-16.
If the cap is set at this approximate point, however, settlement should:
(1) generally be feasible; and (2) give the class members at least what
they would have received if there had been no class settlement. 42

4. Identifying the optimal fee cap

If the foregoing is correct, then even if the court does not know the
value of the class members' claims, in principle, it can ensure that the
class members receive the full value in settlement. The task of a court
in this situation is to estimate the share of the class members' recovery
that the counsel would have collected had there been no class settlement. Multiplying the following two factors roughly produces that share: (1) the fraction of the class members the
counsel would have represented if there had been no class settlement;
and (2) the fraction of each client's recovery the counsel would have
taken as her fee. The former factor may be quite small, particularly
in the context of settlement class actions. The upshot is that the
optimal fee cap may also be small, possibly a fraction of one percent.
It is likely to be larger in the context of conventional trial class actions
that settle.

5. Subclasses and the problem of distribution

The fee cap applied to class counsel should be uniform, in the
sense that she collects the same percentage of each class member's
recovery. This is true because under a non-uniform cap, she would
have an incentive to secure larger settlements for the class members
to whom the relatively high cap applied; the remaining class members
would get the minimum allowable settlement amount. 43 Under a
uniform fee cap, however, the counsel is largely indifferent to the
distribution of the settlement recovery. As a result, there is no
assurance that each class member will get the full value of her claim.
While the class as a whole will receive the full value of its claim, some
class members may ultimately receive too much, while others receive
too little. Because of counsel's indifference to distribution, there is
probably a structural bias toward overpaying plaintiffs with relatively
weak claims and underpaying those with relatively strong claims.

42. But see infra Part III (qualifying these generalizations).
43. In other words, if class counsel receives 10% of group A's recovery but only 5% of
group B's recovery, counsel and the defendant would have a joint incentive to give group B as
little as possible.
II. ANALYTICAL FRAMEWORK

A. A Simple Model

The following simple model will be used to analyze the fee regulation problem. Assume a business firm markets a defective product that causes injury to a large number of individuals. Some or all of the victims sue the firm for compensation. The defendant seeks to enter into a "classwide settlement" to extinguish the claims.

Figure 1 depicts the sequence of events in the settlement process. First, the defendant, together with counsel or potential counsel for the class of plaintiffs, negotiates the terms of a possible classwide settlement. Second, if the defendant and class counsel agree on terms, they submit the proposed settlement to the court for approval. Third, if the court approves the settlement, it becomes effective and extinguishes the class members' claims. If the defendant and the class counsel do not agree on terms, or if the court does not approve the terms on which they agree, there is no classwide settlement.
1. Negotiation process

The class representative in the negotiations is a lawyer hired by one or more of the victims to handle individual claims. There is a pool of potential class counsel called "candidates." This example assumes the candidates differ in the amount they stand to receive from the case if there is no class settlement. There are two possible bargaining scenarios. Both differ in the manner and timing by which the class representative is chosen:

In the first scenario, the court has exclusively designated an official class counsel before settlement negotiations have concluded. The defendant cannot choose his negotiating partner; he is forced to deal with the designated class counsel. There is no classwide settlement if the defendant fails to reach agreement with the designated class counsel.

In the second scenario, no class counsel has been officially, exclusively designated at the time settlement negotiations have concluded. Instead, the defendant may negotiate with several different lawyers, each hoping to represent the class. The lawyer who successfully negotiates a settlement and secures judicial approval becomes class counsel. In effect, the defendant can seek competitive bids from different "candidates" and enter into an agreement with the one offering the most attractive settlement terms.

This latter scenario may materialize in several ways. One possibility is that the case is in the early stages of becoming a conventional trial class action, but no one has been designated counsel for the entire class. A court may not have certified the class or several courts may have separately certified the class, each naming a different class counsel. Another possibility is that the case will never become a trial class action; there is simply a set of separate actions that the defendant seeks to resolve by consolidating them into a "settlement class action."

2. Settlement terms

For the purposes of this Article, a classwide settlement has two basic components. First, it determines how much the class counsel will

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44. These differences will reflect variations in the quantity or relative merits of the claims each lawyer is handling in the litigation.
45. See Coffee, supra note 2, at 1370 (noting phenomenon in class action litigation known as "reverse auction" in which there is "jurisdictional competition among different teams of plaintiff's attorneys in different actions that involve the same underlying allegations"); Geoffrey P. Miller, Overlapping Class Actions, 71 N.Y.U. L. Rev. 514, 516 (1996).
collect as her fee for negotiating the settlement. Second, it determines the amount that will be distributed to the class. As these terms are central to the following analysis, simple notations will be used for brevity. Let

\[
F = \text{the fee paid to the class counsel;}
\]

\[
S = \text{the total amount distributed to the class members, net of the fee paid to the class counsel.}
\]

It should be emphasized that \(S\) represents the amount actually paid to the class members after any deductions are made to pay the class counsel. In other words, \(S\) is the aggregate amount that goes into "the pockets" of the class members, and possibly their own personal lawyers,\(^{46}\) rather than into "the pockets" of class counsel.

In negotiating a settlement, one assumes that the defendant and the class counsel bargain over, and submit to the court, a proposed value of \(S\) and \(F\). This is not necessarily explicit.\(^{47}\) A proposed settlement may simply specify the total amount to be paid to the defendant, leaving the court to divide this amount between the class counsel and the class members.\(^{48}\) Even in such an instance, however, the settling parties will have some expectations about how the court will divide the settlement amount between counsel and the class. These expectations will, in turn, influence the amount the parties settle for. Thus, the parties bargain implicitly, if not explicitly, over the amount the class members ultimately will receive.

An example clarifies this point. Suppose the court will permit class counsel to collect a fee equal to 25\% of the amount distributed to the class.\(^{49}\) Equivalently, the court will permit the class counsel to collect 20\% of the total amount the defendant will pay.\(^{50}\) Assume that the

\[F = 0.25S.\]

\[\text{If counsel receives 20\% of the amount the defendant pays, that leaves 80\% for the class members. Thus counsel is receiving one-fourth (25\%) of the class members' award.}\]
defendant offers to settle the case for a total payment of 200.\textsuperscript{51} This is equivalent to offering a value of 160 for $S$ and 40 for $F$.\textsuperscript{52} Once the settling parties know what percentage of the settlement the court will permit counsel to collect as her fee, any proposed total settlement amount can be converted into a corresponding value of $S$ and $F$.\textsuperscript{53} Therefore, one can think of the defendant and the class counsel as bargaining over, and proposing to the court, the value of these two terms.

For similar reasons, it makes no difference whether one thinks of the class members as paying the counsel’s fee, which is deducted from their recovery, or the defendant as paying it on top of the class’s recovery. This will have no bearing on the ultimate terms of the settlement because the settling parties will adjust their behavior depending on the fee award policy. Returning to the example above, assume that the maximum amount the defendant will pay to settle the case is 200. If the fee is deducted from the class’s recovery, then the defendant will offer the class no more than 200; yielding 160 for the class members and 40 for the class counsel. If, instead, the defendant pays the fee on top of the class’s recovery, the defendant will offer the class no more than 160; yielding, once again, 160 for the class and 40 for the class counsel. Thus, it makes no difference whether the defendant formally pays the counsel’s fee or the class members pay it from their recovery; the amount that the class and counsel ultimately receives will generally be the same in either event.

3. \emph{Disposition of case}

If the court approves a proposed settlement, the model assumes the settlement goes into effect and all claims are extinguished. On the other hand, if there is no classwide settlement, either because the defendant cannot agree on terms with counsel or the court does not approve the agreed-upon terms, then the claims must be resolved in another manner. The claims may be resolved in a class-action trial or on a claim-by-claim basis, either through individual trials or individual settlements. No assumptions are made on the alternatives to a classwide settlement. For our purposes, it makes no difference.

\textsuperscript{51} Small numbers are used to keep computations simple. The relevant units of measure might be in thousands or millions of dollars. It makes no difference for present purposes.

\textsuperscript{52} Counsel would receive 25\% of 160, or 40. Adding this number to the 160 the class received produces a total of 200.

\textsuperscript{53} In practice, the parties may not know what fee the court will allow, but this is not relevant for purposes of this analysis. The objective is to understand the optimal fee award policy. Under the optimal policy, the settling parties will know what fee the court will allow.
These alternatives simply will be lumped together under the heading “alternative proceedings.”

B. The Court’s Objectives

In reviewing a proposed classwide settlement, it is assumed the court’s primary objective is to ensure that the class receives the full value of its claims. More precisely, the court wants the value of $S$ to be at least as high as the expected amount the class members would receive in an “alternative proceeding.”54 Note that this analysis is not concerned with how the settlement amount is distributed among the class members. The exclusive focus is on the size of the settlement amount to be distributed.55

Provided that this goal can be satisfied, we assume the court’s second objective is for a class settlement to occur.56 Perhaps the court wishes to reduce litigation costs, preserve judicial resources, or quickly compensate the class. The reason is unimportant in the analysis to follow. Suffice it to say that the court wants to encourage class settlements provided the court’s primary objective is satisfied.

C. Constraints

In pursuing its objectives, the court must act under three basic constraints. The first constraint is that class counsel acts to maximize her net return from the case. In particular, it is assumed that in choosing among a range of possible settlements, the counsel selects the one that offers her the highest payment. Thus, in settling the case, counsel seeks to maximize $F$, the fee she collects. She does not necessarily act to maximize the value of $S$, the amount the class recovers, except to the extent that doing so is congruent with maximizing $F$.

The practical consequence of this constraint is that the court cannot safely rely on the counsel to do what is best for the class.57 Obviously this assumption only holds up to a point.58 The purpose of the assump-

54. This term might reflect the expected value of the claims in different modes of resolution, weighted by the probability of each mode’s occurrence. Thus, if there is no classwide settlement, the claims may be resolved through individual trials, individual settlements, class trials, or some combination; $w$ would reflect the probability distribution and expected outcomes of these different modes of resolution.
55. I consider distributional matters in Part VII below.
56. If this were not the case, then a court simply could never approve any class settlement.
57. The potential divergence in interest between counsel and class is of course the reason that the Federal Rules of Civil Procedure prohibit settlement of a class action without judicial approval. See Fed. R. Civ. P. 23(e) (mandating judicial sanction as a matter of law).
58. Ethical or reputational concerns may lead the class counsel to place the class’s recovery above her own.
tion is to examine the extent to which counsel’s incentives diverge from those of the class members, and the extent to which these incentives may be aligned. To that end, it is most useful to “assume the worst” about the counsel’s objectives, in the sense that she is out to maximize her return.59

The second constraint is that the class members have little or no control over the counsel’s actions and are forced to accept any settlement the court approves. In particular, it is assumed that many class members cannot generally “opt out” of, or otherwise veto, a proposed settlement. The assumption of class passivity seems reasonable in many cases.60 Even if class members are formally given the right to opt out of a settlement, they often lack the information necessary to exercise the right when doing so would be in their best interests.

