RANDOM SAMPLING OF AND IN ADJUDICATIONS

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The Supreme Court has largely eliminated the possibility of statistical adjudication, leaving victims of mass torts with limited avenues for recovery. Efforts to revive random sampling within class actions are unlikely to succeed given the Court's fundamental opposition to determining liability or damages based on statistical models without individualized evidence. This Article proposes a novel approach: applying random sampling outside the class action framework through private ordering among plaintiffs who voluntarily aggregate their claims. Plaintiffs can form litigation-sharing agreements, partnerships, or trusts to create a single juridical entity that owns multiple claims. Within this aggregated lawsuit, random sampling can be employed to select representative cases for evidentiary presentation. This method aligns with established evidentiary principles permitting survey evidence and does not require doctrinal innovation or legislative intervention. The approach provides a means of vindicating legitimate claims that are too heterogeneous to benefit from the class action mechanism.

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INTRODUCTION

Advocates of improving victims' ability to recover for mass torts and other widely-suffered wrongs have long placed their hopes on three mechanisms, in rapidly declining order of popularity: the class action,[1] statistical adjudication,[2] and private ordering.[3] In *Wal-Mart Stores, Inc. v. Dukes*,[4] however, the Supreme Court sharply limited not only the scope of class actions, but also the possibility of using random sampling after class certification. The Court found the class in that case too heterogeneous to meet Rule 23's commonality prerequisite,[5] and the Court prohibited the plaintiffs from using what it referred to derisively as "Trial by Formula" to address

1. *See*, *e.g.*, Sergio J. Campos, *Mass Torts and Due Process*, 65 VAND. L. REV. 1059 (2012) (defending the class action against attempts to limit it in the name of plaintiff autonomy); Arthur R. Miller, *Of Frankenstein Monsters and Shining Knights: Myth, Reality, and the "Class Action Problem,"* 92 HARV. L. REV. 664 (1979) (defending class action device against argument that it has led to excessive litigation and critiquing legislative proposals for reform); David Rosenberg, *Class Actions for Mass Torts: Doing Individual Justice by Collective Means*, 62 IND. L.J. 561 (1987) (arguing that class actions for mass torts avoid redundant litigation burdens that may dissuade victims from seeking recovery and countering rights-based critiques of the class action device).
2. Robert G. Bone, *A Normative Evaluation of Actuarial Litigation*, 18 CONN. INS. L.J. 227 (2011-2012) [hereinafter Bone, *Normative Evaluation*] (considering various objections to statistical adjudication); Robert G. Bone, Tyson Foods *and the Future of Statistical Adjudication*, 95 N.C. L. REV. 607 (2017) [hereinafter Bone, *Future of Statistical Adjudication*] (assessing the future of statistical adjudication in light of case law developments); Robert G. Bone, *Statistical Adjudication: Rights, Justice, and Utility in a World of Process Scarcity*, 46 VAND. L. REV. 561, 568 (1993) [hereinafter Bone, *Statistical Adjudication*] (offering a balanced assessment of statistical adjudication); Alexandra D. Lahav, *The Case for "Trial by Formula,"* 90 TEX. L. REV. 571 (2012) (arguing that the Supreme Court has emphasized the importance of liberty in class action cases, but statistical adjudication would help vindicate the goal of outcome equality); 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 (1992) (offering the first sustained academic proposal for statistical adjudication); Laurens Walker & John Monahan, *Sampling Damages*, 83 IOWA L. REV. 545 (1998) (offering a variation on the Saks & Blanck proposal).
3. *See* Peter Charles Choharis, *A Comprehensive Market Strategy for Tort Reform*, 12 YALE J. ON REG. 435 (1995) (arguing that aggregation by claim sales could serve as an alternative to class actions); Robert Cooter, *Towards a Market in Unmatured Tort Claims*, 75 VA. L. REV. 383 (1989) (suggesting the possibility of a market in unmatured tort claims); Marc J. Shukaitis, *A Market in Personal Injury Tort Claims*, 16 J. LEGAL STUD. 329 (1987) (urging the creation of such a market); Byron G. Stier, *The Sale and Settlement of Mass Tort Claims: Alternative Litigation Finance and a Possible Future of Mass Tort Resolution*, 23 WIDENER L.J. 193 (2013) (suggesting that the growth of the domain of litigation finance might promote the creation of markets in mass tort claims)
4. 564 U.S. 338 (2011).
5. *See* FED. R. CIV. P. 23(a)(2) (requiring "questions of law or fact common to the class" as a prerequisite to maintaining a class action).

such heterogeneity.[6] Although a later case, *Tyson Foods, Inc. v. Bouaphakeo*,[7] allowed survey evidence to be used in class actions in narrow circumstances,[8] even it did not allow judgment to be entered based on extrapolation from cases randomly selected for trial.[9] With statistical adjudication seemingly dead,[10] class actions themselves are limited, unable to resolve fully cases that require individualized evidence to determine liability and damages.

The literature has responded with a range of creative proposals for resurrecting statistical adjudication in class actions: *Tyson Foods* is ultimately incoherent and should be read broadly to allow what *Wal-Mart* seemingly prohibited;[11] judges could use statistical adjudication to produce merely presumptive damages awards;[12] or AI statistical models could be used in place of conventional ones to address the Court's objections.[13] Perhaps these approaches might work if the problem were merely that the Supreme Court Justices are sympathetic to the core idea behind statistical adjudication yet hemmed in by doctrinal constraints.

But the opposite appears to be true. The actual legal argument for *Wal-Mart*'s prohibition of statistical adjudication is debatable but reflects broader concerns about

6. *Wal-Mart*, 564 U.S. at 367.

7. 577 U.S. 442 (2016).

8. *See infra* Part I.A.2.a.

9. *See Tyson Foods*, 577 U.S. at 1040 (noting that its holding was fully in accord with *Wal-Mart*).

10. Courts have often denied class certification for failure to meet the *Tyson Foods* exception. *See*, *e.g.*, Baker v. State Farm Mut. Auto. Ins. Co., No. 4:19-CV-14 2021 WL 4006124 (M.D. Ga. 2021) (refusing to certify as a class action a challenge to an insurer's use of a formula to calculate diminution in value following physical damage to vehicles, because in the absence of the formula, the diminution applicable to each plaintiff would need to be calculated separately); Haley v. Teachers Ins. & Annuity Assoc., 344 F.R.D. 284, 293 (S.D.N.Y. 2023) (rejecting attempt to certify class action where interest and crediting rates varied across class members, since using statistical averages would amount to trial by formula); *In re* Autozone, Inc., Wage and Hour Employment Practices Litig., No. 3:10-md-02159-CRB, 2016 WL 4208200 (N.D. Cal. 2016) (finding relevant evidence to be more like that in *Wal-Mart* than in *Tyson Foods*, even though the issue that varied across plaintiffs concerned the amount of time that the plaintiffs had not been paid for work). Cases admitting representative evidence have stressed that the evidence demonstrates that plaintiffs were subject to the same treatment, thus obviating the need for application of a statistical formula that would assign individual values to particular plaintiffs. *See, e.g.*, Vasquez v. Leprino Foods Co., No. 1:17-cv-00796-AWI-BAM, 2023 WL 1868973 (E.D. Cal. 2023).

11. Bone, *Future of Statistical Adjudication*, *supra* note 2; *infra* notes 158-71 (discussing Bone's argument).

12. Jay Tidmarsh, *Resurrecting Trial by Statistics*, 99 MINN. L. REV. 1459 (2015); *infra* notes 193-211 (discussing Tidmarsh's argument).

13. Peter N. Salib, *Artificially Intelligent Class Actions*, 100 TEX. L. REV. 519 (2022); *infra* notes 212-18 and accompanying text (discussing Salib's argument).

due process.[14] Justices appear not to want courts to determine liability or damages for class members based on statistical models, insisting instead that courts consider evidence specific to their individual cases. Not a single Justice, not even any of the dissenters in *Wal-Mart*,[15] wrote in defense of statistical adjudication. Thus, even a change in the Court's membership likely would not augur the overruling or even significant narrowing of this aspect of *Wal-Mart*. Randomly sampled evidence can be fine if it can be used to resolve each class member's claim, *Tyson Food* teaches, but randomly sampled trials are not.

This Article seeks to revive random sampling by explaining how it might be used *outside* class actions and without the extrapolation that makes random sampling amount to "Trial by Formula." Its suggestion is that courts might perform random sampling after private ordering, that is after voluntary decisions by plaintiffs to associate with one another and effectively aggregate their claims. The existing literature seeking private ordering solutions to mass torts imagines plaintiffs selling their claims to third parties.[16] This approach faces significant legal hurdles in the doctrines of barratry, maintenance, and champerty.[17] But in recent years, the development of legal finance has shown that less radical forms of private ordering than claim sales may be able to pass muster.[18] If, as with litigation finance, plaintiffs do not alienate their claims entirely but enter into litigation sharing agreements[19] or contribute the claims to partnerships,[20] existing doctrine provides no clear obstacle. Once claims are aggregated into a lawsuit with a single plaintiff, random selection in turn becomes straightforward. A party facing ordinary constraints in the amount of time available to present its case might focus its evidentiary presentation on a random sample of the aggregated claims chosen by a statistical expert. This builds on existing

14. *See infra* Part I.B.1.

15. *See* Wal-Mart Stores, Inc. v. Dukes, 564 U.S. 338, 367 (2011) (Ginsburg, J., concurring in part and dissenting in part).

16. *See* Choharis, *supra* note 3; Shukaitis, *supra* note 3; *infra* Part II.B.

17. *See generally* 14 C.J.S. *Champerty* § 1 (2024) (defining champerty, maintenance and barratry); Anthony J. Sebok, *The Inauthentic Claim*, 64 VAND. L. REV. 61 (2011) (providing a comprehensive review and critique of these doctrines); *id.* at 62 (concluding that under these doctrines, "[a]ssignment of personal injury tort claims is prohibited throughout the United States, while the assignment of other claims, such as fraud and professional malpractice, is prohibited in a large number of states.").

18. *See, e.g.*, Saladini v. Righellis, 687 N.E.2d 1224, 1226 (Mass. 1997) (declining to apply champerty in a case involving a loan in exchange for lawsuit proceeds); Ari Dobner, Comment, *Litigation for Sale*, 144 U. PA. L. REV. 1529, 1530 (1996) ("[M]odern lawsuit investors have achieved some success in fending off legal challenges to their syndicated lawsuits."); William J. Harrington, *Champerty, Usury, and Third-Party Litigation Funding*, WTR BRIEF, Winter 2020, at 56 (noting that while many jurisdictions have not ruled on the permissibility of litigation finance, some have expressly approved of such agreements).

19. *See infra* Part III.A.3.

20. *See infra* Part III.A.2.

evidentiary law permitting survey evidence and requires no substantial judicial innovation.[21]

The idea of allowing random sampling within a single case is not entirely new, but existing formulations encounter practical obstacles and would require legislative intervention. David Rosenberg and Steven Shavell have offered what they describe as a "simple proposal,"[22] which some may view as a Swiftian modest proposal, for judicially supervised randomization.[23] They suggest that each plaintiff face a coin flip that would result half of the time in the termination of the case with zero damages. The other half of the time, the case would proceed, and the plaintiff, if victorious, would receive double monetary damages.[24] Their title suggests that this would "halve litigation costs."[25] As this bold promise indicates, Rosenberg and Shavell apply their proposal to all litigation, without limit to mass torts or even to cases in which high litigation costs prevent efficient adjudication.[26]

Yet Rosenberg and Shavell leave a small clue that they recognize that their proposal can in the foreseeable future be nothing more than a thought experiment. The clue is that the proposal rejects the possibility of random sampling with lower sample probabilities and higher multiples, such as a one-tenth chance of a case surviving randomization but entitling the plaintiff to tenfold damages if the case survives.[27] This is surprising, given that the authors in other contexts have suggested variable damages multipliers, always equal to the inverse of the corresponding probabilities.[28] But they

21. *See infra* Part III.B.

22. *See* David Rosenberg & Steven Shavell, *A Simple Proposal to Halve Litigation Costs*, 91 VA. L. REV. 1721, 1721 (2005).

23. The economist Robin Hanson offered a very similar proposal in a very short Internet post in 1997, but this was never published in an academic journal. *See* Robin Hanson, *Double or Nothing Lawsuits* (Oct. 30, 1997), https://perma.cc/W6MH-W4M4. The post does not address obvious objections, such as liquidity constraints, or consider how private ordering could offset these concerns.

24. Rosenberg & Shavell, *supra* note 22, at 1721.

25. *Id.*

26. Rosenberg and Shavell note in their first footnote that their proposal would apply to class actions, as to other cases. *See id.* at 1721 n.1.

27. James Miller, in contrast, does offer a related mechanism generalized to any probability, with a corresponding inverse multiplier. *See* James D. Miller, *Using Lotteries to Expand the Range of Litigation Settlements*, 26 J. LEGAL STUD. 69, 70 (1997) ("[T]he parties could increase the benefits of using lotteries by agreeing to go to trial with a very small probability, say, *t*, and multiplying the verdict if they go to trial by *1/t*."). But he considers only whether parties might *voluntarily* agree to such an arrangement, not whether it might be mandated. *See infra* notes 233-38 and accompanying text.

28. *See, e.g.*, Robert J. Jackson, Jr. & David Rosenberg, *A New Model of Administrative Enforcement*, 93 VA. L. REV. 1983, 1987 n.8 (2007) ("Regulators could . . . randomly inspect each regulated source and, to offset lost deterrence, multiply liability by the inverse of the probability that the source will not be inspected."); A. Mitchell Polinsky & Steven Shavell, *Punitive Damages: An Economic Analysis*, 111 HARV. L. REV. 869, 941 (1998) ("[T]he level of

acknowledge worrying that high damages multipliers would impose excessive risk on not only the defendant, but also on the plaintiff.[29] A 50% chance of a plaintiff having a lawsuit randomized away, they indicate, is tolerable, because the system will still meet the goal of deterrence.[30] Their reluctance to raise this probability even to 75% suggests recognition of at least a political constraint.

Someone who cares not just about deterrence but also about compensation might think even randomizing away only half of cases to be unacceptable,[31] though perhaps grudgingly accept it if the alternative is that cases might not be brought at all. But this Hobson's choice ignores a potential means of addressing compensation accuracy: Private ordering might counter the inequity of random selection. Rosenberg and Shavell recognize this in one respect, noting that parties would often settle cases before filing.[32] But they do not consider the possibility of other forms of private ordering,[33] which could allow the Rosenberg and Shavell proposal to achieve both deterrence and compensation goals. The private ordering allows plaintiffs to be compensated even if their individual cases are randomized away. One could thus also consider versions with lower probabilities of case selection and correspondingly higher multiples.

This Article's purpose, however, is not to endorse the combination of the Rosenberg-Shavell proposal with a mechanism like claim sales. That would require legislators to overcome qualms not only with random selection, but also with markets for litigation. At best, academic consideration could provide a path for eventual implementation in a limited context, for example for small claims associated with consumer contracts.[34] The thought experiment integrating Rosenberg-Shavell with

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compensatory damages for the personal injury should be multiplied by the inverse of the probability of being found liable.").

29. Rosenberg & Shavell, *supra* note 22, at 1733-34.

30. *Id.* at 1723-24, 1729-31.

31. The goal of compensation is especially important in the theory of corrective justice. *See, e.g.*, Heidi M. Hurd, *Correcting Injustice to Corrective Justice*, 67 NOTRE DAME L. REV. 51, 56 (1991) (noting agreement among corrective justice scholars "that innocent victims of culpably-caused losses be compensated," though some disagreement as to whether the injurer must be the source of compensation); Jules L. Coleman, *Property, Wrongfulness and the Duty to Compensate*, 63 CHI.-KENT L. REV. 451, 463-64 (1987) (discussing the requirement that victims actually receive compensation).

32. Rosenberg & Shavell, *supra* note 22, at 1725-29.

33. These include plaintiffs' purchasing insurance against not being randomly selected, selling claims where permissible, defraying risk with litigation finance, or combining legal claims via the partnership form. They do not consider how defendants could offset the risk of random selection, also for example by buying insurance.

34. When a large company violates a consumer contract but the injury is small, there is effectively no recourse, except in cases where the company has treated many other consumers in the same way. *See, e.g.*, Shay Lavie, *The Malleability of Collective Litigation*, 88 NOTRE DAME L. REV. 697, 717-19 (2012) (noting that consumer companies may successfully avoid litigation by treating consumers differently, for example by varying the terms of consumer contracts).

claim sales, however, is also useful because it highlights two literatures that can be considered in tandem to generate proposals that can integrate into our existing adjudicative system. Private ordering addresses the Achilles heel of the random sampling literature, by highlighting that market mechanisms rather than courts can determine the value of non-sampled claims. Meanwhile, random sampling addresses a significant limitation of private ordering proposals: Merely aggregating claims does not solve the judicial management problem of resolving them efficiently.

Consideration of random sampling outside class actions is important not simply because random sampling within class actions has been ruled out, but more fundamentally because it addresses the courts' primary concern with entering individual judgments absent individual evidence: Statistical adjudication requires courts to enter judgments for some plaintiffs without hearing evidence related to those plaintiffs. The insight from private ordering is that market transactions rather than judicial decision-making can accomplish the determination of relative payouts. Such private ordering would occur in the shadow of the law.[35] Plaintiffs with stronger cases would have greater bargaining leverage than plaintiffs with weaker cases, for example, when they negotiate how to allocate profits of a partnership that aggregates claims. Indeed, such private ordering would thus be akin to the form of private ordering in the shadow of judicial decision-making that already dominates the litigation landscape: settlement.[36] Although private transactions may be prone to market abuses, the requirement of consent helps to mitigate concerns about the misalignment of incentives between attorneys and class members.[37]

Equally important, if private ordering effectively can succeed in resolving the relative claims of plaintiffs vis-à-vis one another, then it is much more straightforward for courts to allow random sampling. That is, random sampling *in* adjudications is much less of a departure from existing practice than random sampling *of* adjudications. This is a fundamental lesson of *Tyson Foods*. Although there are substantial questions about how the courts would react to the aggregation of claims into partnerships, trusts, or litigation sharing agreements, strong arguments suggest that jurisdictions that would reject claim sales nonetheless should allow such

35. *See generally* Robert N. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979) (introducing the idea that legal outcomes may be negotiated in law's shadow).

36. Although settlement can serve as a method of private ordering within class actions, when classes are heterogeneous, class action settlements often can fail to account for individual differences in claims. *See* Allan Erbsen, *From "Predominance" to "Resolvability": A New Approach to Regulating Class Actions*, 58 VAND. L. REV. 995, 1014-23 (2005) (explaining how both class action litigation and settlement can distort individual claim valuation).

37. Existing paradigms for addressing incentive misalignment focus on the incentives of the attorney. *See*, *e.g.*, Alon Harel & Alex Stein, *Auctioning for Loyalty: Selection and Monitoring of Class Counsel*, 22 YALE L. & POL'Y REV. 69 (2004) (discussing the attorney-as-owner and attorney-as-servant paradigms). The private ordering approaches here rely instead on direct negotiations among plaintiffs based on the relative strength of their claims.

agreements or partnerships, especially when partial claim alienation might provide the only practicable means of achieving access to justice.[38] And once a number of claims have a single owner, the litigation is not so different from many other cases in which a plaintiff asserts a large number of claims against a single defendant or must be selective in choosing from a vast array of evidence that it might introduce against a defendant. Judges may limit the time that litigants have to present their cases, and litigants can easily respond to such limitations by introducing random samples of evidence, with the sampling itself introduced by expert testimony.[39]

The Article proceeds as follows. Part I considers the history of random sampling within class actions. It begins by surveying academic proposals for random sampling within class actions and the current state of affairs in the aftermath of *Tyson Foods* and *Wal-Mart*, arguing that proposals to revive random sampling within class actions are unlikely to succeed. The two literatures on which the Article builds—the literature on explicit randomization of individual cases and the literature arguing for aggregation of tort claims by alienation—form the topic of Part II. Recognizing that a full implementation of randomization with claim sales would require legislative authorization that is unlikely in the short term, Part III considers more modest, though perhaps still ambitious, proposals for random sampling to occur in adjudications. Plaintiffs might combine their claims via ordinary joinder,[40] perhaps entering into litigation sharing agreements, or they might combine their interests by creating juridical persons such as partnerships or trusts.

