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The Supreme Court and Junk Social Science: Selective Distortion in Amicus Briefs

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THE SUPREME COURT AND JUNK SOCIAL SCIENCE: SELECTIVE DISTORTION IN AMICUS BRIEFS

MICHAEL RUSTAD* & THOMAS KOENIG**

Against the backdrop of the Supreme Court's three most recent cases deciding the constitutionality of punitive damages, Professors Rustad and Koenig examine the way partisan organizations distort empirical social science research in amicus briefs. They label this "junk social science" because the empirical findings presented to the Justices have the aura of social science but do not follow the scientific truth-seeking norms that regulate valid research. Although the amicus briefs contained no outright fabrications, Professors Rustad and Koenig find a pattern of over-generalizations from limited social science data, selective distortions of findings, normative statements that appear to be empirical information, and citations to questionable research specifically produced for litigation.

They conclude that amici curiae have been transformed from "friends of the court," whose role was to inform the Court of overlooked precedent or facts, to "lobbyists of the Court." The politicization of amicus briefs is disturbing because the Justices have no suitable mechanism for independently assessing the validity of empirical research submitted for constitutional fact-finding. To solve this problem, Professors Rustad and Koenig propose several mechanisms: providing court-appointed social science experts and social science special masters; increasing government funding for independent social science research into contested claims; encouraging social science associations to file amicus briefs that advocate neither side; and expanding disclosure of the methodology and underlying data cited in amicus briefs.

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"[E]x facto jus oritur."¹

"[S]tatistics are not irrefutable; they come in infinite variety and, like any other kind of evidence, they may be rebutted. In short, their usefulness depends on all of the surrounding facts and circumstances."²

"There are three kinds of lies: lies, damned lies and statistics."³

I. INTRODUCTION

The United States Supreme Court has used social science evidence for many decades.⁴ Social science data is now routinely injected into the Court's decision-making through litigant briefs, expert social scientific testimony, Brandeis briefs,⁵ and judicial notice.⁶ The Court needs an effective

1. "The law arises out of the fact." HERBERT BROOME, *A SELECTION OF LEGAL MAXIMS* 102 (7th ed. 1874).

2. *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 340 (1977) (citation omitted).

3. Mark Twain attributed this statement to Benjamin Disraeli. 1 MARK TWAIN'S *AUTOBIOGRAPHY* 246 (1924).

4. Three-quarters of a century have passed since an American court first invoked social science research to support its choice of a rule of law. Once heretical, the belief that empirical studies can influence the content of legal doctrine is now one of the few points of general agreement among jurists.

John Monahan & Laurens Walker, *Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law*, 134 U. PA. L. REV. 477, 477 (1986) (footnotes omitted).

5. The Brandeis brief was named after Justice Louis Brandeis who, as a young attorney, assembled all of the extant social science research on the detrimental impact of long work hours on the health of women. This was one of the first instances where an advocate emphasized the law-in-action over the formalistic pronouncements of the law-in-the-books. See *Muller v. Oregon*, 208 U.S. 412, 423 (1908). The term "Brandeis brief" has come to refer to any use of policy-oriented extra-legal arguments in briefs. See Herbert Hovenkamp, *Social Science and Segregation Before Brown*, 1985 DUKE L.J. 624, 628 n.15. Frequently, constitutional litigators employ the Brandeis brief to bring facts to the Court that do not appear in the record below. Some scholars suggest that, until the 1950s, the Supreme Court largely ignored the Brandeis briefs that were submitted. *Id.*

Kenneth Davis argues for an expanded role for Brandeis briefs. He would permit these devices to bring in empirical research concerning the merits on changing a rule of law. Kenneth C. Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364, 402-03 (1942). West Virginia Supreme Court Justice Richard Neeley also argues for a greater use of Brandeis briefs in resolving complex policy issues, but he believes that few lawyers have either the skill or the information necessary to prepare effective Brandeis briefs. RICHARD NEELEY, *JUDICIAL JEOPARDY: WHEN BUSINESS COLLIDES WITH THE COURTS* 1, 148-49 (1986).

6. The adversarial process provides a number of challenges to grossly inaccurate empirical information. Christopher Slobogin, *The World Without a Fourth Amendment*, 39 UCLA L. REV. 1, 84 (1991); see also Laurens Walker & John Monahan, *Social Frameworks: A New Use of Social Science in Law*, 73 VA. L. REV. 559, 592-98 (1987) (advocating the use of social science experts in trial courts). See generally Monahan & Walker, *supra* note 4, at 498-512 (surveying the judicial controls on the assessment of social research).

way to determine whether the constitutional facts⁷ submitted as social science findings are based on solid, empirical evidence.⁸ In the absence of such a mechanism, the Court is in danger of being misled by presentations of social science findings that are distorted for partisan purposes.⁹

The most common method of introducing social science evidence to the Court is through "non-record evidence"¹⁰ in amicus curiae briefs.¹¹ At

7. Professor David Faigman defines constitutional fact-finding as the study of "those facts identified as being relevant either to the establishment of a constitutional rule or reviewable under an established constitutional rule." David L. Faigman, *Normative Constitutional Fact-Finding: Exploring the Empirical Component of Constitutional Interpretation*, 139 U. PA. L. REV. 541, 546 n.18 (1991).

Social science evidence is most commonly used to illuminate larger policy questions in constitutional fact-finding. These are referred to as legislative facts. Legislative facts may be supplied by judicial notice, by evidence in the record or by factual material supplied in an amicus or brief submitted by the parties. The Court generally scrutinizes legislative facts in determining whether a statute is rationally related to a legitimate government objective. See Dean Alfange, Jr., *The Relevance of Legislative Facts in Constitutional Law*, 114 U. PA. L. REV. 637, 668 (1966).

One commentator explained this distinction as follows:

The paradigm of an adjudicative fact is a description of a past, individual physical or mental phenomenon, the proof of which is in the record. . . . A paradigmatic legislative fact is one that shows the general effect a legal rule will have, and is presented to encourage the decisionmaker to make a particular legal rule. There is less a sense that legislative facts are true or knowable because such facts are predictions, and, moreover, typically predictions about the relative importance of one factor in causing a complex phenomenon.

Ann Woolhandler, *Rethinking the Judicial Reception of Legislative Facts*, 41 VAND. L. REV. 111, 113-14 (1988) (footnotes omitted). As an example, in *Shaw v. Reno*, 113 S. Ct. 2816 (1993), the Court was asked to determine the constitutionality of a North Carolina apportionment scheme that was designed to maximize the political power of black voters. Such a determination requires a policy-based analysis that might include a study of race relations in the United States. A second category of constitutional fact is adjudicative fact. In *Shaw*, adjudicative facts pertained to the particular formula used in North Carolina for apportionment. For example, a social scientist might be asked to gather information about the demographic characteristics of the state's population in order to determine whether the district was drawn in a way that meets the social objectives of maximizing minority voting power.

8. Professors John Monahan and Laurens Walker note that "[o]btaining social science research has been cumbersome and sometimes controversial; evaluating research has been frustrating and uncertain; and establishing stable judicial views of particular empirical findings has proven elusive." Gary L. Francione, *Experimentation and the Marketplace Theory of the First Amendment*, 136 U. PA. L. REV. 417, 502 n.319 (1987) (quoting Monahan & Walker, *supra* note 4, at 478).

9. Cf., e.g., *Wilkins v. University of Houston*, 654 F.2d 388, 403 (5th Cir. 1981) (noting that complex statistical analysis "is subject to misuse and thus must be employed with great care"), *vacated*, 459 U.S. 809 (1982).

10. Appellate panels can only consider evidence that has been entered on the "record" during trial. One of the traditional criticisms of amicus briefs is that they bring facts into the judgment that have not been entered into the record and, therefore, have not been subject to the traditional safeguards.

11. The Court does not have the same opportunity as trial judges "to make an informed decision as to the probative value of the analysis." *Wilkins*, 654 F.2d at 403.

trial, when statistical and social science evidence is employed, "it will be the subject of expert testimony and knowledgeable cross-examination from both sides."¹² Amicus briefs are not subject to the same safeguards.¹³ The poorly controlled use of social science data by amici curiae may not only be prejudicial to the parties, but inimical to sound judicial decision-making.¹⁴

The Latin phrase, "amicus curiae," means "friend of the court."¹⁵ As Arthur Leff noted, "The practice [of friend of the court briefs] is particularly used in the U.S. Supreme Court, where organizations deeply interested in an area of constitutional law . . . will frequently petition for and be granted permission to participate as amicus curiae."¹⁶ The ideal amicus curiae is one "who, not as [a party], but, just as any stranger might, for the assistance of the court, gives information of some matter of law in regard to which the court is doubtful or mistaken, rather than one who gives a highly partisan account of facts."¹⁷

Originally these briefs served principally to provide precedents of

12. *Id.*

13. The methodological rigor of social science evidence introduced in trial courts is tested by such mechanisms as the rules of evidence, cross-examination, relevancy rulings and jury instructions. Challenges to experts and their qualifications are common throughout the litigation process, but do not exist when social science information does not come from the record.

Michael Saks writes:

Trials afford some theoretical protections against the witness being transformed into an advocate. They must take an oath to tell "the whole truth and nothing but," they are subject to cross-examination, and they may be countered by rebuttal witnesses or witnesses called by the court.

But even those few dubious checks are not available in the appellate context. When psychologists sit down to write Brandeis briefs, they take no oath and are not subject to cross-examination. In science translation briefs, the merging of the roles of advocate and expert is complete.

Michael J. Saks, *Improving APA Science Translation Amicus Briefs*, 17 *LAW & HUM. BEHAV.* 235, 238 (1993).

14. Some members of the legal academy contend that social science undermines judicial decision-making by the "fallibility of economics and other social sciences (often combined with illusory certainty based on statistics and graphs); and the logical impossibility that a social science conclusion, however well founded, could dictate a judicial conclusion." Louis B. Schwartz, *Justice, Expediency, and Beauty*, 136 *U. PA. L. REV.* 141, 143 (1987).

15. The Supreme Court rule states that:

An amicus curiae brief which brings relevant matter to the attention of the Court that has not already been brought to its attention by the parties is of considerable help to the Court. An amicus brief which does not serve this purpose simply burdens the staff and facilities of the Court and its filing is not favored.

SUP. CT. R. 37.1 ("Brief of an Amicus Curiae").

16. Arthur A. Leff, *The Leff Dictionary of Law: A Fragment*, 94 *YALE L.J.* 1855, 2012 (1985).

17. BRYAN A. GARNER, *A DICTIONARY OF MODERN LEGAL USAGE* 40 (1987) (quoting *New England Patriots Football Club v. University of Colorado*, 592 F.2d 1196, 1198 n.3 (1st Cir. 1979)).

which the court was unfamiliar.¹⁸ Early amicus curiae included the United States,¹⁹ state governments,²⁰ attorneys for client organizations,²¹ and lobbyists representing private and trade organizations.²² During the nineteenth century, the amicus curiae was not a device for third parties to intervene in judicial decision-making.²³ Today, however, many amici are lobbyists or representatives of private interests with a direct or indirect stake in the outcome of the litigation.²⁴ The number of amici filing in United States

18. Edmund R. Beckwith & Rudolph Sobernheim, *Amicus Curiae—Minister of Justice*, 17 *FORDHAM L. REV.* 38, 38 (1948) (arguing that amici's role was, in effect, to inform justices of facts and law of which they were unaware); Samuel Krislov, *The Amicus Curiae Brief: From Friendship to Advocacy*, 72 *YALE L.J.* 694, 695 (1963) (stating that the function of the amicus curiae at common law was one of oral 'Shepardizing,' the bringing up of cases not known to the judge"). The role of amicus in educating the court was first evidenced in England in the seventeenth century. See *Protector v. Geering*, Hardres 85, 145 Eng. Rep. 394 (1656). The first amicus curiae brief in the United States was submitted when the Supreme Court requested Henry Clay to aid in determining the application of the Commerce Clause to a land agreement between Kentucky and Virginia. *Green v. Biddle*, 21 U.S. (8 Wheat.) 1 (1823).

19. *Florida v. Georgia*, 58 U.S. (17 How.) 478 (1854).

20. The first amicus curiae formally recognized by the Court was the State of Kentucky in *Biddle*.

21. Samuel Krislov notes:

[T]he amicus curiae stood in an essentially professional relation to the Court and organizations were not regarded as the amicus but rather the lawyer himself. . . . As late as 1919 the attorneys in the *Prohibition Case* styled themselves as "both of Washington, D.C., amici curiae, and general counsel to the National Association of Distillers and Wholesaler Dealers."

Krislov, *supra* note 18, at 703 (emphasis in original).

22. *Id.* (citing *United States v. Butler*, 297 U.S. 1 (1935)).

23. *Id.* at 699 ("Oddly, the amicus curiae was neither one of the early devices used to resolve the third party problem in the Supreme Court nor the most frequently utilized.").

24. In their study of amicus participation in all cases for which filing fees had been paid from the 1982 term of the Supreme Court, plus all cases in which filing fees had been paid awaiting decision and thus carried forward from the 1981 term, Caldeira and Wright found that

states account for the largest proportion of total amici Other frequent participants include corporations and business, trade, and professional associations at both the certiorari and jurisdictional stage, and, at the plenary stage, citizen groups. As a proportion of total amici, the least frequent participants at the certiorari and jurisdictional stage are miscellaneous governmental jurisdictions, public interest law firms, charitable and community groups, and unions. Organizations, however, greatly outnumber individuals in total appearances as amici. Amicus participation before the Supreme Court is organizational by nature; it is not, by and large, a role individuals play.

Gregory A. Caldeira & John R. Wright, *Amici Curiae Before the Supreme Court: Who Participates, When, and How Much?*, 52 *J. POL.* 782, 794 (1990); see also HERBERT JACOB, *JUSTICE IN AMERICA: COURTS, LAWYERS & JUDICIAL PROCESS* 42 (4th ed. 1984) (noting participation of political and private interests); Michael K. Lowman, Comment, *The Litigating Amicus Curiae: When Does the Party Begin After the Friends Leave?*, 41 *AM. U. L. REV.* 1243, 1257 (1991) ("Even though a set definition of an amicus does not exist, two general categories of amicus curiae have emerged. The first group is comprised of governmental units such as the Federal Government and component branches. The second group is comprised of individuals or groups representing private interests.").

Supreme Court cases has increased in recent years,²⁵ as has the open partisanship of many of the amici briefs.²⁶ Amicus curiae practice has evolved from a mechanism for aiding the Court to a method of lobbying it.²⁷ This article discusses the social implications of this transformation, particularly as it applies to the selective use and misuse of social science research before the Supreme Court.

Peter Huber coined the phrase "junk science" to refer to questionable expert testimony in the courtroom.²⁸ "Junk science," Huber writes, "is the mirror image of real science, with much of the same form but none of the substance."²⁹ He complains that courts permit "self-styled scientists" to engage in "pseudoscientific speculation."³⁰ A central issue in the junk science debate is the admissibility of expert opinion in the adjudicative process.³¹

25. For studies on the frequency of amicus filings before the Supreme Court, see Robert C. Bradley & Paul Gardner, *Underdogs, Upperdogs, and the Use of Amicus Briefs: Trends and Explanations*, 10 JUST. SYS. J. 78 (1985); Thomas R. Morris, *States Before the U.S. Supreme Court: State Attorneys General as Amici Curiae*, 70 JUDICATURE 298, 299 (1987); Karen O'Connor & Lee Epstein, *Amicus Curiae Participation In the U.S. Supreme Court: An Appraisal of Hakman's "Folklore"*, 16 LAW & SOC'Y REV. 311 (1981-82); Steven Puro, *The United States as Amicus Curiae*, CTS. L. & JUD. PROCESS 220, 223 (1981).

26. Feeling that the growing number of amici briefs was politicizing the Court, Justice Frankfurter attempted to limit their number and scope, arguing, "I do not like to have the Court exploited as a soap box or as an advertising medium, or as the target, not of arguments but of mere assertion that this or that group has this or that interest in a question to be decided . . ." Justice Felix Frankfurter, *Earl Warren Papers*, Library of Congress (October 28, 1949).

Justice Black, in contrast, defended the use of amici by groups with political agendas, stating, "Most of the cases that come before the Court involve matters that affect far more people than the immediate record parties. I think the public interest and judicial administration would be better served by relaxing rather than tightening the rule against amicus curiae briefs." Justice Hugo Black, "Memorandum for the Conference from Hugo L. Black," *Earl Warren Papers*, Library of Congress (April 9, 1954). Justice Black's view prevailed. See ROBERT L. STERN & EUGENE GRESSMAN, *SUPREME COURT PRACTICE* § 6.40 (5th ed. 1978) ("Contrary to its practice a generation ago, the Court is now liberal in granting motions for leave to file amicus briefs.").

The contemporary Court approves approximately ninety percent of all private party motions for leave to file amicus curiae briefs. Bradley & Gardner, *supra* note 25, at 91, tbl. 2.

27. See generally Fowler V. Harper & Edwin D. Etherington, *Lobbyists Before the Court*, 101 U. PA. L. REV. 1172 (1953) (describing the history of amicus filings in the Supreme Court).

28. PETER HUBER, *GALILEO'S REVENGE: JUNK SCIENCE IN THE COURTROOM 2* (1991).

29. *Id.*

30. *Id.* at 3. Huber notes that "[t]he best test of certainty we have is good science—the science of publication, replication, and verification, the science of consensus and peer review." *Id.* at 228. These standards are often ignored in amicus curiae briefs that present empirical evidence.

31. In *Daubert v. Merrell Dow Pharmaceutical Inc.*, 113 S. Ct. 2786 (1993), the Court dealt with the admissibility of expert testimony about scientific evidence. The case stemmed from a products liability lawsuit filed by the parents of two boys born with limb deformities, allegedly caused by their mother's ingestion of the anti-nausea drug Bendectin during pregnancy. *Id.* at 2791. The data relied upon by plaintiff's experts came from four sources: (a) "in vivo" animal studies; (b) "in vitro" studies; (c) pharmacological studies; and (d) epidemiological studies of the incidence of birth defects of various types in the offspring of women who took Bendectin during pregnancy and those of women who did not. *Id.* at 2791-92. The issue in *Daubert* was whether

This article does not examine the issue of junk science in the form of expert testimony in trials.³² Instead, we explore the difficulties arising from advo-

the rule of *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), which only allows the introduction of evidence that is "generally accepted" by the scientific community, has a continuing vitality. *Id.* at 2792-93. When Congress enacted the Federal Rules of Evidence in 1975, there was no mention as to whether the *Frye* rule of "general acceptance" survived its passage. The federal circuits disagreed as to whether *Frye* was still in force. *Id.* at 2792-93.

The federal district court in *Daubert* excluded expert testimony on causation, holding that human or epidemiological evidence is the only reliable proof. *Id.* On appeal, the Ninth Circuit held that an expert witness's testimony must be predicated on a research method or technique that does not "diverge significantly from the procedures accepted by the recognized authorities in the field." *Id.*

The *Daubert* Court held unanimously that the Federal Rules of Evidence, not *Frye*, provide the standard for admitting expert scientific testimony in federal trials. *Daubert* thus effectively killed the *Frye* rule. *Daubert*, 113 S. Ct. at 2790, 2799.

Three circuits had held that the *Frye* rule was dead: *United States v. Jakobetz*, 955 F.2d 786, 790 (2d Cir.), *cert. denied*, 113 S. Ct. 104 (1992); *DeLuca v. Merrell-Dow Pharmaceutical, Inc.*, 911 F.2d 941, 955 (3rd Cir. 1990); *United States v. Baller*, 519 F.2d 463, 466 (4th Cir.), *cert. denied*, 423 U.S. 1019 (1975).

Six circuits had held that *Frye* continued: *Daubert v. Merrell Dow Pharmaceutical Inc.*, 951 F.2d 1128, 1129-30 (9th Cir. 1991), *cert. granted*, 113 S. Ct. 320, *vacated and remanded*, 113 S. Ct. 2786 (1993); *Christophersen v. Allied Signal Corp.*, 939 F.2d 1106, 1115-16 (5th Cir. 1991) (*per curiam*) (*en banc*), *cert. denied*, 112 S. Ct. 1280 (1992); *United States v. Two Bulls*, 918 F.2d 56, 60 & n.7 (8th Cir. 1990), *reh'g granted and vacated*, 925 F.2d 1127 (8th Cir. 1991) (*en banc*); *United States v. Smith*, 869 F.2d 348, 351 (7th Cir. 1989); *United States v. Shorter*, 809 F.2d 54, 59-61 (D.C. Cir.), *cert. denied*, 484 U.S. 817 (1987); *United States v. Metzger*, 778 F.2d 1195, 1203 (6th Cir. 1985), *cert. denied*, 477 U.S. 906 (1986).

32. *Daubert* increases the need for judges to have an understanding of the social sciences. After *Daubert*, the admissibility of social science evidence in all federal trials will be determined by the Federal Rules of Evidence, not by the *Frye* Rule. Post-*Daubert* social science evidence is admissible if the trial judge determines whether a given expert has scientific knowledge that will assist the trier of fact to understand or determine a fact in issue. FED. R. EVID. 104(a). Rule 702 requires the trial judge to make the determination of whether an expert's testimony "rests on a reliable foundation and is relevant to the task at hand." *Daubert*, 113 S. Ct. at 2799. Trial judges might find the task of qualifying social scientist experts to be more difficult than physical science experts because of division within the social science disciplines. For example, a behavioral psychologist sees human motivations as a result of response to a stimulus and would have no sympathy with a Freudian explanation of the same behavior. In many issues of human behavior, multiple disciplines may have some explanatory role, making it extremely difficult for one individual to be an expert on all aspects of the phenomenon.

A judge in a scientific testimony case stated: "Communication by speech does not fall within any one established category of science. Its understanding requires a knowledge of anatomy, physiology, physics, psychology, and linguistics." Paul C. Gianelli, *Frye v. United States: Background paper prepared for the National Conference of Lawyers and Scientists, Symposium on Science and Rules of Evidence*, 99 F.R.D. 188, 193 (1983).

More social science is likely to be introduced into legal matters with the displacement of the *Frye* Rule. For all practical purposes, Rule 702 permits most social scientific testimony to be received by the fact-finder. The rules do not give any particular weight to the professional training of social scientists. An expert is anyone who has specialized knowledge or training that will assist the trier of fact. Rule 703 requires experts giving opinion testimony to state the facts or data on which they rely:

The facts or data in a particular case upon which an expert bases an opinion or inference

cacy disguised as social science in amicus curiae briefs.

Amici briefs serve a useful purpose. They provide the Justices with varied viewpoints and with information about social science findings of which they might not otherwise be aware. There is nothing inherently wrong with presenting social science data in advocacy briefs. The problem is in the lack of appropriate mechanisms to permit the Court to evaluate the findings adequately.³³ Our solution is not to restrict the admissibility of scientific material. We propose enlarging the amount of information available to the Justices by providing the Court with the services of disinterested social science experts.

This Article uses the claim that there has been a punitive damages explosion—a claim made in amicus briefs submitted to the United States Supreme Court—to illustrate the use and misuse of social science data in constitutional fact-finding. Our purpose is not to attack the tort reformers of punitive damages. The current institution of amicus briefs encourages advocacy-type briefs in all substantive fields. We use the current struggle over punitive damages to illustrate the ways that social science data in legislative fact-finding is distorted for partisan purposes. We also use it to suggest some mechanisms by which the Court can obtain a more neutral analysis of relevant social science data.

Part II traces the rise of social science in Supreme Court cases from the original Brandeis Brief in 1906 to the present. This section explores the role of legal realism in shaping the contemporary use of amicus briefs in introducing extra-legal facts to the Court. Part III describes the uses and misuses of social science in the Supreme Court's three most recent cases dealing with the constitutionality of punitive damages and summarizes five leading studies on punitive damages. Part IV examines the ways in which partisan organizations distort empirical social science research in amicus briefs. A review of the amici briefs in *TXO Production Corp. v. Alliance Resources Corp.*,³⁴ and the two previous Supreme Court decisions on the constitutionality of punitive damage decisions³⁵ uncovered no fabrications, but it did reveal a pattern of selective distortion of social science findings.

may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

FED. R. EVID. 703. *Daubert* thus increases the need for greater quality controls over social science at all levels.

33. See Theodore Eisenberg & James A. Henderson, Jr., *Inside the Quiet Revolution in Products Liability*, 39 UCLA L. REV. 731, 733-35 (1992) (noting that shocking anecdotes of questionable accuracy have interfered with our understanding of the civil litigation system).

34. 13 S. Ct. 2711 (1993).

35. *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1 (1991); *Browning-Ferris Indus. of Vermont, Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257 (1989).

Among the most common tactics are producing studies designed for advocacy purposes, making normative statements that appear to be empirically based, and quoting studies out of context. In Part V we propose several mechanisms to aid the Court in evaluating social science in amici briefs. These proposals include: providing court-appointed social science experts; creating social science special masters; increasing government funding for independent social science research into contested claims; encouraging social science associations to file amici briefs that support neither side; expanding disclosure of the methodology; and providing underlying data cited in amicus briefs.

The presentation of social scientific data in Supreme Court amicus curiae briefs is too often designed to persuade rather than to inform the Court. Most authors of amici briefs are lobbyists whose primary goal is to advance the interests of their clients. They are not guided by the scientific norms of neutrality and objectivity but by the ideology of advocacy. The desire to win the case encourages the amici to distort or ignore any damaging social science findings. As Saks notes, "Once one sets (or resets) one's goal as supporting a certain conclusion, one tends to canvass the literature selectively, retrieve selectively, and interpret studies in ways calculated to lead to the desired conclusion."³⁶

II. THE RISE OF SOCIAL SCIENCE IN CONSTITUTIONAL FACT-FINDING

A. *Sociological Jurisprudence*

The dominant paradigm³⁷ of legal formalism kept social science statistics almost entirely out of constitutional fact-finding prior to the 1920s.³⁸

36. Saks, *supra* note 13, at 243.

37. The term "paradigm" was coined by Thomas S. Kuhn in *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* 10 (1962). Kuhn defined a paradigm as a viewpoint that shapes a given field of inquiry. *Id.* The paradigmatic shifts in legal thought are described in Peter C. Schanck, *Understanding Postmodern Thought and its Implications For Statutory Interpretation*, 65 S. CAL. L. REV. 2505, 2507 (1992) (arguing that "sometimes one paradigm is hegemonic; at other times paradigms compete among theorists for acceptance").

38. The dominant paradigm from the mid-1800s to the early twentieth century was legal formalism. See Duncan Kennedy, *Toward an Historical Understanding of Legal Consciousness: The Case of Classical Legal Thought in America 1850-1940*, 3 RES. L. & SOC'Y 3 (1980). Legal formalists describe law as "an emanation from a single authority in the State, or as a complete body of explicit and comprehensive propositions applicable, by accurate interpretation, to all claims, relationships and conflicts of interest." SIR CARLETON K. ALLEN, *LAW IN THE MAKING* 28 (5th ed. 1958). The legal realists attacked this doctrine, railing against concepts such as the "reasonable man" and "proximate cause." *Id.* at 41-63.

The orthodox scholarship was the analysis of judicial decision-making, not empirical fact-finding. The patron saint of paper rules was Harvard University Law School Dean Christopher Columbus Langdell. American legal education is a relatively recent social institution. Law instruction was first offered at Harvard in 1817, but it was not until the last decades of that century

The incorporation of sociological data into judicial decision-making is the result of the legal realist movement.³⁹ Legal realism was an early attempt to replace armchair legal philosophy with an awareness of social context.⁴⁰ Supporters argued that social scientific studies of law should be used to discover and analyze the difference between the law in action and

that Langdell developed and instituted the "case method" of legal education. Langdell believed that by reading casebooks with their law professors, students could discover the essential principles of the science of law. See Anthony Chase, *The Birth of the Modern Law School*, 23 AM. J. LEGAL HIST. 329 (1979); Anthony Chase, *Origins of Modern Professional Education: The Harvard Case Method Conceived as Clinical Instruction in Law*, 5 NOVA L.J. 323 (1980).