The practical consequence of this constraint is that the court cannot safely rely on the class to police the settlement amount. If the class members were knowledgeable enough to exercise a right to opt out, perhaps the court would not need to worry about the case settling for too little, for the class members would not abide by a settlement that gave them less than opting out would yield. For purposes of analysis, the class members are unable to protect themselves in this manner.

Third, it is assumed that when the court is called upon to approve the settlement, it is uncertain about the aggregate value of the class’s claims and possibly the amount the class is actually receiving in settlement. With regard to the aggregate value of the class’s claims, the court is frequently called upon to approve the settlement of claims that have not been extensively litigated.61 Because the court


60. Other authors have argued this at length. See Coffee, supra note 16, at 677-84; Macey & Miller, supra note 16, at 21.

61. See supra note 32.
has had little opportunity to gather information in such cases, it is highly uncertain about the probability of success and the amount of damages. It therefore seems reasonable to assume that the court will typically be uncertain about the value of the class's claims in alternative proceedings.

Regarding the court's assessment of the amount the class will receive in settlement: in many settlement agreements, the defendant creates a settlement fund from which plaintiffs will be paid. There may, however, be rigid eligibility requirements preventing many plaintiffs from collecting from the fund, with the defendant receiving unclaimed funds.\(^6\) The court may have difficulty assessing how onerous the eligibility requirements will be in practice and thus will have difficulty ascertaining how much will actually go to the plaintiffs rather than back to the defendant.\(^6\)

The practical consequence of this constraint is that direct regulation of the settlement amount cannot ensure that the settlement will give the class the full value of its claims. If the court knew both the value of the class's claims and the amount the plaintiffs would receive, the court could simply refuse to approve any settlement that gave the plaintiffs less than the value of their claims. If, however, the court is uncertain of the value of the class's claims, or if it has trouble assessing the amount that will actually be paid in settlement, then regulating the settlement amount will be prone to error. Sometimes the court will underestimate the value of the class's claims or overestimate the amount the class will actually receive, and therefore mistakenly conclude that the class is receiving the full value of its claims.

### III. The Basis for Fee Regulation

This Part examines the basis for judicial regulation of the fee class counsel recovers. To accomplish this objective, the preceding hypothetical situation will proceed under the assumption that the court will not regulate the fee. Therefore, assume that in deciding whether to approve a proposed classwide settlement, the court only scrutinizes the size of \(S\), the settlement amount paid to the class, and pays no attention to the size of \(F\), the amount paid to the class counsel.

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62. See Coffee, supra note 2, at 1418.

63. See id. at 1377. Settlements consisting of nonmonetary relief also pose difficulties in assessing the settlement's value. See Note, In-Kind Class Action Settlements, 109 Harv. L. Rev. 810, 827 n.81 (1996).
A. Equilibrium Settlements

Let us begin by examining the properties of the settlements that will be reached if the court does not regulate the counsel’s fee. The central result can be summarized as follows: if the court does not regulate the fee, class counsel and the defendant have an incentive to settle the case on terms that give the class members the minimum allowable amount. The “minimum allowable amount” is the smallest value of $S$ that the court is willing to approve.64

The essential intuition underlying this assertion is simple.65 From the standpoint of the negotiating parties (the defendant and class counsel), paying the class any increment above the minimum allowable settlement amount is wasteful, in that the negotiating parties would be better off dividing that increment between themselves.66 For this reason, any settlement involving a payment of more than the minimum allowable amount is inferior, from the standpoint of the settling parties, to a settlement involving the payment of the minimum allowable settlement amount. Accordingly, if the settling parties seek to maximize their own welfare, they will not agree to give the class more than the minimum allowable settlement amount.

Suppose, for example, that in a given case the minimum allowable settlement amount is 100.67 Consider a settlement agreement that gives the class more than this amount: the class will receive 110, and the class counsel 20.68 The payoffs to the settling parties would be as follows:

\[
\begin{align*}
\text{Defendant:} & \quad -130 \\
\text{Class counsel:} & \quad 20
\end{align*}
\]

Now suppose the settling parties consider a new agreement that would divide the excess amount paid to the class, 10, between themselves on a 50/50 basis.69 Their payoffs under this new arrangement would be:

\[
\begin{align*}
\text{Defendant:} & \quad -125 \\
\text{Class counsel:} & \quad 25
\end{align*}
\]

---

64. For the sake of clarity, it is assumed that settling parties know this amount.
65. For formal proof, see infra Appendix.
66. Several authors have argued a similar point. See Posner, supra note 31, at 570; Macey & Miller, supra note 16, at 25-26.
67. See supra note 51 (discussing relevant units of measure).
68. Thus, in this agreement, $S = 110$, and $F = 20$.
69. Thus, in this new agreement, $S = 100$, while $F = 25$. 
The latter arrangement makes both settling parties better off than does the former. In effect, each has made money at the expense of the class. By this reasoning, it is clear that an agreement in which the surplus is divided between the settling parties improves, from the perspective of the settling parties, any settlement agreement in which the class receives some surplus above 10.

This result is obtained whether or not the court selects class counsel in advance. This point may not have been sufficiently appreciated in the past. Intuition suggests that pre-settlement selection of the class counsel is likely to lead to a more generous settlement recovery for the class. This result underlies criticism of the "settlement class action" device. Yet this intuition is mistaken, at least if there is no regulation of the counsel's fee. Absent regulation of the counsel's fee, the counsel, together with the defendant, rationally will choose to settle the case for the minimum allowable amount. Regardless of whether the court pre-selected the counsel, she has no economic incentive to agree to a settlement giving the class more than that amount.

Therefore, what difference does it make whether counsel is selected in advance of the settlement negotiation? The only effect is on the fee paid to the counsel herself. If counsel is chosen in advance, the defendant faces a monopolist; the defendant cannot settle the case except by reaching agreement with that counsel. Accordingly, the defendant must pay that counsel at least as much as counsel would receive if there were no class settlement. In contrast, if the counsel is not selected in advance, the defendant can "shop around" for the lawyer who stands to gain the least if there is no class settlement, and settle with her.

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70. This criticism is founded on the proposition that such pre-settlement selection prevents the defendant from "shopping around" for the most compliant class member, or lawyer, in order to secure the lowest possible settlement. As a result, the class benefits in settlement if the class counsel is designated in advance. See Coffee, supra note 2, at 1453-57.

71. As will be demonstrated, if there is proper regulation of the counsel's fee, advance selection of the class counsel makes no difference.

72. For mathematical proof of this point, see infra Appendix.

73. These points can be illustrated with a variant of the earlier numerical example. Assume the defendant's expected loss in alternative proceedings is 200, and the minimum value of $S$ the court will approve is 100. In addition, there is a set of candidates for class counsel. Within that set, some candidates will recover 10 in alternative proceedings, while others will recover 20. The disparity might represent differences in the quality of individual claims, or alternatively, differences in the size of the candidates' claim portfolios.

Assume the court does not choose the counsel in advance. The defendant will then settle with one of the candidates who stands to recover 10, and the amount paid to the counsel $(P)$ will be 10. If any candidate demands more than 10, another candidate who is willing to take an amount closer to 10 will underbid her. Through this competitive process, the value of $F$ will be bid down to 10.
B. Justification for Regulating the Fee

Without fee regulation, then, class counsel has an incentive to settle the case for the minimum value of $S$ that the court will permit.\textsuperscript{74} If that is the amount the settling parties settle for, does it follow that the class members collect too little?

That conclusion would not follow if the court knew the value of the class’s claims. In such a situation, as discussed previously, the court could simply refuse to approve any settlement giving the class less than that amount.\textsuperscript{75} If the court is uncertain about the value of the class’s claims, however, then one may expect the class members systematically to collect less than that amount. This is true for two reasons: (1) biased estimations; and (2) adverse selection.

First, the minimum allowable settlement amount is disproportionately likely to lie below the value of the class members’ claims. The defendant and class counsel have a joint incentive to minimize the court’s estimate of the value of the class’s claims \textit{and} to maximize the court’s assessment of the amount being paid to the class.\textsuperscript{76} Consider, for example, the court’s estimate of the value of the class’s claims. The lower the court’s estimate of the claim, the less that the defendant must pay to the class members. A low estimate leaves more for the defendant and class counsel to split between themselves. To the extent that the settling parties can influence the court’s beliefs, one would expect a bias in the court’s estimate of the value of the class’s claims, with the court more often than not underestimating the value of the class’s claims.\textsuperscript{77} For similar reasons, one would expect the court to overestimate the amount that actually will be paid under a given settlement. If so, then the minimum
settlement that the court permits will tend to be less than the value of the class's claims.

Second, class settlements will be drawn disproportionately from the set of cases in which the minimum allowable settlement amount is less than the value of the class's claims. The reasoning here is simple: If the minimum allowable settlement amount is significantly greater than the value of the class's claims, the defendant rationally will choose not to settle because he or she does better by foregoing a class settlement and paying the value of the class's claims in alternative proceedings. By contrast, whenever the minimum allowable settlement amount is less than the value of the class's claims, the defendant (and counsel) will be happy to settle. The upshot is that, roughly speaking, when the court overestimates the value of the class's claims, the class collects the value of its claims because there is no class settlement.\textsuperscript{77} When the court underestimates the value of the class's claims, however, the class collects less than that value because there is a class settlement. As a result, at least on average, the class collects less than the value of its claims. This should occur even if there is no bias in judicial estimations of the value of the class's claims.\textsuperscript{79}

IV. Effects of Fee Regulation

A. Capping Counsel's Fee

In a world without fee regulation, there is an inverse relation between the amount collected in settlement by the class and the amount collected by counsel. That is the lesson of the analysis in Part III: Every dollar that is not given to the class can be split between counsel and the defendant.\textsuperscript{80} Counsel thus shares the defendant's incentive to minimize the amount paid to the class members. This is the principal rationale for having courts scrutinize and regulate the terms of the fee paid to the class counsel in class settlements.

