

The Case for “Trial by Formula”

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The civil justice system tolerates inconsistent outcomes in cases brought by similarly situated litigants. One reason for this is that in cases such as Wal-Mart Stores, Inc. v. Dukes,¹ the Supreme Court has increasingly emphasized liberty over equality. Litigants’ right to a “day in court” has overshadowed their right to equal treatment. However, an emerging jurisprudence at the district court level is asserting the importance of what this Article calls “outcome equality”—similar results reached in similar cases. Taking the example of mass tort litigation, this Article explains how innovative procedures such as sampling are a solution to the problem of inconsistent outcomes. Outcome equality, achieved through statistical adjudication, is gaining force on the ground. Despite the Supreme Court’s principled stance in favor of liberty in a series of recent opinions, a victory for outcome equality is good for our civil justice system.

To date, the discussion about civil-litigation reform has focused on the conflict between the individual’s right to participation and society’s interest in the efficient disposition of the great volume of outstanding litigation. This conflict is real and is particularly troublesome in mass torts, where tens of thousands of plaintiffs file related cases, making it impossible for the courts to hold a hearing for each claimant. But the fixation on this conflict ignores the fact that an individual’s right to equal treatment is also a critical value and can conflict with the individual’s right to participation. This Article reframes the debate about procedural justice in the mass tort context as a conflict between liberty and equality rather than liberty and efficiency. The rights at stake are not only the individual’s right to a day in court to pursue his claim as he wishes, but also the right to be treated as others in similar circumstances are treated. This Article defends district court attempts to achieve equality among litigants by adopting statistical methods and advocates greater rigor in the use of these methods so that courts can more effectively promote outcome equality.

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1. 131 S. Ct. 2541 (2011).

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Introduction

That like cases ought to be treated alike is a basic common law principle. Judges recognize that consistency in case outcomes is a characteristic of the rule of law.² Yet our civil justice system tolerates a great

2. See, e.g., *Exxon Shipping Co. v. Baker*, 128 S. Ct. 2605, 2624–26 (2008) (lamenting unpredictability in punitive damages awards); *Martin v. Franklin Capital Corp.*, 546 U.S. 132, 139 (2005) (“Discretion is not whim, and limiting discretion according to legal standards helps promote the basic principle of justice that like cases should be decided alike.”). Scholars have also noted this principle but have rarely analyzed it. See Kenneth S. Abraham & Glen O. Robinson, *Aggregative Valuation of Mass Tort Claims*, 53 LAW & CONTEMP. PROBS. 137, 147 (1990) (describing random outcomes in tort cases as “a flaw in the system that undermines the system’s accuracy and fairness”); Evan H. Caminker, *Precedent and Prediction: The Forward-Looking Aspects of Inferior Court Decisionmaking*, 73 TEXAS L. REV. 1, 39 (1994) (“[N]ational uniformity of federal law ensures that similarly situated litigants are treated equally; this is considered a hallmark of fairness in a regime committed to the rule of law.”); Judith Resnik, *Tiers*, 57 S. CAL. L. REV. 837, 858 (1984) (“Procedural systems are supposed to treat like cases alike; consistency is the systematic analogue to the impartiality feature demanded of individual decisionmakers.”); William B. Rubenstein, *The Concept of Equality in Civil Procedure*, 23 CARDOZO L. REV. 1865, 1866–67 &

deal of inconsistency in outcomes. Study after study has shown that both jurors and legal professionals assess damages inconsistently in tort cases.³ The procedural law reinforces this inconsistency. Juries deliberate without knowing what other juries have done in similar cases.⁴ In the federal courts, judges may overturn jury verdicts only if the judge finds that no reasonable juror could have reached the verdict and may remit an award only if it is so large that it “shock[s] the conscience.”⁵ Litigants may settle cases without ascertaining what similar litigants received in settlement.

This is a curious disconnect. Why would a system committed to the rule of law so cavalierly permit similar cases to come out differently from one another? The procedural law’s failure to enforce consistency in outcomes—even as judges laud the well-worn common law principle that like cases ought to be treated alike—reflects a deep tension in civil litigation between liberty and equality. Liberty in civil litigation is summed up as the “deep-rooted historic tradition that everyone should have his own day in court.”⁶ Equality is embodied in the common law principle that like cases ought to be treated alike.⁷

Liberty and equality are not inherently at odds with one another.⁸ In our system of decentralized decision makers, however, a tension between liberty

n.8 (2002) (describing how most scholars assert equality as a value in civil procedure without explaining it).

3. See *infra* subparts I(B)–(C) (discussing unexplained variation in jury verdicts and in the evaluation of damages by potential jurors and legal professionals).

4. See Mark Geistfeld, *Placing a Price on Pain and Suffering: A Method for Helping Juries Determine Tort Damages for Nonmonetary Injuries*, 83 CALIF. L. REV. 773, 781–83 (1995) (describing and analyzing lack of information in jury instructions). See generally Roselle L. Wissler et al., *Instructing Jurors on General Damages in Personal Injury Cases: Problems and Possibilities*, 6 PSYCHOL. PUB. POL’Y & L. 712, 714, 716, 723–24 (2000) (collecting and analyzing jury instructions).

5. 11 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & MARY KAY KANE, FEDERAL PRACTICE AND PROCEDURE § 2815, at 160–62 (2d ed. 1995); see also FED. R. CIV. P. 59 (announcing the standard for granting a new trial or altering a judgment). In some state courts, the standard is lower. In New York, for example, the standard is whether the verdict “deviates materially from what would be reasonable compensation.” N.Y. C.P.L.R. § 5501(c) (McKinney 1995).

6. *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 846 (1999) (quoting 18 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE § 4449, at 417 (1st ed. 1981)); *Richard v. Jefferson Cnty.*, 517 U.S. 793, 798 (1996) (same); *Martin v. Wilks*, 490 U.S. 755, 762 (1989) (same), *superseded by statute*, Civil Rights Act of 1991, Pub. L. No. 102-166, § 108, 105 Stat. 1071, 1076–77; *accord Taylor v. Sturgell*, 128 S. Ct. 2161, 2171 (2008) (citing *Richard*, 517 U.S. at 798). The fact that the Court transitioned from citing Wright & Miller in *Ortiz*, *Martin*, and *Richard* to citing *Richard* in *Taylor* indicates that the Court has internalized the day in court ideal as part of its own jurisprudence, as opposed to an outsider’s description.

7. The principle of equality has other expressions in civil procedure, such as equality of access to the courts and equality of resources in litigation. See Rubenstein, *supra* note 2, at 1867–68 (summarizing several equality concerns addressed by civil procedure, including “equality in the litigants’ capacities to produce their proofs and arguments” and “achiev[ing] consistent outcomes in like cases”). This Article is exclusively concerned with equality of outcomes between similarly situated persons.

8. See Kenji Yoshino, *The New Equal Protection*, 124 HARV. L. REV. 747, 749–50 (2011) (noting the widespread understanding that “equality and liberty claims are often intertwined”).

and equality is inevitable. In the procedural law—by which I mean federal constitutional law, common law doctrines, and interpretations of the formal procedural rules of our civil justice system—liberty has been the clear victor in the doctrinal contest between the two values at the appellate level.⁹ Nevertheless, equality is winning many battles on the ground.

The Supreme Court has consistently favored the liberty of individual adjudication over equality. For example, in his opinion in *Wal-Mart Stores, Inc. v. Dukes* last term, Justice Scalia disparaged the idea of “Trial by Formula” because it does not provide individualized adjudication.¹⁰ In *AT&T Mobility LLC v. Concepcion*,¹¹ the majority assumed that the baseline of adjudication is individualized suits,¹² leading Justice Breyer to ask, “Where does the majority get its contrary idea—that individual, rather than class, arbitration is a ‘fundamental attribut[e]’ of arbitration?”¹³ Similarly, the Court has limited the availability of class actions to resolve mass tort cases in the interest of protecting individual litigants, especially persons whose injuries have not yet manifested.¹⁴ In *Taylor v. Sturgell*,¹⁵ the Court held that individuals cannot be precluded from bringing their own suits even if those suits are completely duplicative and brought by parties who are

Sometimes the “day in court” ideal can serve equality, as when the Supreme Court reversed certification of a mass tort settlement class on the grounds of adequacy of representation when the future claimants were treated inequitably. *Amchem Prods., Inc. v. Windsor*, 521 U.S. 591, 626 (1997) (describing “[t]he disparity between the currently injured and exposure-only categories of plaintiffs”).

9. The latest victory for the liberty principle is *Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541, 2559 (2011), in which the Court expressed concern about individuals being precluded from pressing compensatory damages claims in the aftermath of a class action seeking only injunctive relief and back pay. As Judith Resnik points out, the recent cases discussed here limit litigant access to justice using the language of individual rights. See Judith Resnik, *Fairness in Numbers: A Comment on AT&T v. Concepcion, Wal-Mart v. Dukes, and Turner v. Rogers*, 125 HARV. L. REV. 78, 80 (2011) (“[T]he constitutional concept of courts as a basic public service provided by government is under siege.”).

10. *Id.* at 2561 (“We disapprove [of] that novel project.”).

11. 131 S. Ct. 1740 (2011).

12. *Id.* at 1750 (describing the “often-dominant procedural aspects of certification,” such as the protection of absent parties).

13. *Id.* at 1759 (Breyer, J., dissenting) (alteration in original).

14. Three cases are widely understood to have ended the possibility of certifying a mass tort class action. See *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 821–22, 864 (1999) (overturning use of Federal Rule of Civil Procedure 23(b)(1)(B) to certify a mandatory limited-fund class action arising out of injuries caused by exposure to asbestos); *Amchem Prods., Inc. v. Windsor*, 521 U.S. 591, 597, 619–20 (1997) (overturning class settlement of large numbers of asbestos claims in part on grounds of inadequate representation); *Stephenson v. Dow Chem. Co.*, 273 F.3d 249, 261 (2d Cir. 2001) (permitting collateral attack on class settlement of Agent Orange litigation on grounds of inadequate representation), *aff’d per curiam in part by an equally divided court, vacated in part*, 539 U.S. 111, 112 (2003); see also Samuel Issacharoff, *Private Claims, Aggregate Rights*, 2008 SUP. CT. REV. 183, 208 (“[C]lass actions seemed to drop out of the available set of tools for attempting to settle most mass torts, absent some extraordinary willingness of a settling defendant to allow some form of future claims to return to the tort system.” (footnote omitted)).

15. 128 S. Ct. 2161 (2008).

virtually identical.¹⁶ And in *Martin v. Wilks*,¹⁷ the Court held that individuals who failed to intervene in an earlier employment discrimination suit in which consent decrees were entered could challenge employment decisions made pursuant to those decrees.¹⁸ Each of these decisions stressed the importance of individualized adjudication.

Although liberty dominates the Supreme Court’s jurisprudence, an equality principle is emerging at the district court level. Because the Supreme Court’s case law has limited litigants’ ability to use the class action device to resolve mass torts on an aggregate basis as a formal matter, district courts are using *informal* procedures to facilitate settlements of mass tort cases. These innovative procedures include informational bellwether trials, a distant cousin of statistical sampling or Trial by Formula. For example, the judge in *In re World Trade Center Disaster Site Litigation* (WTC Disaster Site Litigation) scheduled a series of sample trials to promote settlement.¹⁹ Had these trials gone forward, the results would have been used by the parties and the judge to inform the contours of a settlement. When the parties ultimately settled, the judge reviewed the settlement to ascertain that all the litigants were treated fairly.²⁰ The judge used his discretion to achieve informally the equality-promoting processes the Supreme Court has limited so severely in its emphasis on liberty.

Long a topic of significant scholarship, mass torts have received more attention recently because of attempts to resolve high-profile cases using statistical techniques.²¹ The problem in mass tort litigation is that so many cases are brought that it is impossible to adjudicate them in a traditional way.

16. *Id.* at 2178.

17. 490 U.S. 755 (1989), *superseded by statute*, Civil Rights Act of 1991, Pub. L. No. 102-166, § 108, 105 Stat. 1071, 1076–77.

18. *Id.* at 761–63.

19. Order Amending Case Management Order No. 8, at 1–3, *In re World Trade Ctr. Disaster Site Litig.*, No. 21 MC 100 (AKH) (S.D.N.Y. Feb. 19, 2009), *available at* <http://www.nysd.uscourts.gov/docs/rulings/21MC100 Ord Amend CMO8 FEB19 2009 1118.pdf>.

20. *See* Fairness Order—Decedent’s Estates at 2, *In re World Trade Center Disaster Site Litig.*, No. 21 MC 100 (AKH) & *In re World Trade Ctr. Disaster Site & Lower Manhattan Disaster Site Litig.*, No. 21 MC 103 (S.D.N.Y. June 3, 2011), *available at* <http://www.nysd.uscourts.gov/cases/show.php?db=911&id=641> (noting that an earlier proposed settlement had been rejected by the court). A revised settlement was approved by the judge and resolved the litigation. *Id.* Between the filing of the initial proposed settlement and the ultimate approval, the defendants filed for a writ of mandamus from the judge’s order rejecting the first settlement. Order Regulating Proceedings at 1–2, *In re World Trade Ctr. Disaster Site Litig.*, No. 21 MC 100 (AKH), *In re World Trade Ctr. Lower Manhattan Disaster Site Litig.*, No. 21 MC 102 (AKH) & *In re Combined World Trade Ctr. & Lower Manhattan Disaster Site Litig.*, No. 21 MC 103 (AKH) (S.D.N.Y. Apr. 19, 2010), *available at* <http://www.nysd.uscourts.gov/cases/show.php?db=911&id=534>.

21. *E.g.*, Howard M. Erichson & Benjamin C. Zipursky, *Consent Versus Closure*, 96 CORNELL L. REV. 265, 277–80 (2011) (describing the Vioxx settlement); Richard A. Nagareda, *Class Certification in the Age of Aggregate Proof*, 84 N.Y.U. L. REV. 97, 153–56 (2009) (criticizing certification of the class in *Wal-Mart Stores, Inc. v. Dukes* and the role that statistical analysis played in that certification); Symposium, *Aggregate Litigation: Critical Perspectives*, 79 GEO. WASH. L. REV. 293 (2011) (considering current issues in group litigation).

For this reason, the debate has focused on whether resolving these cases using more efficient procedures, such as sample trials, merits abrogating individuals' rights to control their own litigation. Most scholars have framed this debate as expressing a tension between individual liberty and aggregate social welfare. David Rosenberg has argued in favor of mandatory class actions to "secur[e] optimal deterrence and insurance through mass tort liability" and thereby promote both individual and collective welfare.²² Similarly, Michael Saks and Peter Blanck advocated adjudication through sampling as a more precise and reliable method of resolving mass tort cases.²³ Laurens Walker and John Monahan have made cogent arguments that sampling is both efficient and accurate.²⁴ Others have focused on litigant participation as a counterweight to aggregate social welfare arguments. For example, Robert Bone has offered a normative evaluation of arguments for sampling in light of the right to participation.²⁵ But few have addressed the issue of outcome equality in any significant way.²⁶

22. David Rosenberg, *Mandatory-Litigation Class Action: The Only Option for Mass Tort Cases*, 115 HARV. L. REV. 831, 832 (2002) [hereinafter Rosenberg, *Mandatory-Litigation Class Action*]. Rosenberg has written a series of influential articles advocating class treatment for mass torts. E.g., David Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 849 (1984); David Rosenberg, *Class Actions for Mass Torts: Doing Individual Justice by Collective Means*, 62 IND. L.J. 561 (1987); David Rosenberg, *Individual Justice and Collectivizing Risk-Based Claims in Mass-Exposure Cases*, 71 N.Y.U. L. REV. 210 (1996); David Rosenberg, *Mass Tort Class Actions: What Defendants Have and Plaintiffs Don't*, 37 HARV. J. ON LEGIS. 393 (2000); David Rosenberg, *Of End Games and Openings in Mass Tort Cases: Lessons from a Special Master*, 69 B.U. L. REV. 695 (1989). As noted earlier, this proposal runs against the tide of the Supreme Court's jurisprudence in the area. See *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 864 (1999) (rejecting a mandatory mass tort class action).

23. Michael J. Saks & Peter David Blanck, *Justice Improved: The Unrecognized Benefits of Aggregation and Sampling in the Trial of Mass Torts*, 44 STAN. L. REV. 815, 851 (1992) (arguing that aggregation of cases "systematically increase[s] accuracy" and "reduce[s] bias"); accord Byron G. Stier, *Jackpot Justice: Verdict Variability and the Mass Tort Class Action*, 80 TEMP. L. REV. 1013, 1066 (2007) (arguing for the use of multiple verdicts to informally resolve mass tort cases).

24. Laurens Walker & John Monahan, *Sampling Damages*, 83 IOWA L. REV. 545, 567 (1998) (noting the availability of highly efficient survey techniques); Laurens Walker & John Monahan, *Sampling Evidence at the Crossroads*, 80 S. CAL. L. REV. 969, 988 (2007) (noting that random sampling may provide "a more accurate picture of the facts at issue than the study of each case one-by-one").

25. Robert G. Bone, *Statistical Adjudication: Rights, Justice, and Utility in a World of Process Scarcity*, 46 VAND. L. REV. 561, 619–21 (1993); see also Lawrence B. Solum, *Procedural Justice*, 78 S. CAL. L. REV. 181, 259–73 (2004) (articulating a theory of procedural justice grounded in a right to participation).

26. Sometimes scholars briefly mention outcome equality without discussion. See, e.g., Saks & Blanck, *supra* note 23, at 831 (briefly noting that aggregation sometimes facilitates outcome equality and then moving on to a discussion of other issues). There are a few exceptions. See Kenneth S. Abraham & Glen O. Robinson, *Aggregative Valuation of Mass Tort Claims*, 53 LAW & CONTEMP. PROBS. 137, 147 & n.30 (1990) (explaining that any objection to the "randomness" of outcomes in the tort system based on fairness is grounded in "the venerable principle of treating like claims equally"); Glen O. Robinson & Kenneth S. Abraham, *Collective Justice in Tort Law*, 78 VA. L. REV. 1481, 1513–14 (1992) (concluding that aggregation may contribute to outcome equality by making it more likely that similar cases will be adjudicated by similar standards); Rubenstein, *supra*

This Article reframes the debate by reconceptualizing the core tension in civil litigation generally, and mass torts in particular, as one between liberty and equality. It demonstrates that district court judges are pursuing procedures that promote litigant equality and that this presents a procedural counterweight to the individualistic emphasis of the Supreme Court’s jurisprudence. In mass torts, similar cases arising out of the same conduct are brought by the tens of thousands and consolidated before one judge. These judges are using sample trials and other innovative procedures to equalize outcomes among these litigants. Until recently, the procedural law has favored liberty because equality is difficult or perhaps impossible to achieve in a system of decentralized decision makers. But where adjudication is centralized, as in mass torts, the possibility of promoting outcome equality surfaces. This Article explains *how* equality—in the form of consistent outcomes—is gaining traction and *why*—despite the Supreme Court’s consistent preference for liberty—a victory for equality in this context is good for our civil litigation system.

In order to understand how outcome equality is emerging as a valuable principle on the ground through informal sampling and evaluate whether this is good for our civil justice system, it is first necessary to understand how outcomes are reached in “ordinary” civil litigation. Part I of this Article explains how injuries are ordinarily valued, focusing on tort cases. This part explains why the application of this legal framework can result in inconsistent damages awards in similar cases. This part then considers how other facets of the political economy of individualized civil litigation, particularly settlement, are limited in their capacity to achieve outcome equality between similarly situated litigants. Finally, Part I contrasts the inequalities present in ordinary tort litigation with the equality-promoting procedures available in mass tort litigation.

Part II sets forth the arguments in favor of outcome equality and considers the doctrinal support for this principle. This part begins by considering whether equality is an independent principle that makes sense to invoke at all. Some scholars have argued that equality is derivative of the substantive requirements of the law and the duty to apply the law accurately.²⁷ I argue that equality is an independent and useful principle to

note 2, at 1893–97 (discussing how the design of civil procedure doctrines contributes to outcome equity). These are the only articles I know of that discuss equality in the context of variability in the outcomes in mass tort cases. They do not conceptualize the problem as a manifestation of the tension between equality and liberty. Similarly, proposals to increase consistency in tort verdicts (outside the mass tort context) do not address this tension. *See, e.g.*, Geistfeld, *supra* note 4, at 832–40 (discussing various methods of achieving horizontal equity among jury verdicts but failing to mention the tension between liberty and equality); David W. Leebron, *Final Moments: Damages for Pain and Suffering Prior to Death*, 64 N.Y.U. L. REV. 256, 318–19 (1989) (pondering the use of the jury as a survey mechanism to evaluate the price of nonpecuniary losses in tort cases).

27. *See, e.g.*, Peter Westen, *The Empty Idea of Equality*, 95 HARV. L. REV. 537, 542 (1982) (“[T]he idea of equality is logically indistinguishable from the standard formula of distributive justice . . .”).

consider. But establishing the importance of outcome equality is an important first step. The correct application of the law does not do the work of an equality principle because the law is ambiguous and can permit a wide range of outcomes. Simply applying the law “correctly” does not lead to outcome equality. Equality ought to be understood as a comparative right that requires judges to give legally valid reasons for treating similarly situated persons differently. The justification should demonstrate that litigants who are being treated differently are in fact different in legally relevant ways, and therefore differential treatment does not violate their right to equal treatment under the law. Once a principle of equality is established, it is still necessary to determine which differences among litigants merit differential treatment. Outcome equality also requires consideration of the timing of litigation, which has a substantial effect on outcomes but is often ignored by scholars.

The doctrinal support for outcome equality as a legal right is very limited. Part II analyzes subconstitutional common law and rule-based procedural doctrines that promote outcome equality, including remittitur, preclusion, and collective litigation. It also analyzes constitutional doctrine, considering the extent to which the Due Process Clauses of the Fifth and Fourteenth Amendments and the Equal Protection Clause of the Fourteenth Amendment require outcome equality in litigation. Although judicial interpretations of the United States Constitution and the procedural laws do not prioritize outcome equality, gestures towards a principle of outcome equality are visible in the existing doctrine.

