

SAMPLING DAMAGES

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I. INTRODUCTION

The astonishing number of claimants in mass tort litigation overwhelms traditional commitment to individual, case by case, adjudication of compensatory damage claims.¹ Some cases have involved millions of claimants² and many cases have involved thousands of injured persons seeking compensation.³ Numbers such as these rule out any serious consideration of individual trials and have prompted controversial experimentation by courts with various forms of aggregation.⁴ Among these experiments are three district courts which have endorsed a form of aggregation that centered on statistical sampling as a solution to what might be called the numbers problem. In *Cimino v. Raymark Industries, Inc.*,⁵ the compensatory damage claims of 2298 persons were adjudicated by trying a random sample of 160 cases and applying the results to all of the remaining

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1. See 18 Charles A. Wright et al., *Federal Practice and Procedure* § 4449, at 417 (1981) (referring to the “deep rooted historic tradition that everyone should have his own day in court . . .”). Our Article deals only with compensatory damage claims. Large numbers of claimants do not present difficult problems for the adjudication of punitive damage claims because the focus is on the behavior of the defendant rather than harm to the plaintiff; Dan B. Dobbs, *Law of Remedies* § 3.11(1), at 310 (2d ed. 1993) (explaining the general rules of punitive damages and how they are not intended to compensate, but instead to punish).

2. See, e.g., *Georgine v. Amchem Prod., Inc.*, 83 F.3d 610, 626 n.11 (3d Cir. 1997) (involving claimants “which may stretch into the millions.”); *Castano v. American Tobacco Co.*, 84 F.3d 734, 744 (5th Cir. 1996) (involving “millions of plaintiffs.”); *In re “Agent Orange” Prod. Liab. Litig.*, 635 F.2d 987, 989 (2d Cir. 1980) (“Plaintiffs purport to represent 2.4 million veterans . . .”).

3. See, e.g., cases described *infra* Part I.

4. See generally, *Flanagan v. Ahearn*, 90 F.3d 963 (5th Cir. 1996) (denying the right to opt out of asbestos class action); *In re General Motors Corp. Pick-up Truck Fuel Tank Prod. Liab. Litig.*, 55 F.3d 768 (3d Cir. 1995) (approving use of settlement class); *Hardy v. Johns-Manville Sales Corp.*, 681 F.2d 334 (5th Cir. 1982) (prohibiting the use of collateral estoppel to bar subsequent asbestos-related suits as certain key issues remained unsolved).

5. 751 F. Supp. 649 (E.D. Tex. 1990), *rev'd*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998).

cases. A panel of the Fifth Circuit rejected the implemented plan.⁶ *In re Estate of Marcos Human Rights Litigation*⁷ involved the compensatory damage claims of 10,059 persons which were adjudicated by deposing a random sample of 137 claimants, aggregating the results, and presenting the depositions and the aggregated information to a jury at one trial. A panel of the Ninth Circuit upheld this implemented plan.⁸ *In re Chevron, U.S.A. Inc.*⁹ addressed three-thousand compensatory damage claims which were the subject of a plan to try a sample of thirty cases to provide a basis for disposing of the rest. The court of appeals rejected the plan because the proposed sample was not randomly drawn, but approved the use of random sampling.¹⁰

Cimino, Marcos and *Chevron* involved important steps toward solution of the numbers problem in mass tort litigation, but they incorporate cautious, tentative measures that fail to realize the full potential of statistical sampling to solve many of the problems posed by throngs of claimants. The difficulty in all three cases is that the pretense of individual adjudication is maintained. In all three, time and money were wasted in an effort to provide a few claimants "individual" adjudication, while using a survey to resolve other claims. Our thesis is that a complete solution of the numbers problem in mass torts can only be achieved by abandoning any pretense of individual adjudication and randomly sampling damages without apology. Our proposal draws on areas of the law, such as trademarks, that have long accepted the use of a strong form of survey methodology.

If our proposal were adopted, mass torts would be adjudicated with less cost and more efficiency than with any existing model. Regardless of the number of claimants, cases would be resolved by one judge, one jury and, typically, the testimony of one or two expert witnesses per side. The parties would be left largely in control of the management of this process, which may increase their acceptance of the ultimate results. Defendants might pay somewhat less in total damages than under conventional practices, but plaintiffs would gain enhanced access to class adjudication and hence either to a speedy verdict and possible compensation or to the choice of an individual—though problematic—trial. Thus, under our proposal neither plaintiffs nor defendants would be systematically prejudiced.

In Part I of our proposal, we describe the three cases which have endorsed aggregation based on sampling. In Part II we point out that these

6. *Cimino v. Raymark Indus., Inc.*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998).

7. 910 F. Supp. 1460 (D. Haw. 1995), *aff'd sub nom.* *Hilao v. Estate of Marcos*, 103 F.3d 767 (9th Cir. 1996).

8. *Hilao v. Estate of Marco*, 103 F.3d 767 (9th Cir. 1996), *aff'g* 910 F. Supp. 1460 (D. Haw. 1995).

9. 109 F.3d 1016 (5th Cir. 1997).

10. *See id.* at 1020 ("While this particular sample of thirty cases is lacking in representativeness, statistical sampling with an appropriate level of representativeness has been utilized and approved.").

cases employ two distinct models of aggregation and offer a comparison and analysis of these methods. Although both of these models are a vast improvement over individual adjudication, neither exploits the full potential of surveys. Finding neither model satisfactory, in Part III we propose and discuss a new model for aggregation by survey which drops the pretense of individualized consideration of claimants and has the practical benefits of strong survey methodology. Our proposal would shift salient authority from principles of complex litigation, where the survey method appears new and controversial, to principles of scientific evidence, where the survey method is commonplace.¹¹ Finally, in Part III, we provide an estimate of the public benefits of our proposal and assess the impact of our suggestion on the parties. Finding significant benefit to the public and little harm to the parties, we conclude by urging the adoption of our proposal to survey damage without apology and resolve the numbers problem in mass torts.

II. THE BREAKTHROUGH CASES

The first aggregation case is *Cimino v. Raymark Industries, Inc.*¹² which reported Judge Robert M. Parker's effort to try the compensatory damage claims of 2298 plaintiffs who were allegedly injured by exposure to asbestos.¹³ Judge Parker consolidated the individual claims, thereby allowing the separate cases to be tried together without the representative that a class action would require.¹⁴ Parker divided the plaintiffs into five groups¹⁵ based on disease categories and then selected a random sample of cases from each group.¹⁶ A total of 160 cases were selected by this process.¹⁷

11. Indeed, the Federal Judicial Center's Reference Manual on Scientific Evidence provides a comprehensive guide to the methods we endorse. Federal Judicial Ctr., Reference Manual on Scientific Evidence (1994) [hereinafter Reference Manual].

12. 751 F. Supp. 649 (E.D. Tex. 1990), *rev'd*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998). See Robert G. Bone, *Statistical Adjudication: Rights, Justice and Utility in a World of Process Scarcity*, 46 Vand. L. Rev. 561 (1993) (discussing *Cimino* and the views of Saks and Blanck); 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, 819-26 (1992) (discussing *Cimino*). General issues posed by the mass tort phenomena are described and discussed in Glen O. Robinson & Kenneth S. Abraham, *Collective Justice in Tort Law*, 78 Va. L. Rev. 1481 (1992). Louis Kaplow addresses concerns about accuracy and provides a discussion from an economic perspective in his article *The Value of Accuracy in Adjudication: An Economic Analysis*, 23 J. Legal Stud. 307 (1994).

13. *Cimino*, 751 F. Supp. at 652-53. These plaintiffs also asserted claims for punitive damages, which were tried in a separate phase. See *id.* at 653 (stating that Phase III of the trial was the damages issue); see also Linda S. Mullenix, *Beyond Consolidation: Postaggregative Procedure in Asbestos Mass Tort Litigation*, 32 Wm. & Mary L. Rev. 475, 561-62 (1991) (describing the entire *Cimino* trial plan, which included three different phases).

14. Mullenix, *supra* note 13, at 563.

15. The five disease categories were as follows: mesothelioma, lung cancer, other cancer, asbestosis, and pleural disease. *Cimino*, 751 F. Supp. at 653.

16. *Id.* at 653, 665-66.