39. Professor Donald Elliott stated that under "one guise or another, the question, 'by what right do courts and bureaucrats make law?' has occupied a large percentage of the energy of American legal scholars. In the twentieth century, the dominant answers have been essentially 'positivism' and its second cousin, 'legal realism.'" E. Donald Elliott, *The Evolutionary Tradition in Jurisprudence*, 85 COLUM. L. REV. 38, 91-92 (1985).

Legal realism was a

[l]egal movement of the 1920s and 1930s composed of American law teachers and lawyers who studied the operation of law and society, rather than its abstract conceptualism. . . . The legal realists sought to replace legal formalism, or the case method and scientific approach to law, with social methods and psychological analysis, to achieve proper social policy.

KENNETH R. REDDEN & GERRY W. BEYER, *MODERN DICTIONARY FOR THE LEGAL PROFESSION* 490 (1993). Legal realists examined the "way the law operated in the social context instead of promoting a study of what the appellate courts said was the law or what the scholars said the law should be." JOHN W. JOHNSON, *AMERICAN LEGAL CULTURE, 1908-1940*, at 132 (1981). Abstract doctrinalism was criticized for not explaining what lawyers needed to know—what judges were likely to do.

The legal realists argued that legal precedents shape and were shaped by a great number of social forces. ROSCOE POUND, *THE SPIRIT OF THE COMMON LAW* 182-83 (1921) ("[The] doctrine of precedents means that causes are to be judged by principles reached inductively from the judicial experience of the past, not by deduction from rules established arbitrarily by the sovereign will.") They viewed law as constantly evolving, a product of changing political, economic and social facts. See generally ROSCOE POUND, *LAW FINDING THROUGH EXPERIENCE AND REASON: THREE LECTURES* (1960) (discussing lawmaking and legal reasoning and the doctrine of stare decisis). Legal realists believed that because society is at every point changing, the law must also change.

40. Columbia University Law School was the leading legal realist law school in the 1920s. JOHNSON, *supra* note 39, at 132-33. Columbia Professors Underhill Moore, William O. Douglas, Hessel Yntema, Karl Llewellyn, Edwin Paterson, Noel Dowling, Julius Goebel, Jerome Michael, Samuel Klaus, and L.A. Tulin were all central figures in the realist school. WILLIAM TWINING, *KARL LLEWELLYN AND THE REALIST MOVEMENT* 54-67 (1973). During the 1920s, Columbia's law faculty restructured its curriculum to incorporate social science into every course. *Id.* Professor Underhill Moore was a leading empiricist who argued that the focus of an "institutional" analysis of law should be on patterns of human behavior rather than on abstract legal doctrines. Moore favored a level of analysis that examined functional properties of social structure. For example, he conducted an extensive empirical study of stop payment orders. Underhill Moore et al., *Legal and Institutional Methods Applied to Orders to Stop Payment of Checks—II. Institutional Method*, 42 YALE L.J. 1198-99 (1933); see also John H. Schlegel, *American Legal Realism and Empirical Social Science: The Singular Case of Underhill Moore*, 29 BUFF. L. REV. 195 (1980) (describing Underhill Moore's use of empirical research to study legal behavior).

the law in the books.⁴¹ Realism was a multi-paradigmatic movement drawing support from disaffected positivists,⁴² rule skeptics,⁴³ and

41. Even defining which social sciences are relevant to law is not easy. Most would probably see sociology, economics, political science, and psychology as providing the major impetus for the social scientific study of law. Law is studied by sociologists as a social phenomenon. The economist studies law in its own terms as an economic phenomenon. The psychologist might view the law empirically as a psychological phenomenon, but also as a system of reinforcers. Political scientists might study how law is legislated. Law may also be of interest to the economic geographer, social historian, community psychiatrist or epidemiologist.

42. What the positivists have in common is a focus on the law as an absolute. Realists, in sharp contrast, are less concerned with the primary rules of law. Lon Fuller states that positivists view the law as "a manifested fact of social authority or power, to be studied for what it is and does, and not for what it is trying to do or become." LON FULLER, *THE MORALITY OF LAW* 145 (1969). Positivists view the law as a system of normative rules—the law in the books.

Realists, on the other hand, focus on the law in action. Realists attempt to understand the social impact of law and the impact of society on law. In the words of Steven Salbu:

Two central currents in jurisprudence—legal positivism and legal realism—have long occupied opposing ground regarding the relationship between normative philosophy and the law. Positivists regard the law as a mechanism of rule that is largely self-justifying by virtue of the power behind it. Realist viewpoints are more analytical and critical, and focus on understanding the political and economic interests that can become ingredients in the creation and development of laws.

Steven R. Salbu, *Law and Conformity, Ethics and Conflict: The Trouble with Law-Based Conceptions of Ethics*, 68 *IND. L.J.* 101, 124 (1992).

Thomas Hobbes was the first legal positivist. He believed that man originally lived a "solitary, poore, nasty, brutish, and short" life in a state of nature. THOMAS HOBBS, *LEVIATHAN* 80 (Richard Tuck ed., 1991). Hobbes argued that men formed a social contract to establish order and safety and to escape the misery of the "war of all against all." *Id.* at 97. He contended that the absolute power of the sovereign was the only source of law. John Locke, on the other hand, liberalized the notion of social contract, arguing that men had common sense and therefore could cooperate for the common good without living under the yoke of absolutism. JOHN LOCKE, *THE SECOND TREATISE OF GOVERNMENT, OF CIVIL GOVERNMENT AND LETTER ON TOLERATION* 3 (J.W. Gough ed., 2d ed. 1956).

Jeremy Bentham built upon Hobbes and Locke in his positivist theory of utilitarianism. Utilitarianism espoused the principle that "the greatest satisfaction of the greatest number of people should be the primary moral goal for each individual." REDDEN & BEYER, *supra* note 39, at 773.

John Austin (1790-1859) expanded upon Bentham's concept of the greatest good for the greatest number. Austin defined law as "a rule laid down for the guidance of an intelligent being by an intelligent being having power over him." JOHN AUSTIN, *The Province of Jurisdiction Defined*, in *LECTURES ON JURISPRUDENCE* 104 (John Murray ed., 1890).

Hans Kelsen and H.L.A. Hart are the two most prominent modern legal positivists. Kelsen maintained, "a rule is a legal rule because it provides for a sanction." HANS KELSEN, *GENERAL THEORY OF LAW AND STATE* 29 (1961). Kelsen's position was that each legal norm emanated from a higher authority, which he termed the *Grundnorm*. *Id.* at 31.

43. Moore describes rule skepticism as a disenchantment with textual interpretivism. He states:

[T]he skeptic finds both legal texts (statutes, constitutions) and prior case decisions woefully indeterminate. His judge "interprets" legal texts by finding what he wants in them—for neither nature nor convention binds his interpretive efforts, the words of legal texts becoming mere chameleons in his hands. Because past cases exemplify an infinite number of rules, any choice of rules can be consistent with precedent—so long as one

empiricists.⁴⁴ Realists were united by a belief that judges devoted too much attention to the language of prior cases and too little to understanding the social reality behind their own decisions.⁴⁵

An important precursor to the legal realists, Oliver Wendell Holmes, contended that judicial decision-makers needed to utilize the findings of social science. Holmes taught that an ideal system of law should draw its postulates and legislative justifications from science.⁴⁶ In *The Common Law*, Holmes stated the epigram that served as the slogan of legal realists everywhere: "The life of the law has not been logic: it has been experience."⁴⁷ Holmes predicted a convergence of law and the social sciences in constitutional decision-making: "For the rational study of the law the black letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics."⁴⁸

Roscoe Pound furthered the ideas of Justice Holmes by arguing for a sociological jurisprudence focused on the social context of legal disputes.⁴⁹ Pound wrote:

The doctrine of precedents means that causes are to be judged by principles reached inductively from the judicial experience of the past, not by deduction from rules established arbitrarily by the sovereign will. . . . The common law doctrine is one of reason applied by experience. It assumes that experience will afford the most satisfactory foundation for standards of action and principles of decision.⁵⁰

There were many others who advocated the expanded use of social analysis in law.⁵¹ For example, Hugo Munsterberg maintained that answers to legal dilemmas could be found in the findings of modern psychology.⁵²

denies, as does the skeptic, that there are any natural kinds or conventional categories that would limit the rules he might choose.

Michael S. Moore, *The Interpretive Turn in Modern Theory: A Turn for the Worse?*, 41 STAN. L. REV. 871, 888 (1989); see also Felix Cohen, *The Ethical Basis of Legal Criticism*, 41 YALE L.J. 201 (1931) (elaborating upon rule skepticism).

44. TWINING, *supra* note 40, at 54-67.

45. *Id.* at 283.

46. OLIVER W. HOLMES, JR., *THE COMMON LAW* 35 (1881).

47. *Id.* at 1.

48. Oliver W. Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897).

49. Roscoe Pound, the Dean of Harvard Law School during the 1930s and 1940s, was also a major influence on Llewellyn and the realists. JOHNSON, *supra* note 39, at 126-37.

50. ROSCOE POUND, *THE SPIRIT OF THE COMMON LAW* 182-83 (1921).

51. For an excellent discussion of the use of empirical research methods by the legal realists, see E. PURCELL, *THE CRISIS OF DEMOCRATIC THEORY* 74-94 (1973); John H. Schlegel, *American Legal Realism and Empirical Social Science: From the Yale Experience*, 28 BUFF. L. REV. 459, 460-64 (1979).

52. He observed that "[t]he lawyer and the judge and the jurymen . . . go on thinking that

He declared that law itself could not be studied without the aid of the social sciences.⁵³ Karl Llewellyn⁵⁴ and Benjamin Cardozo⁵⁵ also championed the development of an empirically based legal sociology. Contemporary heirs to the legal realists,⁵⁶ in both law and the social sciences, call for an even closer relationship between the two disciplines.⁵⁷

B. *The Brandeis Brief*

As legal realism replaced legal formalism, the courts became increasingly receptive to the introduction of empirical research.⁵⁸ Louis Brandeis,

their legal instinct and their common sense supplies them with all that is needed and something more." HUNTINGTON CAIRNS, *LAW AND THE SOCIAL SCIENCES* 169 (1936).

53. *Id.*

54. Karl Llewellyn wrote:

Logic and science can tell us, and tell us with some certainty, what the doctrinal possibilities are. They can tell us whether, without self-contradiction the results of the cases can be so settled as to stand together. They can even provide us with a tool for argument to a court that the cases should be made in this fashion to stand together. But they give us no certainty as to whether the possibility embodied in the argument will be adopted by a given court.

KARL N. LLEWELLYN, *THE BRAMBLE BUSH: SOME LECTURES ON LAW AND ITS STUDY* 62-63 (1930).

Llewellyn charged that the estrangement between law and the social sciences was due partially to the unwillingness of other disciplines to deal with legal scholars. He complained that he found little "neighborliness, let alone brotherliness, from the side of the social disciplines, or of sociology in particular." Karl N. Llewellyn, *Law and the Social Sciences—Especially Sociology*, 62 *HARV. L. REV.* 1286, 1287 (1949).

55. Justice Benjamin Cardozo "encourage[d] judges to rely on the social sciences, and in particular the fledgling science of sociology." John C. P. Goldberg, *Community and the Common Law Judge: Reconstructing Cardozo's Theoretical Writings*, 65 *N.Y.U. L. REV.* 1324, 1368 (1990).

56. The heyday of Legal Realism was in the 1920s and 1930s. Schlegel, *supra* note 51, at 459. The paradigm was gradually replaced by normatively-based views of legal reasoning. *Id.*

57. For example, Professor Donald Black has recently proposed a new legal sociology, focusing on what he dubs the "social structure of a case." DONALD BLACK, *SOCIOLOGICAL JUSTICE* 8, 112 (1989). According to Black, modern legal conceptualists are mistaken "in attempting to locate legal rules in a social vacuum." *Id.* at 19. These neo-formalists err when they strive to identify fundamental precepts without employing social science findings. Black contrasts the poverty of jurisprudence with the power of sociological knowledge, arguing that social science is more useful than jurisprudence for predicting legal outcomes. *Id.* at 8. As examples, he cites factors such as social status of the parties, their degree of intimacy, and whether they are individuals or organizations as powerful predictors of legal outcomes. *Id.* at 89. Social characteristics predict in large part: "Who has a complaint against whom? Who handles it? Who else is involved?" *Id.* at 7. Knowing the judge's and victim's race, ethnicity, social background, and financial standing are critical in knowing the outcome of a case. *Id.* at 64. Traditional jurists rarely consider how class, race, power and social change impact the law. *Id.* at 90.

58. Professor David Kaye enumerates examples of social science evidence found in recent court cases involving theft, mass murder, discrimination by race, age and gender, voting rights, antitrust, taxation, domestic relations, environmental torts and product liability. David H. Kaye,

as a young Boston lawyer,⁵⁹ made the first significant use of social science data in constitutional decision-making via a brief for the petitioner in *Muller v. Oregon*.⁶⁰ The Brandeis brief employed social science research to argue contested constitutional facts before the Court.⁶¹ The Court received

Statistics for Lawyers and Law for Statistics, 89 MICH. L. REV. 1520, 1521 (1991) (reviewing MICHAEL O. FINKELSTEIN & BRUCE LEVIN, *STATISTICS FOR LAWYERS* (1990)).

59. Brandeis, later to serve as a distinguished Supreme Court Justice for twenty-three years, was a progressive figure in American jurisprudence. See generally ALLAN GAL, *BRANDEIS OF BOSTON* (1980) (describing the emergence of Brandeis as an attorney for the people). For accounts of Louis Brandeis' later career, see ALFRED LIEF, *BRANDEIS: THE PERSONAL HISTORY OF AN AMERICAN IDEAL* (1936) and ANTHONY MASON, *BRANDEIS: A FREE MAN'S LIFE* (1946).

60. 208 U.S. 412 (1908). In *Muller*, the Court was asked to determine the constitutionality of a 1903 Oregon statute that limited "the employment of females at any time so that they shall not work more than ten hours during the twenty-four hours of any one day." *Muller*, 208 U.S. at 416-17. A manager working for Curt Muller, a Portland laundry owner, ordered a female laundress to work for more than ten hours in one twenty-four hour period. Muller was fined ten dollars and appealed his conviction to the Oregon Supreme Court, which affirmed the lower court's decision. The final appeal was to the United States Supreme Court, which heard the case three years after *Lochner v. New York*, 198 U.S. 45 (1905), the hallmark of legal formalism. In *Lochner*, the Court struck down a New York law, which sought to limit the hours of bakery employees to sixty hours in a week or ten hours in a day, as an unreasonable interference with liberty of contract, violative of the Due Process Clause. *Lochner*, 198 U.S. at 52-53. *Lochner* was consistent with formalistic jurisprudence, which infused the Social Darwinistic philosophy of social contractualism into the Due Process Clause of the Fourteenth Amendment.

61. Brandeis devoted only three pages of his brief to legal precedent. This strategy was hardly surprising given *Lochner*, and he readily conceded that, under the established precedent, "the right to purchase or to sell labor was part of the 'liberty' protected by the Fourteenth Amendment of the Federal Constitution." *Muller*, 208 U.S. at 415. However, he also argued:

The facts of common knowledge of which the court may take judicial notice establish conclusively, that there is reasonable ground for holding that to permit women in Oregon to work in a "mechanical establishment, or factory, or laundry" more than ten hours in one day is dangerous to the public health, safety, morals or welfare.

Id. at 416 (quoting an abstract from Brandeis's brief). Brandeis's brief was calculated to displace formalistic notions of liberty of contract to allow the Court to take judicial notice of social facts. All but the first three pages were devoted to social scientific studies of the deleterious impact of work on women's health. LOUIS BRANDEIS & JOSEPHINE GOLDMARK, *WOMEN IN INDUSTRY* 22-32 (Leon Stein & Philip Taft eds., 1969). Topics included: state laws limiting women's hours of labor (including a list of foreign countries having protective legislation); "The World's Experience Upon Which the Legislation Limiting the Hours of Work for Women is Based"; safety and health dangers of long hours; physical differences between the sexes; description of manufacturing jobs; benefits of shorter hours on health, home life and general welfare; economic aspects of shorter hours; uniformity of restriction; "The Reasonableness of the Ten-Hour Day; and Laundries." *Id.*

The scope of Brandeis's research was impressive. He and his sister-in-law, Josephine Goldmark, summarized all available government reports on official government research conducted by the United States, France, Germany, Italy and other Western industrial nations. The brief also summarized the studies conducted by the Health Department of the City of New York and included all of the studies compiled by the British Chief Inspector of Factories and Workshops. Each study supported the statute's premise that long work hours were detrimental to women. Brandeis's prodigious efforts in assembling these studies showed that the Oregon statute was a reasonable exercise of police power, because it safeguarded women against the hazards of long hours. *Id.* See generally Monahan & Walker, *supra* note 4, at 480 ("[Justice Brandeis] assembled

this document into evidence stating, “[w]e take judicial cognizance of all matters of general knowledge.”⁶² Brandeis’s brief would be assessed harshly as junk social science by today’s standards.⁶³ However, the brief was a brilliant break with the formalist tradition and had a significant impact on legal thought.⁶⁴ As Martha Minow notes, the Brandeis brief

a substantial body of medical and social science research tending to show the debilitating effect on women of working long hours.”)

62. *Muller*, 208 U.S. at 421.

63. Brandeis’s presentation to the Court was slanted because, like all parties’ briefs, the document was designed to further the interests of the client. His brief did little more than provide the Court with a carefully selected laundry list of studies, including some that were arguably biased because they had been produced for the purpose of promoting social welfare legislation. He avoided mentioning available empirical studies demonstrating the deleterious impact of long working hours on men. Despite these limitations, the Brandeis brief was a remarkable document written in the heyday of legal formalism.

Brandeis once remarked that his famous brief should have been titled, “What Any Fool Knows.” DEAN ACHESON, *MORNING AND NOON* 53 (1965) (quoting Brandeis). Felix Cohen satirized the Brandeis Brief as implicating the favorable world and domestic opinions of the undisputed sanity of the Oregon legislature when it restricted the hours of industrial labor for women. Since a recent test of legislative legitimacy under the Due Process Clause protected legislation when it was such that “rational men may approve,” Cohen perceived that the Supreme Court had been transformed into a “lunacy commission . . . sitting in judgment upon the mental capacity of legislators.” Felix Cohen, *Transcendental Nonsense and the Functional Approach*, 35 *COLUM. L. REV.* 809, 819 (1935). On the other hand, Cohen acknowledged that the Brandeis brief was a healthy alternative to the “transcendental nonsense” of formalistic doctrines such as “freedom of contract.” Cohen wrote:

Some fifty years ago a great German jurist had a curious dream. He dreamed that he died and was taken to a special heaven reserved for the theoreticians of the law. In this heaven one met, face to face, the many concepts of jurisprudence in their absolute purity, freed from all entangling alliances with human life. Here were the disembodied spirits of good faith and bad faith, property, possession, *laches*, and rights *in rem*. . . . The question is raised, “How much of contemporary legal thought moves in the pure ether of Von Jhering’s heaven of legal concepts.”

Id. at 809.

64. Brandeis’s brief illustrates Karl Llewellyn’s contention that the American system of precedents was “[m]alleable even when handled by a formalist judge, and they can be refashioned much more easily.” KARL LLEWELLYN, *THE CASE LAW SYSTEM IN AMERICA* § 4, at 3-4 (Paul Gewirtz ed. & Michael Ansaldi trans., 1989). Llewellyn contended that the unsystematic and uncodified nature of American law gave it the flexibility to be adaptable “for new circumstances.” *Id.* at 4. Brandeis employed his famous brief to convince the Court that it was lunacy to presume that laundresses sold their labor on equal terms with laundry owners, which was assumed by the jurisprudence of formalistic social contractualism. If the logic of formalistic contract theory was adopted, he would surely lose. Brandeis’s focused on law as experience, not abstracted law. Brandeis wrote:

Politically, the American workingman is free—so far as law can make him so. But is he really free? Can any man be really free who is constantly in danger of becoming dependent for mere subsistence upon somebody and something else than his own exertion and conduct? Men are not free while financially dependent upon the will of other individuals. Financial dependence is consistent with freedom only where claim to support rests upon right, and not upon favor.

LOUIS D. BRANDEIS, *BUSINESS—A PROFESSION* 53 (1933).

“marked a creative shift for the Court, introducing the use of vivid, factual detail as a way to break out of the formalist categories dominating the analysis.”⁶⁵ Not surprisingly, significant citations of social science facts in judicial opinions began with the 1916 appointment of Louis Brandeis to the Supreme Court. Brandeis found an ally in Oliver Wendell Holmes, Jr., who had been a Justice since 1902.

C. *The Slow Acceptance of Social Science by the Court*

The majority of the Court in the 1920s and 1930s were legal formalists who saw no role for extra-legal facts. Brandeis and Holmes often cited social science sources, but their legal realist arguments very rarely carried the day.⁶⁶ For example, Brandeis cited a social science article on unfair trade practices to bolster his dissenting opinion that a cotton products manufacturer and distributor was engaging in anticompetitive activities.⁶⁷ The *Gratz* majority, however, held that the government’s antitrust activities were impermissible violations of corporate liberties.⁶⁸ Abstract legal aphorisms, such as freedom of contract, were the basis of many judicial decisions during this period.⁶⁹ Extra-legal facts were castigated when they conflicted with the Court’s restrictive vision of substantive due process.⁷⁰ For example, Chief Justice William Howard Taft wrote in *Truax v. Corrigan*⁷¹ that an Arizona law permitting picketing and boycotting of a restaurant was unconstitutional because it helped organized labor at the expense of business. Disinterested in the real-world power imbalances that led to this law, Chief Justice Taft attacked the legislation for favoring one class

65. Martha Minow, *The Supreme Court, 1986 Term—Foreword: Justice Engendered*, 101 HARV. L. REV. 10, 88-89 (1987).

66. The legal realists, Holmes and Brandeis, became known as the “Great Dissenters” because their philosophical views so often placed them in the minority. Steven L. Winter, *Indeterminacy and Incommensurability in Constitutional Law*, 78 CAL. L. REV. 1443, 1460-62 (1990). Winter writes:

The “crucible” that shaped modern constitutional law was the confrontation between the Old Court and the legislative efforts of the Progressive Era and the New Deal. The most influential manifestos of this conflict were not the legal realist assaults on the intellectual foundations of formalism, but rather the decades of dissents by Holmes and Brandeis—the “Great Dissenters”—who had been venerated by progressives and realists alike. These dissents opposed judicial interference with social and economic legislation. But they also supported judicial protection of civil liberties.

Id. at 1461 (footnotes omitted).

67. Federal Trade Comm’n v. *Gratz*, 253 U.S. 421, 438 (1920) (Brandeis, J., dissenting) (referring the Court to H. B. REED, *THE MORALS OF MONOPOLY AND COMPETITION* 120-22 (1916)), *overruled*, Federal Trade Comm’n v. *Brown Shoe Co.*, 384 U.S. 316 (1966).

68. *Id.* at 429 (Brandeis, J., dissenting).

69. PAUL L. ROSEN, *THE SUPREME COURT AND SOCIAL SCIENCE* 98-99 (1972).

70. *Id.*

71. 257 U.S. 312 (1921).

over another, declaring it to be nothing more than an "experiment in Sociology."⁷² Justices Brandeis and Holmes, the legal realists on the Court, dissented (along with Justice Pickney), arguing that this statute did not violate equal protection guarantees.⁷³

It was not until social and political upheavals caused by the Depression of the 1930s sensitized the Court to issues of social equality that references to social science research became an accepted practice.⁷⁴ The year 1937 is often referred to as a "watershed" year, marking the transition from a formalist to a realist Court.⁷⁵ The New Deal Court gradually repudiated the formalism of the *Lochner* era⁷⁶ and became more willing to consider ex-

72. Justice Taft wrote in the majority opinion that such a classification cannot be upheld as a legalized experiment in sociology; the very purpose of the Constitution was to prevent experimentation with the fundamental rights of the individual. *Id.* at 338.

73. In a statement typical of the legal Realist perspective, Justice Brandeis described the distinction between just and excessive punishment as "the difference between unrestrained power and that which is exercised under the spirit of constitutional limitations formed to establish justice." *Milwaukee Social Democratic Publishing Co. v. Burleson*, 255 U.S. 407, 435 (1921) (Brandeis, J., dissenting) (quoting *Weems v. United States*, 217 U.S. 349, 381 (1910)). It was the spirit with which power was being exercised that was critical, rather than the abstract notions of right and wrong championed by the Formalists.

74. Erwin Chemerinsky describes the demise of formalism under the economic pressures of the Depression:

In the 1930's, economic pressures from the Depression, political opposition by the Roosevelt Administration, and intellectual assaults by the legal Realists highlighted the anti-majoritarian character of judicial review. The Supreme Court's invalidation of popular New Deal Legislation made it especially vulnerable to such criticisms. By the late 1930's, the new Justices had to define a role for the judiciary that did not offend their earlier criticisms of the *Lochner* era Court. This was not simply a matter of appearance or strategy; a strong consensus existed that the previous Court had acted improperly in striking down needed social and economic legislation. In fact, since the mid-1930's, discussions about constitutional law have been dominated by a desire to devise a role for the Supreme Court that avoids the evils of *Lochnerism*.

Erwin Chemerinsky, *The Supreme Court, 1988 Term—Foreword: The Vanishing Constitution*, 103 HARV. L. REV. 43, 63 (1989).

75. Winter writes:

The year 1937 is widely recognized as a watershed, reflecting a major shift in the legal/social consensus on the constitutional status of the New Deal's regulatory programs. . . . The decisions that manifested this paradigm shift in constitutional law were *West Coast Hotel v. Parish*, 300 U.S. 379 (1937) (due process), and *NLRB v. Jones & Laughlin Steel Corp.*, 301 U.S. 1 (1937) (commerce clause). But the shift manifested itself in other areas as well. A similar upheaval in federal civil procedure occurred in 1938 with the decision in *Erie Railroad v. Tompkins*, 304 U.S. 64 (1938), and the adoption of the Federal Rules of Civil Procedure.

Winter, *supra* note 66, at 1463 n.96.

76. The Court's upholding of the state of Washington's minimum-wage law for women and minors in *West Coast Hotel Co. v. Parrish*, 300 U.S. 379 (1937), is just one of many examples of the New Deal Court's recognition of changing political realities. As Justice Hughes stated, the "Constitution does not speak of freedom of contract." *Id.* at 391. He wrote: "We may take judicial notice of the unparalleled demands for relief which arose during the recent period of

tra-legal facts in its deliberations.⁷⁷ In *Norwegian Nitrogen Products Co. v. United States*,⁷⁸ the Court cited a study of the procedures of the Australian Tariff Board in deciding whether a Norwegian importer had the right to a hearing under the American Tariff Act of 1922.⁷⁹ In another case, Justice Brandeis concurred with a dissenting opinion in *Hartford Steam Boiler Inspection & Insurance Co. v. Harrison*,⁸⁰ which used a study of the rise of mutual life insurance companies in Great Britain to bolster the contention that it was constitutional for the state of Georgia to treat stock companies differently than mutual companies.⁸¹ In reviewing a tax court decision, Justice Stone cited research by economists that cast doubt on the policy justification for granting tax immunity to federal government employees.⁸² John Monahan and Laurens Walker note that, "[b]y the 1930's, classifying social science as fact was deeply ingrained in the thinking of the Court."⁸³ The amicus brief became the mechanism for receiving social fact into judicial decision-making.⁸⁴

As the Court became more willing to entertain extra-legal facts, political groups began to file amicus curiae briefs in significant numbers. Progressive groups frequently used amicus briefs to lobby the Court in socially

depression." *Id.* at 399. Such a decision was totally contrary to the abstracted logic of freedom of contract that was central to the philosophy of the legal formalists.

