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Trial Outcomes and Demographics: Is There a Bronx Effect?

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Minorities favor injured plaintiffs and give them inflated awards. This folk wisdom in the legal community influences choice of trial locale and the screening of jurors. A Los Angeles court is said to be known by local lawyers as "the bank" because of the frequency and size of its anti-corporate awards.[1] A newspaper article summarizing court results suggests, somewhat jokingly, that the "Bronx County Courthouse should post a warning: People who get sued here run an increased risk of suffering staggering losses."[2] Beliefs about the influence of factors other than race, such as income and urbanization, also are common.

This Article tests these beliefs by studying the mass of tried cases. It analyzes damages awards and plaintiff win rates at trials in both federal and state courts for tort cases, products liability cases, and employment cases. Although award levels and win rates differ significantly across geographic areas, these differences often do not uniformly reflect the folk wisdom about demographic influences. In federal court trials, we find no robust evidence that award levels in cases won by plaintiffs correlate with population demographics in the expected direction. Indeed, one persistent result is a negative relation between award levels and black population percentages. With respect to plaintiff win rates in federal trials, we again find no robust evidence that local demographics help explain trial outcomes in the mass of cases. We do, however, find a significant correlation between larger black

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1. *Blowing Smoke*, N.Y. POST, June 9, 2001, at 16.

2. Arthur S. Hayes, *Inner City Jurors Tend to Rebuff Prosecutors and to Back Plaintiffs*, WALL ST. J., Mar. 24, 1992, at A1. *But see* Mary R. Rose & Neil Vidmar, *The Bronx "Bronx Jury": A Profile of Civil Jury Awards in New York Counties*, 80 TEXAS L. REV. 1889, 1896–98 (2002) (reporting Bronx awards not to be extreme).

population percentages and the likelihood of a plaintiff trial win in urban job discrimination, products liability, and tort cases.

In state court trials, we again find no robust evidence (at traditional levels of statistical significance) that race, income, or urbanization substantially help explain award levels. Poverty rates do have marginally significant correlations with increased award levels in tort and employment cases. And plaintiff win rates do correlate positively with poverty rates in state court tort cases, but this effect does not emerge in products liability or employment cases. Overall, we find little evidence of consistent demographic effects on trial outcomes.

Part I describes common beliefs about demographic influences on case outcomes. Part II describes the data used to study these beliefs. Part III shows many of the beliefs to be unfounded and discusses the results. Part IV discusses the implications of case routing and case selection for the results.

I. Perceptions About Locale, Demographics, and Trial Outcomes

Lawyers have definite views about the relationship between demographics and juror performance. Race, income level, and urbanization are thought to relate to juror behavior. Consider the following summary by a former president of the Association of Trial Lawyers of America on the importance of locale and juror characteristics:

> The place of trial is a potent factor that enters evaluation of personal injury cases.... Each county has acquired a generally liberal, middle-of-the-road or conservative reputation. If past verdicts have been consistently low or often resulted in defendants' verdicts, low or high verdicts, the reputation of the county has taken root and is known to most of the legal community. Settlements probably will be affected accordingly.
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> Both sides will consider the ethnic, racial and economic composition of jurors as it affects their philosophical attitudes ....
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> Some counties having concentrations of certain minority ethnic, racial or social groups require careful consideration by trial counsel.[3]

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3. Joseph Kelner & Robert S. Kelner, *Settling Personal Injury Cases—Part II*, N.Y.L.J., Feb. 22, 1994, at 3. *See also* REID HASTIE ET AL., INSIDE THE JUROR 121–50 (1983) (summarizing various stereotypes associated with juror demographics and research on each); Solomon M. Fulero & Steven D. Penrod, *Attorney Jury Selection Folklore: What Do They Think and How Can Psychologists Help?*, 3 FORENSIC REP. 233, 234–40 (1990) (summarizing research and stereotypes); Davan Maharaj, *Courthouse Sees Big Awards*, L.A. TIMES, June 7, 2001, at A34 (describing working-class jurors as hostile to large corporations). But not all lawyers share the same beliefs about jurors. *See* Valerie P. Hans & Neil Vidmar, *Jury Selection*, *in* THE PSYCHOLOGY OF THE COURTROOM 39, 63–65 (Norbert L. Kerr & Robert M. Bray eds., 1982) (stating that indirect studies without observation of lawyers in practice are insufficient to support stereotypes). And exclusive reliance on demographics has been criticized as short-sighted. *See, e.g.*, Valerie P. Hans, *Jury*