17. *Id.* In addition to the randomly selected sample cases, the court tried the cases of nine persons who served as class representatives in another phase of the trial. *Id.* at 657. The

Two juries were empaneled, and initially sat together hearing general medical testimony.¹⁸ The juries then sat separately and heard testimony about individual cases and returned individual damage verdicts.¹⁹ Fifty-eight lawyers participated in this process which also involved four district judges and three magistrates.²⁰ After the jury tried the 160 sample cases and awarded damages,²¹ Judge Parker decided that the average verdict in each of the five disease categories should be applied to each of the nonsampled cases.²² Judge Parker concluded, "Damages must be determined in the aggregate. Whether it is by the mechanism of the Court's plan or by some other procedure . . . , without the ability to determine damages in the aggregate, the Court cannot try these cases."²³ The total damages awarded exceeded \$1 billion.²⁴ The Court of Appeals rejected the implemented plan, holding the aggregation contrary to Texas law and the Seventh Amendment.²⁵

The second case is *In re Estate of Marcos Human Rights Litigation*.²⁶ That case concerned the claims of citizens of the Philippines for compensatory damages²⁷ under the Federal Alien Tort Claims Act²⁸ and the Torture Victim Protection Act of 1991.²⁹ The claims were based on allegations that former Philippine president Ferdinand Marcos and his agents violated the citizens' human rights during the period of martial law which existed in the Philippines from 1972 to 1986.³⁰

Judge Manuel L. Real certified a class which included three categories³¹ for class members and their survivors, based on type of harm.

nine additional cases were not used to calculate the average verdicts. *Id.* at 653, 666-67.

18. *Cimino*, 751 F. Supp. at 653.

19. *Id.*

20. *Id.*

21. After verdicts were reached in the 169 individual cases, Judge Parker reviewed all of the verdicts according to standard postverdict practice. *Id.* at 657. He ordered remittiturs in thirty-five cases and granted a new trial in one case. *Id.* The average for each disease category was calculated after remittiturs and also included cases resulting in a zero verdict. *Cimino*, 751 F. Supp. at 665.

22. *Id.* at 653, 664-65. Members of the sample received the award determined at trial for their own individual case. *Id.* at 653.

23. *Id.* at 667.

24. Robert M. Parker, *Streamlining Complex Cases*, 10 Rev. Litig. 547, 553 (1991).

25. *Cimino v. Raymark Indus., Inc.*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096, at *37 (5th Cir. Aug. 17, 1998).

26. 910 F. Supp. 1460 (D. Haw. 1995), *aff'd sub nom.* *Hilao v. Estate of Marcos*, 103 F.3d 767 (9th Cir. 1996).

27. *See id.* at 1462 (describing the compensatory damages phase of the action and how the opinion falls within it). These plaintiffs also asserted claims for punitive damages, which were tried in a separate phase. *Id.* at 1462-64.

28. 28 U.S.C. § 1350 (1994).

29. Pub. L. No. 102-256, 106 Stat. 73 (codified as a note to 28 U.S.C. § 1350 (1994)).

30. *In re Estate of Marcos*, 910 F. Supp. at 1461.

31. The three categories were the following: plaintiffs who were tortured, the families of those individuals who were the subjects of summary execution, and the families of those who disappeared as the result of the actions of Marcos. *Id.* at 1462.

Judge Real required class members to file proof of claim forms, and 10,059 persons responded.³² Judge Real then heard testimony from an expert in statistics and survey research who presented a plan according to which the depositions of a random sample totaling 137 claimants in the three categories would be taken.³³ The objective was to provide a basis for permitting the jury to decide the total amount of compensatory damages which might be due to the claimants.³⁴ Judge Real appointed a special master or court appointed expert³⁵ to travel to the Phillipines and conduct the 137 depositions,³⁶ and a computer selected the deponents.³⁷ Based on the results of these depositions, the special master or court appointed expert recommended damages in stated amounts for each of the sampled claimants³⁸ and then recommended total damages for each category of nonsampled claimants.³⁹ Judge Real told the jury that it could accept, reject, or modify the recommendations of the special master or court appointed expert, and, based on the depositions' summaries it was given, could make its own decisions about each of the sampled cases as well as the total amount due claimants.⁴⁰ The jury deliberated for five days and returned individual verdicts in the 137 sampled cases and a total verdict of over \$766 million.⁴¹ According to Judge Real, "The aggregation of compensatory damage claims vindicates important federal and international policies, permits justice to be done without unduly clogging the court system, and was shown to be fair to the defendant."⁴² The court of appeals reviewed and approved the damage phase trial as conducted.⁴³

32. *Id.* at 1462 n.1. Judge Real determined that 518 claims were facially invalid, leaving 9541 claims for a class trial. *Id.*

33. *Id.* at 1464-65.

34. *See In re Estate of Marcos*, 910 F. Supp. at 1466 (stating that the "jury was also instructed that they could, independently, on the basis of the depositions of the 137 randomly chosen members, make their own judgment as to the individual damages").

35. *Id.* at 1465.

36. *Id.*

37. The sample included 67 torture victims, 52 execution victims, and 18 disappearance victims. *Id.* at 1466.

38. The special master or court appointed expert recommended six claims be found invalid. Therefore, the number of people deposed was 131 rather than 137. *Hilao v. Estate of Marcos*, 103 F.3d 767, 783 & n.8 (9th Cir. 1996).

39. *In re Estate of Marcos*, 910 F. Supp. at 1465 n.10, 1466; *see also Hilao*, 103 F.3d at 783 (describing the methodology used by the special master or court appointed expert in determining recommendations).

40. *In re Estate of Marcos*, 910 F. Supp. at 1466.

41. *Id.* About one-third of the individual verdicts differed from the recommendation. *Hilao*, 103 F.3d at 784. The total verdict was about \$1 million less than recommended. *In re Estate of Marcos*, 910 F. Supp. at 1466.

42. *In re Estate of Marcos*, 910 F. Supp. at 1469.

43. *Hilao*, 103 F.3d at 771. Judge Pamela A. Rymer concurred in part and dissented in part. *Id.* at 787. The Estate's appeal initially challenged only "the method by which [the district court] allowed the validity of the class claims to be determined": the master's use of a representative sample to determine what percentage of the total claims were invalid." *Id.* at 784. The Estate subsequently, in its reply brief, challenged the "methodology employed by

The final case is *In re Chevron U.S.A., Inc.*⁴⁴ which involved claims for compensatory damages by over three thousand plaintiffs. The plaintiffs alleged various harms said to have resulted from exposure to hazardous substances in the environment of a Houston, Texas subdivision.⁴⁵ The district court approved a plan which provided for trial of individual damage claims of thirty plaintiffs, fifteen to be selected by plaintiffs, and fifteen to be selected by the defendant.⁴⁶ However, the district court's plan was unclear as to how the verdicts in the thirty selected cases might affect the remaining 2970 plaintiffs.⁴⁷

Chevron objected to the plan on the ground that the selection process, since it was not random, would not result in a representative group of cases, and sought mandamus from the court of appeals. The three circuit judges who heard the request for mandamus assumed one potential use of the verdicts was to permit inferences about the whole sample and to serve as a basis for the entry of judgment in nonsample cases, as in *Cimino* and *Marcos*.⁴⁸ The court of appeals refused to halt the proposed thirty trials⁴⁹ but limited the use of the results to those thirty individual plaintiffs because the cases chosen for trial, not having been randomly chosen, were not representative of the entire group of three thousand plaintiffs.⁵⁰ Nevertheless, Judge Parker wrote, "The notion that the trial of some members of a large group of claimants may provide a basis for enhancing prospects of settlement or for resolving common issues or claims is a sound one that has achieved general acceptance by both bench and bar."⁵¹

the district court for determining the quantum of compensatory damages." *Id.* at 784 n.11. Although the court claimed not to consider the "second issue," *id.*, it is, in fact, entwined with the first: the number of sampled claimants recommended for no recovery did determine, in part, the recommended "quantum of compensatory damages." See *Hilao*, 103 F.3d at 782 (explaining that the district court used random sampling from the pool of 10,059 claims to simplify the calculation of compensatory damages for the class).

44. 109 F.3d 1016 (5th Cir. 1997).

45. *Id.* at 1017.

46. *Id.* at 1017, 1018.

47. See *id.* at 1019 ("The trial plan . . . does not identify any common issues or explain how the verdicts in the thirty (30) selected cases are supposed to resolve liability for the remaining 2970 plaintiffs.").