See generally MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW, 1870-1960: THE CRISIS OF LEGAL ORTHODOXY* (1992) (tracing transformation of legal thought from classicism to realism as beginning with the hostile response to the Court's decision in *Lochner v. New York*, 198 U.S. 45 (1905)). Roscoe Pound, the founder of sociological jurisprudence, attacked *Lochner* as an example of the injustices that resulted from ignoring social context. See Roscoe Pound, *Liberty of Contract*, 18 *YALE L.J.* 454, 479-87 (1909). But see Stephen A. Siegel, *Lochner Era Jurisprudence and the American Constitutional Tradition*, 70 *N.C. L. REV.* 1, 3 (1991) (arguing that the transformation from the *Lochner* era is more complex than frequently depicted).

77. For example, Justice Cardozo used economic data in an opinion that upheld the Social Security Act of 1935. *Steward Machine Co. v. Davis*, 301 U.S. 548, 567 (1937) (noting amounts appropriated under the Act during previous fiscal years).

78. 288 U.S. 294 (1933).

79. *Id.* at 314.

80. 301 U.S. 459, 466 n.6 & n.7 (1937) (Roberts, J., dissenting) (citing social sciences encyclopedia in resolution of insurance issues).

81. Justice McReynold's majority opinion held that the Georgia State Insurance Commission was violating the Equal Protection Clause by forbidding insurance stock companies to act through salaried agents while permitting mutual companies to act through such agents. *Id.* at 463.

82. *Graves v. New York ex rel. O'Keefe*, 306 U.S. 466, 485 (1939) (citing policy-oriented studies).

83. Monahan & Walker, *supra* note 4, at 481.

84. Monahan and Walker write: "Yet, the routine treatment of social research as fact did not account for the anomalous practice Brandeis had initiated in the *Muller* case. How could Brandeis briefs be submitted initially to the Supreme Court without having the facts first tested by the confrontational procedures of a trial court?" *Id.* at 482.

charged cases, such as those involving desegregation,⁸⁵ "un-American activities,"⁸⁶ and progressive social legislation.⁸⁷ Harper and Etherington write, "By the October 1948 term amicus briefs had become a genuine problem for the justices and their clerks. In that term there were 75 [amicus] briefs filed in 57 cases."⁸⁸

The Warren Court was the first to use social science data extensively.⁸⁹ *Brown v. Board of Education of Topeka*⁹⁰ is the best known example of the Warren Court's use of empirical research to evaluate whether constitutional principles had been violated. Footnote eleven in the Court's decision reviewed empirical work by professional social scientists, which showed that segregated school facilities caused psychological and social harm to school children.⁹¹ The Court cited seven social science studies supporting the proposition that separate is inherently unequal.⁹² This social scientific evidence repudiated the nineteenth century legal formalism that had been used to validate segregation in *Plessy v. Ferguson*.⁹³

85. In *Sweatt v. Painter*, 339 U.S. 629 (1950), the Committee of Law Teachers Against Segregation in Legal Education filed a brief urging the Court to desegregate the nation's schools.

86. A flood of amicus briefs were filed in *Dennis v. United States*, 341 U.S. 494 (1951), and, as part of its effort to stem the tide of advocacy-type briefs, the Court went so far as to deny "leave to file [a] brief of Richard E. Westbrooks and Earl B. Dickerson." *Id.* at 494. The *Dennis* plaintiffs were charged with conspiracy in filing false affidavits to support a complaint before the National Labor Relations Board. The NLRB required that affidavits attest that union officers were not members of the Communist party or any other organization which advocated the overthrow of the United States government by illegal means. The Court held that the statute prohibiting advocacy of the violent overthrow of the United States government would be sustained only if government proved a "clear and present danger" of substantive evil. *Id.* at 509-15.

87. See, e.g., *West Coast Hotel Co. v. Parrish*, 300 U.S. 379 (1937) (amicus brief filed on behalf of the State of Washington in support of constitutionality of minimum wage legislation).

88. Harper & Etherington, *supra* note 27, at 1172.

89. Paul Rosen noted that *Brown* represented a culmination of the pervasive impact of social science upon law. "The basic point is that the Court's pronounced interest in fact-finding represented a long trend in judicial interpretation; empirically defined facts gradually became more important or superseded facts drawn from judicial introspection." ROSEN, *supra* note 69, at 157.

90. 347 U.S. 483 (1954). As Rosen noted, "[T]he Court's use of social science in the *Brown* case confirmed the success of efforts first made in the *Muller* case to have constitutional law propounded in the light of reliable extra-legal data rather than of arbitrary judicial biases." ROSEN, *supra* note 69, at 157.

91. *Brown*, 347 U.S. at 494 n.11.

92. Theodore Brameld, *Educational Costs*, in DISCRIMINATION AND NATIONAL WELFARE 46 (Robert M. MacIver ed., 1949); KENNETH B. CLARK, EFFECT OF PREJUDICE AND DISCRIMINATION ON PERSONALITY DEVELOPMENT (White House Conference on Children and Youth, 1950); E. FRANKLIN FRAZIER, THE NEGRO IN THE UNITED STATES 677 (rev. ed. 1957); HELEN LELAND WITNMER & RUTH KOTINSKY, PERSONALITY IN THE MAKING 6 (1952); Isidor Chein, *What Are the Psychological Effects of Segregation Under Conditions of Equal Facilities?*, 3 INT'L. J. OPINION & ATTITUDE RES. 229, 234 (1949); Max Deutscher & Isidor Chein, *The Psychological Effects of Enforced Segregation: A Survey of Social Science Opinion*, 26 J. PSYCHOL. 259, 265 (1948).

93. 163 U.S. 537 (1896). The *Plessy* Court employed the nineteenth century social theory of Social Darwinism, which drew on the work of British sociologist and philosopher Herbert Spen-

D. Social Science in the Modern Supreme Court

The United States Supreme Court has received empirical social science data on many occasions in the wake of *Brown*.⁹⁴ Prominent examples include social science's role in decisions concerning school desegregation,⁹⁵ obscenity,⁹⁶ segregation by gender,⁹⁷ jury size,⁹⁸ discriminatory death pen-

cer. Social Darwinists believed that biological differences between individuals and groups required social inequality to maximize the "survival of the fittest." See ROBERT McCLOSKEY, *THE AMERICAN SUPREME COURT* 129 (1960) (arguing that the Court of the late nineteenth and early twentieth century "was being deluged by a potpourri composed of Social Darwinist philosophy about the survival of the fittest and the virtues of economic freedom"). See generally RICHARD HOFSTADTER, *SOCIAL DARWINISM IN AMERICAN THOUGHT* (rev. ed. 1966) (offering historical overview of social Darwinist thought).

94. Ronald Roesch et al., *Social Science and the Courts: The Role of Amicus Curiae Briefs*, 15 *LAW & HUM. BEHAV.* 1, 1-5 (1991) (observing increased use and usefulness of social science).

95. *Davis v. Board of Sch. Comm'rs of Mobile County*, 402 U.S. 33, 36 (1971) (citing race-related enrollment data).

96. *New York v. Ferber*, 458 U.S. 747, 749 n.1, 758 n.9 (1982) (citing case studies and retrospective surveys of sexually exploited children). But see *Paris Adult Theater I v. Slaton*, 413 U.S. 49, 57 n.7 (1973) (criticizing social science data contained in dissenting report of the 1970 Presidential Report on Obscenity and Pornography).

97. *Mississippi Univ. for Women v. Hogan*, 458 U.S. 718 (1982). In his dissenting opinion, Justice Powell approvingly cites Wellesley President Newell's statement that "[t]he research we have clearly demonstrates that women's colleges produce a disproportionate number of women leaders and women in responsible positions in society." *Hogan*, 458 U.S. at 720 n.4 (Powell, J., dissenting). The research of M. Elizabeth Tidball, e.g., M. Elizabeth Tidball, *Perspective on Academic Women and Affirmative Action*, 54 *EDUC. REC.* 130 (1973), is frequently cited supporting this proposition. E.g., Deborah L. Rhode, *Association and Assimilation*, 81 *Nw. U. L. REV.* 106, 138 (1986).

Professor Rhode critiqued the Court's use of Tidball's data to demonstrate the superiority of women's colleges:

As a threshold matter, to view *Who's Who* listings as an adequate measure of achievement is to accept what many feminists have criticized as an impoverished understanding of individual worth, an understanding that historically has devalued women's contributions. But even assuming *arguendo* that an entry in *Who's Who* is an appropriate indication of success, one cannot infer a causal relationship from a correlation without controlling for a host of variables that Tidball's research failed to acknowledge. From her data, it is impossible to separate the effects of single-sex schools from the higher socioeconomic status and career orientation of their students. For example, had Ivy League institutions been open to women during the period of Tidball's study, the percentage of achievers from coeducational schools might have been substantially different.

Id. at 139.

98. In *Williams v. Florida*, 399 U.S. 78, 101-02 n.48-49 (1970), the Court upheld a six-person jury in a state criminal trial, based in part upon social science data. Michael Saks argues that the Court misused empirical research on jury size. Michael J. Saks, *Ignorance of Science Is No Excuse*, 10 *TRIAL* 18, *passim* (Nov./Dec. 1974). Professor Hans Zeisel also criticized the Court's misuse of research, arguing that the work presented "scant evidence by any standards." Hans Zeisel, . . . *And Then There Were None: The Diminution of the Federal Jury*, 38 *U. CHI. L. REV.* 710, 715 (1974); accord MICHAEL J. SAKS, *JURY VERDICTS* 16-18 (1977); Hans Zeisel & Sherry Diamond, "Convincing Empirical Evidence" on the Six-member Jury, 41 *U. CHI. L. REV.* 281 (1974).

alty,⁹⁹ death-qualified juries,¹⁰⁰ juvenile delinquency,¹⁰¹ discrimination,¹⁰² and Eighth Amendment death penalty challenges.¹⁰³ Although social statistics did not form the basis for any of these decisions, the Court has increasingly engaged in consulting the social science literature, acknowledging that "[l]egal theory is one thing. But the practicalities are different."¹⁰⁴ Professors Grofman and Scarrow see progress in the Court's ability to properly utilize social science data on juries. They write that "[t]he use of social science by the Court ranged from abysmal in the first of the jury cases, *Williams v. Florida*, to remarkably sophisticated in the Blackmun opinion" in *Ballew v. Georgia*.¹⁰⁵ The most extensive modern use of social science

99. Acker writes on the use of social science evidence in Supreme Court death penalty cases: [E]ach of the five cases that dominated the Court's use of social science involved social fact issues which made empirical evidence directly relevant or even essential to the justices' case decisions. *McCree* [Lockhart v. McCree, 476 U.S. 162 (1986)] forced the Court to resolve whether the death qualification of jurors for the guilt-determination phase of a capital trial produced conviction-prone juries and threatened the impartiality and representativeness of the trial jury; *McCleskey* [v. Kemp, 481 U.S. 279 (1987)] involved allegations that race discrimination systematically tainted the administration of Georgia's capital punishment legislation; and *Thompson* [v. Oklahoma, 487 U.S. 815 (1988)], *Stanford* [v. Kentucky, 492 U.S. 361 (1989)], and *Penry* [v. Lynaugh, 492 U.S. 302 (1989)] raised questions about the volitional control and the cognitive and moral development of juveniles and the mentally retarded, and whether capital punishment serves legitimate penological objectives when employed against such offenders. Social science evidence naturally is most relevant to cases in which legal and empirical issues are intertwined.

James R. Acker, *Research on the Death Penalty: A Different Agenda: The Supreme Court, Empirical Research Evidence, and Capital Punishment Decisions, 1986-1989*, 27 LAW & SOC'Y REV. 65, 70 (1993); see also Constance R. Lindman, *Sources of Judicial Distrust of Social Science Evidence: A Comparison of Social Science and Jurisprudence*, 64 IND. L.J. 755, 763 (1989) ("By accepting the validity of the Baldus study [cited in death penalty case] unconditionally, the Supreme Court protected the function of the jury in capital sentencing decisions.").

100. *Lockhart v. McCree*, 476 U.S. 162, 168-173 (1986) (evaluating social science studies that death-qualified juries violated constitutional rights of petitioner); *Witherspoon v. Illinois*, 391 U.S. 510, 517 (1968) (citing studies of juror attitudes toward capital punishment).

101. *In re Gault*, 387 U.S. 1, 21 n.26 (1967) (citing studies of juvenile delinquency and crime).

102. *Teamsters v. United States*, 431 U.S. 324, 340-41 (1977) (citing statistical studies in proving discrimination). Statistical evidence frequently is used to prove disparate impact in racial discrimination cases in the lower federal courts. See, e.g., *Spencer v. Zant*, 715 F.2d 1562, 1581 (11th Cir. 1983), *on pet. for reh'g and for reh'g en banc*, 729 F.2d 1293 (11th Cir. 1984); *Johnson v. Uncle Ben's, Inc.*, 628 F.2d 419 (5th Cir. 1980), *cert. denied*, 459 U.S. 967 (1982). Reverse discrimination claims may also be subjected to empirical social science analysis. See, e.g., *Regents of the Univ. of Cal. v. Bakke*, 438 U.S. 265 (1978).

103. *Gregg v. Georgia*, 428 U.S. 153, 184-86 (1976) (presenting statistical studies on the deterrence value of the death penalty); *Furman v. Georgia*, 408 U.S. 238, 348-53 (1972) (featuring social science data on both sides).

104. *Ashbacker Radio Corp. v. F.C.C.*, 326 U.S. 327, 332 (1945).

105. Bernard Grofman & Howard Scarrow, *Mathematics, Social Science, and the Law*, in THE USE, NONUSE, MISUSE OF APPLIED SOCIAL RESEARCH IN THE COURTS 117, 119 (Michael J. Saks & Charles H. Baron eds., 1980) (citing *Williams v. Florida*, 399 U.S. 78 (1970); *Ballew v. Georgia*,

evidence has been in death penalty cases decided by the Supreme Court in the 1980s. Acker found:

The justices cited social science research evidence in 10 of the 28 death penalty cases (35.7%) decided between 1986 and 1989. This represents far more regular use of social science than occurs in criminal decisions generally: only 13.8% of a random sample of 240 Supreme Court criminal cases decided between 1959 and 1988 cited one or more social science references.¹⁰⁶

The Court routinely receives social science information in amicus as well as main briefs without subjecting it to quality control.¹⁰⁷

The Court might use more social science information if there were more reliable research. Faigman observes that, "when finding constitutional facts, the Justices often lament the absence of social science research to aid them in their task."¹⁰⁸ For example, in *Chandler v. Florida*,¹⁰⁹ the Court complained that, despite assertions that broadcasting the proceedings would interfere with the process of administering justice, "at present no one has been able to present empirical data sufficient to establish that the mere presence of the broadcast media inherently has an adverse effect on that

435 U.S. 223 (1978)). In *Ballew*, Justice Blackmun wrote that "recent empirical data suggests that progressively smaller juries are less likely to foster effective group deliberation." 435 U.S. at 232. The Court cited twenty-five empirical social science studies on the impact of jury size on conviction in declaring the five-person criminal jury to be unconstitutional. Elizabeth F. Loftus & Edith Greene, *Twelve Angry People: The Collective Mind of the Jury*, 84 COLUM. L. REV. 1425, 1433 (1984) (book review).

106. Acker, *supra* note 99, at 69.

107. Acker argues that the Court lacks good sources of objective social science information. He writes:

[T]he justices alone should not be held accountable for social science research being misused or ignored. In the absence of institutionalized procedures for the production and evaluation of social fact information, appellate judges may be compelled to examine social science evidence independently, if they are to make use of it at all. In the samples of cases considered here, the vast majority of social science authorities cited in the Court's decisions had been located through the justices' own efforts, rather than through prior discussion in the briefs or otherwise.

James R. Acker, *Social Science in Supreme Court Criminal Cases and Briefs: The Actual and Potential Contribution of Social Scientists as Amici Curiae*, 14 LAW & HUM. BEHAV. 25, 40 (1990).

108. The Justices writing in three cases could not "find much in the social science literature either to help confirm or to cast doubt upon their judicial hunches about how juries deliberate under different decisions rules." Frederick C. Moss, *Inside the Jury by Reid Hastie, Steven D. Penrod and Nancy Pennington*, 59 NOTRE DAME L. REV. 840, 842 (1984) (book review) (citing *Burch v. Louisiana*, 441 U.S. 130 (1979); *Apodaca v. Oregon*, 406 U.S. 404 (1972); *Johnson v. Louisiana*, 406 U.S. 356 (1972)). See generally Faigman, *supra* note 7 (arguing that social science is an important, although often overlooked, component of judicial decisionmaking).

109. 449 U.S. 560 (1981).

process."¹¹⁰ Similarly, in *United States v. Leon*,¹¹¹ Justice Blackmun acknowledged that the Court had inadequate empirical data on which to create the good-faith exception to the exclusionary rule.¹¹² In *Miranda v. Arizona*,¹¹³ Justice White criticized the Court for ruling on the practical difficulties of police interrogation without consulting empirical studies of police procedure.¹¹⁴ Similarly, Justice Harlan, writing for three Justices, charged that "[j]udged by any of the standards for empirical investigation utilized in the social sciences, the factual basis for the Court's premise [about the coercive nature of interrogation] is patently inadequate."¹¹⁵

E. *The Critique of Social Science in the Supreme Court*

Many legal scholars and jurists have attacked the expanding use of social science in constitutional decision-making as illegitimate.¹¹⁶ For example, Edmond Cahn supported the *Brown* decision, but feared that "we may reach a point where we shall be entitled to equality under law only when we can show that inequality has been or would be harmful."¹¹⁷ Similarly, Judge Higginbottom expressed the fear that a reliance on statistical

110. *Id.* at 578.

111. 468 U.S. 897 (1984) (holding that the Fourth Amendment exclusionary rule does not apply to evidence obtained by police officers who act in objectively reasonable reliance upon a search warrant, even where the warrant is later found to be without probable cause).

112. Justice Blackmun wrote:

[A]ny empirical judgment about the effect of the exclusionary rule in a particular class of cases necessarily is a provisional one. . . . If it should emerge from experience that, contrary to our expectations, the good-faith exception to the exclusionary rule results in a material change in police compliance with the Fourth Amendment, we shall have to reconsider what we have undertaken here. The logic of a decision that rests on untested predictions about police conduct demands no less.

Id. at 928.

113. 384 U.S. 436 (1966).

114. Justice White noted: "In sum, for all the Court's expanding on the menacing atmosphere of police interrogation procedures, it has failed to supply any foundation for the conclusions it draws." *Id.* at 536 (White, J., dissenting). The Court in *Scott v. Illinois*, 440 U.S. 367, 374 n.5 (1979), acknowledged that "extensive empirical work has not been done" on the question of assistance of counsel it was being asked to decide.

115. *Miranda*, 384 U.S. at 533 (Harlan, J., dissenting).

116. "The Supreme Court . . . encountered severe criticism and opposition to its rulings on desegregation of public schools, the exclusionary rule, and the retroactivity of its decisions, precisely because the Court relied on empirical generalizations." David M. O'Brien, *The Seduction of the Judiciary: Social Science and the Courts*, 64 JUDICATURE 8, 19 (1980); see also Brief for Petitioner at 46-47, *Lockhart v. McCree*, 477 U.S. 816 (1985) (No. 84-1865) (charging that "[t]he psychological and sociological studies in the record are 'pseudo-scientific'").

117. Cahn asked rhetorically: "If statistics, expert opinions, graphs, and similar data are sufficient to establish that the legislative or administrative authorities have acted rationally, then is it ever possible to prove that they have acted otherwise?" Edmond N. Cahn, *Jurisprudence (American Survey)*, 30 N.Y.U. L. REV. 150, 153-54 (1955).

studies might usurp constitutional guarantees.¹¹⁸ These critics fear that social science will become an excuse for judicial meddling in political policy.¹¹⁹

Some decision makers are skeptical of social science evidence because they suspect social scientists of using their craft as a smokescreen to cloak their personal values with the label of objective science.¹²⁰ United States Senator Daniel P. Moynihan, a former sociologist, charges that "social science is rarely dispassionate. . . . [T]here is a distinct social and political bias among social scientists."¹²¹ The research cited by the Court in *Brown* has been attacked as an expression of the political values of the liberal com-

118. Judge Higginbotham wrote:

[M]ore is afoot here, and this court is uncomfortable with its implications. This concern has grown with the realization that the esoterics of econometrics and statistics which both parties have required this court to judge have a centripetal dynamic of their own. They push from the outside roles of tools for "judicial" decisions toward the core of decision making itself. Stated more concretely: the precision-like mesh of numbers tends to make fits of social problems when I intuitively doubt such fits. I remain wary of the siren call of the numerical display and hope that here the resistance was adequate; that the ultimate findings are the product of judgment, not calculation.

Vuyanch v. Republic Nat'l Bank, 505 F. Supp. 224, 394 (N.D. Tex. 1980), *modified in part*, 521 F. Supp. 656 (N.D. Tex. 1981), *vacated*, 723 F.2d 1195 (5th Cir. 1984), *cert. denied*, 469 U.S. 1073 (1984); *see also* Woolhandler, *supra* note 7, at 122-25 (surveying judicial criticisms of social science and responses thereto).

119. For example, Judge William E. Doyle argued that *Brown*, as well as the school desegregation cases that followed, was not actually based upon social data, but rather on normative principles such as "organic, moral, positive law and reason." William E. Doyle, *Can Social Science Data Be Used in Judicial Decision-Making?*, 6 J.L. & EDUC. 13, 17 (1977). Judge Doyle wrote, "Constitutional law is not made from sociology and neither does a change in sociology affect the decision." *Id.* at 18; *see also* Faigman, *supra* note 7, at 544 ("The Court often fails to distinguish between normative principles and empirical propositions, analyzing empirical research as it might arguments about the text or precedent." (citations omitted)). *See generally* ROBERT H. BORK, *THE TEMPTING OF AMERICA* (1990) (arguing that liberal judges are destroying democracy by making law under the guise of interpreting it).

120. *See, e.g.*, *Lamprecht v. F.C.C.*, 958 F.2d 382, 415 (D.C. Cir. 1992) (Mikva, C.J., dissenting) ("I have no doubt that a host of amici will submit 'a host of empirical evidence' to 'corroborate' Congress's judgment."); *see also* David L. Faigman, *To Have and Have Not: Assessing the Value of Social Science to the Law as Science and Policy*, 38 EMORY L.J. 1005, 1081 (1989) ("The legal relevance of social science research simply cannot be divorced from its scientific credibility.").

121. Daniel P. Moynihan, *Social Science and the Courts*, 54 PUB. INTEREST 12, 19 (1979). Moynihan observed that judges sometimes use social science evidence to legitimate their personal social agenda:

Taking their lead from the Supreme Court, subordinate Federal courts began to resort to social-science findings to guide all manner of decisions, especially in the still troubled field of schooling, but extending to questions of tax policies, of institutional confinement of tax policies, of institutional care, of crime and punishment, and a hitherto forbidding range of ethical issues.

Id. at 14; *see also* James S. Coleman, *Intellectuals and Public Policy*, in *THE PUBLIC AND PUBLIC POLICY: REFLECTIONS ON BI-CENTENNIAL AMERICA* (Maxwell School of Citizenship and Public Affairs ed., 1976) (noting social science research is often not politically neutral).

munity masquerading as social science. The *Brown* studies have been assailed on methodological grounds¹²² and for selectively ignoring social science data finding that no harm results from segregation.¹²³

Some commentators propose that extra-record social science evidence should be admissible to prove only legislative facts, not adjudicative ones.¹²⁴ Under this proposal, statistical analysis could be used to show undisputed facts,¹²⁵ but not to state what the law should be in a given situa-

122. A leading social scientific methodology text notes that "[i]t is only by understanding the method and seeing how it was employed in a given study that you can determine if the possible weaknesses were adequately controlled for." JEFFREY KATZER ET AL., *EVALUATING INFORMATION: A GUIDE FOR USERS OF SOCIAL SCIENCE RESEARCH* 15 (1978).

The methodology, interpretation, and validity of the social science evidence presented in *Brown* have been sources of controversy among social scientists. See, e.g., Stuart Cook, *Social Science and School Desegregation: Did We Mislead the Supreme Court?*, 5 *PERSONALITY & SOC. PSYCHOL. BULL.* 420 (1979) (concluding that the research in the 1954 Court statement was generally valid).

The "doll" study cited by the Court in *Brown v. Board of Educ. of Topeka*, 347 U.S. 483, 494 (1954), was performed by Kenneth and Mamie Clark in 1940. Kenneth B. Clark & Mamie Clark, *Racial Identification and Preference in Negro Children*, in *READINGS IN SOCIAL PSYCHOLOGY* 169-178 (Theodore M. Newcomb et. al. eds., 1947). The study showed that black children presented with identical black and white dolls thought of the white doll as "nice," and the black doll as the one "that looks bad," *id.*, and thus implied that black students had low self-esteem and thought of themselves as inferior.

Professor Ernest van den Haag labels the Clark doll study "pseudo-scientific 'proof.'" Ernest van den Haag, *Social Science Testimony in the Desegregation Cases: A Reply to Professor Kenneth Clark*, 6 *VILL. L. REV.* 69, 69 (1960). Professor van den Haag went so far as to accuse the leading social scientists presenting data to the Court of fraud, charging that, "whatever evidence appears in the body of the report . . . has been largely faked." ROSEN, *supra* note 69, at 190.

123. One legal academic wrote that social science tends "to support racial separation in the schools, at least throughout adolescence." A. James Gregor, *The Law, Social Science and School Segregation: An Assessment*, 14 *W. RES. L. REV.* 621, 623 (1963); see also Monroe Berger, *Desegregation, Law, and Social Science*, 23 *COMMENTARY* 471, 476 (1957) (arguing that the Court did not base its decision on the harmful effects of segregation but on its inherent inequality).

124. Kenneth Culp Davis defined "legislative facts" as general background information relevant to deciding questions of law and policy. Kenneth C. Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 *HARV. L. REV.* 364, 402, 407-09 (1942); accord KENNETH C. DAVIS, *ADMINISTRATIVE LAW TREATISE* § 15.1 (2d ed. 1980); Kenneth C. Davis, *Facts in Lawmaking*, 80 *COLUM. L. REV.* 931 (1980); Kenneth C. Davis, *Judicial Notice*, 55 *COLUM. L. REV.* 945 (1955). Adjudicative facts, in contrast, are relevant only to the case at hand and must have met the rules of evidence to be included in the record. Davis, *supra* at 402, 411.

Paul Rosen explains the difference between adjudicative and legislative facts similarly: There are basically two legal categories of facts within constitutional law: adjudicative facts and legislative facts. The Supreme Court had always been concerned with facts, but primarily with adjudicative facts. Adjudicative facts describe what has happened in a particular case, and they are usually established by a jury. . . . [L]egislative facts are in effect a legal synonym for sociological analysis.

ROSEN, *supra* note 69, at 53.