I. RANDOM SAMPLING WITHIN CLASS ACTIONS

If we are on the verge of judicial authorization of statistical adjudication within class actions, then there may be little reason to look elsewhere. But this Part will argue that, although the Supreme Court case law is so undeveloped as to allow the development of many competing theoretical frameworks consistent with the cases' outcome and aspects of the case reasoning, the finish line for statistical adjudication in class actions will move ever further away. Part I.A traces the rise and fall of random sampling in class actions, in lower court cases, and then in Supreme Court jurisprudence, while considering the leading academic accounts that view this jurisprudence as opening the door to greater use of statistical adjudication. Part I.B argues that due process concerns underlie the Supreme Court's tentativeness toward statistical adjudication in class actions and that academic proposals that offer new approaches to statistical adjudication in class actions are unlikely to allay this unease.

38. *See infra* notes 332-34 and accompanying text.

39. *See infra* Part III.B.

40. For an overview of the possibility of joinder in mass torts, both within and outside the class action context, see Roger H. Trangsrud, *Joinder Alternatives in Mass Litigation*, 70 CORNELL L. REV. 780 (1985).

A. A Brief History of Class Action Random Sampling

The goals of this brief history are threefold. First, it casts the judicial developments less as an ordinary process of common law development and more as one in which the case law is fragmentary, yet the attitude of the courts seems clear. Some judges, particularly those facing the prospect of having to preside over large numbers of individual adjudications, have embraced the concept as a routine application of statistical reasoning. Others, especially Supreme Court Justices, seem troubled, though without clearly identifying just what the relevant legal obstacle is. Second, the Court's incomplete explanations have left open the door to arguments that the case law in fact supports the use of statistical adjudication, provided the relevant class is sufficiently homogeneous and the statistical methodology sufficiently accurate. Third, one can read the case law as implying underlying due process concerns, which are likely to foreclose clever attempts to accommodate the limits specified in existing case law.

1. Pre-*Wal Mart*

a. Cases

The first efforts to use random sampling in class actions were confessedly borne of desperation. In the Eastern District of Texas, thousands of cases concerning asbestos liability were pending. Judge Robert Parker called upon Jack Ratliff, a law professor at the University of Texas moonlighting as a special master, to devise a scheme for trying these cases.[41] "[I]t is now self-evident," Ratliff asserted, "that the use of one-by-one individual trials is not an option in the asbestos cases."[42] Moreover, "[i]f a class action cannot be used here it seems unlikely that it can ever be used for toxic torts."[43] And so, Ratliff suggested a four-phase trial plan. In Phase I, the class representatives' cases would be tried, including questions of negligence, products liability, and causation.[44] In Phase II, expert witnesses, including doctors, lawyers, and statisticians, would opine about the total amount of damages incurred by the plaintiff class, considering the "statistical profile" of that class.[45] Phase III would then be a jury trial to distribute these damages among the various defendants,[46] and in Phase IV, the court without a

41. *See* Cimino v. Raymark Indus., Inc., No. 86-0456, 1989 WL 253889 (E.D. Tex. Sept. 23, 1989) (report of Special Master Jack Ratliff).

42. *Id.* at *1.

43. *Id.*

44. *Id.* at *5.

45. *Id.* at *6.

46. *Id.* at *7.

jury would distribute the class-wide damages among plaintiffs.[47] Judge Parker modified the Phase II plan somewhat, entering an order promising to try, in addition to the cases of the eleven class representatives, thirty illustrative plaintiffs, half chosen by the plaintiffs and half by the defense.[48] And so the idea of sampling plaintiffs—albeit not randomly—emerged.

The defendants filed for mandamus, and the Fifth Circuit granted the writ,[49] rejecting sampling. The court found the sampling procedure inconsistent with the rule of law on various grounds, without making entirely clear whether each ground constituted an alternative holding. While mentioning the Seventh Amendment right to a jury,[50] the court expressed concerns based upon the defendants' right to due process,[51] upon the requirement under the *Erie* doctrine[52] and the Rules of Decision Act[53] that federal procedure not modify substantive rights granted under state law,[54] and "upon the separation of powers between the judicial and legislative branches."[55] "These concerns," the court acknowledged, "are little more than different ways of looking at a core problem," namely that "Phase II . . . is unfortunately beyond the scope of federal judicial authority."[56] "[T]he procedures here called for comprise something other than a trial within our authority," the court concluded. "It is called a trial, but it is not."[57]

Whether because he was unsure exactly what the Fifth Circuit had held, because he was undaunted by being reversed, or because he was daunted by the Sisyphean prospect of trying thousands of cases one after the next,[58] Judge Parker created a new trial plan that was not all that different from the previous plan. This new plan, however, unmistakably used random sampling and also featured a post-trial hearing

47. *Id.*

48. *In re* Fibreboard Corp., 893 F.2d 706, 709 (5th Cir. 1990) (summarizing the judge's order).

49. *Id.* at 712.

50. *Id.* at 709.

51. *Id.* at 711. The court specifically noted that there were significant disparities among class members, which it carefully enumerated. *Id.* at 710. Presumably, that might create problems with respect to the requirement of "questions of law or fact common to the class," FED. R. CIV. P. 23(a)(2), or whether such common issues "predominate over any questions affecting only individual members," *id.* Rule 23(b)(3). While the Court mentions Rule 23, *In re* Fibreboard, 893 F.2d at 711, it did not clearly resolve the case on that basis.

52. *See* Erie R.R. Co. v. Tompkins, 304 U.S. 64 (1938).

53. 28 U.S.C. § 1652 (2024).

54. *In re* Fibreboard, 893 F.2d at 711.

55. *Id*.

56. *Id.*

57. *Id.* at 712.

58. Cimino v. Raymark Indus., 751 F. Supp. 649, 652 (E.D. Tex 1990) ("If the Court could somehow close thirty cases a month, it would take six and one-half years to try these cases and there would be pending over 5,000 untouched cases at the present rate of filing.").

in which an expert witness testified "that the samples used were, in fact representative."[59] Judge Parker's opinion offered a lengthy discursion into the history of statistics from the time of Aristotle[60] and documented the general acceptance by courts of statistical evidence.[61] The Fifth Circuit was resolute. It emphasized the Rules of Decision Act,[62] applicable because the cases were within diversity jurisdiction, thus binding the court to follow Texas substantive law. Though leaving some ambiguity as to the scope of its holding,[63] the court made clear that the procedure was impermissible both as to the sampled plaintiffs and "*a fortiori* to the extrapolation cases."[64]

On at least one occasion, a Court of Appeals did approve of random sampling before *Wal-Mart*, but even its holding was contested and limited in scope. In *Hilao v. Estate of Marcos*,[65] a Ninth Circuit panel allowed sampling to be used for a class of over 9,000 plaintiffs who had been found to be victims of torture, disappearance, or summary execution under the regime of Ferdinand Marcos in the Philippines.[66] A statistician chose 137 random claims for which a special master was able to take depositions in the Philippines.[67] The statistician and special master later testified to the jury, and deposition testimony from the randomly sampled cases was introduced.[68] The jury disagreed with some of the special master's conclusions as to the sampled claims but followed his recommendations as to the extrapolated claims.[69] Arguing that trying the claims would be "impossible" and moreover "wasteful" given the similarity

59. *Id.* at 664. Judge Parker's statistical reasoning is imperfect. He notes that "the samples on the whole achieved a 99% confidence level," *id.*, but a proper statistical analysis would identify a confidence interval, i.e. a range of values within which the mean of the broader sample would fall with the relevant statistical confidence. *See also* Saks & Blanck, *supra* note 2, at 842 n.178 (delving into the statistical issues).

60. Cimino v. Raymark Indus., 751 F. Supp. at 659-61.

61. *Id.* at 661-63.

62. 28 U.S.C. § 1652 (providing the statutory basis for *Erie*).

63. The court stated, "[U]nder Texas law causation must be determined as to individuals, not groups. And, the Seventh Amendment gives the right to a jury trial to make that determination." 151 F.3d at 319 (internal quotation marks omitted). A narrow reading might allow for variation in state law and restrict the jury trial right to contexts in which state law requires individual proof.

64. *Id.*

65. 103 F.3d 767 (9th Cir. 1996).

66. Over 10,000 claims were filed, but the district court ruled that 518 were "facially invalid." *Id.* at 782.

67. *Id.* at 782. When the special master could not reach a claimant, it substituted another. *Id.* A more cautious approach might have been for the court to count such a case as one in which the plaintiff was not able to obtain any recovery. In effect, the special master was extrapolating from plaintiffs who were able to cooperate to the broader population of plaintiffs.

68. *Id.* at 784.

69. *Id.*

of plaintiffs' injuries,[70] the court found that random sampling accorded with due process. Applying the balancing test of *Mathews v. Eldridge*,[71] the court majority found that the strength of the plaintiff's interest weighed in favor of allowing statistical adjudication, "since adversarial resolution of each class member's claim would pose insurmountable practical hurdles."[72] The court, however, did not face the Rules of Decision Act question because no state law was at issue. The defendants also did not make a Seventh Amendment objection, and the court did not address the Rules Enabling Act.[73] As to the due process issue, Judge Rymer wrote in dissent, "I cannot believe that a summary review of transcripts of a selected sample of victims who were able to be deposed … comports with fundamental notions of due process."[74] Perhaps more telling than the conclusion is that Judge Rymer did not bother to engage the *Mathews* due process analysis; for her and perhaps many others, extrapolation is simply not a judicial function.

As *Hilao* demonstrates, though, Judge Parker was not the only enthusiast of random sampling. Indeed, Judge Parker had served on an ad hoc committee appointed by the Chief Justice of the United States, the Judicial Conference Ad Hoc Committee on Asbestos Litigation. The Committee's primary recommendation was for Congress to create an administrative agency or Article I court to resolve all asbestos cases, with equitable powers to distribute assets among plaintiffs.[75] But the Committee also suggested that Congress authorize sampling, i.e. trying some randomly selected cases within a jurisdiction and then extrapolating to other cases.[76] Judge Thomas Hogan, however, dissented from this recommendation,[77] calling sampling "novel and radical."[78] The Committee's recommendations, in any event, failed to persuade Congress.[79]

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70. *Id.* at 786.

71. 424 U.S. 319 (1976).

72. *Hilao*, 103 F.3d at 786.

73. *See infra* note 132 and accompanying text.

74. *Hilao*, 103 F.3d at 787, 788 (Rymer, J., concurring in part and dissenting in part).

75. *See* AD HOC COMM. ON ASBESTOS LITIG., JUD. CONF. OF THE U.S., REP. OF THE JUD. CONF. AD HOC COMM. ON ASBESTOS LITIG. 27-35 (1991).

76. *Id.* at 35.

77. *Id.* at 41.

78. *Id.*

79. Congress has not acted, despite the availability of many recommendations for legislation that could improve federal class actions. *See* Thomas D. Rowe, Jr., *Beyond the Class Action Rule: An Inventory of Statutory Possibilities to Improve the Federal Class Action*, 71 N.Y.U. L. REV. 186 (1996). The Advisory Committee itself, meanwhile, has become increasingly incrementalist and appears unwilling to undertake significant reforms of Rule 23. *See* Scott Dodson, *A Negative Retrospective of Rule 23*, 92 N.Y.U. L. REV. 917, 918 (2017) (describing "an increasing preference for 'amendment minimalism'").

b. Academic Proposals

If this report and *Hilao* represented the rise of a tidal wave of judicial support for random sampling in class actions, perhaps it would have become a standard part of civil procedure. But these were isolated victories for sampling advocates. Indeed, the number of district judges willing to try some variation of this approach appears possibly smaller than the number of academics embracing such an approach. Writing shortly after *Cimino*, Michael Saks and Peter Blanck argue forcefully in favor of sampling in class actions.[80] After providing a detailed review of *Cimino*,[81] Saks and Blanck endeavored to sketch out the theoretical terrain, arguing that "at least in the mass tort context . . . this procedure does not necessarily violate traditional notions of due process under the Fifth and Fourteenth Amendments."[82]

In part, this conclusion relied on a weighing of the interests identified in *Mathews*. Saks and Blanck acknowledged the private interest that defendants have in avoiding unjustified payments to plaintiffs, but they noted that "the defendants' total liability almost certainly does not significantly exceed what they would have to pay after individual trials, attorney fees and other transaction costs."[83] Yet, presumably, this comparison is to a hypothetical world in which all plaintiffs continued to individual trials; presumably, defendants opposed sampling because they expected that plaintiffs might choose not to do so. Saks and Blanck offered a stronger argument with regard to the second prong of *Mathews*, specifically that the risk of erroneous deprivation is small, because liability is determined in an aggregated proceeding and because sampling provides a reasonable measurement of total damages.[84] Finally, they find the third prong—the government's interest—"really not a factor at all"[85]—in contrast to *Mathews* itself, where the issue was government payment of benefits. Yet this highlights a key distinction. *Mathews* concerns administrative agency power. The courts might be more comfortable with novel approaches to due process that are duly authorized by the legislature than novel approaches invented by a court.[86]

Saks and Blanck's affirmative case for sampling is that, even placing aside the possibility that it may be the only effective way to bring a case, sampling can improve accuracy relative to individual adjudication. "Every verdict is itself merely a sample

80. *See* Saks & Blanck, *supra* note 2.

81. *Id.* at 819-26.

82. *Id.* at 826.

83. *Id.* at 828.

84. *Id.*

85. *Id.*

86. Saks and Blanck do identify, however, examples in which judicial procedure may vary based on *Mathews*-like considerations. Specifically, they note that some cases are decided with oral argument, and small claims cases often do not require participation by counsel. *Id.* at 829.

from the large population of potential verdicts," they argue.[87] That is, if a single case were tried many times, the result would likely not be the same each time. Some lawyers might be more effective than others, different judges or juries might come to different conclusions, or results might depend chaotically on seemingly irrelevant factors such as the time of day or what the judge ate for breakfast. If it were possible to take the average of these many results, that might be said to be more accurate than drawing a single result.[88] If cases in a subclass are entirely homogeneous, extrapolating damages based on the average result for the subclass amounts to the same thing. Saks and Blanck recognize that in fact potentially sampled cases "are not identical."[89] To the extent that a case has unique features that distinguish it from sampled cases, the possibility of error is introduced. "At some point along the heterogeneity-homogeneity continuum," they concede, "aggregation ceases to improve the accuracy of traditional trials and becomes a vitiation."[90] Still, this should make no difference from the defendant's perspective so long as the sample reflects the average damages that the defendant would need to pay. Moreover, if heterogeneity can be accommodated by subclassing or by using a statistical model that reflects all relevant features of a case, the damages that a plaintiff receives should be more accurate as well.

In a 1993 article, Robert Bone argued that Saks and Blanck may have underestimated the potential for sampling to sacrifice the goal of outcome accuracy.[91] "For a nonhomogeneous population," Bone argues, "it does not take much variation before the sample average is likely to give an estimate of actual damages that is inferior to a trial verdict for at least one case."[92] Bone recognizes that a statistical regression might allow for greater accuracy than a sampling approach that simply takes the average of groups of cases,[93] but even with regression, he sees significant obstacles: "[a]ny regression procedure that significantly reduces costs would have to ignore variables that are difficult to measure without an expensive factual inquiry."[94] This highlights a paradox with random sampling. Even if it is theoretically possible to build a statistical model that forecasts damages accurately, the statistical model may itself depend on variables whose quantification requires something like a trial. But the entire purpose of the sampling procedure is to avoid the need for a trial with respect to each plaintiff.

Bone further raises the challenge for sampling by rejecting three additional

87. *Id.* at 833.

88. For a detailed argument, see Byron G. Stier, *Jackpot Justice: Verdict Variability and the Mass Tort Class Action*, 80 TEMPLE L. REV. 1013 (2007).

89. Saks & Blanck, *supra* note 2, at 836.

90. *Id.* at 837.

91. Bone, *Statistical Adjudication*, *supra* note 2, at 568.

92. *Id.* at 578.

93. *Id.* at 584-87.

94. *Id.* at 586.

arguments in favor of sampling.[95] Nonetheless, Bone offers a robust defense of sampling. First, he adopts the view of many in the law-and-economics movement that tort law is designed to optimize deterrence, and he notes that because sampling does not affect the expected value of damages (i.e., the average amount that a defendant would expect to pay ex ante), it does not interfere with this goal.[96] Recognizing, however, that objections to sampling rely more on deontological than utilitarian considerations, Bone offers a rights-based defense of sampling.[97] Bone assesses whether sampling can accord with the demands of corrective justice.[98] He argues that it can, in part because "plaintiffs receive compensation in an amount that bears some relationship to defendant's wrong."[99] Meanwhile, Bone considers whether plaintiffs' procedural rights create an obstacle to sampling.[100] They can, he concludes, but appropriate sampling methodologies, usually including a regression approach, can address objections.[101]

The question of how to create a model for determining the method of proof in complex cases becomes a primary focus of an article by Laurens Walker and John Monahan.[102] They anticipate aspects of the proposal in Part III.B by arguing for "shift[ing] salient authority from principles of complex litigation … to principles of scientific evidence."[103] After noting differences between the aggregations in *Cimino* and *Hilao*,[104] Walker and Monahan argue that trial procedure should be based on

95. First, he considers the argument that concerns about consent are vitiated by plaintiff consent. *Id.* at 600-03. Bone worries that consenting plaintiffs may be waiving procedural rights that they did not have a reasonable opportunity to exercise. The irony of this argument is that the less effective the litigation system is in practically giving an opportunity to individual adjudication, the weaker the case for allowing sampling. *Id.* at 601-02. Second, he considers a defense of sampling based on the reality that the alternative may be no recovery at all but notes the risk that this may allow fiscal considerations to trump rights. *Id.* at 603-04. Third, plaintiffs might recover more on net with sampling (and defendants may pay less), taking into account the costs of adjudication. *Id.* at 604-05. But he notes that this may not always be true, given uncertainty about how much plaintiffs will spend on the sample cases.

96. *Id.* at 595-96.

97. *Id.* at 605-17.

98. *Id.* at 604-05 (suggesting that the answer depends on the particular variant of the theory of corrective justice).

99. *Id.* at 608.

100. *Id.* at 616.

101. *See id.* at 617-50 (providing specific recommendations regarding the sampling approach).

102. *See* Walker & Monahan, *supra* note 2.

103. *Id.* at 547.

104. The cases differed in timing, with aggregation in *Hilao* occurring before and in *Cimino*, after, the presentation of cases to the juries. *Id.* at 551. In addition, "[i]n *Cimino* . . . the aggregation was done by the court, but in [*Hilao*] the aggregation was done by the special master or court appointed expert." *Id.* at 552. Walker and Monahan, who have expertise

trademark law,[105] where surveys are routinely used to assess the degree to which consumers may be confused by allegedly similar marks.[106] Instead of control of the sampling process residing in the judge, the parties would hire experts who would conduct their own random samples and then testify concerning their conclusions.[107] The judge's role would be to determine whether scientific evidence is admissible under *Daubert v. Merrell Dow Pharmaceuticals*.[108] If it found liability, the jury would decide, based on the competing experts' submissions, on "a total amount of compensation to be divided among the class or among subclasses," without considering any data for individual plaintiffs or individual damage verdicts.