Part III considers what judges have already done to promote outcome equality in mass torts and analyzes what could be done better. Lower courts are using informal sampling to achieve outcome equality, as illustrated by the high-profile WTC Disaster Site Litigation. Sampling and similar innovative procedures promote outcome equality by extrapolating the results of sample trials to the rest of the plaintiff population, by adjusting the timing and the order that cases are heard by the court, and by increasing transparency. Each of these goals is achieved better in collective litigation than in individual litigation. Yet there are flaws in the procedures courts currently use to promote outcome equality. This Article responds to the most serious challenges that judges face in implementing a sampling process: (1) the problem of adverse selection, (2) the risk of sample bias, (3) the significance of uncertainty, especially in the form of unexplained variability in trial outcomes, and (4) cost. Judges should implement a more rigorous method of sampling to improve the capacity of the courts to treat like cases alike and to justify differential treatment where it is warranted.

The conclusion sets the district courts’ procedural innovations aimed at achieving outcome equality in the context of other procedural revolutions, most notably in pleadings doctrine, which also began with the lower courts and percolated upward. There is reason to think that if equality wins the war on the ground, the appellate courts may recognize that they have tilted the

balance too far in favor of liberty. This is more likely to happen if the higher courts recognize that what is at stake in these innovative procedures is not only cost savings or the greatest good for the greatest number, but the right to equal treatment that is the foundation of the rule of law.

I. The Problem: Inconsistency in Injury Valuation

Our civil justice system claims to value equality of outcomes, as evidenced by the persistence of the maxim that like cases ought to be treated alike. But the reality is that the system tolerates a great deal of inexplicable variety in outcomes. The result is inequality between similarly situated litigants.

The methods participants in the tort system use to monetize injuries present three key problems. First, there is no agreed-upon metric for measuring or monetizing injury in tort cases. Second, the tort system is a complex, private, and largely hidden system of compensation.²⁸ We do not know enough about outcomes in tort cases. The dearth of empirical evidence about how cases settle is symptomatic of this problem. The best datasets of case outcomes are likely those owned by insurance companies, the entities that pay for a lot of litigation and settlements. Insurance companies do not ordinarily make this data available.²⁹ To the extent that insurance companies are willing to sell their data to researchers, this would be a fantastic resource. The legal system needs good qualitative empirical studies of case valuation outside the context of juries. The third problem with the way injuries are monetized in the current system is a result of the interaction of the first two problems. The basis for assigning damages is comparison to other cases with which the decision maker is familiar. This process depends on the dataset used by the adjudicator. Comparison may entrench existing inequalities or errors by comparing the new case to past cases. If some types of cases have been undervalued in the past for illegal reasons, such as the race of the plaintiff, then using those outcomes as a benchmark for current or future

28. See Alexandra D. Lahav, *The Law and Large Numbers: Preserving Adjudication in Complex Litigation*, 59 FLA. L. REV. 383, 413–15 (2007) (describing the private creation of a quasi-administrative agency as a result of the Diet Drugs settlement as a particularly complex model for resolving a mass tort and detailing the numerous challenges and subsequent amendments required to determine a proper settlement); Judith Resnik, *Uncovering, Disclosing, and Discovering: How the Public Dimensions of Court-Based Processes Are at Risk*, 81 CHI.-KENT L. REV. 521, 555–57 (2006) (explaining that some settlements, some predispute contracts, and some claimant-payment systems created by mass tort settlements impose confidentiality requirements); John Fabian Witt, *Bureaucratic Legalism, American Style: Private Bureaucratic Legalism and the Governance of the Tort System*, 56 DEPAUL L. REV. 261, 261 (2007) (describing tort law as having created a “far-flung, decentralized, and often virtually invisible private bureaucracy”).

29. Tom Baker, *Transparency Through Insurance: Mandates Dominate Discretion* 4 (Univ. of Pa. Law Sch. Inst. for Law & Econ., Research Paper No. 09-20, 2008), available at <http://ssrn.com/abstract=1411197>.

cases will perpetuate that undervaluation.³⁰ Monetizing injuries based on past outcomes also produces a static value. But if the value of cases is dynamic and evolving, then the previous valuations may not reflect the current consensus on the appropriate pricing of a given case.

This part lays the foundation for understanding the problem of outcome inequality in litigation. The first subpart describes the legal framework for monetizing injury in tort law. The second subpart describes the latest research on variation in jury awards. The third subpart explores similar variation among legal professionals' assessment of damages in tort cases. The final subpart looks at damages awarded by mass tort claims-administration facilities as a counterpoint to jury and lawyer assessments of damages in individual cases.

A. *The Legal Framework*

The normative ideal of litigation outcomes is that a plaintiff ought to receive what she is entitled to under the substantive law. For example, if the defendant is not liable, then the plaintiff is entitled to nothing under the substantive law. If the defendant is liable, then the plaintiff is entitled to some measure of damages. Tort damages are usually understood to consist of three components: (1) economic or pecuniary damages; (2) noneconomic damages such as compensation for pain and suffering, disfigurement, emotional distress, and loss of quality of life; and (3) punitive or exemplary damages.³¹ The result of litigation is supposed to approximate the actual damages suffered by the plaintiff as a result of the defendant's misconduct. Settlement is supposed to approximate the outcome that litigation would reach. Accordingly, in settlement, the plaintiff ought to receive the appropriate amount of damages under each of the three categories discounted by the possibility that the defendant will be found not liable in the course of litigation.³²

The problem with this understanding of injury valuation is that the tort system does not approximate the actual damages suffered by the plaintiff. The tort system is an institution that is supposed to monetize injuries, yet injuries are not readily monetizable. What the tort system does is *assign a*

30. See, e.g., MARTHA CHAMALLAS & JENNIFER B. WRIGGINS, *THE MEASURE OF INJURY: RACE, GENDER, AND TORT LAW* 158–60 (2010) (describing the use of gender- and race-based economic data in the calculation of lost income in tort cases and noting that the use of such data can systematically undervalue tort damages).

31. See RESTATEMENT (SECOND) OF TORTS § 901 cmt. a (1979) (describing “three types of damages”); *id.* §§ 903–909 (describing pecuniary compensatory damages, nonpecuniary compensatory damages, and punitive damages).

32. See, e.g., ROBERT BONE, *CIVIL PROCEDURE: THE ECONOMICS OF CIVIL PROCEDURE* 71–76 (2003) (constructing an economic model of settlement and noting that plaintiffs should accept any settlement offer that exceeds the plaintiff's expected value of going to trial). Surprisingly, most scholars analyzing the economics of litigation do not define “accuracy” of valuation explicitly. See, e.g., Louis Kaplow, *The Value of Accuracy in Adjudication: An Economic Analysis*, 23 J. LEGAL STUD. 307, 307–11 (1994) (discussing the value of accuracy to law but failing to define *accuracy*).

value to the damages suffered by the plaintiff. The amount of money damages the system assigns to injuries is contextual and cultural. This means that tort values are comparative; the value assigned to a given injury is dependent on values assigned to other injuries. The cultural contingency of tort damages is the reason that the amounts awarded in tort cases are sometimes controversial. This is also the reason that critics of the tort system are able to say that the system is unpredictable.³³ The problem of valuing injury is not limited to the trial context. In settlement, even if one is able to accurately discount the amount of damages by the probability of the defendant being found liable, the damages assigned to a plaintiff—the amount that is to be discounted—will still be contested.

Some scholars have proposed administrative methods for resolving the problem of valuing injury.³⁴ For example, Eric Posner and Cass Sunstein note that administrative agencies value loss of life based on what people would be willing to be paid to accept risk.³⁵ Such valuations are also contested,³⁶ and the authors admit that the act of pricing human life is contextual.³⁷

The assertion that injuries are difficult to monetize could be understood in two ways. First, it could be read to say that it is impossible to know what an injury is actually worth, even from a God’s eye point of view. Second, it could be interpreted as an epistemic problem: we lack the tools to accurately monetize injuries. For the purposes of this Article, it does not matter which of these explanations is right. We do not have the tools to accurately monetize damages either because the task is impossible or because it is beyond our current capabilities.

Despite the limitations of its tool kit, the tort system nevertheless needs to monetize injuries in order to compensate plaintiffs. To do this, the law provides a set of guidelines to juries, who hear evidence regarding the

33. See WILLIAM HALTOM & MICHAEL MCCANN, *DISTORTING THE LAW: POLITICS, MEDIA, AND THE LITIGATION CRISIS* 149, 171–74 (2004) (describing the media’s role in shaping common legal knowledge and noting that the media can reflect the rhetorical excesses of the litigation system); Sandra F. Gavin, *Stealth Tort Reform*, 42 VAL. U. L. REV. 431, 444–47 (2008) (citing the various criticisms of the tort system based on inequality of outcomes such as “litigation lottery” and “runaway juries,” and citing studies demonstrating that these accusations are inaccurate).

34. See, e.g., Eric A. Posner & Cass R. Sunstein, *Dollars and Death*, 72 U. CHI. L. REV. 537, 587 (2005) (proposing that hedonic losses could be based upon the values given by administrative agencies); see also Geistfeld, *supra* note 4, at 819 (advancing a similar proposal that determines the optimal value of compensation based on people’s willingness to accept risk but does not incorporate the values used by administrative agencies).

35. Posner & Sunstein, *supra* note 34, at 551.

36. For example, Douglas Kysar has made a trenchant and convincing criticism of this approach. See DOUGLAS A. KYSAR, *REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY* 111–13 (2010) (arguing that these valuations rest upon the questionable assumptions that laborers possess adequate risk awareness and free mobility, that valuations of risk are scalable, and that all societal strata have the same preferences for risk).

37. See Posner & Sunstein, *supra* note 34, at 554 n.64 (noting that people would be willing to pay different amounts to avoid different kinds of statistically identical risks).

plaintiff's damages and assign a monetary value to them. A closer look at the law of damages in torts demonstrates how it is that tort damages are varied and contextual rather than fixed and objective.

Of the three kinds of tort damages—economic, noneconomic (pain and suffering), and punitive damages—economic damages are generally considered the most objectively ascertainable, so they are the best doctrinal area to explore. Economic damages concern things we are accustomed to measuring, such as wages. Although noneconomic and punitive damages are most often criticized for being outrageous, excessive, or emotionally driven,³⁸ economic damages suffer from many of the same difficulties of valuation. Depending on the case, economic damages may include lost wages (past and future), medical expenses (past and future), and other financial costs.³⁹ Measuring economic damages is not easy or obvious and the measure of economic damages is perhaps as contested as other forms of tort damages.

First, predicting future lost income—a substantial part of any economic damages award—requires the exercise of a great deal of judgment and leaves plenty of room for argument: “It is very difficult to make an accurate prediction, especially about the future.”⁴⁰ Consider the intuitive example of predicting the future lost income of a law student in May 2007 as compared to the same law student in May 2009 after the meltdown of the financial markets in 2008 and the effects of the Great Recession on the legal job market. Empirical evidence supports this intuition. A study of the 9/11 Victim Compensation Fund demonstrated that economic-loss awards were influenced by testimony from forensic economists and that economic awards varied across similarly situated claimants.⁴¹ There is a range of acceptable awards that is justifiable, rather than a specific amount that reflects an individual's entitlement. Moreover, that range can shift over time.⁴²

Second, economic damages are an evolving category that courts have stretched to include damages that once were considered noneconomic. In

38. See *Exxon Shipping Co. v. Baker*, 128 S. Ct. 2605, 2624–26 (2008) (describing criticisms and expressing concern over “unpredictability of punitive awards”); Neil Vidmar, *Pap and Circumstance: What Jury Verdict Statistics Can Tell Us About Jury Behavior and the Tort System*, 28 SUFFOLK U. L. REV. 1205, 1224–31 (1994) (describing and arguing against criticisms of noneconomic damages).

39. Catherine M. Sharkey, *Unintended Consequences of Medical Malpractice Damages Caps*, 80 N.Y.U. L. REV. 391, 398–99 (2005) (“[D]isputes arise over how to compensate for future losses (how to predict future earnings, working life expectancy, etc.) and jurisdictions differ over how to calculate economic damages (present discounted value, taxation of tort recoveries, medical and general inflation) . . .”).

40. See Henry T. Greely, *Trusted Systems and Medical Records: Lowering Expectations*, 52 STAN. L. REV. 1585, 1591 n.9 (2000) (discussing the unknown origins of this quotation, often attributed to Yogi Berra or Niels Bohr).

41. Frank D. Tinari et al., *Did the 9/11 Victim Compensation Fund Accurately Assess Economic Losses?*, 6 TOPICS ECON. ANALYSIS & POL'Y, no. 1, art. 2, 2006, at 2–3, available at <http://www.bepress.com/cgi/viewcontent.cgi?article=1438&context=bejeap>.

42. See *infra* notes 96–99 and accompanying text.

wrongful death cases, for example, recovery was historically limited by statute to pecuniary damages such as lost wages, which are often quite low.⁴³ Recovery for grief and loss was not permitted. To ameliorate the harshness of the law, judges permitted plaintiffs to demonstrate the value of services the decedent provided, even if these were not compensated and did not have a market value.⁴⁴ These types of additional damages included both loss of services and loss of consortium.⁴⁵ In this way, survivors were permitted to collect damages for the loss of wives who were uncompensated for work in the home and children who did not work at all.⁴⁶

Third, the lines between the three different categories of tort damages are fluid. Award amounts can often be reasonably assigned to more than one legal category, rendering the measure of damages malleable. For example, an empirical study by Catherine Sharkey demonstrated that when noneconomic damages are capped by statute, there is “little to no effect” on compensatory damages in medical malpractice cases.⁴⁷ She showed that lawyers can use expert testimony and innovative theories to expand categories of damages such as future wages and the costs of future medical care.⁴⁸ Thus, economic losses replace other forms of damages, with the overall total held roughly constant.

In sum, valuing injuries in tort cases is a cultural and contextualized exercise that results in the assignment of a socially acceptable monetary value to an injury. The doctrine governing damages is sufficiently malleable to allow this flexibility. This is why it makes sense to speak of accuracy of a tort award as an *assignment* of value, not as an *approximation* of actual value.

B. Juror Valuations of Injuries

Sociological studies of juries show that jurors understand damages categories as fluid and malleable, supporting Sharkey’s thesis. For example, jurors interviewed by sociologist Neil Vidmar about their participation in a medical malpractice case considered the effects of emotional trauma and

43. See John Fabian Witt, *From Loss of Services to Loss of Support: The Wrongful Death Statutes, the Origins of Modern Tort Law, and the Making of the Nineteenth-Century Family*, 25 LAW & SOC. INQUIRY 717, 735 (2000) (discussing the New York wrongful death statute of 1847, which limited recovery to pecuniary damages).

44. *Id.* at 741–46; see also VIVIANA A. ZELIZER, PRICING THE PRICELESS CHILD: THE CHANGING SOCIAL VALUE OF CHILDREN 138–68 (1985) (discussing the monetization of housework and children’s future income in wrongful-death cases).

45. Witt, *supra* note 43, at 723–24, 743–46.

46. *Id.* at 745.

47. Sharkey, *supra* note 39, at 445.

48. See *id.* at 438–40 (remarking that “experts can exploit controversies surrounding calculations of lost wages and future medical costs, thereby breathing life into the crossover effect”).

disfigurement on a plaintiff's likelihood of obtaining a promotion.⁴⁹ Damages for disfigurement should ordinarily be considered as part of the category of noneconomic or pain and suffering damages, whereas loss of future income ought to be considered economic damages.⁵⁰ Jury treatment of disfigurement demonstrates how porous these categories can be.

The idea that categories of damages are fluid and malleable is consistent with the premise that many participants in the legal system think of damages as a single, all-inclusive number as opposed to discrete legal categories. Studies based on interviews with jurors have shown that jurors consider damages holistically, despite the law's mandate to parse damages into the three familiar types.⁵¹

Accordingly, jurors exercise substantial leeway in determining damages, which in turn permits variation in outcomes of similar cases. Studies confirm that there is some variability in jury awards, but they are not conclusive with respect to the extent of or the reasons for this variability. To understand the truth about variability of jury verdicts, a brief discussion of the state of empirical research is necessary.

Jury studies use two methods. One method for studying jury verdicts is to compare verdicts in past cases.⁵² This is sometimes referred to as using archival jury awards.⁵³ Researchers might also interview judges or jurors who participated in actual cases about their experience. Another method for studying variability in jury verdicts is the simulation.⁵⁴ A simulation can consist of conversations with potential jurors or judges about a hypothetical case or can simulate the trial environment by having groups of juries view a mock trial or a video of a trial and deliberate.⁵⁵ The benefit of simulation-based studies is that they allow researchers to control the information that the

49. Neil Vidmar & Leigh Anne Brown, *Tort Reform and the Medical Liability Insurance Crisis in Mississippi: Diagnosing the Disease and Prescribing a Remedy*, 22 MISS. C. L. REV. 9, 28 (2002).

50. RESTATEMENT (SECOND) OF TORTS §§ 905–906 (1979).

51. See Vidmar & Brown, *supra* note 49, at 28 (noting that the simple labeling of damages as general or special fails to account for the “complex human judgments” that judges, lawyers, and juries make in evaluating and assigning damages).

52. Studies using historical data like this include VALERIE P. HANS & NEIL VIDMAR, *JUDGING THE JURY* 100–04 (1986) and HARRY KALVEN, JR. & HANS ZEISEL, *THE AMERICAN JURY* 33 & n.1 (1966).

53. See, e.g., Jennifer K. Robbenolt, *Evaluating Juries by Comparison to Judges: A Benchmark for Judging?*, 32 FLA. ST. U. L. REV. 469, 474 (2005) (explaining the advantages of using archival studies of jury decisions).

54. Studies based on simulations include Shari Seidman Diamond et al., *Juror Judgments About Liability and Damages: Sources of Variability and Ways to Increase Consistency*, 48 DEPAUL L. REV. 301, 303 (1998) and Michael J. Saks et al., *Reducing Variability in Civil Jury Awards*, 21 LAW & HUM. BEHAV. 243, 246 (1997).

55. See Diamond et al., *supra* note 54, at 303 (describing how the simulated juries were shown a videotape of a simulated jury trial and then asked to come up with an award); Saks et al., *supra* note 54, at 248–49 (explaining that the simulated juries read a description of the plaintiff's injuries and a list of jury instructions).

“jurors” receive and compare outcomes reached by different adjudicators in response to identical fact patterns.⁵⁶ By contrast, research based on archival verdicts must make the argument that the cases they are comparing are in fact similar. It is easier, therefore, to measure the variability in jury decisions in a simulation study. Studies using simulation methodology are also flawed, however. Simulation studies may not include all the information a jury would have in a real case.⁵⁷ And simulations may not provide the decision-making environment that is ordinarily present in a trial. For example, a simulation that asks individual potential jurors how they would decide a hypothetical case might yield different results than a study that allows twelve potential jurors to deliberate before rendering a decision.⁵⁸

In one famous early study led by Harry Kalven, researchers interviewed 600 judges regarding 8,000 civil and criminal cases.⁵⁹ With respect to the civil cases, when the researchers compared the outcomes of actual jury verdicts and hypothetical judicial “verdicts,” they found that 79% of the time, judges and juries agreed on liability.⁶⁰ When judges and juries disagreed, the different adjudicators favored plaintiffs in the same proportion; that is, the study found no pro-plaintiff bias on the part of juries.⁶¹ A 1992 study of federal and state judges in Georgia similarly found that the judges interviewed mostly approved of jury determinations of which party should prevail.⁶²

The researchers found much sharper divisions on the *amount* of damages. In the universe of cases where both adjudicators found for the plaintiff, they only agreed on the amount of damages to award 9% of the time.⁶³ In approximately 52% of those cases where judge and jury agreed on

56. See Saks et al., *supra* note 54, at 246 (describing how three different levels of injury severity were given to simulated juries, along with guidance variables including “the average award, the award interval, the average award plus the award interval, and example awards”).

57. Neil Vidmar has provided a trenchant critique of one simulation study. See Neil Vidmar, *Experimental Simulations and Tort Reform: Avoidance, Error, and Overreaching in Sunstein et al.’s Punitive Damages*, 53 EMORY L.J. 1359, 1383–88 (2004) (critiquing the methodology used in CASS SUNSTEIN ET AL., PUNITIVE DAMAGES: HOW JURORS DECIDE (2002), for biasing simulation with the presentation of one-sided evidence).

58. See Shari Seidman Diamond & Jonathan D. Casper, *Blindfolding the Jury to Verdict Consequences: Damages, Experts, and the Civil Jury*, 26 LAW & SOC’Y REV. 513, 554–57 (1992) (conducting a study demonstrating an increase in jury awards after deliberation); David Schkade et al., *Deliberating About Dollars: The Severity Shift*, 100 COLUM. L. REV. 1139, 1140–41 (2000) (same).

59. Harry Kalven, Jr., *The Dignity of the Civil Jury*, 50 VA. L. REV. 1055, 1063 (1964).

60. *Id.* at 1065.

61. *Id.*

62. See R. Perry Sentell, Jr., *The Georgia Jury and Negligence: The View from the Bench*, 26 GA. L. REV. 85, 102–07, 115 (1991) (“The Georgia trial judges’ articulated perception is that they often agree with jury decisions on which party should prevail in negligence cases.”); R. Perry Sentell, Jr., *The Georgia Jury and Negligence: The View from the (Federal) Bench*, 27 GA. L. REV. 59, 74–78 (1992) (“All 16 responding federal trial judges attested that in at least 79% of all negligence cases, they agreed with the jury’s determination of the prevailing party.”).

63. Kalven, *supra* note 59, at 1065. In the Kalven study, the judge and jury both decided for the plaintiff in 44% of the cases. *Id.* In 4% they were roughly in agreement, in 17% the judge

liability, the jury favored a higher award.⁶⁴ And in approximately 39% of cases, judges favored a higher award.⁶⁵ Jury awards averaged 20% higher than judicial awards.⁶⁶ Subsequent studies show loose agreement between judges and juries as to the appropriateness of jury verdicts and awards most of the time. A 1987 *National Law Journal* survey of a sample of 348 state and 57 federal judges found evidence of agreement between judges and juries.⁶⁷ Two-thirds of the judges said that jury awards are excessive in only a few or in “virtually no” cases.⁶⁸

Simulation studies seem to confirm that there is unexplained variability in damages determinations.⁶⁹ But the findings are by no means definitive. To some extent, the nature of the simulation affects the results. Simulations that permit potential jurors to deliberate, for example, may yield different outcomes than those that ask individual jurors to make evaluations. A 1992 simulation study conducted by Shari Seidman Diamond and Jonathan Casper found that deliberation increased jury verdicts.⁷⁰ The researchers showed a videotaped mock trial of an antitrust price-fixing case to 1,022 potential jurors in Cook County, Illinois.⁷¹ “On average,” the researchers wrote, “the juries produced awards about \$56,000 (or 26%) higher than the average of their members prior to deliberation.”⁷² More recent simulation studies of jury deliberations using potential jurors evaluating mock personal injury cases have found similar increases in awards that the authors attribute to the process of deliberation.⁷³

Empirical studies of archival jury verdicts also find variability across cases. Studies have found that damages amounts increase with injury

would have awarded more, and in 23% the jury awarded more (totaling 44%). *Id.* I have adjusted these numbers in the text to reflect percentages of the cases that the judge and jury agreed that plaintiff should win, rather than the percentage of the total cases studied.