125. One compromise to the use of social science evidence in constitutional fact-finding is to use empirical research for "middle range" legal issues. One social science researcher writes, "Middle range legal issues fall somewhere between constitutional values too fundamental for so-

tion.¹²⁶ This limitation would, in theory, keep researchers from introducing their personal beliefs as scientific findings. However, the proposal may be impractical because there is no clear line between the two types of facts.¹²⁷

F. *The Tension Between Law and Social Science*

The Court has been criticized for failing to use social science appropriately. Two researchers describe the use of empirical social science studies in constitutional decision-making as "cautious at best and uninformed at worst; the nonuse and misuse of statistics have been more common than its use."¹²⁸ The dearth of social science research data in constitutional decision-making may be attributed partially to the different paradigmatic assumptions of legal practitioners and social scientists.

Lawyers and social scientists have dramatically different professional socialization and disparate ethical codes.¹²⁹ Social science employs an ana-

cial science to question and mundane premises not requiring scientific confirmation." Reid Hastie, *Is Attorney-Conducted Voir Dire An Effective Procedure for the Selection of Impartial Juries?*, 40 AM. U. L. REV. 703, 703 n.1 (1991) (citation omitted).

126. *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 340 (1977) (stating that statistics cannot determine what the law should be in constitutional decision-making); cf. *Spencer v. Zant*, 715 F.2d 1562, 1581 (11th Cir. 1983) ("[W]hile statistics alone usually cannot establish intentional discrimination, under certain limited circumstances they might.").

127. Professors Monahan and Walker argue that the legislative/adjudicative fact distinction is a false dichotomy because it perpetuates the legal formalist bifurcation between "fact and law." They write:

[Davis] left the classification of empirical information as fact, and merely divided the category of fact into two subcategories, one of which (legislative) reflected the Realist position that judges make law. The procedural ramifications emanating from Davis's tacit acceptance of the manner in which classical jurisprudence separated fact and law have been limited to the largely negative proposal that facts used to create a rule of law are not to be treated as other facts are treated in court. This view fails to provide clear direction regarding how courts should obtain social science data and contains no information about how courts should evaluate what they have obtained, or what effect they should give to the evaluation of other courts.

Monahan & Walker, *supra* note 4, at 485. For other critiques of the legislative/adjudicative distinction, see Thomas McGarity, *Substantive and Procedural Discretion in Administrative Resolution of Science Policy Questions: Regulating Carcinogens in EPA and OSHA*, 67 GEO. L.J. 729, 767 (1979).

128. DAVID W. BARNES & JOHN M. CONLEY, *STATISTICAL EVIDENCE IN LITIGATION* 3-4 (1986).

129. Partisanship, advocacy and the "fight theory" of justice are emblematic of the American legal system. E.g., MARVIN E. STEPHAN, *THE ADVERSARY SYSTEM: A DESCRIPTION AND DEFENSE* 3 (1984); ROSCOE POUND, *The Causes of Popular Dissatisfaction with the Administration of Justice*, 40 AM. L. REV. 729, 738-40 (1906). *But see* Ellen E. Sward, *Values, Ideology, and the Evaluation of the Adversary System*, 64 IND. L.J. 301, 302 (1989) (arguing that there are modern trends away from adversarial ideologies in law). The contrasts are manifest: social scientists are inductive while lawyers are deductive; social science is empirical while law is doctrinal; social scientists focus upon patterns of behavior and long-term probabilities while lawyers care about winning their individual cases, not long-term patterns. *See generally* William Simon, *The Ideol-*

lytical and empirical approach to research problems. The goals of social research are

- 1) [to gain] familiarity with phenomenon or to achieve new insight into it;
- 2) to portray accurately the characteristics of particular phenomena;
- 3) to determine the frequency with which something occurs or is associated with something else; and
- 4) to test a hypothesis of a causal relationship between variables.¹³⁰

In contrast, lawyers subscribe to the fight theory, which holds that the primary goal is to organize facts in the manner most beneficial to the client.¹³¹

Professor William Simon describes the lawyer's value system as an "Ideology of Advocacy."¹³² He explains:

The purpose of the Ideology of Advocacy is to rationalize the most salient aspect of the lawyer's peculiar ethical orientation: his explicit refusal to be bound by personal and social norms which he considers binding on others. . . . Doctrinal writings on legal ethics and judicial procedure often takes the form of a debate between the partisans of a "battle" model and the partisans of a "truth" model of adjudication.¹³³

Michael Saks argues that social scientists experience a "role conflict" when they file amicus briefs because of the difficulty of reconciling the two normative codes.¹³⁴ He differentiates between a "guild brief," described as

ogy of Advocacy, 1978 Wis. L. Rev. 29, 75 (arguing that the neutrality of the lawyer is rationalized based on long-term results, but, in the end, ideology is outweighed by function). Social scientists are socialized in graduate schools to conduct research according to the norms of scientific research—objectivity, verifiability and value-neutrality. Indeed, lawyers are socialized—and ethically required—to be zealous advocates. ROBERT GRANFIELD, *THE MAKING OF ELITE LAWYERS: VISIONS OF LAW AT HARVARD AND BEYOND* 460 (1992); see also David Luban, *Calm the Hearse Horse: A Philosophical Research Program for Legal Ethics*, 40 Md. L. Rev. 451, 460 (1981) ("[A] lawyer engages in the practice because not to do so would put him at a disadvantage relative to other lawyers who do.").

130. CLAIRE SELLITZ ET AL., *RESEARCH METHODS IN SOCIAL RELATIONS* 50 (1965).

131. JEROME FRANK, *COURTS ON TRIAL* 80 (1949); accord Simon, *supra* note 129, at 30; David Luban, *The Adversary System Excuse*, in *THE GOOD LAWYER* 83 (David Luban ed. 1983).

132. Lawyers are socialized to adhere to the principle of neutrality from his client's ends and partisanship through legal education, legal professional ethics, and doctrinal writings. Simon, *supra* note 129, at 31-32. Professor Simon argues that "[t]he principles of neutrality and partisanship describe the basic conduct and attitudes of professional advocacy. The two principles are often combined in the terms 'adversary advocacy' or 'partisan advocacy.'" *Id.* at 37.

133. *Id.* at 30-31.

134. Saks writes:

The advocate's duty is to advance the most persuasive evidence and arguments on behalf of a client that can be done without perpetrating a fraud on the court. Presenting "biased" arguments and evidence in this endeavor not only is permitted, it generally is ethically required. That is part of what it means to be an advocate. By contrast, the scientist's responsibility normally is to share with students, colleagues, and the public

a partisan amicus brief that quotes scientific findings in the interests of a party, and a "science translation brief," which is a disinterested summation of research in the field.¹³⁵ Ironically, the science translation briefs are more controversial because neutrality is so difficult to achieve.¹³⁶ Less criticism has been directed toward the targets of this Article, those who selectively distort social science findings for clearly partisan purposes. In the following section, we use the guild briefs submitted by the petitioners in three recent Supreme Court punitive damages cases to illustrate this phenomenon.

III. JUNK SOCIAL SCIENCE: A CASE STUDY OF PUNITIVE DAMAGES

A. *Punitive Damages Amici Before the Court*

Punitive damages is the Beirut of American legal remedies. The schism over punitive damages lines up both for and against the contention that the remedy is creating a crisis for American business.¹³⁷ The "war" over punitive damages pits plaintiffs' lawyers against the defense bar and consumer advocates against corporatists.¹³⁸

(including courts) a complete, balanced, and accurate portrayal of the relevant knowledge.

Saks, *supra* note 13, at 237-38.

135. Saks notes that it has been the American Psychological Association's "effort in the area of public interest, science translation briefs, that has drawn the most substantive criticism. Guild briefs, which assert conclusions about the practice or science of psychology, are at least as likely to be imperfect reflections of the knowledge base, yet these have largely escaped criticism." Saks, *supra* note 13, at 235.

136. *Id.*

137. Reforming punitive damages in products liability remains a top legislative priority for much of the corporate community. Stacy Gordon, *Work Comp Problems, Health Care Costs Worry Risk Managers*, BUS. INS., March 30, 1992, at 1 (reporting that "[f]or the second consecutive year, caps on punitive damages and/or non-economic damages was the single most important issue to the corporate risk managers"). A survey of 500 chief executive officers of U.S. corporations uncovered a widespread desire for tort reform because "product-liability issues have become a pervasive force in many corporate boardrooms, distorting planning, sapping top management's time and consuming company resources." Magaly Olivero, *What You Should Know About the Product-Liability Crisis: Managers' Shoptalk*, WORKING WOMAN, Nov. 1988, at 31-32.

138. Numerous business interests have combined in every state to limit the remedy of punitive damages. For example, the Product Liability Coordinating Committee (PLCC) was formed in 1987 to coordinate the activities of eight organizations: The American Tort Reform Association (ATRA), the Product Liability Alliance, the Business Roundtable, the United States Chamber of Commerce, the National Association of Manufacturers, the Chemical Manufacturers Association, the Coalition for Uniform Product Liability Laws, and the National Federation of Independent Businesses. ATRA-sponsored state groups have introduced comprehensive tort reform legislation scaling back punitive damages in a number of states. Michael Bradfor, *Tort Reform Proponents See Boost From Bush Plan*, BUS. INS., February 17, 1992, at 2. ("ATRA will be heading back to 20 state legislatures in an effort to protect tort reform gains in recent years or fight bills that would expand liability.")

The abuses of social science data in the amici briefs of three recent Supreme Court punitive damages cases¹³⁹ illustrate how zealous advocates can create misperceptions. The amici on both sides of the punitive damages debate use social science data to show that punitive damages are either a "crisis created by runaway jury awards or [a] mirage manufactured by a well-heeled corporate public relations campaign."¹⁴⁰ Competing social science claims are central to the war over punitive damages fought in amici briefs. In the words of one commentator, "With much slinging of studies and figures, both sides have alternatively proclaimed that punitive awards either are skyrocketing or are being held in check."¹⁴¹ In this section, we show how amici have misused the available social science data on punitive damages through misleading and out-of-context depictions. The discussion focuses on the most recent Supreme Court ruling on punitive damages, *TXO Production Corp. v. Alliance Resources Corp.*,¹⁴² although the slanted use of social statistics is quite similar to the techniques employed by amici in *Browning-Ferris Industries of Vermont, Inc. v. Kelco Disposal, Inc.*,¹⁴³ and

In *TXO Production Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993), amici representing

the nation's business community—from Allstate Insurance Co. to the Monsanto Co . . . argue that [punitive damages] . . . continue to run wild and there is a need for specific standards. Their opponents, including the Center for Auto Safety and the Consumer Federation of America counter that most states have moved to modify their statute. . . . [I]f more reform is needed . . . [,] it should be left to the political process.

Marcia Coyle, *Punitives at Issue, Yet Again, Justices Examine Either "Mirage" or "Crisis"*, NAT'L L.J., March 29, 1993, at 1. The article reports the sharply divided amici teams in *TXO*. Petitioners "drew amicus backup from longtime punitives opponents Theodore R. Olson . . . Victor E. Schwartz, & former Solicitor General Erwin Griswold." *Id.* at 38. Respondents have "attracted formidable support, including Professor Rustad, Arthur H. Bryant of Trial Lawyers for Public Justice, Leslie A. Brueckner and David G. Vladek of Public Citizen Litigation Group and 27 state attorneys general." *Id.*

139. The constitutionality of punitive damages was first considered in 1988. *Bankers Life & Casualty Co. v. Crenshaw*, 486 U.S. 71 (1988). The Court refused to review an insurer's claim that a punitive damages award violated the Due Process Clause of the Fourteenth Amendment, ruling that the defendant did not properly raise those claims in the lower court. *Id.* at 76-80. However, several of the Justices indicated that they would revisit the due process issue if a proper case arose. Justice O'Connor, joined by Justice Scalia, invited a substantive due process challenge to punitive damages, stating: "In my view, because of the punitive character of such awards, there is reason to think that this may violate the due process clause. . . . This due process question, serious as it is, should not be decided today." *Id.* at 87-88.

140. Coyle, *supra* note 138, at 1.

141. Debra C. Moss, *The Punitive Thunderbolt: How Much Should Courts Curb Extraordinary Awards?*, A.B.A. J. May 1993, at 88.

142. 113 S. Ct. 2711 (1993).

143. 492 U.S. 257 (1989). Each side in *Browning-Ferris* presented the factual evidence as advocates for one side and not as science translation experts. For example, the petitioner in *Browning-Ferris* argued: "Multi-million dollar awards of punitive damages, while essentially unprecedented 20 years ago and still a rarity a decade ago, have today become commonplace." Petition for Writ of Certiorari at 20, *Browning-Ferris*, 488 U.S. 980 (1989) (No. 88-556) (citations

Pacific Mutual Life Insurance Co v. Haslip.¹⁴⁴ "Friends of the Court" oper-

omitted). The petitioner cited "[a] study commissioned by the Institute for Civil Justice of the RAND Corporation, law reports and even the daily newspaper as evidence of the proliferation of multi-million dollar punitive damage awards. *Id.* at 11, n.20. The petitioner concluded that "something is seriously wrong with the system of awarding punitive damages." *Id.* at 10.

The Petitioner's Brief argued further that "it has become common for punitive damages awards of millions of dollars—and in some instances tens of millions of dollars or more—to be returned by juries and upheld by courts." *Id.* The Petitioner also cited the work of Peter Huber to support its hypothesis that punitive damages "simply reflect the size of the defendant's pocket-book." *Id.* at 11 (citing PETER HUBER, *LIABILITY: THE LEGAL REVOLUTION AND THE CONSEQUENCES* 119 (1988)).

The Petitioner retorted that "punitive damages have gone wild but it is the tip of an iceberg with which the American legal system is increasingly colliding." Reply Brief for the Petitioners, at 10, *Browning-Ferris* (No. 88-556). The Red Cross amici brief supporting the petitioner in *Browning-Ferris* argued that "[t]he frequency and size of punitive damage awards have exploded in recent years." Brief of the American National Red Cross, et al. as Amici Curiae in Support of Petitioners, at 16, *Browning-Ferris* (No. 88-556). The brief employed anecdotal evidence as well as extensive citations to the RAND study, see *infra* note 167, of a quarter century of punitive damage verdicts in Cook County, Illinois and San Francisco County, California. The brief argues that there is a "'drastic,' 'mind-boggling,' 'explosive,' increase in the frequency and severity of awards." Brief of the American National Red Cross, et al. as Amici Curiae in Support of Petitioners, at 20, *Browning-Ferris* (No. 88-556).

This picture of punitive damage awards veering out of control was rebutted by a sharply different view of the social science empirical research presented by the respondent. The Respondent's Brief cited a study noting "empirical evidence suggesting that any increase in the size or frequency of punitive damages has been limited to a few geographical areas." Brief for Respondents, On Writ of Certiorari at 27, *Browning-Ferris* (No. 88-556). The Brief also cited an American Bar Association Special Committee Report. "[I]n the two jurisdictions it studied, one-half of the punitive damages awards below \$50,000 were reduced through judicial review or settlement, as were 80% of those above \$50,000; indeed, 'defendants paid *in toto* only 50% of the punitive damages awarded at trial.'" *Id.* at 28 (citing REPORT OF THE SPECIAL COMMITTEE ON PUNITIVE DAMAGES, SECTION OF LITIGATION, AMERICAN BAR ASSOCIATION, *PUNITIVE DAMAGES: A CONSTRUCTIVE EXAMINATION* (1986)).

The Respondents' amici also relied upon empirical evidence in repudiating the claim that punitive damages have created a crisis requiring the Court's intervention. The Insurance Consumer Action Network Brief in Support of the Appellees argued that "[p]unitive damage remedies have been sparingly applied." Brief of Insurance Consumer Network As Amici Curiae in Support of Appellees, at 12, *Browning-Ferris* (No. 88-556).

144. 499 U.S. 1 (1991). The petitioner and respondent's amici made extensive use of empirical evidence in the *Haslip* briefs as well. The first volley of selected empirical studies was in Appendix A to *Pacific Mutual's* Appellant's Brief. The appendix supported the argument that punitive awards are increasing in frequency and amounts. Petitioner's Brief on Writ of Certiorari to the Supreme Court of Alabama, at app. a, *Haslip*, 553 So. 2d 537 (Ala. 1990) (No. 87-482).

The respondent, however, argued that the actual impact of punitive damages "cast doubt on the wisdom of constitutionalizing procedural requirements for punitive damages awards." Respondents' Brief in Opposition On Petition for Writ of Certiorari to the Supreme Court of Alabama, at 17-21, *Haslip* (No. 87-482). The respondents cited studies, GENERAL ACCOUNTING OFFICE, *PRODUCT LIABILITY VERDICTS & CASE RESOLUTION IN FIVE STATES* (1989); REPORT OF THE SPECIAL COMMITTEE ON PUNITIVE DAMAGES, *supra* note 143, that questioned "the factual assumption that runaway juries are awarding punitive damages bearing no reasonable or predictable relationships to harm inflicted." Respondent's Brief in Opposition On Petition For Writ of Certiorari to the Supreme Court of Alabama, at 17-18, *Haslip* (No. 87-482). The respondents

ate as "Lobbyists of the Court" in all of these cases.

Ironically, the policy agenda of many of the amici writing in support of TXO led these organizations to use social science research in a way that undermined TXO's case. TXO's contention was that the uniqueness of the ten million dollar punitive damages award demonstrated that an injustice had been done. The amici argued, inaccurately, that empirical social science studies prove that the award was just another illustration of the crisis caused by frequent runaway punitive damages.¹⁴⁵

B. Amici Participation in the Punitive Damages Trilogy

The first case in the punitive damages trilogy was *Browning-Ferris Industries of Vermont, Inc. v. Kelco Disposal, Inc.*¹⁴⁶ There, the Court

contended that "[t]his body of information suggests that punitive damages pose no significant social or legal problem." *Id.* at 18.

The petitioner's reply brief, however, noted the "frequency of remittiturs, after which the awards are still staggering," Petitioner's Reply Brief On Petition for Writ of Certiorari to the Supreme Court of Alabama, at 10, *Haslip* (No. 87-482), and argued that juries were not being sufficiently restrained by existing legal protections.

145. Petitioner's Brief, at 15, *TXO Production Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993) (No. 92-479). TXO's search failed to uncover a single case of a punitive damage award upheld in West Virginia that was greater than \$500,000, an amount less than 1/20 of their award. *Id.* at 17.

The amici briefs in support of the petitioner appear to contradict the petitioner's claim that punitive damages are rare. The petitioner's brief quoted Stephen Daniels and Joanne Martin as finding that "the median ratio of punitive damages to other damages ranges from one to four." *Id.* at 31. When we read the petitioner's amici briefs, however, we found that many of them called on the Supreme Court to overturn the punitive damage award in *TXO* because this was just one example of a remedy veering out of control. *See, e.g.*, Amicus Curiae Brief of Media Organizations in Support of Petitioner, *TXO* (No. 92-479) (noting a rise in libel punitive damage awards); Amicus Curiae Brief for the Center for Claims Resolution in Support of Petitioner, *TXO* (No. 92-479) (observing an epidemic of punitive awards); Amicus Curiae Brief of the American Automobile Manufacturers Association in Support of Petitioner, *TXO* (No. 92-479) (arguing that punitive damages are out of control).

146. 492 U.S. 257 (1989). In the 1989 term, the Supreme Court decided that the Excessive Fines Clause of the Eighth Amendment did not limit punitive damage awards, *id.* at 260, but again declined to pass on the question of whether awards of punitive damages were reviewable under the Due Process Clause. *Id.* at 260 n.1. The Court in *Browning-Ferris* upheld a six million dollar punitive damages award against *Browning-Ferris Industries, Inc.* (BFI), which had attempted to monopolize the industrial-waste disposal business in Burlington, Vermont, through predatory pricing. When a former employee, Joseph Kelley, founded Kelco and gained 43% of Burlington's waste disposal business in only nine years, a top BFI official ordered his subordinates to "[p]ut [Kelley] out of business. Do whatever it takes. Squish him like a bug." *Id.* at 260. In attempting to destroy Kelco, BFI violated federal antitrust and Vermont state law. *Id.* at 261.

The jury awarded Kelco \$51,146 in compensatory damages and six million dollars in punitive damages. *Id.* The Second Circuit affirmed the verdict, noting that punitive damages were justified because BFI had "wilfully and deliberately attempted to drive Kelco out of the market." *Id.* at 262. In its petition for a writ of certiorari, BFI asked the Court to consider whether this punitive damages award violated the Eighth Amendment's prohibition against excessive fines. The Excessive Fines Clause had never been applied in civil lawsuits between private parties, but

ruled that the Excessive Fines Clause of the Eighth Amendment¹⁴⁷ did not limit punitive damage awards. Still, the Court declined to pass on the question of whether awards of punitive damages were reviewable under the Due Process Clause.¹⁴⁸ Later, the Court conducted a procedural due process examination of punitive awards in the 1991 *Haslip* case.¹⁴⁹ Finally, in

BFI presented a novel argument. BFI asserted that the clause “derives from limitations in English law on monetary penalties exacted in private civil cases to punish and deter misconduct.” *Id.* at 268.

BFI’s position was based on the fact that the Magna Carta prohibited excessive fines imposed by the King. The money from these amercements went into the King’s treasury, giving him an incentive to assess unfairly large fines. *Id.* at 269-70. BFI argued that, since punitive damage verdicts are fines designed to punish bad behavior, they are functionally equivalent to amercements. *Id.* at 268. It is irrelevant, the corporation asserted, that the large fine was levied by a civil jury rather than by the state and went to the wronged individual rather than to the government. *Id.* at 259.

The Supreme Court rejected BFI’s contentions, holding, “on the basis of the history and purpose of the Eighth Amendment, that its Excessive Fines Clause does not apply to awards of punitive damages in cases between private parties.” *Id.* at 260. Justice Blackmun, writing for the majority, found the meaning of “fine” as used in the Eighth Amendment to be “a payment to a sovereign as punishment for some offense” and therefore not applicable to lawsuits between private parties. *Id.* at 265.

A second argument made by BFI was that the Due Process Clause of the Fourteenth Amendment limits the jury’s discretion in awarding punitive damage awards. The question of “jury discretion to award punitive damages in the absence of any express statutory limit,” the Court stated, was an inquiry that “must await another day.” *Id.* at 277.

147. The Eighth Amendment provides: “Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.” U.S. CONST. amend. VIII. See generally Lydon F. Bittle, *Punitive Damages and the Eighth Amendment: An Analytical Framework for Determining Excessiveness*, 75 CAL. L. REV. 1433, 1470 (1987) (arguing that the Eighth Amendment’s excessive fines clause should be held to limit state imposition of punitive damages in civil actions); Donald S. Yaralo, Comment, *Browning-Ferris Industries v. Kelco Disposal, Inc.: The Excessive Fines Clause and Punitive Damages*, 40 CASE W. RES. L. REV. 569, 580 (1990) (considering punitive damages under a constitutional analytical approach).

148. In *Browning-Ferris*, several of the Justices expressed concern about the indeterminate nature of punitive damages. Justice Brennan, joined by Justice Marshall, stated that the door was left open “for a holding that the due process clause constrains the imposition of punitive damages in civil cases brought by private parties.” *Browning-Ferris*, 492 U.S. at 280 (Brennan, J. concurring). Justice Brennan stated further that the jury instructions were so vague as to be “scarcely better than no guidance at all. . . . The point is . . . that the instruction reveals a deeper flaw: the fact that punitive damages are imposed by juries guided by little more than an admonition to do what they think is best.” *Id.* at 281.

Justice O’Connor contended that punitive damages have an adverse effect on the competitive posture of the United States. *Id.* at 282 (O’Connor, J., dissenting). Justices O’Connor and Stevens, in partial dissent, observed that “[a]wards of punitive damages are skyrocketing.” *Id.* at 282 (O’Connor, J., dissenting).

149. *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1 (1991). The Court again rejected the business community’s invitation to restructure punitive damages. In *Haslip*, an insurance agent secretly pocketed his clients’ premiums rather than sending them to Pacific Mutual Life Insurance Co., and he concealed from his “customers” the fact that his dishonesty had caused their policies to lapse. *Id.* at 1036. Cleopatra Haslip, the principal plaintiff, learned of the agent’s malfeasance only after her hospital bill was rejected by the insurance company. *Id.* at 1036-37. After unsuccess-

TXO,¹⁵⁰ the Court determined that a punitive damages award of \$10 million did not violate a corporate defendant's procedural and substantive due process rights, even though there were only \$19,000 in actual damages.¹⁵¹

cessfully attempting to resolve the matter, she and her co-employees sued both the dishonest agent and Pacific Mutual. *Id.* at 1036. The jury returned a general verdict of \$1,040,000 for Haslip, including a compensatory damages award of \$200,000 and out-of-pocket expenditures of less than \$4,000. *Id.* at 1037.

An Alabama jury found that, since the insurance agent "was acting as an employee of Pacific Mutual when he defrauded [the] respondents," the company was liable. *Id.* at 1040. The Court affirmed the punitive damage award on a 7-1 vote. *Id.* at 1036. Justice Blackmun, writing for the majority, rejected Pacific Mutual's argument that as a fellow victim it should not be assessed punitive damages. He argued, "Imposing exemplary damages on the corporation when its agent commits intentional fraud creates a strong incentive for vigilance by those in a position 'to guard substantially against the evil to be prevented.'" *Id.* at 1041 (quoting Louis Pizitz Dry Goods Co. v. Yeldell, 274 U.S. 112, 116 (1927)).

The Court examined Alabama's method of assessing punitive damages and determined that its scheme of awarding punitive damages satisfied due process. *Id.* at 1043. The Court stated that, "due process imposes some limits on jury awards of punitive damages, and it is not disputed that a jury award may not be upheld if it was the product of bias and passion, or if it was reached in proceedings lacking the basic elements of fundamental fairness." *Id.* at 1038 (quoting *Browning-Ferris*, 492 U.S. at 276). The Court determined that the jury instructions, trial court, and appellate review ensured against due process violations. *Id.* An award of punitive damages must not be "grossly out of proportion to the severity of the offense and must have some understandable relationship to compensatory damages," as well as reflect "objective criteria." *Id.* at 1045-46. The Court tacitly recognized empirical studies in its recognition that "unlimited jury discretion—or unlimited judicial discretion for that matter—in the fixing of punitive damages may invite extreme results that jar one's constitutional sensibilities." *Id.* at 1043. In *Haslip*, Justice Blackmun observed that a punitive award of four times compensatory damages was "close to the [constitutional] line." *Id.* at 1046. "Due process may not require a detailed roadmap, but it certainly requires directions of some sort." *Id.* at 1059 (O'Connor, J., dissenting).

150. *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993). In *TXO*, the punitive damages award arose out of the defendant's oil and gas exploration activities in West Virginia. *TXO*, a Texas oil and gas production company, acquired Alliance's lease interest in a tract of land in McDowell County to explore for oil. *Id.* at 2715. *TXO* filed a quitclaim deed attempting to gain rights in the disputed land. *Id.* *TXO*'s ostensible reason for filing a declaratory judgment regarding the tract was to clear title. *Id.* at 2715 n.5. Alliance counterclaimed for slander of title arguing that *TXO*'s declaratory judgment action was actually a ploy to steal royalties. *Id.* at 2716.

The West Virginia Supreme Court found *TXO*'s declaratory judgment was an attempt to use the purported cloud on the title as leverage for increasing its profits from oil and gas rights. *TXO Production Corp. v. Alliance Resources Corp.*, 419 S.E.2d 870, 877 (W. Va. 1992), *aff'd*, 113 S. Ct. 2711 (1993). The West Virginia Supreme Court found that "TXO knowingly and intentionally brought a frivolous declaratory judgment action" against the appellees to clear title. *Id.* at 875. The West Virginia court found that *TXO*'s conduct was sufficiently malicious to warrant a ten million dollar punitive damage award. *Id.* The West Virginia court found that *TXO*'s actions showed "that this was not an isolated incident on *TXO*'s part—a mere excess of zeal by poorly supervised, low-level employees—but rather part of a pattern and practice by *TXO* to defraud and coerce those in positions of unequal bargaining power *vis-a-vis* *TXO*'s superior legal firepower." *Id.* at 881 (italics in original).