One report suggests that damages awards in the Bronx average $1.2 million, double the amount in suburban, affluent Westchester County.[4] And the probability of a plaintiff prevailing in a Bronx civil case is said to be 72% compared with a national average of 57%.[5] Similar gaps between plaintiff success rates for cities and suburbs are reported for St. Louis, Philadelphia, and Chicago.[6] Punitive damages are said to be out of control in Alabama,[7] with special attention given to rural Alabama counties.[8] A leading torts casebook summarizes and questions the conventional wisdom: "[M]any lawyers believe that characteristics such as race, national origin, occupation, and education will influence the way a juror looks at the evidence and the people involved in the case, although the empirical validity of these intuitions is often open to doubt."[9]

Two separable views are worth isolating. One is that counties, the usual level from which jurors are drawn in state courts, have deserved reputations as being generous or not generous to plaintiffs. The county-level observations may be as straightforward as those about the Bronx: a claimed differential in plaintiff success rates and awards across geographic boundaries.[10] County-level perceptions need not necessarily implicate demographic factors. Some counties, after all, will have higher award patterns than others because of the flow of cases or random fluctuation of many possible factors. Indeed, if all locales had the same award pattern, that would be evidence that some factor was at work counteracting expected award distributions.[11] As is true of disease patterns,[12] not all extraordinary clusters

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Selection in Two Countries: A Psychological Perspective, 2 CURRENT PSYCHOL. REV. 283, 293 (1982).

4. Hayes, *supra* note 2, at A1.

5. *Id.*

6. *Id.*

7. Erik K. Moller et al., *Punitive Damages in Financial Injury Jury Verdicts*, 28 J. LEGAL STUD. 283, 294, 327 (1999) (noting Alabama's reputation as pro-plaintiff and for rendering large punitive damage awards).

8. George L. Priest, *Punitive Damages Reform: The Case of Alabama*, 56 LA. L. REV. 825, 829 (1996). Yet systematic study of punitive damages in Alabama reveals at best mixed evidence of striking Alabama effects. Moller et al., *supra* note 7, at 333–34. For some difficulties in terminology that may affect computation of rates at which punitive damages are awarded, see *id.* at 297 tbl.2 n.x ("Alabama law labels all awards in wrongful death actions as 'punitive damages.'"); *id.* at 328 (describing a possible overlap between "general" and "punitive" damages).

9. JAMES A. HENDERSON, JR. ET AL., THE TORTS PROCESS 5 (5th ed. 1999).

10. The data used in most such reports come from jury verdict reports and usually comprise a biased sample of cases. *See, e.g.*, Theodore Eisenberg et al., *Juries, Judges, and Punitive Damages: An Empirical Study*, 87 CORNELL L. REV. 743, 747 n.17 (2002).

11. *See* Theodore Eisenberg, *Testing the Selection Effect: A New Theoretical Framework with Empirical Tests*, 19 J. LEGAL STUD. 337, 341–42 (1990) (suggesting that 50% plaintiff win rates across many trial units would be evidence of an external force pushing juries to strive for a 50% win rate).

12. Roland A. Giroux, Note, Daubert v. Merrell Dow*: Is this Just What the EMF Doctor Ordered?*, 12 PACE ENVTL. L. REV. 393, 409 n.92 (1994) (citing Bette Hileman, *Health Effects of Electromagnetic Fields Remain Unresolved*, CHEMICAL & ENGINEERING NEWS, Nov. 8, 1993, at 16

of activity are pathological. Some counties may be considered award hot spots for local reasons not necessarily related to demographics.

The second view is more distinctively demographically oriented. It is that, regardless of a county's general reputation, jurors' demographic characteristics substantially influence case outcomes. This view is more threatening to the legal system's propriety because it suggests that the merits of cases are subservient to the personal characteristics of jurors. Published reports confirm the existence of stereotypical views, held by lawyers and other observers, of juror characteristics including gender,[13] race,[14] rural character,[15] or other factors.[16] Some empirical evidence supports the stereotypes,[17] but much does not.[18] The ability of trial consultants to enhance

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("But cancer clusters in the general population are often a false signal of problems because most arise by chance alone rather than from exposure to a common source as in an occupational cancer cluster").