One option for the court is to regulate the fee so as to link counsel's recovery to the attorney's performance on the class's behalf. More specifically, the court could limit counsel's fee to a specified

\textsuperscript{77} To be sure, litigation costs and risk aversion may lead the defendant to settle even when the minimum allowable settlement amount is greater than the value of the class's claims. Nonetheless, if the minimum allowable settlement is above a ceiling amount, the defendant will not settle. There is, however, no corresponding floor on the minimum allowable settlement below which the counsel will not settle. Even if the minimum allowable value of $S$ is zero, the settling parties will be happy to settle.

\textsuperscript{79} A similar analysis applies to errors in judicial assessments of the amount being paid to the class.

\textsuperscript{80} See \textit{supra} Part III.B.
fraction (or multiple) of the class recovery. Under this form of fee regulation, the court allows counsel to collect only some fixed percentage—termed the fee percentage—of the amount paid to the class. Expressed symbolically, the court declares that counsel’s fee must satisfy the following expression:

\[ F \leq \Phi S, \]

where

\[ \Phi = \text{the fee cap, that is, the maximum percentage of the class's recovery that counsel is allowed to collect as his or her fee.} \]

Thus, for example, if \( \Phi = .25 \), counsel’s fee cannot exceed one-fourth of the amount actually paid to the class members. In other words, the class members must receive at least four times as much as the counsel herself.\(^{81}\)

It is important to emphasize that for a fee cap to function effectively, the court must not permit counsel to collect any other compensation in the case or any other payment from the defendant. Class counsel may have contracts with some of the class members entitling the attorney to some share of the class member’s recovery.\(^{82}\) Class counsel must surrender these rights under the contracts as a condition for becoming class counsel; if counsel does not, then the fee cap will not work. In addition, counsel must not receive money from the defendant on other cases apart from the class action. Under current practice, class counsel may sometimes concurrently represent (1) the class and (2) other clients, excluded from the class, with claims against the defendant. An obvious temptation for the settling parties is to enter an agreement in which the latter claims are settled on relatively advantageous terms, while the class’s claims are settled for a relatively small amount.\(^{83}\) For the fee cap to work, this arrangement must be prohibited.

Percentage-based fees are widely employed by courts in class actions.\(^{84}\) Courts have not, however, examined the problem of determining what fee cap is needed to ensure that the class receives

\(^{81}\) In addition, the court—to counteract any problem in assessing the true size of the settlement—can specify that counsel collect only as money is actually paid to the class members.

\(^{82}\) See Resnik et al., supra note 46, at 338; see also Coffee, supra note 2, at 1375.

\(^{83}\) See Coffee, supra note 2, at 1373-74 (discussing role of attorney representation in inventing settlement collusion context).

\(^{84}\) See Miller, supra note 12, at 23.
the full value of its claims in settlement. Such is the task in the following analysis. To lay the foundation for that analysis, one must consider the relations between the choice of a cap, the selection of a counsel, and the outcome of the settlement process.

B. The Fee Cap’s Effects on Settlement Behavior

How does introduction of a fee cap affect the equilibrium outcome of settlement negotiations? Its central effect is to induce counsel to demand more for the class than she would if the fee was unregulated. By tying counsel’s recovery to that of the class, the fee cap eliminates the inverse relation (that obtains when the fee is unregulated) between the amount paid to the class and the amount that class counsel is paid. This much is obvious and is a well-recognized principle in other settings.

What is perhaps less obvious is that this effect becomes more pronounced as the fee cap is lowered. More precisely, the smaller the fraction of the class’s recovery that counsel is permitted to collect, the more counsel will demand in settlement on behalf of the class if all else is equal. To see this point, recall that counsel will not agree to any settlement that gives the attorney less than the amount that she would receive if the parties did not agree to settle. If the fee cap is very low, then S must be relatively large in order to induce counsel to accept the settlement. In this way, setting a relatively low fee cap counteracts counsel’s incentive to settle for the minimum allowable settlement amount.

The net impact on the settlement behavior of the parties can be summarized as follows: The lower the fee cap, (1) the lower the likelihood of a class settlement; and (2) the greater the amount collected by the class members in the event of settlement. These crosscutting effects arise

85. See Resnick et al., supra note 46, at 339-45.
86. The virtues of tying the agent’s recovery or profit to that of the principal is familiar not only in lawyer-client settings but all principal-agent arrangements. See PAUL R. MILGROM & JOHN ROBERTS, ECONOMICS, ORGANIZATION AND MANAGEMENT 214-16 (1992).
87. One qualification here is that this point may hold if the parties are asymmetrically informed about the value of the class’s claims. See infra Part VI.
88. See supra notes 57-58 and accompanying text.
89. Consider the following numerical example. Suppose that, if counsel does not settle with the defendant, then the attorney expects to earn 20; and suppose that the minimum allowable settlement amount is 100. If ϕ is less than 20%, then counsel will not agree to a settlement that fails to give more than 100 to the class; counsel will not agree to a settlement in which $F < 20$. A settlement giving the counsel that much will be allowed by the fee cap only if $ϕS ≥ 20$. If $ϕ$ is less than 20%, the only values of $S$ satisfying that inequality are greater than 100. Thus, choosing a fee cap below 20% ensures that if the case settles, the settlement amount is greater than the minimum allowable settlement amount.
90. Conversely, raising the fee cap has the opposite effects.
from the fact that lowering the cap has the effect of increasing counsel's minimum demand in settlement. The more that counsel insists on recovering in settlement, the less appealing settlement will be in the defendant's eyes. If counsel's demands get large enough, the defendant will simply forego a class settlement entirely. If a settlement is reached, however, then the class will take away more than it otherwise would have, precisely because counsel has held out for a relatively large settlement.

Table 1 provides a numerical example of these crosscutting effects. Suppose again that counsel expects to earn 20 if he or she does not settle with the defendant. Assume, in addition, that the defendant expects to lose a total of 200 if it does not settle with counsel. Table 1 indicates the parties' bargaining positions under four arbitrarily chosen fee caps. As the Table indicates, the bottom of the settlement range—counsel's minimum demand—rises as the fee cap falls. By contrast, however, the width of the settlement range—the set of mutually acceptable settlement amounts—contracts as the fee cap falls. Observe that if the cap is set at 10%, there is no mutually acceptable settlement amount. If we assume

<table>
<thead>
<tr>
<th>Fee cap</th>
<th>Minimum value of S acceptable to counsel</th>
<th>Maximum value of S acceptable to defendant</th>
<th>Width of settlement range</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td>60</td>
<td>150</td>
<td>90</td>
</tr>
<tr>
<td>25%</td>
<td>100</td>
<td>160</td>
<td>60</td>
</tr>
<tr>
<td>15%</td>
<td>133</td>
<td>173</td>
<td>40</td>
</tr>
<tr>
<td>10%</td>
<td>200</td>
<td>181</td>
<td>—</td>
</tr>
</tbody>
</table>

Note. — Counsel's expected gain in the event he does not settle is 20. The defendant's expected loss in the event it does not settle with the counsel is 200. See footnotes 91 and 93 for an explanation of how each column is calculated.

91. Counsel will reject any settlement unless $\Phi S \geq 20$. Rearranging terms, we see that the minimum value of $S$ acceptable to the counsel is given by $20/\Phi$; this figure is indicated in the second column of Table 1. The defendant will reject any settlement unless $S + \Phi S \leq 200$. Again, rearranging terms, we find that the maximum value of $S$ acceptable to the defendant is given by $200/(1+\Phi)$; this figure is listed in the third column of Table 1.

92. See Table 1.

93. That is, the width of the settlement range is the extent to which the maximum amount the defendant is willing to pay exceeds the minimum amount the counsel is willing to accept. This figure is obtained by subtracting the second column in Table 1 from the third column.

94. See Table 1.

95. See id.
the court is uncertain about what the parties stand to gain or lose from alternative proceedings, then it follows that lowering the fee cap has the effect of reducing the likelihood that the settlement range is of positive width. This reduces the probability that settlement will be feasible.

The implication of this result is that the court faces a trade-off in regulating counsel’s fee. If the fee cap is set too high, the case will settle but the class members will recover too little in the settlement. If the fee cap is set too low, however, then there will be no class settlement at all. Finding the right fee cap forces the court to balance these risks.

C. Ex Ante Versus Ex Post Effects of the Fee Cap

The effects just described bear on the size and likelihood of the settlement negotiated by class counsel. These are so-called \textit{ex ante} effects, in that class counsel bases her settlement demands on the fee cap that she anticipates will later be applied. Another effect of the fee cap, of course, is that it determines how the settlement proceeds are actually divided between the class members and class counsel. This distributional impact is an \textit{ex post} effect, in that it arises after the settlement has occurred. It is important to distinguish these \textit{ex ante} and \textit{ex post} effects. In particular, it is crucial to see that the fee cap affects how a settlement is divided between class members and class counsel, as well as the size of the settlement itself.

It would be a mistake for a court, in setting the fee cap, to focus exclusively on the distributive consequences of a given cap, while ignoring its incentive properties. The reason is simple: A fee cap that seems perfectly reasonable in terms of its \textit{ex post} distributive qualities may nonetheless have disastrous \textit{ex ante} incentive effects. This point will emerge with greater clarity later, after we have analyzed the structure of the optimal fee cap. For now it suffices to illustrate the point with the above numerical example.

---

96. Counsel’s minimum demand must be less than the defendant’s maximum offer for the parties to reach a settlement. The lower the value of $\Phi$, the closer these two figures will be—meaning that there is less “margin for error” in the event the court is wrong about what the parties stand to gain or lose from alternative proceedings. Given the uncertainty of the court’s perspective, the lower the value of $\Phi$, the less likely that this precondition for settlement will hold.

97. \textit{See supra} notes 89-91 and accompanying text.

98. \textit{See infra} Part V.C; \textit{see also} POSNER, \textit{supra} note 31, at 570.

99. \textit{See infra} Part V and Appendix Part D.
Returning to the example in Table 1, assume that the value of the class’s claims in alternative proceedings is 180. Suppose that the court sets the fee cap at 33% of the class members’ recovery. In purely distributorial terms, this may seem an entirely appropriate share to give class counsel. It approximates the share generally given by courts to class counsel, and indeed is smaller than the share taken by the lawyer in private fee arrangements. Yet permitting class counsel to take that percentage encourages the attorney to settle for much less than the class’s claims are worth. To prevent class counsel from settling for less than the value of the class’s claims, the fee cap must be significantly less than this seemingly-reasonable figure. In this sense, the optimal fee cap, judged ex ante, may differ substantially from what may seem reasonable in ex post terms.