151. The court rejected *TXO*'s argument that its due process rights were violated and upheld the award. The West Virginia court found that the award satisfied "broad, general guidelines concerning whether punitive damages bear a reasonable relationship to actual damages." *Id.* at

In the lower court decision, West Virginia Supreme Court Justice Richard Neeley performed a small social science study to determine which punitive damage awards were likely to be upheld on appeal.¹⁵² Justice Neeley focused on the relationship between compensatory and punitive damages. He found that punitive awards with high ratios were correlated with intentional, deliberate and malicious wrongdoing.¹⁵³ "Really mean" defendants, who set out to deliberately injure plaintiffs, received the greatest punishment. Merely "stupid" defendants received a more sympathetic hearing from appellate courts because their actions were careless, rather than mean-spirited.¹⁵⁴ Justice Neeley reasoned that TXO's actions were mean-spirited and, therefore, the large punitive award was justified.¹⁵⁵

Several organizations filed amicus briefs on both sides of these three cases. In *Browning-Ferris*, the Court received sixteen briefs from organizations¹⁵⁶ supporting the petitioner and six in support of

887. The court affirmed the ten million dollar punitive damages award, rejecting the defendant's contention that a punitive award 526 times the size of the actual damages violated due process. *Id.* at 890. The United States Supreme Court, in a six to three opinion, affirmed the West Virginia Supreme Court's decision. *TXO*, 113 S. Ct. 2711 (1993).

152. *TXO*, 419 S.E.2d at 887.

153. *Id.* at 888 n.11.

154. *Id.* at 888.

155. TXO maliciously plotted "to use the [quitclaim] as leverage for increasing its interest in the oil and gas rights." *Id.* at 887. Under West Virginia law, "[w]here the defendant is not just stupid, but really mean . . . even punitive damages 500 times greater than compensatory damages are not *per se* unconstitutional." *Id.* at 889.

156. Numerous business, trade association, insurance and civic organizations submitted amicus curiae briefs for the petitioner in *Browning-Ferris Indus., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257 (1989): Amicus Curiae Brief of the Motor Vehicle Manufacturers Association of the United States, Inc., Product Liability Advisory Council, Inc., and National Association of Manufacturers of the United States; Amicus Curiae Brief of Alliance of American Insurers, the American Council of Life Insurance, The American Insurance Association, the Health Insurance Association of America, and the National Association of Independent Insurers; Amicus Curiae Brief of the Chamber of Commerce of the United States, the National Association of Manufacturers, the Chemical Manufacturers Association and the American Corporate Counsel Association; Amicus Curiae Brief of the National Association of Mutual Insurance Companies; Amicus Curiae Brief of the Defense Research Institute; Amicus Curiae Brief of the City of New York; Amicus Curiae Brief of the American National Red Cross, the American Tort Reform Association, the Association for California Tort Reform, the Council of Community Blood Centers, General Electric Company, the Merchandising Group of Sears, Roebuck and Company and the Texas Civil Justice League; Amicus Curiae Brief of Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, and Price Waterhouse; Amicus Curiae Brief of Merrill Lynch, Pierce, Fenner & Smith Incorporated, Prudential-Bache Securities Inc., and Shearson Lehman Hutton Inc.; Amicus Curiae Brief of the Goodyear Tire & Rubber Company; Amicus Curiae Brief of Metromedia, Inc.; Amicus Curiae Brief of the Chamber of Commerce of the United States, the National Association of Manufacturers, the Motor Vehicle Manufacturers Association of the United States, Inc., the Business Roundtable, American Corporate Counsel Association, Risk and Insurance Management Society, Inc., Product Liability Advisory Council, Inc., and the Product Liability Alliance; Amicus Curiae Brief of Bethlehem Steel Corporation and Atlantic Legal Foundation; Amicus Curiae Brief of Golden Rule Insurance Company, Allstate Insurance

respondent.¹⁵⁷ The petitioners and their amici used social science evidence to argue that the punitive damages award was excessive under the Eighth Amendment.¹⁵⁸ In *Haslip*, twenty-five amici briefs supported the petitioner¹⁵⁹ and seven briefs supported the respondent.¹⁶⁰ The petitioner and

Company, and Fireman's Fund Insurance Company; Amicus Curiae Brief of the Pharmaceutical Manufacturers Association and the American Medical Association; Amicus Curiae Brief of Navistar International; and Amicus Curiae Brief of Mutual Insurance Companies.

157. Consumer groups and trial lawyers submitted amicus curiae briefs for the respondent in *Browning-Ferris*: Amicus Curiae Brief of National Insurance Consumer Action Network; Amicus Curiae Brief of California Trial Lawyers Association; Amicus Curiae Brief of Association of Trial Lawyers of America; Amicus Curiae Brief of Consumers Union of U.S., Consumer Federation of America, National Consumers League, National Women's Health Network, Center for Science in the Public Interest, U.S. Public Interest Research Group, Trial Lawyers for Public Justice, and Women's Equity Action League; and Amicus Curiae Brief for Martha Hoffman Sanders.

158. *E.g.*, Amicus Curiae Brief for the American National Red Cross, the American Tort Reform Association, the Association for California Tort Reform, the Council of Community Blood Centers, General Electric Company, the Merchandising Group of Sears, Roebuck and Company and the Texas Civil Justice League in Support of Petitioner, *Browning-Ferris* (No. 88-556); *cf.* Petition for Writ of Certiorari at 30, *Browning-Ferris* (No. 88-556) ("[S]omething is seriously wrong with the system for awarding punitive damages. With increasing frequency in recent years, juries have handed huge windfalls to plaintiffs.").

159. As in *Browning-Ferris*, numerous business, trade association, insurance, civic organizations and religious organizations submitted amicus curiae briefs for the petitioner in *Pacific Mut. Ins. Co. v. Haslip*, 499 U.S. 1 (1991): Amicus Curiae Brief of the American Council of Life Insurance and Health Insurance Association of America; Amicus Curiae Brief of the Chamber of Commerce of the United States, The National Association of Manufacturers, the Chemical Manufacturers Association and the American Corporate Counsel Association; Amicus Curiae Brief of the National Association of Mutual Insurance Companies; Amicus Curiae Brief of The Defense Research Institute; Amicus Curiae Brief of the Alabama Defense Lawyers Association; Amicus Curiae Brief of the Pharmaceutical Manufacturers Association and the American Medical Association; Amicus Curiae Brief of the City of New York; Amicus Curiae Brief of Mid-America Legal Foundation; Amicus Curiae Brief of Hospital Authority of Gwinnett County Georgia; Amicus Curiae Brief of Business Roundtable and the Product Liability Advisory Council, Inc.; Amicus Curiae Brief of the Association for California Tort Reform Association; Amicus Curiae Brief of the Equal Employment Advisory Council; Amicus Curiae Brief of Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, and Price Waterhouse; Amicus Curiae Brief of Church of Scientology of California; Amicus Curiae Brief of Bethlehem Steel Corporation and Hercules Incorporated; Amicus Curiae Brief of the Washington Legal Foundation, U.S. Representatives Joe Barton, Dan Burton, Hamilton Fish, Jr., Paul B. Henry, Henry J. Hyde, and Thomas E. Petri, and The Allied Educational Foundation; Amicus Curiae Brief of Alliance of American Insurers, The American Council of Life Insurance, The American Insurance Association, The Health Insurance Association of America, and the National Association of Independent Insurers; Amicus Curiae Brief of Claims Resolution; Amicus Curiae Brief of The National Council of Churches of Christ in the U.S.A., The National Association of Evangelicals, The Catholic League for Religious and Civil Rights, The Christian Legal Society, The Coalition for Freedom, The Council on Religious Freedom, and the Unitarian Universalist Association; Amicus Curiae Brief of CBS Inc., Capital Cities/ABC, Inc., Dow Jones & Company, Inc., The Hearst Corporation, Knight-Ridder, Inc., National Broadcasting Company, Inc., Reuters Information Services Inc., The Time Inc. Magazine Company, Tribune Company, United Press International, Inc., The Washington Post, Westinghouse Broadcasting Company, The American Society of Newspaper Editors, Association of American Publishers, Magazine Publishers of

its amici argued that an “explosion of punitive damages claims has (i) rapidly escalated both the number and the size of these awards, [and] (ii) expanded the types of actions in which they are awarded, most notably into contract cases.”¹⁶¹

In *TXO*, amici submitted fifteen briefs supporting the petitioner¹⁶² and ten supporting the respondent.¹⁶³ Five of the six empirical studies of the

America, Inc., National Association of Publishers, Magazine Publishers of America, Inc., National Association of Broadcasters, Radio-Television News Directors Association, Reporters Committee for Freedom of the Press, and The Society of Professional Journalists; Amicus Curiae Brief of the American Institute of Architects, The American Tort Reform Association, The Council of Community Blood Centers, General Electric Company, The Minnesota Civil Justice Coalition, The National School Boards Association, and the Texas Civil Justice League; Amicus Curiae Brief of Wholesaler-Distributors, N.M.T.B.A.—The Association for Manufacturing Technology, The Risk and Insurance Management Society and The Product Liability Alliance; Amicus Curiae Brief of Liability Insurance Underwriters; and Amicus Curiae Brief of Southeastern Legal Foundation.

160. Consumer groups, state attorneys general and trial lawyers submitted amicus curiae briefs for the respondent in *Haslip*: Amicus Curiae Brief of California Trial Lawyers Association; Amicus Curiae Brief of Trial Lawyers for Public Justice; Amicus Curiae Brief of Consumers Union of U.S.; Amicus Curiae Brief of Association of Trial Lawyers of America; Amicus Curiae Brief of the Attorneys General of Alabama, California and Texas; Amicus Curiae Brief of Alabama Trial Lawyers Association; and Amicus Curiae Brief of National Insurance Consumer Organization.

161. Petition for Writ of Certiorari at 11, *Haslip*, (No. 89-1279).

162. As in *Browning-Ferris* and *Haslip*, numerous business, trade association, insurance, civic organizations and religious organizations submitted amicus curiae briefs for the petitioner in *TXO*: Amicus Curiae Brief For the American Council of Life Insurance, The Alliance of American Insurers, The Association of California Life Insurance Companies, The Health Insurance Association of America, and the National Association of Independent Insurers; Amicus Curiae Brief For CBS Inc., Capital Cities/ABC, Inc., Dow Jones & Company, Inc., The Hearst Corporation, Knight-Ridder, Inc., National Broadcasting Co., Philadelphia Newspapers, Inc., Reuters America, Inc., Time Inc., Tribune Company, Turner Broadcasting System, Inc., The American Society of Newspaper Editors, Association of American Publishers, Magazine Publishers of America, Inc., National Association of Broadcasters, Newsletter Publishers Association, Inc., Newspaper Association of American, Radio-Television News Directors Association, The Reporters Committee For Freedom of the Press, and Society of Professional Journalists; Amicus Curiae Brief of Continental Casualty Company; Amicus Curiae Brief of Arthur Anderson & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick, and Price Waterhouse; Amicus Curiae Brief for the Center for Claims Resolution; Amicus Curiae Brief of Product Liability Advisory Council, Inc.; Amicus Curiae Brief of The Securities Industry Association, Inc.; Amicus Curiae Brief Church of Scientology of California; Amicus Curiae Brief of the Business Council of Alabama; Amicus Curiae Brief of the Washington Legal Foundation; Amicus Curiae Brief of Owens-Illinois, Inc. and Texaco Inc.; Amicus Curiae Brief for the American Tort Reform Association, The Association for California Tort Reform, The Alabama Civil Justice Reform Committee, The Minnesota Civil Justice Coalition and The Texas Civil Justice League; Amicus Curiae Brief of the Equal Employment Advisory Council; Amicus Curiae Brief for Phillips Petroleum Co., United Services Automobile Association and Allstate Insurance Co.; and Amicus Curiae Brief of the American Automobile Manufacturers Association, American Insurance Association, American Petroleum Institute, Business Roundtable, Chamber of Commerce of the United States, Chemical Manufacturers Association, and National Association of Manufacturers.

163. Consumer groups, state attorneys general and trial lawyers submitted the following Amicus Curiae briefs for the respondent in *TXO*: Amicus Curiae Brief for Center for Auto Safety; Amicus Curiae Brief of the Alabama Trial Lawyers Association; Amicus Curiae Brief of Univer-

overall pattern of punitive damage awards in the United States were cited by amici. Both sides in *TXO* quoted the same research in support of diametrically opposed arguments.

C. *The Use and Misuse of Social Science Data*

The amici in these three cases presented empirical studies of punitive damages award frequencies and size that varied radically depending on whether the brief supported the petitioner or the respondents. We discovered no outright fabrications in any of the briefs.¹⁶⁴ Instead, we found a systematic misuse of empirical research, a phenomenon we call "junk social science." The social science evidence presented by the petitioners' amici mirrors Huber's contention that "[t]he art of junk science is to brush away just enough detail to reach desired conclusions, while preserving enough to maintain the aura of authoritative science."¹⁶⁵ Junk social science is characterized by quotes from social scientific research taken out of context, misleading statistical presentations, denigration of studies whose results conflicted with the argument, and anecdotes masquerading as social science findings. This discovery led us, with the assistance of several other scholars, to file our own brief in an effort to provide a neutral analysis of the social science evidence.¹⁶⁶

D. *Five Empirical Studies of Punitive Damage Awards*

Five empirical studies on the frequency, size, and post-trial adjustment

city Scholars and Law Professors; Amicus Curiae Brief of Public Citizen; Amicus Curiae Brief of Trial Lawyers for Public Justice; Amicus Curiae Brief of National Association of Securities and Commercial Law Attorneys; Amicus Curiae Brief of Consumers Union of U.S. and Consumer Federation of America; Amicus Curiae Brief of the Attorneys General of the States of Alabama, Arizona, Arkansas, Connecticut, Delaware, Florida, Hawaii, Idaho, Iowa, Kansas, Minnesota, Mississippi, Missouri, Montana, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, Texas, Washington, and West Virginia, and of The Commonwealths of Kentucky and Pennsylvania; Amicus Curiae Brief of the West Virginia Trial Lawyers Association; and the Amicus Curiae Brief of Association of Trial Lawyers of America.

164. The two most common canons of scientific veracity are validity and reliability. Validity refers to the ability of a scientific test to measure what it is supposed to be measuring. Reliability refers to the question of whether a given test obtains consistent results. See Paul C. Gianelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States, A Half-Century Later*, 80 COLUM. L. REV. 1197, 1201 n.20 (1980). Professor Faigman states that "[r]eliability is the ultimate legal concern, but when it hinges on controversial and contested reasoning, the validity of that reasoning must be addressed." Faigman, *supra* note 120, at 1011 n.16 (quoting Bert Black, *A Unified Theory of Scientific Evidence*, 56 FORDHAM L. REV. 595, 599-600 (1988)). We have doubts about both the validity and reliability of the social science data in the briefs submitted by petitioners' amici in the punitive damages trilogy.

165. HUBER, *supra* note 28, at 157.

166. Amicus Curiae Brief of University Scholars and Law Professors in Support of Respondents, *TXO*, 113 S. Ct. 2711 (1993) (No. 92-479).

of punitive damage awards were cited by amici on both sides in *TXO*, alternatively illustrating that punitive damages are “skyrocketing” or rare. These five empirical studies are:

- (1) The RAND Institute for Civil Justice (RAND ICJ) study of jury verdicts in two counties;¹⁶⁷
- (2) The American Bar Foundation (ABF) study of jury verdicts in eleven states;¹⁶⁸
- (3) The GAO report on verdicts in five states in 1983-85;¹⁶⁹
- (4) Landes and Posner’s (L & P) study of federal and state appellate cases published in West reporters;¹⁷⁰ and
- (5) Rustad and Koenig’s (R & K) study of a quarter century of punitive damage verdicts in products liability.¹⁷¹

Table One outlines the years studied, the number of punitive damage awards located, and brief descriptions of the samples used in these studies.

167. MARK A. PETERSON ET AL., PUNITIVE DAMAGES: PRELIMINARY EMPIRICAL FINDINGS (1987).

168. STEPHEN DANIELS & JOANNE MARTIN, EMPIRICAL PATTERNS IN PUNITIVE DAMAGE CASES: A DESCRIPTION OF INCIDENCE RATES AND AWARDS (1988) [hereinafter DANIELS & MARTIN, EMPIRICAL PATTERNS]; Stephen Daniels & Joanne Martin, *Myth and Reality in Punitive Damages*, 75 MINN. L. REV. 1 (1990) [hereinafter, Daniels and Martin, *Myth and Reality*].

169. UNITED STATES GENERAL ACCOUNTING OFFICE, PRODUCT LIABILITY: VERDICTS AND CASE RESOLUTION IN FIVE STATES (1989).

170. William M. Landes & Richard A. Posner, *New Light on Punitive Damages*, 10 REG. 33 (Sept/Oct. 1986).

171. MICHAEL RUSTAD, DEMYSTIFYING PUNITIVE DAMAGES IN PRODUCTS LIABILITY CASES: A SURVEY OF A QUARTER CENTURY OF TRIAL VERDICTS (1991); Thomas Koenig & Michael Rustad, *The Quiet Revolution Revisited: An Empirical Study of the Impact of State Tort Reform of Punitive Damages in Products Liability*, 16 JUST. SYS. J. 21 (1993) [hereinafter Koenig & Rustad, *The Quiet Revolution Revisited*]; Michael Rustad, *In Defense of Punitive Damages in Product Liability: Testing Tort Anecdotes With Empirical Data*, 78 IOWA L. REV. 1 (1993) [hereinafter Rustad, *In Defense of Punitive Damages*]; Michael Rustad & Thomas Koenig, *The Historical Continuity of Punitive Damages: Reforming the Tort Reformers*, 42 AM. U. L. REV. 401 (1993) [hereinafter Rustad & Koenig, *The Historical Continuity of Punitive Damages*]; *Providing for a Uniform Product Liability Law: Hearings on S. 640 Before the Consumer Subcomm. of the Senate Comm. on Commerce, Science and Transportation*, 102d Cong., 1st Sess., 146-152 (1991) (testimony of Professors Michael Rustad & Thomas Koenig); *Product Liability: Hearing Before the Subcomm. on Technology and Competitiveness of the Comm. on Science, Space, and Technology, United States House of Representatives*, 102d Cong., 2d Sess., 283-310, (1992) (testimony of Professors Thomas Koenig & Michael Rustad). The empirical findings from all of these works will be referred hereinafter as RUSTAD/KOENIG STUDY.

TABLE ONE
EMPIRICAL STUDIES OF PUNITIVE VERDICTS IN
PRODUCTS LIABILITY

<i>STUDY</i>	<i>YEARS</i>	<i># OF AWARDS</i>	<i>LOCATION</i>
1. RAND ICJ ¹⁷²	1960-84	6	Cook County, Ill. & San Francisco, Ca. (State and Federal)
2. ABF ¹⁷³	1981-85	34	47 sites in Az., Ca., Ga., Ill., Kan., Mo., N.Y., Ore., Tx, & Wash.
3. GAO ¹⁷⁴	1983-85	23	Az., Mass., Mo., N.D., & S.C. (State and Federal)
4. L & P ¹⁷⁵	1982-84	10	Published Federal & State opinions in West Reporters ¹⁷⁶
5. R & K ¹⁷⁷	1965-90	355	Published and Unpublished Federal & State Cases Nationwide

A recent article summarizing the punitive damage research reports that "[a]lthough several studies have tracked punitive damages in selected jurisdictions, there is little agreement on whether they prove there are many runaway punitive damages verdicts. It's as if the two sides in the tort reform debate are looking at different parts of the same elephant."¹⁷⁸ However, a scholarly assessment of the research on punitive damages finds that "every empirical study of the [punitive damages] question has reached conclusions that, to say the least, fail to support the claim that punitive damages have grown dramatically in both frequency and size."¹⁷⁹ The latter assess-

172. PETERSON ET AL., *supra* note 167, at 8-31.

173. DANIELS & MARTIN, *EMPIRICAL PATTERNS*, *supra* note 168, at 28-43.

174. UNITED STATES GENERAL ACCOUNTING OFFICE, *supra* note 169.

175. Landes & Posner, *supra* note 170, at 33, 34-36.

176. Landes and Posner examined all federal products liability cases reported in the 10 most recent volumes (at the time of their study) of the West Publishing Company's federal and regional reporters. *Id.* at 34. By definition, the sample included cases where the punitive damage award was appealed. California and New York cases were excluded from the analysis. *Id.* at 36.

177. RUSTAD/KOENIG STUDY, *supra* note 171.

178. See Moss, *supra* note 141, at 91.

179. Michael J. Saks, *Do We Really Know Anything About the Behavior of the Tort Litigation System—and Why Not?*, 140 U. PA. L. REV. 1147, 1254 (1992).

ment of the literature is the more accurate one.

All five of these studies come to the same conclusion despite the diversity of their authorship and sponsorship. Their common finding is that punitive damages have been rarely awarded and even more rarely collected.¹⁸⁰ To understand how this is possible, a more objective summary of the empirical findings is necessary.

E. Findings of the Empirical Studies of Punitive Damages

1. RAND Institute for Civil Justice

RAND Corporation's study sampled 24,000 jury verdicts rendered between 1960 and 1984 in Cook County, Illinois and San Francisco County, California.¹⁸¹ Between 1980 and 1984, 2.5 percent of the Cook County trials and 8.3 percent of the verdicts handed down in San Francisco County resulted in punitive damages.¹⁸² RAND's researchers, Mark Peterson, Syam Sharma, and Michael Shanley, found that total jury awards increased in both counties during the period studied.¹⁸³ The average product liability award increased by forty percent in Cook County and tripled in San Francisco County.¹⁸⁴

There was a slight growth in the number of punitive damage awards over this period. Cook County averaged only 1.8 punitive damage awards per year during the 1960s and 1970s and 2.8 per year during 1980-84 for all types of personal injury cases.¹⁸⁵ However, considering the small starting base, there can be a huge increase in the proportion of cases resulting in punitive damage awards without having much practical impact. For this reason, the RAND study concluded that the punitive damages picture in personal injury has changed very little in twenty-five years.¹⁸⁶ The one area of rapid growth came in the field of business torts such as insurance

180. Punitive damage awards may even be rarer in the field of medical malpractice. The RAND Corporation's Institute for Civil Justice found only three punitive damage awards in malpractice cases in Cook County Illinois over a twenty-five year period. They uncovered only one punitive award in medical malpractice cases in San Francisco County over the same period. PETERSON ET AL., *supra* note 167, at 13 tbl. 2.5. Similarly, the American Bar Foundation found only 18 medical malpractice/punitive damage awards in 1,917 verdicts. This study encompassed 47 sites in 11 states between 1981 and 1985. Daniels & Martin, *Myth and Reality*, *supra* note 168, at 38, tbl. V. A February 1989 report surveying all medical malpractice claims filed in Minnesota, North Dakota and South Dakota between January 1, 1982, and December 31, 1987, did not find a single punitive damages award against a physician. STATE OF MINNESOTA, DEPT. OF COMMERCE, MEDICAL MALPRACTICE CLAIM STUDY: 1987-1989, at 22 (1990).

181. PETERSON ET AL., *supra* note 167, at 4.

182. *Id.* at 9 tbl. 2.1.

183. *Id.* at 14.

184. *Id.* at 22.

185. *Id.* at 10 tbl. 2.3.

186. *Id.* at 12.

bad faith, employment, and antitrust cases.¹⁸⁷

Courts rarely awarded punitive damages in any type of case. Only 2.5% of the Cook County trials and only 8.3% of the San Francisco County trials resulted in punitive damages.¹⁸⁸ RAND found only "four product liability cases in San Francisco and two in Cook County" during this twenty-five year period.¹⁸⁹ The median punitive damages award from 1980 to 1984 was \$43,000 in Cook County and \$63,000 in San Francisco County.¹⁹⁰

2. American Bar Foundation Study

Stephen Daniels and Joanne Martin, Senior Research Fellow and Associate Director, respectively, of the American Bar Foundation (ABF) examined 25,627 jury verdicts handed down in state trial courts from 1981 to 1985,¹⁹¹ a period that is probably the high water mark of punitive damages.¹⁹² The ABF compiled its data base from state jury verdict reporters in forty-seven counties in eleven states.¹⁹³ The sample was regionally balanced in areas "of varying population sizes and socio-economic make-ups."¹⁹⁴

Daniels and Martin found no empirical support for the existence of a punitive damages crisis. Contrary to the claims made by tort reformers, they concluded that

[p]unitive damages were not routinely awarded. Nor were punitive damages typically given in amounts that "boggle the mind." Juries awarded punitive damages infrequently, and when they were awarded, the amount was generally modest. . . . The punitive damages system that emerges from this study is significantly different than the system described by the [tort] reformers, and does not provide evidence of a nationwide problem. Thus, one

187. *Id.* at 22-25. Punitive damages in business/contract cases "changed greatly between 1960 and 1984. The sharp upward trends in both the number and amount of such awards reflected in part the growing number of jury trials involving business tort or contract actions." *Id.* at 22.

188. *Id.* at 9 tbl. 2.1.

189. *Id.* at v.

190. *Id.* at 15 tbl. 2.7.

191. Daniels & Martin, *Myth and Reality*, *supra* note 168, at 28.

192. Cf. Eisenberg & Henderson, Jr., *supra* note 33, at 734 (noting that "[c]ombining success rate trends and award trends shows products liability in decline since 1985"); James A. Henderson, Jr. & Theodore Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. REV. 479, 499 (1990) (concluding that "[s]ince at least the mid-1980s, published opinions have moved towards benefiting defendants over plaintiffs" in products liability cases); Koenig & Rustad, *The Quiet Revolution Revisited*, *supra* note 171, at 37 fig. 6 (concluding that punitive damages have been declining since the mid-1980s).

193. Daniels & Martin, *Myth and Reality*, *supra* note 168, at 28-33.

194. *Id.* at 29.

should view with skepticism the claims that juries routinely awarded punitive damages . . . in large amounts, and that these developments are nationwide in scope.¹⁹⁵

Generally, punitive damage awards were relatively small, although this varied somewhat depending on location. The median punitive damages award in jurisdictions having ten or more punitive damage awards ranged from under \$10,000 in some counties to as high as \$204,000 in San Diego.¹⁹⁶ Daniels and Martin's study found that only 4.9% of all verdicts included punitive damages.¹⁹⁷ Of the 967 product liability verdicts, the American Bar Foundation researchers uncovered only 34 cases in which punitive damages were awarded.¹⁹⁸

3. Government Accounting Office (GAO) Study

The Government Accounting Office (GAO) collected data on the frequency and size of punitive damage awards in products liability cases between 1983 and 1985 for all such actions resolved through trial (305) in Arizona, Massachusetts, Missouri, North Dakota, and South Carolina.¹⁹⁹ The GAO also examined court records and conducted post-trial interviews with attorneys.²⁰⁰ The study found that punitive damage awards were neither routine nor excessively large.²⁰¹ Post-trial appeals and settlements substantially reduced the amounts collected in punitive damage awards.²⁰²

The GAO reached the same basic conclusions as did the other studies. Courts awarded punitive damages infrequently (in only 23 of 305 cases—7.5%), and these awards “were highly correlated (.71) [in size] with the compensatory damages.”²⁰³ These researchers found that “[t]he 23 punitive damage awards had an average just under \$1.3 million and a median of \$400,000, which are only slightly larger than the average and median compensatory awards in those 23 cases (average of \$906,000 and median of \$375,000).”²⁰⁴

4. Landes and Posner Study

Professor William Landes and Judge Richard Posner examined all

195. *Id.* at 43.