13. *See, e.g.*, Barbara Franklin, *Gender Myths Still Play a Role in Jury Selection*, NAT'L L.J., Aug. 22, 1994, at A1.

14. *See* Hayes, *supra* note 2, at A1 (suggesting that black jurors are more likely to award damages than white jurors); JON M. VAN DYKE, JURY SELECTION PROCEDURES: OUR UNCERTAIN COMMITMENT TO REPRESENTATIVE PANELS (1977); Roger S. Kuhn, *Jury Discrimination: The Next Phase*, 41 S. CAL. L. REV. 235 (1968); Note, *The Case for Black Juries*, 79 YALE L.J. 531 (1970); Note, *The Changing Role of the Jury in the Nineteenth Century*, 74 YALE L.J. 170 (1964).

15. *See* Priest, *supra* note 8 (examining the frequency and magnitude of punitive damage awards in Alabama).

16. *See, e.g.*, John L. Hill, *Effective Techniques of Jury Selection and Jury Argument*, *in* TEXAS LAWYERS' PRACTICE GUIDE, VI-B-3 to B-5 (Jim McKeithan ed., 1967); Fulero & Penrod, *supra* note 3, at 234–40. HASTIE ET AL., *supra* note 3, at 121–33 (citing, *e.g.*, victim attractiveness and conduct, inadmissible but relevant testimony, and prior convictions for similar offenses); Hans & Vidmar, *supra* note 3, at 63–65 (listing references discussing juror stereotypes). One lawyer summarizes his views:

> Women are more compassionate than men in most criminal cases, but they can be ruthless when it comes to sex crimes. Men tend to be harder on defendants. Heterosexual men tend to respond negatively to gay men. Homosexuals, men and women alike, are sympathetic to mistreatment. ("Like black people, they are sensitive to injustice because they have had a lot of it put on them.")

Mary B.W. Tabor, *Stereotyping Men, Women and Juries by Trial and Error*, N.Y. TIMES, Feb. 6, 1994, § 4, at 3 (quoting attorney James Paul Linn).

17. William J. Bowers et al., *Death Sentencing in Black and White: An Empirical Analysis of the Role of Jurors' Race and Jury Racial Composition*, 3 U. PA. J. CONST. L. 171, 179 n.39, 181 (2001) (stating that black jurors are more reluctant than white jurors to vote for death in capital cases); Joan M. Cheever & Joanne Naiman, *The View from the Jury Box*, NAT'L L.J., Feb. 22, 1993, at S2 ("Black and white jurors had starkly contrasting views on how race influences the results of both civil and criminal trials, with blacks perceiving the system heavily weighted against minorities."); Theodore Eisenberg et al., *Forecasting Life and Death: Juror Race, Religion, and Attitude Toward the Death Penalty*, 30 J. LEGAL STUD. 277, 286 (2001) (finding that black jurors are more reluctant than white jurors to vote for death in capital cases); Hayes, *supra* note 2, at A1; Paul Lieberman, *King Jury Reflects Growing Impact of Racial Diversity*, L.A. TIMES, Feb. 28, 1993, at A1; Carol J. Mills & Wayne E. Bohannon, *Character Structure and Jury Behavior: Conceptual and Applied Implication*, 38 J. PERSONALITY & SOC. PSYCHOL. 662, 666 (1980) (finding that personality variables, not just demographics, determined juror decisions); Carol J. Mills & Wayne E. Bohannon, *Juror Characteristics: To What Extent Are They Related to Jury Verdicts?*, 64 JUDICATURE 22, 27 (1980) (reporting that a study found black females more conviction-prone).

jury selection remains a lively topic of social psychology research and debate.[19] A study by Dennis J. Devine and his colleagues reviews the massive empirical literature on juries.[20] Accurately or inaccurately, rightly or wrongly, lawyers rely on stereotypical views about jurors and counties in assessing cases and the reactions of prospective juries.[21]

II. The Data

The data used to test these beliefs come from three sources, two of which provide data about trial outcomes in federal and state courts, and one of which provides county-level demographic data.