The Walker-Monahan proposal helps address one aspect of random sampling that may nag at those who see random sampling as a task that might be suitable for an administrative agency created by the legislature, but not for the court.[109] The proposal reduces the need for procedural innovation. Judges would not need to engage in random selection of cases, and they would not need to enter judgments for plaintiffs whose evidence has not been heard by the court. But the proposal has two serious weaknesses.

First, if the jury hears no individual case facts, it might be more difficult for the jury to assess the experts' evaluations. Jury competence to assess expert witnesses based on factors such as demeanor is often questioned,[110] and this proposal would fail to harness jurors' comparative advantage in analyzing individual case facts. It might be possible, however, to have experts provide the primary evidence for jurors to consider, while also allowing jurors to consider specific case facts. For example, the defendant might introduce specific facts about cases randomly selected by the

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in psychology, argue that jury knowledge that their evaluations may affect cases other than the ones before them, "may have a psychological effect on the jury and its decisions regarding damages." *Id.*

105. *Id.* at 556-61.

106. *See generally* Jack Lipton, *Trademark Litigation: A New Look at the Use of Social Science Evidence*, 29 ARIZ. L. REV. 639 (1987).

107. Walker & Monahan, *supra* note 2, at 561-65.

108. 509 U.S. 579 (1993) (providing a standard for assessing the methodology and reasoning of a scientific expert witness to determine whether testimony can be admitted).

109. Some agencies have experimented with procedures that are modeled on Rule 23 but seek to achieve efficiencies, including by the use of statistical extrapolation. *See* Michael Sant'Ambrogio & Adam S. Zimmerman, *Inside the Agency Class Action*, 126 YALE L.J. 1634, 1676-80 (2017) (discussing a statistical sampling initiative in the Office of Medicare Hearings and Appeals). Some commentators, however, suggest that an administrative agency empowered to manage class actions would face many of the same challenges that bedevil courts. *See*, *e.g.*, Robert L. Rabin, Book Review, *Tort System on Trial: The Burden of Mass Toxics Litigation*, 98 YALE L.J. 813, 826-27 (1989) (reviewing PETER SCHUCK, AGENT ORANGE ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS (1987)).

110. *See* Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 YALE L.J. 1535 (1997) (offering an extended argument that juries are not epistemically capable of assessing expert testimony).

plaintiff's expert, as a way of undermining the expert's methodology and conclusions.

Second, the Walker-Monahan proposal fails to address the ultimate question of how damages are to be distributed among individual plaintiffs. Perhaps they simply assume that relatively homogeneous subclasses of plaintiffs would be defined, and each plaintiff would receive the average award in the subclass. But this approach increases the challenge for the commonality and predominance inquiries,[111] an issue that we will soon see in *Wal-Mart*.[112] Or perhaps they imagine that the lawyers for class representatives would apportion damages, but this increases the challenge for the representativeness and adequacy inquiries.[113] Or perhaps they imagine judges assigning individual damages, but that undermines the chief benefit of the proposal, that individual fact-finding is not required.

What may explain this omission is that defendants rather than plaintiffs have historically complained about class action sampling. In all of the judicial and academic proposals for class action sampling, one can argue forcefully that the defendants do not have much to complain about, at least if the sample is sufficiently large to minimize the expected degree of sampling error.[114] If the plaintiffs have waived due process objections as in *Cimino* or simply do not object, then it is natural to focus on defendants. If judicial unease about sampling could be narrowed to a single specific issue, particularly the defendant's right to present evidence on its behalf, these concerns could be overcome. But if what bothers jurists is more a gestalt sense that sampling and extrapolation are not judicial tasks, then the oddity of distributing to plaintiffs either evenly or in accordance with a regression will be a more significant problem. This may help explain why the earlier case law gestures toward concerns about random sampling and also why the *Wal-Mart* Court, as we will soon see, focuses not so much on the defendants' due process right as on a statutory argument.

2. *Wal-Mart* and *Tyson Foods*

a. The Cases

The Supreme Court's 2011 decision in *Wal-Mart Stores, Inc. v. Dukes*[115] disappointed advocates of class action random sampling. The opinion is one of the

111. *See supra* note 51.

112. *See infra* Part I.A.2.a.

113. *See* FED. R. CIV. P. 23(a)(3) (requiring that claims "of the representative parties are typical"), 23(a)(4) (requiring that "the representative parties will fairly and adequately protect the interests of the class).

114. For a statistically rigorous approach to determining whether class actions are sufficiently homogeneous for random sampling, see Hillel J. Bavli & John Kenneth Felter, *The Admissibility of Sampling Evidence to Prove Individual Damages in Class Actions*, 59 B.C. L. REV. 655 (2018).

115. 564 U.S. 338 (2011).

most consequential on class actions, but of the approximately forty pages of legal analysis between the two opinions, just one paragraph, a mere half page at the end of Justice Scalia's majority opinion, considered the random sampling issue.[116] The first sentence of that paragraph—"The Court of Appeals believed that it was possible to replace such proceedings with Trial by Formula"[117]—conveyed the Court's dismissiveness toward random sampling in class actions. The Court indicated unmistakably, "We disapprove that novel project."[118] The Court, however, did not feel a need to explain its reasoning in detail, providing just one sentence of explanation.[119] And although Justice Ginsburg's opinion, joined by the three additional Justices appointed by Democratic presidents, vigorously contested much of the majority opinion with respect to other issues,[120] she did not object to this reasoning and indeed joined the portion of the opinion containing it.[121]

For an assessment of future ramifications of *Wal-Mart*, the Court's dismissiveness may be no less important than its reasoning. Despite the extended arguments in multiple earlier law review articles, amicus briefs,[122] and the efforts of various district court judges, the Supreme Court did not see statistical adjudication in class actions as being a sufficiently serious issue as to require a detailed response. The Supreme Court was more concrete analytically than the Fifth Circuit in *Cimino*, but its attitude seems to reflect the lower court's sense that random sampling is simply "beyond the scope of federal judicial authority"[123] because sampling and extrapolation are just not what the courts do. If that is right, it may not matter if the Court's reasoning means that some hypothetical approaches to random sampling in class actions are not foreclosed. Something drastic would likely need to happen before Justices might see random sampling in class actions as within the judicial Overton window.

The most contentious portion of the majority's reasoning was its conclusion that the employment discrimination class action could not be certified, because it failed to meet the commonality requirement of Rule 23(a)(2) that "there are questions of law or

116. *Id.* at 367.

117. *Id.*

118. *Id.*

119. *Id.*; *see infra* text accompanying note 132.

120. *See infra* text accompanying note 124.

121. Justice Ginsburg's opinion is styled as a concurrence in part and dissent in part. The first sentence of the opinion agrees that the case "should not have been certified under Federal Rule of Civil Procedure 23(b)(2)." *Id.* at 367 (Ginsburg, J., concurring in part and dissenting in part). The last sentence of Justice Ginsburg's opinion states, "I therefore cannot join Part II of the Court's opinion." *Id.* at 378. The random sampling analysis was in Part III, and thus by negative implication, was unanimous.

122. *See, e.g.*, Brief of Amici Curiae, Labor Economists and Statisticians in Support of Respondents at 17-30, Wal-Mart Stores, Inc. v. Dukes (2011) (No. 10-277) (arguing for the statistical feasibility of extrapolating damages).

123. *In re* Fibreboard Corp. 893 F.2d 706, 711 (5th Cir. 1990); *supra* text accompanying note 56.

fact common to the class."[124] Because the plaintiffs were in many different job classifications working for many different managers at many different stores, the majority found that commonality could not be met. The majority acknowledged that certification might be appropriate if the plaintiffs established "a general policy of discrimination."[125]

So far, the majority's decision, though controversial, is not inherently at odds with the literature on random sampling in class actions. As we have seen, that literature suggests that some degree of homogeneity in the class or at least in subclasses may be necessary for random sampling to be sufficiently accurate, especially if the extrapolation is in the form of a simple average of damages for individual class or subclass members.[126] A dispute over whether a class is sufficiently homogeneous thus eliminates only the most aggressive possible applications of sampling, where regression is used to accommodate individual cases that bear little relationship to one another. Tightening the standards for homogeneity might diminish the possible domain of class action random sampling, but it by itself does not prevent it.

A sufficient reason that the majority did not resolve the case based on lack of "predominance" is that the class action was not under Rule 23(b)(3), the type of class action generally filed when monetary damages are at issue. Instead, the plaintiffs sought injunctive relief, because "the party opposing the class had acted or refused to act on grounds that apply generally to the class."[127] They then tried to piggyback backpay on the ground that backpay was "incidental" to the injunction.[128] The Fifth Circuit had created a precedent that allowed incidental damages if awarding such damages would "not require additional hearings to resolve the disparate merits of each individual's case."[129] Without resolving whether incidental damages might sometimes be available, the Court unanimously found that "claims for *individualized* relief (like the backpay at issue here) do not satisfy the Rule."[130] That is, even if the class were homogeneous enough to satisfy the requirement of commonality, the class would be too heterogeneous to fit into the hypothetical doctrine allowing damages incident to an injunction.

The analysis of random sampling emerges only in the context of this decision interpreting Rule 23(b)(2). Random sampling, the Court of Appeals had concluded, was a tool that would eliminate the need for individualized proceedings.[131] Incidental

124. FED. R. CIV. P. 23(a)(2).

125. *Wal-Mart*, 564 U.S. at 353 (citing Gen. Tel. Co. v. Falcon, 457 U.S. 147, 159 (1982)).

126. *See supra* notes 91-93 and accompanying text.

127. FED. R. CIV. P. 23(b)(2). For an assessment of this rule's scope after *Wal-Mart*, see Maureen Carroll, *Class Actions, Indivisibility, and Rule 23(b)(2)*, 99 B.U. L. REV. 59 (2019).

128. *Wal-Mart*, 564 U.S. at 365-66.

129. Allison v. Citgo Petroleum Corp., 151 F.3d 402, 415 (5th Cir. 1998).

130. *Wal-Mart*, 564 U.S. at 360.

131. Dukes v. Wal-Mart Stores, Inc., 603 F.3d 571, 625-27 (9th Cir. 2010), *rev'd*, 564 U.S. 338

damages, on the Court of Appeals' theory, could be awarded, because no individualized proceedings were necessary. The Supreme Court could easily have rejected this without addressing the propriety of random sampling by holding that incidental damages are available, if at all, only when damages do not need to be individuated, whether by individual proceedings or by other methods (such as statistical extrapolation). Instead, though, the Court concluded that individualized proceedings were required because statistical adjudication was inappropriate.

The sentence with the Court's reasoning for rejecting random sampling in class actions was the second to last substantive sentence of the opinion: "Because [the Rules Enabling Act forbids interpreting Rule 23 to] 'abridge, enlarge or modify any substantive right,' a class cannot be certified on the premise that Wal-Mart will not be entitled to litigate its statutory defenses to individual claims."[132] The last sentence (excluding the final one reversing the judgment) then closed the loop on the relevance of this reasoning, noting that "the necessity of that litigation will prevent backpay from being 'incidental' to the classwide injunction."[133] In short, the plan to use random sampling cannot eliminate the need for each individual case to be adjudicated and thus serve to make damages incidental to an injunction.

This sentence fails to address complications and plausible objections. Most notably, why should random sampling be viewed as abridging, enlarging or modifying a substantive right? The Court was seemingly drawing a distinction between substance and procedure. The case is not a typical *Erie* case, because the underlying cause of action is based on federal law rather than state law, but *Erie* doctrine is still instructive. Arguably, random sampling is not outcome determinative under *Guaranty Trust Co. v. York*,[134] because it affects only the amount of damages and does not involve a binary determination of liability or even of the extent of liability. The literature on the distinction between procedure and substance is too voluminous to be reviewed here,[135] but one approach is to distinguish the "right of action" from the "manner" or "remedy."[136] Random sampling would seem to concern the "manner" of determining liability and damages, not the underlying right of action. Presumably, the Court's concern is that procedure might "abridge" a substantive right because it might

(2011).

132. *Wal-Mart*, 564 U.S. at 367 (internal citations omitted) (citing 28 U.S.C. § 2072(b)).

133. *Id.*

134. 326 U.S. 99 (1945).

135. *See*, *e.g.*, Edgar H. Ailes, *Substance and Procedure in the Conflict of Laws*, 39 MICH. L. REV. 392 (1941); D. Michael Risinger, *"Substance" and "Procedure" Revisited with Some Afterthoughts on the Constitutional Problems of "Irrebuttable Presumptions,"* 30 UCLA L. REV. 189 (1982); Jeffrey S. Lubbers & Nancy G. Miller, *The APA Procedural Rule Exemption: Looking for a Way to Clear the Air*, 6 ADMIN. L.J. (1992); Thomas O. Main, *The Procedural Foundation of Substantive Law*, 87 WASH. U. L. REV. 101 (2010).

136. Yaad Rotem, *Substance Versus Procedure in the Conflict of Laws: Israel as a Case Study*, 22 J. TRANSNAT'L L. & POL'Y 1, 4 (2012-13).

result in a different damages award, but many procedural and evidentiary decisions plausibly alter results at the margins.

Given the Supreme Court's terseness, it is not surprising that one can offer interpretations of the opinion that are quite narrow. In addressing the approach to implementing sampling by the Court of Appeals, the Supreme Court noted, liability and damages "would be determined in depositions supervised by a master . . . without further individualized proceedings."[137] Master-supervised depositions are not the only sampling methodology. *Cimino*, for example, featured individualized proceedings, albeit for only a sample of cases. And so one might argue that even if fact-finding by a special master through depositions abridges a substantive right, perhaps fact-finding by a jury in a random sample of cases would not. Such proceedings might be sufficient to count as the sort of individualized assessments that would suffice to prevent damages incidental to a Rule 23(b)(2) class action. The Court in *Wal-Mart*, on this theory, merely showed that the more drastic approach of eliminating all individualized fact-finding, though necessary to qualify as "incidental," was invalid.

Ironically, however, even though *Tyson Foods* narrowed *Wal-Mart*, its clarifications may have made such a narrow reading more difficult to sustain by clarifying the distinction between the two. In *Tyson Foods*,[138] the class members were all workers from a single pork processing plant in Iowa. Although the workers labored in different departments, all were required to wear protective gear, yet not all were compensated the same for the time that they spent "donning and doffing" the gear.[139] Some employees received compensation for four to eight minutes per day, while others received nothing.[140] For some, had they been paid for actual time worked, that would have taken them over 40 hours per week and they would have been entitled to overtime compensation under the Fair Labor Standards Act.[141] The legal question of compensability for time donning and doffing gear was sufficient for commonality.[142] But Tysons argued that "necessarily person-specific inquiries into individual worktime predominate over the common questions."[143] The Supreme Court rejected this argument, because the relevant evidence was the same for all employees,[144] even though the same testimony might have different implications for different employees.

That evidence came in two forms. First, there was testimony by an industrial relations expert, who endeavored to measure systematically the time that it took to don and doff in the plant. His methodology was simple: The expert videotaped

137. *Wal-Mart*, 564 U.S. at 367.

138. Tyson Foods, Inc. v. Bouaphakeo, 577 U.S. 442 (2016).

139. *Id.* at 447.

140. *Id.*

141. *Id.* (citing 29 U.S.C. § 207(a)).

142. *Id.* at 454.

143. *Id.*

144. *Id.*

donning and doffing in the plant, and he then averaged the time for different departments.[145] Second, another expert used information from employees' time cards to calculate how much compensation they actually received for donning and doffing and how much they should have received, assuming that the time that they spent donning and doffing had been the average calculated by the first effort.

The Supreme Court found such evidence permissible, even in a class action, and even though it would translate into different amounts of compensation for different members of the plaintiff class. A precedential case on donning and doffing provided one reason. In *Anderson v. Mt. Clemens Pottery Co.*,[146] the Supreme Court had allowed "a representative sample to fill an evidentiary gap created by the employer's failure to keep adequate records."[147] If such evidence could be introduced in individual actions, then it also could be brought in class actions.[148] Indeed, the Rules Enabling Act now helps the plaintiffs, since preventing them from introducing in a class action evidence that they could have introduced in individual actions would abridge a substantive right.[149] The *Tysons Foods* Court distinguished *Wal-Mart* by arguing that the latter case did not involve a common policy that representative evidence could address.[150] "[I]f the employees [in *Wal-Mart*] had brought 1½ million individual suits," the Court concluded without citing any law establishing the proposition, "there would be little or no role for representative evidence."[151]

b. Academic Interpretations

To consider the combined implications of *Wal-Mart* and *Tyson Foods*, imagine a scenario that is halfway between them. Suppose that in *Tyson Foods*, the representative evidence was not a study commissioned after the relevant period that was the subject of the suit. Instead, imagine that over the years of work in question, all employees were videotaped by security cameras when they donned and doffed, and the videos were preserved. Could a court have certified a class action in which, at trial, a random sample of such videos would be introduced into evidence, with statistical evidence used to calculate donning and doffing times for the remaining plaintiffs? Two significant academic accounts, read side by side, see *Tyson Foods* as leaving meaningful, though cabined, room for random sampling whenever (i) the sample would be admissible in an individual action and (ii) the class is homogeneous enough that sampling will not distort substantive rights.

145. *Id.* at 450.

146. 328 U.S. 680 (1946).

147. *Tyson Foods*, 577 U.S. at 456.

148. *Id.* at 458-59.

149. *Id.* at 455 (citing Rules Enabling Act, 28 U.S.C. § 2072(b)).

150. *Id.* at 458.

151. *Id.*

For Jonah Gelbach, the key to *Tyson Foods* is that the relevant evidence was "counterfactual evidence," i.e. evidence of how long donning and doffing would take in the absence of direct evidence.[152] Statistical counterfactual evidence is admissible but would generally not be admissible if direct evidence existed, Gelbach argues, because it would not be sufficiently reliable.[153] That is, if one had direct evidence like a videotape of how long it took an employee to don and doff, then, under Gelbach's approach, a retrospective study of donning and doffing times would have no probative value. Moreover, there would be no reason to introduce videotapes involving one employee in the individual litigation to calculate damages for another employee for whom videotapes were also preserved. The class mechanism would thus not be available if the distinction between counterfactual and other evidence is at the heart of *Tyson Foods*, and employees would need to pursue their cases individually.

Still, Gelbach's evidentiary approach could be applied to support statistical adjudication in this context. Just because it wouldn't be an obvious litigation strategy to introduce evidence about a random sample of other employees when direct evidence of the plaintiff employee's activities is available does not mean that the plaintiff is barred from introducing such evidence. The question would be whether the random sample is sufficiently probative,[154] not whether it is the best evidence.[155] Parties sometimes forego the best possible evidence because that evidence would be more expensive or take longer to present to the court. If an expert has already carefully timed donning and doffing of some employees, both litigants might reasonably choose not to introduce more individualized evidence, calculating that the costs of developing and introducing such evidence exceed the benefits.

At least in the absence of direct evidence, videotapes showing how long some people took to perform a task seem probative of how long another person might have taken.[156] *Tyson Foods* approves of evidence consisting of a retrospective study that did not encompass many of the plaintiffs. Contemporaneous videotapes taken in the actual workplace of a randomly selected set of plaintiffs would seem at least as probative. So,

152. Jonah B. Gelbach, *The Triangle of Law and the Role of Evidence in Class Action Litigation*, 165 U. PA. L. REV. 1807, 1818 (2017).

153. *Id.* at 1819 ("When direct evidence of a fact is available, counterfactual evidence of the same fact will no longer be useful—at least not if the factual evidence is credited.").

154. *See* FED. R. EVID. 401(a) (finding evidence "relevant" if "it has any tendency to make a fact more or less probable than it would be without the evidence").

155. Evidence law does contain a "best evidence rule." *See id.* Rule 1002 (requiring "original writing, recording, or photograph" to prove the content). But this rule does not generally require litigants to introduce only the most probative evidence.