196. *Id.* at 42.

197. *Id.* at 32 tbl. ii.

198. *Id.*

199. UNITED STATES GENERAL ACCOUNTING OFFICE, *supra* note 169, at 19-20.

200. *Id.* at 21.

201. *Id.* at 103 tbl. v.

202. *Id.* at 32.

203. *Id.* at 29.

204. *Id.*

products liability cases "reported in the most recent volume of each of the West Publishing Company's case reporters" and all "product liability cases in the federal courts of appeals"²⁰⁵ from the beginning of 1982 to November 1984."²⁰⁶ They found that "[p]unitive damages were awarded in the [federal] trial court in 10 of the 172 cases."²⁰⁷ In only three of the ten cases was the award affirmed in whole. Appellate judges reversed six of the cases and reduced the award in a seventh case.²⁰⁸ The authors concluded that punitive damages were "relative[ly] insignifican[t]" in the substantive area of products liability.²⁰⁹

In short, these four studies uncovered a total of only sixty-three punitive damage verdicts in products liability cases. Even within this small number, there were undoubtedly duplications because the studies overlapped in time period and geographic location.²¹⁰

5. Rustad and Koenig Study

To expand on the previous studies, we attempted to identify every punitive damage award in products liability, thus examining the universe of

205. The authors took pains to note that the sample "is likely to be unrepresentative of the universe of products liability cases—but unrepresentative in a direction that tends to bias our estimate against the hypothesis that we test and reject: that punitive damages are being overused in modern products liability law." WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 302 (1987). They explain further that:

The economic theory of litigation predicts that the cases most likely to be litigated and appealed will be those where the law is most uncertain and where damages are largest. This suggests that our sample will overstate the relative importance of punitive damages in products liability cases; an award of punitive damages will increase the probability of an appeal. Of course, if parties are highly risk averse, this would tend to raise the settlement rate in cases where punitive damages are likely to be awarded if the case is tried. But we have offered reasons for doubting the importance of risk aversion in the products liability area.

Id. at 302-03.

206. Landes & Posner, *supra* note 170, at 34.

207. *Id.* at 35.

208. *Id.*

209. *Id.*

210. Not included is the computer-based statistical study by Professor Kip W. Viscusi, who "identified 108 products liability cases from 1970 to 1989 in which punitive damages were awarded and for which the final award actually received" was determined. See KIP W. VISCUSI, *REFORMING PRODUCTS LIABILITY* 94 (1991). In Viscusi's study, plaintiffs received only 29% of the original average awards of \$2.5 million per case. His study is mentioned in the context of another analysis and contains only a one paragraph description of his methodology, so exactly what is in the sample is unclear. However, his findings are clearly in accord with those of all four of the other studies.

cases.²¹¹ We searched all available computer-based statistical sources,²¹² regional verdict reporters,²¹³ law reviews and other scholarly sources,²¹⁴ state products liability practice guides,²¹⁵ generalized case-reporting serv-

211. The frequency of punitive damages in products liability cases is so low that focused studies of single states do not yield enough awards to study patterns. For example, the New York State Trial Lawyers Association (NYSTLA) recently conducted a review of punitive damage awards in all tort areas in New York state from 1981 to 1991. The NYSTLA uncovered only three punitive damage awards in products liability cases. The amount of punitive damages awarded, on an annual basis, in all New York tort actions was as follows:

1981	\$2,019,600
1982	\$356,000
1983	\$40,952,905
1984	\$1,982,000
1985	\$5,598,200
1986	\$2,490,510
1987	\$1,890,100
1988	\$7,221,001
1989	\$59,733,000
1990	\$2,234,500
1991	\$3,983,500

The single largest New York award in the decade was a \$50 million punitive damages award handed down in the Korean airline disaster in August of 1982, which killed 137 persons. *In re Korean Air Lines Disaster*, 932 F.2d 1475, 1477 (D.C. Cir.), *cert. denied*, 112 S. Ct. 616 (1991). The entire award was eliminated on appeal. *Id.* at 1484. The New York study concluded that "punitive damage awards are highly unlikely to top 2-4 million dollars in any given year, and of that it is likely that perhaps half will actually be collected." Memorandum to author from Gene De Santis, New York State Trial Lawyer's Association, Inc. (March 30, 1992) (summarizing review of punitive damage awards in New York State from 1981-91) (on file with author).

212. Our research team used hundreds of hours of WESTLAW, LEXIS and NEXIS connect-time to locate verdicts that were not available in printed form. The American Trial Lawyers Association Exchange (ATLA Exchange) conducted five separate computer-based runs on trial and appellate cases. In addition to these sources, Louis Laska, President of the Judicial Advisory Services of Louisville, Kentucky, performed a computer-based search of more than 3800 jury verdicts (including, but not limited to, product liability cases) collected predominately in the Southeastern states. Verdict Services conducted separate computer searches of Indiana, Montana, New York, Ohio and Tennessee. Not only were many cases located not available through manual searches, but these reports allowed information from other sources to be cross-checked for accuracy and completeness.

213. The search also included a large number of state verdict reporters published by private organizations including: Cal.—JURY VERDICTS WKLY. 1970 to present, covering all of Cal.; THE GAVEL: CAL. JURY VERDICTS, 1973-89 (covering No. Cal., Haw. & Nev.); Colo.—JURY VERDICT REP. OF COLO., 1983-present; D.C./Baltimore—METRO VERDICTS MONTHLY, 1989-90; Fla.—FLA. JURY VERDICT REP., 1981-90; JURY TRIALS & TRIBULATIONS 1970-90; FLA. LAW WK., 1985-90; Ga.—GA. TRIAL REP., 1987-90; Mich.—MICH. TRIAL REP., 1988-90; Mont.—MONT. L. WK. 1980-90; New England states—NEW ENGLAND VERDICT REP. (Mass., Conn. & R.I.); N.Y.—N.Y. JURY VERDICT REP.; Ohio—OHIO TRIAL REP., 1987-90; Tenn.—TENN. LITIG. REP.

214. We searched the LAWREV data base of Lexis for all references to punitive damage cases. We also searched the *Index to Legal Periodicals* from 1960 to the present. We investigated all citations to any punitive damage issue in product liability actions to determine whether an award actually was made.

215. The following are a few of the state bar materials searched: JOSEPH W. CATCHETT & ROBERT CARTWRIGHT, PRODUCTS LIABILITY ACTION (rev. ed. 1975) (California); THOMAS E.

ices,²¹⁶ court records,²¹⁷ asbestos reporters,²¹⁸ and newspaper and magazine reports.²¹⁹ In addition, we surveyed all attorneys in reported cases,²²⁰ both to locate further cases²²¹ and to gain an in-depth understanding of the social effects of this litigation.

Because there is no national reporting system, the actual number of punitive damage verdicts in product liability actions is unknown and unknowable. The small number of awards uncovered, however, is consistent with the prior research discussed herein. Post-trial developments generally reduce punitive damage awards, particularly in cases with the largest awards. It seems unlikely that such infrequent and well-controlled awards could have a significant impact on American international competitiveness or American business profits.

Punitive damage awards in products liability were quite rare, but not unknown before the late 1960s.²²² Only seven awards were identified in

BRIDGMAN, ILLINOIS PRODUCT LIABILITY PRACTICE (1990); UNIVERSITY OF MISSOURI KANSAS CITY LAW SCHOOL, CLE MISSOURI PRODUCTS LIABILITY HANDBOOK (Gary C. Robb ed., 1988-89); MICHAEL WEINBERGER, NEW YORK PRODUCTS LIABILITY (1982); OKLAHOMA BAR CLE, HANDLING A PRODUCT LIABILITY CASE (1988); WILLIAM POWERS, TEXAS PRODUCTS LIABILITY LAW (1986).

216. We searched LAWYERS ALERT 1987-90; PERSONAL INJURY NEWSLETTER, 1975-90; PRODUCTS LIABILITY REP. (CCH) 1973-90; PRODUCTS LIABILITY J. 1985-90; A.T.L.A. L. REP. 1965-90; TOXIC L. REP., 1984-90; LEADER'S PRODUCT LIABILITY L. & STRATEGY.

217. We also searched court records in Miami, San Diego, and Los Angeles for punitive damages in product liability actions. Early in the research, we determined that the lack of indexing and the storage of records in separate sites made this method generally impractical. However, we were able to determine final disposition in some cases not located through other methods.

218. We searched MEALEY'S LITIGATION REPORTER: ASBESTOS and the ASBESTOS LITIGATION REPORTER, which claim to publish reports of all asbestos litigation nationwide.

219. We searched the OMNI category of NEXIS for any mention of punitive damages in products liability during the period studied.

220. We surveyed any attorney who was listed on the record of any products cases in which punitive damage awards were made. Telephone and personal interviews supplemented the mailings. Plaintiff and defense attorneys were asked to provide us with information on any additional punitive awards. This provided yet another check on the completeness of our sample.

221. Because there is no nationwide reporting system, some punitive damage awards were undoubtedly missed. If there is any systematic bias, it would be that small awards would be unreported and not located.

222. The earliest cases involved non-systematic manufacturing defects. There was a spate of punitive damage awards against Coca-Cola in the 1940s. In 1947, an Arizona court allowed a punitive damages claim against Coca-Cola, when the company bottled a soft drink containing "decomposed flesh" which caused the plaintiff to become ill after ingesting it. *Southwestern Coca Cola Bottling Co. v. Northern*, 177 P.2d 219 (Ariz. 1947). In a similar 1949 case, a Missouri appeals court overturned a punitive damages award to a plaintiff who ingested a portion of a decomposed mouse in his soft drink. *Crews v. Sikeston Coca Cola Bottling Co.*, 225 S.W.2d 812, 815 (Mo. Ct. App. 1949). The court struck the punitive damages, observing:

[A] mouse probably got into one of its bottles and was sold to plaintiff's son in that condition and caused plaintiff's illness later. But there is nothing in the record in this case to show that defendant permitted the bottle of coca-cola to go out from its plant . . .

the 1960s, and seventeen awards were identified between 1971 and 1975. Awards more than doubled during the next five years and tripled between 1980 and 1985, for a total of 139 cases with punitive damages awarded. During the most recent five-year period (1985-1990), however, the rate of increase in the incidence of punitive damage awards slowed markedly to a total of 151 cases. Very large punitive awards have been assessed in exceptional circumstances, but million dollar awards are quite unusual and suffer a high mortality post-trial. Punitive awards of more than one million dollars became very slightly more common during the 1986-1990 period, even when inflation is taken into account, but post-trial events made such verdicts increasingly difficult to collect. Table Two shows the median size of both actual and punitive damage awards for all cases studied, as well as those for non-asbestos cases for the twenty-five years studied.

TABLE TWO
MEDIAN SIZE OF VERDICTS IN 1983 DOLLARS

<u>Unadjusted \$</u>	<u>N=355 (Total)</u>	<u>N=260 (Non-asbestos)</u>
Actual Damages	\$500,100	\$504,623
Punitive Damages	\$625,000	\$775,000
<u>1983 \$</u>		
Actual Damages	\$516,000	\$551,329
Punitive Damages	\$688,500	\$877,000

The median punitive damages award for all cases during this period is \$625,000, which exceeds the comparable actual damages median by only \$124,900.²²³ When the medians in Table Two are converted into constant 1983 dollars to adjust for inflation, the gap enlarges slightly to \$172,500.²²⁴ Still, this is hardly indicative of a punitive damages "crisis" in products liability.

The authors of these punitive damage empirical studies agree that there is no punitive damages crisis. For example, Mark Peterson, the principal investigator in RAND's study of punitive damages, takes issue with those who find evidence of a punitive damages problem in the research. Peterson states that it is not even clear if punitive damage awards are increasing in frequency at all, since "[t]he clustering . . . may be indicative of a

in wanton disregard of the rights of plaintiff, or of any one else, and it was not liable for punitive damages.

Crews, 225 S.W.2d at 815. Fraud and deceit in the marketing of motor oil that damaged a consumer's engine led to an award of punitive damages in *Standard Oil Co. of Ky. v. Gunn*, 176 So. 332 (Ala. 1937).

223. Rustad, *In Defense of Punitive Damages*, *supra* note 171, at 46 tbl. 6.

224. *Id.*

long-term trend, or it may be an unusual phenomenon."²²⁵ Peterson and co-researchers Syam Sarma and Michael Shanley assert that "punitive damages continued to be rarely assessed in personal injury cases, and most frequently assessed against defendants who were found to have intentionally harmed plaintiffs."²²⁶

Similarly, Deborah R. Hensler, senior social scientist at RAND's Institute for Civil Justice, observes: "The furor in the business community over punitive damage awards, considered against the backdrop of continued low incidence in such awards, suggests to me that uncertainty about punitive damages may lead business decision makers to overestimate the expected value of liability exposure."²²⁷

Stephen Daniels, a principal investigator of the American Bar Foundation's study of punitive damages, reports "nothing in his research so far to support the frequently voiced notion that punitive damages have become a menace to the equilibrium of the civil justice system."²²⁸ Daniels and his co-investigator, Joanne Martin, conclude that "the results of this study do not support the reformers' claims regarding patterns and changes in punitive damage awards over time. Juries did not routinely award punitive damages . . . and no consistent patterns of increasing incidence over time appeared."²²⁹ These researchers contend that "the punitive damages debate has become a matter of public relations, propaganda, and the mobilization of prejudice and fear, rather than a matter of rational discourse."²³⁰

Ironically, TXO's brief rests upon an empirical finding that West Virginia has few punitive damage awards and that those awards are proportionate to actual damages.²³¹ TXO presented empirical data showing that punitive damage awards are modest in West Virginia.²³² TXO's nationwide study of punitive damage awards for slander of title found only thirty-five punitive damage verdicts affirmed on appeal.²³³ TXO's study of West Virginia punitive awards in all substantive areas of the law uncovered

225. Moss, *supra* note 141, at 92.

226. Myrna Oliver, *L.A. Ranked High on Punitive Damages*, L.A. TIMES, Mar. 25, 1987, at 19.

227. Deborah R. Hensler, *Taking Aim at the American Legal System: The Council on Competitiveness's Agenda for Legal Reform*, 75 JUDICATURE 244, 249 (1992).

228. Fred Strasser, *Have "Anecdotes," Not Facts, Fueled Tort Crisis?*, NAT'L L.J., Feb. 24, 1986, at 15.

229. Daniels & Martin, *supra* note 168, at 61.

230. Brief of National Association of Securities and Commercial Law Attorneys at 17 n.18, TXO Prod. Corp. v. Alliance Resources Corp., 113 S. Ct. 2711 (1993) (No. 92-479).

231. Petitioner's Brief at 16-17, app. a, TXO, (No. 92-479) (describing study of all West Virginia punitive damage awards affirmed on appeal).

232. *Id.* at 17.

233. *Id.* at app. b.

no other case that had a ratio more than eleven to one.²³⁴ The highest prior affirmed punitive award was less than one-twentieth of TXO's punitive damages award.²³⁵

These findings did not prevent amici who wished to use the *TXO* case to roll back the punitive damages remedy from claiming that the respondent's "windfall" was just another example of a consistently misapplied remedy. Because the Supreme Court's decision does not mention any of the social science studies presented by the petitioner, respondent, and their respective amici, it is unclear whether the Court consulted any of the empirical findings in reaching its decision. Perhaps because the *TXO* Court was presented with so many conflicting claims about the incidence of punitive damages in the amici briefs, it chose not to cite any of the empirical studies or to indicate that the studies had played any role in their deliberations.

F. *The Court's Nonuse of Social Science Evidence in TXO*

On June 25, 1993, the U.S. Supreme Court voted six to three to uphold the constitutionality of the ten million dollar punitive damages award at issue in *TXO*.²³⁶ Justice Stevens's plurality opinion was joined by Chief Justice Rehnquist and Justice Blackmun, with a partial concurrence by Justice Kennedy. The Stevens opinion rejected TXO's invitation for the Court to "strictly scrutinize" high ratio awards as well as the respondent's assertion that there need only be a rational relationship between a punitive award and the state's interests in punishment and deterrence.²³⁷ The *TXO* plurality

234. *Id.* at app. a.

235. *Id.* at 17.

236. *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993).

237. The plurality found that an award of \$10 million in punitive damages, 526 times the actual damages, did not violate TXO's due process rights. *TXO*, 113 S. Ct. at 2720. The plurality adopted a "presumptive validity" test, which is a setback for tort reformers. They relied on the Court's statement in *Pacific Mut. Ins. Co. v. Haslip*, 499 U.S. 1, 23-24 (1991), that a punitive damages award four times compensatory damages "may be close to the line" of "constitutionality impropriety" in the area of due process. *Id.* at 2721. *TXO* makes it clear that a high ratio alone will not invalidate a punitive damages award. Post-*TXO* claims will focus instead on whether the amount of punitive damages is appropriate to deter and punish the defendant's bad behavior and on whether a reasonable relationship exists between the punitive award and the conduct being punished. As Justice Scalia points out, *TXO* will allow lower courts to dispose of "the great majority of due process challenges to punitive damages awards . . . with the observation that '[the punitive award] is no worse than [in] *TXO*.'" *Id.* at 2727 (Scalia, J., concurring in the judgment).

In the wake of *TXO*, reviewing judges should be less willing to substitute their judgment for that of the juries by reversing or reducing punitive damages. Five of the Justices agreed that punitive awards are presumptively valid if there have been "meaningful constraints" upon the fact-finder and if the punitive damages are "reasonable" in light of the functions of the remedy. Judicial oversight currently appears to assume the opposite. In our study of punitive damage awards in products liability cases, we found that nearly half of all awards handed down underwent post-verdict reduction or reversal, indicating great judicial suspicion of such verdicts. Rustad, *In Defense of Punitive Damages*, *supra* note 171, at 56-59.

adopted an approach that presumes the validity of punitive damage awards where "fair procedures were followed" as proscribed in *Haslip*.²³⁸ With the Court's holding in *TXO*, the era of defendants' challenges to the constitutionality of punitive damages may be drawing to a close.²³⁹

The plurality acknowledged that the Due Process Clause "imposes substantive limits 'beyond which penalties may not go.'"²⁴⁰ However, it also reiterated its declaration in *Haslip* that "[w]e need not, and indeed we cannot, draw a mathematical bright light between the constitutionally acceptable and the constitutionally unacceptable that would fit every case."²⁴¹ This approach is in accord with the traditional role of punitive damages in deterring oppression by the powerful. It is precisely the discretion of the fact-finder to calibrate punitive awards based on financial position, which makes a large company hesitate before engaging in arrogant or predatory business practices.²⁴²

Justice O'Connor's dissent, joined by Justice White in full and Justice Souter in part, found the "monstrous award" to be "influenced unduly by

238. *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1 (1991).

239. The next set of state and federal challenges are likely to come from plaintiffs whose traditional rights to collect punitive damages have been curtailed by recent state legislative reforms. Tort reformers have been extremely successful at the state level in scaling back punitive damages. Since the early 1980s, a majority of states have enacted one or more restrictions on punitive damages. Rustad and Koenig, *supra* note 171, at 1270 n.3.

The constitutionality of reforms involving state sharing of punitive damages awards, judge-assessed punitive amounts, and the capping of punitive damages seem particularly ripe for future challenges. See *Henderson v. Alabama Power Co.*, No. 1901875, 1901946, 1993 WL 222341, *17 (Ala. June 25, 1993) (holding state's \$250,000 cap on punitive damages unconstitutional as infringing on Alabama jury trial guarantees); *Kirk v. The Denver Publishing Co.*, 818 P.2d 262 (Colo. 1991) (en banc) (striking state's sharing scheme as violating federal and state proscriptions against the taking of private property without just compensation); *State of Georgia v. Moseley* (Supreme Court of Georgia, No. S93A1129, oral argument heard June 1993) (challenging Georgia's Compulsory Apportionment Statute, under which 75% of all collected punitive awards go to the state treasury).

The reform of requiring the trial judge to set the amount of punitive damages has not yet reached any appellate court. Judge-assessed punitive damages schemes seem vulnerable to challenges on the grounds of infringement of the traditional jury role and as an undue restriction on state-guaranteed "access to justice." Thus, we predict that defendants will be spending more time staving off challenges to already enacted state tort reforms than winning new limits on punitive damages.

240. *TXO*, 113 S. Ct. at 2718 (quoting *Seaboard Air Line Ry. v. Seegers*, 207 U.S. 73, 78 (1907)). The Court's decision to reaffirm the right of the states to design guidelines and of juries to make these awards is consistent with the Rehnquist Court's judicial philosophy of deferring to "state autonomy."

241. *Id.* at 2720.

242. Because punitive damages are designed to serve the public law functions of punishment, deterrence, and retribution, there is no compelling reason why there should be any correlation between compensatory and punitive damages.

TXO's out-of-state status and its large resources."²⁴³ Justice O'Connor, joined by Justice White, castigated the Court for its failure to formulate objective "guidepost[s] for assessing due process" in punitive awards.²⁴⁴ The dissenters argued that the increased use of this remedy "has not been matched by a corresponding expansion of procedural protections or predictability."²⁴⁵ The dissenters believe that, in the absence of clear standards, "the frequency and size of such [punitive] awards have been skyrocketing" out of control.²⁴⁶ Neither side cited any of the empirical studies of punitive damage awards presented by the amici.

G. *Lobbyists and Their Effect on the Judiciary Through the Use of Social Science*

Despite the unanimity of the social scientists, Justices O'Connor and Stevens believe that there is a punitive damages crisis. Why do some members of the judiciary believe that there is a punitive damages crisis, despite the lack of any solid, empirical evidence? One reason is that the judiciary is subject to a determined campaign by lobbyists to convince them that tort reform of punitive damages is vital. The Heritage Foundation called for influencing judicial opinions about tort law as early as 1986. It argued in its *Policy Review* journal that "[w]e also need to change the attitudes of our courts. Activist judges, not legislatures, have made most of the changes in tort law doctrine that have produced the liability crisis. . . . Judges and juries must recognize that civil damage awards are not a free lunch."²⁴⁷

The judiciary may be predisposed to accept questionable assertions in amici briefs because they have been targeted for "reeducation" about punitive damages from a variety of sources.²⁴⁸ Judges are as exposed as any

243. *Id.* at 2739 (O'Connor, J., dissenting).

244. *Id.* at 2731 (O'Connor, J., dissenting).

245. *Id.* at 2742 (O'Connor, J., dissenting).

246. *Id.* at 2742 (O'Connor, J., dissenting). Justice O'Connor has not changed her opinion about the frequency of punitive damage awards since *Browning-Ferris*, in which Justices O'Connor and Stevens joining in partial dissent observed that "awards of punitive damages are skyrocketing." *Browning-Ferris Indus. of Vermont, Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257, 282 (1989) (O'Connor, J., concurring in part and dissenting in part)

247. Richard K. Willard, *Wheel of Fortune: Stopping Outrageous and Arbitrary Liability Verdicts*, POL'Y REV., Spring 1986, at 40, 43.

248. Tort reform lobbyists, accounting firms, and even occasional fellow judges have organized efforts to convince the judiciary of the need for tort reform of punitive damages. *See, e.g.*, ALLIANCE FOR JUSTICE, JUSTICE FOR SALE: SHORTCHANGING THE PUBLIC INTEREST FOR PRIVATE GAIN (1993) (describing "reeducation" programs for judges and the general public sponsored by conservative foundations and corporations); Deborah Shalowitz, *Challenges to Tort Reform Predicted*, BUS. INS., Jan. 25, 1988, at 57 (noting that a spokeswoman for the American Tort Reform Association "recommended that tort reform advocates try to influence the election of a state's judiciary, where 'good doctrine [can become] distorted'"); L. H. Otis, *Risk Surge Alters Accounting Firms*, NAT'L UNDERWRITER, March 30, 1992, at 9, 30 ("Collectively, the accounting profes-

other members of the public to a consistent barrage of tort reform advocacy pieces.²⁴⁹

For example, Martin Connor, president of the American Tort Reform Association and a signatory of the American Tort Reform Association amici brief in *TXO*, has been particularly concerned with "educating" the judiciary about punitive damages. He explains, "There is no plausible explanation for the dramatic rate in growth in the amount of punitive damages against business except lawyers and judges have forgotten what the real purpose of punitive damages is."²⁵⁰ Speaking to a 1993 meeting of the Conference of State Chief Justices, Connor argued that punitive damages are in need of radical surgery.²⁵¹ In his speech, he summarized "three frequently cited sources of empirical data"²⁵² as demonstrating that punitive damages "are being awarded in increasing numbers of cases . . . [and] astonishingly large awards are being returned against a relatively small

sion. . . is lobbying for tort reform, seeking to educate state and federal judges and the public [about the impact of tort law on the profession.]; Joani Nelson-Horschler, *Lobby the Courts, State Judge Says, But Critics Balk*, *IND. WK.*, Nov. 7, 1988, at 36. One article cited West Virginia Supreme Court Justice Richard Neeley's statement:

[A]s long as I am allowed to redistribute wealth from out-of-state companies to injured in-state plaintiffs, I shall continue to do so. Not only is my sleep enhanced when I give someone else's money away, but so is my job security, because in-state plaintiffs, their families, and their friends will reelect me.

Nelson-Horschler, *supra*, at 36. Coincidentally, Justice Neeley authored the West Virginia Supreme Court decision in the *TXO* case. *TXO Prod. Corp v. Alliance Resources Corp.*, 419 S.E.2d 870 (W. Va. 1992), *aff'd*, 113 S. Ct. 2711 (1993).

249. Professor Jason Johnston writes: "Increasing popular disenchantment with our current tort system has paralleled academic criticism. Virtually no aspect of current tort doctrine has been immune to criticism and legislative reform. However, attention has been focused on spectacular punitive damages cases." Jason S. Johnston, *Punitive Liability: A New Paradigm of Efficiency in Tort Law*, 87 *COLUM. L. REV.* 1385, 1386-87 (1987).

For example, Joanne Doroshov uncovered the following examples of insurance advocacy advertisements designed to create a popular clamoring for tort reform:

Most of us know hair-raising stories of windfall awards won in court. . . . Insurers, lawyers, judges—each of us shares some blame for this mess. But it is you, the public, who can best begin to clean it up. (1970's Aetna Advertisement). The jury smiled when they made the award. They didn't know it was coming out of their own pockets. You *really* think it's the insurance company that's paying for all those large jury awards. Sue-icidal Impulse. . . . The system seems to be saying, "No matter what happens, somebody must pay—preferably somebody rich!"

JOANNE DOROSHOV, *THE CASE FOR THE CIVIL JURY: SAFEGUARDING A PILLAR OF DEMOCRACY*, app. a (1992) (citations omitted).

250. *Business-Related Punitive Damages Awards Increased 117 Times During Past 20 Years*, *PR NEWswire*, Oct. 16, 1992 (quoting Martin Connor).

251. Martin F. Connor, *The State of the Punitive Damages Debate: 1993*, Address Before the Conference of State Chief Justices (January 26, 1993), in *PRODUCT SAFETY & LIABILITY REP.*, February 12, 1993, at 174.

252. *Id.* at 176.

number of defendants."²⁵³

Connor selectively distorts or omits empirical research that does not fit his hypothesis that tort reform is urgently needed; he cites only two of the five empirical studies reviewed thus far,²⁵⁴ the RAND Institute of Civil Justice Study and our empirical work,²⁵⁵ in support of his contention that punitive damages are in need of radical reform.²⁵⁶ In so doing, Connor demonstrates two of the common methods of slanting amici briefs: he mentions only the research that can be used to support his argument and quotes from the studies in ways that distort the findings.