64. *Id.*

65. *Id.*

66. *Id.*

67. Neil Vidmar, *The Performance of the American Civil Jury: An Empirical Perspective*, 40 ARIZ. L. REV. 849, 854 (1998) (citing *The View from the Bench: A National Law Journal Poll*, NAT'L L.J., Aug. 10, 1987, at 1).

68. *Id.*

69. See, e.g., HANS & VIDMAR, *supra* note 52, at 124–25 (describing a study testing the effectiveness of judicial admonishments and noting the variability and unpredictability of the jurors' damage determinations); Randall R. Bovbjerg et al., *Valuing Life and Limb in Tort: Scheduling “Pain and Suffering,”* 83 NW. U. L. REV. 908, 919–24 (1989) (discussing the variability and unpredictability of awards and why variability in damages determinations is problematic).

70. Diamond & Casper, *supra* note 58, at 557.

71. *Id.* at 521.

72. *Id.* at 553.

73. See Schkade et al., *supra* note 58, at 1140–41 (finding that deliberation increased the awards over individual evaluations made prior to deliberation). This study divided 3,000 prospective jurors into 500 six-person juries and asked them to deliberate on a mock personal injury case. *Id.* at 1140. There remains a question of whether the observed increase in awards was justified.

severity.⁷⁴ These same studies found variability between juries hearing cases of similar severity.⁷⁵ Because these studies are of archival verdicts, it is hard to know whether the cases they are comparing were in fact sufficiently similar across key variables such that the variation in verdicts was unwarranted. One study that found variability among juries hearing cases of similar injury severity also noted that there may have been differences between the injuries in question that resulted in the higher awards in some of the cases, but that these differences were not accounted for in the data.⁷⁶ For example, the study did not take into account the different ages of the plaintiffs or other salient factors that would legitimately affect pecuniary damages.⁷⁷

Since both archival and simulation studies confirm some variation in awards in similar cases, the natural question is whether that variation is specific to juries or present across all decision makers. Simulation studies demonstrate with some confidence that variation is present across the board. In one study conducted by Neil Vidmar, medical malpractice arbitrators (lawyers and judges) and potential jurors were given the same simulated medical malpractice case in which the doctor had admitted liability.⁷⁸ The mean and median awards for both groups were around \$50,000.⁷⁹ The awards in the juror group fell between \$11,000 and \$197,000 while the range for the legal professionals was from \$22,000 to \$82,000.⁸⁰ This demonstrates that there is variability among both laypersons and experts. When the researchers studied a sample of 100 twelve-person mock juries who deliberated on the same case file, they found that the awards ranged between \$29,500 and \$69,000, making the awards of the twelve-person juries less

74. See HANS & VIDMAR, *supra* note 52, at 161–62 (noting that damage awards in personal injury cases were higher in cases involving “serious injuries such as loss of hands, legs, or eyes, or for a wrongful death”); Bovbjerg et al., *supra* note 69, at 921 (finding that injury severity directly influences the level of damages in that “more severe injuries result in larger recoveries”).

75. See HANS & VIDMAR, *supra* note 52, at 162 (analyzing two categories of personal injury claims—“[c]laims that involved wrongful death, medical malpractice, products liability, and street or sidewalk hazards” and “claims involving automobile accidents or injuries on someone else’s property”—and asserting that “[e]ven when the seriousness of the injury was similar, someone hurt in an automobile accident was likely to receive only one-third of the money that someone hurt in a workplace accident received”); Bovbjerg et al., *supra* note 69, at 924 (noting the absence of “horizontal” equity with the extent of variation within a single category of cases with similar injury severity); see also Neil Vidmar et al., *Jury Awards in Medical Malpractice and Post-verdict Adjustments of Those Awards*, 42 DEPAUL L. REV. 265, 280–99 (1998) (evaluating special verdict sheets in medical malpractice cases and finding some variability in the proportion of awards for noneconomic damages in relation to injury seriousness).

76. Bovbjerg et al., *supra* note 69, at 923–24.

77. *Id.* at 923.

78. Neil Vidmar & Jeffrey J. Rice, *Assessments of Noneconomic Damage Awards in Medical Negligence: A Comparison of Jurors with Legal Professionals*, 78 IOWA L. REV. 883, 890–91 (1993).

79. *Id.* at 892.

80. *Id.* at 901 tbl.1.

variable than those of the legal professionals.⁸¹ It is not clear how to square these studies with those finding that deliberation increases the size of awards.

Yet studies also show that jury awards do not differ substantially from those judges and lawyers would give. One study by Roselle Wissler, Allen Hart, and Michael Saks (the Wissler study) interviewed respondents, including potential jurors (whose names were obtained from the phone book), civil judges, and lawyers.⁸² The researchers summarized two cases over the phone for study participants and asked them “how much money they would award the plaintiff for general damages, how much they thought the average juror would award the plaintiff, and to rate the plaintiff’s injury on five dimensions.”⁸³ The study found that injury ratings were predictable based on the case descriptions and that sociodemographic factors did not substantially affect injury ratings among jurors, judges, or lawyers.⁸⁴ In the translation to monetary awards, the researchers found greater variance.⁸⁵ Sociodemographic factors had only a small effect on the amount awarded by jurors, judges, and lawyers.⁸⁶ It is not clear what effect deliberation would have had on these findings.

In the Wissler study, defense lawyers’ monetary awards were the most predictable. The researchers hypothesized that this predictability may have been due to a more mechanical assessment of damages.⁸⁷ Because the scenarios presented to potential jurors, judges, and lawyers over the phone did not simulate the elements of a trial and did not contain all the information an adjudicator would ordinarily have in deciding a case (such as the mock plaintiffs’ history prior to the injury),⁸⁸ it is difficult to draw firm conclusions

81. *Id.* at 897.

82. Roselle L. Wissler et al., *Decisionmaking About General Damages: A Comparison of Jurors, Judges, and Lawyers*, 98 MICH. L. REV. 751, 766–69 (1999). The researchers interviewed 558 potential jurors from urban and rural settings in two states, 244 judges, and 248 lawyers. *Id.* at 767–68.

83. *Id.* at 769.

84. *Id.* at 782. For all groups, none of the sociodemographic characteristics made a “significant contribution” to overall severity; however, defense lawyers differed from jurors, judges, and plaintiffs’ lawyers in that mental suffering had a greater effect on injury severity than disability. *Id.*

85. *See id.* at 783 (“In contrast to the high degree of predictability of perceptions of injury severity, models for general damages awards show less predictability and greater decisionmaking complexity.”).

86. *See id.* at 784 (“[J]urors gave larger awards when they saw the injuries as involving a greater degree of disability and mental suffering and when the jurors were male or had a higher household income.”). The researchers hypothesized that the order in which jurors were given case summaries had a significant effect on variation. *See id.* at 794 (“[H]ad we been able to include an order term in the jurors’ model to reflect the fact that there was a significant order effect for jurors (which was not found for the other groups), the error variance for jurors likely would have been reduced.”).

87. *See id.* at 794 (“The somewhat lower variability in awards for defense lawyers when the same person was reacting to different injuries suggests they may be less responsive to case details.”).

88. *See id.* at 795 n.104 (noting that judges and lawyers sought information that was not legally relevant, “which revealed their own search for shortcuts to estimating general damages”).

from the study. The study subjects may have been importing their own assumptions about the scenario, affecting their assessment of damages.⁸⁹

In sum, there is some evidence of variability in jury awards, although not in jury evaluations of severity of injury. Evidence that variability in jury awards is greater than among lawyers or judges is weak. All three groups reach outcomes that are subject to unexplained variability. Because extant empirical studies are flawed or incomplete, it is unwise to draw firm conclusions from them.

C. *Lawyer Valuations of Injuries*

Lawyers have a holistic perspective on damages, just as jurors do. As one plaintiff’s attorney told a researcher, “[I]n most instances a jury has a figure in mind, and when you have a figure in mind, it can come in the guise of compensatory damages or in the guise of punitive damages.”⁹⁰ It makes sense for lawyers to look at cases holistically because most cases settle, and they settle for a single number. Lawyers on both sides may argue about what types of damages they think are likely to be awarded in a given case. At the end of the day, however, the overall damages award is more important to lawyers and juries than are legal categories.

Studies comparing lawyers to juries have found that lawyers’ estimates of the value of a given case are also variable. The Wissler study discussed in the previous subpart found variation among plaintiffs’ attorneys, defense attorneys, and judges.⁹¹ As one would predict, plaintiffs’ attorneys awarded higher damages on average than did defense attorneys.⁹² Another study assigned lawyers to the role of plaintiff’s attorney and defendant’s attorney; both were given the same documents to review.⁹³ Researchers found substantial variation in case valuations within each group.⁹⁴ Variation is found among other professionals as well. For example, scholars have noted the differences among insurance adjusters in valuing claims.⁹⁵

Even if a lawyer’s valuations are more predictable than a juror’s, that does not mean they are better. Because tort cases are rarely tried, most comparable values come from settled cases informed by the outcome of pretrial

89. *Id.* at 795.

90. Tom Baker, *Transforming Punishment into Compensation: In the Shadow of Punitive Damages*, 1998 WIS. L. REV. 211, 227.

91. Wissler et al., *supra* note 82, at 810.

92. *Id.* (“Averaged over all cases, jurors and plaintiffs’ lawyers tended to give the highest awards, defense lawyers the lowest, and judges gave an intermediate amount.”).

93. GERALD R. WILLIAMS, *LEGAL NEGOTIATION AND SETTLEMENT* 6 (1983).

94. *Id.* at 6–7 & tbl.1-1.

95. *E.g.*, Michael J. Saks, *Do We Really Know Anything About the Behavior of the Tort Litigation System—and Why Not?*, 140 U. PA. L. REV. 1147, 1214–15, 1222 (1992).

motions that are either partially or wholly dispositive of a case.⁹⁶ In cases resolved through negotiation, settlements are based largely on the lawyers' sense of the "market" in settlements and verdicts.⁹⁷ Lawyers develop a sense of the "going rate" of settlement with respect to a particular set of cases, of which their client's case is but one.⁹⁸ This going rate is determined by comparison to other cases.⁹⁹ By comparing the outcomes of similar cases, lawyers can evaluate what the outcome should be in their client's case.

Statisticians call this method "convenience sampling."¹⁰⁰ Convenience sampling is a form of inductive reasoning based on establishing consistency of a given case with a nonrandom sample of cases readily available to the researcher.¹⁰¹ While convenience sampling bears some rough similarity to qualitative social science research methodology, it is flawed. Good social science methods require a random sampling to avoid bias.¹⁰²

A sampling process based on anecdotal evidence culled from whatever cases the lawyer may have come across is vulnerable to bias. The lawyer may only see a particular subset of cases. Defendants and insurers have an interest in hiding larger settlement amounts to protect themselves in negotiation. In some areas there may be competition among lawyers and a disinclination to share information about settlement amounts. Moreover, embarrassment or the fear of spurring litigation may encourage defendants to require secrecy as a condition of settlement.¹⁰³ It is possible that lawyers will have access to a comprehensive universe of cases—for example, because they are repeat players in a discrete geographic and legal space—but there is little reason to count on this being the case most of the time. Unfortunately, little empirical evidence exists regarding the datasets possessed by lawyers or the methods lawyers apply to those datasets. There is no reason to trust that a sampling method based on the cases the lawyer happens to know about will yield a reliable assessment of the value of a particular case relative to similar cases.

96. Cf. Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIRICAL LEGAL STUD. 459, 525 (2004) (listing factors other than legal doctrine that influence settlements).

97. Cf. Nora Freeman Engstrom, *Run-of-the-Mill Justice*, 22 GEO. J. LEGAL ETHICS 1485, 1532–33 (2009) (explaining that settlement negotiators and insurance adjusters have a common understanding of certain injuries' values).

98. *Id.* at 1533.

99. *See id.* at 1533–34 (noting that going rates bear some relation to past trial verdicts but that claims are assigned value mainly based on agreed-upon formulas).

100. VoonChin Phua, *Convenience Sample*, in 1 THE SAGE ENCYCLOPEDIA OF SOCIAL SCIENCE RESEARCH METHODS 197, 197 (Michael S. Lewis-Beck et al. eds., 2004).

101. *Id.*

102. *See* Michael Abramowicz et al., *Randomizing Law*, 159 U. PA. L. REV. 929, 935–36 (2011) (discussing the importance of randomization in the design of statistical experiments).

103. Scott A. Moss, *Illuminating Secrecy: A New Economic Analysis of Confidential Settlements*, 105 MICH. L. REV. 867, 878 (2007). On the ethics of such secret settlements, see generally Jon Bauer, *Buying Witness Silence: Evidence-Suppressing Settlements and Lawyers' Ethics*, 87 OR. L. REV. 481 (2008).

Finally, sometimes settlement amounts are not based on jury verdicts or comparable settlements but on the limits of the defendant’s insurance coverage. Insurance in these cases acts as a cap on damages so that the assigned value of a case will be more closely tied to the defendant’s coverage than the plaintiff’s condition.¹⁰⁴ As a method of injury valuation, insurance coverage is arbitrary. It is an important reminder, however, that in the real world, damages awards are driven by a variety of factors, not all of which are consistent with the applicable (and admittedly ambiguous) legal standards.

D. *The Matrix: Claims-Administration Facilities*

The process of settling mass torts mimics on a grand scale the process lawyers use to resolve ordinary cases, except that lawyers have better access to data about the universe of related cases. Lawyers will look to the pool of jury verdicts and previous settlements, the range of injuries, and the likelihood of a liability finding in order to determine what their clients’ cases are worth. The history of tort law in the United States demonstrates that this type of “scheduling” of tort cases has been the norm since the Industrial Revolution.¹⁰⁵ Mass tort litigation exposes the fact that how litigants are treated in relation to one another is an important, if neglected, element of procedural justice.

In mass torts, judges oversee a resolution process that some have called a temporary administrative agency.¹⁰⁶ Lawyers determine compensation in the individual case based on a preset amount according to various factors such as injury severity. This process is sometimes referred to as “scheduling” damages and often involves creating a matrix and a point system.¹⁰⁷

104. Cf. Tom Baker, *Blood Money, New Money, and the Moral Economy of Tort Law in Action*, 35 LAW & SOC’Y REV. 275, 281–83 (2001) (quoting personal injury attorneys who express clear preferences for receiving judgments from a defendant’s insurance money rather than blood money—“money that individual defendants pay from their own funds”).

105. See Samuel Issacharoff & John Fabian Witt, *The Inevitability of Aggregate Settlement: An Institutional Account of American Tort Law*, 57 VAND. L. REV. 1571, 1585 (2004) (explaining that beginning in the 1880s, work injuries were often compensated by using standardized settlement practices).

106. Martha Minow, *Judge for the Situation: Judge Jack Weinstein, Creator of Temporary Administrative Agencies*, 97 COLUM. L. REV. 2010, 2020 (1997); see also RICHARD A. NAGAREDA, MASS TORTS IN A WORLD OF SETTLEMENT 97, 223 (2007) (discussing grids used in mass tort settlements that match injuries with payouts); see also Howard M. Erichson, *A Typology of Aggregate Settlements*, 80 NOTRE DAME L. REV. 1769, 1803 (2005) (discussing the phenomenon of settlement-administration facilities); Francis E. McGovern, *The What and Why of Claims Resolution Facilities*, 57 STAN. L. REV. 1361, 1361–62 (2005) (same).

107. See Deborah R. Hensler, *Revisiting the Monster: New Myths and Realities of Class Action and Other Large Scale Litigation*, 11 DUKE J. COMP. & INT’L L. 179, 188 (2001) (“In mature mass torts, where there may be a widely-shared understanding of the value of certain types of claims, thousands of lesser-value claims may be resolved en masse according to negotiated schedules of damages that pay little attention to individual claim differences and involve little adversarial litigation.”); Judith Resnik, *From “Cases” to “Litigation,”* 54 LAW & CONTEMP. PROBS. 5, 38 (1991) (“While in theory and in form each case is separate, in practice lawyers on both sides deal

The Vioxx litigation was settled using such a matrix.¹⁰⁸ Vioxx was a painkiller that was associated with a higher risk of heart attack and stroke.¹⁰⁹ Thousands filed lawsuits against Merck, the manufacturer of Vioxx.¹¹⁰ These lawsuits were ultimately consolidated in a few state courts around the country and in the United States District Court for the Eastern District of Louisiana.¹¹¹ After a number of trials yielding mixed outcomes, the parties settled.¹¹² Because the lawsuits could not be consolidated in a settlement class action, Merck sought a mechanism that would allow it to settle with all the plaintiffs and achieve a global closure of all the Vioxx cases pending against it.¹¹³ Merck agreed to pay approximately \$5 billion, but the settlement would only come into effect if 85% of the plaintiffs in each of several categories agreed to be bound by it.¹¹⁴

The settlement provided that Merck would put \$4.85 billion into a settlement fund that would be administered by a third-party claims administrator.¹¹⁵ In order to be eligible to collect from the fund, plaintiffs would first have to demonstrate that they had suffered either a heart attack or stroke and that they had taken Vioxx over a certain period.¹¹⁶ After determining whether a claimant was eligible, the claims administrator was to score the claim. The claimant would receive a number of points depending on how serious their stroke or heart attack was, how long they had taken Vioxx, their age, and the presence other risk factors such as diabetes or heart disease.¹¹⁷ The basis for creating this system was a series of bellwether trials held over a period of several years.¹¹⁸ Claimants with more serious conditions and who had taken Vioxx for longer durations would receive more points; claimants who had suffered less serious heart attacks or strokes, had

with the cases as a group, sometimes making ‘block settlements’—in which defendants give a lawyer representing a group of plaintiffs money that is then allocated among a set of clients.”).

108. See Erichson & Zipursky, *supra* note 21, at 279 (describing the Vioxx settlement agreement where claimants were scored on a point system).

109. *Id.* at 266.

110. *Id.*

111. *Id.* at 277–78.

112. See *id.* at 278 (“Looking toward the possibility of settlement, both Merck and the plaintiffs’ lawyers undoubtedly knew what the win–loss record suggested: a plaintiff’s chance of winning a verdict at trial was less than one in three, and the chances after appeal were closer to one in six. On the other hand, both sides also knew that juries awarded punitive damages in all five of Merck’s losses. Moreover, the compensatory damages for pain and suffering were high in all five cases. In other words, five juries [out of eighteen] found enthusiastically for plaintiffs.”).

113. *Id.* at 275–76.

114. *Id.* at 279.

115. *Id.*

116. *Id.*

117. *Id.*

118. *Id.* at 278; see also Alexandra D. Lahav, *Bellwether Trials*, 76 GEO. WASH. L. REV. 576, 602 n.145 (2007) [hereinafter Lahav, *Bellwether Trials*] (discussing Merck’s strategy); Alexandra D. Lahav, *Recovering the Social Value of Jurisdictional Redundancy*, 82 TUL. L. REV. 2369, 2394 & nn.106–07 (2008) [hereinafter Lahav, *Recovering Social Value*] (collecting Vioxx trial outcomes).

taken Vioxx for shorter periods, or had other risk factors would receive fewer points.¹¹⁹ Claimants would not know what their settlement amount was before enrolling in the settlement; they would only find that out once the claims administrator had determined their eligibility and scored their claim.¹²⁰ The Vioxx settlement is different from those that came before in that the individual claimants did not know the amount of their settlement before agreeing to it.¹²¹

The biggest difference between a mass tort settlement such as Vioxx and an “ordinary” individual case is that a mass tort case exposes the private, hidden aspects of the tort system. The awards given out by mass tort claims administrators can be publicized and made centrally available, in contrast to the ordinary case where comparable values are not easily accessible. This transparent process requires judges and policy makers to think more thoroughly about the problems raised by assigning damages based on sampling. It also highlights the often-ignored valuation problems inherent in “ordinary” litigation. Claims-resolution facilities shift our attention from the individualized trials that are often the focus of the procedural law to the quality of outcomes. A shift of focus from the right to participation to equal treatment reveals how the process of damages valuation is always comparative, although this comparison is often invisible.

II. The Case for Outcome Equality in Litigation

Part I defined the problem of unexplained variability in outcomes in similar tort cases. The process of monetizing injury involves the culturally contingent assignment of value, rather than approximation or divining of “true” value. This results in variation in the outcomes of similar cases among juries and legal professionals. These variations are often hidden from view in the ordinary case and revealed in the mass tort context. This part considers the case for outcome equality and explores the doctrinal support for an equality principle.

The legal system tolerates a great deal of inconsistent treatment of like cases. The reason for this tolerance is not that such inconsistency is in itself a virtue. Rather, inconsistency is accepted because it is the result of a preference for decentralized decision making, which makes equalizing outcomes among litigants very difficult. Because courts centralize mass tort cases in

119. Erichson & Zipursky, *supra* note 21, at 279.

120. *Id.* at 280. An online calculator was made available to help plaintiffs estimate what they would receive in the settlement. *Vioxx Settlement Calculator*, OFFICIAL VIOXX SETTLEMENT, www.officialvioxxsettlement.com/calculator.

121. Compare Erichson & Zipursky, *supra* note 21, at 271–72 (noting that in the 1990s, prior to the Supreme Court’s decisions in *Amchem Prods., Inc. v. Windsor*, 521 U.S. 591 (1997), and *Ortiz v. Fibreboard Corp.*, 527 U.S. 815 (1999), the preferred device to achieve settlements in mass tort cases was a settlement class action), *with id.* at 279–80 (describing the structure of the Vioxx settlement and noting that this “structure meant that claimants had to decide whether to enroll before knowing what their payments would be”).

one courtroom, the mass tort context gives judges an opportunity to promote equality that is not available in ordinary litigation. In the absence of other, competing goals (such as decentralized adjudicators or the right to a jury trial), it is a general principle of law that similar cases ought to reach similar outcomes. Doctrinally, the principle requiring equality of outcomes is weakly supported, but it nevertheless remains an aspirational principle. For example, we would expect a single adjudicator to reach the same liability findings and award the same amount of damages when deciding functionally identical cases. If these cases were treated differently despite appearing to be the same, the adjudicator ought to provide a reason for the inequitable treatment.