156. Indeed, Gelbach emphasizes that counterfactual representative evidence is admissible only where it is sufficiently probative, which depends in turn on whether the relevant workers are sufficiently similar. Gelbach, *supra* note 152, at 1831. But Federal Rule of Evidence 401 makes no distinction between direct and counterfactual evidence. *See supra* note 154. So Gelbach's point must be that direct evidence concerning one plaintiff will not generally be sufficiently probative as to another plaintiff.

such videotapes should be admissible as well. And that should be so regardless of whether better evidence exists, such as comprehensive videographic history of a particular employee's donning and doffing.

If this analysis is correct, then *Tyson Foods* and *Wal-Mart* can be harmonized by emphasizing the large degree of heterogeneity in *Wal-Mart*. Particularly given the Supreme Court's emphasis on the lack of commonality in *Wal-Mart*,[157] it is not hard to imagine a court ruling that evidence of discrimination against one employee would have no probative value in a suit by another employee. But random sampling might have probative value in a case, like the hypothetical variant on *Tyson Foods*, with less heterogeneity. An advocate of a narrow reading might thus see *Wal-Mart* and *Tyson Foods* as involving ordinary principles of admission of evidence, combined with the recognition that the Rules Enabling Act does not modify those rules in a way that would expand substantive rights. On this reading, random sampling is perfectly permissible as long as the cases are sufficiently similar, with the relevant degree of similarity being matters for evidence law.

Robert Bone offers an argument quite different from Gelbach's,[158] but his analysis also suggests that random sampling would have been permissible if the relevant evidence were actual videotapes of random employees donning and doffing during the time period (or an expert analysis of such videotapes) rather than a study created after the fact. Bone offers a model building on the following *Tyson Foods* statement: "whether a representative sample may be used to establish class wide liability will depend on the purpose for which the sample is being introduced and on the underlying cause of action."[159] Bone candidly admits that his may not be "the only reasonable interpretation," but suggests that it is the most reasonable "normative extension" of "what the Court says and does in *Tyson Foods*."[160]

The first factor in Bone's analysis is the "purpose for which the sample is being introduced."[161] Bone rejects the proposition that sampling is permissible only where there is an evidentiary gap of the sort that occurred in *Tyson Foods* because of the employer's failure to maintain records. Rather, an evidentiary gap is just an example of an "enforcement obstacle"[162] that may justify random sampling. Subject to the other two factors, "sampling can be used to overcome any serious proof obstacle that systematically deprives a large number of injured parties of compensation, impedes enforcement of the substantive law, and leaves the defendant free to retain the benefits of its unlawful conduct."[163] This factor in isolation supports even random sampling in

157. *See supra* notes 124-27 and accompanying text.

158. *See* Bone, *Future of Statistical Adjudication*, *supra* note 2.

159. 577 U.S. at 460.

160. Bone, *Future of Statistical Adjudication*, *supra* note 2, at 633.

161. *Id.* at 633.

162. *Id.* at 635.

163. *Id.* at 636.

Wal-Mart, Bone concludes, and thus also our *Tyson Foods* hypothetical with contemporaneous video evidence.

The second factor requires the court to consider the "substantive policies underlying the cause of action."[164] In *Tyson Foods*, the classification of the FLSA as "remedial" supported sampling.[165] But the more general approach would be to require a balance of the dangers of false positives (recoveries when the defendant is not liable) and false negatives (absence of recoveries when the defendant is liable).[166] Bone suggests that the FLSA places a great weight on avoiding the danger of false negatives. Plausibly, however, this factor arguably also would have supported random sampling even in *Wal-Mart*, given the importance of deterring discrimination and in compensating victims of such discrimination.[167]

Finally, Bone suggests that the level of heterogeneity in the class constitutes a third factor "because it affects the reliability of a sampling methodology."[168] Bone cites[169] the following comment in *Tyson* distinguishing *Wal-Mart*: "[p]ermitting the use of that sample in a class action, therefore, would have violated the Rules Enabling Act by giving plaintiffs and defendants different rights in a class proceeding than they could have asserted in an individual action."[170] To Bone, heterogeneity may matter from a utilitarian perspective because it relates to costs and benefits, or from a rights-based perspective "when it produces a substantial divergence between average recovery and actual entitlement."[171] Given that this factor must have outweighed the other two in *Wal-Mart*, Bone's analysis, like Gelbach's, leaves substantial room for random sampling in future cases.

A reader of these leading academic works on *Tyson Foods* may thus be left with the sense that the Supreme Court is open to statistical adjudication and that, in a damages case with a class properly meeting the commonality requirement, a statistical adjudication plan might help the class meet the additional requirements of Rule 23(b)(3).[172] Gelbach suggests that the Supreme Court might focus in future class action cases on the balancing test of *Mathews v. Eldridge*.[173] When the realistic alternative to class action adjudication is no adjudication, that pragmatic test might allow frequent

164. *Id.* at 639.

165. *Id.* (citing *Tyson Foods*, 577 U.S. at 456).

166. *Id.* at 641.

167. *See, e.g.*, Tiffany L. King, *Working Out: Conflicting Title VII Approaches to Sex Discrimination and Sexual Orientation*, 35 U.C. DAVIS L. REV. 1005, 1038-41 (2002) (arguing that Title VII is a remedial statute that should be interpreted expansively).

168. Bone, *Future of Statistical Adjudication*, *supra* note 2, at 642.

169. *Id.* at 642 n.154 (cross-referencing discussion *id.* at 631).

170. *Tyson Foods*, 577 U.S. at 458.

171. Bone, *Future of Statistical Adjudication*, *supra* note 2, at 643.

172. *See supra* note 51.

173. Gelbach, *supra* note 152, at 1843.

use of sampling. Bone concludes that his interpretation, supplemented by factors he offers to guide future decisions, can guide further decisions about sampling.[174] This history might leave the advocate of improving access to justice through random sampling to conclude that the path to achieving this goal is simply to continue developing the principles underlying the case law.

B. The Future of Class Action Random Sampling

This section argues that barring a substantial shock to the current adjudicative environment, this path seems unlikely to be productive. The Justices' opinions indicate that they do not like statistical adjudication, though they are not sure they can articulate exactly why. Anyone who has ever tried to convince friends who don't like something or someone but can't explain why should realize that the exercise is more likely to end with a detailed explanation of the dislike than with a changed preference. This section will argue that *Wal-Mart* and *Tyson Foods* are best read as cases expressing, however inarticulately by the standards of the Supreme Court, strong due process concerns with random sampling in class actions. In particular, Part I.B.1 suggests that the concern is with a court's extrapolating judgments from randomly sampled cases to other cases, especially without considering any individualized evidence that the parties might wish to offer. Part I.B.2 then considers proposals that recognize that *Wal-Mart* effectively killed class action random sampling but seek to revive them. Such proposals could serve as a useful approach forward if courts conclude that one is needed but are unlikely to overcome current antipathy towards sampling.

1. A Due Process Reading of Wal-Mart

Wal-Mart appears to be an undertheorized case, dismissively rejecting statistical adjudication, albeit only as an indirect way of blocking an expansive reading of Rule 23(b)(2).[175] *Tyson Foods* seeks to avoid the prospect that this casual statement could have broader ramifications for the use of statistical evidence, both in class actions and beyond. The *Tyson Foods* Court, this section argues, had no greater sympathy for statistical adjudication than the *Wal-Mart* Court, and therefore while the Court needed to distinguish *Wal-Mart*, it did not wish to back too far off the *Wal-Mart* Court's reasoning. It accomplished this by finding that *Wal-Mart* was a case in which the relevant evidence in *Wal-Mart* would not have sufficed in an individual adjudication, while that was not the case in *Tyson Foods*. It is thus understandable that Bone and Gelbach focus on evidentiary issues in constructing normatively attractive post-*Tyson Foods* doctrinal regimes. This section will offer an alternative, arguing that the issue underlying *Wal-Mart* and *Tyson Foods* remains due process.

174. Bone, *Future of Statistical Adjudication*, *supra* note 2, at 671.

175. *See supra* notes 127-33 and accompanying text.

It might appear that any satisfactory interpretation must rely on an interpretation of the Rules Enabling Act,[176] under which the *Wal-Mart* condemnation of "Trial by Formula" was based. Bone does offer an explanation for why the Court thought that there was a Rules Enabling Act violation in *Wal-Mart*. "The argument is that if sampling alters substantive rights by skewing outcomes," for example by creating a regression to the mean, "it can be used legitimately only when it is authorized by substantive rules made in the usual way substantive law is made."[177] But such skewing could occur in *Tyson Foods* as well as in *Wal-Mart*. In a footnote, Bone also suggests without endorsing the possibility "that sampling converts Rule 23 into more than a joinder device by injecting a substantive dimension and that its substantive effects are more than incidental."[178] But the Court certainly never explains what this substantive dimension is. And Bone reasonably concludes "that outcome effects, even predictable and systematic effects, alone cannot be enough to trigger the REA or separation-of-powers concerns."[179]

Looking for the Supreme Court's concern in the Rules Enabling Act itself is likely a fool's errand. Indeed, the most straightforward interpretation even of what the Court itself says is that the Rules Enabling Act does not change anything. After all, the Federal Rules cannot "abridge … any substantive right."[180] In other words, Rule 23 preserves the status quo, and the Court's objection to sampling must rest in the status quo. That is why the majority states that the result should be the same as would obtain in individual litigation. The Rules Enabling Act turns against the defendant in *Tyson Foods* only because the Court believed sampling would be permitted in individual litigation in that case.[181]

The animating force behind the Court's approach also does not appear to lie in a reinterpretation of Rule 23 itself. *Wal-Mart* teaches that statistical adjudication cannot make up for a lack of commonality, and nothing in *Tyson Foods* contradicts this. If a class is too heterogeneous to allow for commonality without statistical methods, it

176. 28 U.S.C. § 2072 (2024); *see supra* notes 132-36 and accompanying text.

177. Bone, *Future of Statistical Adjudication*, *supra* note 2, at 662.

178. *Id.* at 663 n.231. The Federal Rules of Civil Procedure are not invalid under the Rules Enabling Act merely because they have "incidental" effects on substance. *See id.* (citing Burlington N.R.R. Co. v. Woods, 480 U.S. 1, 5, 8 (1987)).

179. *Id.* at 664.

180. 28 U.S.C. § 2072(b).

181. *See* Gelbach, *supra* note 152, at 1822 n.70; *supra* text accompanying note 149. Gelbach accordingly spends little analysis on the Act itself. Gelbach most directly addresses the relevance of the Rules Enabling Act by noting Tyson's argument that applying averages determined by sampling would change the burden of proof. Gelbach, *supra* note 152, at 1814 (citing Brief of Petitioner at 36, *Tyson Foods*, 577 U.S. 442 (2016) (No. 14-1146)). Gelbach calls this argument "beguiling," *id.*, and the negative connotations of this adjective are appropriate given that the burden of proof would remain formally unchanged. Meanwhile, even Bone's recommended approach also largely has little connection to the Rules Enabling Act.

appears that deficiency cannot be addressed through statistical adjudication. But it is hard to read this proposition into the requirement that "there are questions of law or fact common to the class."[182] The Court arguably appears in *Wal-Mart* to have read the affirmative requirement of common questions to entail that there not be uncommon questions that will make it difficult for a court to adjudicate a class action.[183] But even on this atextual interpretation, one might think then that the Court would allow the availability of statistical methods to factor into the commonality inquiry.

A resolution to this puzzle is that for the Court, the problems with the *Wal-Mart* approach are more foundational. And the fact that courts have not embraced statistical sampling in class actions post-*Tyson Foods*[184] suggests that judges do not expect much success in applying Trial by Formula even in class actions with a relatively high degree of commonality. Perhaps the most significant distinction between *Wal-Mart* and *Tysons Foods* is that the former more clearly envisioned the use of extrapolation to resolve cases. The Ninth Circuit in *Wal-Mart* quoted at length its earlier decision in *Hilao*.[185] Recall that in that case, a special master conducted depositions of selected plaintiffs and planned to perform the extrapolation himself.[186] The District Court and Ninth Circuit had not settled on this procedure, perhaps explaining why the Supreme Court did not address it in more detail. All the Supreme Court felt that it needed to do was to note that this hypothetical possibility would not salvage the attempt to obtain damages incidental to a Rule 23(b)(2) class action. In *Tyson Foods*, however, a jury had calculated at least the aggregate damages award,[187] and the defendant presumably could have introduced evidence as to individual cases.

Using extrapolation in lieu of individualized decision-making is at the heart of statistical adjudication. It therefore seems quite reasonable to hazard that the source of the Justices' visceral reaction against statistical adjudication in *Wal-Mart* is a concern about such extrapolation, rather than a concern merely about excessive heterogeneity in the class. But if so, what is the legal basis for the Court's concern? The obvious answer is that the underlying concerns relate to due process. It would not be hard to develop due process case law in a way that would bar extrapolation and thus statistical adjudication. For example, the Court could cite longstanding precedent that "[t]he

182. *See* FED. R. CIV. P. 23(a)(2).

183. *See supra* notes 124-27 and accompanying text.

184. *See supra* note 10.

185. Dukes v. Wal-Mart Stores, Inc., 603 F.3d 571, 625-27 (9th Cir. 2010), *rev'd*, 564 U.S. 338 (2011).

186. *See supra* notes 65-74 and accompanying text.

187. The jury, however, had not disbursed the award before the Supreme Court case. *See Tyson Foods*, 577 U.S. 442, 461 (2016). The Supreme Court did not resolve whether the lower court might be able to find a suitable methodology to complete the disbursement. But the case at least suggests that if the jury had identified awards for specific plaintiffs, that would have been permissible.

fundamental requisite of due process of law is the opportunity to be heard."[188] Statistical evidence is acceptable, but a party must be allowed to introduce individualized evidence. *Mathews* presents a complication, but the Court plausibly could hold that while the form of due process may change, not providing an opportunity to be heard at all always violates due process.[189]

This due process reading is, admittedly, speculative, as neither *Wal-Mart* nor *Tyson Foods* contains an express due process holding. A thorough treatment of the due process issue in *Wal-Mart* would have been quite a diversion, given the limited role of statistical adjudication in the Court's broader argument.[190] And because *Tyson Foods* allowed the representative evidence in question, the Court, while needing to distinguish *Wal-Mart*, did not feel a need to construct a more elaborate justificatory framework. Perhaps Justices preferred to resolve the case on statutory grounds (or implicitly as a reading of Rule 23) rather than consider constitutional questions, even though the due process issues were briefed.[191] The Rules Enabling Act does not do the ultimate work but served as a useful placeholder. The Court's ruling also might be read as employing the avoidance canon[192] to read the FLSA narrowly, as requiring individualized proceedings.

The Court's reticence theoretically leaves open the possibility that the Court still could approve statistical adjudication in the future. And if Congress enacted a regime of statistical adjudication, particularly in an administrative agency, it seems quite plausible that the Court might find it constitutional. But one cannot read *Tyson Foods*' repetition of "Trial by Formula" and conclude that the Justices now thought such a trial to be a good thing, somehow shorn of its association with "Trial by Ordeal." "Trial by Anything" is pejorative unless "Anything" is "Jury." An interpretation like Bone's or Gelbach's may reflect the best reading of the lines of the opinions, and such an interpretation may suffice in a case that meets the commonality requirement anyway and where the only question is whether statistical evidence can be admitted. Reading between the lines, however, there are strong arguments that *Tyson Foods* will not open the door to the sort of random sampling at issue in *Cimino* or *Hilao*.

188. Grannis v. Ordean, 234 U.S. 385, 394 (1914); Mullane v. Cent. Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950) (quoting Grannis, 234 U.S. at 394).

189. Or it could hold, even though random sampling advocates would disagree, that preventing individualized determinations simply affords too great a risk of erroneous deprivations of rights. If for some reason the Court did not want to rest on due process, it could have expressed similar concerns in holding that extrapolation violated the right to a jury trial. *See* Bone, *Normative Evaluation*, *supra* note 2, at 259 n.79 (considering the relevance of the jury trial right); *supra* note 63 and accompanying text.

190. *See supra* note 131 and accompanying text.

191. *See*, *e.g.*, Brief for Petitioner at 36-40, *Tyson Foods*, 577 U.S. 442 (2016) (No. 14-1146).

192. *See* Ashwander v. Tennessee Valley Auth., 297 U.S. 288, 345-48 (1936) (Brandeis, J., concurring).

2. Proposals to Revive Random Sampling in Class Actions

Viewed together, the leading revival proposals seek to resuscitate statistical adjudication without defying *Wal-Mart*'s bar on "Trial by Formula," but each ultimately still depends on extrapolation that today's Court is unlikely to bless. Jay Tidmarsh recognized that what he called "trial by statistics . . . suffered from a fatal disease,"[193] the failure "to allow the parties to submit individualized proof," especially on issues of liability.[194] Though writing before *Tyson Foods*, Tidmarsh recognized that statistical adjudication "in its pure form is dead and unlikely to return."[195] But he offered a clever proposal for moving forward. The proposal would work as follows: the court initially would try a randomly selected set of individual cases and then perform extrapolation, as in other approaches to statistical adjudication.[196] But the extrapolation initially would result in only presumptive judgments. Either party could then overcome the presumption by introducing evidence challenging the initial decision.

To assess this proposal, it is useful to separate two types of cases: positive-value cases (i.e., those for which the benefits of bringing the case individually exceed the costs) and negative-value cases (i.e., those for which the costs of bringing the case exceed the benefits).[197]

With respect to positive expected value cases, Tidmarsh, tracking others who have emphasized the importance of minimal heterogeneity in the class,[198] suggests that his proposal would have little value if there are "significant fact-specific variations in either liability or damages."[199] If either side can challenge the presumption by introducing evidence, then as long as the stakes are sufficiently high relative to the cost

193. Tidmarsh, *supra* note 12, at 1464.

194. *Id.* at 1464, 1477 ("[D]enying defendants the ability to submit evidence tending to disprove that their conduct caused harm to a specific claimant remains a bridge too far under present American law.").

195. *Id.* at 1505.

196. Tidmarsh specifically provides that the extrapolation would occur simply by applying "the average award." *Id.* at 1478. But the approach presumably could be amended to provide the result of a regression-based analysis. Tidmarsh also considers approaches such as using the median judgment or eliminating outliers. *Id.* at 1484.

197. Tidmarsh defines a "negative-value" case as one "in which the parties have little to no incentive to contest the claims individually." *Id.* at 1487. Below, we will consider "negative expected value" claims, which, as that phrase is used in the literature on the law-and-economics literature, are claims that would be negative value *if* litigated all the way to trial. *See infra* notes 249-55 and accompanying text. Plaintiffs might individually bring negative expected value claims because of the possibility of settlement, but a claim can be negative-value as defined by Tidmarsh only if it would not be brought, even taking into account settlement.

198. *See supra* notes 89-92 and accompanying text.

199. Tidmarsh, *supra* note 12, at 1487.

of litigation, both sides likely will do so. And thus, this form of statistical adjudication devolves into ordinary litigation. Tidmarsh suggests that the mechanism might be useful "in positive-value cases with little variability on the issues of liability and damages."[200] Such cases presumably will be litigated anyway, so Tidmarsh's suggestion is that his approach will lower litigation costs. Perhaps, but a court could, by using bellwether cases as an alternative to a class action, create an environment conducive to settlement.[201] Under the standard economic theory of settlement, cases will tend to settle when the plaintiff's expectation of recovery exceeds the defendant's by no more than their combined litigation costs.[202]

The more relevant cases are the negative-value cases that would not be brought absent a class action. Cases like *Wal-Mart* and *Tyson Foods* may generally fit into this category, though perhaps a few plaintiffs might have had sufficient incentive to bring individual claims. The economic literature on class action aggregation and indeed on litigation generally has paid significant attention to cases that would be negative value if brought to trial, exploring both the concerns that plaintiffs with meritorious claims will not be able to bring them as a result of litigation costs[203] and that plaintiffs with frivolous claims may be able to extract settlements to save the cost of litigation.[204] For present purposes, it suffices to say that settlement dynamics are complex, but when the costs of litigation are high relative to recoveries at stake, there is a significant chance that case resolutions may deviate substantially from what one would expect the average jury to award.[205]

If Tidmarsh has developed a mechanism that solves or substantially addresses the problem of negative value suits, then he has resolved an issue substantially greater

200. *Id.*

201. For a defense of such trials, focusing both on utilitarian and democratic goals, see Alexandra D. Lahav, *Bellwether Trials*, 76 GEO. WASH. L. REV. 576 (2008).