IV. DISTORTIONS IN SOCIAL SCIENCE DATA

Here, we review a few of the techniques used by amici to create a misperception without actually falsifying the social science findings. These techniques were evident in the amici of all three punitive damages cases heard by the Supreme Court. We do not want to imply, however, that selective distortion of data is only performed by tort reformers. The devices we uncovered are widely employed by amici in the constitutional fact-finding process. The current mechanism of amici curiae briefs encourages advocates to selectively report social science findings to the Court.

A. *Studies Produced by Litigating Amici*

One form of junk social science is studies financed by a partisan source, with the results presented in a manner that advances the purposes of the funding source. The conflict of interest created by partisan funding sources poses an inevitable problem.²⁵⁷ The Texaco punitive damages study provides a straightforward example of this.²⁵⁸

The Texaco study examined punitive damage awards upheld on appeal

253. *Id.* at 180.

254. *See supra* notes 167-71 and accompanying text.

255. Rustad, *In Defense of Punitive Damages*, *supra* note 171, at 26-27, 59-62.

256. Connor, *supra* note 251, at 176-77.

257. Empirical studies are expensive and time consuming. Government funding agencies tend to be wary of supporting research into politically charged issues for fear that they will be punished at budget renewal time. Our study was largely financed by Northeastern University, Suffolk University and the "sweat equity" of numerous law students, but seed money was also supplied by the Roscoe Pound Foundation. The Roscoe Pound Foundation is an independent entity but has close ties to the Association of Trial Lawyers of America, an organization that filed an amicus brief for the respondents in *TXO*. The Foundation describes its mission as to provide "a forum for dialogue on law and public policy among lawyers and leaders of diverse disciplines and interest groups." *ATLA's Resources Continue to Expand*, NAT'L L.J. August 3, 1992, at 34.

258. STEPHEN M. TURNER ET AL., *PUNITIVE DAMAGES EXPLOSION: FACT OR FICTION?* (Washington Legal Foundation, Critical Legal Issues, Working Paper Series No. 50, November 1992) [hereinafter *TEXACO STUDY*].

against corporations in California, Florida, Illinois, New York, and Texas for the years 1988 to 1991.²⁵⁹ They compared the recent punitive damage awards to those handed down against businesses twenty years earlier—1968 to 1971. They found that the total amount assessed in punitive damages during the earlier period was only \$1,140,000.²⁶⁰ During the 1988 to 1991 period, the punitive damages in business-related cases in these five states totalled \$342.9 million.²⁶¹

The Texaco study was financed and produced in-house by Texaco, Inc. as an amicus organization, published by the Washington Legal Foundation, another amicus group, and distributed by a third amicus filing organization, the American Tort Reform Association. This study, prepared by Texaco attorneys,²⁶² was cited by several amici in support of the petitioner.²⁶³

The Texaco study lumps all punitive damage awards assessed against businesses into a single category, making it impossible to pinpoint whether there is a problem in some particular substantive area. For example, there is no way to determine how much of this increase is due to unique events such as the asbestos litigation or to the growth of business-against-business civil lawsuits.²⁶⁴

The study is also slanted by its exclusive focus on "hotspots" of business litigation: California, Florida, Illinois, New York, and Texas.²⁶⁵ In these large commercial states, which together contain thirty-six percent of the United States population, we found 433 punitive damage awards against business that were upheld on appeal from of 1988-1991.²⁶⁶ Although this is 4.7 times the number of cases from 1968-1971, it is still an average of only 108 cases per year. A 470% increase in punitive damage verdicts sounds dramatic, but means little because there are so few cases. There is a great percentage increase in the amount of punitive damage awards, but only a minuscule increase in the absolute number of punitive awards.

259. *Id.* at A-2.

260. *Id.* at 4.

261. *Id.* at 2.

262. The first three authors of the *TEXACO STUDY* are listed as employees of Texaco, Inc., and the other two authors are attorneys with King & Spalding.

263. Amicus Curiae Brief of the Washington Legal Foundation in Support of Petitioner at 1, *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993) (No. 92-479) (citing Texaco punitive damages study as being distributed by Washington Legal Foundation); Amicus Curiae Brief of the American Automobile Manufacturers Association et al. in Support of Petitioner at 16 n.37, 17 n.40, *TXO* (No. 92-479); Amicus Curiae Brief of Owens-Illinois, Inc. & Texaco Inc. in Support of Petitioner at 4, *TXO* (No. 92-479).

264. The Texaco study has not been included in tbl. 1 because it has no specific findings on any substantive field of law, let alone product liability.

265. *TEXACO STUDY*, *supra* note 258, at 2. See *RUSTAD/KOENIG STUDY*, *supra* note 171, at Map One.

266. See *RUSTAD/KOENIG STUDY*, *supra* note 171, at Map One.

Texaco presented its data in a way that conceals the pattern of growth in punitive damage awards. In contrast, all of the studies in Table I provide information about the substantive areas in which punitive damages are awarded. For example, our study included detailed breakdowns of the patterns of awards by a large number of factors such as type of product, type of manufacturer wrongdoing, severity of injury, gender, social class and race of plaintiff, region, and differences between state and federal courts, so that readers could focus on the issues which interested them.²⁶⁷ In contrast, Texaco provided nothing but yearly totals, broken down by state.²⁶⁸ Texaco's failure to publish any details beyond the total amount collected on appeal in punitive damage cases against businesses by year makes its study of little or no value to the Court. Until the Texaco data are presented in the detailed fashion of the other studies, the policy implications of the Texaco study cannot be assessed. We suspect that Texaco, the firm that was assessed the largest punitive damages award ever paid, has a strong bias against the remedy.

B. Means versus Medians

If an amici reports the mean²⁶⁹ award to describe punitive damage awards, rather than the median,²⁷⁰ the figures create the impression that the awards are large. For this reason, the petitioner's amici quote mean amounts while respondents cite medians. When "average" (mean) award size is reported but not the median award, there is no way to determine if the increased size of punitive damage verdicts is the result of a pattern of run-away juries or a small number of enormous awards like the three billion dollars in punitive damages²⁷¹ assessed against Texaco for tortiously inducing Getty to breach its contract with Pennzoil.²⁷² For example, an amicus brief for the petitioner cites RAND as demonstrating that "[t]he largest punitive damages awards have increased greatly in size, sharply increasing both the average award and the total dollars awarded."²⁷³ In fact, the aver-

267. RUSTAD, DEMYSTIFYING PUNITIVE DAMAGES, *supra* note 171, at 23-34.

268. TEXACO STUDY, *supra* note 258, at 4-15.

269. A mean value in a distribution of punitive damage awards is the "average." BLACK'S LAW DICTIONARY 980 (6th ed. 1990). The mean is computed by adding up all of the amounts awarded and dividing by the number of awards.

270. The median is the "typical" amount in a distribution. Half of the awards are above the median punitive award and half are below it. See WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1402 (1965).

271. The jury also awarded \$7.53 billion in actual damages.

272. *Texaco, Inc. v. Pennzoil Co.*, 784 F.2d 1133, 1136 (2d Cir. 1986), *rev'd*, 481 U.S. 1 (1987).

273. Amici Curiae Brief of Automobile Manufacturers Association in Support of Petitioner at 18 n.42, *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993) (No. 92-479).

age punitive damage award reported by RAND did increase in Cook County from \$7,000 between 1960 and 1964 to \$729,000 between 1980 and 1984.²⁷⁴ The mean punitive award in San Francisco increased from \$166,000 to \$381,000 over the same period.²⁷⁵ In contrast, the Cook County median punitive damage award increased from \$1,000 in the early 1960s to \$43,000 in the early 1980's, while the San Francisco median award increased from \$17,000 to \$63,000 in the same period.²⁷⁶ The median punitive award is only about one-tenth of the increase in the mean award. As one respondent's amicus brief noted: "Critics of punitive damage awards distort statistical images through the use of numerical averages. For example, in a RAND study, the average award was \$137,350, but 87.7% of the cases had awards lower than the average, with a median of \$8,800."²⁷⁷

Daniels and Martin, the American Bar Foundation researchers, explain the potential bias of the use of means rather than medians:

A seemingly esoteric, technical debate underlies the issue of punitive damage award size generally. . . . It involves the appropriate measure of central tendency to use in describing patterns and changes in the typical award: the arithmetic mean (average) or the median. One obtains the mean, or average, punitive damage award by adding the amount of the awards together and dividing by the total number of awards. The mean's disadvantage is that a few unusually high or low figures in the data set can skew the result upward or downward. The median punitive damage award, on the other hand[,] is the middle figure in a sequence of awards listed from lowest to highest. A handful of high or low numbers in the data will not influence the median. The chosen measure is both politically and practically significant because the two measures can give significantly different values to the typical award.

The [tort] reformers advocate the use and appropriateness of the mean to describe patterns and changes in award size. Their position is politically expedient because mean punitive damage awards, as well as mean jury awards generally, are misleadingly high.²⁷⁸

If there were ninety-nine awards for one dollar each and one award for three billion dollars, the average award would be over thirty million dollars, but that statistic would be highly misleading to anyone trying to assess the pat-

274. PETERSON ET AL., *supra* note 167, at 15 tbl. 2.7.

275. *Id.*

276. *Id.*

277. Amicus Curiae Brief of Consumer's Union in Support of Respondents, *TXO*, at 25-26. (citing PETERSON ET AL., *supra* note 167).

278. Daniels & Martin, *Myth and Reality*, *supra* note 168, at 39 (footnotes omitted).

tern of awards. Figure Two of our study, drawn from the Rustad/Koenig study, illustrates the dramatic differences in depictions of growth rates depending on whether mean or median is employed.

C. Use of Percentages Without Reporting Absolute Numbers

Our empirical study²⁷⁹ was characterized in one petitioner's brief as demonstrating that "the frequency of punitive damages awards in product liability cases alone mushroomed by almost 2000 percent between 1965 and 1990."²⁸⁰ This statement is literally true, but highly misleading. As Table Three from our study shows, this increase was largely due to asbestos cases. Even including the mass tort of asbestos, these verdicts account for only about thirty awards a year nationwide—hardly the epidemic implied by the 2,000 percent figure. Graph One depicts the distorting effect of the asbestos litigation on the rate of increase in punitive awards.

TABLE THREE
PUNITIVE DAMAGE VERDICTS IN PRODUCTS CASES 1965-90

Years	Non-Asbestos	Asbestos	Total Verdicts
1965-70	7	0	7
1971-75	17	0	17
1976-80	39	2	41
1981-85	119	20	139
1986-90	78	73	151
Totals	260	95	355

A number of petitioner's amici used the percentage growth in punitive damage awards without reporting absolute numbers. An amicus brief for the petitioner cited the RAND study as "report[ing] massive increases in the number and size of punitive damage awards in business/contract cases, including employment claims, between 1960 and 1984."²⁸¹ This "massive increase" was from seventeen punitive damage verdicts in Cook County and San Francisco County between 1960 and 1964 to 106 awards between 1980 and 1984.²⁸²

279. RUSTAD, DEMYSTIFYING PUNITIVE DAMAGES, *supra* note 171.

280. Amicus Curiae Brief of Product Liability Advisory Council, Inc. in Support of Petitioner at 23, TXO Prod. Corp. v. Alliance Resources Corp., 113 S. Ct. 2711 (1993) (No. 92-479) (failing to correctly cite the study's findings).

281. Amicus Curiae Brief of Equal Employment Advisory Council in Support of Petitioner, TXO Prod. Corp. v. Alliance Resources Corp., 113 S. Ct. 2711 (1993) (No. 92-479) (citing PETERSON ET AL., *supra* note 167).

282. PETERSON ET AL., *supra* note 167, at 15 tbl. 2.7.

D. Failure to Disaggregate Data

As we have illustrated, separating asbestos punitive damage verdicts from non-asbestos product liability actions gives a more comprehensive picture of the pattern of awards. By failing to draw basic distinctions based on whether the punitive damage awards were intentional torts, business contracts or personal injury, amici in *TXO* create the false impression that awards routinely victimize deep-pocketed corporations in negligence lawsuits. RAND researchers titled one of their tables of findings, "Punitive Damages Are Infrequent, Except For Intentional Torts And Contract/Business Cases."²⁸³ The amici briefs present quite a different picture of the RAND findings.

In the petitioner's amici, juries are portrayed as assessing outrageous punitive damage verdicts because they view the corporations as "deep-pockets." The amicus curiae brief of the Product Liability Advisory Council, for example, states that "juries also award more money when the defendants are institutions or organizations rather than individuals—the 'deep-pocket' effect. . . . [W]e can detect a separate, statistically independent effort for deep-pocket defendants, even in cases that do not involve products or malpractice."²⁸⁴

It is hardly surprising that corporations are assessed larger awards in personal injury cases than are individuals. Corporations can externalize large-scale risks²⁸⁵ and therefore are better able to meet their liabilities. To know whether a given punitive damage award is justified, it is necessary to study the underlying factual foundation.²⁸⁶

283. PETERSON ET AL., *supra* note 167, at 17 slide 8.

284. Amicus Curiae Brief of Product Liability Advisory Council, Inc. in Support of Petitioner at 2, *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993) (No. 92-479) (citing DEBORAH HENSLER ET AL., *TRENDS IN TORT LITIGATION: THE STORY BEHIND THE STATISTICS* 21 (1987)). Similarly, the Amicus Curiae Brief of the Product Liability Advisory Council, Inc. cited the RAND punitive damages study as concluding that "[c]orporate defendants are in fact more likely than individuals or public agencies to be the target of [punitive damages] awards" and that "[p]unitive [damages] awards against businesses were far larger than those against individuals in both personal injury and business/contract cases." *Id.* at 2 (citing PETERSON ET AL., *supra* note 167, at iii, 50).

285. Ideally, risks in manufacturing are born by the party in the best position to eliminate excessive preventable danger. Because manufacturers have far more knowledge about potential product dangers, they are in the position to "internalize" the costs of undertaking remedial measures. A company that knowingly permits consumers to face injury unnecessarily in order to save money, is said to be "externalizing the risk" by shifting the costs outside of the firm. See generally Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 *YALE L.J.* 499, 499-534 (1961) (offering general analysis of corporate risk distribution). The "asymmetry of information between the manufacturer and the consumer" generally means that the firm is the lowest cost-avoider. RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 175 (4th ed. 1992).

286. The Court in *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993), sets forth factors that may legitimately be considered in determining whether a given punitive award is

One respondent's brief provides a more complete understanding of the RAND report: "Punitive damages were rarely awarded in personal injury cases and there is little evidence that frequency has increased significantly."²⁸⁷ The brief continues:

The study also found that most punitive damage awards remained fairly modest. . . . The study found that punitive awards had increased in cases involving business and contract torts, which the researchers did not attribute to jury discretion, but to recent developments in insurance bad-faith law and an increasing tendency for businesses to sue each other.²⁸⁸

E. Anecdotes and Bald Assertions Masquerading as Empirical Data

A petitioner's amicus in *TXO* claimed that, "as long as punitive damage awards were relatively large and modest in amount, the system tolerated occasional aberrations. But the aberrations are now becoming the standard."²⁸⁹ The normative statement appears to have a factual foundation, but, in fact, is a bald assertion. What is required is a close examination of the aggravating circumstances of these cases to identify any "aberrations" and to understand under what circumstances they occur.

In products liability, it is unusual for manufacturers to be assessed pu-

"reasonable." *Id.* at 2720, 2721-22. These include the wealth of the defendant, "potential harm" of the defendant's course of conduct, the degree of bad faith displayed by the defendant, and whether the conduct was part of a "larger pattern of fraud, trickery and deceit." *Id.* at 2721-22 (citing *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1 (1991)).

Justice Scalia, joined by Justice Thomas, agreed with these criteria but would "go further" than the plurality, asserting that "the Constitution gives federal courts no business in this area except to assure that due process . . . has been observed." *Id.* at 2727 (Scalia, J., concurring in the judgment). They invite reformers to seek redress in the state legislatures rather than in some imagined "secret repository" of the Due Process Clause. *Id.* (Scalia, J., concurring in the judgment).

Justice Kennedy agreed with the plurality's affirmation of the lopsided award, because it was solidly founded upon evidence that *TXO* engaged in a pattern of "willful and malicious conduct." *Id.* at 2726 (Kennedy, J., concurring in part and concurring in the judgment). However, he rejected the plurality's interpretation of the high-ratio award as stemming from the *TXO* jury's awareness of the potential harm caused by the defendant's acts. *Id.* at 2725-26 (Kennedy, J., concurring in part and concurring in the judgment). Justice Kennedy also disagreed with the plurality's preoccupation with "reasonableness" as the basis of substantive due process review, and argued rather, that judicial oversight should focus on whether the punitive award was a product of juror bias or misconduct. *Id.* at 2725 (Kennedy, J., concurring in part and concurring in the judgment).

287. Amici Curiae Brief of Association of Trial Lawyers of America in Support of Respondents at 18, *TXO*, 113 S. Ct. 2711 (1993) (No. 92-479) (citing *PETERSON ET AL.*, *supra* note 167, at 65).

288. *Id.* at 18.

289. Amicus Curiae Brief of Phillips Petroleum in Support of Petitioner at 12, *TXO*, (No. 92-479).

nitive damages without some documentary or testimonial evidence proving inaction in the face of danger.²⁹⁰ In the great majority of the product cases we studied, punitive damages were assessed only when a manufacturer went well beyond ordinary negligence.²⁹¹ The documented cost-benefit analysis, such as was found in the Ford Pinto case,²⁹² or the "I don't care attitude" displayed by the manufacturer of infant formula that removed sodium chloride from its product, causing retardation in babies, were typical of the kind of corporate misconduct that evinced punitive damages. The juries in these infant formula cases were particularly enraged when the company asserted that it removed the salt to protect the infants from high blood pressure.²⁹³ Another flagrant example of corporate irresponsibility that led to punitive damages is the mass tort resulting in injuries and deaths caused by leaking or ruptured silicone-gel breast implants.²⁹⁴ Such extreme

290. Rustad, *In Defense of Punitive Damages*, *supra* note 171, at 66-73.

291. The fact that punitive damages are rarely awarded and not assessed for ordinary negligence is hardly surprising. As Professor Richard A. Epstein has observed, "[i]n all jurisdictions allegations of negligence have been regarded as wholly insufficient to support punitive damages. Rather, proof of some conscious wrongdoing by the defendant has been required." RICHARD A. EPSTEIN, *CASES AND MATERIALS ON TORTS* 800 (5th ed. 1990)

292. *Grimshaw v. Ford Motor Co.*, 174 Cal. Rptr. 348 (App. Ct. 1981).

293. *E.g.*, *Duddleston & Sheridan v. Syntex Labs., Inc.*, No. 80-L-57726 (Cir. Ct. Ill., Feb. 28, 1985).

294. An estimated one million women have received breast implants since they were placed on the market in 1962. Sally Roberts, *Second-generation Injuries Alleged From Breast Implants*, *BUS. INS.*, April 5, 1993, at 3. In 1982, the FDA recommended that the silicone-gel breast implants be classified as a Class II Medical Device "because the [FDA] Panel believes that this device demonstrated a reasonably satisfactory level of performance over a long period of time." *General and Plastic Surgery Devices*, 47 Fed. Reg. 2810, 2820 (1982). In 1988, the FDA reclassified the implants as Class III devices and ruled that "commercial distribution of this device must cease" unless the firms filed pre-market approval applications by July 9, 1991. The Food and Drug Administration took the product off the market in January 1992, after its investigation established the dangers of leaking or ruptured implants. The FDA has proposed tracking of any medical implants containing silicone. *Medical Devices: Device Tracking*, 57 Fed. Reg. 10,702, 10,707 (1992).

The companies producing breast implants concealed their knowledge of the dangers of the implants from the FDA as well as the general public:

[A]s early as the 1960's, published medical studies and Dow's [Dow Corning Corporation] own testing had revealed the deleterious effects of silicone within the human body and silicone's harmful tendency to migrate and to disrupt the immune system. Animal studies reported an immune system response triggered. . . [autoimmune disorders] and at least six published articles demonstrated these pathological effects. At the same time, there were clinical reports of humans who had been injected with silicone fluid . . . showing full-blown reactions attributed to silicone in people that were leading to involvement of the immune system.

Brief of Plaintiff-Appellee, *Hopkins v. Dow Corning Corp.* (No. 92-16132) (9th Cir. 1993) (citations omitted).

The first punitive damages award against Dow Corning Corporation over breast implants was handed down in 1985. *Stern v. Dow Corning Corp.*, Nos. 85-2345 & 85-2346 (9th Cir. 1985) (\$1.7 million jury verdict in favor of woman who developed silicone-induced lymphadenopathy as

corporate misbehavior is unusual, as are the punitive damage awards in products liability. We do not know how many “aberrations” occur in the awarding of punitive damages in other substantive areas, but neither does the author of the amici, who claims that arbitrary and capricious punitive damage awards are routine.

Anecdotes masquerade as empirical fact when they are interwoven with authoritative data, as in the example below:

While such a ten million dollars “private fine” . . . for an unexceptional tort that caused only minimal harm seems remarkable, there is one respect in which it is not extraordinary: as the size of punitive damage awards has grown exponentially in recent years, more and more of them—like the judgment in this case—have borne no discernible relationship to the gravity of the defendant’s misconduct.²⁹⁵

While the RAND Study is respected social science research, Peter Huber, the person cited in this source, makes mere assertions.²⁹⁶ By mixing the two sources, the reader is misled into believing that RAND found, “no discernible relationship” between punitive awards and the defendant’s misconduct. This, in fact, is merely a Peter Huber assertion—not social science.

Neither the parties nor their respective amici provided the Court with copies of any of the five studies, much less the underlying data or any explanation of the methodology other than the period and counties studied. How then are the Justices to determine whether there is a widespread punitive damages problem or an increase due to new applications of the doctrine? In the final section, we suggest mechanisms that will allow the Justices to better evaluate the social science data presented to them.

a result of a ruptured Dow breast implant). The evidence that breast implant manufacturers concealed the dangers of implants led to a punitive damage award of \$6.5 million in *Hopkins v. Dow Corning Corp.*, No. C88-4703 CEH, 1992 U.S. Dist. LEXIS 8580 (N.D. Cal. May 27, 1992). In *Hopkins*, the plaintiff argued that Dow was guilty of fraud because it had rushed development of the implants sold to her; had specific knowledge of serious health concerns but failed to adequately research these concerns; and knew that implants might cause autoimmune disease through implant rupture or gel bleed. Brief of Plaintiff-Appellee, *Hopkins v. Dow-Corning, Corp.*, 1992 U.S. Dist. LEXIS 8580 (N.D. Cal. May 27, 1992) (No. C88-4703 CEH), at 24-31. Judge Sam Pointer of the Northern District of Alabama has been appointed to head the Silicone Gel Breast Implant Multidistrict Litigation Panel formed to handle the flood of compensatory and punitive claims against Dow and the other manufacturers. *In re Silicone Gel Breast Implants Products Liability Litigation*, 793 F. Supp. 1098 (N.D. Ala. 1992).

295. Amicus Curiae Brief of American Tort Reform Association in Support of Petitioner at 4, *TXO Prod. Corp. v. Alliance Resources Corp.*, 113 S. Ct. 2711 (1993) (No. 92-479) (citing PETER HUBER, *LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES* (1988)) (citations omitted).

296. See Jeff L. Lewin, *Calabresi’s Revenge*, 21 HOFSTRA L. REV. 183 (1992) and Joseph A. Page, *Deforming Tort Reform*, 78 GEO. L. REV. 649 (1990), for two of many discussions of the ways in which Peter Huber employs anecdotal methodology, sweeping generalizations and appeals to emotion instead of systematic investigation in PETER HUBER, *LIABILITY: THE LEGAL REVOLUTION AND ITS CONSEQUENCES* (1988).

V. PROPOSED SAFEGUARDS AGAINST JUNK SOCIAL SCIENCE

Social science evidence increasingly is used in a wide variety of important Supreme Court issues.²⁹⁷ We applaud this trend as an alternative to “the grab bag of informal methods of reasoning” that Richard Posner criticizes as “practical reason.”²⁹⁸ Hunches and intuition, “authoritative misinformation,”²⁹⁹ are resorted to in the absence of reliable sources of extra-legal fact.³⁰⁰ Justices are not immune from the human tendency to “overvalue vivid anecdotes when making important decisions.”³⁰¹

The Court has a continuing need for empirical evidence in its constitutional fact-finding, but some new mechanism must be adopted to assist the Justices in assessing competing claims made by partisan amici. The expanded use of the amici curiae brief to represent public and private interests³⁰² serves valuable functions.³⁰³ But the Justices need more guidance to determine whether the amici are distorting findings, citing unreliable data or drawing questionable normative arguments from incomplete data.³⁰⁴ With social science findings, “[a]ll proffered assertions are not equal.”³⁰⁵ The solution to this problem is to expand the role of social scientists in constitutional fact-finding, not curtail it.

297. See, e.g., Ronald Roesch et al., *supra* note 94, at 1-5 (documenting the frequency and the uses of social science data in amicus curiae briefs).

298. RICHARD A. POSNER, *THE PROBLEMS OF JURISPRUDENCE* 455 (1990).

299. Michael J. Saks, *Judicial Attention to the Way the World Works*, 75 IOWA L. REV. 1011, 1015 (1990).

300. Susan P. Sturm, *A Normative Theory of Public Law Remedies*, 79 GEO. L.J. 1355, 1357 (1991) (contending that exclusively normative judicial decision-making is inadequate in dealing with public law remedies); see also DONALD L. HOROWITZ, *THE COURTS AND SOCIAL POLICY* 4 (1977) (describing complex policy terrain involved in judicial decision-making).

301. J. Alexander Tanford, *The Limits of a Scientific Jurisprudence: The Supreme Court and Psychology*, 66 IND. L.J. 137, 145 (1990) (citations omitted).

302. The role of amicus curiae is particularly important in cases involving critical public law implications. See, e.g., *Michigan Prisons Case*, 116 F.R.D. 655, 657 (W.D. Mich. 1987) (citing amici participation in decision determining prisoners' rights); see also Susan Behuniak-Long, *Friendly Fire: Amici Curiae and Webster v. Reproductive Health Services*, 74 JUDICATURE 261 (Feb./Mar. 1991) (discussing amici participation in judicial decision-making in abortion rights case); *New Jersey v. T.L.O.*, 469 U.S. 325, 334 (1985) (citing empirical evidence provided by amici on difficult problems of constraining violence in American schools).

303. See generally Loretta Re, *The Amicus Curiae Brief: Access to the Courts For Public Interest Associations*, 14 MELB. U. L. REV. 522, 525 (1984) (arguing that amici briefs allow public participation in judicial decisions).

304. There are any number of ways that existing social science findings can be distorted by lobbyists. There are also “any number of factors that might compromise the accuracy” of social science research. It is the job of social scientists to eliminate or minimize error. Laurens Walker & John Monahan, *Social Facts: Scientific Methodology or Legal Precedent*, 76 CAL. L. REV. 877, 886 n.43 (1988) (citation omitted).

305. Saks, *supra* note 299, at 1015.

A. *Bridging the Gap Between Norms of Law and Social Science*

Professional social science associations are a natural source for the neutral expertise the Court needs to assess competing social science claims. These organizations could be requested to file amicus curiae briefs in support of neither party to assist the Court.³⁰⁶ The mechanism of neutral expert amici would be consistent with the original use of this device. Currently, it is quite unusual for national social science professional organizations to file amicus briefs before the Supreme Court. Only the American Psychological Association (APA), in conjunction with the American Psychology—Law Society, makes a practice of filing such briefs.³⁰⁷

There is a lively debate among psychologists about the proper role of social science in amicus curiae briefs. Gerald Barrett and Scott Morris criticize the American Psychological Association's amicus brief in *Price Waterhouse v. Hopkins*³⁰⁸ for violating scientific norms in advocating for the plaintiff³⁰⁹ because the brief presented psychological data to support the

306. The American Psychological Association (APA) sometimes submits amici curiae briefs that support neither party. *See, e.g.*, Brief for Amicus Curiae American Psychological Association in Support of Neither Party, at 2, *State of Maryland v. Craig*, 497 U.S. 836 (1990) (No. 89-478) (noting that the "APA has participated as amicus in many cases" and that it "contributes amicus briefs only where it has special knowledge to share with the court").