A. Federal Trial Court Data

Data about trial outcomes in federal courts come from the Administrative Office of the United States Courts, which gathers data on all federal cases. When any civil case terminates in federal district court, the court clerk files a paper or electronic form with the Administrative Office containing information about the case.[22] The form includes data regarding

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More than two-thirds of black jurors agreed that white plaintiffs are awarded more money for injuries than injured black, Hispanic, or Asian plaintiffs. Only 25% of white jurors agreed that white plaintiffs are better compensated. *The View from the Jury Box: Racial Divide Affects Black, White Panelists*, NAT'L L.J., Feb. 22, 1993, at S8. *See also* RITA JAMES SIMON, THE JURY AND THE DEFENSE OF INSANITY 111 tbl.45 (1967) (stating that blacks voted to acquit more than jurors of other races).

18. *See* Dennis J. Devine et al., *Jury Decision Making: 45 Years of Empirical Research on Deliberating Groups*, 7 PSYCHOL. PUB. POL'Y & L. 622, 673 (2001) (noting that few, if any, juror demographic characteristics are good predictors of verdict preferences); Michael J. Saks, *What Do Jury Experiments Tell Us about How Juries (Should) Make Decisions?*, 6 S. CAL. INTERDISC. L.J. 1, 13 (1997) (concluding that "various social and psychological differences among jurors generally make little difference to the outcome of cases").

19. *See, e.g.*, Fulero & Penrod, *supra* note 3, at 233–34; HASTIE ET AL., *supra* note 3, at 123–51; MICHAEL T. NEITZEL & RONALD C. DILLEHAY, PSYCHOLOGICAL CONSULTATION IN THE COURTROOM (1986) (providing guidance on jury selection for mental health professionals who consult with trial attorneys).

20. Devine et al., *supra* note 18.

21. *See, e.g.*, Tabor, *supra* note 16 (describing how trial lawyers use stereotypes and demographics to select juries). Drawing inferences about group behavior at the jury level from data aggregated at the county or trial unit level raises a problem of "ecological inference." *See generally* CHRISTOPHER H. ACHEN & W. PHILLIPS SHIVELY, CROSS-LEVEL INFERENCE 32 (1995) (describing the "ecological inference problem" and techniques for minimizing the associated statistical errors). This is a common problem in voting rights litigation when one wants to make inferences about the voting behavior of racial groups based on precinct-level votes for different candidates when one lacks information about individuals' votes. *See, e.g.*, Wendy K. Tam Cho & Albert H. Yoon, *Strange Bedfellows: Politics, Courts, and Statistics: Statistical Expert Testimony in Voting Rights Cases*, 10 CORNELL J.L. & PUB. POL'Y 237, 252–55 (2001). Our main goal is not to ascribe behavior at the jury level based on aggregate data but to test for statistical associations between population demographics and trial outcomes.

22. ADMIN. OFF. OF THE U.S. COURTS, GUIDE TO JUDICIARY POLICIES AND PROCEDURES transmittal 64, vol. XI, at II-19 to II-28 (1985). For a complete description of the Administrative Office database, see INTER-UNIVERSITY CONSORTIUM FOR POLITICAL SCIENCE AND SOCIAL

the subject matter and jurisdictional basis of the case; the federal district and the divisional office within a district in which a case was filed; the county of the first listed plaintiff; the dates of filing and termination; the procedural progress of the case at termination, including whether it was tried before judge or jury; and for cases in which a judgment was entered, who prevailed, and any amount awarded in damages. The federal data cover the fiscal years 1979 through 2000;[23] 79,545 jury trial outcomes are in the database, 70,103 of which led to definitive judgments for plaintiffs or defendants, and 27,868 of which resulted in awards to plaintiffs. The data for calendar years 1978 and 2000 are for partial years.[24]

We study three federal case categories that might be most expected to lead to demographic effects or with respect to which concern about such effects has been greatest: job discrimination cases, products liability cases, and personal injury tort cases (excluding products liability cases). Together, these case categories resulted in 39,492 federal jury trials, 35,018 of which resulted in definitive outcomes for plaintiffs or defendants, 14,634 of which led to positive awards for plaintiffs. These three categories thus include more than half of all federal jury trials that have led to positive awards for plaintiffs over a period of twenty-two full or partial calendar years.