48. *Id.* at 1020. Judge Robert M. Parker, writing for the majority, discussed the use of inferential statistics, noting that "[t]he essence of the science of inferential statistics is that one may confidently draw inferences about the whole from a representative sample of the whole." *In re Chevron*, 109 F.3d at 1019-20. Judge Parker, the author of *Cimino*, was appointed to the Fifth Circuit in 1994. See 2 *Almanac of the Federal Judiciary*, 5th Circuit, at 16 (Christine Housen & Megan Chase eds., 1997). Judge Edith H. Jones, specially concurring, expressed doubts about the use of sampling "to extrapolate findings relevant to and somehow preclusive upon a larger group of cases." *In re Chevron*, 109 F.3d at 1021.

49. *In re Chevron*, 109 F.3d at 1021. The court denied Chevron's Petition for Mandamus as it related to the trial of the thirty selected cases to secure thirty individual judgments. *Id.*

50. *Id.* at 1021. The court granted Chevron's Petition for Mandamus as it related to "utilization of the results obtained from the trial of the thirty (30) selected cases for any purpose affecting issues or claims of, or defenses to, the remaining untried cases." *Id.*

51. *Id.* at 1019. In her concurrence, Judge Edith H. Jones objected to this conclusion.

III. TWO CURRENT MODELS OF AGGREGATION

The majority in each of the three breakthrough cases viewed the aggregation devices that were used as substantially the same procedure. For example, Judge Real cited and discussed *Cimino* as “precedent” for the compensatory damage trial plan carried out in *Marcos*.⁵² On appeal in that case, Judge Betty B. Fletcher, writing for the majority, cited *Cimino* and wrote, “[T]he method [used in *Marcos*] has been used before in an asbestos class-action case, the opinion in which apparently helped persuade the district court to use this method.”⁵³ In *Chevron*, Judge Parker cited the appellate opinion in *Marcos* as precedent for his assertion that “[w]hile this particular [*Chevron*] sample of thirty cases is lacking in representativeness, statistical sampling with an appropriate level of representativeness has been utilized and approved.”⁵⁴ In addition, Judge Edith H. Jones’ specially concurring opinion in *Chevron*, cited both *Cimino* and *Marcos* as examples of the same trial strategy.⁵⁵ Clearly, the majority of judges ruling in these cases believe they are dealing with a single phenomenon of aggregation.

A. Post-Jury Judicial Aggregation and Pre-Jury Expert Aggregation

In fact, the trial plans in *Cimino* and *Chevron* differ in important ways from the plan in *Marcos*. First, the timing of aggregation differs in the *Cimino* and *Chevron* model and in the *Marcos* model. In *Cimino*, the aggregation occurred *after* the cases were presented to the juries, when Judge Parker decided that the one hundred sixty verdicts in the sample cases should be the basis for awarding compensatory damages to all claimants.⁵⁶ Indeed, more than a month passed between receipt of the last verdict for the one hundred sixty individual cases⁵⁷ and Judge Parker’s finding that there was “no persuasive evidence why the average damage verdicts in each disease category should not be applied to the nonsample members.”⁵⁸ Apparently the same sequence was potentially involved in *Chevron*. The trial judge’s decision to try thirty individual cases and the assumption by all circuit judges who heard the case that the results might be applied in other cases strongly suggest this conclusion. On the other hand, in *Marcos*, the aggregation occurred *before* the case was presented to the jury.

See In re Chevron, 109 F.3d. at 1022 (arguing that “Judge Parker need not have reached this larger question”).

52. *In re Estate of Marcos Human Rights Litig.*, 910 F. Supp. 1460, 1467 (D. Haw. 1995), *aff’d sub nom.* *Hilao v. Estate of Marcos*, 103 F.3d 767 (9th Cir. 1996).

53. *Hilao*, 103 F.3d at 784.

54. *In re Chevron*, 109 F.3d at 1020.

55. *See id.* at 1022-23 (stating that both *Cimino* and *Marcos* used the “bellweather strategy”).

56. *See Cimino v. Raymark Indus., Inc.*, 751 F. Supp. 649, 664-65 (E.D. Tex. 1990), *rev’d*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998).

57. *Id.* at 653, 664-65.

58. *Id.* at 664-65.

Second, the *control* of aggregation differs in the two models. In *Cimino* (and potentially in *Chevron*) the aggregation was done by the court, but in *Marcos* the aggregation was done by the special master or court appointed expert. Although the jury in *Marcos* was free to decide on a total damage award different from the recommendation, the jury heard the aggregated amount recommended for each category in testimony from the special master or court appointed expert, and awarded damages that closely approximated the recommended amount.

B. The Current Models Compared

At first blush it might seem that who has control over the aggregation process and its timing is a trivial issue; whose fingers press the calculator that multiplies the average amount awarded in the tried cases by the number of plaintiffs in the untried sample, and when that multiplication is done, are issues of apparently no legally substantive importance. Indeed, the issues are mentioned only as an informational aside in *Cimino* and *Marcos*.⁵⁹ Yet despite their apparent doctrinal marginality, the control and timing of the aggregation may have a psychological effect on the jury and its decisions regarding damages that is very important.

In *Cimino*, the aggregation was done by the court after the cases went to the jury. As it rendered its decisions in *Cimino*, the jury was not aware that those decisions would be aggregated and would directly affect a much larger group of plaintiffs than those tried before them.⁶⁰ The jury in *Cimino* was what has been referred to in other contexts as "blindfolded."⁶¹ By contrast, in *Marcos*, the aggregation was done by the special master or court appointed expert before the cases went to the jury. The jury in *Marcos* was explicitly informed that the damage awards in the cases tried before them would be applied to a much larger group of nontried cases, and were even presented with the amount of the aggregated award recommended by the special master or court appointed expert. The jury in *Marcos* had no relevant information withheld from it—it was not blindfolded and it was fully informed of the consequences of its verdicts. And there is reason to believe that fully informed juries render different damage awards than blindfolded ones. As Judge Real said in *Marcos*—the only one of the three

59. See *id.* at 653 (discussing the manner in which damages would be calculated); *In re Estate of Marcos Human Rights Litig.*, 910 F. Supp. 1460, 1465 n.10 (D. Haw. 1995) (describing the process the special master used to determine damages).

60. Telephone Interview with G. Luke Ashley, Shareholder, Thompson & Knight (Oct. 10, 1997).

61. Blindfolding-withholding certain information from the jury- is "[o]ne of the most commonly employed techniques for controlling juror decisionmaking." Shari Seidman Diamond & Jonathan D. Casper, *Blindfolding the Jury to Verdict Consequences: Damages, Experts, and the Civil Jury*, 26 L. & Soc'y Rev. 513, 517 (1992). Examples of blindfolding include the following: Federal Rule of Evidence 407 (stating that juries cannot be told of rejected settlement offers), Federal Rule of Evidence 411 (stating that jurors cannot be told whether a defendant possesses liability insurance), and Federal Rule of Evidence 609 (stating that juries usually cannot be told of a criminal defendant's prior convictions).

breakthrough cases in which the jury was not blindfolded—"It is probable the judgment against the estate, had this court allowed one-on-one trials, would have been significantly more than the judgment the jury returned in the aggregate procedure."⁶²

62. *In re Estate of Marcos*, 910 F. Supp. at 1468. Empirical support for Judge Real's claim that jurors aware of aggregation render different verdicts than jurors in nonaggregated cases (or than jurors blindfolded to the fact of aggregation) comes from the study by Shari Seidman Diamond and Jonathan Casper. See Diamond & Casper, *supra* note 61, at 517-18 (discussing the drawbacks of blindfolding). Diamond and Casper presented a simulated videotaped antitrust price fixing case to over one thousand jurors in a Cook County, Illinois, courtroom. Various types of judicial instructions were randomly given to the jurors to test the effects of blindfolding. In a number of the conditions, jurors were instructed to compensate the plaintiff for any injury caused by the defendants' antitrust violations, and told that the judge would then treble this amount to produce the final award. In other blindfolded conditions, the jurors were not told that any damages they awarded would be trebled by the court. The results were that "[j]urors who were told about trebling gave significantly lower awards than jurors who were not told." *Id.* at 532. For example, the average award given in the blindfolded condition in which no information was given to the jurors about judicial trebling was \$211,960. The average award given in the condition in which jurors were told that their verdict would automatically be trebled (but were given no admonition about considering or disregarding this information in their decision) was \$155,281, a reduction of 27 percent. See *id.* at 531. "Thus, either trebling information was causing jurors to reduce their awards below what they believed would . . . compensate the plaintiff or the desire to punish and deter was causing jurors not informed of the trebling rule to elevate their awards above what they believed would be necessary to compensate the plaintiff." *Id.* at 532-533.