307. Our search of LEXIS located numerous amici briefs filed in Supreme Court cases from September 1979 to May 1993 by the American Psychological Association (APA). The American Sociological Association (ASA) had filed only one brief in the same period. Brief for Amicus Curiae American Sociological Association in Support of Respondents, *passim*, *Metropolitan Edison Co. v. People Against Nuclear Energy*, 459 U.S. 966 (1982) (Nos. 81-2399 & 82-358) (arguing that sociology is ideally suited to providing the Court information on social impacts). Other major social science organizations such as the American Political Science Association and the American Economic Association did not file any amici curiae briefs during this period. Search of LEXIS, Genfed library, Briefs file (May 1993).

A likely reason for the non-participation of these organizations is that their membership would need to be consulted before taking a side on a controversial policy issue. Briefs filed on behalf of neither party that would simply summarize available relevant literature within their discipline would not require membership approval. Such presentations would briefly explain a study design, research methods and assumptions, period studied, site studied, possible biases, and generalizability to the issue being litigated. Even these "neutral" briefs, however, might be slanted by the conscious or unconscious policy goals, knowledge bases and methodological preferences of the filers.

308. 490 U.S. 228 (1989).

309. Barrett and Morris write:

[t]he avowed purpose of the APA brief was to "inform this Court of scientific thought regarding stereotyping, particularly as it affects judgments of women in work settings." However, the brief failed to portray accurately the scientific literature. The brief gives the impression of a consistent body of research indicating that sex stereotypes affect business decisions. In fact, the research on stereotyping and sex bias is inconclusive. Although research supporting their position is provided in the brief, a large body of contradictory research was ignored. In addition, many of the conclusions in the brief are drawn primarily from laboratory research, with questionable generalizability to actual work situations.

plaintiff's claims of sex discrimination.³¹⁰ Jane Goodman defends the APA brief,³¹¹ maintaining that social science facts do not need to be limited to Brandeis-type legislative briefs. Social science data may also minimize false assumptions by entering into adjudicative fact-finding.³¹²

Barrett and Morris believe that problems will inevitably arise because of the conflict between the norms of science and those of law. They write:

A problem arises from a difference in the style of writing a legal

Gerald V. Barrett & Scott B. Morris, *The American Psychological Association's Amicus Curiae Brief in Price Waterhouse v. Hopkins: The Values of Science Versus the Values of the Law*, 17 LAW & HUM. BEHAV. 201, 204 (1993) (footnote omitted).

310. Susan T. Fiske et al., *Social Science Research on Trial: Use of Sex Stereotyping Research in Price Waterhouse v. Hopkins*, 46 AM. PSYCHOL. 1049, 1053-54 (1991) (summarizing research in APA's amicus brief).

311. Goodman writes:

This type of APA amicus brief [in *Price Waterhouse*] is perfectly appropriate, given the involvement of the expert from the pretrial stage on behalf of the plaintiff. In essence, my assessment of the APA amicus brief is precisely that it was performing its assigned function. The position advocated by the APA brief is not so much use of psychology in support of a particular party or a particular legal outcome, but use of psychology in establishing elements of proof probative of legal issues that are elusive and extremely difficult to assess, namely, the presence of impermissible discriminatory motives.

Jane Goodman, *Evaluating Psychological Expertise on Question of Social Fact, The Case of Price Waterhouse v. Hopkins*, 17 LAW & HUM. BEHAV. 249, 252 (1993).

312. Goodman explains:

Adjudicative facts are typically those facts determined at the trial level by the fact-finder based on the oral testimony of witnesses, subject to the rules of evidence and opportunity for cross-examination. The ultimate adjudicative fact, in a gender-based disparate treatment case, such as *Price Waterhouse*, is whether the employer discriminated against the plaintiff when a specific adverse employment decision was made—in this instance, denial of promotion to partnership. Put another way, adjudicative facts are the facts of the case that pertain to the particular parties in the litigation, derived from testimony concerning the specific events in controversy. Adjudicative facts may be determined from expert testimony presented at trial. The purpose of the expert testimony in *Price Waterhouse* was to assist the court in determining whether Ms. Hopkins was treated differently from male candidates for promotion in part because of her gender.

Legislative facts, by comparison, are general social facts, including products of psychological expertise, that provide background on existing social science authority used to guide the court in creating or modifying the content of existing law. The goal in presenting legislative facts is to assist the court in making policy determinations that have a bearing on individuals other than the parties engaged in the immediate case in controversy. Legislative facts are most frequently presented to a reviewing court in a written brief on appeal after the trial is over and the adjudicative facts have been determined by the fact-finder, although they may be presented at trial by a testifying expert witness The goal of the APA brief was not to change the law or to modify legal doctrine by citing literature summarizing research on stereotyping Despite the superficial blurring of the distinction between a science translation brief and a guild brief, there is little question that the APA's brief has more features in common with an appellate brief submitted by advocates for one party or another than it does with a traditional, nonpartisan *Brandeis* brief.

Id. at 250, 252 (citation omitted).

brief versus a scientific review. Legal briefs are designed to present convincing arguments and evidence to support these arguments. Presenting alternative evidence is the responsibility of the opposing party. A scientific review, on the other hand, is expected to present an unbiased account of the literature and to report contradictory evidence when it exists. These two distinct and often conflicting philosophies must be combined when drafting a brief, and often the values of the legal system predominate over the values of science.³¹³

Barrett and Morris charge that the APA brief writers crossed the line between informing the court—the proper role of a science translation brief—and advocating for a client. They argue that such advocacy undermines the authoritativeness of social science research.³¹⁴

These psychologists propose that, to avoid the traps of advocacy, social science amicus curiae briefs should “present only conclusions from the scientific literature and should not make judgments about disputed facts.”³¹⁵ They also suggest that “amicus curiae briefs be given priority publication in a relevant journal.”³¹⁶ Publication in the scientific community of discourse would allow dissenting views to be produced in time for the Court to take notice. These mechanisms are consistent with our belief that the solution to bias is to encourage the availability of as much social science input to the Court.³¹⁷

Social science in amicus briefs can make an important contribution to constitutional fact-finding, provided that there are safeguards against the selective use, misuse and non-use of science data by special-interest groups. The amicus curiae can play a key role in bringing overlooked issues to the

313. Barrett & Morris, *supra* note 309, at 201-02.

314. Barrett and Morris argue:

If APA forfeits its impartiality and produces briefs that are slanted in favor of one side, it may lose its credibility as a source of scientific knowledge. If the courts do not accept APA briefs as scientific authority, their value to society will be lost. Thus, it is of critical importance that APA ensure the thoroughness and validity of these amicus curiae briefs. . . . As Judge Bazelon warned, psychologists must resist the temptation to exaggerate their psychological knowledge, because in the long run it will only reduce their effectiveness to society and the courts.

Id. at 202 (citing David L. Bazelon, *Veils, Values and Social Responsibility*, 37 AM. PSYCHOL. 115-21 (1982)).

315. *Id.* at 211.

316. *Id.*

317. The authors of the APA brief, however, contest the claim that their amicus curiae brief was slanted. They reject Barrett and Morris's suggestions for guarding against advocacy, declaring that “[t]o imply that coercion is needed to guarantee objectivity is simply inaccurate and insulting. . . . [I]t is an insult to imply that the brief authors purposefully misrepresented their own work.” Susan T. Fiske et al., *What Constitutes a Scientific Review? A Majority Retort to Barrett and Morris*, 17 LAW & HUM. BEHAV. 217, 231 (1993) (citations omitted).

Court's attention. In *Mapp v. Ohio*,³¹⁸ for example, the American Civil Liberties Union's amicus was the only brief that raised the Fourth Amendment search warrant issue that proved central to the Court's decision.³¹⁹

These procedural reforms are general principles designed to raise discussion about the problems of using social science data in constitutional advocacy. As social science becomes more commonplace in constitutional decision-making, and as advances in statistics and computing technology lead to increasingly complex methodologies, the Court may find itself ill-equipped to deal with complex social scientific information.³²⁰ After all, few Supreme Court justices "are trained in statistics, demography, psychoanalysis, cognitive psychology, or whatever the relevant social science material may be."³²¹

Judge Skelly Wright typifies the dilemma of a judiciary confused by contradictory statistical evidence in a discrimination case. He castigated the expert witnesses in one case for producing "an overgrown garden of numbers and charts and jargon like 'standard deviation of the variable,' 'statistical significance,' and 'Pearson product moment coefficients.'"³²² Such statistical terminology is commonly understood by quantitative social sciences but totally foreign to those with only legal training.³²³ The problem is not the result of deliberate obfuscation, but of an inevitable gap in the training of lawyers and judges. Judges need training in social science research methods so that they can assess the adequacy of the studies.³²⁴

318. 367 U.S. 643, 645-46 (1961).

319. See also Lowman, *supra* note 24, at 1259 n.95 ("The role played by private amici in providing information of the social implications of potential judicial decisions should not be undervalued. Courts should not, and cannot, rely solely on information provided by governmental sources." (citations omitted)).

320. A model rule needs to be developed that sets the ground rules for the presentation of social science data to the Court. See Saks, *supra* note 299, at 1027.

321. *Id.* at 1026.

322. *Hobson v. Hansen*, 327 F. Supp. 844, 859 (D.D.C. 1971).

323. The terminology employed by judges is presumably just as difficult to understand for most social scientists.

324. Monahan and Walker argue that social science briefs should be evaluated by the relevant scientific community in order to ensure that the studies employ valid research methods, are generalizable to the problem at hand and contain findings that are consistent with other research in the field. John Monahan & Laurens Walker, *Judicial Use of Social Science Research*, 15 LAW & HUM. BEHAV. 571, 571-584 (1991).

Methodology is the set of ground rules used to evaluate whether data supports a given hypothesis. Edward L. Rubin, *The Practice and Discourse of Legal Scholarship*, 86 MICH. L. REV. 1835, 1896 (1988). The external validity of a piece of social science research is its ability to accurately measure the phenomena it purports to evaluate. See generally THOMAS R. COOK & DONALD CAMPBELL, *QUASI-EXPERIMENTATION: DESIGN & ANALYSIS ISSUES FOR FIELDS SETTINGS* (1979); JOHN MONAHAN & LAURENS WALKER, *SOCIAL SCIENCE IN LAW* 46-52 (1985). Professor Sheri Johnson argues that the discomfort from the reliance upon social science data in *Brown v. Board of Educ. of Topeka*, 347 U.S. 483 (1954), stems from methodological questions.

Faced with a similar problem, Judge Higginbotham called in statistical experts to educate him about the regression equations submitted by counsel.³²⁵ However, few judges have the time, the dedication or the resources to turn their courtrooms into graduate research seminars. The Supreme Court Justices are unlikely to attend a series of lectures on advanced statistical analysis. The following are some alternative devices that would help the Court evaluate social science research.

B. *Expanded Disclosure Requirements in Amicus Briefs*

Thirty years ago, a commentator wrote that the institution of the amicus brief has moved from neutrality to partisanship, "from friendship to advocacy."³²⁶ The changed nature of Supreme Court amicus filings requires new rules that take into account the new role of social science. Present Supreme Court rules require the disclosure of the "party supported or [an indication of] whether it suggests affirmance or reversal."³²⁷ Amici also are required to "state the nature of the applicant's interest."³²⁸ We would require more detailed disclosures when social science is submitted by amici.

Information should be provided to the Court about the qualifications of the principal investigators, the funding sources for the studies, and possible conflicts-of-interest. As Jeffrey Katzer and his colleagues note: "Since some type of bias is possible in all studies . . . [it is necessary] to identify the major sources of bias and to judge if the bias is serious enough to warrant reinterpretation of the results of the study."³²⁹ Amici should be required to submit by appendix published and unpublished reports which

Sheri L. Johnson, *Black Innocence and the White Jury*, 83 MICH. L. REV. 1611, 1704 (1985) (noting critics' view of the inadequacy of the data used in desegregation cases).

325. *Vuyanich v. Republic Nat'l Bank*, 505 F. Supp. 224, 267-275 (N.D. Tex. 1980), *modified in part*, 521 F. Supp. 656 (N.D. Tex. 1981), *vacated*, 723 F.2d 1195 (5th Cir. 1984), *cert. denied*, 469 U.S. 1073 (1984).

326. Krislov, *supra* note 18, at 703, 717-18.

327. SUP. CT. R. 37(3).

328. SUP. CT. R. 37(4) ("[The] motion shall state the nature of the applicant's interest and set forth facts or questions of law that have not been or reasons for believing that they will not be, presented by the parties and their relevancy to the disposition of the case."). *See, e.g.*, Brief of Washington Legal Foundation as Amici Curiae in Support of Petitioner, TXO Prod. Corp. v. Alliance Resources Corp., 113 S. Ct. 2711 (1993) (No. 92-479) (noting that its interest as amicus curiae in TXO was that it "regularly appears before federal and state courts promoting economic liberty, free enterprise principles and a limited and accountable government"). The WLF is commendably honest in noting that it has "devoted substantial resources over the years through litigation and publishing to promote civil justice reform, including tort reform and opposing excessive punitive damages." *Id.*

329. JEFFREY KATZER ET AL., *EVALUATING INFORMATION: A GUIDE FOR USERS OF SOCIAL SCIENCE RESEARCH* 51 (2d ed. 1982).

describe the methodology and underlying data utilized.³³⁰ The Court should be informed if a study was produced for the purpose of litigation rather than for publication in a peer-reviewed professional social science journal. All social science studies may be biased by the investigators' methodology, theory, prejudices, or funding. These disclosure requirements would aid the Court in determining the validity of the studies and the reliability of the descriptions of the findings provided in the amici briefs.

C. *Judicially-Appointed Social Science Experts*

United States Supreme Court Justices are well-educated individuals, but they are not necessarily familiar with the methods of social science. The Court has long had the power to invite amici to present information on questions of law and fact in lower courts³³¹ as well as in the Supreme Court.³³² However, the Court has rarely used this power, except to invite governmental interests. Court-appointed experts in judicial decision-making have been criticized as inimical to the adversarial system precisely because of their allegiance to social science values.³³³

To address these problems, professional science associations could ap-

330. This appendix should contain details of the methodology including sample selection, research design, statistical technique employed, replicability, and underlying sources of data supporting conclusions for all social scientific studies cited in an amici brief.

331. The trial courts have several well-established mechanisms for receiving and evaluating social science data. Judicial notice of social science facts is one mechanism for a court to acquire scientific information pertinent to legal questions: "First it should be noted that a court does not have to resort only to what is presented by the parties. The court is not restricted to evidence adduced by the rules of evidence." Harold L. Korn, *Law, Fact, and Science in the Courts*, 66 COLUM. L. REV. 1080, 1088-89 (1966). The inherent power of the court allows judges to hire their own social science experts, just as they have the power to hire a guardian ad litem. However, only in exceptional circumstances are funds available to do this. Without independent experts, courts will experience difficulty interpreting social science data. The trial judge in *Vuynich v. Republic Nat'l Bank*, 505 F. Supp. 224 (N.D. Tex. 1982), *modified in part*, 521 F. Supp. 656 (N.D. Tex. 1981), *vacated*, 723 F.2d 1195 (5th Cir. 1984), *cert. denied*, 469 U.S. 1073 (1984), indeed complained, "Having to decide which social science expert to believe can be very frustrating to a judge with no statistical background." *Id.* at 258.

332. *See, e.g., In re Utilities Power & Light Corp.*, 90 F.2d 798, 801 (7th Cir. 1937) (citing example of Supreme Court "appointing amicus curiae of its own motion").

333. Advocates would be unlikely to object to Court advisors retained to explain such technical facts as the logic of regression equations or tests of significance. However, if the social science advisor were to have *ex parte* communications with the justices on policy arguments drawn from the data, many would complain because they would have no opportunity to question the advisor or even to hear the remarks.

Arthur F. Konopka explains this resistance to the court-appointed science experts:

[The expert] may not develop the case in the way the parties would like. Parties have a right to develop the case, that is, agree out of court upon certain issues which they don't want raised in court. A court-appointed expert may go after those issues because he or she is not privy to their agreements, thus disrupting normal litigation strategies. . . . The court-appointed expert is usually thought of as someone who is put on the stand and is,

point an advisory panel of social scientists to consult with the Court when it is faced with a difficult problem of data interpretation.³³⁴ The Court might also consider employing an advisory panel of social scientists to render opinions on social science questions.³³⁵ Another possible mechanism to maximize the impartiality of the social science experts would be to have both sides suggest experts who would in turn agree on a neutral social scientist.

D. *Social Science Special Masters*

The Court could commission studies in areas where there are gaps in the social science literature³³⁶ by submitting social science factual disputes to a specialized social science court paralleling specialized courts such as the Court of Customs or Court of Patent Appeals. Furthermore, a special master could receive briefs, hold oral arguments, and make findings of fact to the Court on specific social science questions.

The Court's authority would be unimpeded by a special master because it is free to reject the social science special master's findings or to resubmit the issue for further research. These special masters could be drawn from a pool of academic experts in research methods and

therefore, available for cross-examination by the parties, so the role is, at least, less onerous to the bar than that of the court advisor.

Arthur F. Konopka et al., *Applied Social Research as Evidence in Litigation*, in *THE USE, NON-USE AND ABUSE OF SOCIAL SCIENCE EVIDENCE IN LITIGATION* *supra* note 105, at 129, 130.

Problems might also arise based on the methodological or personal preferences of the Court-appointed expert. For example, the Court could choose a methodologist completely enamored with tests of significance who might totally dismiss a social network analysis. STEPHEN O. BERKOWITZ, *AN INTRODUCTION TO STRUCTURAL ANALYSIS* 64-70 (1982).

334. Social science experts could provide the Court with advisory opinions on the adequacy of the methodology, explain the extent to which empirical findings have been replicated, and provide data analysis and interpretation to the Court. Monahan & Walker, *supra* note 4, at 490 (arguing that the value of social science depends upon replication). Given the justices' educational background, there is no necessity to adopt a test barring social science evidence not meeting a "general acceptance" standard.

335. The trial courts already have a functional equivalent to this mechanism under Rule 39(c) of the Federal Rules of Civil Procedure, which provides that in all non-jury actions, the court may try any issue before an advisory jury. FED. R. CIV. P. 39(c). Konopka notes that the advisory jury has fallen into disuse since World War II, yet Rule 39(c) permits them. Konopka et al., *supra* note 333, at 134.

336. For instance, many courts have adopted rules forbidding the confrontation of the defendant with alleged victims of child sexual abuse. Yet these policies are not supported by systematic empirical study. There is little extant research on the question of whether a defendant's face-to-face confrontation with child victims of sexual abuse has any more negative psychological effects than such confrontations has for adult victims. Brief of the National Association of Criminal Defense Lawyers as Amicus Curiae in Support of Respondent at xiv, *Commonwealth of Ky. v. Stincer*, 482 U.S. 730 (1987) (No. 86-572).

statistical analysis.³³⁷ Special masters could be selected by professional associations from among scholars on sabbatical or on temporary loan from their institutions.³³⁸

337. Another possibility is that the social science masters could be drawn from social scientists who have an expertise in law. However, these judges would be less capable of ascertaining the legal relevance of empirical data in constitutional fact-finding, legal relevance, and materiality concerns. See generally John W. Osborne, *Judicial/Technical Assessment of Novel Scientific Evidence*, 1990 U. ILL. L. REV. 497 (1990) (arguing that "science court" judges require some understanding of evidentiary and judicial concerns).

338. Special masters would parallel the proposed Science Courts in that they would bring specialized knowledge to deciding social science questions. The social science special master could employ similar procedures as other appellate panels, within the narrow confines of a social scientific controversy. See, e.g., Arthur Kantrowitz, *The Science Court Experiment*, TRIAL, Mar. 1977, at 48; Richard E. Talbot, 'Science Court': A Possible Way to Obtain Scientific Certainty for Decisions Based on Scientific 'Fact', 8 ENVTL. L. 827 (1978). Ideally, social science judges would have a doctorate in a social science field as well as legal training. There are several joint Ph.D./J.D. programs from which such individuals could be drawn. Joint Ph.D./J.D. programs presently in operation include Northwestern University, State University of New York at Buffalo, University of California at Berkeley and the University of Wisconsin. Northeastern University's Law, Policy and Society Ph.D program also graduates substantial numbers of individuals with J.D. degrees and doctorates in social science disciplines.

Individuals with a joint Ph.D./J.D. also could be drawn from the existing ranks of the more than 1,000 sitting judges. If individuals with these talents exist, there needs to be some mechanism for temporary assignments on the social science court. The judicial panel would then consist of judges trained in the social sciences, with a heavy emphasis on methodological issues.

There is a question whether social science special masters should be career judges or sit temporarily to consider a question within their area of expertise. The advantage of career masters would be continuity, socialization into the role, and a greater understanding of how to resolve law and policy issues. Career judges also would be free from potential conflicts of interest, such as the desire to render a positive decision in exchange for future employment, research funding or other potential gains.

On the other hand, temporary social science masters would provide more flexibility in selecting judges with specialized knowledge in a given area. Universities generally would be superior to industry as a source of social scientific judicial talent because college faculty have the protection of academic freedom and are trained in the norms of science. University professors also tend to be less narrowly specialized than industrial experts. However, extreme care would be needed in the selection of these special masters since academics too may have ideological blinders, be engaged in rivalries, or have a potential financial stake in the outcome.

Social science judicial conferences could be held to train new special masters in the uses of social science data in the courts. Social science special master panels could convene regularly to keep abreast of the latest social scientific methodologies, controversies, and other developments. The advantage of masters with joint graduate degrees in social science and law would be the relative efficiency of learning about new techniques.

A major question would be how a social scientific review of a given controversy would be triggered. The masters should have the power sua sponte to submit given findings to the Court that it might not be aware of in a given case. Either of the parties should have the option of petitioning the Court for a hearing before a special social science master on a given constitutional issue involving social scientific methodologies or data.

The social science court could also accept jurisdiction from lower state and federal trial courts for review of social scientific facts and methodology. The panel members would behave as

E. National Institute of Law, Policy and Social Science

Another method of assisting the judiciary in interpreting social science data would be to create a research agency specifically devoted to law and policy issues that require extra-legal investigations.³³⁹ One mission of the new agency would be to parallel the Justice Department's Bureau of Statistics by collecting systematic data on the civil justice system on a continuing basis.³⁴⁰ Already existing research organizations such as the National Center for State Courts or the Federal Judiciary Center could be expanded to perform these new tasks.

Kenneth Culp Davis contends that the Court continually needs to consult studies of legislative facts. While amici briefs are desirable, he argues that a professional research service for the Court is a necessary reform.³⁴¹ The advantage of an independent agency or research service is that the Court will have an independent professional judgment to assist its inquiry.³⁴²

A National Institute of Law, Policy and the Social Sciences would be the ideal mechanism through which to provide the courts with social science information. This Institute could have a permanent staff of social scientists trained in law and statistics to provide research support to the judiciary.

VI. CONCLUSION

The alternative to admitting social science data is to return to nine-

any other appellate panel. The social science judges would consider briefs, hear oral arguments, and render judicial opinions on the specific social scientific data or method.

339. Professor Kenneth Culp Davis argues that the U.S. Supreme Court needs a research arm. He suggests that the Court should either have its own research body or be permitted to access the Congressional Research Service. Jim Schachter, *High Court Needs Research Arm, Scholar Says*, L.A. TIMES, May 1, 1987, at 2:1.

340. *Researchers on Tort Law's Effects To Seek Common Ground*, LIABILITY WK., Nov. 16, 1992, at 43 (proposing new entity including University of Wisconsin Law Professor Marc Galanter, RAND senior researcher Deborah Hensler, as well as representatives of the National Center for State Courts, the American Bar Foundation, and the American Judicature Society).

341. Kenneth C. Davis, *Judicial, Legislative, and Administrative Lawmaking: A Proposed Research Service for the Supreme Court*, 71 MINN. L. REV. 1 (1986).

342. Davis argues that the Court often will be tackling what he calls "legislative facts." He defines legislative facts: "When an agency [or court] wrestles with a question of law or policy, it is acting legislatively. . . . [t]he facts which inform its legislative judgment may conveniently be denominated legislative facts." Kenneth C. Davis, *An Approach to Problems of Evidence in the Administrative Process*, *supra* note 124, at 402.

The Federal Rules of Evidence have adopted Davis's concept in Rule 201, "Judicial Notice of Adjudicative Facts," which distinguishes between legislative (policy) and adjudicative (between the immediate parties) facts. FED. R. EVID. 201. See generally STEPHEN SALTZBURG & KENNETH REDDEN, FEDERAL RULES OF EVIDENCE MANUAL 59 (4th ed. 1986) (offering commentary upon the Rules).

teenth century legal formalism, according to which justices or other powerful groups substitute their own normative beliefs for scientific findings. *Korematsu v. United States*³⁴³ illustrates the hazard of exclusive reliance on abstract doctrinal reasoning. There, the Court sanctioned a civilian exclusion order requiring the wholesale removal of Japanese-Americans from the west coast. The Court's decision was based on the government's untested assertion that substantial numbers of Japanese-Americans were likely to engage in treasonous activities.³⁴⁴ Even famous civil libertarians like Justice Hugo Black accepted the claim of Japanese-American disloyalty without a scintilla of social scientific data.³⁴⁵ Justice Murphy dissented from the majority opinion, arguing that the removal order was based upon "misinformation, half-truths and insinuations."³⁴⁶

Third-party amici providing social science data can be an important check against governmental abuse of power. Sociological surveys, focus groups, anthropological studies, or any accepted empirical research would have shown the questionable grounds for the Court's decision in *Korematsu*.³⁴⁷

The problem of integrating social science research into constitutional decision-making is "complicated by the fact that not all social science is created equal."³⁴⁸ Social science evidence has a continuing vitality in the Court's constitutional fact-finding.³⁴⁹ We should not deny the Court partisan information, but we should provide it with an independent mechanism to evaluate competing claims. If the Court is to use empirical studies to accurately reflect social reality, it needs additional safeguards. Lobbyists serve a useful purpose. Nevertheless, they should not have unrestricted power to shape the Justices' perception of the social science literature.

343. 323 U.S. 214 (1944).

344. *Id.* at 218-19.

345. *Id.* at 223. Justice Black writes, "We cannot reject as unfounded the judgment of the military authorities and of Congress that there were disloyal members of that population, whose number and strength could not be precisely and quickly ascertained." *Id.* at 218 (citing *Hirabayashi v. United States*, 330 U.S. 81, 99 (1943)); see also Brief of the American Civil Liberties Union et al. as Amici Curiae in Support of Respondents, *United States of America, U.S. v. William Honri*, 482 U.S. 64 (1987) (No. 86-510) (arguing that the United States government concealed from the Court the fact that it considered the reports of Japanese-American cooperation with the enemy to be unreliable).

346. *Korematsu*, 323 U.S. at 239 (Murphy, J., dissenting).

347. See generally ROSEN, *supra* note 69, at 127 (arguing that the *Korematsu* decision suggested "that the Court was willing to act on an unproven 'sociological' judgment, even though the supporting evidence was far from unimpeachable").

348. Faigman, *supra* note 120, at 1079.

349. Faigman argues that the continuing "relevance of the social sciences to judicial decision-making depends on their [social scientists] capacity to inform legal decisionmakers of factual questions concerning human behavior." *Id.* at 1095.