V. THE OPTIMAL FEE CAP

The focus of the analysis now becomes choosing the optimal fee cap, viewed ex ante. The optimal fee cap is defined as follows:

\[ \Phi^* = \text{the value of } \Phi \text{ that induces class counsel to demand the settlement that provides the class members with the value of their claims.} \]

More precisely, \( \Phi^* \) is the fee ceiling that brings counsel’s minimum demand as close as possible to, but not below, the value of the class members’ claims.

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100. This is not inconsistent with our earlier assumption that the defendant’s expected loss from an alternative proceeding is 200. In addition to the 180 owed (in expected terms) to the class, the defendant can be assumed to face litigation costs of 20 if it does not settle.

101. This is the same as decreeing that class counsel collect one-fourth of the total amount paid by the defendant to settle the case. If the class receives three-fourths, and class counsel one-fourth of the amount paid by the defendant, then counsel’s fee is equal to 33% of what the class members collect.

102. Several studies have shown that fee awards in class action settlements tend to give class counsel between 20% and 30% of total amount recovered from the defendant, or, equivalently, between 25% and 42% of the net amount paid to the class. See 1 CONTE, supra note 12, at 50. Contingent fees in personal injury litigation generally run in the same range. See Bruce L. Hay, Contingent Fees and Agency Costs, 25 J. LEGAL STUD. 503, 525-27 (1996); Bruce L. Hay, Optimal Contingent Fees in a World of Settlement, 26 J. LEGAL STUD. 287, 299-300 (1997) (citing studies).

103. Counsel is willing to agree to a settlement giving the class members 60, which is only one-third of the value of their claims. See supra Table 1.

104. More precisely, it must lie between 10% and 15% of the amount taken by the class members.

105. See Hay, supra note 18, at 482.
The value of $\Phi^*$ represents a solution to the trade-off problem facing the court. The court wants to set $\Phi$ sufficiently low to ensure that counsel will not enter into a settlement that gives the class members less than the value of their claims. The court, however, does not want to set $\Phi$ so low as to prevent the case from settling at all. In essence, $\Phi^*$ is the highest cap that the court can impose while still ensuring that the attorney will not settle for less than the value of the class's claims.

A. Basic Structure of the Optimal Fee Cap

What is the optimal fee cap for a given counsel? For clarity of exposition, the analysis will proceed under three assumptions. It is assumed: (1) that negotiating a classwide settlement and going to alternative proceedings are equally costly (in terms of time and expense) to class counsel; (2) that class counsel does not systematically underestimate or overestimate the value of the case; and (3) that class counsel is risk-neutral. After analyzing the optimal fee cap under these conditions, we will consider the significance of relaxing these assumptions.

If counsel is designated in advance of settlement bargaining, then the optimal fee cap for the attorney acting as class counsel is given by the following fraction:

$$\frac{\text{Attorney's expected recovery in alternative proceedings}}{\text{Class members' expected recovery in alternative proceedings}}$$

The reasoning behind this solution is simple. The minimum amount that counsel will settle for is an amount that provides the value of what the attorney expects to receive in alternative proceedings. If the fee cap is set at the above fraction, then he or she will not settle for an amount less than the aggregate expected recovery in alternative proceedings. That leaves the class members with an amount (at least) equal to the aggregate expected recovery minus counsel's expected recovery.

106. See supra notes 90-97 and accompanying text.
107. See infra Appendix Part D.
The above numerical example illustrates the point. Suppose that the class’s expected recovery in alternative proceedings is 180, and counsel’s expected recovery is 20. If the fee cap is set at 11% (that is, the fraction 20/180), then the minimum settlement to which counsel will agree is one where 180 is paid to the class.\textsuperscript{103} Thus, in this example, the optimal fee cap is $\Phi^* = 11\%$. A fee cap any higher might lead to a settlement below 180.

Matters are more complicated when counsel is not designated in advance. The complicating factor is that a candidate’s minimum settlement demand depends not only on what she expects to earn if the case does not settle, but also on what she expects to receive if the defendant settles with a different candidate. If counsel is not designated in advance, then the optimal fee cap for class counsel is demonstrated by either the previous fraction or the following fraction, whichever is less:

\[ \text{Attorney’s expected recovery in a settlement negotiated by another candidate} \]

\[ \text{Class members' expected recovery in a settlement negotiated by another candidate} \]

If there is more than one possible candidate, the optimal cap is the one for which the above fraction is smallest. This explains why the court must compare the two fractions in the proposition.

The central insight behind this result is that if the fee cap is larger than the second fraction, then being class counsel is advantageous to a candidate—that is, a given settlement provides more to class counsel than to other candidates. If being class counsel is advantageous in this way, then candidates will seek to underbid each other in the settlement offers they make to the defendant. The court accordingly must set the fee cap lower than both of the above fractions to ensure that the class does not collect less than the value of its claims.

Let me illustrate this with a variant of the above numerical example. Consider some candidate $X$, who expects to get 20 in alternative proceedings if there is no class settlement. Assume the defendant can settle with either $X$ or some other candidate $Y$.

\[ \text{From the previous footnote, we know that counsel will not agree to a settlement unless } S \geq 20/\Phi. \text{ See supra note 107 and accompanying text. Plugging } \Phi = 0.11 \text{ into this expression yields } S \geq 180. \]
Suppose that $X$ expects the court to set $\Phi$ equal to 11% if she is counsel; but suppose that, if $Y$ is counsel, $X$ expects to receive some smaller fraction—say, 6%—of the settlement. It is easy to see that $X$ may be willing to settle for less than the value of the class’s claims. Suppose $Y$ offers the defendant a settlement in which $S = 180$. Rather than allow that deal to be made, $X$ is better off attempting to settle for a lower amount. Furthermore, if $Y$ is in the same predicament as $X$, then the candidates will bid their way down to the minimum allowable settlement amount.

The only way for the court to prevent this cycle of downward bidding is to eliminate the pecuniary advantage enjoyed by the candidate who becomes class counsel. To do this, the court should make $\Phi$ no greater than the latter fraction above. A given candidate’s fractional share of a settlement that $she$ herself enters into must be no greater than counsel’s fractional share of a settlement that a rival candidate enters into. Thus, in the above numerical example, it follows that $X$ should get only 6% of any settlement that she enters into, because $X$ would get only 6% of a settlement entered into by $Y$. More generally, if the latter fraction is smaller than the former, then $\Phi$ should be set equal to the latter fraction.

If, however, the latter fraction is larger than the former, then the court should set $\Phi$ equal to the former fraction. Interestingly, in this scenario the optimal fee cap encourages candidates to avoid being counsel, because a given settlement most handsomely rewards those who are not class counsel. Each candidate will be tempted to overbid the other, so as to maneuver the other into being class counsel. Nonetheless, the optimal fee cap is equal to the former fraction; for if the fee cap is higher than that, the case may settle for less than the value of the class’s claims.

**B. Properties of the Optimal Fee Cap**

The optimal fee cap has been defined with the primary objective of assuring that the class members receive at least the value of their claims in the event the case settles. A secondary objective is to

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109. If $Y$’s offer is accepted, $X$ gets 6% of the resulting settlement; if $X$ offers a slightly lower settlement amount—175, for example—that is accepted, then $X$ gets 11% of the resulting settlement.
110. That is, if the fraction $Y$ receives from a settlement negotiated by $X$ is smaller than the fraction receives from a settlement that she herself negotiates.
111. Should $Y$ offer more than that amount, $X$ will have an incentive to underbid $Y$, and vice versa.
112. For example, suppose that for $X$, the latter fraction is 15% while the former remains 11%. Rather than settle for a given amount, $X$ would prefer to see $Y$ settle for that amount.
enable, to the extent possible, the case to settle on a classwide basis. The question naturally arises: To what extent are these objectives complementary? Put otherwise, is a classwide settlement feasible under the optimal fee cap? As this Article has shown, settlement is feasible if the defendant’s maximum offer—the most he is willing to pay—exceeds the counsel’s minimum demand.113

Analysis of the parties’ bargaining positions under the optimal fee cap yields the following result: When the court employs an optimal fee cap, settlement is always feasible if the counsel is designated in advance; but it may be infeasible if the counsel is not designated in advance. If counsel is selected in advance, the defendant’s maximum offer always exceeds counsel’s minimum demand when the court employs the optimal fee cap. This is not necessarily true, however, if counsel is not designated in advance. If the court employs the optimal fee cap, there may be no candidate whose minimum demand is less than the defendant’s maximum offer.

The intuition behind this result is quite straightforward. When counsel is designated in advance under the optimal fee cap, the minimum settlement amount that counsel will accept is one that gives the class members the value of their claims and provides counsel with her expected profit from alternative proceedings. That settlement amount is, by definition, less than the total amount the defendant expects to lose if there is no class settlement. So long as the parties expect the court to employ the optimal fee cap, settlement will be feasible.

Matters are more difficult when counsel is not designated in advance. The fee cap may have to be much lower than would be appropriate if counsel were designated in advance. The reason for setting such a low fee cap, once again, is to prevent a downward spiral of bidding among the candidates. The result of setting the fee cap so low, however, is that the minimum settlement that any candidate will accept exceeds the maximum settlement that the defendant is willing to pay.114

Thus, in cases where class counsel is not designated in advance, the two identified objectives of fee regulation are not necessarily compatible. In particular, this quandary arises when candidate X gets only a relatively small fraction of any settlement negotiated by some other candidate Y. If that fraction is sufficiently low, there is no fee

113. See supra notes 88-89 and accompanying text.
114. The earlier numerical example, where the optimal fee cap was found to be 1/17, illustrates this point. As we know from Table 1, settlement is infeasible when the fee cap is this low.
cap that can both make settlement feasible and ensure that the class members get at least the value of their claims. In such cases, using the optimal fee cap—as defined in this Article—prevents a class settlement altogether.115

C. Refinements to the Basic Structure

One must now consider the consequences of relaxing the assumptions employed in describing the basic structure of the optimal cap.116 Table 2 summarizes the results.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Effect on the Optimal Fee Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative cost to the attorney of alternate proceedings</td>
<td>-</td>
</tr>
<tr>
<td>Attorney optimism toward alternate proceedings</td>
<td>+</td>
</tr>
<tr>
<td>Attorney risk aversion</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. — "+" means that the factor is positively correlated with the fee cap, so that increasing (decreasing) the factor has the effect of raising (lowering) the optimal fee cap; "−" means that the factor is negatively correlated with the optimal fee cap, so that increasing (decreasing) the factor lowers (raises) the optimal fee cap.