Further analyses allowed the researchers to choose between these hypotheses to explain their results. "Windfall avoidance" —keeping the plaintiffs from recovering what was seen as too much, due to trebling in the final award—was the operative mechanism resulting in lower damage awards being given by jurors informed of the trebling rule as compared with jurors blindfolded to it. "The windfall avoidance effect when jurors are informed that their damage awards will be trebled suggests that legal rules and their consequences play an important role in juror decision making." *Id.* at 557-58. Of course, in mass tort cases, no individual plaintiff is receiving a windfall and thus, there is no windfall to avoid. Rather, the psychological process mediating Judge Real's hypothesized lower-per-plaintiff award in aggregated cases than in nonaggregated, or blindfolded, cases might be termed overdeterrence avoidance. See Richard Posner, *Economic Analysis of Law* § 6.10, at 191 (4th ed. 1992).

The hypothesized implications of the Diamond and Casper study to the context of aggregated damages in mass torts cases are instructive. Jurors who, at the time they are making their decisions, are fully aware of the aggregated consequences of those decisions are likely, on average, to award a lower amount of damages per case than jurors who are blindfolded to the fact that their verdicts automatically will be multiplied to affect many other cases. Indeed, in the Diamond and Casper research, the multiplier was only a factor of three--trebling. In *Marcos*, the multiplier was 880 for the average damages awarded in cases in the disappearance category, 3184 for the average damages awarded in cases in the summary execution category, and 4869 for the average damages awarded in cases in the torture category. *Hilao v. Estate of Marcos*, 103 F.3d 767, 783 (9th Cir. 1996). The Special Master or Court Appointed Expert, Sol Schreiber, "recommended that the award to the class be determined by multiplying the number of valid remaining claims in each subclass by the average award recommended for the randomly sampled claims in that subclass." *Id.* Then "[a]dding together the subclass awards, Schreiber recommended a total compensatory damage award of \$767,491,493." *Id.* at 784. In *Cimino*, had the jury not been blindfolded, it would have been aware that the average damages it awarded in cases in the five disease categories

IV. A NEW MODEL FOR AGGREGATION

Both current models of aggregation are preferable to case-by-case litigation. Both offer a technique for measuring damages and reaching judgment in situations involving thousands of related claims. Under these conditions, the alternative of individual adjudication often includes the possibility for many claimants of no adjudication at all.⁶³ However, while both current models pay tribute to the use of inferential statistics developed in survey research,⁶⁴ neither of the current models realizes the full potential of the survey method of aggregation in mass torts. Both models exhibit a reluctance to fully embrace the survey technique. This failure is best exemplified by the effort in both *Cimino* and *Chevron* and in *Marcos* to maintain at least the pretense of individual treatment of claimants.

A. The Pretense of Individualized Consideration of Claimants

In *Cimino* and *Chevron* and in *Marcos* the survey technique was combined with some individual adjudication. We understand the practical necessity of judicial caution in embracing survey methods,⁶⁵ but allowing a number, albeit reduced, of individual trials creates substantial costs. For example, in *Cimino*, Judge Parker and his colleagues tried 169 cases. This process required 133 days of trial time and resulted in 25,348 pages of transcript. This record contained the testimony of 271 expert witnesses and 292 fact witnesses. The 169 individual trials produced 6176 exhibits which added up to 577,000 pages of documents.⁶⁶ In *Marcos*, the data collected from each of the 137 claimants in the sample were presented to the jury, and the jury was asked to determine the amount of compensatory damages each claimant should receive.⁶⁷ The data were presented in the form of brief

would later be multiplied by the court by factors varying from 17 to 1000 to compute the total amount awarded against the defendants. See *Cimino v. Raymark Indus., Inc.*, 751 F. Supp. 649, 653 (E.D. Tex. 1990), *rev'd*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998). Had *Chevron* been permitted to go forth and not been blindfolded, the jurors would have known that the average verdict for the cases they decided would have been multiplied by 2,970 to compute defendant's total liability. Thus, there is reason to hypothesize that the *Marcos* approach of fully informing jurors of the consequences of their verdicts in aggregated mass tort cases may result in substantially lower average damage awards per case than the *Cimino* and *Chevron* strategy of blindfolding the jury.

63. See *Hilao v. Estate of Marcos*, 103 F.3d 767, 786 (9th Cir. 1996) ("[T]he time and judicial resources required to try the nearly 10,000 claims in this case would alone make resolution of Hilao's claims impossible."); *In re Estate of Marcos*, 910 F. Supp. at 1462 ("Pragmatically, the jury could not hear testimony of nearly 10,000 plaintiffs in this action within any practicable and reasonable time, to do justice to the class members."); *Cimino*, 751 F. Supp. at 666 ("[U]nless this plan or some other procedure that permits damages to be adjudicated in the aggregate is approved, these cases cannot be tried.")

64. See *In re Estate of Marcos*, 910 F. Supp. at 1465; *Cimino*, 751 F. Supp. at 659-63.

65. See Kaplow, *supra* note 12, at 313-14 (arguing that under certain circumstances efforts to more accurately determine damages are wasteful).

66. *Cimino*, 751 F. Supp. at 653.

67. *In re Estate of Marcos*, 910 F. Supp. at 1464-65.

summaries of deposition testimony together with the special master or court appointed expert's recommendation regarding a damage verdict for each individual sample member.⁶⁸ This part of the report was more than 182 pages long.⁶⁹ Not surprisingly, the jury deliberated five days before reaching a verdict.⁷⁰ Clearly, maintaining the pretense of individualized treatment required a great deal of trial time in *Cimino* and in *Macros*.

We believe that continued focus on individual adjudication leads to the view that survey methodology is only another judicial case management technique like the discovery plan or scheduling conference, procedures to expedite presentation of evidence, and others described in the *Manual for Complex Litigation*. Indeed, survey methodology is mentioned twice in the *Manual*, as noted by both Judges Parker and Jones in *Chevron*.⁷¹ This case management conception of survey methodology may lead to the view that the trial judge must play a central role in the survey task. For example in *Cimino*, Judge Parker created the five sample categories and selected a random sample of cases for each category.⁷² Judge Real, in *Marcos*, appointed a special master or court appointed expert to collect the sample data in the Philippines.⁷³ This considerable degree of judicial involvement in the survey process is encouraged by case management principles found in the *Manual for Complex Litigation*. The *Manual* states as a general principle that “[f]air and efficient resolution of complex litigation requires that the court exercise early and effective supervision (and, where necessary, control) . . . and that the judge and counsel collaborate to develop and carry out a comprehensive plan for the conduct of pretrial and trial proceedings.”⁷⁴ The *Manual* describes a trial judge's appropriate management role as active, substantive, and continuing.⁷⁵ Such views may overwhelm consideration of leaving survey work to the parties. Although an active judicial role may be desirable when legal determinations are at stake,⁷⁶ a less active judicial role may be appropriate when factual

68. *Id.* at 1464-66.

69. *Id.* at 1465.

70. *Id.* at 1466.

71. *In re Chevron U.S.A., Inc.*, 109 F.3d 1016, 1019, 1022-23 (5th Cir. 1997).

72. *See Cimino v. Raymark Indus., Inc.*, 751 F. Supp. 649, 665-66 (E.D. Tex. 1990), *rev'd*, Nos. 93-4452-93-46111, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998); *see also* Mullenix, *supra* note 13, at 492-550 (describing Judge Parker's active role in the aggregation procedure).

73. *See In re Estate of Marcos*, 910 F. Supp. at 1465 (noting that the court appointed Sol Schreiber as the special master to “facilitate the taking of depositions of 137 randomly selected plaintiffs”).

74. *Manual for Complex Litigation* § 20 (3d ed. 1995).

75. *See id.* § 20.13 (noting that these characteristics, among others, define “effective judicial management”).

76. *See* John Monahan & Laurens Walker, *Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law*, 134 U. Pa. L. Rev. 477, 495-98 (1986) (stating that social science used as an authority in law should be obtained by a court via briefs presented by the parties and through active, independent, judicial investigation).

information is being developed.⁷⁷ Conducting a survey to determine damages is a use of social science to determine a "social fact"⁷⁸ which has no utility beyond the case before the court. Much research indicates the parties' perception of justice will be significantly increased by a procedure which accords the parties comparatively greater control over the development of factual information.⁷⁹ Thus, an active judicial role in planning the survey may be both inappropriate and detrimental to the satisfaction of the parties with the dispute resolution process.