A. *Equality, Reason Giving, and Respect for Persons*

Outcome equality is rooted in “the basic principle of justice that like cases should be decided alike.”¹²² In legal philosophy, there is a debate about whether equality is a principle that we should evoke at all. Two strong objections to outcome equality have been that equality begs the key question of which cases are in fact alike and that what is really at issue when equality is invoked is the duty to apply the law correctly.

Some philosophers argue that formal equality—the principle that like cases ought to be decided alike—is really an empty concept because it begs the key question of which cases are alike.¹²³ The answer to that question can only be determined by reference to some other normative principle about which similarities and differences matter and why.¹²⁴ In the type of tort cases

122. *Martin v. Franklin Capital Corp.*, 546 U.S. 132, 139 (2005). Because we also tolerate a great deal of inconsistency, more work remains to be done to justify and refine this equality principle. For a different approach to accessing the role of equality in tort law, see, for example, Ronen Avraham & Issa Kohler-Hausmann, *Accident Law for Egalitarians*, 12 LEGAL THEORY 181, 182 (2006) (proposing a “criterion of strong egalitarian fairness to evaluate the normative principles and institutional practices dealing with accidental injuries and risk creation” and arguing in favor of rules that reduce “the operation of undeserved luck in the operations of justice”).

123. See generally PETER WESTEN, SPEAKING OF EQUALITY: AN ANALYSIS OF THE RHETORICAL FORCE OF “EQUALITY” IN MORAL AND LEGAL DISCOURSE (1990) (focusing on the confusion created by resorting to principles of equality); Christopher J. Peters, *Equality Revisited*, 110 HARV. L. REV. 1210, 1256 (1997) (arguing that “prescriptive equality” is a self-contradictory norm); Westen, *supra* note 27, at 596 (arguing against the use of equality as a normative principle). For some responses to these arguments, see generally Steven J. Burton, *Comment on “Empty Ideas”: Logical Positivist Analyses of Equality and Rules*, 91 YALE L.J. 1136 (1982); Erwin Chemerinsky, *In Defense of Equality: A Reply to Professor Westen*, 81 MICH. L. REV. 575 (1983); Kent Greenawalt, *How Empty Is the Idea of Equality?*, 83 COLUM. L. REV. 1167 (1983); Kent Greenawalt, *“Prescriptive Equality”: Two Steps Forward*, 110 HARV. L. REV. 1265 (1997) [hereinafter Greenawalt, *Prescriptive Equality*]; Kenneth W. Simons, *The Logic of Egalitarian Norms*, 80 B.U. L. REV. 693 (2000); and Jeremy Waldron, *The Substance of Equality*, 89 MICH. L. REV. 1350 (1991) (reviewing WESTEN, *supra*).

124. See MARTHA MINOW, MAKING ALL THE DIFFERENCE: INCLUSION, EXCLUSION, AND AMERICAN LAW 79–97 (2d prtg. 1991) (discussing the role of popular ideas about difference and how they operate as unstated assumptions generated by institutions). For example, a robust consideration of equality might also include principles such as antisubordination, in which case

discussed here, the demand for treating injured plaintiffs similarly requires the adjudicator to establish what parts of the plaintiffs’ stories matter for purposes of assessing damages. The principle that like cases ought to be treated alike, standing alone, does not help the adjudicator in this inquiry. A variety of factors, such as the events leading to the injury, the plaintiffs’ charisma, prior medical history, or the lawyer’s talent and experience, may influence the damages award. The adjudicator ought to use only legally relevant variables to determine which members of the plaintiff population are alike. Asserting that similarly situated plaintiffs ought to be treated similarly is the beginning of the inquiry, not the end of it.¹²⁵ Because the law of torts is open to multiple interpretations, this is not an easy task, but as the description of the use of matrices in the previous part demonstrates, it is possible.

Relatedly, some have argued that the principle that like cases be treated alike is in fact derivative of the duty to apply the law accurately.¹²⁶ Instead of saying that like cases ought to be treated alike, the argument goes, we might more correctly assert that the adjudicator should accurately apply the law in all cases.¹²⁷ If the adjudicator accurately applies the law to each case, then similar litigants will be treated similarly.¹²⁸ But this argument is based on a flawed assumption about the application of law to facts. It assumes a type of mechanical jurisprudence that yields automatic answers to legal questions, which does not describe the realities of tort litigation. With damages in particular, the adjudicator must value injuries based on standards that can yield a variety of plausible results.¹²⁹ In other words, reasonable fact

treating minorities who have been historically discriminated against better than others who have not suffered discrimination is understood as promoting equality. The Supreme Court has moved away from this richer, antisubordination understanding of equality in its recent desegregation jurisprudence. *See, e.g., Parents Involved in Cmty. Schs. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 709–11, 748 (2007) (plurality opinion) (striking down a student assignment plan that relied on race classification intended to integrate schools in a de facto segregated community).

125. As Professor Chemerinsky has stated,

To infer . . . that because equality is *insufficient* it is also unnecessary is to commit a basic logical fallacy. There is a fundamental difference between necessary and sufficient conditions.

. . . Equality is *morally* necessary because it compels us to care about how people are treated in relation to one another. Equality is *analytically* necessary because it creates a presumption that people should be treated alike and puts the burden of proof on those who wish to discriminate. Finally, the principle of equality is *rhetorically* necessary because it is a powerful symbol that helps to persuade people to safeguard rights that otherwise would go unprotected.

Chemerinsky, *supra* note 123, at 576 (footnote omitted); *see also* Greenawalt, *Prescriptive Equality*, *supra* note 123, at 1268 (“The fact that the formal principle [of ‘equals should be treated equally’] might otherwise be ‘empty’ has struck me as a solid reason to ascribe . . . content to it.”).

126. *See* Simons, *supra* note 123, at 728 (describing this argument but not agreeing with it).

127. *Id.* at 723.

128. *Id.*

129. *See supra* Part I. When adjudicators use short cuts to determine damages, they may not be accurately applying the law. *See* Wissler et al., *supra* note 82, at 795 n.104 (noting in jury study requests by judges and lawyers for information that was not legally relevant for use as a “shortcut” to determining damages).

finders can disagree about of the amount of damages in a given case. The valuation of injury is an art more than a science. As demonstrated in Part I, the guidelines of the current rule structure are porous, meaning particular damages claims can fall into one of several doctrinal categories. It is not sufficient to tell the adjudicator to apply the formal legal rules without more, because these rules are malleable and do not provide a consistent metric for monetizing injury. This is the reason why tort damages can vary in similar cases. But the fact that reasonable fact finders might disagree is not sufficient justification for awarding different amounts to similarly situated litigants. The law should strive for better than a random (or worse yet, biased) assignment of damages based on the identity of the fact finder. Proponents of the idea that, instead of equality, we should speak of a duty to correctly apply the law might get to the same place as an equality principle if they assume that legal standards applied similarly in similar cases will reach similar results. What equality adds is an additional component to the measure of justice, that similar outcomes be reached in similar cases even where correct law application results in inconsistency.

On the ground, lawyers evaluating mass tort cases already promote outcome equality by comparing cases in order to determine value, although they do not do so rigorously or systematically. Part of that “art” of determining damages among members of the legal profession is to consider how the injuries of other, similarly situated persons were monetized.¹³⁰ Accordingly, in valuing tort cases, the duty to apply the law correctly is only part of the valuation process. Another part of that process is comparative. For this reason, equality in the context of adjudication is a comparative right; it considers the relative treatment of different individuals.¹³¹ Comparative treatment is entrenched in procedural doctrines such as remittitur, which allows the judge to offer the plaintiff a choice between reduced damages that are more in line with verdicts in similar cases or retrying the case.¹³² Similarly, where the defendant has a limited fund from which to draw to pay plaintiffs, the class action rule permits all the plaintiffs’ claims to be adjudicated together in a mandatory class action and the proceeds divided among them.¹³³ As a result, some litigants might receive a lower award than they would have had there been no class action. A similar procedure is available in bankruptcy for “insolvent debtor[s] facing . . . asbestos liability.”¹³⁴ The rationale for this procedure is that it prevents injured parties from being denied recompense merely because they file after the defendant’s assets have

130. See *supra* subpart I(C) (describing valuations of injuries by legal professionals as based on comparison with like cases).

131. Simons, *supra* note 123, at 709–12.

132. See *supra* note 5 and accompanying text.

133. FED. R. CIV. P. 23(b)(1)(B).

134. See *In re* Combustion Eng’g, Inc., 391 F.3d 190, 234 & n.45 (3d Cir. 2004) (citing 11 U.S.C. § 524(g)); see also NAGAREDA, *supra* note 106, at 161–82 (describing bankruptcy proceedings as a way of resolving mass torts).

been exhausted.¹³⁵ This procedure also compares individuals to one another in order to rectify inequalities that result from timing.

To the extent that it is a comparative right, the principle of outcome equality in litigation ought to be understood as imposing a requirement that the adjudicator give a reason, supported by the legal framework, for treating one injured person differently than another, apparently similarly situated person.¹³⁶ The argument in this Article centers on that idea. Sampling and other forms of Trial by Formula force adjudicators to give reasons for treating similarly situated people who were injured in similar ways differently from one another. The practice of informal sampling in aggregate litigation demonstrates that in being forced to give reasons for how similarly situated people are treated, adjudicators produce a system that is fairer across the board than individual, decentralized litigation.

The process of reason giving is more likely to result in outcomes that realize the ideal of equal treatment than our current system. The strongest argument against this conception of outcome equality is that true outcome equality is impossible to achieve in practice. There may be important individual characteristics that the more flexible, decentralized system of case-by-case adjudication or settlement is able to consider that would be ignored in a statistical-adjudication procedure. For this reason, the current system may be better at doing justice in the individual case. One response to this argument is that doing justice in the individual case also requires equal treatment of similarly situated persons. But it is clear that the risk posed by a system that values equality over liberty is a risk of error—the risk that salient differences between litigants will be missed. The risk posed by a system that values liberty over equality is a risk of a different error—the risk that ignoring salient similarities between litigants will lead to arbitrary or biased results.¹³⁷ No system will be perfect, but one that requires a justification for differential treatment is superior to one that permits unexplained inequality of outcomes to persist.

135. See *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 833–35 (1999) (observing that the intent behind Rule 23(b)(1)(B) is to protect absent class members when the defendant has limited funds); see also *In re Combustion Eng'g*, 391 F.3d at 234 n.45 (describing the bankruptcy procedure's requirements as being “tailored to protect the due process rights of future claimants”).

136. Simons, *supra* note 123, at 748 (“An equality principle requires the decisionmaker to explain why he departed from the rule in some but not all cases.”).

137. Another way to conceptualize a similar idea is to consider the equality right at stake here as the right to a fair distribution of the risk of error rather than a right to the same outcome for similarly situated persons. See Robert G. Bone, *Procedure, Participation, Rights*, 90 B.U. L. REV. 1011, 1016–17 (2010) (discussing fair risk distribution in relation to the moral right at stake in effectuating the substantive law). For the mass tort context, it seems to me that discussing the right in terms of actual outcomes rather than distribution of risk makes sense. The right at stake is the same of each litigant, the procedures offered are the same—if the litigants are similarly situated, why should they not receive the same damages award?

The requirement that adjudicators provide an explanation is related to Ronald Dworkin's concept of equal respect and concern.¹³⁸ The scholarship on procedural justice has long recognized the importance of dignitary values in determining how much process is due.¹³⁹ Being treated equally and being given legally legitimate reasons for unequal treatment is also part of the respect for the dignity of individuals before the law. What makes participation meaningful is the capacity to influence the outcome. A system that treats similarly situated litigants unequally also harms their dignity.

Justifying outcomes and demonstrating that like cases are treated similarly also play a role in the moral legitimacy of the tort system.¹⁴⁰ Inconsistent outcomes smack of arbitrariness and open the possibility that results are based on invidious bias. One indicium of the fact that inconsistency erodes legitimacy is that critics of the tort system often point to inconsistent outcomes as a basis of their critique.¹⁴¹ Transparency and reason giving are necessary to the moral legitimacy of a court system in a democracy.¹⁴² The justice system is a public good because it is the primary system of law enforcement in our society. Citizens should be informed of the workings of the court system, the manner in which cases are resolved, and the ultimate resolution of those cases. For this reason, the resolution of all cases, not only by judicial action but also by settlement, ought to be publicly available. The processes by which mass tort settlements are reached,

138. See RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 227 (1978) (arguing that making a moral decision, such as which of two children shall receive the final dose of a drug to cure some illness, on the basis of a coin flip would fail to show equal concern); Simons, *supra* note 123, at 720–21 & n.97 (discussing Dworkin's theory of equal concern); see also Greenawalt, *Prescriptive Equality*, *supra* note 123, at 1273 (arguing that the principle of equality "may express deep-rooted feelings, not easily dispelled, to which decisionmakers appropriately are responsive").

139. For example, Jerry Mashaw has focused on procedure as an affirmation of individuality and respect for persons through participation. Jerry L. Mashaw, *Administrative Due Process: The Quest for a Dignitary Theory*, 61 B.U. L. REV. 885, 888 (1981) ("[I]t is commonplace for us to describe process affronts as somehow related to disrespect for our individuality, to our not being taken seriously as persons."). Although Mashaw focuses on equality of opportunity as part of dignity, *id.* at 902–03, outcome equality is also a salient component of dignity.

140. See Rubenstein, *supra* note 2, at 1893 ("Litigants will lose faith in adjudication as a means of dispute resolution if outcomes appear to be random, or worse, if they appear to be biased."). For discussions of legal legitimacy more generally, see Richard H. Fallon, Jr., *Legitimacy and the Constitution*, 118 HARV. L. REV. 1787 (2005) and Alan Hyde, *The Concept of Legitimation in the Sociology of Law*, 1983 WIS. L. REV. 379, 407–18.

141. Compare *Exxon Shipping Co. v. Baker*, 128 S. Ct. 2605, 2624–26 (2008) (lamenting unpredictability in punitive damages awards), and Cass R. Sunstein et al., *Assessing Punitive Damages (with Notes on Cognition and Valuation in Law)*, 107 YALE L.J. 2071, 2074 (1998) (describing variations in punitive damages awards despite juror agreement on reprehensibility), with Theodore Eisenberg et al., *Variability in Punitive Damages: Empirically Assessing Exxon Shipping Co. v. Baker*, 166 J. INSTITUTIONAL & THEORETICAL ECON. 11–13 (2010) (criticizing the Supreme Court's reliance on summary statistics of variability and demonstrating that size of punitive damages awards increases in a linear fashion with the size of compensatory damages awards in log-transformed dollars).

142. See Judith Resnik, *Courts: In and Out of Sight, Site, and Cite*, 53 VILL. L. REV. 771, 772–73 (2008) (discussing the relationship between court transparency and national security after 9/11).

including sampling, public trials, and the creation of matrices for the allocation of damage awards, are a step in this direction.¹⁴³ As discussed further in Part III, they do not go far enough.

So far, this analysis has only addressed the issue of outcome equality as a function of final determinations. But timing is also a critical component of equality in adjudication. The order in which courts hear cases is central to procedural justice. Delays can have negative effects on both parties. As a prominent theorist explains, “Delay may have two different effects on a decision: it may undermine accuracy in the sense that it increases the risk of error, and it may undermine the practical utility of judgments for the purpose of redressing rights.”¹⁴⁴ As time passes, events recede into the distance; witnesses forget, disappear, or pass away. The passage of time compounds the injury for plaintiffs awaiting compensation. It also makes pursuing cases more difficult for lawyers working on a contingency fee basis, who must fund the litigation going forward.¹⁴⁵

For defendants, the effect of delay is mixed. On the one hand, defendants in mass tort cases may suffer as investors wonder what the effects of large-scale litigation will be on the company. On the other hand, delay often favors defendants who benefit from any difficulties plaintiffs may have in proving a case years after the fact. Defendants also benefit from putting off payment of damages, should they be found liable. Finally, in some cases, the passage of time permits changes in scientific thinking to coalesce, clarifying the causation inquiry. If the scientific studies vindicate the defendants’ position, new evidence can end the litigation.¹⁴⁶

Timing and fairness in adjudication are in tension with one another. The Federal Rules of Civil Procedure optimistically require that the rules be “administered to secure the just, speedy, and inexpensive determination of every action and proceeding.”¹⁴⁷ But often these considerations must be traded off against each other. One can easily imagine a very inexpensive summary proceeding that would not pay any attention to individual issues. Such a regime would be unjust not only because it limits participant autonomy, but also because it does not even attempt to give plaintiffs what they are entitled to under the substantive law. Similarly, with enough resources, it is possible to hold an individual trial in every case. Under

143. See *supra* subpart I(D) (describing the role of damages scheduling in increasing transparency of the civil justice system).

144. A.A.S. Zuckerman, *Quality and Economy in Civil Procedure: The Case for Commuting Correct Judgments for Timely Judgments*, 14 OXFORD J. LEGAL STUD. 353, 360 (1994).

145. See Jonathan T. Molot, *Litigation Finance: A Market Solution to a Procedural Problem*, 99 GEO. L.J. 65, 90–91 (2010) (describing how contingency fees boost plaintiffs’ bargaining power at the expense of transferring the risk of litigation to their attorneys).

146. See, e.g., *In re Breast Implant Cases*, 942 F. Supp. 958, 961 (E.D.N.Y. & S.D.N.Y. 1996) (finding scientific evidence inadequate to prove that breast implants caused systemic injuries alleged by plaintiffs).

147. FED. R. CIV. P. 1.

current conditions (or any realistic improvement upon them), an insistence on individual trials would mean long delays. Our system has resolved the tension between justice and speed by strengthening the procedures available for settling cases in the pretrial phase and giving judges additional discretion to resolve cases through pretrial or settlement conferences,¹⁴⁸ dismissals at the complaint stage,¹⁴⁹ summary judgment,¹⁵⁰ judgment as a matter of law,¹⁵¹ and orders for a new trial.¹⁵² The tension between speed and fair outcomes is resolved in each case by the operation of these procedural rules on the ground—in other words, through judicial discretion. This is why focusing on the procedural tools available to district judges and the way they use those tools is critical to understanding how the right to outcome equality can be operationalized.

In sum, the principle of outcome equality requires that similar litigants ought to receive the same outcomes and provides a basis for giving reasons for differential treatment. Reasonable adherence to outcome equality demonstrates equal respect and concern for litigants. Furthermore, outcome equality should be understood both in terms of comparing *how much* litigants receive and *when* their cases are resolved. The next subpart will evaluate the doctrinal support for the right to outcome equality both in the procedural law and as a constitutional right.

B. Doctrinal Enforcement of Outcome Equality

Having considered the aspirational principle of outcome equality, we turn to an investigation of the extent to which the subconstitutional rules of the procedural law and the constitutional provisions of equal protection and due process support a right to outcome equality. This analysis demonstrates that judicial interpretations of the procedural laws and constitutional protections offer only limited recognition of outcome equality.

1. The Procedural Law.—Outcome equality is expressed in our civil litigation system through a variety of procedural doctrines that attempt to instill the discipline of consistency across cases.¹⁵³ For example, preclusion doctrines prevent the inconsistent outcomes that may result from relitigation of the same case or the same issue. Remittitur disciplines outcomes by allowing judges to reduce outlier verdicts. Both of these doctrines limit litigants' day in court in favor of equality and consistency. A variety of other doctrines, such as joinder and representative litigation, also encourage

148. FED. R. CIV. P. 16.

149. FED. R. CIV. P. 12(b).

150. FED. R. CIV. P. 56.

151. FED. R. CIV. P. 50.

152. FED. R. CIV. P. 59.

153. See Rubenstein, *supra* note 2, at 1884–92 (discussing the expression of different types of equality in the rules of civil procedure).

comparison and equalization across cases by allowing cases raising the same issues to be decided in a single proceeding.

Claim preclusion forbids the relitigation of the same claim between the same litigants.¹⁵⁴ Issue preclusion or collateral estoppel forbids relitigation of the same issue in a subsequent case.¹⁵⁵ The doctrine of nonmutual collateral estoppel permits a litigant to prevent his opponent from litigating an issue that the opponent litigated in a previous suit.¹⁵⁶ Finally, the doctrine of law of the case dictates that once an issue has been decided, it may not be relitigated at a later stage in the same lawsuit.¹⁵⁷ These doctrines are meant to ensure that case outcomes are consistent.

But preclusion doctrine is too narrowly focused to do much work in promoting equal outcomes across cases. Claim preclusion only applies to claims arising out of the same transaction or occurrence.¹⁵⁸ Issue preclusion (collateral estoppel) applies only to the same issue being relitigated by the same party and cannot be used against a new party who never had the opportunity to litigate the issue in the first place.¹⁵⁹ To illustrate, consider the classic bus accident hypothetical: There is a bus accident in which fifty passengers are injured and all fifty sue.¹⁶⁰ In the first suit, the defendant bus company prevails; the court finds the bus company was not negligent. The bus company cannot use that judgment against the second plaintiff because that plaintiff was not a party to the first suit and did not have an opportunity to litigate the question.¹⁶¹ Now imagine that in a third suit the plaintiff prevails on the negligence issue. Can the fourth plaintiff use the findings of negligence in the third plaintiff’s suit against the defendant? After all, the defendant was a party to and fully litigated the third suit. The answer is that a court will not permit the fourth plaintiff to use the findings of the third suit against the defendant, although formally speaking the court has the discretion to do so. The Supreme Court has warned that plaintiffs who could easily have joined the previous action (as the fourth plaintiff in this example could

154. 18 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE § 4406, at 138–40 (2d ed. 2002).

155. *Id.*

156. *See Parklane Hosiery Co. v. Shore*, 439 U.S. 322, 337 (1979) (upholding the doctrine of nonmutual collateral estoppel); 18 WRIGHT, MILLER & COOPER, *supra* note 154, § 4416, at 393 & n.17 (noting that *Parklane Hosiery* confirmed that collateral estoppel can be used by a plaintiff as an offensive tool in a second action when that plaintiff was not a party to the first action).

157. 18B WRIGHT, MILLER & COOPER, *supra* note 154, § 4478, at 637–41.

158. *See* RESTATEMENT (SECOND) OF JUDGMENTS § 24 (1982) (defining the term *claim* for purposes of claim preclusion).

159. *See Parklane*, 439 U.S. at 326–27 (noting the historic requirement of mutuality of parties for use of collateral estoppel and that the Supreme Court’s decision in *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 (1971), abandoned this requirement only with respect to plaintiffs seeking to relitigate issues they had lost in a previous case).