(a) Litigation Costs. Sometimes alternative proceedings will be more costly to counsel than negotiating a classwide settlement.117 In other situations, alternative proceedings will be less costly than negotiating a classwide settlement.118 How does this affect the analysis? If alternative proceedings are more costly than negotiating a classwide settlement, then the optimal fee cap will generally be lower than it is in the basic analysis above.119 All else being equal, the greater the costs counsel must bear in the alternative proceedings, the less profitable those proceedings will be for the attorney—and

115. A corollary is that if such cases settle on a classwide basis, the parties do not expect the court to use the optimal fee cap. Then there are no assurances that the class members are receiving the value of their claims.
116. See Appendix Parts D-E.
117. This is true, for example, when the alternative proceedings consist of a class trial led by the counsel negotiating the settlement. See Daniel R. Walteher, Classwide Arbitration and 10b-5 Claims in the Wake of Shearson/American Express, Inc. v. McMahon, 74 Cornell L. Rev. 380, 395 (1989).
118. This may be true in the context of a settlement class action. For a given lawyer who represents a small number of clients, the alternative to negotiating a classwide settlement is simply to settle the cases of her clients. That process may be significantly less costly than negotiating a classwide settlement.
119. In addition, the more costly alternative proceedings are relative to negotiating a class settlement, the lower the optimal fee cap will be.
counsel will settle the case for less. To counteract this effect, the fee cap must be lowered to boost counsel's minimum settlement demand to the appropriate level.

Conversely, if alternative proceedings are less costly than negotiating a classwide settlement, then the optimal fee cap will be higher than it is in the basic analysis above. The greater the costs of settling, the more tempting it will be to go to alternative proceedings if all else is equal. Accordingly, counsel will make a very high settlement demand, perhaps thereby preventing settlement. To counteract this effect, the fee cap must be raised to lower the attorney's minimum settlement demand to the right level, thereby making settlement feasible.

(b) Information. Perhaps counsel will systematically underestimate or overestimate the value of the class's claims. How do these possibilities affect the optimal fee cap? If counsel underestimates the value of the case, then she obviously will tend to demand too little in settlement. This effect may be counteracted by lowering the fee cap. If, however, counsel overestimates the value of the case, then she will tend to demand too much in settlement. This effect may be counteracted by raising the fee cap.

(c) Risk Aversion. Finally, one must consider the class counsel's aversion to risk. Analytically, risk aversion is analogous to increasing the relative litigation cost of the riskier (less certain) course of action available to the attorney. Accordingly, the above analysis of litigation costs applies to risk aversion. Assuming that the outcome of alternative proceedings is riskier or less predictable than negotiating a class settlement, then the presence of attorney risk aversion implies that the optimal fee cap is lower than it would be otherwise.

120. In matters where the defendant has private information, there arguably is a bias toward systematic underestimation of the case's value by counsel. The argument is roughly as follows. If counsel overestimates the value of the case, then the defendant will correct the counsel's belief. If, however, counsel underestimates the value of the claims, then the defendant will not correct the counsel's estimate, because such an error clearly benefits the defendant. Even though discovery rules apply, one assumes that the defendant cannot be more or less forthcoming in the discovery process. Favorable information might be buried in a pile of documents, while unfavorable information might be placed in a brightly colored folder.

Research in cognitive psychology, however, suggests that litigants systematically tend to overestimate the value of their case. See Linda Babcock et al., Biased Judgments of Fairness in Bargaining, 85 AM. ECON. REV. 1337 (1995).

121. The presence of such risk aversion depends, roughly speaking, on the extent to which the attorney's fortune is bound up with the case (or, equivalently, how large a stake counsel has in the outcome of the case). In general, the larger the attorney's stake in the case, the more reluctant counsel will be to gamble.

122. See supra notes 117-19 and accompanying text.

123. Likewise, the more risk averse the attorney is, the lower the fee cap.
The preceding factors may drive the optimal fee cap below or above the point prescribed by the basic structure derived earlier. In combination, these factors may push in opposite directions and may cancel each other out to some extent. There is no reason, however, to suppose that these factors will offset completely. Accordingly, the basic structure of the optimal fee cap can only be regarded as an approximation of the actual optimal fee cap. The approximation is useful nonetheless, as it at least provides us with a sense of the order of magnitude of the optimal fee cap. As the subsequent analysis will show, that order of magnitude may be smaller than is generally suspected.

**VI. IDENTIFYING THE OPTIMAL FEE CAP**

Having examined the abstract structure of the optimal fee cap, the analysis now turns to the issue of identifying the optimal fee cap in a particular case.

**A. The information problem**

The basic structure of the optimal fee cap reveals what approximate fraction of the settlement class counsel should recover to induce the attorney to settle for the right amount. The obvious problem this raises is how the court can acquire the information needed to evaluate that fraction in a given case. In particular, the question arises: To evaluate the fractions defined above, does the court need to know the value of the expected recovery in a given case?

If the answer to that question is yes, then the derivation of the optimal fee cap is useless, for it assumes away the very problem that it is supposed to address. After all, if the court knew the expected recovery in a particular case, it could directly infer the value of the class’s claims. Then, the court would no longer need the indirect method of fee regulation to ensure that the class members receive the value of their claims because it could simply refuse to approve any settlement that gave the class members less than the expected recovery. The premise of the fee regulation analysis is that the court does not know the value of the terms in the fractions.

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124. For example, these factors might push in opposite directions if alternative proceedings would be less costly, but more risky, for class counsel. This might be true in settlement class action settings, where an attorney might take on a much larger client base in negotiating a classwide settlement than she would have in alternate proceedings. The lower costs push the fee cap up, while risk aversion pushes it down.

125. Recall that the value of the class members’ claims is given by \((\text{Aggregate expected recovery in alternative proceedings}) - (\text{Counsel’s expected recovery in alternative proceedings})\). See supra Part VI.A.
The issue that must be investigated, therefore, is the extent to which the court can evaluate the fractions in Part V.A without knowing the value of the terms in the fractions. One possibility is that these fractions are independent of the expected recovery in the case. If so, the court may be able to estimate the optimal fee ceiling without knowing the expected recovery.

B. An Approach to the Problem

Central to the following analysis is the standard contingent fee, which gives the lawyer a fixed fraction of the recovery. This arrangement frequently governs counsel's recovery in the event she does not negotiate a class settlement. Its fixed quality—the fact that the lawyer's cap is to some extent independent of the size of the recovery—may enable the court to assess the optimal fee cap, even if it does not know the expected recovery in the case.

To illustrate the point, it may be helpful to begin with an example outside the class action context. Assume a lawyer represents a client under a contingent fee arrangement that gives the lawyer one-third of the total recovery in the case. Disregarding litigation costs, we know that the ratio between the lawyer's expected recovery and the class members' recovery is one-half. To determine this ratio, the court need not know anything about the size of the expected recovery in the case; the fee arrangement provides the pertinent information. One can use this reasoning to assess the fractions in Part V.A.

If counsel is designated in advance, the optimal fee cap is estimated by the following product:

\[
\text{Counsel's share of the claims in alternative proceedings} \times \text{Fee-compensation ration in alternative proceedings}
\]

The multiplicand refers to the value of the attorney's fractional share of the overall set of claims in the class if the case had gone to alternative proceedings. It is the proportion of claims counsel would handle if there were no class settlements in settlement negotiations. The multiplier represents the ratio between what the attorney would get and what the client would receive in each claim the counsel handles, provided there were no class settlement.

126. The lawyer receives one-third of the recovery, and the class gets the remaining two-thirds. This creates a ratio of one-half.

127. Thus, for example, if counsel's clients' claims represent 1/100 of the value of the all claims in the class, then the attorney's share of the cases is 1/100.

128. If these figures vary among clients, then the court must use an average figure.
To see that the above expression yields the optimal fee cap, consider the following numerical example. Suppose an attorney's share of the claims is one-tenth, and the ratio of this fee to the client's net recovery is one-third. Assume further the class members would receive some amount $W$ in alternative proceedings. The attorney will not settle the case on terms that provide less than what she expects to receive in alternative proceedings, which is $W/30$. If the court sets her fee cap at $1/30$, then counsel will not settle for less than $W$. As a result, the class members will receive at least $W$ in settlement—which is what they would have been awarded, in expected terms, in alternative proceedings.

If the counsel is not designated in advance, the optimal fee cap is approximated by either the above expression or the following product, whichever is smaller:

$$\text{Counsel's share of the claims in another's settlement} \times \text{Fee-compensation ratio in another's settlement}$$

The multiplicand refers to what the attorney's fractional share of the overall set of claims in the class would have been, if another attorney had negotiated a classwide settlement. That is, it is the proportion of claims counsel would handle if another attorney had represented the class in settlement negotiations. The multiplier represents the ratio between what the attorney would get and what the client would receive, in each claim that counsel would have handled, if another attorney had negotiated a class settlement.

C. The Court's Informational Task

The foregoing analysis furnishes the court a means for assessing the optimal fee cap in a particular case without necessarily estimating the expected recovery in the case. The question then becomes whether a court can determine the value of the terms defined in Part VI.B without knowing the expected recovery in a case.

Suppose the attorney has been retained by fifty of the class members. The court wants to know what fraction these claims constitute relative to the overall set of claims. To estimate this fraction, the court needs two pieces of information. First, it needs to

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129. This would be the case if counsel had a 25% contingent fee. Under such an arrangement, the lawyer receives one-fourth of the recovery, leaving three-fourths for the client; the ratio is accordingly one-third.

130. This may or may not be identical to the fee-compensation ratio in alternative proceedings.
know how many claims there are, or how many members constitute the class. Second, the court needs to know the extent to which the claims of the attorney's clients resemble those of other class members. Suppose, for example, that there are a total of 5,000 class members. If the attorney's clients possess claims that are indistinguishable from those of the remaining class members, then the attorney's share of the total claims amounts to 50/5000, or 1/100. If counsel's clients' possess claims that are stronger than average for the class, however, then the attorney's share exceeds 1/100; the expected recoveries of these clients are greater than 1/100 of the class's total expected recovery. Similarly, if the claims of these clients are weaker than average, then the attorney's share of the total claims is less than 1/100.