202. *See*, *e.g.*, George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 13-16 (1984).

203. For an example of an innovative proposal to improve access to justice with mechanism design, see Yotam Kaplan & Ittai Paldor, *Social Justice and the Structure of the Litigation System*, 101 N.C. L. REV. 469 (2023), which suggests that onetime litigants combating repeat litigants be able to cap total litigation spending.

204. This would not be an issue for negative value suits in Tidmarsh's sense but could be an issue for negative expected value suits. *See supra* note 197; *see also* Robert G. Bone, *Modeling Frivolous Suits*, 145 U. PA. L. REV. 519, 530 (1997) (explaining how negative expected value suits may be frivolous or meritorious). Bone's article is one of many assessing how to combat frivolous suits. *See also* A. Mitchell Polinsky & Daniel L. Rubinfeld, *Sanctioning Frivolous Suits: An Economic Analysis*, 82 GEO. L.J. 397 (1993).

205. *See*, *e.g.*, Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LIT. 1067, 1084 (1989) (noting that settlement value may depend on asymmetry of costs and also on timing considerations); Joseph A. Grundfest & Peter H. Huang, *The Unexpected Value of Litigation: A Real Options Perspective*, 58 STAN. L. REV. 1267 (2006) (elaborating on how real options may affect lawsuit value).

than the problem of random sampling in class actions. A great strength of Tidmarsh's proposal is that one could imagine applying it in any sort of case, including purely individual litigation. By establishing a presumption of a damages award, perhaps based on statistics from similar cases, a judge can change the status quo and affect settlement negotiation dynamics. The better calibrated these presumptions, the closer the judge will bring settlements to the hypothetical awards that trials would likely produce. But this is also the proposal's great weakness in the class action context. A judge simply has no general power to enter a provisional judgment in a typical case—or, at least, if that power exists, it has not been recognized. For a provisional judgment to matter, it must have some substantive effect, at least changing the burden of production.[206]

That raises the question of what gives the court the power to enter a provisional judgment based on statistical adjudication in a class action context. A judge ambivalent about statistical adjudication, or favorable about it but anticipating ambivalent reviewing judges, might wish to adopt the proposal. It has all the markings of a compromise, and a modest one at that. But for those with antipathy toward statistical adjudication, such a compromise will likely seem unappealing. If the concern underlying such antipathy is that a court is entering judgments without presentation of individualized evidence, then that concern applies to provisional judgments too. In both contexts, the concern is the source of power. Tidmarsh properly points out that case law sometimes does create some presumptions,[207] but these are generally tied to specific areas of substantive law.[208] In principle, presumptions could arise as a matter of procedural common law, but because the Federal Rules of Civil Procedure and various state equivalents exist, the courts are hesitant to innovate outside rules enactment processes.

As an extension of the proposal, Tidmarsh suggests a fee-shifting provision, under which the party that rejects the presumption is responsible for paying the other party's legal fees. This is a clever proposal, departing from typical fee-shifting proposals in which the direction of fee-shifting depends on which party wins the litigation.[209] It

206. For an argument against judges changing burdens based on legal theoretic considerations, see generally Kevin M. Clermont, *Staying Faithful to the Standards of Proof*, 104 CORNELL L. REV. 1457 (2019).

207. *See, e.g.*, Tidmarsh, *supra* note 12, at 1478 n.70, 1497 ("Creating presumptions to aid the resolution of disputes is part and parcel of the traditional judicial function.").

208. Tidmarsh cites an article by Judge Wilkinson to support the judicial role in creating presumptions. *Id.* at 1497 n.128 (citing J. Harvey Wilkinson III, *Toward a Jurisprudence of Presumptions*, 67 N.Y.U. L. REV. 907 (1992)). Wilkinson argues that all legal rules are subject to presumptions and gives concrete examples of substantive rules. *See, e.g.*, Wilkinson, *supra*, at 915-20 (offering statutory and constitutional examples). He does not, however, argue for a free-floating judicial power to presume results of applying the law to facts.

209. *See, e.g.*, Giuseppe Dari-Mattiacci & Margherita Saraceno, *Fee Shifting and Accuracy in Adjudication*, 63 INT'L REV. L. & ECON. 1 (2020) (offering a rigorous economic model of fee shifting).

addresses the concern that a presumptive judgment does not do enough, because a burden of production is generally not difficult to meet. But it does not address the concern about judicial power, and indeed it makes that concern more salient. "[T]he American rule," Tidmarsh observes "is itself judge-made, and therefore subject to judicial modification."[210] But it's not subject to modification willy-nilly, and thus it would require a substantial shock to lead those skeptical of judicial adventures in the name of fixing practical problems to endorse such an approach. Absent such a shock, the proposal might require adoption through legislation or rulemaking.[211]

An even more adventuresome proposal is Peter Salib's: artificial intelligence should be used to accomplish the extrapolation inherent in statistical adjudication.[212] By AI, Salib does not mean large language models,[213] but rather technologies like neural networks used to perform regression tasks. Under his approach, randomly sampled cases would be used to generate training data that in turn would be used to perform the task of extrapolation to unsampled cases.[214] Parties would be able to litigate issues of algorithmic design.[215] Ultimately, Salib's central claim is that A.I. class actions would be more accurate than other forms of statistical adjudication.[216] This is relevant, of course, only if the central concern underlying *Wal-Mart* is accuracy.[217] As noted above, *Wal-Mart* and *Tyson Foods* are undertheorized, so this is a plausible doctrinal reconstruction, but I remain skeptical that it describes the motivation of the Justices, who likely would remain hostile to "Trial by Formula" even if the formula were well-calibrated.[218]

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210. Tidmarsh, *supra* note 12, at 1500. Tidmarsh in a footnote cites a case in complex litigation allowing a lawyer for a private plaintiff to recover attorney's fees from the damages. *Id.* n.147. But that is different from a rule requiring one party to pay the other side's attorney's fees or tying such an obligation to the decision to introduce evidence to counter a presumptive judgment.

211. Indeed, Tidmarsh acknowledges that legislation or administrative rulemaking would be "[t]he prudent course." *Id.* at 1501.

212. *See* Salib, *supra* note 13.

213. ChatGPT was introduced at the end of November 2022, and Salib's article was published in 2022. His article thus contains no references to ChatGPT, large language models, or transformer-based architectures. The proposal could, however, be adapted to large language models. *See* John Morison & Tomás Mclnerney, *When Should a Computer Decide? Judicial Decision-Making in the Age of Automation, Algorithms and Generative Artificial Intelligence*, *in* RESEARCH HANDBOOK ON JUDGING AND THE JUDICIARY (forthcoming 2024), https://perma.cc/6UDM-C2VB (considering the possibility of language models performing judging).

214. Salib, *supra* note 13, at 548-50.

215. *Id.* at 550-53.

216. *Id.* at 555-59.

217. Salib offers an extended argument that many of the concerns of the *Wal-Mart* Court can be explained on accuracy-based grounds. *Id.* at 535-40.

218. *See supra* Part I.B.1.

II. RANDOM SAMPLING OF ADJUDICATIONS

The above analysis identifies two fundamental problems with random sampling in class actions: The Supreme Court seems skeptical of statistical adjudication, and worse, there is arguably merit to the concern that it would require courts to enter judgments in cases in which no evidence is offered. The low likelihood that the courts will embrace random sampling in class actions anytime soon, though frustrating for advocates who would hope to develop statistical adjudication, can also be liberating. With a longer time frame, we can consider how to implement random sampling to improve access to justice, initially unconstrained by concerns about political feasibility. We will undertake that inquiry here, before turning in Part III to assess whether we can construct feasible proposals based on this alternative approach.

Most serious proposals for random sampling have been developed in class actions, but random sampling can occur outside the class action context too. We need not aggregate cases to perform random sampling. The alternative, which we will explore in Part II.A.1, is to select individual cases at random and increase the damages in those cases, providing no relief in others. Though perhaps feasible for some small claims with legislative authorization, this will generally be unattractive because some plaintiffs will receive too much and others will receive nothing. Although defendants end up paying the right amount on average, this argument has proven insufficient to alleviate courts' concerns about random sampling.[219]

Though perhaps a thought experiment for this reason, it is a useful one in part because it highlights the reasons that it may make sense to couple some form of aggregation with random sampling. Each addresses a weakness of the other. Aggregation can smooth out the inconsistencies that we would have in a regime of individual random sampling, ensuring equitable treatment across plaintiffs, at least as to objectively known variables. Random sampling, meanwhile, provides a means of measuring the relevance of residual heterogeneity after aggregation has occurred. Unless all aggregated cases are identical, absent random sampling, resolution will require individual adjudication that vitiates the benefits of aggregation. If there were a form of aggregation that resolved plaintiffs' relative claims without judicial intervention—for example, if we trusted plaintiff class action lawyers to distribute any damages fairly among all class members—then that aggregation technique could be wielded in conjunction with random sampling. The aggregation would save the courts from the task of entering judgments without considering individualized case facts, and the randomization would save the courts from the task of considering each case individually.

From this perspective, the problem with statistical adjudication in class actions is that we cannot trust class action plaintiffs' lawyers to distribute damages from

219. *See* notes 96-97 and accompanying text.

randomly sampled cases and thus need forms of aggregation that better protect plaintiff autonomy. As it happens, an existing literature suggests an alternative form of aggregation for mass torts—claim sales. Part II.B reviews this literature, noting and critiquing the arguments that a regime of free alienation of tort or other claims would save the courts the need to engage a class certification analysis. If legal obstacles to claim sales could be overcome,[220] markets themselves could provide plaintiffs compensation for their injuries. Competition, supplemented by antitrust and consumer protection law, would ensure fairness across plaintiffs. This literature, however, has missed a critical point, that consolidation of claims in purchasers may not suffice to achieve the litigation simplification benefits of the class action.

Part II.B.1 offers a preliminary description of how these two types of proposals, for random sampling and claim sales, could be combined. This initial description places aside practicality objections, such as the need for legislation regarding both the claim sales and the randomization, as well as questions about the constitutionality of any such legislation, because Part III. will offer a proposal that avoids these concerns. The core proposal in Part II.B.1 is that claims would be sold, thus accomplishing aggregation, and then only a small fraction of cases would survive randomization. For example, one-twentieth of cases might randomly be selected for adjudication, but any damages received would be multiplied by twenty. Willing claim purchasers would have little to complain about and might in any event benefit from this regime. The appropriateness of such a scheme might then depend on fairness to defendants, and that in turn might depend on factors such as the number and size of claims.

A. Proposals for Random Sampling

The idea of using random sampling to save enforcement resources is a familiar one. Part II.A.1 notes that administrative enforcement is often effectively random, with high fines used to balance a low probability of enforcement, and it discusses proposals that would make such randomization more explicit. Part II.A.2 then introduces proposals applying this approach to litigation.

1. Random Sampling in Administrative Enforcement

Perhaps the classic example of quasi-random administrative enforcement is in traffic enforcement. Police cannot be everywhere, so to catch traffic violators, officers position themselves at locations that are necessarily discrete and ideally discreet. When drivers receive tickets, the fines are set at a level far higher than the level that officials would likely set for each violation if enforcement were more ubiquitous.[221]

220. *See infra* notes 278-80 and accompanying text.

221. *See, e.g.*, Riccola Voigt, *Red Lights and Speed Camera Traffic Tickets* (June 14, 2022), https://perma.cc/Q7UB-MJ6P ("The penalties for a red light or speed camera ticket are

The high fines make up for the fact that speeders will generally escape detection and enforcement. Admittedly, the approach to randomizing cases explored here works somewhat differently; the probability of detection is not explicitly set, and the fine need not equal to the expected damages divided by the probability of detection. But the core principle is the same, at least as to defendants. When enforcement is expensive, it makes sense to make it sporadic but ratchet up the amount that must be paid.[222]

Robert Jackson and David Rosenberg suggest explicit randomization in the context of administrative enforcement of entities with multiple potential sources of liability.[223] For example, under certain Clean Air Act regulations, the Environmental Protection Agency seeks to monitor every potential pollution source, but this is expensive and the agency often falls behind schedule.[224] Under an alternative approach that the authors call "single-outcome sampling," the agency would select a single source to inspect for each entity, and it would then multiply any fines by the number of sources belonging to that entity.[225] The authors show that, so long as the entities do not know in advance which sources might be inspected, their expected liability will be the same as if each source was inspected, regardless of the nature of the legal regime governing each source.[226] Defendants, meanwhile, can use insurance to reduce risk,[227] or Jackson and Rosenberg would allow them to opt to be inspected at a greater number of sources by agreeing to pay the extra cost of enforcement.[228]

The option to pay for extra inspection seeks to allow for some optimal balance between the cost of enforcement and the cost of risk-bearing. Because the defendant pays for any additional increment of enforcement and incurs any associated risk cost, the defendant internalizes the costs and benefits of increased enforcement. The defendant in effect must consider the cost of increased enforcement to be itself a form of insurance. If every source is tested, then penalties are not multiplied, and thus risk associated with randomization is eliminated. But this is a very expensive form of insurance.

Few, if any, large corporate defendants would thus choose to have every large source of pollution inspected, given the option Jackson and Rosenberg suggest. Indeed, depending on the cost of enforcement, many might choose even to opt into a

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typically less severe than for a non-camera traffic citation.").

222. *See*, *e.g.*, Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 191-93 (1968) (offering a formal model in which fines vary based on the apprehension probability).

223. *See* Jackson & Rosenberg, *supra* note 28.

224. *See id.* at 2001-05.

225. *See id.*

226. *See id.* at 1989-99.

227. *See id.* at 2007 & n.62.

228. *See id.* at 2007-08.

less-than-single-source-rule, where there would be only some probability in any given year that even a single source would be sampled, with an accordingly higher penalty multiplier. That might be true even if the defendants were not required to pay the government's costs of any additional enforcement, as the prospect of saving its own administrative and litigation costs will sometimes suffice. The government is effectively risk-neutral[229] and would benefit from the administrative savings in such a scheme, but our current regulatory system does not allow it. Instead, it requires every defendant to buy the relatively expensive form of insurance associated with full governmental enforcement.

2. Double-or-Nothing Litigation

The law and economics literature has similarly long recognized outside the administrative enforcement context that high damages can be combined with low probabilities of enforcement to produce the same expected damages payments as would be obtained with greater enforcement and lower damages.[230] Most prominently, the standard economic account of punitive damages, described by Mitch Polinsky and Steven Shavell,[231] seeks to compensate for the problem of underenforcement. If a violation can be detected only imperfectly, then to optimize the incentives of potential defendants, the total damages should be set to actual damages divided by the probability of detection, with punitive damages making up for the shortfall in compensatory damages.[232] Though the literature generally equates detection with the information that a plaintiff needs to file a lawsuit, the model works equally well if damages are increased to account for the fact that some potential plaintiffs may choose not to sue or may not be able to afford to sue. Yet if the problem is that litigation may not be affordable, an explicit randomization with higher damages might work better than punitive damages. Courts may lack the information to determine the proportion of litigants who would have been unable to afford to sue. With explicit randomization, more could file complaints, and courts could easily calculate damages multipliers based on the inverse of the probability the lawsuit survives randomization.

Although the literature has paid less attention to the prospect of such explicit randomization, the idea is not unknown. The first scholar to suggest it appears to have been James Miller in January 1997.[233] Miller considers that a plaintiff and defendant might voluntarily agree to a coin flip with the following consequences: "If the coin

229. Christopher Serkin, *Big Differences for Small Governments: Local Governments and the Takings Clause*, 81 N.Y.U. L. REV. 1624, 1666 & nn.162-64 (2016) (noting common assumption of government risk neutrality)

230. *See* Becker, *supra* note 222 (making this point in the criminal context).

231. *See* Polinsky & Shavell, *supra* note 28.

232. *See id*. at 887-96.

233. *See* Miller, *supra* note 27.

came up heads, then the plaintiff would drop his suit; if the coin came up tails, then the parties would go to trial and the defendant would pay the plaintiff double whatever judgment the plaintiff would normally receive."[234] Yet Miller recognizes several impediments to such arrangements.[235] Perhaps the most significant is that the defendant would have no incentive to agree to this if the plaintiff otherwise might be expected to drop the suit.[236] To this point could be added the flip side that the plaintiff would have no incentive to agree if the defendant might be expected otherwise to concede liability.[237] Miller thus considers the proposal only briefly, before moving onto other hypothetical agreements that are his primary focus.[238] Miller does not consider the possibility that such randomization might occur because of a governmental requirement or at the behest of a single party.

Later that same year, the economist Robin Hanson published an online essay with a similar proposal.[239] Hanson, however, would have allowed the plaintiff alone to determine whether to "double or nothing" a lawsuit. Hanson's focus is specifically on small claims. He describes his mechanism as follows: "[Y]ou would write out a simple complaint, including who hurt you when and how, and then take this complaint to the official lawsuit randomizing office, who would then randomly declare it worthless (50% chance) or double it (50% chance)."[240] Hanson further considers that a successful plaintiff could keep trying double-or-nothing, until potentially ending up with a lawsuit that would actually be worth bringing.[241] In a blog post exactly a decade later,[242] Hanson suggests that the defendant should be allowed to place a deposit with

234. *Id.* at 70.

235. Miller notes that the parties might be risk averse, *see id.*, much like the example above of the defendant who chooses the higher level of enforcement, *see supra* text accompanying note 228. Also, he notes that the greater stakes could increase the parties' investment in litigation. *See id.* at 70. Miller omits what might be the most significant initial obstacle: uncertainty about whether a court would enforce the result of the coin flip. If the suit is randomized away, the plaintiff might seek to avoid enforcement, and if the suit persists, the defendant might seek to compel enforcement. Either way, the parties would need to litigate the permissibility of the contract. That could be expensive, and if one estimates that the courts might well invalidate the contract, the expected benefits of the arrangement are small.

236. *Id.*

237. *See* William H.J. Hubbard, *Sinking Costs to Force or Deter Settlement*, 32 J.L. ECON. & ORG. 545 (2016) (offering a model accounting for the possibility of default by the defendant).

238. Miller's primary concern is information, specifically whether an offer to enter into some sort of lottery might credibly allow one party to convey asymmetric information to the other. *See*, *e.g.*, Miller, *supra* note 27, at 72-76.

239. Hanson, *supra* note 23.

240. *Id.*

241. *Id.*

242. Robin Hanson, *Double or Nothing Lawsuits, Ten Years On*, OVERCOMING BIAS (blog), https://perma.cc/WC46-CHCL (Oct. 30, 2007).

the government, which would disappear if the case were randomized away or doubled if the case persisted.[243] The idea seems to be to reduce the defendant's risk, but if there is uncertainty about the plaintiff's damages, this mechanism cannot eliminate such risk altogether.