B. State Trial Court Data

The Civil Trial Court Network (CTCN), a project of the National Center for State Courts and the Bureau of Justice Statistics (BJS), obtains data directly from state court clerks' offices. The data consist of trial outcomes from forty-five of the largest seventy-five United States counties. These data provide the least biased sample of trial awards and do not suffer from the

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RESEARCH, FEDERAL COURT CASES: INTEGRATED DATA BASE, 1970–2000 (Study No. 8429), *at* http://www.icpsr.umich.edu:8080/ABSTRACTS/08429.xml?format=ICPSR [hereinafter ICPSR]. The principal codebook for the Integrated Data Base is FEDERAL JUDICIAL CENTER, FEDERAL COURT CASES: INTEGRATED DATA BASE, 1970–1991: APPELLATE TERMINATIONS/PENDING, 1971–1987, CIVIL TERMINATIONS/PENDING, 1970–1987 (ICPSR 8429) (Fifth ICPSR Ed. (Appellate Terminations/Pending, 1971–1987), Sixth ICPSR Ed. (Civil Terminations/Pending, 1970–1987), Aug. 1996), *downloadable from* http://www.icpsr.umich.edu:8080/ABSTRACTS/08429.xml?format=ICPSR [hereinafter ICPSR II]. Later editions should also be consulted when working with the data.

23. The Administrative Office began recording who prevailed in fiscal year 1979. ICPSR II, *supra* note 22, at 52–53 (civil codebook). For additional discussion of the Administrative Office data, see Kevin M. Clermont & Theodore Eisenberg, *Do Case Outcomes Really Reveal Anything About the Legal System? Win Rates and Removal Jurisdiction*, 83 CORNELL L. REV. 581, 585–87 (1998); James A. Henderson, Jr. & Theodore Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. REV. 479, 518–22 (1990); Stewart J. Schwab & Theodore Eisenberg, *Explaining Constitutional Tort Litigation: The Influence of the Attorney Fees Statute and the Government as Defendant*, 73 CORNELL L. REV. 719, 723–25 (1988).

24. We drop from the sample cases terminated in Puerto Rico, the Virgin Islands, Guam, and the Northern Mariana Islands.

known biases of jury verdict reporters.[25] The same forty-five counties were surveyed in both fiscal year 1992 and calendar year 1996.[26] We combine those two year-long state surveys to yield a sample of 12,604 jury trials, of which 5,947 led to positive awards to plaintiffs. For the three case categories studied here, there are 10,589 complete trials, which led to 4,863 positive awards to plaintiffs.

Case categories in the state data do not overlap perfectly with the federal case categories, but the similarities are substantial. The state products liability category is directly comparable with the federal. The federal tort categories used are reasonably compatible with the CTCN tort categories. The specific CTCN tort case categories for the 1996 data are: automobile, premises liability, products liability,[27] intentional torts, medical malpractice, professional malpractice, slander/libel, other negligence, and fraud.[28] The 1992 data use "toxic substances," "unknown," and "other negligence" in lieu of the 1996 "other negligence" and "fraud" categories.[29] With respect to employment cases, the CTCN 1996 data include both an "employment discrimination" case category and a case category labeled "other employment disputes."[30] The 1992 data include the single category "employment contracts."[31] We treat these categories as "employment" cases.

C. The Census Data

The third data source is the Bureau of the Census, which gathers data about many population characteristics. The data include information about race, income, education, housing, and urbanization. These data are aggregated, *inter alia*, at the county level.[32] Since the federal court trial data span so many years, one can use the 1980 census data for the trial years closest to that census and the 1990 census data for the trial years closest to that census. The year 2000 census data about income are not yet available at

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25. *See* Eisenberg et al., *supra* note 10, at 747 (arguing that this study is "the most representative sample of state court trials in the United States" because of its size and absence of self-reporting bias).

26. CAROL J. DEFRANCES & MARIKA F.X. LITRAS, U.S. DEP'T OF JUSTICE, CIVIL TRIAL CASES AND VERDICTS IN LARGE COUNTIES, 1996 (1999) [hereinafter BJS 1996]; STEVEN K. SMITH ET AL., U.S. DEP'T OF JUSTICE, TORT CASES IN LARGE COUNTIES, 1992 (1995) [hereinafter BJS 1992].