160. *See id.* at 330 n.14 (citing Brainerd Currie, *Mutuality of Collateral Estoppel: Limits of the Bernhard Doctrine*, 9 STAN. L. REV. 281, 304 (1957)) (discussing Professor Currie’s similar hypothetical involving a railroad car).

161. *See supra* note 159 and accompanying text.

have) should not be permitted to “adopt a ‘wait and see’ attitude” in the hope of a favorable outcome in the first suit and later benefit from offensive nonmutual collateral estoppel knowing that they need not face the consequences of an adverse ruling.¹⁶² The Court has also cautioned that the use of offensive nonmutual collateral estoppel is unfair to the defendant “if the judgment relied upon as a basis for the estoppel is itself inconsistent with one or more previous judgments in favor of the defendant.”¹⁶³

How broadly or narrowly courts define the issues at stake in a particular litigation will also determine whether one outcome supersedes future litigation. The problem of issue definition in preclusion doctrine raises a fundamental difficulty for comparative valuation of injuries and for the right to outcome equality more generally: What makes like cases alike? Even if a court were to preclude subsequent litigation and thus prevent inconsistent outcomes in one case, there is no guarantee that a particular outcome is consistent with the value assigned to the underlying injury in comparable cases. Because the concept of value in tort law is comparative, we can determine value only by reference to a portfolio of similar cases. The tort system is still searching for an acceptable method of determining what makes cases similar for purposes of assigning value, and this is one reason injury valuation is contested.

The doctrine of remittitur is another way the procedural law enforces the principle of equality. Remittitur permits the court to reduce jury verdicts that it believes are unreasonably high by allowing the plaintiff to choose between a new trial and a reduced award.¹⁶⁴ The court is supposed to arrive at that reduced award by looking at the outcomes of comparable cases decided by juries.¹⁶⁵ This type of truncation is similar to what statisticians do with outlier data points. Statisticians can recode the outlier datum or drop it altogether on the theory that it represents some kind of mistake.¹⁶⁶ But the existence of the outlier may be an important clue to failures in the model being used.¹⁶⁷ In fact, an outlier may indicate that the model is flawed. In the remittitur context, omitting the outlier becomes a problem when the outlier is not an aberration but represents the direction in which valuation is

162. *Parklane*, 439 U.S. at 330.

163. *Id.*

164. *See supra* note 5 and accompanying text (describing the standard for remittitur in federal court).

165. *See Dimick v. Schiedt*, 293 U.S. 474, 486–87 (1935) (recognizing that remittitur withstands Seventh Amendment attack but rejecting additur as unconstitutional); Joseph B. Kadane, *Calculating Remittiturs*, 8 *LAW PROBABILITY & RISK* 125, 125–26 (2009) (describing a method used by one district court judge in analyzing comparable cases).

166. David J. Sheskin, *Outlier*, in 1 *ENCYCLOPEDIA OF RESEARCH DESIGN* 979–81 (Neil J. Salkind ed., 2010) (discussing outlier data and courses to take in statistical analysis when the outlier is not considered an error).

167. *See* NASSIM NICHOLAS TALEB, *THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE* 251 (2007) (arguing that, for the Gaussian model, it is better to understand when the model cannot apply than to try to adapt the model to “non-bell curve” situations).

moving.¹⁶⁸ For example, the value assigned to a particular kind of injury may increase over time. If that is the case, realignment through remittitur will systematically prevent appropriate increases in damages awards. If remittiturs are not granted systematically, which is likely in a decentralized litigation system such as our own, changes in case value may increase the difficulty of assigning value in future cases because this practice increases unpredictability. Furthermore, remittitur favors lower valuations of injury. Because remittitur is constitutional but additur is not, in the federal courts (and at least some state courts), remittitur is a one-way ratchet.¹⁶⁹ The doctrine lowers awards that are extraordinarily high but never raises awards that are too low. In the latter case, the judge’s only option is to grant a new trial.

A final set of procedural rules that contribute to equality of outcomes is the rules governing party joinder and representative litigation. The Federal Rules of Civil Procedure provide a very liberal regime for party joinder: anyone can be joined in a lawsuit so long as a party alleges any “question of law or fact common to all” the joined parties.¹⁷⁰ The Rules also provide for class actions, which allow individuals who share common “questions of law or fact” to band together in a lawsuit collectively represented by a class representative.¹⁷¹ Only if the class is certified can the class members benefit from the lawsuit jointly (and be bound by its results).¹⁷² Where individuals are joined together in a suit, a reference class is created; they can be compared to one another and the outcomes in each of their cases aligned.¹⁷³ In some limited cases, the federal court may even enjoin competing actions affecting a single stake against which multiple plaintiffs have claims.¹⁷⁴ Finally, the multidistrict litigation statute and the rule governing consolidation of actions permit the court system to combine actions raising common issues of law or fact.¹⁷⁵

168. There is a debate about the significance of and reasons for an apparent increase in the size of jury verdicts. See Vidmar, *supra* note 67, at 877–78 (describing and criticizing studies showing inflation of jury awards since the 1980s).

169. See *Dimick*, 293 U.S. at 486–87 (upholding remittitur but rejecting additur as unconstitutional). *But see* *Jacobson v. Manfredi*, 679 P.2d 251, 255 (Nev. 1984) (upholding additur in a products liability case).

170. FED. R. CIV. P. 20(a)(1)(B) (governing joinder of plaintiffs); FED. R. CIV. P. 20(a)(2)(B) (governing joinder of defendants).

171. FED. R. CIV. P. 23(a) (outlining prerequisites for certifying class actions).

172. See *Smith v. Bayer Corp.*, 131 S. Ct. 2368, 2379–80 (2011) (stating that a member of a class that is not certified is not a party to the prior litigation and cannot be precluded).

173. See Edward K. Cheng, *A Practical Solution to the Reference Class Problem*, 109 COLUM. L. REV. 2081, 2083–84 (2009) (discussing problems faced in determining the parameters of a reference class and proposing a solution).

174. See RICHARD D. FREER, CIVIL PROCEDURE § 13.2, at 703 (2d ed. 2009) (“[T]he federal court overseeing an interpleader case may ‘enter its order restraining [the claimants] from instituting or prosecuting any proceeding in any State or United States court affecting the [stake].’” (second and third alterations in original) (quoting 28 U.S.C. § 2361 (2006))).

175. 28 U.S.C. § 1407 (governing multidistrict litigation and permitting a panel of judges in such situations to transfer actions raising common issues of fact to a single district for pretrial

At the same time, the rules for required joinder and interpleader demonstrate the procedural law's tolerance of inconsistent outcomes. The fact that a series of suits may lead to inconsistent adjudications is not sufficient to require parties to be joined under Rule 19.¹⁷⁶ Similarly, the interpleader rule permits persons to be joined as defendants only when their claims "may expose a plaintiff to double or multiple liability."¹⁷⁷ Interpleader is generally used to address the problem of competing claims to property so that the interpleader plaintiff will not be subject to inconsistent obligations. Thus, for example, persons who may have a claim to an insurance policy when the amount of that policy is less than the tortfeasor's exposure can be brought into the same lawsuit under the doctrine of interpleader and related statutes.¹⁷⁸ Although interpleader has been used to enforce equality between litigants who have claims against a limited fund, it has not been used to address inconsistent adjudication of tort cases.

In sum, procedural doctrines such as remittitur, joinder, class actions, and interpleader enforce a modicum of equality between litigants.

2. *The Constitutional Dimension.*—Both the Equal Protection Clause and the Due Process Clauses of the United States Constitution could be the basis for a constitutional requirement of outcome equality in litigation. Currently the law provides only a thin justification for such a requirement.¹⁷⁹

The Equal Protection Clause imposes some limited requirements of equal treatment toward litigants. It requires that the government, including the courts, treat all similarly situated persons alike.¹⁸⁰ At the same time, lawmakers may recognize relevant differences between individuals.¹⁸¹ It is familiar enough that equal protection doctrine singles out certain classifications for strict scrutiny. Laws that classify individuals based on race, ethnicity, national origin, alienage, and religion must be justified by a compelling state interest,¹⁸² and laws that classify individuals based on gender are

proceedings); FED. R. CIV. P. 42(a) (describing consolidation of actions involving common questions of law or fact).

176. See FED. R. CIV. P. 19(b) (outlining an exception to compulsory joinder: even if a party is "required" under section (a)(1), if that party cannot feasibly be joined and the criteria in section (b) weigh in favor of allowing the lawsuit to continue, the action can proceed without that required party).

177. FED. R. CIV. P. 22(a)(1).

178. See 28 U.S.C. § 1335(a)(1) (stating that district courts have jurisdiction in the nature of interpleader if "[t]wo or more adverse claimants . . . are claiming or may claim to be entitled to such money or property").

179. See Rubenstein, *supra* note 2, at 1896–97 (demonstrating that "constitutional equal protection doctrine has not directly contributed to ensuring adjudicative outcome equality").

180. *City of Cleburne v. Cleburne Living Ctr., Inc.*, 473 U.S. 432, 439 (1985) (citing *Plyler v. Doe*, 457 U.S. 202, 216 (1982)).

181. See *Tigner v. Texas*, 310 U.S. 141, 147 (1940) ("The Constitution does not require things which are different in fact or opinion to be treated in law as though they were the same.").

182. *Cleburne*, 473 U.S. at 440 (citing *Graham v. Richardson*, 403 U.S. 365 (1971) and *McLaughlin v. Florida*, 379 U.S. 184, 192 (1964)); Nelson Tebbe & Deborah A. Widiss, *Equal*

subject to intermediate scrutiny.¹⁸³ Decisions based on other classifications, such as age, looks, height, or wealth, for example, are presumed to be valid and subject only to rational-basis review, absent some subconstitutional protection.¹⁸⁴ The same rationale applies to the Judicial Branch and to the decisions of other persons deemed government actors, such as attorneys exercising peremptory challenges in civil litigation.¹⁸⁵

The Supreme Court struck down race- and gender-based peremptory challenges in civil cases.¹⁸⁶ The Court reasoned that such challenges violate the equal protection rights of jurors, who may be denied every citizen’s right to participate in the judicial system based on a discriminatory peremptory challenge.¹⁸⁷ Furthermore, the Court explained that “racial discrimination in the selection of jurors casts doubt on the integrity of the judicial process, and places the fairness of [the] proceeding in doubt.”¹⁸⁸ In other contexts, courts have also found that taking race into account can violate the equal protection rights of litigants. For example, in *McMillan v. City of New York*,¹⁸⁹ the United States District Court for the Eastern District of New York held that assessing damages based on statistical evidence of race as a predictor of life expectancy violated the plaintiff’s right to equal protection.¹⁹⁰

To the extent that adjudicators, including juries, take an impermissible classification such as race or gender into account when determining damages, this is an equal protection violation. But this rule is very difficult to police because the jury makes its determination in a “black box.” With very few

Access and the Right to Marry, 158 U. PA. L. REV. 1375, 1407 & n.141 (2010) (“Religion has been included in the list of suspect classifications, albeit in dicta.” (citing *City of New Orleans v. Dukes*, 427 U.S. 297, 303 (1976) (per curiam))).

183. See *Cleburne*, 473 U.S. at 441 (“A gender classification fails unless it is substantially related to a sufficiently important governmental interest.” (citing *Miss. Univ. for Women v. Hogan*, 458 U.S. 718 (1982), and *Craig v. Boren*, 429 U.S. 190 (1976))).

184. *Id.* at 440 (“The general rule is that legislation is presumed to be valid and will be sustained if the classification drawn by the statute is rationally related to a legitimate state interest.” (citing *Schweiker v. Wilson*, 450 U.S. 221, 230 (1981); *U.S. R.R. Ret. Bd. v. Fritz*, 449 U.S. 166, 174–75 (1980); *Vance v. Bradley*, 440 U.S. 93, 97 (1979); and *Dukes*, 427 U.S. 297); see also 42 U.S.C. §§ 6101–6107 (2006) (prohibiting discrimination in employment on the basis of age in programs receiving federal aid).

185. *Edmonson v. Leesville Concrete Co.*, 500 U.S. 614, 616 (1991) (holding that peremptory challenges based on race violate the equal protection rights of jurors); see also *Shelley v. Kraemer*, 334 U.S. 1, 15 (1948) (articulating the principle that the actions of judicial officers within their state capacities are state actions within the meaning of the Fourteenth Amendment).

186. *J.E.B. v. Alabama ex rel. T.B.*, 511 U.S. 127, 146 (1994); *Edmonson*, 500 U.S. at 616, 630.

187. *Edmonson*, 500 U.S. at 618–19 (citing *Powers v. Ohio*, 499 U.S. 400, 407–09 (1991)).

188. *Id.* at 630 (citations omitted) (quoting *Powers*, 499 U.S. at 411) (internal quotation marks omitted). The Court went on to explain that “[r]acial discrimination has no place in the courtroom, whether the proceeding is civil or criminal.” *Id.* (citing *Thiel v. S. Pac. Co.*, 328 U.S. 217, 220 (1946)); see also Susan Sturm, *Equality and the Forms of Justice*, 58 U. MIAMI L. REV. 51, 67 (2003) (describing the judicial function of norm elaboration in the context of equality).

189. 253 F.R.D. 247 (E.D.N.Y. 2008).

190. *Id.* at 255 (“Equal protection in this context demands that the claimant not be subjected to a disadvantageous life expectancy estimate solely on the basis of a ‘racial’ classification.”).

exceptions, juror testimony about deliberations, including racially charged remarks made by other jurors, cannot be introduced to impeach a verdict.¹⁹¹ Moreover, statistical evidence of differential treatment of protected classes in the court system will not give rise to an equal protection claim.¹⁹² Only in cases such as *McMillan*, where the question before the court concerned the introduction of statistical evidence taking race into account, is an equal protection ruling possible. Even then, the range of classes the Equal Protection Clause protects is narrow and excludes myriad other considerations that may result in litigants being treated inequitably. Thus, jurors may favor attractive plaintiffs consistent with equal protection doctrine, even when beauty is not a legitimate basis for injury valuation under the law.¹⁹³ In some cases, such favoritism results in outcomes that are incorrect applications of the law to the facts and are inequitable.

Equal treatment of similarly situated litigants could also be understood to fall under the rubric of procedural due process. Due process has been understood to be a liberty-based right of individuals in contradistinction to the equality rights of groups. Procedural due process, therefore, has largely been understood to require a determination of how much process is due to a given individual, rather than as a comparison between similarly situated litigants.¹⁹⁴ But liberty and equality claims are intertwined.¹⁹⁵ The

191. See FED. R. EVID. 606 (declaring that “a juror may not testify about any statement made or incident that occurred during the jury’s deliberations” during an inquiry into the validity of a verdict); *United States v. Benally*, 546 F.3d 1230, 1231, 1241 (10th Cir. 2008) (holding inadmissible juror testimony regarding racist remarks about Native Americans during jury deliberations).

192. See *McCleskey v. Kemp*, 481 U.S. 279, 292 (1987) (holding that “a defendant who alleges an equal protection violation has the burden of proving ‘the existence of purposeful discrimination’” and that the defendant therefore was required to prove that the “decisionmakers in *his* case acted with discriminatory purpose” (quoting *Whitus v. Georgia*, 385 U.S. 545, 550 (1967))); *Pers. Adm’r of Mass. v. Feeney*, 442 U.S. 256, 278–79 (1979) (holding that a showing of disparate impact on a protected group is insufficient to give rise to an equal protection violation absent a showing of discriminatory purpose, in other words, that “the decisionmaker . . . selected or reaffirmed a particular course of action at least in part because of, not merely in spite of, its adverse effects upon an identifiable group” (internal quotation marks omitted)).

193. Sometimes beauty may be a legitimate basis, such as in cases where jurors are valuing a disfiguring injury. See *supra* notes 49–50 and accompanying text (discussing juror valuation of disfigurement).

194. The procedural due process cases have largely been about how to determine how much process is due in a given case. See, e.g., *Mathews v. Eldridge*, 424 U.S. 319, 339, 349 (1976) (describing the hearing required for termination of social security disability benefits).

195. Yoshino, *supra* note 8, at 748–49 (explaining that the Supreme Court’s move from group-based equal protection claims to individual-rights claims “reflects what academic commentary has long apprehended—that constitutional equality and liberty claims are often intertwined”); see also Rebecca L. Brown, *Liberty, the New Equality*, 77 N.Y.U. L. REV. 1491, 1541 (2002) (describing how the representation–reinforcement and deliberative–democracy theories of judicial review “conscript a basic equality as a means toward another end—liberty” and declaring that “[e]quality and liberty are not as different as their histories in the case law have made them out to appear”); William N. Eskridge, Jr., *Destabilizing Due Process and Evolutive Equal Protection*, 47 UCLA L. REV. 1183, 1216 (2000) (observing that once similarly situated people begin to see themselves as a minority group, they transition from due process arguments to equal protection arguments to

interrelationship of liberty and equality is evident in cases involving the right to sexual or reproductive freedom or the right to equal access to the courts for purposes of divorce.¹⁹⁶ But the Supreme Court has also considered equal treatment as a procedural due process right of defendants in punitive damages cases,¹⁹⁷ in criminal cases,¹⁹⁸ and in considering the jurisdictional reach of the courts.¹⁹⁹

The Supreme Court has addressed the due process concerns triggered by the variation in jury awards, specifically in its punitive damages jurisprudence. In *Exxon Shipping Co. v. Baker*,²⁰⁰ for example, the Court justified the requirement that punitive damages be consistent across cases on the basis that defendants need to know what conduct will give rise to liability.²⁰¹ The Court explained that “when the bad man’s counterparts turn

advance their individual rights); Ruth Bader Ginsburg, *Some Thoughts on Autonomy and Equality in Relation to Roe v. Wade*, 63 N.C. L. REV. 375, 380–81, 385–86 (1985) (describing how the Court in *Roe v. Wade*, 410 U.S. 179 (1973), chose to address abortion limitations under a fundamental-rights approach rather than using an approach based on sex equality); Kenneth L. Karst, *The Liberties of Equal Citizens: Groups and the Due Process Clause*, 55 UCLA L. REV. 99, 106 (2007) (describing the Court’s shift from unequal treatment to liberty of contract as a justification for striking down business regulations); Reva B. Siegel, *Dignity and the Politics of Protection: Abortion Restrictions Under Casey/Carhart*, 117 YALE L.J. 1694, 1696 (2008) (arguing that constitutional protections of dignity in substantive due process cases and equal protection cases “vindicate, often concurrently, the value of life, the value of liberty, and the value of equality”); Laurence H. Tribe, *Lawrence v. Texas: The “Fundamental Right” that Dare Not Speak Its Name*, 117 HARV. L. REV. 1893, 1897–98 (2004) (describing the Court’s due process case law as a “narrative in which due process and equal protection, far from having separate missions and entailing different inquiries, are profoundly interlocked in a legal double helix”).

196. See *Lawrence v. Texas*, 539 U.S. 558, 574 (2003) (“Persons in a homosexual relationship may seek autonomy for these purposes, just as heterosexual persons do.”); *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 851 (1992) (“At the heart of liberty is the right to define one’s own concept of existence, of meaning, of the universe, and of the mystery of human life.”); *Boddie v. Connecticut*, 401 U.S. 371, 388–89 (1971) (Brennan, J., concurring) (“Courts are the central dispute-settling institutions in our society. They are bound to do equal justice under law, to rich and poor alike. They fail to perform their function in accordance with the Equal Protection Clause if they shut their doors to indigent plaintiffs altogether.”).

197. See *Exxon Shipping Co. v. Baker*, 128 S. Ct. 2605, 2625–26 (2008) (stating that “[c]ourts of law are concerned with fairness as consistency” and describing inconsistency and unpredictability of punitive damages awards as a due process violation); *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559, 583 (1996) (observing that a reviewing court determining whether a punitive damages award is a grossly excessive violation of due process should compare the punitive damages award to civil or criminal penalties for comparable conduct).

198. See *Koon v. United States*, 518 U.S. 81, 113 (1996) (noting that reducing “unjustified disparities” in criminal sentencing is necessary to achieve “the evenhandedness and neutrality that are the distinguishing marks of any principled system of justice”).

199. See *World-Wide Volkswagen Corp. v. Woodson*, 444 U.S. 286, 297 (1980) (“The Due Process Clause, by ensuring the ‘orderly administration of the laws,’ . . . gives a degree of predictability to the legal system that allows potential defendants to structure their primary conduct with some minimum assurance as to where that conduct will and will not render them liable to suit.” (quoting *Int’l Shoe Co. v. Washington*, 326 U.S. 310, 319 (1945))).

200. 128 S. Ct. 2605 (2008).

201. See *id.* at 2627 (concluding that a penalty should be reasonably predictable in its severity so that one “can look ahead with some ability to know what the stakes are in choosing [a] course of

up from time to time, the penalty scheme they face ought to threaten them with a fair probability of suffering in like degree when they wreak like damage.”²⁰² *Exxon* evokes a principle of equal risk distribution among defendants.

Outside of the punitive damages context, however, the doctrinal structure permitting judges to enforce some level of consistency in jury verdicts has been considered only a long-held rule of common law, not a constitutionally imposed due process requirement.²⁰³ The constitutionality of rules allowing judges to reconsider jury verdicts has therefore traditionally been analyzed under the Seventh Amendment individual right to a jury trial rather than as a problem of inequality or arbitrary treatment.²⁰⁴ Furthermore, our judicial system has consistently tolerated variations in jury verdicts. The standard that permits judges to overturn verdicts only when no reasonable jury could find for that party,²⁰⁵ for example, does relatively little to enforce equality of outcomes among litigants.

In sum, there is a basis in the existing doctrine and the language of the Equal Protection and Due Process Clauses for establishing a right to outcome equality in adjudication. That right has even been recognized by the Supreme Court.²⁰⁶ But it has not been consistently imposed, and there is substantial countervailing law and practice. The likelihood that a robust right to outcome equality will emerge from the Supreme Court is low at present. As described in the introduction, the Court has favored liberty over equality in adjudication in many recent opinions. Nevertheless, with the existing tools available to them, district court judges have pioneered innovative procedures that promote outcome equality. If these procedures were more rigorous, they would do an even better job of supporting outcome equality across litigants. Over time, the importance of outcome equality may even trickle up to the Supreme Court.

III. Outcome Equality in Mass Tort Cases

Equality remains an important foundational principle of our civil litigation system, even if the endorsement from the procedural law and

action”); *see also Gore*, 517 U.S. at 585 (stating that a defendant has an “entitlement to fair notice of the demands that the several States impose on the conduct of its business”).