The most thorough proposal along these lines was written by a combination of the randomization authors we have already discussed, Rosenberg and Shavell, in 2005.[244] While Miller's proposal required both parties' assent and Hanson's required the plaintiff's assent, Rosenberg and Shavell's would not require anyone's assent. The government would apply its virtual coin flip to every case filed.[245] Much of Rosenberg and Shavell's analysis concerns settlement. For example, they identify two competing considerations affecting whether plaintiffs might settle before filing. On one hand, risk-averse parties may want to avoid the randomization and will thus be more likely to settle before filing.[246] On the other hand, the expected cost of litigation will be lower (since half of cases will be extinguished), and that will reduce the incentive to settle.[247]

Rosenberg and Shavell announce their "suspicion" that the first effect will outweigh the second, leading to more pre-filing settlement, thus reducing the cost of settlement. My own suspicion is different. Rosenberg and Shavell do not explicitly consider cases that currently are resolved without filing or even without an informal settlement, such as cases that plaintiffs do not file at all. Perhaps Rosenberg and Shavell would count these as implicit settlements.[248] But it is plausible that the double-or-nothing mechanism might lead many plaintiffs who would otherwise not have filed at all to bring claims. Also, a similar phenomenon might occur at the flip side of the probability continuum: defendants who currently accede to plaintiffs' claims rather than contesting them, again leading to more lawsuits.

Perhaps one reason that Rosenberg and Shavell implicitly focus on the suits that exist in the status quo, rather than the universe of potential suits, is that they do not seek to encourage more suits. Indeed, in a separate article, they offer an ingenious mechanism designed to discourage plaintiffs from bringing negative expected value suits, that is those that would cost more to litigate to trial than they are worth in

243. *Id.* Hanson also suggests that the plaintiff be required to declare a maximum amount of damages and be charged some proportional fee to prevent excess valuations. *See id.*

244. David Rosenberg and Steven Shavell, *A Simple Proposal to Halve Litigation Costs*, 91 VA. L. REV. 1721 (2005). Rosenberg and Shavell cite Miller in a footnote. *See id.* at 1722 n.2. They do not appear to have encountered Hanson's proposal.

245. *Id.* at 1723-24.

246. *Id.* at 1727.

247. *Id.*

248. A recent attempt to define the term "settlement" includes "agreements that occur entirely 'out of court,'" as well as "those reached as part of some court-annexed process." Charlotte S. Alexander et al., *Settlement as Construct: Defining and Counting Party Resolution in Federal District Court*, 65 NW. U. L. REV. 65, 81 (2024).

damages.[249] They suggest that defendants be permitted to exercise an option to bar settlement.[250] A plaintiff who has a suit with a low probability of success and expected damages below litigation costs would anticipate that the defendants would bar settlement and thus not bring such a suit.[251] That arguably increases welfare, but as Ted Sichelman points out in an extended critique, this mechanism has a downside in that it would disincentivize lawsuits by plaintiffs with a high probability of success on relatively small claims.[252]

The merits of the Rosenberg and Shavell defendant option proposal depend on the relative size of two problems: plaintiffs with meritorious claims being denied access to justice because of litigation costs (false negatives) and defendants settling frivolous lawsuits to avoid litigation costs (false positives). The double-or-nothing litigation mechanism also affects both scenarios.[253] Halving litigation costs seems unmistakably beneficial in reducing false negative cases. These cases occur when the ratio of litigation costs to stakes is sufficiently high, and the multiplier mechanism reduces this ratio. That is, more cases will be filed (and then subject to randomization) because the expected litigation cost will be smaller. But might there also be some increase in false positive cases?

Consider, for example, a case where the plaintiff would have only a 10% chance of winning. The Rosenberg-Shavell option paper would identify this as a case that ideally would not be brought, and Sichelman would agree. The plaintiff might bring such a case even without the randomization multiplier mechanism and even if the case is negative expected value, because the plaintiff may be able to extract a settlement.[254] But, as the literature on negative expected value suits makes clear, the dynamics of such cases are complex, and plaintiffs will not bring some such cases because they expect the total litigation costs to exceed what they might receive in settlement.[255] The

249. *See* David Rosenberg & Steven Shavell, *A Solution to the Problem of Nuisance Suits: The Option to Have the Court Bar Settlement*, 26 INT'L REV. L. & ECON. 42 (2006).

250. *Id.* at 42.

251. *Id.* at 43.

252. *See generally* Ted Sichelman, *Why Barring Settlement Bars Legitimate Suits: A Reply to Rosenberg and Shavell*, 18 CORNELL J.L. & PUB. POL'Y 57 (2008).

253. The same can be said of the class action itself. While the class action is designed to avoid false negatives, it also can create false positives. *See* George L. Priest, *Procedural Versus Substantive Controls of Mass Tort Class Actions*, 26 J. LEGAL STUD. 521 (1997) (arguing that judges should engage in substantive review to avoid the danger that a class action consolidating many low probability claims will extract a nuisance settlement).

254. *See* Lucian Arye Bebchuk, *A New Theory Concerning the Credibility and Success of Threats to Sue*, 25 J. LEGAL STUD. 1 (1996) (offering a model in which such suits may be credible and thus extract settlements); *but see also* Warren F. Schwartz & Abraham L. Wickelgren, *Advantage Defendant: Why Sinking Litigation Costs Makes Negative-Expected-Value Defenses but Not Negative-Expected-Value Suits Credible*, 38 J. LEGAL STUD. 235 (2009) (questioning the feasibility of extracting a settlement with a lawsuit that would lose money if tried).

255. For a recent model exploring some subtleties, see Shay Lavie & Avraham Tabbach,

multiplier mechanism has two effects that push in opposite directions: On the one hand, the plaintiff's costs will be lower, making it more attractive to sue. On the other hand, the defendant's costs will be lower, making it more likely that the defendant will have a credible threat to go to trial given the higher stakes post-randomization. Thus, it is not clear whether double-or-nothing lawsuits would reduce or exacerbate false positives.

This comparison does not yet even consider the benefit of double-or-nothing litigation that Rosenberg and Shavell cite, namely that it might reduce litigation costs. Rosenberg and Shavell ultimately concede that it would not quite halve litigation costs. After all, litigants would spend more on each remaining trial.[256] Our analysis suggests an additional reason, that if plaintiffs bring somewhat more cases, then there will be more cases to litigate.

Overall, it may seem that opening the range of considerations that Rosenberg and Shavell consider makes the case for double-or-nothing litigation much weaker. Yet there are at least two reasons to think that this is not so. First, the Rosenberg-Shavell model unquestionably makes litigation cheaper and thus improves access to justice. It's true that when access to justice improves, the number of nonmeritorious cases will increase along with the number of meritorious ones. But adding needless expense to the litigation system seems like a very inefficient way of addressing problems of nonmeritorious cases. Other tools may be much more effective. There is, after all, a large literature about addressing the problem of frivolous litigation, considering mechanisms such as different fee-shifting rules[257] and direct sanctions for bringing low-quality cases.[258] No one has argued for simply increasing the cost of litigation to deter frivolous litigation. So it would be odd to attack double-or-nothing litigation on the ground that cheaper litigation might encourage frivolous suits.

Second, if double-or-nothing litigation substantially decreases the number of cases that go to trial, the resources available for adjudication per case will improve. While Rosenberg and Shavell fret that this will offset some of the savings,[259] it also suggests that this might increase the quality of justice. The problem of frivolous cases can be framed as a concern that some cases that should be rejected will occasionally succeed, perhaps because of legal errors or because of idiosyncratic decisionmakers. Greater care at the trial court level by both counsel and judges especially can reduce the danger of legal error. At the appellate court level, greater care may offset the danger of idiosyncratic trial judge decision-making. The point can be seen even more starkly if we imagine high multipliers, corresponding perhaps to only one-tenth or

Judgment-Contingent Penalties: Signaling in Negative-Expected-Value Suits, 52 J. LEGAL STUD. 193 (2023).

256. Rosenberg & Shavell, *supra* note 244, at 1731-32.

257. *See, e.g.*, Dari-Mattiacci & Saraceno, *supra* note 209.

258. *See, e.g.*, Bone, *supra* note 204, at 589-93.

259. Rosenberg & Shavell, *supra* note 244, at 1731-32.

one-twentieth of cases surviving. That would not lead to ten or twenty times the litigation expenses,[260] but it would lead to sufficiently greater expenditures and sufficiently more time for judges as to permit a more thoughtful and consistent application of justice. Thus, settlements in the shadow of the mechanism would place less weight on the possibility of erroneous or idiosyncratic decisions.

This last point highlights a final puzzle in Rosenberg and Shavell's analysis. Why did they limit themselves to a proposal to randomly select half of litigation, rather than some much smaller fraction? Proposals for random selection in class actions often involve far fewer cases being randomly selected. Rosenberg and Shavell recognized that one-half is an arbitrary constant and that their proposal could work with other numbers.[261] Given their tolerance of some plaintiffs receiving double damages and others similarly situated receiving none, it is hard to credit their concern about risk imposed on plaintiffs.[262] But they also worried that defendants could be more likely to be judgment-proof with higher multipliers,[263] and they may have implicitly recognized that large randomness would be politically infeasible. What they did not consider is that private ordering beyond settlement negotiations might make greater degrees of randomization possible. Not only might defendants be able to insure against randomization (as Jackson and Rosenberg recognized),[264] but so too might plaintiffs be permitted to offset the risk of randomization by selling claims. Private ordering thus reduces the risk of double-or-nothing or even higher multiples and could make them more feasible.

B. Proposals for Claims Markets

1. Unmatured Tort Claims

The prospect that claim sales might improve the tort system originated with a focus on unmatured claims. In 1989, Robert Cooter argued for the creation of a market in such claims,[265] and Stephen Sugarman offered a similar proposal in that same year.[266] The central idea is that a potential tort victim could sell to third parties the right to sue

260. One reason for this is that some portion of litigation costs is fixed. *See* David Rosenberg & Kathryn E. Spier, *Incentives to Invest in Litigation and the Superiority of the Class Action*, 6 J. LEGAL ANALYSIS 305, 352-53 (2014).

261. Rosenberg & Shavell, *supra* note 244, at 1733-34.

262. *Id.*

263. *See id.* at 1734.

264. *See* Jackson & Rosenberg, *supra* note 28, at 2007.

265. *See* Cooter, *supra* note 3.

266. STEPHEN D. SUGARMAN, DOING AWAY WITH PERSONAL INJURY LAW: NEW COMPENSATION MECHANISMS FOR VICTIMS, CONSUMERS, AND BUSINESS 201-10 (1989). Sugarman notes that this system might be especially sensible for tort cases not involving serious injury, where legal costs are likely to swamp damages. *See id.* at 203-04.

for any future tort,[267] or alternatively only torts within a particular category, such as medical malpractice. With the proceeds from such a sale, the victim might purchase first-party insurance, such as health insurance or life insurance, though likely not insurance for pain and suffering.[268] Thus, plaintiffs would still be able to obtain compensation, but the compensation would come ex post from their insurers. This form of compensation generally involves lower transaction costs than the legal system.[269] Plaintiffs would not be forced to purchase insurance for risks, such as pain and suffering, for which they would prefer to bear risk.[270] Meanwhile, tort law would continue to provide appropriate incentives for injurers not to engage in harm.[271] Potential tortfeasors, meanwhile, could buy liability insurance as they do now; unmatured claim sales creates symmetry with this existing practice.

Several arguments against markets for unmatured claims have been offered. Two are worth particularly focusing on here. First, Charles Goetz argues that if we allow tortfeasors to "presettle[]" their torts by purchasing their unmatured tort claims, they may not have appropriate incentives to take care.[272] Stephen Marks extends this point by arguing that the law would need to prevent the tortfeasors themselves from acquiring unmatured tort claims, lest there be moral hazard.[273] Second, Alan Schwartz argues that the market likely would not function effectively given potential victims' informational limitations.[274] Similar limitations explain why tort law does not enforce exculpatory clauses in employment contracts that purport to eliminate tort liability, which would amount to a similar type of market solution.[275]

Both problems resonate with the concern that allowing an unmatured claim market alone will not suffice to achieve litigation efficiencies and provide a sufficient substitute for the compensation provided by the tort system. The prospect that tortfeasors might purchase their unmatured tort claims provides the primary vehicle for reducing the transactions costs of the tort system. Indeed, the unmatured claims

267. *See*, *e.g.*, Cooter, *supra* note 3, at 384.

268. Cooter argues that a rational person will not purchase pain-and-suffering insurance. *See id.* at 392; *but see* Steven P. Croley & Jon D. Hanson, *The Nonpecuniary Costs of Accidents: Pain-and-Suffering Damages in Tort Law*, 108 HARV. L. REV. 1785, 1857-95 (1995) (arguing that evidence exists of demand for insurance of nonpecuniary losses).

269. Cooter, *supra* note 3, at 395 (favorably comparing the administrative costs of first-party insurance with standard contingency fees).

270. *Id.* at 388-95.

271. *Id.* at 396-400.

272. Charles J. Goetz, *Commentary on "Towards a Market in Unmatured Tort Claims": Collateral Implications*, 75 VA. L. REV. 413, 415-416 (1989)

273. *See* Stephen Marks, *The Market in Unmatured Tort Claims: Twenty-Five Years Later*, 34 PACE L. REV. 185 (2014).

274. *See* Alan Schwartz, *Commentary on "Towards a Market in Unmatured Tort Claims": A Long Way Yet to Go*, 75 VA. L. REV. 423 (1989).

275. *Id.* at 426.

market as described might entail greater costs than the status quo, because the expense of first-party insurance will be in addition to the existing expenses of the tort suits that holders of unmatured tort claims would need to file. Meanwhile, if those who sell rights to their unmatured claims as plaintiffs sell on the cheap or fail to purchase first-party insurance with the proceeds, then the unmatured market for tort claims will amount to a transfer from injured plaintiffs to those who do not receive injuries.

And yet, in the proposals for unmatured tort claims, one can see the outline of a system that could be quite conducive to the goal of maximizing litigation efficiency, while also achieving tort system goals. Suppose that potential tort claimants auction their claims to the highest bidders, that the auction market is competitive, and the proceeds are used to purchase first-party insurance.[276] Assuming also that defendants purchase liability insurance, the system succeeds in transforming tort claims so that the plaintiff and defendant are not the original victim and original tortfeasor. Rather, both parties are professional bearers of risk, presumably specialized in managing the costs and risks of litigation. Adding random sampling seems less likely to interfere with meaningful rights here than in class actions, because both parties would perform essentially an economic function under governmentally enacted rules.

2. Mass Torts

Even if it is infeasible to provide sufficient consumer protections for operation of an unmatured tort claim market, it may be possible to protect consumers in a market for matured claims, including tort, contract, and statutory claims. After all, once a mature claim has emerged—that is, events have occurred that provide a basis for a pleading alleging that the elements of a claim are met—the plaintiff may have sufficiently good information about the claim's value that the plaintiff will not part with it carelessly. Although such a market would not achieve the goal of allowing plaintiffs to purchase effective first-party coverage in exchange for giving up their full tort damages, it could help to aggregate sets of related claims in a small number of owners.

In a 1995 article, Peter Choharis argued for the abolition of doctrines restricting

276. The suggestion here is of a voluntary, likely informal auction, not a mandatory auction supervised by the government. Jonathan Macey and Geoffrey Miller innovatively suggested that some class actions involving relatively small claims might be aggregated through auctions to the highest bidder. *See* Jonathan R. Macey & Geoffrey P. Miller, *The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendations for Reform*, 58 U. CHI. L. REV. 1, 105-16 (1991). Choharis criticizes this proposal on the ground that transaction costs might be too high. *See* Choharis, *supra* note 3, at 474. Yet an advocate of claim sales might allow for an auction in a context in which the transaction costs of informing individual plaintiffs about the possibility of claim sales are excessively high.

the creation of claims markets.[277] Choharis identified the doctrines of barratry,[278] maintenance,[279] and champerty[280] as the principal obstacles to the creation of robust markets. Respectively, these involve stirring up lawsuits, meddling in others' lawsuits, and pursuing legal claims for others in exchange for part of the proceeds. Claim sales most obviously involve champerty but may implicate the other doctrines. Choharis argued against the proposition that fomenting litigation does social harm, noting that "worthwhile social objectives may be pursued by means of litigation."[281] He also argued that practices such as settlement,[282] subrogation,[283] and contingency fees[284] already to some extent commodify legal claims.[285] Choharis finally described how a claims market might work and argues that plaintiffs will keep more of their recoveries than with contingency fees.[286]

Choharis's most ambitious suggestion is that such aggregation could serve as an alternative to class actions. "[I]nvestors," he argued, "will be able to bring together in the same legal proceeding numerous claims without necessarily seeking class certification."[287] Choharis wrote long before *Wal-Mart* made more stringent the commonality requirement for maintaining a class action,[288] which is mirrored in the ordinary joinder rules.[289] Yet even if commonality is a much lower bar than the additional requirements for class certification, courts may be hesitant to allow unduly broad actions, and judges retain the power to order separate trials for different claims.[290] Ultimately, it is not entirely clear that Choharis's proposal would greatly

277. *See* Choharis, *supra* note 3.

278. *See, e.g.*, People v. Budner, 206 N.E.2d 171 (N.Y. 1965) (upholding conviction for barratry).

279. *See, e.g.*, Goodyear Dental Vulcanite Co. v. White, 10 F.Cas. 752 (S.D.N.Y. 1879) (recognizing the common law action of maintenance).

280. *See, e.g.*, Justinian Capital SPC v. WestLB AG, 43 Misc.3d 598 (N.Y. Sup. Ct. 2014) (applying champerty statute to bar action).

281. Choharis, *supra* note 3, at 465.

282. *Id.* at 469.

283. *Id.* at 469-73.

284. *Id.* at 473.

285. For an argument against the proposition that allowing sale of legal claims amounts to undesirable commodification, see Michael Abramowicz, *On the Alienability of Legal Claims*, 114 YALE L.J. 697, 703-11 (2005).

286. Choharis, *supra* note 3, at 489.

287. *Id.* at 492.

288. *See supra* Part I.A.2.a.

289. *See* FED. R. CIV. P. 20(a) (requiring that "any question of law or fact common to all plaintiffs will arise in the action").

290. *See id.* Rule 20(b) (allowing a court to order separate trials "to protect a party against embarrassment, delay, expense, or other prejudice"); *id.* Rule 42(b) (allowing a court to order separate trials "[f]or convenience, to avoid prejudice, or to expedite and economize").

increase the number of claims that plaintiffs could bring and the legal system could process. After all, plaintiffs can already obtain the contingency fee services of lawyers specialized in particular mass torts or in other narrow types of claims, and while Choharis might have been correct that his approach would force lawyers to compete more aggressively for claims, it will not by itself actually economize on the cost of processing claims.

In the years since Choharis initially wrote, a revolution has occurred in litigation finance. Many companies, such as Burford Capital, now specialize in loaning money to plaintiffs to help plaintiffs pursue their cases.[291] A literature on the economics[292] and ethics[293] of litigation finance has developed. Litigation finance has managed to avoid champerty prohibitions, at least in some jurisdictions, by eschewing claim sales in favor of ordinary nonrecourse loans.[294] Proponents have argued that litigation finance has enhanced access to justice,[295] and funders have supported victims of alleged mass torts.[296] Critics argue that litigation financiers have encouraged the filing of many nonmeritorious claims.[297] Undoubtedly, litigation finance has increased the volume of litigation. While many funded claims settle,[298] litigation finance offers no new mechanism for improving the efficiency with which the litigation system can resolve claims. Without random sampling, claim sales and other means of litigation finance may increase access to justice but cannot improve the efficiency of the litigation sampling.

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291. *See* Julien Chaisse & Can Eken, *The Monetization of Investment Claims Promises and Pitfalls of Third-Party Funding in Investor-State Arbitration*, 44 DEL. J. CORP. L. 113, 126-37 (2020) (providing a case study focusing on Burford Capital).

292. *See*, *e.g.*, J.B. Heaton, *Litigation Funding: An Economic Analysis*, 42 AM. J. TRIAL ADV. 307 (2019).

293. *See*, *e.g.*, Julia H. McLaughlin, *Litigation Funding: Charting a Legal and Ethical Course*, 31 VT. L. REV. 615 (2007).