Both of these pieces of information may be difficult to ascertain. Consider, for instance, a class action involving claims for future injuries. The court may possess only a rough idea of how many claimants will appear. Furthermore, because the claims have not yet arisen, it may be difficult for the court to determine how closely these claims will resemble those of the attorney's existing clients. Indeed, the fact that so little is known about these future claims is one reason why the court may have trouble estimating the total value of the class's claims. Even so, the court's informational task is less onerous than estimating the expected recovery of all claims, because the court does not have to guess at the odds of recovery or the likely amount of recovery.

Estimating the ratio between the lawyer's fee and the client's net recovery raises slightly different informational issues. Courts should not experience much difficulty in determining the nature of the fee arrangement between the lawyer and her clients. The problem, however, is that the lawyer's cap of the recovery is often a function of the size of the recovery. If so, then the court cannot precisely determine the fee ratio without knowing the expected recovery. For example, assume that the fee arrangement gives the lawyer 30% of the first 100 recovered, 25% of the next 100 recovered, 20% of the next 100 recovered, and 15% of any amount above that. If the

133. This is true both of private fee agreements and court-established fees for class action trials. See generally Charles Silver, A Restitutionary Theory of Attorneys' Fees in Class Actions, 76 CORNELL L. REV. 656 (1991).
expected recovery is 200, then the fee-compensation ratio will be 0.38, but if the expected recovery is 400, then the ratio will be 0.29.

It is impossible to calculate a priori the degree of error in judicial estimations of the fee-compensation ratio. It seems reasonable to assume, however, that estimating the attorney’s contingent fee is less error-prone than estimating the expected judgment in the case. For example, suppose that in a given case the judge underestimates the expected judgment by a factor of two. Such a mistake is unlikely to translate into an error of comparable magnitude in estimating the attorney’s contingent fee.

D. Sample Applications

This Article now delineates how the model would prescribe the optimal fee cap in different types of class action settings.

1. Trial class actions

The easiest cases to analyze are those in which a class has been certified for trial in a single jurisdiction before completion of settlement negotiations. For our purposes, the critical features of such cases are generally the following: (1) the class counsel is selected in advance; and (2) the attorney’s “share of the claims” is simply one, or 100%; that is, counsel will be taking her contingent fee from each of the claims in the class action.

Applying the analysis under these circumstances is straightforward. Assume that the “alternative proceeding” in the event there is no classwide settlement is a single, classwide trial, which will determine both the defendant’s liability and the total damages paid to the class. The optimal fee cap is simply equal to the fee-compensation ratio that would obtain if the case went to trial. Thus, if class counsel would receive some given fraction of the class recovery in the event that the case were to go to trial, then counsel should also receive no more

134. The lawyer gets $0.3(100) + 0.25(100) = 55$; the client gets $200 - 55 = 145$; and $55/145 = 0.38$.

135. The lawyer gets $0.3(100) + 0.25(100) + 0.2(100) + 0.15(100) = 90$; the client gets $400 - 90 = 310$; and $90/310 = 0.29$.

136. In the above example, suppose the judge estimates the expected recovery to be 200, when in fact it is 400. In such a case, the judge will estimate the attorney’s fee to be 27.5%, when in fact it is 22.5%.

137. If there are several “competing” class actions, each with a different lead counsel, then class counsel effectively has not been designated in advance, because the defendant can negotiate with each of the different lawyers.
than that fraction of the class recovery in a settlement that she has negotiated.

Matters are a bit more complicated, though essentially similar, if the "alternative proceeding" consists of a classwide trial only on certain common issues. Suppose, for example, that if there is no class settlement, then there will be a classwide trial on issues relating to the defendant's conduct, followed (if necessary) by a series of individual trials on issues concerning each claimant's conduct and damages. Assume further that class counsel will act as attorney in the classwide trial, but that different lawyers will serve as counsel in the individual trials. The court's task is to estimate the fraction of each claim that class counsel would receive if the case did not settle before a classwide trial. That fraction is the optimal fee cap.

2. Settlement class actions

The analysis will now focus on class actions that are certified for settlement purposes only. In such cases, if there is no classwide settlement, claims will be resolved on an individual rather than a classwide basis. For these purposes, the critical features of settlement class actions are that: (1) the class counsel's share of the claims in alternative proceedings is typically less than 100%; and (2) the counsel is not designated in advance of the settlement negotiation process. These features significantly affect the optimal fee cap analysis.

First, they affect the attorney's share of the claims in alternative proceedings. Typically, no single lawyer will have been retained by all the members of the class. Indeed, no single lawyer's client base will be more than a small fraction of the class as a whole. As a result, the appropriate fee cap for a lawyer who negotiates a classwide settlement will be only a small fraction of the contingent fee cap that she has agreed on with clients.

Table 3 provides a numerical example of how low the fee cap plausibly may be in certain cases. Suppose a given lawyer negotiates a classwide settlement. This table indicates the optimal fee cap for the lawyer, given the attorney's share of claims and the contingent fee that she expects to earn on each claim. Assume, for example, that the lawyer has ten clients who are in the class, and that the lawyer is working on a one-third contingent fee on those claims. In


139. We assume in this example that the contingent fee is the same whether the case is resolved in alternative proceedings or in a classwide settlement negotiated by some other lawyer.
this case, counsel's share of the client's recovery is equal to 50%. If the class consists of 10,000 members, then the lawyer's share of the claims is roughly 1/1000. The optimal fee cap is then 0.05%, or 1/20 of 1%.

**TABLE 3**

Numerical Example: Optimal Fee Caps in Settlement Class Actions

<table>
<thead>
<tr>
<th>Fee-compensation ratio</th>
<th>Attorney's share of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1/10</td>
</tr>
<tr>
<td>.5</td>
<td>(\Phi^* = 5%)</td>
</tr>
<tr>
<td>.33</td>
<td>3.3%</td>
</tr>
<tr>
<td>.25</td>
<td>2.5%</td>
</tr>
<tr>
<td>.1</td>
<td>1%</td>
</tr>
</tbody>
</table>

The reason the fee cap is so low in this example is simple: the smaller the attorney's share of the claims, the less that she has to gain from alternative proceedings. As a result, all other things being equal, counsel will be willing to settle the case for a relatively small amount. For instance, an attorney with a share of 1/1000 of the claims has much less to gain in alternative proceedings than an attorney who has 100% of the claims. All else being equal, therefore, counsel will be prepared to settle for much less than she would if the attorney had 100% of the claims. To counteract that tendency, the court must impose a very low fee cap, so as to induce counsel to demand a relatively large settlement. Counsel will then receive a very small fraction of this larger settlement.

The fact that the representative is not designated by the court in advance of the settlement negotiation can also alter the analysis. It changes only if the lawyer's contingent fee in a classwide settlement, negotiated by a different lawyer, is lower than counsel's contingent fee in alternative proceedings. As the previous examination demonstrated, the court needs to use the lower of the two in calculating the fee cap.

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140. The fee gives the lawyer one-third and the client two-thirds of the recovery, so the lawyer's share is equal to half of the client's total recovery.
141. For further discussion of this point, see Hay, *supra* note 18, at 487-90.
142. *See supra* Part V.A.
VII. SUBCLASSES AND DISTRIBUTIONAL CONCERNS

To this point the focus has been on the amount paid in settlement to the class as a whole, without regard to its distribution among class members. The discussion now turns to how the settlement treats different groups within the class.

A. The Problem of Distribution

Critics of class action settlements often assert that settlements may favor some groups within the class at the expense of others. Thus, for example, in a mass tort setting, a settlement might be relatively generous to claimants who have already brought suit, while leaving little money available for future claimants. Generally stated, the criticism holds that a settlement may give members of group A in the class the value of their claims, while denying the members of some other group B the fair value of their claims. This Part considers the extent to which fee caps can address this problem.

To examine the issue, it is necessary to make a simple revision of the settlement model to capture the notion of subclasses. Suppose a settlement takes the form of a schedule \((S_A, S_B, F)\), where \(S_A\) is the amount paid to subclass A in the class; \(S_B\) is the amount paid to subclass B; and \(F\) is the amount paid to class counsel. The court seeks to ensure, if possible, that each subclass collects the expected value of its claims in alternative proceedings.

This objective differs from the earlier formulation of the court's objective insofar as the court is not concerned simply with the size of the overall settlement amount paid to the class members after the counsel's fee is deducted. Rather, the court is also concerned with how that payment is divided among the two subclasses. Thus, for example, suppose that the overall settlement amount collected by the class exceeds the expected value of the class' claims, and that the full amount is distributed to subclass A. From the court's perspective, this is a bad outcome, because matters would be better if each subclass collected the value of its claims from the distribution. The question arises, then, as to what extent the court can use a fee cap to ensure that each subclass receives the value of its claims.

143. See Morawetz, supra note 1, at 5-7; see also John C. Coffee, Jr., The Regulation of Entrepreneurial Litigation: Balancing Fairness and Efficiency in the Large Class Action, 54 U. Chi. L. Rev. 877, 916 (1987).

144. See Coffee, supra note 2, at 135-55.
B. Effects of the Optimal Fee Cap

The fee cap examined in the foregoing analysis limits counsel’s compensation to a figure equal to some fraction of the amount paid to the class as a whole. Thus, if the fee cap is set, say, at 10% the counsel collects no more than ten cents for every dollar received by the class itself, regardless of whether that dollar goes to members of subclass A or instead to members of subclass B. A natural threshold question is how such a fee cap affects bias on the part of the class counsel and the defendant to favor a particular subclass. One arrives at the following result: If the class counsel receives the same cap of the amount recovered by each subclass, then the settling parties have no incentive to give a greater settlement amount to one subclass than to any other. More precisely, the settling parties have no reason to prefer giving a dollar to subclass A rather than giving a dollar to subclass B.

The reasoning behind this result is fairly obvious. The defendant is indifferent to paying a dollar to A and paying a dollar to B; in either case, the defendant pays a dollar. In addition, class counsel’s situation is the same; the attorney receives the same fraction of that dollar no matter which subclass it goes to. For example, the settling parties will be indifferent between a settlement that gives 50 to A and 100 to B, and a settlement that gives 100 to subclass A and 50 to subclass B. The defendant’s total payment, and the counsel’s total recovery, are the same under either settlement. Thus, they have no reason to prefer one over the other.