202. *Baker*, 128 S. Ct. at 2627.

203. *See Dimick v. Schiedt*, 293 U.S. 474, 488 (1935) (Stone, J., dissenting) (describing the power of the judge to set aside a jury verdict as inadequate or excessive as a “rule[] of the common law which [has] received complete acceptance for centuries”).

204. U.S. CONST. amend. VII; *see also Galloway v. United States*, 319 U.S. 372, 389 (1943) (holding motions for directed verdict constitutional); *Dimick*, 293 U.S. at 486–87 (holding additur unconstitutional).

205. FED. R. CIV. P. 50.

206. *See Baker*, 128 S. Ct. at 2627 (noting that the unpredictable nature of punitive awards “is in tension with the function of the awards as punitive, just because of the implication of unfairness that an eccentrically high punitive verdict carries in a system whose commonly held notion of law rests on a sense of fairness in dealing with one another”).

constitutional provisions is limited. The resilience of this principle is most evident on the ground, where judges are using their discretion to adopt equality-promoting procedures. This part considers what judges have already done to promote outcome equality in mass torts and analyzes what could be done better.

A. *The Emergence of Equality: Informal Sampling*

Recently, judges overseeing large numbers of tort cases collected in a single forum under the auspices of the multidistrict litigation statute and similar procedural devices have started using sampling techniques such as nonbinding bellwether trials for “informational” purposes.²⁰⁷ This process of court-engineered sampling is akin to what lawyers ordinarily do when they compare similar cases to determine what damages award is appropriate, but it is a somewhat more transparent and systematic approach. Because it requires a comparison between cases, it is more equality promoting than “ordinary” individual litigation.

In the late 1990s, a few trial courts experimented with binding statistical-adjudication procedures. In *Hilao v. Estate of Marcos*,²⁰⁸ a federal court used statistical methods to adjudicate a class action brought on behalf of persons who suffered human rights abuses under the regime of Ferdinand Marcos in the Philippines.²⁰⁹ A special master conducted on-site depositions in the Philippines, and based on those, he recommended a recovery schedule to a jury, which then adopted his recommendations (for the most part).²¹⁰ The Ninth Circuit upheld this procedure.²¹¹ Around the same time, a U.S. district court judge in Texas tried 160 asbestos cases and was prepared to use those verdicts to extrapolate to the remainder of asbestos cases consolidated before him.²¹² The Fifth Circuit quashed his efforts, holding that the extrapolation of the results of the sample verdicts violated the defendants’ due process right and the Seventh Amendment.²¹³ No trial court has followed in the footsteps of these innovators, and the appellate courts continue to express hostility to mandatory statistical adjudication of this type.

207. Eldon E. Fallon et al., *Bellwether Trials in Multidistrict Litigation*, 82 TUL. L. REV. 2323, 2332 (2008); see also Edward F. Sherman, *Segmenting Aggregate Litigation: Initiatives and Impediments for Reshaping the Trial Process*, 25 REV. LITIG. 691, 697 (2006) (“[E]ven without preclusive effect, [bellwether trials] offer an accurate picture of how different juries would view different cases across the spectrum of weak and strong cases that are aggregated.”).

208. 103 F.3d 767 (9th Cir. 1996), *disapproved of in* Wal-Mart Stores, Inc. v. Dukes, 131 S. Ct. 2541, 2561 (2011).

209. *Id.* at 782.

210. *Id.* at 782–84.

211. *Id.* at 787.

212. *Cimino v. Raymark Indus., Inc.*, 751 F. Supp. 649, 666 (E.D. Tex. 1990), *rev’d*, 151 F.3d 297 (5th Cir. 1998).

213. *Cimino*, 151 F.3d at 319.

Sampling has resurfaced in the last five years as an informal method for encouraging aggregate settlements rather than as a binding method for resolving cases in the class action context. This sampling methodology uses informational bellwether trials.²¹⁴ This informal method has been used in both state and federal forums. The most often cited example is the Vioxx litigation, but there are many others.²¹⁵ Sampling was used to encourage settlement in *In re September 11th Litigation* (September 11th Litigation).²¹⁶ A sampling process was instituted in the related WTC Disaster Site Litigation.²¹⁷ Sampling has been proposed in the litigation over formaldehyde-laden FEMA trailers,²¹⁸ in the litigation arising out of the presence of methyl tertiary butyl ether in the water supply,²¹⁹ and in the Fosamax litigation.²²⁰ Sampling was also proposed in the gender discrimination class action against Wal-Mart to solve the problem that the case required individual trials and was therefore not manageable as a class action, although this plan was rejected by the Supreme Court.²²¹

The WTC Disaster Site Litigation presents a particularly intriguing approach to statistical adjudication.²²² Approximately 9,090 plaintiffs filed lawsuits against more than 200 defendants, alleging injuries arising out of their exposure to harmful chemicals in the aftermath of the tragedy of

214. See Fallon et al., *supra* note 207, at 2332 (“The ultimate purpose of holding bellwether trials . . . was not to resolve the thousands of related cases pending . . . but instead to provide meaningful information and experience to everyone involved in the litigations.”).

215. See, e.g., *id.* (noting the use of bellwether trials in *In re Propulsid Products Liability Litigation*, MDL No. 1355, 2000 WL 35621417 (J.P.M.L. Aug. 7, 2000)).

216. See Opinion Supporting Order to Sever Issues of Damages and Liability in Selected Cases, and to Schedule Trial of Issues of Damages at 5, *In re Sept. 11th Litig.*, No. 21 MC 97 (AKH) (S.D.N.Y. July 5, 2007), available at http://www.nysd.uscourts.gov/docs/rulings/21MC97_opinion_070507.pdf (scheduling six representative cases for trial on the issue of damages with the intention that the jury verdicts would have applicability for other pending cases).

217. See Order Amending Case Management Order No. 8, *supra* note 19, at 1–3 (dividing the WTC Disaster Site Litigation cases into five groups and selecting sample cases from each group based on severity, random selection, and the court’s discretion).

218. See Pretrial Order No. 28, at 1, *In re FEMA Trailer Formaldehyde Prods. Liab. Litig.*, MDL No. 07-1873 (E.D. La. Feb. 10, 2009), available at <http://www.laed.uscourts.gov/FEMA07md1873/Orders/order1096.pdf> (ordering the parties to submit “potential bellwether trial plaintiffs”).

219. See Opinion and Order at 1–2, 26, *In re Methyl Tertiary Butyl Ether (“MTBE”) Prods. Liab. Litig.*, No. 00 MDL 1898 (SAS) (S.D.N.Y. Oct. 19, 2009), available at <http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2000cv01898/4606/2866/> (limiting the court’s holding regarding punitive damages to “the facts presented at this bellwether trial”).

220. See Order at 1, *In re Fosamax Prods. Liab. Litig.*, No. 06 MD 1789 (JFK) (S.D.N.Y. June 29, 2011), available at <https://d83vcboxs8ojhp.cloudfront.net/pdf/Trial%20Selection%20Order.pdf> (noting that the court had previously ordered the parties to “select two cases for trial as bellwethers”).

221. *Dukes v. Wal-Mart, Inc.*, 509 F.3d 1168, 1191–93 (9th Cir. 2007), *rev’d*, 131 S. Ct. 2541, 2561 (2011).

222. See Order Amending Case Management Order No. 8, *supra* note 19, at 1–3 (describing the sampling process implemented by the court).

September 11, 2001.²²³ The plaintiffs include New York City employees, such as firefighters and police officers, as well as civilian volunteers and others.²²⁴ Judge Alvin Hellerstein appointed two special masters—both law professors—to set up a sampling procedure to encourage settlement.²²⁵ They developed a method for allocating the plaintiffs into groups. Sample cases from each group would go forward as bellwether trials.

Under the experts’ plan, plaintiffs were required to fill out questionnaires regarding types of diseases they suffered and the severity of their injuries.²²⁶ The information was entered into a database.²²⁷ The groups were then organized based on type of illness and severity of the alleged harm.²²⁸ Out of the first group of 2,000 cases, the special masters collected 200 of those alleging the most severe injuries, 25 additional cases of other diseases that had not been included in the severity chart, and 400 cases chosen at random.²²⁹ Of these, the judge picked two cases, the defense lawyers picked two cases, and the plaintiffs’ lawyers picked two cases, for a total of six cases set to proceed through pretrial and trial.²³⁰ Judge Hellerstein explained that this “allows the parties to get a good sense of the strengths and weaknesses of all the cases” and presumably would lead to settlement.²³¹ The judge later increased the number of bellwether trials to twelve,²³² but before any cases were tried, an aggregate settlement was reached.²³³

Judge Hellerstein’s approach to the WTC Disaster Site Litigation is typical of court-engineered sampling, which proceeds more or less as follows: Among a large set of similar cases, the judge slates several for

223. Opinion Discussing Methodology for Discovery and Trials of Sample Cases at 6, *In re World Trade Ctr. Disaster Site Litig.*, No. 21 MC 100 (AKH) (S.D.N.Y. Feb. 19, 2009), available at <http://docs.justia.com/cases/federal/district-courts/new-york/nysdce/1:2021mc00100/58533/1138/0.pdf>.

224. *In re World Trade Ctr. Disaster Site Litig.*, 521 F.3d 169, 173 (2d Cir. 2008).

225. The special masters are two very prominent torts professors: James Henderson of Cornell Law School and Aaron Twerski of Brooklyn Law School. Opinion Discussing Methodology for Discovery and Trials of Sample Cases, *supra* note 223, at 7 & n.3.

226. *Id.* at 8.

227. *Id.* at 7–8.

228. *Id.* at 10.

229. Order Amending Case Management Order No. 8, *supra* note 19, at 1–2.

230. Opinion Discussing Methodology for Discovery and Trials of Sample Cases, *supra* note 223, at 11.

231. Mark Hamblett, *Plan Is Implemented to Resolve Suits in WTC Cleanup*, N.Y. L.J., Feb. 25, 2009, at 1.

232. Mireya Navarro, *Settlement Plan Drafted for Sept. 11 Lawsuits*, N.Y. TIMES, Feb. 5, 2010, available at <http://www.nytimes.com/2010/02/05/nyregion/05zero.html>; Alexandra D. Lahav, *Twelve Instead of Six? Developments in the WTC Disaster Site Litigation*, MASS TORT LITIG. BLOG (Feb. 19, 2010), http://lawprofessors.typepad.com/mass_tort_litigation/2010/02/twelve-instead-of-six-developments-in-the-wtc-disaster-site-litigation-.html.

233. A.G. Sulzberger & Mireya Navarro, *Accord on Bigger Settlement for Ill 9/11 Workers*, N.Y. TIMES, June 11, 2010, available at <http://www.nytimes.com/2010/06/11/nyregion/11zero.html>.

pretrial practice and trial.²³⁴ Lawyers litigate these sample cases through discovery and summary judgment, pretrial motions, and even trial.²³⁵ When these selected cases have settled or reached judgment, lawyers use the experience culled from them to settle all the other cases in the group because the lawyers have developed a sense of the value of similar cases from the process of litigating the sample cases.²³⁶

Aggregate litigation presents opportunities to develop more rigorous sampling methodologies, bellwether trials among them. Unlike the settlement of the stand-alone case, courts can verify that the reference class is appropriate, that the sample is chosen randomly, and that it is sufficiently large to yield reliable results. The ordinary methods of case valuation do not require—and are virtually never based on—anything approaching a rigorous methodology. As a result, the ordinary trial process does not account for the always-present potential that a settlement deviates considerably from the average value the group of similar cases would have been assigned if all the cases were to proceed to trial. It is very difficult to sample in individual tort cases, but mass tort cases provide opportunities for developing a more rigorous method for assigning damages because they are so often joined together in one forum. At the same time, the informal methods that judges use in these cases are not sufficiently rigorous to achieve outcome equality. The remainder of this part considers the benefits of sampling and how to improve upon current practices.

B. How Trial by Formula Promotes Outcome Equality

1. *Extrapolation.*—Cases raising the same questions of fact and law are inevitably linked to one another. In a mass tort litigation, for example, many clients are represented by relatively small groups of lawyers. Many cases settle, and the amount of any individual settlement is determined by reference to the outcomes in parallel adjudications and settlements. In other words, lawyers determine outcomes on a comparative basis. Any individual's award is dependent on how other cases are resolved. Sometimes the dependent relationship between individual cases is made explicit, as in the requirement in the settlement agreements in the WTC Disaster Site Litigation and the Vioxx case that a large percentage of the plaintiffs accept the settlement in order for the settlement to go forward.²³⁷

Although one settlement affects the price of another, individual cases also differ from one another in relevant ways. Some individuals suffer more

234. Fallon et al., *supra* note 207, at 2342–43.

235. Lahav, *Bellwether Trials*, *supra* note 118, at 577.

236. See Fallon et al., *supra* note 207, at 2338 (“[B]ellwether trials can precipitate and inform settlement negotiations . . .”).

237. See *supra* notes 222–33 and accompanying text (describing the WTC Disaster Site Litigation and settlement); *supra* notes 108–21 and accompanying text (describing the Vioxx settlement).

because their injuries are of greater severity or because injuries of similar (or even lesser) severity have caused more damage to them and their family. The contingencies of social life and luck affect the extent to which an individual is harmed. Renowned special master Kenneth Feinberg struggled with this issue in administering the September 11th Victim Compensation Fund. Numerous people perished in the terrorist attack of September 11th and Feinberg was charged with compensating families and individuals who had opted out of the tort system and agreed to have their compensation determined by the fund.²³⁸ Some were very rich and others very poor, but all experienced terrible losses. In his book about the experience, Feinberg concluded that he would have preferred to give identical amounts to all claimants than to have to quantify the value of human life in the aftermath of such a disaster, especially when those valuations reflect existing economic inequality.²³⁹

Since correcting preexisting inequality is not part of the doctrine of damages in tort law, the litigation process may compound some of these inequalities. Recognizing this, we ought to consider not only what procedural devices produce equality between litigants, but also to what extent the law enables or limits an adjudicator’s ability to take into account these contingencies in the process of assigning damages amounts to individual cases. In considering the effect of sampling and extrapolation on litigants, it is important to keep in mind the normative ideal of procedure: to make sure that plaintiffs receive what they are entitled to under the substantive law. With respect to the assignment of damages, that entitlement is not dictated by precise legal standards and has a strong cultural and contextual element.²⁴⁰

The easiest method for achieving outcome equality among litigants is to average the outcomes of sample cases or settlements across the entire population of plaintiffs. This is the method that has been discussed in the scholarship, in part because more refined methods of extrapolation are more expensive.²⁴¹ In determining damages schedules for mass tort settlements, lawyers do not use a pure averaging regime across all plaintiffs. Instead, they appear to take into account a number of factors, as demonstrated by the Vioxx calculator, which includes variables such as type of injury, severity of injury, length of ingestion of the drug, the claimant’s physical characteristics, etc.²⁴² Because this is what lawyers are doing on the ground—with judges’ help—this section will assume that sampling methodology will take into

238. KENNETH R. FEINBERG, *WHAT IS LIFE WORTH? THE UNPRECEDENTED EFFORT TO COMPENSATE THE VICTIMS OF 9/11*, at 21–26 (2005).

239. *Id.* at 182–83.

240. *See supra* subparts I(B)–(C).

241. *See Bone, supra* note 25, at 584–86 (noting that courts could perform a linear regression over a sample instead of using a sample average but explaining that increasing the accuracy of any such regression compels adding more variables into the model, requiring more measurements and increasing costs).

242. *Vioxx Settlement Calculator, supra* note 120.

account some objective factors such as those that were taken into account in the Vioxx settlement.

Imagine a sample of cases is tried and half the plaintiffs are awarded \$100 and the other half awarded \$50. The average award for this group of plaintiffs is \$75. If all the plaintiffs are assigned an award of \$75, the plaintiffs who either did receive or would have received \$100 are subsidizing those that did or would have received \$50, because the extrapolation process awards them \$25 less than they would have been awarded at trial. In their article defending sampling, Michael Saks and Peter Blanck argued that this outcome is justifiable compared with the baseline of individual trials because the result of any individual trial is only one possible result out of many.²⁴³ Saks and Blanck explained that “[e]very verdict is itself merely a sample from the large population of potential verdicts.”²⁴⁴ Assume for our simple hypothetical that if a single plaintiff’s case was tried a number of times and these results were averaged, the average award would be \$75. This is more accurate than a verdict of either \$100 or \$50, because the first overcompensates and the second undercompensates the plaintiff.²⁴⁵ The best estimate of the “true” award is the average.²⁴⁶ The argument is that because the population is similar to one another in all relevant ways, the average of a sample of cases will yield the same “true” award as the averaging of a series of trials of the same case under similar conditions.

One problem with this argument, as Saks and Blanck themselves recognized, is that populations of plaintiffs are not homogenous in the real world.²⁴⁷ Verdicts that fall far outside the population mean of the distribution may represent real differences among plaintiffs. An extrapolation process based on averaging erases these differences even though they are legally relevant, thus violating the normative principle underlying the procedural law: that plaintiffs should receive the measure of damages they are entitled to under the substantive law. A simple hypothetical illustrates the point: A group of people experienced damage to their hands. Most of the group is made up of white-collar workers, but among them is a concert pianist. Assume that the damages experienced by the concert pianist—who has lost her livelihood as the result of the hand injury—are far greater than those experienced by one of the white-collar workers. If being a concert pianist is not a variable that can be considered in the averaging process, then the

243. See Saks & Blanck, *supra* note 23, at 833 (arguing that a damages award in an individual tort case is just as much an estimate—and a more inaccurate one at that—of actual damages as a sample average).

244. *Id.*

245. *Id.* at 834.

246. *Id.*

247. *Id.* at 837, 845; see also Bone, *supra* note 25, at 573 (“Because factual issues vary among class members and cases are not homogenous with respect to damages, sample plaintiffs do not represent those not sampled in the same way that plaintiffs in a small-claimant class represent absentees.”).

presence of the concert pianist will distort that process. One kind of distortion will occur if there is no concert pianist among the cases sampled for trial. In that case, the extrapolation process will award the pianist an amount far lower than she is entitled to. A second type of distortion will occur if a concert pianist is included in the sample. Her presence will increase the average award for white-collar workers who ought not receive an increased award.

The problem of the concert pianist would be easily resolvable if the procedure used for sampling can take her presence into account. For example, the court could survey the population of plaintiffs to determine whether there is a concert pianist among them. Presumably, being a concert pianist is an objectively verifiable fact, and the sampling process can take the presence of a concert pianist or two in the population into account in the construction of the model. That is what makes this example an easy one. But what about other variables that are not so easy to take into account in the extrapolation process, either because it is too costly to survey the population of plaintiffs or because these variables are not objectively verifiable and therefore difficult to take into account in a statistical model? For example, certain preexisting conditions may lower jury verdicts either because they cause reduced life expectancy or because jurors have a tendency to be less sympathetic to the underlying condition. There are ways to resolve the more complex problems raised by real-world sampling in litigation,²⁴⁸ but before considering them, it is worthwhile to step back and face the basic question raised by sampling: What is the basis for assigning damages in a tort case?

The arguments about sampling in tort cases presented so far are based on an underlying assumption that pervades the scholarship and the negative precedent on sampling: there is an accurate measure of damages (the “true” measure), and the job of the tort system is to approximate it.²⁴⁹ Whether that accurate measure is a single number or a narrow range, the assumption is more or less the same: there is an objectively verifiable number external to the tort system against which the amount of damages awarded by the jury can be measured. But what if that assumption is erroneous? Part I of this Article attempted to demonstrate that even if such an objective measure of damages were possible from a God’s eye point of view, it is not available to mere mortals.²⁵⁰ Instead, uncertainty pervades tort law.

Consider the case of the \$50 and \$100 damage awards. If there is an observable and legally justifiable reason why some cases fell into the \$100 category and others into the \$50 category, then the adjudicator must find a

248. See Joseph B. Kadane, *Probability Sampling in Litigation*, 17 CONN. INS. L.J. (forthcoming 2011) (manuscript at 3–6) (on file with author) (providing examples of random-sampling techniques used in litigation).

249. See, e.g., Bone, *supra* note 25, at 577 (discussing the possibility that accuracy in damages awards constitutes a “range” but also stating that “the more competent the jury, the closer its verdict will be to the correct amount”).

250. See *supra* subpart I(A).

way to distinguish between these two types of cases. But suppose everyone suffered the same severity of injury. In that case, they all suffered a \$75 harm. If the difference in the two outcomes represents variability for reasons that we cannot measure or for reasons that we think are morally irrelevant, such as plaintiffs' physical attractiveness or race,²⁵¹ then redistributing the difference between the two outcomes among the plaintiffs is the fairest approach. This redistribution benefits the least well-off (a \$75 plaintiff who was awarded \$50) at the expense of the best off (a \$75 plaintiff who was awarded \$100).

When no legally defensible reason dictates outcomes, the primary objection to the process of averaging falls away because averaging does not redistribute awards from the most harmed to the least harmed. Instead, this system distributes awards equally among those who are (more or less) equally harmed. The key dispute is whether it is systemically acceptable to treat equally plaintiffs who are (more or less) equally harmed, rather than requiring that only identical plaintiffs be treated the same. Since no person is identical to any other, a system that requires equal treatment only of identical litigants will provide equal treatment to nobody. Sampling requires an acceptance that the values assigned in tort cases can be extrapolated across populations of similarly situated individuals because those values are assigned (and contingent) rather than approximations of some inherent value. This observation restates the basic tension between liberty and equality.

To accept this argument means accepting two additional assumptions. First, variation in awards is not always justifiable. Awards may vary because of the parties' race or gender, the quality of their lawyer, or other extralegal factors. Studies show that at least some variation between verdicts in similar cases is not related to the application of the substantive law but stems from other factors—such as the plaintiffs' race—so that similarly situated black plaintiffs receive lower verdicts than white plaintiffs.²⁵² Second, uncertainty pervades the tort system. This phenomenon is widely recognized. For example, as prominent tort scholars Kenneth Abraham and Glen Robinson explain,

[I]t can hardly be denied that there is randomness in outcomes and that this randomness is in substantial degree a function of insisting that each claim be valued in isolation from any other. Any such randomness must be seen as a flaw in the system that undermines the system's accuracy and fairness.²⁵³

251. See Martha Chamallas, *The Architecture of Bias: Deep Structures in Tort Law*, 146 U. PA. L. REV. 463, 465–66 (1998) (describing racial and gender disparities in tort damage awards and settlements); Jennifer B. Wriggins, *Torts, Race, and the Value of Injury, 1900–1949*, 49 HOW. L.J. 99, 136 (2005) (same).