27. The 1996 CTCN data include two subcategories of products liability: asbestos and breast implant cases. These account for a small fraction of the state trials. BJS 1996, *supra* note 26, at 2.

28. *Id.*

29. BJS 1996, *supra* note 26, at 2.

30. BJS 1996, *supra* note 26, at 2, 4, 6.

31. U.S. DEP'T OF JUST., BUREAU OF JUST. STAT., CIVIL JUSTICE OF STATE COURTS, 1992: [UNITED STATES], Codebook, part I, at 1 (ICPSR 6587) (Third ICPSR Ed., March 2001), *downloadable from* http://www.icpsr.umich.edu:8080/ABSTRACT/06587.xml?format=ICPSR.

32. U.S. DEP'T OF COMMERCE, ECON. & STATISTICS ADMIN., BUREAU OF THE CENSUS, 1990 CENSUS OF POPULATION & HOUSING III-1 (1990), *available at* http://www.census.gov/prod/cen1990/cph2/cph-2-34.pdf.

the county level, so we use only the 1980 and 1990 census data. For the state court trials, all of which were completed in the 1990s, we use the 1990 census data. For these trials, we study the relation between trial results and county demographics by matching each county's trial results with that county's corresponding census data from the 1990 census.

D. Combining the Census Data and Administrative Office Data

Combining the census data with federal court trial outcomes is more complicated. Combining the two data sets requires knowledge of two things. First, one must know where trials were conducted. This must be determined from the Administrative Office data about each case. Second, given a trial locale, one must know the likely source of jurors for that locale. Federal court districts, and divisions within districts, often consist of groups of counties.[33] The jurors come from the counties that correspond to the trial locale, usually a district or a division within a district. The demographic characteristics of the counties comprising the trial locale can be combined to establish the demographic characteristics of the locale itself. These demographic characteristics are then linked to each case in the trial locale.

The linking occurs at the level of what we will call "trial units." A trial unit is a place of trial and corresponds to the county (or group of counties) from which juries for federal trials are drawn. Due to the different sizes of federal districts and the existence of divisions within districts, trial units can range from single counties, to subsets of counties comprising a district, to entire states. Each federal district is not necessarily a trial unit because trials within districts that include divisions draw jurors from the counties in the division in which the trial occurs.

We extracted county-level demographic data from the 1980 and 1990 census data, re-aggregated them at the level of the federal trial units, and computed trial-unit-level demographic characteristics. The technique for matching county-level census data and trials differed depending on the available information about (1) trial locales within districts and (2) the locales of filing according to the Administrative Office case data.

1. Identifying Trial Units.—For many districts, a public listing of trial locales constituting trial units could be matched with case locales reported in the Administrative Office data. For example, Alabama has three federal judicial districts—Northern, Middle, and Southern.[34] The Northern District has seven divisions, the Middle District has three divisions, and the Southern District has two divisions.[35] Alabama thus has twelve federal trial units (in

33. *See* 28 U.S.C. §§ 81–131 (1994).
34. *Id.* at § 81.
35. *Id.* at § 81(a)–(c).

this case formal statutory divisions). Each division is comprised of designated counties.[36] For example, the Southern Division of the Middle District consists of Coffee, Dale, Geneva, Henry, and Houston counties, with court proceedings for the Southern Division held at Dothan.[37] It is usually at the division level that juries are drawn. And, by law, the method of selecting jurors should assure a random cross section of the population of the counties from which jurors are drawn.[38] For the Southern Division of the Middle District of Alabama, for example, we re-aggregate the census data by combining data for the Division's five counties.

Identifying trial units for many districts, such as Alabama, is accomplished by using the divisions of the districts established by the U.S. Code. For some districts, however, information about trial units must come from other sources. Arizona, for example, is a single federal district, and the U.S. Code states that court shall be held at four locales.[39] But the U.S. Code does not enumerate the counties that correspond to the four court locales. For Arizona, a single-district state, as for several other districts, the counties comprising trial units are specified by local court rule rather than by federal statute.[40]

2. *Linking Trial Unit Data to Individual Cases.*—These data defining the trial units, whether from the U.S. Code or local rules, now containing census information at the trial-unit level, had to be linked to the proper cases—those filed in the trial unit. The key variable in the Administrative Office data is named "Office," which indicates the office within a district in which each case is filed. The offices can be associated with the appropriate county in the vast majority of cases because the Administrative Office data codebook contains a list of the values of the Office variable in each district,

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36. *Id.*

37. *Id.* at § 81(b)(2).