B. A Survey Model Without Apology

As late as 1960, it could be said that "[t]he law with respect to survey evidence is still far from settled doctrine."⁸⁰ In recent decades, however, the appearance of surveys in adjudication has become ubiquitous. Evidence in the form of surveys has been introduced in areas as diverse as obscenity,⁸¹ employment discrimination,⁸² antitrust,⁸³ false advertising,⁸⁴ and change of venue.⁸⁵ As Judge Parker wrote in *Cimino*, "The reasons the courts have come to rely on statistics are the same reasons that society embraces the science. It has been proved to provide information with an acceptable degree of accuracy and economy."⁸⁶ To more fully describe the use of survey methods as a form of proof, we use the illustration of "consumer confusion"

77. See Laurens Walker & John Monahan, *Social Facts: Scientific Methodology as Legal Precedent*, 76 Cal. L. Rev. 877, 880-82 (1988) (advocating minimal judicial intervention in the use of social science as a fact-finding tool).

78. *Id.* at 881.

79. Tom R. Tyler et al., *Social Justice in a Diverse Society* 88-89 (1997); see also, John Thibaut & Laurens Walker, *Procedural Justice: A Psychological Analysis* 83 (1975) (considering the idea that a difference in the adversary and inquisitorial trial procedure is the control that the parties feel in the adversary procedure because they choose their own attorney).

80. Hans Zeisel, *The Uniqueness of Survey Evidence*, 45 Cornell L.Q. 322, 345 (1960).

81. See, e.g., *Saliba v. State*, 475 N.E.2d 1181, 1184 (Ind. Ct. App. 1985) (discussing the admissibility of a public opinion poll as evidence of community standards of obscenity).

82. See, e.g., *EEOC v. Sears, Roebuck & Co.*, 628 F. Supp. 1264, 1285-87 (N.D. Ill. 1986) (analyzing statistical evidence in a sex discrimination lawsuit), *aff'd*, 839 F.2d 302 (7th Cir. 1988).

83. See, e.g., *Dolphin Tours, Inc. v. Pacifico Creative Serv., Inc.*, 773 F.2d 1506, 1511-13 (9th Cir. 1985) (employing survey evidence to determine the amount of damages in an antitrust lawsuit).

84. See, e.g., *American Home Prods. Corp. v. Johnson & Johnson*, 577 F.2d 160, 167-71 (2d Cir. 1978) (analyzing market research and consumer surveys).

85. See, e.g., *Commonwealth v. Cohen*, 413 A.2d 1066, 1076-77 (Pa. 1980) (employing a study of the statistical impact of pretrial media coverage on jurors).

86. *Cimino v. Raymark Indus., Inc.*, 751 F. Supp. 649, 663 (E.D. Tex. 1990), *rev'd*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998); see also Shari Seidman Diamond, *Reference Guide on Survey Research*, in *Reference Manual*, *supra* note 11, at 225-26 ("When properly designed, executed, and described, surveys (1) economically present the characteristics of a large group of objects or respondents and (2) permit an assessment of the extent to which the measured objects or respondents are likely to adequately represent a relevant group of objects, individuals, or social organisms.").

in trademark litigation under the Lanham Act, a topic which “has relied . . . on the institutionalized use of statistical evidence” more than any other area of the law.⁸⁷

1. The Trademark Example

The Federal Patent and Trademark Office will refuse to register a new trademark if it so resembles a trademark already registered to another person “as to be likely, when used on or in connection with the goods of the applicant, to cause confusion or to cause mistake, or to deceive.”⁸⁸ A person who sells a product that is likely to cause confusion with an already trademarked product is liable for trademark infringement. If the plaintiff — the party with the existing trademark — can prove by a preponderance of the evidence that the defendant has caused consumers to be confused, an injunction can be issued ordering the defendant to cease using the product designation in question, and civil damages can be awarded.

When empirical data in the form of surveys first began to be introduced as evidence of consumer confusion in trademark cases, courts often rejected it as violating the hearsay rule:⁸⁹ the respondents in the surveys were seen as offering statements in evidence, despite the fact that they were not present at trial to testify and be cross-examined on the truth of those statements. For example, in *Elgin National Watch Co. v. Elgin Clock Co.*,⁹⁰ a case described by the court as one of first impression regarding surveys, testimony of the plaintiff’s expert who conducted a survey finding consumer confusion between two makers of timepieces was held inadmissible, because to do otherwise would result in “nullification of the long-established proposition that the rule against hearsay evidence finds no exception in the case of expert witnesses.”⁹¹ Rather, the trial judge relied on a treatise⁹² that recommended that “members of the purchasing public” be presented in court as witnesses testifying to their own personal confusion between the two marks.⁹³ “Of course,” the court quoted from the treatise writer,

to call one such witness would be insufficient, as no court would

87. Neal Miller, *Facts, Expert Facts, and Statistics: Descriptive and Experimental Research Methods in Litigation*, 40 Rutgers L. Rev. 101, 137 (1987). We recognize, of course, that the substantive legal claim based on consumer confusion under the Lanham Act is very different from the substantive legal claim in the products liability cases often litigated in mass torts. We focus here only on the analogous efficiency of survey methodology in resolving both types of claims.

88. 15 U.S.C.A. § 1052(d) (West 1994).

89. Fed. R. Evid. 801(c) (defining hearsay as “a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted.”).

90. 26 F.2d 376 (D. Del. 1928).

91. *Id.* at 377.

92. John Cutler, *On Passing Off: Illegal Substitution of the Goods of One Trader for the Goods of Another Trader* (1904).

93. *Elgin*, 26 F.2d at 377.

place much, if any, reliance upon the evidence of one such witness. But then how many such witnesses ought the plaintiff to call? It may be stated that he ought to be prepared with from 20 to 30 of such witnesses.⁹⁴

By the 1940s, some courts had begun to limit the number of consumers who could be called to testify as to their personal confusion between the marks at issue. In *Life Savers Corp. v. Curtiss Candy Co.*,⁹⁵ the trial judge stated that the number of consumers who testified that they accidentally picked up a package of Curtiss mints when they had wanted a package of Life Savers . . . became cumulative in open court to such an extent that the court decided to hear no more of it, but afterwards discovered that there were depositions from about 60 people in different cities to the same effect. It is enough to say that it is evident that there has been some confusion . . .⁹⁶

Other courts began to admit "what was called a 'survey,'" but only if a number of the survey respondents themselves were called to testify as witnesses.⁹⁷ Finally, at least one judge, Jerome Frank, was so frustrated by neither party's offering a survey in a consumer confusion trademark case between Seventeen magazine and Miss Seventeen girdles that he went out and conducted his own.⁹⁸

94. *Id.* (quoting Cutler, *supra* note 92, at 46). Even in Cutler, one can see some nascent understanding of the importance that the chosen sample be representative of the population to which the findings would be generalized: "In selecting his 20 or 30 witnesses, the plaintiff must not take them all from one locality, but from different parts of the country . . ." *Id.*

95. 87 F. Supp. 16 (N.D. Ill. 1949).

96. *Id.* at 17.

97. *See* *Oneida, Ltd. v. National Silver Co.*, 25 N.Y.S.2d 271, 286 (N.Y. Sup. Ct. 1940) (finding that the plaintiff's presentation of witnesses, who used a survey to explain their answers, was stronger evidence than the defendant's use of a defense survey without supporting witnesses). Still following Cutler's 1904 treatise, the number of witnesses called was 24. *Id.*

98. *Triangle Publications, Inc. v. Rohrlich*, 167 F.2d 969 (2d Cir. 1948). Judge Frank continued:

As neither the trial judge nor any member of this court is (or resembles) a teen-age girl or the mother or sister of such a girl, our judicial notice apparatus will not work well unless we feed it with information directly obtained from "teen-agers" or from their female relatives accustomed to shop for them . . . [Therefore,] I have questioned some adolescent girls and their mothers and sisters, persons I have chosen at random. I have been told uniformly by my questionees that no one could reasonably believe that any relation existed between plaintiff's magazine and defendants' girdles. I admit that my method of obtaining such data is not satisfactory. But it does serve better than anything in this record to illuminate the pivotal fact.

Id. at 976. Federal Rule of Evidence 201, Judicial Notice of Adjudicative Facts, adopted in its current form in 1975, almost thirty years after the *Triangle* case, would seem to clearly bar independent judicial investigations of the type conducted by Judge Frank, since the degree to which consumers are confused between two products is not "generally known within the territorial jurisdiction of the trial court" and is not "capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned." Fed. R.