The next result follows logically from this point. Recall the definition of the optimal fee cap: the fee cap that ensures that class counsel will not accept a settlement unless it gives the class as a whole the value of its claims. Assume that the court identifies the optimal fee cap accordingly, and suppose further that this fee cap applies to the recovery paid to each subclass. In general, application of the optimal fee cap will have the following effects: (1) relatively small subclasses will receive more than the value of their claims; and (2) relatively large subclasses will receive less than the value of their claims.

To see why this occurs, suppose that subclass A’s claims have a total value of 100, while those of subclass B have a total value of 50.

145. If the fee cap is 10%, then counsel receives 10% of the amount paid, no matter how the remainder is divided among the subclasses.

146. The reference here is not to the number of claimants in the subclass, but to the value of its claims relative to other subclasses. Thus, by “relatively large,” we mean that the value of the subclass’s claims is greater than that of other subclasses.
Assume that the optimal fee induces class counsel to demand no less than 150 in settlement. For reasons set further above, the parties have no incentive to give one subclass more than the other subclass; both the defendant and the class counsel will be inclined to accept any settlement involving a total class recovery of 150. In effect, the settling parties will choose randomly among settlements totaling 150. On average, then, each subclass will tend to collect 75—meaning \( A \) collects too little while \( B \) collects too much.

The court may reject a settlement that does not, in the court's view, fairly apportion the recovery among subclasses.\(^{147}\) The threat of such judicial intervention may motivate the settling parties at the apportioning stage. Once again, however, the court's ability to directly regulate the terms of settlement is constrained by its limited information; the court may not know the relative sizes of the subclasses, and it cannot tell whether a given subclass should get 50 or 100. In addition, the court may not be able to ascertain the subclasses' relative shares of the settlement, as it cannot tell whether a given subclass is in fact getting 50 or 100.

For these reasons, the above generalization captures the likely tendency of class action settlements, though there is no way of knowing the magnitude of that tendency. The court cannot verify directly that each subclass receives the value of its claims, and the optimal fee cap gives the settling parties no incentive to achieve such an apportionment. As defined in this Article, the optimal fee cap will do no better than ensure that the class as a whole receives in settlement the value of its claims. It cannot solve distributional problems within the class.

C. The Judicial Dilemma

If the premise that the optimal fee cap cannot address distribution issues is true, is the derivation of the optimal fee cap a failure? Perhaps the optimal fee cap should be redefined for cases where a settlement agreement allocates payments among different subclasses. The new definition might be as follows: The optimal fee cap ensures that each subclass—not just the class as a whole—receives the value of its claims.

Unfortunately, such a fee cap does not exist. The point can be summarized as follows: If counsel represents more than one subclass, then no fee cap can ensure that each subclass receives the value of its claims in settlement. More precisely, if counsel (or a candidate for the role of

counsel) negotiates a settlement that binds more than one subclass, there is no fee cap the court can apply that will both make settlement feasible and ensure that each subclass receives the value of its claims. Any fee cap that makes settlement feasible will also, by its nature, make it possible for a subclass to receive less than the value of its claims.

This result was apparent with uniform fee caps—fee caps that give counsel the same cap of the amount paid to each subclass. Under that type of fee cap, the settling parties will care only about the size of the total settlement paid to the class without regard for the allocation among subclasses. Thus, if the settling parties agree on some aggregate settlement amount, then they will be happy to give the whole amount to A, while leaving nothing for B. Alternatively, they will also be happy to give the whole amount to B, while leaving nothing for A. The imposition of a uniform fee cap cannot prevent either result.

What about a non-uniform fee cap? Such a fee cap—whereby the counsel's fraction of the settlement depends on whom the settlement is paid to—introduces a positive bias in favor of one subclass. In particular, it encourages the settling parties to distribute the entire settlement (or as much as possible) to the subclass for whom the fee cap is highest. For example, suppose that the fee cap is structured to give the counsel 10% of the amount paid to subclass A, but 20% of the amount paid to subclass B. It is easy to see that the settling parties will give as little as possible to subclass A. For each dollar paid in settlement, the class counsel would rather see that dollar go to B than to A, and the defendant is indifferent between giving the dollar to A or B. If possible, the settling parties will give the whole amount to B.

Thus, neither uniform nor non-uniform fee caps can ensure that the settling parties will give each subclass the value of its claims. Uniform fee caps make the settling parties indifferent about distributional issues, while non-uniform fee caps bias the parties in favor of some subclasses over others. Whether indifference or bias is preferable is unimportant for present purposes. The critical point is that no fee cap provides the settling parties with an incentive to distribute a settlement among subclasses according to the value of each subclass's claims.

148. See supra note 144 and accompanying text.
149. Sometimes the court may want to bias the parties in favor of some subclasses.
The source of the problem here is that class counsel represents more than one subclass. The court may, of course, counteract the problem by giving each subclass its own counsel, each financially independent of the others, and each with the authority to reject a settlement on behalf of the subclass she represents.\textsuperscript{150} The court would then derive a fee cap for each counsel, in accordance with the analysis in Parts V and VI above. This would be the counsel’s exclusive compensation, and there would be no sharing of fees among counsel for different subclasses.\textsuperscript{151} Acting under that fee cap, each counsel would refuse any settlement that provided her subclass with less than the value of its claims in alternative proceedings.

The drawback to such an approach is that it multiplies the complexity of negotiating a classwide settlement. Giving each subclass its own counsel, with veto power over settlement, introduces problems of coordination and strategic bargaining that are less prevalent when the entire class is represented by a single attorney.\textsuperscript{152} In a case where multiple attorneys represent various subclasses, the odds of a classwide settlement drop accordingly. This Article does not address whether the benefits of individual counseling outweigh these problems. It is enough to observe that, once again, the court faces a tradeoff between the goal of encouraging a classwide settlement and the goal of ensuring that class members receive the value of their claims.

CONCLUSION

The importance of fee caps for the protection of the class members in settlement obviously depends on the constraints identified at the outset of the analysis; the more binding these constraints are, the greater the need to use fee regulation to give class counsel the proper incentives. Thus, if the court lacks the information necessary to evaluate the propriety of a settlement, and if class members lack the ability to police its soundness,\textsuperscript{153} then imposing the appropriate fee cap will be relatively critical. If the court and the class members can evaluate the settlement accurately, then setting the appropriate fee cap will be less pressing. These other protective devices are rarely

\begin{footnotes}
\item[150] If counsel is not designated in advance, then the court would have to prohibit a candidate from negotiating on behalf of more than one subclass.
\item[151] Thus, counsel for subclass \(A\) could not pay counsel for subclass \(B\) to induce the latter to accept a settlement.
\item[153] One way that class members might police the soundness of the settlement is by opting out.
\end{footnotes}
perfect, however, so the problem of designing appropriate incentive structures for class counsel will be a significant task for courts in most cases. This Article furnishes a framework for approaching the problem.
APPENDIX

A. The Model

Assume there are \( n \) candidates for class counsel. Define the following notation:

\[
S_i = \text{Amount received by the class members in a settlement negotiated by the } i\text{th candidate;}
\]

\[
F_i = \text{Amount received by the counsel in a settlement negotiated by the } i\text{th candidate.}
\]

We assume, except in section E below, that settling generates the same costs to the counsel as alternative proceedings; that the settling parties are symmetrically informed; and that candidates are risk-neutral.

B. The Basis for Fee Regulation

Here we derive the results presented in Part IV.A of the text. To determine the amount recovered by the class members, consider a settlement entered into by the \( j \)th candidate. Let

\[
\hat{S} = \text{Minimum allowable settlement.}^{154}
\]

We will show that any schedule in which \( S_j > \hat{S} \) is pareto-inferior to one in which \( S_j = \hat{S} \). Consider some settlement schedule \((S_j, F_j)\) such that \( S_j > \hat{S} \). Now, in place of that schedule, substitute a new schedule \((\hat{S}, F_j)\) such that \( \hat{S} + F_j = S_j + F_j \). This equality implies (because \( S_j > \hat{S} \)) that \( F_j > F_j \). As a result, class counsel will strictly prefer the second schedule to the first, while the defendant will be indifferent between them.

Now consider the sum recovered by counsel as her fee. We have seen that in any settlement reached, \( S = \hat{S} \). Thus, the only matter for the parties to bargain over is the size of \( F \). Let

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154. It is assumed that this variable is independent of who the counsel is. Relaxing this assumption has no effect on the qualitative conclusions of the analysis.
The \( i \)th candidate's anticipated profit from the case if she does not reach a settlement with the defendant (\( G > 0 \));

\[ G_i = \text{Defendant's expected loss in alternative proceedings.} \]

(1) Suppose counsel is designated in advance by the court. Assume the \( j \)th candidate is selected. The minimum value of \( F_j \) acceptable to the counsel is \( G_j \); the maximum value of \( F_j \) acceptable to the defendant is \( H - \hat{S} \). We thus have \( G_j \leq F_j \leq H - \hat{S} \). (2) Now suppose counsel is not designated in advance. The defendant can, in effect, conduct a reverse auction among the candidates, settling with the low bidder. Let candidates \( k \) and \( l \) be, respectively, the candidates who stand to gain the least if they fail to settle with the defendant. The defendant will settle with \( k \), because \( k \) will be the lowest bidder; and in equilibrium, the defendant will not pay more than the minimum amount acceptable to \( l \), because if \( k \) demanded more than that, she would be underbid by \( l \). We thus have \( G_k \leq F_k \leq G_l \).

**C. Effects of a Fee Cap**

Here we derive the results presented in Part IV.B the text. Let

\[ \Phi_i = \text{Fee cap applied to the } i\text{th candidate in the event she settles with the defendant (} \Phi > 0 \). \]

The fee cap is binding on the settlement negotiations, in the sense that \((F_i, S_i)\) will be chosen in such a way that the equality \( F_i = \Phi_i S_i \) holds.

Counsel will not agree to any value of \( S \) unless \( \Phi_j S_j \geq G_j \). From inspection, it is clear that \( j \)'s minimum settlement demand on \( S_j \) increases as \( \Phi_j \) decreases. Regarding the likelihood of settlement, observe that the defendant will not agree to any settlement unless \((1+\Phi) S_j \leq H \). Thus, settlement is infeasible because there is no value of \( S_j \) acceptable to both parties if

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155. More precisely, \( G_k < G < G_l \) for all \( i \neq \{k, l\} \).