38. *Id.* §§ 1861–1869 (1988) (defining federal court litigants' right to juries selected at random from a fair cross section of the community); *cf.* United States v. Miller, 771 F.2d 1219, 1227 (9th Cir. 1985) (describing Sixth Amendment right to fair cross section). The requirement of a fair cross section is not always met. *See* Joseph P. Fried, *Bias Charged in Selection of U.S. Juries*, N.Y. TIMES, June 2, 1994, at B1; Peter A. Detre, Note, *A Proposal for Measuring Underrepresentation in the Composition of the Jury Wheel*, 103 YALE L.J. 1913 (1994).

39. 28 U.S.C. § 82.

40. U.S. Dist. Ct. Ariz., Local R. 1.1. Other local rules listing counties assigned to divisions or trial units are: U.S. Dist. Ct. Colo., Amended Plan for the Random Selection of Grand and Petit Jurors; U.S. Dist. Ct. S.D. Fla., Local R. 3.4; U.S. Dist. Ct. N.D. Ill., Local R. 77.1; U.S. Dist. Ct. S.D. Ill., Local R. 4.1; Joint Local R., U.S. Dist. Cts., E.D. Ky. & W.D. Ky., R. 3.1; U.S. Dist. Ct. Maine, R. 3(b); U.S. Dist. Ct. Mass., R. 40.1; U.S. Dist. Ct. Mont., Local R. 3.1; U.S. Dist. Ct. Nev., Local R. 6-1; U.S. Bankr. Ct. W.D. N.C., R. 1071-1; U.S. Dist. Ct. M.D. N.C., Plan for Random Selection of Jurors; U.S. Dist. Ct. E.D. N.C., R. 3.02; U.S. Dist. Ct. N.D. Ohio, Local R. 47.1; U.S. Dist. Ct. S.D. Ohio, Local R. 82.1; U.S. Dist. Ct. Or., Local R. 3.3; U.S. Dist. Ct. E.D. Va., R. 3; U.S. Dist. Ct. W.D. Va., Standing Order, Divisions in Western District of Virginia; U.S. Dist. Ct. N.D. W. Va., R. 1.02; U.S. Dist. Ct. S.D. W. Va., R. 1.02.

and the U.S. Code or local rules indicate which counties to associate with offices.[41]

3. Indirectly Identifying Trial Units.—For some districts, the counties comprising the federal trial units appear neither in published local rules nor in federal statutes. For most trial units in such districts, we were able to exploit another variable in the Administrative Office data, the plaintiff's county.[42] This variable could often be used to associate cases with trial units. That is, in some districts, the Administrative Office data contained multiple values for the Office variable, indicating varying locales for trial, but we had no readily available list of the counties in the district to associate with the values of the Office variable. When cases from a county were overwhelmingly associated with one value of the Office variable, the cases filed from the county could reliably be associated with an office. In this manner, counties could be associated with offices within a district and trial units identified, even absent a list linking counties and offices.

4. Issues Arising in Connecting Trial Units and Cases.—The techniques detailed above for matching cases with trial units depend on knowing or determining which counties comprise trial units (which we could almost always determine) and on knowing which values of the Office variable are associated with each trial unit. If the Office variable in the trial data is missing or inaccurate, then no direct matching of the case and the trial unit is possible. This problem arises in a small fraction of cases. Colorado, for example, is a single federal district with multiple offices.[43] However, the Office variable from the Administrative Office data does not vary for cases filed in the District of Colorado. The data act as if Colorado has a single locale for filing federal cases. Since the Office variable takes on only one value, one cannot use it to associate a case with the office serving its trial unit.