All hearsay objections to the use of surveys in trademark litigation ceased in 1963 with the landmark case of *Zippo Manufacturing Co. v. Rogers Imports, Inc.*⁹⁹ Responding to the defendant's objection to the admissibility of survey evidence of consumer confusion, Judge Feinberg wrote:

The weight of case authority, the consensus of legal writers, and reasoned policy considerations all indicate that the hearsay rule should not bar the admission of properly conducted public surveys.

Although courts were at first reluctant to accept survey evidence or to give it weight, the more recent trend is clearly contrary.¹⁰⁰

The court gave two alternate grounds for admitting surveys as evidence. One was that surveys are not hearsay because they are not "offered in evidence to prove the truth of the matter asserted."¹⁰¹ That is, the fact that survey respondents confused Rogers lighters with Zippo lighters was not being offered to prove that Rogers, Inc., actually manufactured Zippos. The other ground for admitting surveys was that, even if they are hearsay, one of the exceptions to the hearsay rule is the "present sense impression," which allows the introduction of a statement "describing or explaining an event or condition made while the declarant was perceiving the event or condition, or immediately thereafter."¹⁰² On either ground, surveys were admissible as evidence.

Since *Zippo*, surveys have routinely been admitted in trademark disputes. For example, in *Processed Plastic Co. v. Warner Communications, Inc.*,¹⁰³ Processed Plastic Company (PPC), the plaintiff, appealed a preliminary injunction enjoining it from manufacturing toy Maverick cars that resembled the cars featured on the Warner Brothers' television series, "The Dukes of Hazzard." "At the hearing Warner Bros. introduced a survey of children between the ages of [six] to [twelve]" showing that viewers believed that PPC's toy was connected to the television show.¹⁰⁴ "[Eighty-two percent] of the children identified a toy car identical to PPC's Maverick Rebel as the 'Dukes of Hazzard' car and of that number 56% of them believed it was sponsored or authorized by the 'Dukes of Hazzard' television program."¹⁰⁵

PPC objected to the methodology by which the survey was conducted. Specifically, it argued that defendant Warner Brothers' expert erred when

Evid. 201.

99. 216 F. Supp. 670 (S.D.N.Y. 1963).

100. *Id.* at 682.

101. *Id.* at 682 (stating that, under one view, "surveys are not offered to prove the truth of what respondents said"). The idea that hearsay is a statement offered in evidence to prove the truth of the matter asserted was later codified in Federal Rule of Evidence 801(c).

102. *Id.* at 683 ("[E]xpressions of presently existing state of mind, attitude, or belief . . . are admissible to prove the truth of the matter asserted."). The present sense impression exception to the hearsay rule was later codified as Federal Rule of Evidence 803(1).

103. 675 F.2d 852 (7th Cir. 1982).

104. *Id.* at 854-55.

105. *Id.*

he surveyed only children between the ages of six to twelve “rather than being focused upon the upper teenage group, parents, and grandparents who would presumably also purchase the toy cars.”¹⁰⁶ Noting that the standard of appellate review of factual matters such as consumer confusion is clear error, the court held that even if broadening the sample of “potential consumers” to include grandparents and others would significantly reduce the likelihood of confusion, it was not clearly erroneous for the district court to have admitted the survey as probative.¹⁰⁷ The district court’s grant of a preliminary injunction was affirmed.¹⁰⁸

A more recent illustration of the use of survey evidence in trademark cases can be found in *Indianapolis Colts, Inc. v. Baltimore Football Club*.¹⁰⁹ Plaintiffs, the Indianapolis Colts (which had moved from Baltimore, where it had been known as the Baltimore Colts) and the National Football League (NFL), brought suit against the Canadian Football League’s (CFL) team in Baltimore that planned to call itself the Baltimore CFL Colts.¹¹⁰ Both parties presented survey evidence. The defendants’ survey was plainly inadequate—consisting primarily of “three loaded questions asked in one Baltimore mall”¹¹¹—and given little weight by the district court. “The plaintiffs’ study,” on the other hand, “was far more substantial and the district judge found it on the whole credible. The 28-page report with its numerous appendices has all the trappings of social scientific rigor.”¹¹² According to the court, “Interviewers showed several hundred consumers in 24 malls scattered around the country, shirts and hats licensed by the defendants for sale to consumers. The shirts and hats have Baltimore CFL Colts stamped on them.”¹¹³ The results of plaintiffs’ survey provided impressive evidence in the case. “[The] survey of consumers’ reactions to the Baltimore CFL Colts merchandise found rather astonishing levels of confusion Among self-identified football fans, 64 percent thought that, the Baltimore CFL Colts was either the old (NFL) Baltimore Colts or the Indianapolis Colts.”¹¹⁴ To the defendants’ argument that the survey contained certain technical flaws, circuit Judge Richard Posner agreed in part, but stated, “That is only to say, however, that [the plaintiff’s] survey was not perfect, and this is not news. Trials would be very short if only perfect evidence were admissible.”¹¹⁵ Therefore, in this case, too, the district court’s preliminary injunction based on survey evidence of consumer confusion was upheld.¹¹⁶

106. *Id.* at 857.

107. *Id.*

108. *Processed Plastic*, 675 F.2d at 859.

109. 34 F.3d 410 (7th Cir. 1994).

110. *Id.* at 411.

111. *Id.* at 415.

112. *Id.* at 416.

113. *Id.*

114. *Colts*, 34 F.3d at 416.

115. *Id.*

116. *Id.*

For the past thirty-five years, surveys such as that used in *Processed Plastic* and *Indianapolis Colts* have been routine in trademark litigation.¹¹⁷ Indeed, so common are surveys in trademark cases that their absence is noteworthy: courts have explicitly drawn negative inferences from a party's failure to conduct a survey.¹¹⁸

2. Mass Tort Application

Application of the trademark example to mass torts would yield an alternative different from either the *Cimino* and *Chevron* or *Marcos* models. As in the trademark cases, the pretense of individualized treatment would be abandoned, and the survey data themselves would become the only mechanism of proof.

a. Authority

Under our proposal, the salient legal authority would shift from principles of complex litigation to the principles of scientific evidence that the trademark cases amply demonstrate. Among the principles of complex litigation, the survey method appears novel and controversial, but among the principles of scientific evidence, the survey method is commonplace and universally accepted. Similarly, the chief source of doctrine would shift from *Connecticut v. Doebr*,¹¹⁹ which established a balancing test for resolution of due process concerns,¹²⁰ to *Daubert v. Merrell Dow Pharmaceuticals*,¹²¹ which established the federal test for admissibility of scientific evidence.¹²² From this perspective, the survey becomes a technique of proving facts rather than a procedure for managing cases, and the principal inquiry is shifted from "fairness" to "validity." This change in controlling authority permits abandonment of the uncertainties of due process balancing and connection with the more precise evidentiary tests established in *Daubert*. The central role of the *Manual for Complex Litigation* would be taken over by the

117. See, e.g., *Exxon Corp. v. Texas Motor Exch.*, 628 F.2d 500, 506 (5th Cir. 1980) (describing the survey Exxon presented as evidence).

118. See *E.S. Originals, Inc., v. Stride Rite Corp.*, 656 F. Supp 484, 490 (S.D.N.Y. 1987) ("Furthermore, it is significant that Stride Rite did not undertake a consumer survey, a failure which strongly suggests that a likelihood of confusion cannot be shown."); *Information Clearing House, Inc. v. Find Magazine*, 492 F. Supp. 147, 160 (S.D.N.Y. 1980) ("It is also significant that plaintiff . . . did not undertake a survey of public consumer reaction to the products under actual market conditions. The absence of testimony from such consumers invites an adverse inference.").

119. 501 U.S. 1 (1991).

120. See *id.* at 11-18 (balancing exigent circumstances against a plaintiff's due process rights in the context of judicial prejudgment attachments of real estate).

121. 509 U.S. 579 (1993).

122. See *id.* at 597 ("'General acceptance' is not a necessary preconception to the admissibility of scientific evidence [A]n expert's testimony both rests on a reliable foundation and is relevant to the task at hand. Pertinent evidence based on scientifically valid principles will satisfy those demands.").