156. These points follow from the well-developed literature on auctions. See, e.g., Paul Milgrom, *The Economics of Competitive Bidding: A Selective Survey*, in *Social Goals and Social Organization* 261 (L. Hurwicz et al. eds., 1985).

157. To see this, it suffices to show that any schedule where \( F < \Phi(S + F) \) is pareto-inferior to one in which \( F = \Phi(S + F) \). Consider some settlement schedule \((S, F)\), together with a ceiling \( \Phi_s \) such that \( F < \Phi(S + F) \). Now, in place of that schedule, substitute a new schedule \((S, F)\) such that \( F = \Phi(S + F) \). This equality implies that \( S < S \) because \( F \) has been held constant. As a result, the defendant will strictly prefer the second schedule to the first, while class counsel will be indifferent between them.
Assume that the court is uncertain of the value of the terms on the right-hand side of (A1). As the value of $\Phi_j$ goes up, so does the probability that (A1) does not hold; hence, raising $\Phi_j$ has the effect of increasing the likelihood (from the court's perspective) that settlement is feasible between the parties.

D. The Optimal Fee Cap

Here we derive the results presented in Part VA of the text. Let

$$W_i = \text{Class members' net expected recovery from defendant on all claims the class in alternative proceedings, net of the expected amount taken by the } i\text{th candidate.}$$

The court's objective is to ensure that $S_i \geq W_i$ for all candidates. Thus, $\Phi_j^*$ is the fee cap that ensures that the $i$th candidate will not settle unless $S_i \geq W_i$.

Suppose the $j$th candidate is designated class counsel in advance. Let

$$\alpha_i = \text{Fractional share of } W_j \text{ that the } i\text{th candidate would recover in alternative proceedings } (0 \leq \alpha \leq 1).$$

By definition, we have $\alpha_i W_i = G_j$. If $\Phi_j = \alpha_j$, then $j$ will not agree to a settlement unless $S_j \geq W_j$. Thus, $\Phi_j^* = \alpha_j$.

Now suppose no counsel is designated in advance. Let

$$\beta_i = \text{The } i\text{th candidate's fractional share of a class settlement negotiated by a different candidate } (0 \leq \beta \leq 1).$$

We will examine the candidates' behavior in Nash equilibrium. Begin by considering some candidate $l$'s best response to the actions of the other candidates. If no candidate $k$ offers to settle for less than the

\[ \Phi_j < \frac{G_j^{158}}{H \cdot G_j} \]

Expression (A1) is obtained by rearranging terms in the counsel's minimum demand figure and the defendant's maximum offer figure.

Thus, if candidate $j$ negotiates a settlement $S_j$, then candidate $i$ gets $\beta_i S_j$. 

\[ 158. \text{Expression (A1) is obtained by rearranging terms in the counsel's minimum demand figure and the defendant's maximum offer figure.} \]

\[ 159. \text{Thus, if candidate } j \text{ negotiates a settlement } S_j, \text{ then candidate } i \text{ gets } \beta_i S_j. \]
defendant's reservation price, then \( l \) will be willing to settle for any amount that gives her more than \( \alpha_i W_i \). Thus, counsel's minimum demand on \( S_l \) will be at least \( W_i \) if

\[
\Phi_i \leq \alpha_i. \tag{A2}
\]

Suppose, however, that some other candidate \( k \) offers to settle for some amount \( S_k \) that the defendant will accept unless \( l \) makes an equal or lower offer. In such a case, \( l \) will match the offer (and undercut it by a tiny amount) if and only if \( \beta_i S_k < \Phi_i S_k \). Thus, if \( S_k \) is acceptable to the defendant, \( l \) will refrain from undercutting the offer if

\[
\Phi_i \leq \beta_i. \tag{A3}
\]

From this analysis it follows that if both (A2) and (A3) hold for all candidates, then there is no Nash equilibrium in which the case settles for less than \( S = W \). If, instead, either (A2) or (A3) fails to hold for some candidate(s), then the case may settle for less than \( W \). For example, if (A2) fails to hold for the \( k \)th candidate, the above analysis implies the existence of such an equilibrium. Similarly, if (A3) fails to hold for the \( k \)th candidate, counsel may in equilibrium agree to settle for less than \( W \).

The solution to the court's problem is therefore to choose the maximum fee cap that satisfies both (A2) and (A3). Choosing that ceiling, rather than a lower one, maximizes the chances that
settlement will be feasible, while ensuring that the settlement amount will not be below $W$. Thus, $\Phi_i^* = \min (\alpha_i, \beta_i)$.

E. Properties of the Optimal Fee Cap

Here we derive the results of Part V.B in the text. Suppose $\Phi_j^* = \alpha_j$. Plugging that into $\Phi_j S_j = G_j$ and recalling that $G_j = \alpha_j W$, we see that settlement is feasible provided that $(1+\alpha_j) W \le H$, which is true by assumption. Suppose, instead, that $\Phi_j^* = \beta_j$. Plugging that into $\Phi_j S_j = G_j$, we see that settlement is feasible if $\beta_j < \alpha_j W / H$, which may or may not hold.

F. Additional Factors Bearing on the Optimal Fee Cap

Here we derive the results presented in Part V.C of the text. Assume that $\Phi_j^*$ is the optimal fee cap for the $j$th candidate when the model's assumptions hold. For brevity's sake, we assume $j$ is designated in advance. The analysis is similar, but more involved, if counsel is not designated in advance.

1) Litigation Costs. Let $X_j$ denote the $j$th candidate's litigation costs in alternative proceedings ($X_j < W_j$). In such a case, we have $G_j = \alpha_j W r - X_j$. Plugging that into $D_j S_j = G_j$ and setting $S_j = \frac{W_j}{W}$ we have

$$\Phi \leq \frac{\alpha_j W_j r - X_j}{W_j X_j}.$$  \hspace{1cm} (A4)

The fee cap must satisfy (A4), or candidate $j$ will be willing to settle for less than $W_j$. Observe that (A4) is less than $\alpha_j$, provided that $X_j$ is positive.

2) Attorney Beliefs. Let $W_j^o$ represent the $j$th candidate's estimate of the value of $W_j$. The candidate's minimum settlement demand satisfies $\Phi_j S_j = \alpha_j W_j^o$. Setting $S_j$ equal to $W_j$ gives $\Phi_j^* = \alpha_j W_j^o / W_j$. If $W_j^o < W_j$, then $\Phi_j^* < \alpha_j$.

3) Risk Aversion. To consider the effect of counsel risk aversion, assume that some risk attaches to the outcome of alternative proceedings, and that counsel is risk-averse. We can let $X_j$ denote the disutility sustained by $j$, which she would not sustain if risk-neutral, from going to alternative proceedings. The analysis in (a) then applies directly.

G. Identifying the Optimal Fee Cap

Here we derive the results presented in Part VI of the text. Let $Q_i$ denote the $i$th candidate's fraction of the total claims ($0 < Q \leq 1$); let $R_i^c$ denote the $i$th candidate's fee-compensation ratio in alternative
proceedings \(0 < R^a < 1\); and let \(R^i\) denote the \(i\)th candidate's fee-compensation ratio in a class settlement negotiated by a different candidate \(0 < R^e < 1\). By definition, we have \(\alpha_i = Q_i R^e_i\), and \(\beta_i = Q_i R^i\). We can then apply the analysis from section D of this Appendix.\(^{165}\)

**H. Subclasses and the Problem of Distribution**

We now derive the results presented in Part VII of the text. Assume, without loss of generality, that the class consists of two subclasses \(A\) and \(B\). Suppose further that the defendant is bargaining with the \(j\)th candidate. Let \(S^A\) denote the total settlement paid to subclass \(A\); let \(\Phi_j^A\) denote the fee cap applied to the amount recovered by subclass \(A\); and use analogous notation for subclass \(B\). The defendant's total payment is given by \((1+\Phi_j^A) S^A + (1+\Phi_j^B) S^B\), and the class counsel's total recovery in settlement is given by \(\Phi_j^A S^A + \Phi_j^B S^B\).

Begin by considering the relative treatment of the two subclasses under the optimal (unitary) fee cap. (1) Suppose, first, that \(\Phi_j^A = \Phi_j^B\). Consider some schedule \((\hat{S}^A, \hat{S}^B)\) that is acceptable to both settling parties. The settling parties will be indifferent among all settlements \((S^A, S^B)\) satisfying \(S^A + S^B = \hat{S}^A + \hat{S}^B\). If all such settlements are permissible, then none of these settlements are more likely than any other to be selected. Thus, in expected terms, we have \(S^A = S^B = \frac{1}{2}(\hat{S}^A + \hat{S}^B)\).

(2) Suppose, next, that \(W > W^B\). We know from the above that (in expected terms) \(S^A = S^B\) when \(\Phi_j^A = \Phi_j^B\). It follows that under \(\Phi^*_j\), we have \(W^A - S^A > W^B - S^B\). Thus, under \(\Phi^*_j\), subclass \(A\) will receive less than subclass \(B\), relative to the expected value of its claims.

Next, consider the structure of the optimal fee cap. (1) Consider a unitary fee cap. Assume that \(\Phi_j^A = \Phi_j^B\). Consider any schedule \((\hat{S}^A, \hat{S}^B)\) that is acceptable to both settling parties. The settling parties will be indifferent between that schedule and a new schedule \((S^A, S^B)\) where \(S^A = 0\) and \(S^B = \hat{S}^A + \hat{S}^B\).\(^{166}\) For this reason, it is evident that there is no way of assuring both that \(S^A \geq W^A\) and that \(S^B \geq W^B\).

(2) Now consider a non-unitary fee cap. Suppose that \(\Phi_j^A < \Phi_j^B\). Consider any schedule \((\hat{S}^A, \hat{S}^B)\) that is acceptable to both settling parties. An argument analogous to the one above indicates that there is some other schedule \((S^A, S^B)\) where \(S^A = 0\), as to which the defendant is indifferent between the two schedules, while class counsel strictly prefers the latter. Thus, so long as \(S^A > 0\), there is

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165. See supra Appendix Part D.
166. More generally, the settling parties may be willing to enter into a settlement that gives subclass \(A\) the minimum amount allowed by the court.
some other settlement schedule that gives less to subclass A, and is pareto superior from the standpoint of the settling parties.\textsuperscript{167}

\textsuperscript{167} More generally, the unique equilibrium is one in which subclass A receives the minimum amount allowed by the court.