294. *See* Paige Marta Skiba & Jean Xiao, *Consumer Litigation Funding: Just Another Form of Payday Lending?*, 80 L. & CONTEMP. PROBS. 117, 119 (2017). This is an ill fit, because repayment demands increase dramatically with the duration of litigation, while the underlying risk depends mostly on the outcome of litigation.

295. *See*, *e.g.*, Jonathan T. Molot, *Litigation Finance: A Market Solution to a Procedural Problem*, 99 GEO. L.J. 65, 103 (2010); *see also* Matthew A. Shapiro, *Distributing Civil Justice*, 109 GEO. L.J. 1473, 1509-12 (2021) (providing a balanced assessment).

296. *See* Andrew Satter, *Billion Dollar Lawsuits: When Litigation Finance Met Mass Torts* (2024) https://perma.cc/ZVA7-2DP7 (providing a video on litigation finance for mass tort victims).

297. *See*, *e.g.*, Samir D. Parikh, *Opaque Capital and Mass-Tort Financing*, 133 YALE L.J. FORUM (Oct. 31, 2023), https://perma.cc/F3JW-6UU8.

298. Whether litigation finance promotes or impedes settlement is disputed. *See* Mariel Rodak, Comment, *It's About Time: A Systems Thinking Analysis of the Litigation Finance Industry and Its Effect on Settlement*, 155 U. PA. L. REV. 503, 522-23 (2006).

C. Random Sampling of Aggregated Claims

In principle, random sampling could provide an efficient means for trying claims that are aggregated in a market for matured claims. Suppose that a legislature were motivated to integrate the Rosenberg-Shavell random sampling mechanism with Choharis's vision of unfettered markets in claims. It might do so by allowing any plaintiff to sell a claim against a large corporation or against any defendant that would be relatively risk neutral in comparison to even a claim considerably larger than the plaintiff's. As Choharis imagines, such claims would likely be purchased by large investors, who themselves would also be relatively risk neutral. Thus, both the new plaintiff and the defendant would be relatively risk neutral, and the economic risk associated with random sampling would likely be minimal. In effect, investor plaintiffs and large defendants would have portfolios of claims, and even with random sampling, any given firm might expect to try many claims, thus reducing the effect of any single potentially anomalous verdict. The expected value of a set of claims will be the same when, for example, ten percent of non-settled claims survive randomization with a ten times damages multiplier.

Thus, the combination of claim sales and random selection with corresponding multipliers could achieve the goal of increasing access to justice. By itself, random sampling might impose too much risk for plaintiffs, but allowing alienation of claims (while protecting small defendants) would address this counterargument. And by itself, a market for claims could succeed in aggregating claims but does not necessarily provide an efficient mechanism for resolving claims once aggregated. Perhaps claim buyers will be relatively efficient at settling claims even without sampling, but there is no guarantee that this would be so, and unless negotiating investors and defendants agree themselves to negotiate by considering random samples of cases, an explicit randomization mechanism may be needed to achieve efficiencies.

Randomization, of course, need not be a substitute for settlement in this proposal. Both before and after randomization, plaintiffs and defendants could enter into settlement negotiations. Critically, however, in both postures, the outcome of settlement negotiations are less likely to be affected by non-merits factors, particularly asymmetric costs of trial.[299] With conventional settlement negotiations, if one party is expected to bear higher litigation costs than the other, that will adversely affect that party's negotiation position.[300] Before randomization, however, the expected cost of

299. The class action can be seen as a mechanism designed to reduce asymmetries in costs, but critics of class actions contend that the class action mechanism can reverse the direction of the asymmetry. *But see* Alexandra D. Lahav, *Symmetry and Class Action Litigation*, 60 UCLA L. REV. 1494 (2013) (responding to this argument).

300. *See*, *e.g.*, Jessica Erickson, *Heightened Procedure*, 102 IOWA L. REV. 61, 70-74 (2016) (exploring consequence of cost asymmetry in cases with low probability of success); Lucian Arye Bebchuk & Howard F. Chang, *The Effect of Offer-of-Settlement Rules on the Terms of Settlement*, 28 J. LEGAL STUD. 489, 510 (1990) ("[S]ettlement terms (compared with the

trial will be considerably lower, because most cases will be randomized away, and thus settlements during that period will be less affected. Increasing the stakes in the remaining cases will increase the expenses in those cases, but legal fees likely increase at a rate far lower than stakes.[301] And with much higher stakes in those cases, any asymmetries in expected fees are likely to be comparatively small and thus will have a smaller effect on the terms of settlement. Both before and after randomization, the ratio of expected legal fees to damages will be lower than in a system without randomization, and thus fees will have less of a distortionary effect on settlement.

This accents the normative case for the combination of random sampling and matured claims markets, but that does not mean that achieving this combination is politically feasible. To the contrary, this proposal seems likely to be exceptionally difficult to achieve, because it would require not only overturning the legal ethics obstacles to claim markets that Choharis identified,[302] but also instituting what will undoubtedly seem like an alien system of random selection. Though each is responsive to the limitations of the other, each is sufficiently complex as to require some explanation, and the likelihood that state legislators will fully understand the arguments developed here seems low in the foreseeable future. At best, one might imagine a legislature experimenting with a version of this system in some narrow context, such as for consumer claims against corporate defendants. This Article, however, merely seeks to use the combination of random sampling and claim markets as a thought experiment, one that in turn might lead to practically achievable approaches to random sampling outside class actions.

III. RANDOM SAMPLING IN ADJUDICATIONS

To make random sampling outside class actions potentially politically feasible, we must adopt the central theoretical insight of Part II—that claim aggregation and random sampling may be complementary—while identifying more modest approaches that may overcome the most significant legal obstacles to each. This Part offers approaches to both aggregation and random sampling that may allow for implementation of proposals without adoption of new legislation. That does not mean that the proposals are straightforwardly legal and would be approved by any judge. Acceptance of these proposals would still require some degree of judicial innovation,

expected judgment) tend to favor the party with lower litigation costs.").

301. This follows from an assumption that there are diminishing marginal returns of investment in legal expenditures. For example, suppose $p(I) = a(1 - e^{-bI})$ represents the probability of winning a case for a level of investment I. If the stakes are S, then the expected payoff $E(I) = Sa(1 - e^{-bI}) - I$. Setting $(\mathrm{d}E/\mathrm{d}I) = 0$, we can show that the optimal investment $I^* = (1/b)\ln(abS)$. That is, investment increases logarithmically in the stakes of the litigation. Note that an assumption of fixed costs of litigation can also demonstrate that investment will decrease with stakes.

302. *See* Choharis, *supra* note 3.

of the sort that we have seen that some, but far from all, district and appellate judges are willing to embrace in an effort to improve access to justice.[303] These proposals, however, avoid the central objection to random sampling within class actions: that it would require courts to enter judgments on cases for which they have not heard evidence.

This Part suggests that instead of random sampling in class actions, as reviewed in Part I, or random sampling of individual adjudications following claim sales, as imagined in Part II, the courts conduct random sampling *in* individual adjudications that aggregate claims without entirely alienating them from their initial owners.[304] For example, plaintiffs might enter into agreements with other similarly situated plaintiffs to combine their claims and share damages in some proportion, thus reducing risk across claims. Such approaches may help address concerns that claim alienation would violate champerty or other legal ethical rules. Meanwhile, with multiple claims aggregated within a single adjudication, a court would not need to conduct random selection at the level of the lawsuit. Rather, litigants with a finite amount of time to present the facts of their cases might introduce randomly sampled evidence, and courts could encourage this practice through jury instructions.

A. Aggregation Techniques

For a court to apply random sampling within an adjudication, but without the need to enter judgments for some plaintiffs based on extrapolation, the claims must be aggregated into common ownership. We will start in Part III.A.1 with the sole existing proposal that suggests random sampling outside of class actions, Christopher Roche's argument that associational standing can serve as an alternative to aggregating claims via Rule 23. Though inventive, this proposal not only stretches the limits of associational standing doctrine, but it more fundamentally fails to address the objection that judges should not be entering judgments with respect to parties about whose cases no evidence has been presented. We thus turn in Part III.A.2 to the possibility that plaintiffs might form an explicit partnership that would own all claims, thus allowing courts to enter a judgment for the single entity plaintiff. Part III.A.3 considers a looser form of organization, simple contractual arrangements in which plaintiffs fix their claims' relative size, effectively providing mutual insurance. Both of these techniques would need to overcome legal ethics hurdles, but these approaches are not so different in that respect from the litigation finance arrangements that many courts have accepted in recent years. Finally, Part III.A.4 briefly considers the trust

303. *See supra* Part I.A.1.a.

304. A virtue of approaches that explicitly aggregate claims is that they eliminate uncertainty in class actions about who is a member of the class. *See generally* Geoffrey C. Shaw, Note, *Class Ascertainability*, 124 YALE L.J. 2354 (2015) (discussing the problem of ascertaining class membership).

form.

1. Associational Standing

Writing well before *Wal-Mart* made an alternative path to random sampling critical, Roche argued that associational standing might serve as an alternative to aggregation through class actions.[305] His proposal is "that mass tort claimants organize in the form of an unincorporated association before filing any lawsuit."[306] By affirmatively opting in to such an action, plaintiffs may "avoid[] the frustrating limitations that Rule 23 imposes on mass torts."[307] Roche explores the ancient history of class actions, noting that forms of representative litigation emerged well before the modern class action.[308] In general, the courts insisted on greater protection of litigant interests in the absence of express consent of plaintiffs to be represented,[309] though representative suits also generally required that the plaintiffs be pursuing a remedy common to the group.[310] Aggregation through associational standing may be cheaper than individual trials,[311] thus achieving some of the efficiency benefits of class actions.

Roche recognizes that the primary obstacle to his proposal is that an association purporting to act on behalf of injured plaintiffs must satisfy constitutional and either statutory or prudential standing requirements.[312] In *Hunt v. Washington State Apple Advertising Commission*, the Supreme Court articulated a three-part test for associational standing.[313] The first two parts of the test—that the members otherwise would have individual standing and that the lawsuit protects interests germane to the lawsuit's purpose—are at least arguably satisfied by a suit of the sort imagined by Roche.[314] The third prong, however, presents a serious challenge: "[N]either the claim asserted nor the relief requested [may] require[] the participation of individual members in the lawsuit."[315] This requirement would seem to provide a bar to a suit for

305. *See* Christopher J. Roche, *A Litigation Association Model to Aggregate Mass Tort Claims for Adjudication*, Note, 91 VA. L. REV. 1463 (2005).

306. *Id.* at 1476.

307. *Id.*

308. *See id.* at 1478-84. Roche draws extensively on STEPHEN C. YEAZELL, FROM MEDIEVAL GROUP LITIGATION TO THE MODERN CLASS ACTION 1987); and on Robert G. Bone, *Personal and Impersonal Litigative Forms: Reconceiving the History of Adjudicative Representation*, 70 BOSTON U. L. REV. 213 (1990).

309. Roche, *supra* note 305, at 1481.

310. *Id.* at 1482 & n.95 (citing Bone, *supra* note 308, at 236-37).

311. *Id.* at 1485-87.

312. *Id.* at 1492-1502.

313. 432 U.S. 333, 343 (1977).

314. Roche, *supra* note 305, at 1495-97.

315. *Hunt*, 432 U.S. at 343.

damages, if the damages must be individualized to each plaintiff and will thus depend on evidence particular to each plaintiff. This prong highlights that the association in *Hunt* was seeking injunctive and declaratory relief, not damages,[316] and so the lawsuit was more analogous to a Rule 23(b)(2) class action than one brought under Rule 23(b)(3).

Roche offers two primary case law arguments in support of extending *Hunt* to cases in which mass tort victims are suing for individualized damages. First, he cites a Third Circuit case that found that a need for "limited individual participation" of the plaintiffs would not violate *Hunt*.[317] But in that case, the district court had dismissed a damages claim, and the Third Circuit upheld organizational standing only for injunctive and declaratory relief.[318] Second, the Supreme Court allowed a union to seek backpay on behalf of its members in *United Food and Commercial Workers Union Local 751 v. Brown Group, Inc.*,[319] despite *Hunt*. But, as Roche acknowledges,[320] the Court found that a statute[321] explicitly allowed this type of representative action. Although *Brown Group* is important in establishing that the third prong of *Hunt* is not a constitutional bar,[322] it does not provide a clear path for a substitute for mass tort class actions in the absence of legislative innovation.

Roche observes that *Brown Group* means that the third prong is prudential and thus can be changed by judges, but that depends on judges' actually wishing to enable such aggregation. The Supreme Court's attitude toward sampling, as revealed subsequently in *Wal-Mart* and *Tysons Foods*, suggests that the Court is not looking for such a doctrinal out and indeed opposes interpretations that would require courts to extrapolate damages from some parties to others without party-specific evidence.[323] Interestingly, Roche suggests that sampling might help address the third *Hunt* prong problem.[324] With sampling, less individual participation would be necessary. This approach makes sense if the primary legal bars to class action certification are the commonality and predomination requirements, but *Wal-Mart* has now explicitly

316. This was also the case in the earlier case of *Warth v. Seldin*, 422 U.S. 490, 511 (1975), in which the Court required that "the relief sought [must] not make the individual participation of each injured party indispensable to proper resolution of the cause."

317. Roche, *supra* note 305, at 1498 (citing Pa. Psychiatric Soc'y v. Green Spring Health Serv., Inc., 280 F.3d 278 (3d Cir. 2002), as well as other cases).

318. *Pa. Psychiatric Soc'y*, 280 F.3d at 282.

319. 517 U.S. 544 (1996).

320. Roche, *supra* note 305, at 1500.

321. 29 U.S.C. § 2104(a)(5) (allowing "a representative of employees," meaning the union, to sue).

322. *But cf.* Michael Morley & F. Andrew Hessick, *Against Associational Standing*, 91 U. CHI. L. REV. 1539 (arguing for abolition of associational standing).

323. *See supra* Part I.B.1.

324. Roche, *supra* note 305, at 1502-13. Much of Roche's analysis consists of discussing lower-court cases regarding sampling, most of which has no vitality post *Wal-Mart*.

rejected the idea that sampling might enable a lower degree of homogeneity.[325]

The ultimate problem of Roche's proposal is that both the form of aggregation and the approach to random sampling that he uses primarily serve the doctrinal purpose of evading the commonality and predomination requirements. He favors an unincorporated association because *Hunt* allows associational standing for such associations in such cases and favors random sampling because he thought that might address *Hunt*'s third prong. Of course, Roche could not anticipate *Wal-Mart*, but it is now clear that while the objection to relatively heterogeneous classes is that they are unmanageable, the Justices are not comfortable with the idea of improving manageability by trying only a few plaintiffs' cases and entering judgments for the others based on a statistical model. This Article's goal in aggregating claims is to ensure that there is only one plaintiff party before the court in each case, thus saving the court from entering such judgments. Associational standing does not accomplish that, because each party retains its own cause of action, and the association's only function is effectively to litigate claims.

2. Partnership

To achieve a type of aggregation that will save courts from the task of entering judgments with respect to all parties, we must instead unify ownership of plaintiffs' claims. Some class action commentators have noted that a class action itself may be viewed as a sort of entity,[326] but ownership can be unified in a more familiar type of entity. The most obvious way to do this is through claim sales. If a single entity purchases various plaintiffs' claims and brings a suit on all of them, then the entity is a single plaintiff in that suit, and the court need not deploy a statistical model to resolve some of the claims based on others. The problem is that naked claim sales present the greatest challenge from a legal ethics perspective. Perhaps this approach might be achievable in jurisdictions that have rejected champerty. Elsewhere, courts may be more willing to approve aggregation when it is not total, but each plaintiff retains at least some interest in the litigation.

An approach that builds on Roche's vision of a litigating unincorporated association would be for plaintiffs to form a partnership. It might appear that this does not distinguish Roche's proposal, because a partnership is a form of unincorporated association. The difference, however, is that in this proposal, the partners would give

325. *See supra* note 131 and accompanying text. Roche also argues that "a voluntary association may provide greater homogeneity than a judicially certified class insofar as it provides for greater ex ante control over membership." Roche, *supra* note 305, at 1511.

326. *See*, *e.g.*, Edward H. Cooper, *Rule 23: Challenges to the Rulemaking Process*, 71 N.Y.U. L. REV. 13, 26-32 (1996); Alexandra Lahav, *Two Views of the Class Action*, 79 FORDHAM L. REV. 1939, 1939 (2011); David L. Shapiro, *Class Actions: The Class as Party and Client*, 73 NOTRE DAME L. REV. 913, 917 (1998).

the partnership their claims as a form of in-kind capital.[327] There is no doubt that a partnership can litigate legal claims that it owns, and so the *Hunt* associational standing doctrine, which governs whether an association can sue in a representative capacity for the interests of others, would not apply. Meanwhile, the partnership agreement would specify how any profits should be distributed among the partners. The partnership agreement thus serves as a form of settlement among the plaintiffs, and the partnership then has an undivided interest in the claims that it has aggregated. If the court litigates these claims (whether or not using random selection) the court need not concern itself with mapping each dollar in damages back to particular plaintiffs.

My claim is not that this is unmistakably permissible under the laws of barratry, maintenance, and champerty. Rather, it seems a fair assessment that these laws are quite ambiguous[328] and that normative considerations are likely to influence judges should the ability of such a partnership to bring litigation be challenged. But a lesson of the rise in litigation finance despite doctrines of champerty is that courts may be more willing to overlook the involvement of third parties in litigation when plaintiffs retain a stake. Some judges have struck down litigation finance arrangements as violative of these legal ethics principles,[329] while others have allowed them,[330] without opening the door to the more controversial practice of claim sales. Here too, many courts may be comfortable with plaintiffs voluntarily deciding to band together in the form of a partnership, even if the courts would worry that ordinary claim sales could lead to consumer exploitation or to fomenting of unnecessary litigation. After all, partnerships often involve individuals pooling their assets and sharing governance. Moreover, the concern underlying assignment doctrines is that assignment may corrupt or pollute a claim,[331] but even accepting that purchase by a stranger might have such an effect, it is difficult to see why assignment of a claim to a partnership in which the original plaintiff is a partner would. Critically, because plaintiffs will not be paid unless their lawsuit is successful, either at trial or through settlement, this system mitigates a concern about claim sales, that such sales might lead to litigation that a plaintiff would not be willing personally to take through litigation.

Even if courts find that the transfer of claims to a partnership is permissible, that does not necessarily mean that the courts will conclude that the claims should be tried together. Under the Federal Rules, a plaintiff may join even entirely unrelated claims against a defendant, and so a single civil action could consist of multiple unrelated

327. Such in-kind contributions have no immediate tax consequences. *See* I.R.C. § 721(a).

328. *See*, *e.g.*, H.A. Wood, *Offense of Barratry; Criminal Aspects of Champerty and Maintenance*, 139 A.L.R. 620 § II.c.1 (1942) ("[T]he vagueness with which the offenses of champerty and maintenance were defined by common-law writers has been pointed out").

329. *See*, *e.g.*, Justinian Capital SPC v. WestLB AG, 43 Misc.3d 598 (N.Y. Sup. Ct. 2014).

330. *See*, *e.g.*, Saladini v. Righellis, 687 N.E.2d 1224, 1224 (Mass. 1997).

331. Sebok, *supra* note 17, at 62.

claims against the same defendant.[332] Judges, however, have the discretion to separate claims in a single lawsuit so that they are heard in different trials.[333] And a court might well conclude that some claims are sufficiently unrelated that different trials would be appropriate. Thus, claim heterogeneity could still be an issue, particularly if as a practical matter plaintiffs will choose not to maintain their claims if they are separated into individual actions. But judges also retain discretion in managing the litigation in class actions,[334] and this approach, if permissible from the perspective of legal ethics, avoids the commonality and predominance hurdles of the class action.