Reference Manual on Scientific Evidence.¹²³

Daubert asks the trial judge to determine “whether the reasoning or methodology underlying the testimony is scientifically valid and . . . whether that reasoning or methodology properly can be applied to the facts at issue.”¹²⁴ The problem of assessing the validity¹²⁵ of damage surveys presents essentially the same question as faced by the Ninth Circuit on remand in *Daubert*. Judge Alex Kozinski, writing for the majority, observed, “Establishing that an expert’s proffered testimony grows out of pre-litigation research or that the expert’s research has been subjected to peer review are the two principal ways the proponent of expert testimony can show that the evidence satisfies the first prong of Rule 702.”¹²⁶ None of the research offered in *Daubert* had been conducted before the litigation commenced or subjected to peer review publication. Judge Kozinski therefore continued,

Where such evidence is unavailable, the proponent of expert scientific testimony may attempt to satisfy its burden through the testimony of its own experts. For such a showing to be sufficient, the experts must explain precisely how they went about reaching their conclusions and point to some objective source—a learned treatise, the policy statement of a professional association, a published article in a reputable scientific journal or the like—to show that they have followed the scientific method, as it is practiced by (at least) a recognized minority of scientists in their field.¹²⁷

In the case of surveys, the Federal Judicial Center has supplied such an objective source: the *Reference Guide on Survey Research* which is part of the Center’s *Reference Manual on Scientific Evidence*. The *Reference Guide*, written by the noted survey researcher and attorney Shari Seidman Diamond, points out that the survey method provides ample opportunity for the court as well as opposing parties to evaluate the validity of the findings that it produces. “All questions asked of respondents and all other measuring devices used can be examined by the court and the opposing party for objectivity, clarity, and relevance, and all answers or other measures obtained can be analyzed for completeness and consistency.”¹²⁸ The *Reference Guide* presents questions that are intended to help judges conduct

123. Reference Manual, *supra* note 11.

124. *Daubert*, 509 U.S. at 592-93.

125. Questions concerning the validity of survey methodology are easy to answer generically in the affirmative. See, e.g., *Preparing for the 2000 Census: Interim Report II* 6-12 (Andrew A. White & Keith F. Rust eds., 1997) (discussing a situation in which a panel of the National Research Council endorses use of sampling in conducting the 2000 census). Indeed, as related above in discussion of the trademark model, this question has now been answered in the affirmative so many times by various courts that the validity of the method itself can be taken as a strong precedent in federal and state law.

126. *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1318 (9th Cir. 1995).

127. *Id.* at 1318-19.

128. Diamond, *supra* note 86, at 226.

this evaluation.¹²⁹

b. Practice

With this background, we turn to specify just how our proposed model would function. The first step would be certification of a class of plaintiffs co-extensive with the population to be surveyed. This step would provide plaintiffs a class representative who could, with expert assistance, produce a survey and present it at a class trial. The motion to certify should include a description of the plan to conduct a survey, which would be important in assessing the superiority requirement according to the manageability criteria for certification.¹³⁰ A plan to conduct a survey would provide in most cases a solution to the manageability and superiority problems which today often block certification of mass tort claims. After certification, the class representative, charged with the burden of proof on damages,¹³¹ would employ an expert to conduct the damage survey. This choice would not need to be approved by the court or by the opposing party because the class representative would only be engaging in the traditional collection of evidence for use at trial. The damage survey of plaintiffs could be carried out without using coercive discovery procedures because the class representative's expert would be collecting information from friendly parties. The omission of discovery would mean that opposing parties would not receive notice of the conduct of the survey and could not claim a right to be present and ask questions.¹³²

In our proposal, the trial judge would not take a role in planning or carrying out the survey. Instead, the class representative would ask the court to approve the admission at trial of the survey results. At that time, opposing parties would be invited to examine the survey and make any objections. Both the court and opposing parties would be presented a comprehensive report of the survey.¹³³ The trial judge would apply the

129. *Id.* at 223-24. This is the Manual's standard format. See Reference Manual, *supra* note 11, at 3 (The reference guides "present a primer on the methods and reasoning of selected areas of scientific evidence and suggest a series of questions that will enable judges to identify issues that are likely to be disputed among experts and to explore the underlying basis of proffered evidence").

130. See Fed. R. Civ. P. 23(b)(3) (requiring that the class action be "superior to other available methods for the fair and efficient adjudication of the controversy"); Fed. R. Civ. P. 23(b)(3)(D) (listing as a matter pertinent to the superiority finding "the difficulties likely to be encountered in the management of a class action").

131. *Saunooke v. United States*, 8 Cl. Ct. 327, 329 (1985) (stating that named plaintiffs or class representatives have the burden of proof as to damages); see also 2 Herbert B. Newberg & Alba Conte, *Newberg on Class Actions* § 10.01 (3d ed. 1992) ("[C]lass representative [may] develop and prove common guidelines or formulae that will apply to determine the measure of recovery for each individual proof of claim.").

132. Cf. Fed. R. Civ. P. 30(b)(1) (requiring a party desiring to take the deposition of any person upon oral examination to "give reasonable notice in writing to every other party to the action"); Fed. R. Civ. P. 30(c) (providing for examination and cross-examination of deposition witnesses).

133. According to Shari Seidman Diamond, "The completeness of the survey report is one

Daubert standards discussed above using the *Survey Research Guide* criteria, and either permit or refuse expert testimony describing the survey and results to the jury. A prudent class representative might wish to have earlier judicial review, and might therefore present the details of a proposed survey—the categories into which the population will be stratified, the sample size for each category, the survey instrument itself — to the court in a motion in limine seeking a determination regarding admission of the results before conducting the survey.¹³⁴

The defendant would also have access to survey methodology to collect evidence regarding damages. In cases involving large stakes, the defendant might well choose to employ an expert and survey the opposing class members about their damages. Because the defendant would be collecting information from opposing parties, use of discovery procedures would be required. If the defense survey were conducted in the form of an interrogatory, the class representative would not receive notice or an opportunity to participate,¹³⁵ but if a deposition format were chosen, the class representative would be notified and would have the right to ask questions. In the alternative, the defense might obtain the class representative's survey protocol through discovery¹³⁶—rather than developing its own protocol—and then replicate the survey as a check against fraud or random statistical error.¹³⁷ If the defense replication were valid and yet produced substantially different results from the prior study, the argument against admission would surely be strong. If the class representative's survey were nevertheless admitted, the defense replication should also be heard by the jury as relevant to the weight accorded the class representative's research.

Alternatively, both sides might choose to employ an expert and

indicator of the trustworthiness of the survey and the professionalism of the expert who is presenting the results of the survey." Shari Seidman Diamond, *Legal Applications of Survey Research: Does the Survey Report Include Complete and Detailed Information on All Relevant Characteristics?*, § 5-7.2, in *Modern Scientific Evidence* (David L. Faigman et al. eds., 1997). Diamond continues by providing a comprehensive list of items which should typically be included in a survey report. See *id.* at 215. One item Diamond does not include is the identity of the respondents. Such a practice of confidentiality might not obtain where, as in the mass tort setting, the respondents are also members of a plaintiff class.

134. See 1 Michael H. Graham, *Handbook of Federal Evidence* § 103.8 (4th ed. 1996) ("[An] alternative . . . is to seek a ruling as to the admissibility of evidence in advance of trial, a process frequently referred to as a motion in limine. . . . A motion in limine may be made either during pretrial or at trial in advance of the presentation of evidence.").

135. See Fed. R. Civ. P. 33 (stating that "any party may serve upon any other party written interrogatories. . .").

136. See Fed. R. Civ. P. 26(a)(2)(B) (requiring disclosure of the "basis and reasons" for an expert's opinions as well as "data or other information considered by the [expert] in forming the opinions").

137. In science, replication means repeating a study under the same or nearly the same conditions as a previous study. See Earl Babbie, *The Practice of Social Research* 10-11 (4th ed. 1986). Replication can be adopted to the legal purpose of discovering fraud since a failure to repeat prior results might be evidence that the prior results were not honestly reported—rather than merely reflect statistically expected variations in observed data.

conduct a joint survey of damages,¹³⁸ though apparently few joint surveys have been carried out.¹³⁹ The cost savings of joint research would be considerable, and the results would likely prove decisive, which would all but eliminate the opportunity for advocacy and may be a reason the practice is not popular.