252. See Wriggins, *supra* note 251, at 136 (citing one study that found that black plaintiffs received awards that were 74% of what white plaintiffs received for comparable injuries).

253. Abraham & Robinson, *supra* note 26, at 147.

While studies of jury verdicts have found that there is a correlation between severity of injury and size of award, they have also found that jury verdicts vary for reasons that we do not understand.²⁵⁴ If the variation is not warranted by the facts of the individual case but instead is a result of extralegal factors or noise, then it is not justified. Statistical analysis can help start a conversation about what factors ought to be relevant and to what extent verdicts or settlements are influenced by variables that ought to be irrelevant.

Extrapolation by averaging is further justified because it benefits the plaintiffs that are most harmed under the current regime by making certain that unjustifiably low awards are equalized with the unjustifiably higher awards of similarly situated plaintiffs. In the previous example, the plaintiffs that are most harmed are those whose damages ought to have been assigned a value closer to \$100 but for unknown reasons receive only \$50. Sampling and extrapolation reduces the risk that a plaintiff will be assigned an outlier award that is lower than the awards of comparably situated plaintiffs. This same plaintiff gives up the chance to receive a higher award than similarly situated plaintiffs by becoming part of the extrapolation process. This loss of a chance to obtain an award at the high end of the range is not unfair. Fairness requires that like cases be treated alike, that differences among similarly situated persons be justified, and that individuals receive what they are entitled to under the substantive law. It does not entitle plaintiffs to participate in a lottery for the highest possible damages award. Limiting unjustifiably high and low awards is a requirement for treating cases equally.

In sum, a sample picked randomly from the correct reference class will yield fair results, so long as the extrapolation process is able to take into account objectively verifiable variables and does not systematically devalue certain categories of claims for socially undesirable and legally impermissible reasons. While sampling cannot correct underlying social inequality—because this is not an aim of the substantive law—it can be a part of a procedural system in which plaintiffs obtain what they are entitled to under the substantive law.

This analysis leaves open some important concerns that will be addressed later in this part. First, it is predictable that plaintiffs who have a chance at higher value awards due to extralegal factors will opt out of a sampling process that uses averaging if they are allowed to, causing it to collapse. Second, what about subjective variables that are important to the law, such as the plaintiff’s experience of emotional distress? That is, how is the adjudicator to deal with uncertainty in structuring the statistical model? Third and finally, how can an adjudicator structure a sampling regime to avoid bias? These issues will be addressed below.

254. See *supra* subpart I(B) (describing studies of variance in jury verdicts).

Before turning to these concerns, however, two additional benefits of sampling will be discussed. First, a sampling regime can be used not only to determine case values but also to determine the order in which cases will be heard. This permits adjudicators to order dockets to maximize equality among litigants. Second, sampling promotes transparency, which is an important value in its own right. Transparency also promotes equality by permitting comparison between similarly situated litigants. The tort system ordinarily obscures such comparisons.

2. *Fairness in Timing and Case Management.*—As noted in the earlier discussion of the arguments in favor of equality, the timing of case resolution is a crucial component of fairness among litigants.²⁵⁵ Delay in a hearing causes two problems. First, it may reduce accuracy because of the passage of time. Second, it imposes an additional burden on the plaintiff with a valid claim waiting for compensation. Sampling allows the judge to ameliorate these twin problems of delay. First, by getting some cases underway, evidence is brought forward while it is fresher in witnesses' minds. Second, by favoring the most damaged plaintiffs in the order of cases tried or resolved, it limits the most egregious effects caused by the wait for adjudication.

Arguably, the decision to resolve cases on a first come, first served basis—as our system currently does—is fair in much the same way a lottery is fair. Each litigant, no matter their importance outside the judicial system, the subject matter of their case, or the extent of their injury, will be heard in turn.²⁵⁶ To the extent that the timing of filing can be very roughly correlated to the timing of the injury, it makes sense to allow those injured first to be heard first.²⁵⁷ This approach (very roughly) solves the problem of unfair timing by moving each individual's case forward in the order that they were injured. Thus, all injuries are treated equally in a formal sense. First come,

255. See *supra* notes 144–52 and accompanying text; see also Robert G. Bone, *The Puzzling Idea of Adjudicative Representation: Lessons for Aggregate Litigation and Class Actions*, 79 GEO. WASH. L. REV. 577, 621–22 (2011) (“Assuming all plaintiffs have similar cases (as in a mass tort) and that they file at different times because of chance events, . . . arguably there is good reason to treat all of them equally.”).

256. As a formal matter, jumping the line requires a showing of irreparable injury or imminent harm. A temporary restraining order, for example, may be granted without notice to the other party upon a showing of “immediate and irreparable injury,” and if such an order is issued a preliminary injunction hearing must take precedence over other matters. See FED. R. CIV. P. 65(b)(1) (authorizing temporary restraining orders without notice); FED. R. CIV. P. 65(b)(3) (setting the timing for a preliminary injunction hearing following grant of a temporary restraining order); *Winter v. NRDC*, 129 S. Ct. 365, 374 (2008) (observing that the four-part test for granting a preliminary injunction includes consideration of the likelihood of the movant suffering irreparable harm in the absence of the injunction). As a practical matter, judicial docket control adds some discretion into the order in which cases are heard.

257. First come, first served would be a fair approach in cases where the timing of manifestation of injury correlates to harm (that is, the most injured file first). It is less fair in cases where the weaker cases are filed first. But “we do not usually associate lotteries with adjudication.” Bone, *supra* note 25, at 621.

first served does not take special account of those who suffer most by waiting, either because of evidentiary problems caused by delay or because the cost of waiting is higher for them than for other litigants.

For the most harmed, the civil justice system allocates the timing of litigation poorly. This problem is aggravated in cases where individuals suffer injuries in and around the same time period. In that case, there does not seem to be a good justification for privileging the savviest litigants or the fastest filers when other individuals, who are not as quick or savvy but have been harmed to the same or to a greater extent, languish. Instead, the court should approach such litigation as if all cases were filed at once.

Once deciding to treat all cases in a mass tort as simultaneously filed, the judge faces the question of what other criteria ought to be used to determine priority. Courts ought to order the cases in a way that most comports with the ideal of litigant equality and with the principle that social institutions such as the courts should be used for the common benefit. One option is to choose the cases to be heard first on a random basis—by a lottery. This would give everyone an equal opportunity to be heard in a timely manner. Such a random selection would compound the harm to those who are not selected by lottery but were severely damaged, because it would delay their compensation.²⁵⁸ A lottery, therefore, would be a detriment to the least advantaged plaintiffs. It would be better either to pick the most harmed cases first or to sample from each tier and litigate the sample cases simultaneously.

There are serious difficulties with the most-harmed-first approach, however. First, it is difficult to determine which plaintiff is the most harmed. Is it the one entitled to the highest award in monetary terms under the substantive law or the one who perhaps is entitled to a lesser award but enters the legal system with the greatest need for his award? This question returns us to the problem of social luck, which goes largely unaddressed by the tort system. There is an opportunity for judges to take such considerations into account in case management because they are discretionary, for the most part. But if we set aside this problem for a moment, there is no justification for treating those with less severe harms more favorably than those with more severe harms. Doing so increases the inequality already suffered by the severely harmed. Accordingly, a court is justified in choosing the most severe cases to be heard first, with the court’s challenge being how to define the meaning of “most harmed.”

A second challenge to the most-harmed-first approach is that it appears to conflict with the principle of randomization. If the most harmed are disproportionately selected for trial, then the sample is by definition not random. The reason there is no conflict, however, is that severity of harm ought to be one of the parameters of the appropriate reference class. A

258. The most harmed plaintiffs who were in fact selected to go first would benefit under such a regime. Only the most harmed plaintiffs not selected to go first would have their suffering compounded by delay.

rigorous sampling process would not average the results of sample trials of substantially harmed individuals with those of individuals who were only minimally harmed. Instead, the population of similarly harmed individuals would constitute a reference class, and the sample would be randomly chosen from that group. To use the earlier example of hand injuries, the court would survey the litigants to determine which ones were concert pianists and sample from that group first. The results of that sample would be extrapolated to all the concert pianists. Then the court would randomly sample from the population with lesser harms—the white-collar workers—and the results from those trials would be extrapolated to the other white-collar workers.

The most-harmed-first approach was adopted by Judge Hellerstein in the WTC Disaster Site Litigation. Instead of hearing cases on a first come, first served basis, he singled out the most harmed plaintiffs and sampled from that group.²⁵⁹ This required substantial data collection, which is necessary in any event in order to determine the appropriate reference classes for sampling. In the WTC Disaster Site Litigation, this data came largely from plaintiffs themselves (and their attorneys).²⁶⁰ Self-reporting creates some possibility for sloppy, mistaken, or even fraudulent reporting, and the court must design incentives to prevent this behavior as well as systems for monitoring lawyers. The design of such systems is beyond the scope of this Article, but it is important to recognize that successful policing of misrepresentation is an important part of fair statistical-adjudication procedures.²⁶¹

3. *Transparency.*—A statistical-adjudication procedure will lead to greater transparency of outcomes to the public and litigants for several reasons. First, to the extent that sampling leads to trials, the process and the results of those trials will be publicly available. Second, court rulings with respect to docket management and sampling procedures will be published or available at the courthouse. Already most decisions in high-profile multidistrict litigation may be accessed free of charge on court websites, although transcripts of hearings and expert reports are ordinarily not available online.

Third, because judges, special masters, or experts must articulate the reasons for pursuing a particular sampling regime, choosing reference classes, and determining relevant variables, the reasoning behind these decisions will be available to litigants (at a minimum) and ought to be available to the public as well. As mentioned earlier, the Vioxx settlement claims administrator created an online calculator that shows how a plaintiff with the relevant characteristics will be compensated under the settlement regime.²⁶²

259. Order Amending Case Management Order No. 8, *supra* note 19, at 2–3.

260. *See supra* note 226 and accompanying text.

261. *See, e.g.,* S. Todd Brown, *Specious Claims and Global Settlements*, U. MEM. L. REV. (forthcoming 2012) (manuscript at 4–20), available at <http://ssrn.com/abstract=1783792> (comparing three mass tort case studies and analyzing the effect that a high volume of claims has on a court's and a defendant's ability to identify and dispose of specious claims).

262. *See supra* note 120.

The settlement in the WTC Disaster Site Litigation is also publicly available, although there is no calculator for damages as of yet, and the judge initially expressed concern that the valuation process for individuals was not sufficiently transparent for litigants to make informed decisions about whether joining the settlement would be beneficial for them.²⁶³ In that case, the judge even held a fairness hearing, although there is no legal mandate to hold one in aggregate litigation.²⁶⁴

Because judges must justify sampling regimes, sampling brings to the forefront and makes transparent usually unarticulated assumptions about what does and what ought to matter in evaluating compensation in tort cases. Although lawyers and judges may have an informal sense of these assumptions, they are rarely, if ever, publicized, and the informal senses may well be wrong, even though the participants are experts.²⁶⁵ Sampling therefore leads to greater rigor in methodology, creates accountability through publicity, and encourages the type of openness and dialogue that ought to be the hallmark of a civil justice system in a democracy. It enforces the type of reason giving for differential treatment that is required by the right to outcome equality.

C. *The Challenges of Sampling*

Achieving outcome equality through sampling and similar Trial by Formula procedures is not easy. This subpart considers the flaws in sampling processes utilized by district court judges to achieve outcome equality. Sampling in litigation is challenging for four reasons: (1) the opt-out problem, (2) risk of sample bias, (3) uncertainty, and (4) cost. First, if plaintiffs believe that an averaging regime will systematically lower the highest value awards, most will opt out, making any sampling regime impossible to implement. Second, the design of any statistical experiment requires an unbiased sample, a requirement that has not been met by the informational sampling procedures courts currently use. Third, variation in the results of adjudication is sometimes difficult to explain and creates impediments to the construction of a fair extrapolation process. Finally, a rigorous sampling

263. See Mireya Navarro, *Federal Judge Orders More Talks on 9/11 Deal*, N.Y. TIMES, Mar. 20, 2010, available at <http://www.nytimes.com/2010/03/20/nyregion/20zero.html> (“Judge Hellerstein also said that the terms of the settlement were too complicated for the plaintiffs to be able to reach an ‘intelligent decision’ on whether to accept it.”).

264. Mireya Navarro, *U.S. District Court Approves Ground Zero Health Settlement*, N.Y. TIMES, June 24, 2010, available at <http://www.nytimes.com/2010/06/24/nyregion/24zero.html>; see also *In re Zyprexa Prods. Liab. Litig.*, 424 F. Supp. 2d 488, 491–92 (E.D.N.Y. 2006) (coining the term “quasi-class action” to describe the application of class action protections to aggregate litigation).

265. See William M. Grove & Paul E. Meehl, *Comparative Efficiency of Informal (Subjective, Impressionistic) and Formal (Mechanical, Algorithmic) Prediction Procedures: The Clinical-Statistical Controversy*, 2 PSYCHOL. PUB. POL’Y & L. 293, 298–99 (1996) (demonstrating that expert opinions are not better (and are often worse) than very crude statistical predictions). Thanks to Peter Siegelman for this point.

regime is also likely to be more costly than the informal, lawyer-driven sampling regime currently in use. This subpart will discuss each of these problems in turn and demonstrate that they do not pose serious impediments to the success of a sampling regime and to the realization of litigants' rights to outcome equality.

1. *The Opt-Out Problem.*—Where there is substantial variation among plaintiffs, an averaging regime will redistribute damages from plaintiffs with the cases assigned the highest value (the \$100 plaintiffs in our prior example) to those assigned the lowest value (the \$50 plaintiffs). Under averaging, plaintiffs who might have received \$100 will now receive only \$75, and plaintiffs who might have received \$50 will now receive an extra \$25. If a system such as this grants plaintiffs the autonomy to exit, one would predict that the pool would suffer from adverse selection.²⁶⁶ The plaintiffs with the greatest anticipated awards will opt out of the procedure and leave only the plaintiffs with the lowest value claims to participate. This is because those with greater anticipated awards will predict that they will be systematically undercompensated in the averaging process. Each plaintiff can anticipate that other plaintiffs with higher awards will not participate, causing the average compensation to be reduced until finally only plaintiffs with claims not otherwise worth litigating will be left in the procedure. Enabling plaintiffs to opt out of a sampling procedure will result in its unraveling.

David Rosenberg has proposed mandatory class actions as a solution to the unraveling problem.²⁶⁷ This solution is sound in theory, but in practice it is unlikely to succeed—at least as a court-driven procedural innovation—because it runs against the tide of the Supreme Court's individualist jurisprudence, which has consistently limited mandatory class actions.²⁶⁸ Legislative change would be required to implement it.

An insight from the economic analysis of law, confirmed by the practice of aggregate settlement on the ground, indicates that sampling procedures may successfully retain plaintiffs even where no mandatory class can be certified. Adverse selection in the litigation context depends on the plaintiffs knowing more about their claims than the court knows.²⁶⁹ Where plaintiffs

266. See George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 492–94 (1970) (describing the concept of adverse selection in the context of the insurance market, where "as the price level rises the people who insure themselves [are] those who are increasingly certain that they will need the insurance[,] . . . with the result that no insurance sales may take place at any price"). For a comprehensive and critical discussion of the concept, see generally Peter Siegelman, *Adverse Selection in Insurance Markets: An Exaggerated Threat*, 113 YALE L.J. 1223 (2004).

267. Rosenberg, *Mandatory-Litigation Class Action*, *supra* note 22, at 833.

268. See *Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541, 2557–61 (2011) (decertifying a mandatory injunctive class action); *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 864–65 (1999) (decertifying a mandatory limited fund class action).

269. Cf. Alma Cohen & Peter Siegelman, *Testing for Adverse Selection in Insurance Markets* 18–23 (Harvard John M. Olin Ctr. for Law, Econ., & Bus., Discussion Paper No. 651, 2009),

are not able to outguess the court or jury with respect to their award, they will not be able to engage in adverse selection. The current popularity of informal sampling procedures to spur settlement despite inconsistent verdicts is good evidence that plaintiffs (and their lawyers) do not know more about the probable outcome of their cases than the court does. For example, the verdicts in the Vioxx cases that were tried to juries varied substantially. Some cases resulted in \$50 million verdicts, others in no liability.²⁷⁰ Even cases decided in the same forum under the same legal regime were split. Of the five cases tried in New Jersey state court, two were defense verdicts and three resulted in multimillion-dollar verdicts for plaintiffs.²⁷¹ There was some reasonable means of distinguishing these cases, as evidenced by the fact that in the settlement the lawyers were able to come up with a schedule for assigning damages.²⁷² Nevertheless, it does not seem that either side was able to predict outcomes. Even if lawyers were equipped to predict jury verdicts reliably, judges retain the power to reduce awards through motions for judgment as a matter of law, remittitur, and judgment on appeal.

A mass exodus of plaintiffs from a sampling procedure indicates that the plaintiffs can predict that they are likely to obtain a greater award by pursuing a lawsuit on their own than the extrapolation process would award them. To the extent that this prediction is based on ascertainable variables, these variables should be included in the model, obviating the need for plaintiffs to opt out. If their prediction is based on over-optimism or risk-seeking behavior, there is little to be done other than educating plaintiffs.

In a sampling procedure, the plaintiff gives up the chance to receive an outlier award in exchange for the guarantee of an average payment that is paid out more quickly than waiting in line. That this exchange is beneficial for plaintiffs is demonstrated by plaintiffs’ near universal acceptance of the Vioxx and WTC Disaster Site Litigation settlements.²⁷³ If the variability of the distribution in the group of plaintiffs is not too great, sampling will equalize awards among similarly situated persons and prevent some individuals from receiving lower awards than they should for extralegal or unjustifiable reasons. For these reasons, both risk-neutral and risk-averse plaintiffs ought to prefer a sampling regime to individual litigation even though that regime averages verdicts.

available at <http://ssrn.com/abstract=1513354> (describing cases where individuals are not able to outguess insurance companies so that they cannot engage in optimizing behavior that characterizes adverse selection).

270. See Lahav, *Recovering Social Value*, *supra* note 118, at 2394 & nn.106–07 (collecting Vioxx verdicts); see also Alexandra D. Lahav, *Vioxx Verdicts*, MASS TORT LITIG. BLOG (Oct. 29, 2009), http://lawprofessors.typepad.com/mass_tort_litigation/2009/10/vioxx-verdicts-.html (same).

271. Lahav, *Recovering Social Value*, *supra* note 118, at 2394 & nn.106–07.

272. See *Vioxx Settlement Calculator*, *supra* note 120 (providing a series of factors used to approximate each claimant’s share of the settlement).

273. See *supra* notes 222–33 and accompanying text (describing the WTC Disaster Site Litigation and settlement); *supra* notes 108–21 and accompanying text (describing the Vioxx settlement).

2. *Sample Bias*.—The most important issue in sampling—whether done on an anecdotal basis by an individual lawyer negotiating a settlement on behalf of a client or engineered by a court in the context of aggregate litigation—is whether the sample is skewed. One must always suspect that any nonrandom method of picking sample cases will be skewed and therefore will be an inaccurate estimate of the population average. Second, even if the sample is an accurate estimate, verdicts may vary for reasons that cannot be explained. In such a case, the question becomes, what is the significance of the variations? Are they pure noise, or is there some variable present for which we need to account?

Sample bias is a substantial problem in the current system. Consider for a moment how the ordinary lawyer is likely to obtain data for determining the “going rate” of settlement. The lawyer may be familiar with values in a set of comparable cases that went to trial because the verdict is publicly available, or that the lawyer settled or had access to prior settlement data through informal channels. Thus, the lawyer will either be able to use public records or friends and colleagues to obtain a dataset.

Trial verdicts are particularly likely to provide unreliable samples for comparison. There are two reasons for this. First, cases that go to trial are aberrations.²⁷⁴ A case is likely to reach trial when the parties are very far apart in evaluating the case.²⁷⁵ As a corollary, any case where the result is predictable by both sides is very unlikely to reach trial. After all, if the parties feel comfortable in their ability to predict the outcome, they are much better off settling and avoiding the transaction costs of an expensive trial. Second, parties decide whether to go to trial. Repeat players can therefore systematically skew the sample of publicly available verdicts in order to shape an end result that is most favorable for them. Defendants have an easier time doing this because they can offer settlements to plaintiffs they believe have strong cases and let weaker cases go to trial.²⁷⁶

As an example of the selection bias in trials, consider the case of *In re Rhone-Poulenc Rorer Inc.*²⁷⁷ In that case, a group of hemophiliacs who were infected with AIDS through use of tainted blood products brought a class

274. See Judith Resnik, *Trial as Error, Jurisdiction as Injury: Transforming the Meaning of Article III*, 113 HARV. L. REV. 924, 925–26 (2000) (highlighting the increasing rarity of trials).

275. See Richard A. Posner, *The Summary Jury Trial and Other Methods of Alternative Dispute Resolution: Some Cautionary Observations*, 53 U. CHI. L. REV. 366, 370–71 (1986) (noting that narrowing the divergence between parties’ perceived probabilities of the outcome at trial will make settlement more likely). Much has been written on the theory of settlement in the field of law and economics. For a somewhat dated but very useful review of the literature, see generally Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LITERATURE 1067 (1989).

276. See Marc Galanter, *Why the “Haves” Come Out Ahead: Speculations on the Limits of Legal Change*, 9 LAW & SOC’Y REV. 95, 101–02 (1974) (discussing, among other advantages, repeat players’ ability to settle cases where they expect unfavorable rule outcomes and adjudicate those that they regard as likely to produce favorable rules).

277. 51 F.3d 1293 (7th Cir. 1995).

action against the manufacturers of those products.²⁷⁸ In an opinion written by Judge Richard Posner, the Seventh Circuit held that the case could not proceed as a class action, reasoning (among other things) that the class action would exert such extreme pressure on the defendant that it would be forced to settle.²⁷⁹ In support of the claim that such pressure was unwarranted, Judge Posner relied on the fact that twelve of the thirteen cases that had gone to trial resulted in defense verdicts.²⁸⁰ The opinion did not note how it came to be that these particular thirteen cases went to trial. It is possible, for example, that the defendant settled all or most trial-ready cases prior to trial and only permitted those cases it was likely to win to go forward. If that were the case, any conclusions drawn from this sample of thirteen blood-products cases would have been biased in favor of the defendant.