3. Litigation Sharing Agreements

The commonality requirement would be a potential obstacle with an alternative approach to aggregation, a litigation sharing agreement.[335] With such an agreement, plaintiffs could agree to sue jointly as plaintiffs and to prescribe how they will share any damages that they might receive. For example, two plaintiffs might join and decide that, whatever damages either one receives, Plaintiff *A* will take sixty percent of the total and Plaintiff *B* will take forty percent. In effect, each plaintiff serves to some extent as an insurer for the other. Plaintiffs entering into such an agreement would negotiate based in large part on their perceptions of the relative strength of their claims. In principle, such plaintiffs also might decide to share the cost of attorneys, perhaps in the same percentage as they promise to share the profits, but such cases also might be brought under a contingency fee arrangement.

This approach has an advantage and a disadvantage relative to the partnership approach. The advantage is that legal ethics obstacles are likely to be reduced. Each plaintiff continues to own its own claim, though each plaintiff promises to use a portion of its claim to insure others. To be sure, some judges might still find this to amount to a partial claim sale, and other judges might find other grounds for complaint. Some jurisdictions, for example, do not allow Mary Carter agreements, where a defendant in a multi-defendant litigation settles with the plaintiff under terms that will generally reduce the defendant's liability if the plaintiff recovers against other

332. *See* FED. R. CIV. P. 18(a).

333. *See id.* Rule 42(b).

334. *See id.* Rule 23(d)(1)(A) (allowing court to "determine the course of proceedings or prescribe measures to prevent undue repetition or complication in presenting evidence or argument").

335. Litigation sharing agreements are not entirely unknown. *See, e.g.*, Fair Laboratory Practices Assoc. v. Riedel, 2014 WL 5358985 at *1 (D.N.J. 2014) (detailing an example of an agreement in which each of two parties promised to share a portion of its proceeds with the other); *In re* Esterlina Vineyards & Winery, LLC, 2018 WL 1354331, *2 (U.S. Bankr. App. 9th Cir. 2018) (detailing an agreement in which one party promised to share proceeds with another).

defendants.[336] Such agreements create a concern that defendants may have an incentive to align themselves with the plaintiff. A litigation sharing agreement, however, only tends to align the plaintiffs, who in many contexts would have no reason to be adverse even in the absence of an agreement. In any event, at least some jurisdictions allow even Mary Carter agreements.[337] Moreover, it is generally permissible for defendants to obtain retroactive insurance for legal liability,[338] and litigation sharing agreements accomplish a partial insurance function for plaintiffs. It thus seems safer than an outright contribution to a partnership.

The disadvantage is, as noted above, that with a litigation sharing agreement, the plaintiffs will need to meet a commonality requirement, though one based on Rule 20 rather than Rule 23. At least arguably, this is a lower standard; Rule 20 requires "any question of law or fact common to all plaintiffs,"[339] while Rule 23 requires "questions of law or fact common to the class[.]"[340] Whether or not the singular versus plural constructions are meaningfully different, courts may well be more stringent in the context of a class action, where some plaintiffs may not have meaningfully consented to participate in the class. In the Rule 20 joinder context, the plaintiffs also must "assert any right to relief jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences."[341] It is plausible that in a case with claims as heterogeneous as in *Wal-Mart*, a court might conclude that claims constitute unrelated transactions or occurrences rather than even "a series of transactions or occurrences." But in many contexts where class certification may be a gray area, such as certain mass torts, this requirement will be straightforwardly met. For example, in *Tyson Foods*,[342] the Court found commonality to be met even under Rule 23, and it seems likely that the Court would find the donning-and-doffing episodes to constitute a "series of transactions or occurrences."

4. Trusts

A final possible mechanism for consolidating plaintiffs' claims would be for the

336. *See* Dosdourian v. Carsten, 624 So.2d 241 (Fla. 1993) (rendering Mary Carter agreements unenforceable in Florida). *See generally* June F. Entman, *Mary Carter Agreements: An Assessment of Attempted Solutions*, 38 U. FLA. L. REV. 521 (1986) (providing an overview of such agreements).

337. *See* J. Michael Phillips, *Looking out for Mary Carter: Collusive Settlement Agreements in Washington Tort Litigation*, 69 WASH. L. REV. 255, 259 (1994) ("The vast majority of states allow Mary Carter agreements if trial courts implement procedural safeguards to overcome secrecy.").

338. *See* Abramowicz, *supra* note 285, at 748.

339. *See* FED. R. CIV. P. 20(a)(1)(B).

340. *Id.* Rule 23(a)(2).

341. *Id.* Rule 20(a)(1)(A).

342. *See supra* text accompanying notes 138-51.

claims to be placed in a trust. One virtue of this approach is that the use of trusts to distribute damages in class actions is familiar. Many class action settlement agreements have created trusts for the distribution of damages to class members.[343] The trust mechanism allows for plaintiffs' relative claims to be resolved after an aggregate settlement is reached. If plaintiffs can collectively agree with the defendant to have their relative claims resolved through a trust in a settlement,[344] there is a strong argument that plaintiffs ought to be able to agree amongst themselves before settlement that their relative claims should be resolved through a trust. As with a partnership and to a lesser extent litigation sharing agreements, a court conceivably could object to the assignment of plaintiffs' individual claims even to a trust benefiting them collectively. But the precedent of using such trusts in settlement makes the voluntary agreement of plaintiffs to a trust mechanism seem less foreign.

The chief disadvantage of the trust is that it does not resolve the relative proportion of damages that plaintiffs should receive. But trust law is useful in providing an off-the-shelf set of procedures for distributing damages and challenging decisions of the trustee.[345] The trustee presumably would seek to quantify the variables most relevant to determining the damages that plaintiffs have suffered, as well as whether such damages are attributable to the defendant's conduct. To do this, the trustee might hold formal hearings or gather information more informally. Trustees have also performed similar roles outside the class action context. For example, Kenneth Feinberg served as a trustee for the purpose of distributing compensation funds provided by the government for victims of the Sept. 11, 2001, terrorist attacks.[346] The trustee's roadmap should be even more straightforward using the approach described here, because the plaintiffs could enter into advance agreements regarding the procedures that the trustee should follow.

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343. For a description of one such trust, see Kenneth R. Feinberg, *The Dalkon Shield Claimants Trust*, L. & CONTEMP. PROBS., Autumn 1990, at 79.

344. Commentators have worried about the ability of plaintiffs to fend for themselves in class settlement negotiations. *See, e.g.*, John C. Coffee, Jr., *Class Action Accountability: Reconciling Exit, Voice, and Loyalty in Representative Litigation*, 100 COLUM. L. REV. 370, 422 (2000) (proposing that plaintiffs in settlement in class actions receive counter-solicitations from lawyers offering to represent them in separate class actions should they decline the settlement); Judith Resnik, *Litigating and Settling Class Actions: The Prerequisites of Entry and Exit*, 30 U.C. DAVIS L. REV. 835, 854 (1997) (noting that settlement in group litigation compounds problems of settlement in individual negotiation, because lawyers are the relevant stakeholders and thousands of clients cannot effectively monitor their attorneys). Some, however, argue that settlement class actions are the best means of achieving justice when rationing of adjudicative resources is necessary. *See* Eric D. Green, *Advancing Individual Rights Through Group Justice*, 30 U.C. DAVIS L. REV. 791 (1997).

345. *See*, *e.g.*, Lake Eugenie Land & Dev., Inc. v. BP Exploration & Prod, Inc., 732 F.3d 326 (5th Cir. 2013) (finding that a claims administrator improperly awarded damages to claimants without colorable legal claims).

346. *See* KENNETH R. FEINBERG, WHAT IS LIFE WORTH? THE UNPRECEDENTED EFFORT TO COMPENSATE THE VICTIMS OF 9/11 (2005).

B. Evidentiary Sampling After Aggregation

Part III.A reviewed various methods besides claim sales that might be used to aggregate plaintiffs' claims. Yet, as we noted above in our critique of proposals for claims markets,[347] mere aggregation alone does not solve the manageability problem that besets mass litigation. Even if claims are successfully aggregated, if they must be tried individually, there is little gain from aggregation.[348] The purpose of the proposals for aggregation is to place the claims into a posture where the courts can seek to find efficiencies. That might include, for example, trying common issues together, as courts do in class action litigation. But as long as the claims are heterogeneous, courts will still face the same problem as occurs in the class action context of how to avoid resolving every individual litigation. This Article's claim is that it will be more straightforward to use random sampling after such aggregation than it would be in a class action. With a partnership, litigation sharing agreement, or a trust, there is a single plaintiff. Thus, using random sampling to determine the defendant's liability does not require the court to extrapolate from some plaintiffs to others.

At one time, the introduction of randomly sampled survey evidence in litigation was controversial. In 1955, Sears, Roebuck & Co. realized that it had overpaid sales tax to the City of Inglewood, California, and sued for a refund.[349] Because Sears had charged varying amounts of tax in different transactions, Sears sought to estimate the tax due by using a random sample of working days, projecting the tax due to the whole period. The court rejected the effort, because taxes are supposed to be paid based on exact figures, rather than samples, and so it required Sears to do a complete audit of every transaction. And so it did, resulting in a payment of $26,750.22 rather than the $27,000 it had initially sought.[350] Courts were willing to approve sampling only when it was impossible to examine all of the evidence.[351] "The existence of an alternative method of proof is very often an economics problem," a critic of this decision observed. "The time and cost of a complete enumeration may rule it out as a practical alternative to a sampling procedure."[352]

347. *See supra* text accompanying note 298.

348. In theory, mass trials in which judges differentiate plaintiffs are possible, and they can be defended on the ground that they conserve judicial resources. *See* Roger H. Trangsrud, *Mass Trials in Mass Tort Cases: A Dissent*, 1989 U. ILL. L. REV. 69, 76-79. But if such trials in fact focus on each plaintiff's individual circumstances, the gains from consolidation may be reduced. More realistically, mass trials skimp on individualization and may have other unintended consequences. *See id.* at 80-87 (identifying various concerns with mass trials).

349. *See* R. Clay Sprowls, *The Admissibility of Sample Data into a Court of Law: A Case History*, 4 UCLA L. REV. 222, 226-29 (1957).

350. *Id.* at 229.

351. *Id.* at 230.

352. *Id.*

Today, there is little doubt today that randomly sampled evidence can be introduced to a court.[353] By the 1980s, it was clear that polls or surveys could be introduced into evidence, so long as they were "conducted in accordance with generally accepted survey principles," and the "results [were] used in a statistically correct way."[354] In her survey article on surveys, Shari Diamond notes that the permissibility of surveys, appropriately conducted, is "settled"[355] under the Federal Rules of Evidence, and "is also consistent with the Supreme Court's discussion of admissible scientific evidence."[356] Still, random sampling of aggregated adjudications differs from typical survey evidence in that the obvious unit of analysis is the legal claim. But nothing in the Federal Rules of Evidence prohibits sampling at this level. There are two ways that such random sampling might work, corresponding to the two basic approaches to random sampling within class actions.[357] That is, the plaintiff might either use an expert to characterize a random sample of cases or directly introduce evidence from a random sample of cases.

With the expert approach, an expert might review a random sample of the aggregated cases and testify as to liability and damages in the randomly selected cases. This would certainly not have been permissible under the common law "ultimate issue" rule,[358] but Federal Rule of Evidence 704(a) explicitly provides that "[a]n opinion is not objectionable just because it embraces an ultimate issue."[359] Such an expert might be cross-examined, and the cross-examination might contest any factual assessments that led to the expert's conclusion. This approach is particularly feasible where the key evidence underlying each claim is itself amenable to expert analysis. For example, state Medicaid fraud control units use random sampling in conducting audits to estimate overpayment amounts.[360] Presumably, an accountant in a case involving such issues or other accounting issues might conduct an audit of a random sample of plaintiffs' claims and then testify about such an audit in court.

353. For a comprehensive review of evidentiary questions attendant surveys, see Shari Seidman Diamond, *Reference Guide on Survey Research*, *in* FEDERAL JUDICIAL CENTER, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 359 (3d ed. 2011).

354. MANUAL FOR COMPLEX LITIGATION § 2.712 (1982).

355. Diamond, *supra* note 353, at 364.

356. *Id.* (citing Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993)). For a philosophical defense of statistical evidence, see Sam Fox Krauss, *Against the Alleged Insufficiency of Statistical Evidence*, 47 FLA. ST. U. L. REV. 801 (2020).

357. *See supra* text accompanying notes 102-06 (describing Walker and Monahan's alternative approach to hearing a random sample of cases).

358. *See* Anne Lawson Braswell, Note, *Resurrection of the Ultimate Issue Rule: Federal Rule of Evidence 704(b) and the Insanity Defense*, 72 CORNELL L. REV. 620, 621-26 (1987).

359. FED. R. EVID. 704(a). Rule 704(b) contains an exception applicable only to mens rea issues in criminal cases.

360. *See* OFFICE OF INSPECTOR GENERAL, U.S. DEP'T OF HEALTH AND HUMAN SERVICES, STATISTICAL SAMPLING: A TOOLKIT FOR MFCUS (Sept. 2018).

Courts, however, might not allow such an approach in cases that individually would not require expert evidence or that involved numerous other issues not requiring expertise. The problem is that the resolution of these issues might be critical to the outcome, but still not require expert analysis. It seems unlikely, though perhaps not impossible, that one would be able to use a legal expert to value individual cases. An expert, after all, may testify only when such testimony "will help the trier of fact to understand the evidence or to determine a fact in issue."[361] If the expert is testifying about conclusions regarding myriad issues in individual cases not requiring any special expertise, that criterion likely would not be met. Some critics have argued that despite Rule 704, courts should be hesitant about admitting expert testimony expressing legal opinions.[362]

Thus, the more plausible approach is for random sampling to be used to identify a set of cases about which the parties might then introduce evidence. The expert's role in this case would be the relatively simple one of producing a random sample of claims. For example, an expert computer scientist might testify that the expert had used a quasi-random number generator to generate a random selection. Such testimony should be relatively straightforward. There is always the possibility that an expert could have used a not truly random process, for example by trying different random seeds and then choosing the one most advantageous to one of the parties. But a careful expert could avoid this danger by announcing the methodology publicly prior to randomization.[363] For example, the expert might publish on the Internet the exact computer code to be used for the randomization but leave one line blank, promising to fill that line in with certain lottery numbers to be drawn at some specified future date.[364]

The purpose of calling such an expert would be simply for a party to explain to the factfinder why it subsequently offered evidence only as to the randomly selected cases. That is, such testimony "will help the trier of fact to understand the evidence."[365] Typically, of course, the expert performing randomization in a case involving survey evidence will also perform other analysis, but no principle of evidence indicates that the same expert must be used both for randomization and for the analysis of

361. FED. R. EVID. 702.

362. *See*, *e.g.*, Edward J. Imwinkelried, *The Admissibility of Expert Opinions Stating Legal Conclusions*, 58 CRIM. L. BULL. 683 (2022).

363. This accomplishes a function similar to preregistration of trials. *See*, *e.g.*, Brian A. Nosek, *The Preregistration Revolution*, 115 PROC. NAT'L ACAD. SCI. U.S. 2600 (2018) (discussing function of preregistration).

364. For example, the expert hypothetically could make the following commitment: "I will concatenate the lottery numbers in the order they are drawn in the Powerball lottery to be conducted on [a specific date] into a string with no nonnumeric characters. I will then compute the SHA-256 hash of the concatenated string, and will then use the first 32 bits of the seed to be passed to the constructor of a .Net System.Random object."

365. FED. R. EVID. 702.

randomized cases. But the expert in any event also might provide some testimony about the mathematics of extrapolating from the randomly sampled cases to the broader universe.

Of course, the fact that one party offers evidence on randomly sampled cases does not mean that the opposing party will offer evidence on the same cases. But the opposing party at least would have an incentive to try to rebut the evidence offered. The opposing party might produce its own random sample. The opposing party (or even the party introducing a random sample) also might simply choose to present evidence on non-randomly selected cases. But presenting a randomization expert provides a party an opportunity to highlight to the factfinder that, in a situation in which presentation of every piece of evidence is not feasible, the party has not cherry-picked. And a factfinder could then weigh such evidence against an opponent's cherry-picked evidence.

Random sampling in an adjudication involving a single plaintiff does not seem likely to trigger *Wal-Mart*'s concern about "Trial by Formula."[366] It is true that although the case addressed Rule 23, the Rules Enabling Act applies equally to other rules that may be used to aggregate parties, such as Rule 20, as well as rules that aggregate claims, including Rule 18. Yet there is no reason that admission of evidence from a random sampling expert, along with evidence on the claims selected by that expert, would "abridge, enlarge or modify any substantive right."[367] After all, the admission of survey evidence has evolved without any contention that this practice violates the Rules Enabling Act. This point highlights that the Supreme Court's fundamental concern in *Wal-Mart* was that the random sampling approach considered there would have allowed resolution of some parties' claims without allowing the introduction of any evidence on those claims. Nothing in the proposal advanced here restricts the introduction of evidence on any claim, though limitations of time for presentation of evidence naturally might lead litigants to be selective.

The discretion that judges have in managing cases suggests that appellate courts would review any decisions to allow randomly sampled evidence deferentially. Thus, random sampling in cases aggregating many claims could occur without any great judicial innovation. Still, such innovation could be useful. It might be helpful if a court could mandate sampling as part of the court's more general power to limit the introduction of cumulative evidence. A similar practice occurs in England's Technology and Construction Court, which requires party to consider sampling issues in cases that may involve thousands of alleged defects to be considered by the court.[368] That is not precisely the approach being suggested here, as such cases do not begin

366. *See supra* note 117 and accompanying text.

367. Wal-Mart Stores, Inc. v. Dukes, 564 U.S. 338, 367 (2011); see also *supra* note 137 and accompanying text.

368. *See* Bob Breeze, *Proof by Sampling in Construction Disputes* (July 4, 2022), https://perma.cc/FT3H-3D8Y.

with the aggregation of claims of different plaintiffs. But once claims are already aggregated through one of the techniques suggested in Part III.A, producing a case with a single plaintiff, there is no difference from an evidentiary perspective from cases that had a single plaintiff at the outset. An analogy would be to a construction case in which the owner of one building acquired the company owning a second building in the same complex. Bringing these claims together in a single suit would allow a random sample to cover alleged defects in both buildings.

CONCLUSION

This Article has described an alternative to random sampling in class actions: Plaintiffs may privately aggregate their claims into a single owning entity—whether through claim sales, partnerships, trusts, or litigation-sharing agreements—and then have courts use random sampling solely inside that unified lawsuit, so no judgment ever rests on extrapolation to untried claims. Any ultimate normative evaluation of this proposal must depend on a comparison of imperfections across different markets: markets for lawyers, markets for claims, markets for settlements, and markets for insurance. Meanwhile, the imperfections of litigation and of trials must also be considered, in comparing this proposal to statistical adjudication and to the *Wal-Mart/Tyson Foods* regime that allows many plaintiffs to vindicate their rights only in individual litigation.

The Supreme Court may be correct in concluding that extrapolation from randomly selected claims to others violates the Rules Enabling Act. But if the legal system is to live up to the aim expressed in the very first Federal Rule of Civil Procedure—"to secure the just, speedy, and inexpensive determination of every action and proceeding"[369]—judges and legislators must confront trade-offs. The combination of random selection, whether of or in adjudications, with markets may allow remedies for legal wrongs without requiring judges to themselves make any extrapolations across cases. On the other hand, markets may have limitations relative to conventional litigation, and legal actors may be uncomfortable with abandoning the promise that any litigant ultimately may have a day in court, however illusory this promise may be in the real world in which fewer and fewer cases are ever tried.[370] A continued focus on random sampling outside class actions may allow for a better balance of goals of improving efficiency, honoring individual rights, and respecting the traditional role of the courts than previous attempts at statistical adjudication.

369. *See* FED. R. CIV. P. 1.

370. John H. Langbein, *The Disappearance of Civil Trial in the United States*, 122 YALE L.J. 522 (2012) (documenting and diagnosing the disappearing trial).