Finally, and in stark contrast to the *Cimino* and *Chevron* or *Marcos* models, under our proposal the results of the survey or surveys, if permitted by the court under *Daubert*, would be presented by expert testimony to the jury with the data aggregated to suggest a total amount of compensation to be divided among the class or among subclasses.¹⁴⁰ No individual data would be presented to the jury and no individual damage verdicts would be required or permitted.

c. Benefits

If our proposal were adopted, the chief benefit to the public would be the adjudication of mass tort damage claims at a trial which would be both less expensive and faster than either of the existing models. In every situation, a final judgment could be reached with one judge, one jury, and, in most cases, the testimony of one or two expert witnesses per side. The jury would be asked to consider the data and return only a single verdict. Even in the event of a very large class the task of the judge and jury would remain essentially the same. Also, there would be additional benefits to the public—including the parties—because our proposal leaves the collection of evidence by survey largely in the hands of the parties. Procedural justice research has shown time and again that when control of the choice of

138. See Fed. R. Civ. P. 29 (allowing parties to stipulate to a modification of discovery procedures); see also, Manual for Complex Litigation § 21.493 (3d ed. 1995) (calling for cooperation between the parties when a survey is proposed).

139. See Diamond, *supra* note 133, § 5-7.2, at 214 (stating that agreement is rare).

140. In calculating the damages, the expert should follow the relevant legal criteria regarding damages and tailor the survey to produce information required to follow the criteria. *In re Estate of Marcos Human Rights Litig.*, 910 F. Supp. 1460, 1466 (D. Haw. 1995), *aff'd sub nom.* Hilao v. Estate of Marcos, 103 F.3d 767 (9th cir. 1996). The court in *Marcos* stated,

In his report and testimony, the Special Master [in *Marcos*] made damage determinations for torture victims by ranking each claim from 1-5, with 5 representing the worst abuses and suffering. The torture claims were evaluated based upon Judge Real's decision in *Trajano v. Imee Marcos-Manotoc*, *aff'd*, *In re Estate of Ferdinand E. Marcos Litigation*, 978 F.2d 493 (9th Cir. 1992), as part of this matter, and the following considerations: (1) physical torture, including what methods were used and/or abuses were suffered; (2) mental abuse, including fright and anguish; (3) amount of time torture lasted; (4) length of detention, if any; (5) physical and/or mental injuries; (6) victim's age; and (7) actual losses, including medical bills. Although each claim of torture could have been but were not totally unique, as the Court Appointed Expert on damages, the Special Master, was able to determine that there were sufficient similarities within a rating category to recommend a standard damage amount to each victim within that grouping.

Id. Given the importance of choosing proper criteria, the parties might well ask the court to approve proposed criteria before the survey.

information is left to the parties, the acceptability of the result is significantly higher than when the choice of information is left to others, including judges.¹⁴¹ This substantial body of research suggests that our proposed model, which leaves maximum control over the development of information to the parties, would result in mass tort judgments more acceptable than either of the current models.¹⁴²

Yet, savings in cost and time and more generally acceptable results ought not to be achieved without detailed consideration of their effect on the parties. We begin with defendants, who have objected to the survey both in *Cimino* and in *Marcos*. In *Cimino* defendants' objections were dismissed because the survey mechanism resulted in a total verdict which was no greater than that which would result from full individual treatment.¹⁴³ In *Marcos*, these same objections were dismissed because the presentation of an aggregated amount may well have resulted in a smaller amount of total damages as compared to trying all cases individually. Our proposal captures the *Marcos* benefit for defendants and places them in a more favorable situation than the *Cimino* and *Chevron* model because our proposal includes aggregation before trial. As discussed earlier in Part II, there is reason to believe that defendants would likely pay less in total damages under our proposal than under full individual treatment or under the *Cimino* and *Chevron* model of aggregation.

In doctrinal terms, our model poses few if any due process questions. As discussed above, the survey method of proof has not generated complaints by defendants that the technique is fundamentally unfair, and no decision has barred a survey on due process grounds. Similarly, we can locate only one reported decision, *In re Folding Carton Antitrust Litigation*,¹⁴⁴ in which a defendant claimed that being named a defendant in a class action suit was fundamentally unfair, and that argument was tersely rejected. In a footnote the court wrote, "Defendants argue that the trial of these actions on a class basis would inevitably lead to violation of their due process rights and denial of a fair trial because of the number of parties involved and the complexity and number of issues involved. The argument is without merit."¹⁴⁵

141. See Tyler, *supra* note 79, at 88 ("A large number of studies support the suggestion that the distribution of control influences assessments of procedural justice; procedures with greater process control are judged to be fairer . . ."); cf. Mullenix, *supra* note 13, at 573 (suggesting that a reduced judicial role in the sampling process might render that process less vulnerable to challenges of lack of scientific and hence legal validity).

142. Mass tort judgments have often generated resentment. For example, in the *Agent Orange* case, the members of the plaintiff class complained bitterly about lack of participation. See Peter H. Schuck, *Agent Orange on Trial* 173-78 (1986).

143. See *Cimino v. Raymark Indus., Inc.*, 751 F. Supp. 649, 665 (E.D. Tex. 1990) ("[D]efendants cannot show that the total amount of damages would be greater under the Court's method compared to individual trials of these cases."), *rev'd*, Nos. 93-4452-93-4611, 1998 U.S. App. LEXIS 20096 (5th Cir. Aug. 17, 1998).

144. 75 F.R.D. 727 (N.D. Ill. 1977).

145. *Id.* at 737 n.13.

Plaintiffs have not objected to the use of surveys in prior cases, but might in the event of predicted general underpayment. Fortunately, our model brings compensating benefits to plaintiffs which offset lower damage awards. The availability of highly efficient survey techniques for proving damages would open the door to certification of many proposed mass tort class actions, because the use of surveys would often render a class action “superior to other available methods for the fair and efficient adjudication of the controversy,”¹⁴⁶ and would virtually eliminate “the difficulties likely to be encountered in the management of a class.”¹⁴⁷

Increased availability of the class format offers the benefit of much earlier receipt of compensation because a class trial can be conducted. Also, increased access to the damage class action means increased access to a choice between a class trial and individual adjudication. The Rule 23(b)(3) class action provides an opportunity to opt out after notice of class certification. The Rule requires “the best notice practicable under the circumstances” and states that “the court will exclude the member from the class if the member requests by a specified date.”¹⁴⁸ Thus the class format provides members with a technique for either accepting a speedy class verdict based on a survey or continuing toward an individual adjudication accepting the risk that adjudication may never take place.¹⁴⁹

A doctrinal analysis also leads to the conclusion that our proposal is fundamentally fair to plaintiffs and the use of surveys to establish damages in mass tort cases should also not compromise the plaintiff’s due process rights. The use of surveys in trademark cases has not generated due process objections by plaintiffs. The fundamental fairness of adjudicating plaintiffs claims in a class format was established almost sixty years ago in *Hansberry v. Lee*,¹⁵⁰ and remains settled doctrine.¹⁵¹

146. Fed. R. Civ. P. 23(b) (noting that this is a requirement for certification of the Rule 23(b) class action, which is commonly employed for damage actions).

147. *Id.* (listing class management as a consideration pertinent to determination of the superiority finding). “Of all the superiority factors listed in Rule 23 *manageability* has been the most hotly contested and the most frequent ground for holding that a class action is not superior.” Newberg & Conte, *supra* note 131, § 4.32.

148. Fed. R. Civ. P. 23(b)(3).

149. We recognize that the desirability in this situation of providing a clear right to opt-out might be reduced by a number of opt-outs so high as to defeat the advantages of a class action trial. See Michael A. Perino, *Class Action Chaos? The Theory of the Core and an Analysis of Opt-Out Rights in Mass Tort Class Actions*, 46 Emory L.J. 85, 143-53 (1997). This risk can be reduced by making the value of recovery through the class comparable to the value of individual adjudication. A key technique would be the use of subclasses and stratified sampling crafted for a particular litigation context. Too many claimants opting out of a class action suit would be one indication that the number of subclasses should be increased.

150. 311 U.S. 32 (1940).

151. See *Phillips Petroleum Co. v. Shutts*, 472 U.S. 797, 808 (1985).

V. CONCLUSION

We propose the use of a strong form of survey methodology as a solution to the numbers problem posed by compensatory damage claims in mass torts. The absolute number of plaintiffs claiming damages would matter very little if the practice we propose were adopted, and a single judge and a single jury would always suffice. Thus the costs of mass tort compensatory damage adjudication would be drastically reduced without significantly favoring the typical interests of either plaintiffs or defendants. The breakthrough cases, *Cimino*, *Marcos* and *Chevron* provide the foundation for building a solution in the courts to compelling social problems. But an overly timid use of survey method in these cases, exemplified by the inclusion of individual case adjudication, must be abandoned. The survey method should be embraced in mass tort cases without apology and, indeed, with enthusiasm.