For those watching the litigation from afar, it is quite difficult to tell why some cases reached trial and others settled, leaving ample possibility for sample bias. This means that conclusions based on trial outcomes without more information are likely to lead to indefensible results. By *indefensible*, I mean results that are not justifiable by reference to outcomes in similar cases that never reached trial because of the machinations of one side or the other.

Random selection is critical to obtaining a useful sample. Convenience samples based on the lawyer’s personal experience or the experiences of colleagues suffer from potential bias because they are not randomly selected. If the lawyer can conduct rigorous qualitative research, namely by collecting a broader set of cases on which to base his or her evaluation and using them to develop a fine-grained theory of which variables in that sample are relevant to case outcomes, there is a greater chance that this evaluation will accurately reflect the going rate of settlement. Even so, qualitative methodology requires recognition of its own limitations, such as the potential of sample bias and the difficulty of finding correct points of comparison. It is most beneficially used in conjunction with quantitative methods that can verify findings. Similarly, even when qualitative methods are rigorous, some type of quantitative analysis is still useful.

In any event, there is no evidence that lawyers use any type of rigorous qualitative study in determining settlement amounts. If such rigorous methods are used anywhere, it is likely in the insurance context, where companies collect data on settlements or perhaps where well-funded lawyers are repeat players. And even in the case of lawyers who are repeat players, it seems likely they would be satisfied with convenience sampling given that there is no incentive to use more rigorous methods.²⁸¹

278. *Id.* at 1294.

279. *Id.* at 1299.

280. *Id.* at 1299–300.

281. See Cass R. Sunstein, *What’s Available? Social Influences and Behavioral Economics*, 97 *Nw. U. L. REV.* 1295, 1297 (2003) (explaining that the concept of the “availability heuristic” causes people to rely on accessible, illustrative examples rather than genuine consideration of actual

3. *Uncertainty*.—The second most important issue in sampling is unexplained variability of the distribution of results. One of the key differences between the type of anecdotal methodology based on convenience sampling that lawyers use in the ordinary course of litigation and a court-engineered sampling methodology is the potential for the latter method to give an explicit account of variability. In situations where case outcomes are very heterogeneous, assigning case values is possible if we believe that the reasons for variation are “noise” rather than the effect of legally relevant variables that ought to have been taken into account. This assignment needs to be justified, however, and an extrapolation process requires that judges do so.

One solution to the variability problem is to set the parameters of the reference class more rigorously.²⁸² If the court is sampling from a reference class of cases that are similar to one another with respect to the key variables, then the result of sampling should be sufficiently homogeneous to be useful in valuing other cases in the reference class. That is, we can extrapolate the results of the sample to the rest of the reference class if all the cases are reasonably similar. But in order to decide the parameters of the appropriate reference class, the court will need to identify the variables that are relevant to case outcomes. In other words, determining the parameters of the reference class requires taking a normative position regarding which variables are important. Furthermore, these variables must be not only relevant but objectively verifiable.²⁸³ Variables that are not objectively verifiable—such as a person’s mental state—require time-consuming, individualized hearings in order to be identified in individuals. For this reason, innovative procedures that seek to extrapolate from a sample to a larger population of plaintiffs are less useful where subjective variables are crucial to determining outcomes.

Comparing the case at hand to a convenience sample may create the illusion that we know its value with certainty. In convincing clients to settle, lawyers are likely to be too sure that the client’s case is comparable to other cases they have in mind, even when those cases evidence a selection bias. By contrast, a transparent, rigorous sampling method engineered by the court is less likely to suffer from such failures. Inherent in the task of developing a sampling methodology for aggregate litigation ought to be a process for taking a hard look at the problems of sample bias and the significance of

probabilities); cf. Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 COGNITIVE PSYCHOL. 207, 230 (1973) (observing that individuals perceive an event as more probable if a similar event has recently occurred).

282. See Cheng, *supra* note 173, at 2095–97 (contending that, in legal contexts, using model-selection criteria to define the reference class will help to alleviate traditional reference-class problems).

283. See Lahav, *Bellwether Trials*, *supra* note 118, at 606 (noting that parties will attempt to manipulate the variables used to define a reference class unless there exists some “objective means” to define parameters that bound the group).

unexplained variability of distribution. A rigorous methodology must recognize that the model will not be perfectly determinative. The question for the participants in the statistical-adjudication procedure (and the court system more generally) is how much variance is too much? When does variance become normatively unappealing? My argument here is that unexplained variation due to noise is not normatively acceptable because it is inconsistent with the right to outcome equality.

To the extent that decision makers utilize good sampling methodology, aggregate litigation may in fact provide better individualized justice than “individualized” settlements based on convenience sampling. Both in the individual case and the aggregate case, plaintiffs receive settlements based on comparable cases. The more rigorous the methodology used to determine which cases are comparable, the closer the outcome of any individual case to the average damages assigned in a series of trials of similar cases. This average is the most defensible method of assigning a damages award.

Since our system monetizes injury in tort cases by comparison to outcomes in similar cases, especially in settlement, the key to a reliable valuation will be the quality of the sample used. At its best, a systematic, rigorous approach to sampling produces results that can be analyzed to assign a defensible value to a group of mass tort cases before the court. A rigorous approach to sampling avoids some of the biases and concomitant inequality in the assignment of damages that plague the convenience-sampling method.

4. *Cost.*—Cost has largely been the focus of the traditional debate about mass torts, which pits the individual right to participation against efficient resolution of cases. Understanding the positive effect of statistical adjudication on outcome equality adds a new dimension to this debate.

First, perhaps the right to equal treatment in litigation trumps cost considerations, even if it is determined that rigorous sampling is intolerably expensive as compared to the current pro-settlement regime. As examined in Part II, there is some basis in existing doctrine for recognizing a right to equal treatment in litigation, including equality of outcomes. A system that was extremely cost-effective would not be valid if it discriminated against certain protected classes, for example. A robust equality right, therefore, might trump cost considerations, just as the right to liberty or to a day in court has in the Supreme Court’s current jurisprudence.

How costly would a rigorous approach to sampling be? As described more thoroughly in the next section, a rigorous sampling experiment will require a survey of the plaintiffs to be sampled, calculations to determine the appropriate sample size, and a number of bellwether trials—likely greater than the four to fifteen trials that courts have experimented with in their past attempts at informational sampling. Experts will be needed to determine what type of statistical experiment is needed in order to assign reasonable values to plaintiffs’ cases. Trying any case is expensive and trying multiple cases will be even more so, although some economies of scale may be

achieved. Data collection and analysis will cost something, both in the initial survey and after the bellwether cases are tried. It is difficult to determine this cost in the abstract; setting a dollar value on the cost of a procedure requires a fine-grained knowledge of the type of work to be done in a particular case, such as the number of relevant variables to be taken into account, the variability within the plaintiff population, and the level of reliability that will be deemed acceptable.²⁸⁴ Data collection and analysis will be less costly in some cases than in others. It makes little sense, therefore, to consider the question of cost as an empirical, noncomparative matter divorced from a real-world example.

The question of cost, in the end, is fundamentally comparative. Every procedure costs something, so the question is, what is the baseline to which sampling is being compared?²⁸⁵ Due process doctrine also makes cost a relative matter. Under the *Mathews v. Eldridge*²⁸⁶ test, the risk of error is to be balanced against the cost of alternative procedures.²⁸⁷ Therefore, determining whether a rigorous sampling procedure meets the requirements of due process comes down to a comparison. The choice of baseline cost to which sampling is compared is a normative one. Accordingly, cost is not an independent argument against or in favor of sampling, but instead one that rides on the back of larger beliefs.²⁸⁸

For purposes of evaluating expense, should we compare innovative procedures to the normative baseline of current practice, which largely consists of settlements, or to the normative baseline of the “day in court” ideal? Either choice must be justified. Moreover, this choice is part of a larger debate about the private and public role of the tort system, the privatization of adjudication, and the decline of the civil trial.²⁸⁹ Compared to the baseline of the day-in-court ideal, sampling represents a real cost savings

284. See Kadane, *supra* note 248 (manuscript at 3–6) (describing cases in which different sampling methods were used).

285. See Cass R. Sunstein, *Lochner's Legacy*, 87 COLUM. L. REV. 873, 874 (1987) (“Market ordering under the common law was understood to be a part of nature rather than a legal construct, and it formed the baseline from which to measure the constitutionally critical lines that distinguished action from inaction and neutrality from impermissible partisanship.”).

286. 424 U.S. 319 (1976).

287. *Id.* at 335 (noting that a due process analysis requires “consideration of three distinct factors: First, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government’s interest”).

288. See Jerry L. Mashaw, *The Supreme Court's Due Process Calculus for Administrative Adjudication in Mathews v. Eldridge: Three Factors in Search of a Theory of Value*, 44 U. CHI. L. REV. 28, 30 (1976) (criticizing the Supreme Court’s analysis in *Mathews* as focusing too much on “questions of technique rather than questions of value” and thereby being “unresponsive to the full range of concerns embodied in the due process clause”).

289. See, e.g., John C.P. Goldberg, *The Constitutional Status of Tort Law: Due Process and the Right to a Law for the Redress of Wrongs*, 115 YALE L.J. 524, 626–27 (2005) (arguing in favor of a constitutional right to some kind of tort system); Resnik, *supra* note 28, at 549–51 (discussing privatization of the court system through increased use of arbitration).

because it means trying fewer cases, and trials are very expensive. Choosing the day-in-court ideal as the baseline entails a normative view of the litigation system as a public good. Trials are democracy-promoting events and sampling is a way to encourage them.²⁹⁰ On the other hand, choosing the extant regime of aggregate settlement as a cost baseline makes sampling seem very expensive. The current approaches to informational sampling sometimes involve trying no cases at all, and the bellwether trial plans put forth by judges generally include very few trials.²⁹¹ Compared to these practices, a rigorous sampling system would require many more trials and, therefore, would be more expensive. Finally, an analysis of cost must also consider whether the cost calculus takes into account costs to litigants only or to the judicial system²⁹² and whether the calculus will take into account some of the benefits of litigation, including information forcing.

Accordingly, even if the equality right is defined as a weaker right, it ought to be included in the due process calculus. Among the interests that ought to be included in the *Mathews* calculus, if it is applied in this context, is the government or court’s interest in the equal treatment of persons before the law and in giving reasoned justifications for differential treatment of similarly situated persons.

D. Requirements of a Rigorous Sampling Methodology

What are the requirements of a rigorous sampling technique? A reliable sample requires that the selection process be free from bias and that the sample be sufficiently large to produce reliable results given the variance of outcomes within the group.

Making sure that the sample is not biased is best achieved by collecting a random sample. Randomization has not generally been the practice in court-engineered sampling, but it should be. Courts seem to prefer a sample constructed by permitting defendants’ and plaintiffs’ attorneys to each choose an equal number of cases, with perhaps a few additional cases thrown in by the court.²⁹³ This method gives the parties the illusion of control. It has the merit of signaling the nature of the bias inherent in the sample. We can predict that the defendants’ attorneys will try to pick their best cases—that is, cases that will minimize recovery—whereas the plaintiffs’ attorneys are likely to pick the cases that maximize recovery. This knowledge can help

290. See Lahav, *Bellwether Trials*, *supra* note 118, at 594 (noting that bellwether trials promote democratic decision making).

291. For example, in the WTC Disaster Site Litigation only six trials (out of the first group of 2,000 cases) were originally planned. See *supra* note 230 and accompanying text (discussing the trial plan).

292. See generally Steven Shavell, *The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System*, 26 J. LEGAL STUD. 575 (1997) (discussing the failure of parties on both sides to take into account the social costs of litigation).

293. See Fallon et al., *supra* note 207, at 2349 (explaining that selection by attorneys is the best option when the pool for bellwether cases is being filled).

us determine how much we ought to discount the verdicts in the cases selected by the parties. Nevertheless, litigant-driven sampling encourages the selection of outlier cases and is not likely to produce a dataset that provides reliable information about the distribution of the larger set of cases.²⁹⁴ If that distribution is already known and it is possible to situate the biased sample cases within that distribution, the limits of this method may be surmountable. But that is impossible without some preliminary procedure, such as a survey using random sampling, to determine the characteristics of the larger population. In any event, if a larger study has been done, there is no need to follow it with biased sampling that cannot reveal information the court and litigants need to settle cases fairly.

A second requirement is that the sample be sufficiently large to provide reliable results. The size of the population of cases being measured does not dictate the size of the sample. Instead, the size of the sample will depend on the *variability* of the group.²⁹⁵ In the mass tort context, the special master ought to determine what observable and relevant criteria exist that can place individuals within acceptably homogenous subgroups and then sample from each of those subgroups. The samples need not be large. The more homogeneous the group, the smaller the necessary sample. Because tort cases present numerous potentially relevant variables, and because cases can differ from one another considerably (in relevant and irrelevant ways), courts need a good estimate of the variations within the group in order to determine what the size of the sample ought to be.

A preliminary estimate of the subgroupings within a mass tort may be obtained through the collection of data from the parties. For example, in the WTC Disaster Site Litigation, Judge Hellerstein ordered the parties to complete questionnaires to determine the variability within the group.²⁹⁶ The judge determined the size of the sample to be tried prior to the litigants actually completing the questionnaires.²⁹⁷ It seems he did this largely because the timing of completing the questionnaires would have held off sample trials for too long, delaying justice for individuals and leaving defendants in limbo. But this approach can result in too rough an estimate of damages.

In a rigorous sampling method, in contradistinction to the current informal practice, the variability in the population will determine the size of the sample. It is not possible to determine the appropriate sample size without first obtaining a sense of that variability. If the group is relatively homogeneous, then a small sample will be enough. But if there is substantial

294. *Id.*

295. See DAVID FREEDMAN ET AL., STATISTICS 371 (3d ed. 1998) (“[T]he likely size of the chance error in sample percentages depends mainly on the absolute size of the sample, and hardly at all on the size of the population”).

296. See Order Amending Case Management Order No. 8, *supra* note 19, at 1–2 (ordering parties to gather and turn in plaintiffs’ responses to questionnaires).

297. *Id.* at 2.

variation within the group, the sample size will need to be larger. To know the margins of variation, courts need to obtain information about the population to be sampled through surveys such as that used in the WTC Disaster Site Litigation or past experience.

So why do courts try a sample that is likely too small? First, the court might move a few cases toward trial on the theory that the momentum will result in settlements. The object of the procedure in that case is not to construct the most reliable procedure to assign damages but to construct a procedure that will promote settlement. The momentum approach seems to have been adopted in the September 11th Litigation. In that case, the judge slated cases for trial explicitly in order to encourage settlement, on the theory that even a single verdict would bring the settlement offers on both sides closer together.²⁹⁸ No case has been tried, but a number were settled as they approached trial.²⁹⁹

Second, as cases proceed through pretrial litigation—discovery, summary judgment, and motions in limine—lawyers narrow their claims and develop a keener sense of the story that they will be able to tell at trial. These developments might be called the “soft benefits” of sampling. The questions presented in a given case are framed more precisely, and often, some of the claims initially included in the complaint fall away. Furthermore, summary judgment decisions, especially those on questions of law where individual variables are not likely to matter, dispose of issues that are similar in the larger population of cases. Even if such decisions are not preclusive as a formal matter, they serve as an indicator of what is likely to occur in the other cases presenting similar issues consolidated before the same judge. When the court decides such dispositive or key issues, lawyers use them to develop a finer sense of the possibilities in other cases. But the reliability of these predictions is not the same for all issues facing litigants. The closer the decided issue is to a question of law applicable across cases, the more likely it is that the judge’s decision will have an impact on other cases in the reference class.

Permitting a small sample of cases to go forward on a limited basis, even if the results cannot be reliably extrapolated across cases, can be very useful in case coordination and issue refinement. Nevertheless, courts must recognize the limits of an approach that does not use a reliable sample. If the results of a very limited convenience sample are used to determine outcomes in a broad range of cases without attention to the variables that differentiate

298. See Opinion Supporting Order to Sever Issues of Damages and Liability in Selected Cases, and to Schedule Trial of Issues of Damages at 5, *In re* Sept. 11th Litig., No. 21 MC 97 (AKH) (S.D.N.Y. July 5, 2007), available at http://www.nysd.uscourts.gov/docs/rulings/21MC97_opinion_070507.pdf (explaining that cases were chosen for trials of damages to hasten their resolution as well as the resolution of other cases).

299. See Order at 1–2, *In re* Sept. 11 Litig., No. 21 MC 97 (AKH) (S.D.N.Y. Sept. 17, 2007), available at http://www.nysd.uscourts.gov/docs/rulings/21MC97_order_091707.pdf (ordering fourteen cases closed due to settlement).

those cases, the result will not reflect a reasonable assignment of damages based on comparable cases. Such a process would violate the right to outcome equality and be unfair to the litigants.

Even if the larger population is meticulously studied and grouped into more homogenous categories based on observable and relevant criteria, there will still be some noise. This noise will be caused by variables that are not observable although legally relevant or that are not legally relevant but nevertheless alter the outcome in a given case. Furthermore, there may be variables that are observable and relevant but are so rarely present that it is difficult to take them into account through sampling.

To illustrate, return for a moment to the hypothetical group of individuals suffering hand injuries. Recall that most of them are white-collar workers but one is a concert pianist. Everyone involved in the litigation may agree that the concert pianist should receive greater compensation than a lawyer for the same hand injury. But she presents a significant problem for the sampling procedure. It is hard to predict the presence of the concert pianist within the group. If the concert pianist is within the sample, then her presence will skew the results and the rest of the group will be overcompensated. But if the fact that she is a concert pianist is not taken into account for her individual case, then she will be undercompensated. The court will need to realize that the presence of a pianist is a relevant factor that should be included in the model. In the alternative, the concert pianist may choose to opt out of the procedure in advance. But she will only do so if she can predict the makeup of the rest of the group, that is, if she can identify herself as an outlier.³⁰⁰ If the costs of determining variables such as the presence of outliers are very great, this presents a problem for implementing a sampling procedure in the real world. The success of scheduling of injury valuation in mass settlements to date indicates that outliers will not pose an insurmountable barrier.

Rigorous sampling forces litigants and the court to face the issue of variance in the distribution of damages awards. It requires courts and litigants to think systematically about both the generic case of the white-collar worker and the outlier case of the concert pianist. Courts must either justify treating the concert pianist the same as a white-collar worker or create a procedure to fairly distinguish her case. Such systematic consideration is the first step to a fair and transparent resolution of large-scale litigation. It is also a requirement for realizing the right to outcome equality in litigation. The alternative is not likely to be the vindication of liberty through an accurate determination of each case through individualized litigation. Instead, the result will be the even rougher justice of convenience sampling.

300. See *supra* note 269 and accompanying text (discussing how adverse selection will only be a problem if the litigant knows more than the judge about likely outcomes).

The trend toward informal sampling as a method for encouraging settlement brings the traditional method of case valuation—comparison—out of the shadows. Sampling illustrates, counterintuitively, that justice administered at the wholesale level may be less rough than that at the individual level precisely because random sampling is better than convenience sampling. Statistical techniques like sampling also allow participants in the civil justice system to quantify risk. In ordinary litigation, there is also a risk of error and the presence of uncertainty, but it goes unarticulated and too often is ignored. The result is unexplained variation and inequitable outcomes. Sampling offers an opportunity to realize the right to outcome equality in litigation and to justify outcomes both to participants in the tort system and its critics.

IV. Conclusion

This Article has endeavored to defend the principle of outcome equality as a counterpoint to the Supreme Court’s overemphasis on liberty and individualism in litigation.³⁰¹ The principle of outcome equality is at work in judicial attempts to use sampling to determine both the order in which cases proceed and the manner in which they are resolved. Although it seems that equality in civil litigation is in retreat at the moment, on closer inspection, the fact that district court judges continue to pursue outcome equality through informal statistical adjudication indicates a strong possibility for the balance to shift in its favor.

Other procedural revolutions have initially emerged at the district court level. For example, district courts were applying a pleading standard requiring more than “notice pleading” before the Supreme Court’s recent pleading cases tightened that standard.³⁰² Although many perceived *Bell Atlantic Corp. v. Twombly*³⁰³ and *Ashcroft v. Iqbal*³⁰⁴ as revolutionary, a close study of district court opinions revealed that the revolution had been brewing for some time.³⁰⁵ One can only speculate as to why the district courts have pursued outcome equality when the emphasis at the appellate level has been so consistently tilted towards liberty. Perhaps the district courts, seeing a larger set of cases and being closer to outcomes, are better able to appreciate the negative consequences of inequality wrought by inconsistency in adjudication.

301. See *supra* notes 10–18 and accompanying text.

302. See Christopher M. Fairman, *The Myth of Notice Pleading*, 45 ARIZ. L. REV. 987, 988 (2003) (describing how the rhetoric of notice pleading did not match the reality of what the lower federal courts were doing on motions to dismiss).

303. 550 U.S. 544 (2007).

304. 129 S. Ct. 1937 (2009).

305. Fairman, *supra* note 302, at 1011–59 (describing pleading practices in the federal courts with respect to a number of substantive areas).

Trial by Formula has the potential to resolve many other problems that plague modern litigation. For example, commentators have repeatedly lamented patterns of baseless claiming in mass tort litigation.³⁰⁶ Sampling offers a way of addressing the phenomenon of fraudulent claims and creating incentives to curb them.³⁰⁷ But as this Article has endeavored to show, sampling is more than an innovative and efficient procedure for resolving litigation and realizing the aims of the substantive law. Rigorous statistical methods can realize one of the fundamental ideals of the legal system that has been wrongfully ignored: the right to equal treatment before the law. By improving their statistical methods, district courts can restore the needed balance between the right to liberty and the right to equality. Perhaps in time the balance will shift in the Supreme Court as well.

306. See, e.g., Lester Brickman, *The Use of Litigation Screenings in Mass Torts: A Formula for Fraud?*, 61 SMU L. REV. 1221, 1228 (2008) (arguing that litigation screenings have led to a large number of specious, perhaps even fraudulent, claims in asbestos, silica, silicone-breast-implant, fenphen, and welding-fume mass tort litigation).

307. In the *Diet Drugs Litigation*, for example, it was determined that some lawyers were submitting claims to the settlement administrator using falsified results. See *In re Diet Drugs (Phentermine, Fenfluramine, Dexfenfluramine) Prods. Liab. Litig.*, 226 F.R.D. 498, 505–07 (E.D. Pa. 2005). The court's initial solution, ultimately scuttled by the defendant, was to sample claims. See *id.* at 507 (noting that the court imposed a 100% auditing rate on claims after concerns of illegitimate claims arose). For a discussion of this case at greater length, see Lahav, *supra* note 28, at 406–16.