Some cases without a useful Office variable value can be assigned to trial units if a list of counties comprising the district's trial units is available. In Colorado, the counties associated with trial locales are designated by local rule.[44] One can use the plaintiff's county in the Administrative Office data as a reasonable estimate of the trial unit of filing. For example, for Colorado cases, we assigned cases to the Denver trial unit if they were filed in the District of Colorado by plaintiffs residing in counties assigned to the Denver trial unit. Some misassignments of cases occur for plaintiffs filing out-of-

41. ICPSR II, *supra* note 22, at app. n.5.

42. ICPSR II, *supra* note 22, at 43 (county of first-listed plaintiff).

43. U.S. Dist. Ct. Colo., General Order #152 (as amended by General Order #164 on Jan. 25, 2001).

44. *Id.*

county, but most cases will be associated with the proper trial unit. This county-based identification of trials was not used frequently enough to materially affect results.

For some offices, the Office variable did not match the corresponding value in the codebook. For many such inaccuracies, it was clear that a simple recoding of the Office variable would resolve the problem. Here again, the plaintiff's county variable was useful. By identifying the predominant county or counties of plaintiffs who filed, it was usually possible to identify what the correct value of the Office code should be. Once the Office code was corrected, the case could be matched to the correct trial unit.[45]

The efforts to match trial units and counties were largely successful. We are able to include in this study the great majority of federal trial units and cases. For example, the 1990 Census contains 3141 county-level units. We were able to assign 3064 of those units to one of 296 federal district court trial units that we constructed. These trial units completed over 98% of the civil trials completed in federal court for fiscal years 1979 through 2000.

E. Limits of the Data

Beliefs about federal and state trial-unit-level outcomes can be tested directly. If a trial unit has a reputation as a high-award locale, at some point in its history there should have been high awards. But there are limits to what the available data can reveal. The data do not include the makeup of juries in individual cases. Therefore, evidence about demographic influences on juror behavior is indirect.[46] We assume the makeup of juries fluctuates in response to local demographic characteristics. But our findings are best viewed as exploring the relation between trial unit demographics and case outcomes, and not as supporting reliable inferences about the relation between jury demographics and case outcomes. Nor can the data test perceptions based on the interaction between plaintiff and defendant characteristics. For example, these data cannot directly test whether white jurors are hostile to black plaintiffs, and vice versa, because the data do not include the parties' races.[47]

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45. One county did not have a one-to-one correspondence with a trial unit, and the variable indicating the plaintiff's county was not helpful in associating cases with a dominant trial unit. In the Eastern District of Washington, the northeast portion of Adams County is in one trial unit, and the southwest portion of the county is in a different trial unit. Amended Plan of the United States District Court for the Eastern District of Washington for the Random Selection of Grand and Petit Jurors. We assigned Adams County to a single trial unit.

Alaska has five locations of court. 28 U.S.C. § 81(A) (1959). We treat the five cities comprising the locations as trial units. Alaska trial locales outside these five cities are not assigned in our sample.

46. *See supra* note 21.

47. And some beliefs are too subtle to be tested using these data. Thus, for example, views such as a predicted negative reaction of male jurors to harsh questioning of elderly women cannot be explored. *See* Tabor, *supra* note 16 (view of Philip Corboy) § 4, at 3 (including Philip Corboy's

In addition, jury demographics have a secondary effect on case outcomes. The primary influence is case quality, as represented by the strength of the evidence.[48] In general, this effect is so dominant that demographic-based variations can have only a small influence on observed success rates.[49] But the folk wisdom should nevertheless be tested. Are there significant differences in the likelihood of winning and in award levels across trial units? Can such differences be substantially explained using demographic data?

III. Case Outcomes and Demographic Effects

To focus the inquiry, we limit the sample to three subject matter categories: job discrimination, products liability, and personal injury tort (from which we exclude the products liability cases).[50] The personal injury tort and products liability categories are in the forefront of recent legal reform discussion. Observers have especially strong views about jury performance and demographic implications in these areas.[51] The job discrimination category is one in which demographics might be expected to play a greater-than-normal role. Perceptions about jury behavior play a major role in policy debate, including debate about the Civil Rights Act of 1991.[52] Initial analysis, the details of which we do not report here, confirms what is widely believed. In all three subject-matter areas, significant variation exists in plaintiff jury trial success rates and award levels across trial units.[53]

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view that male jurors are disfavored when an older woman will be subject to an intense cross-examination). *See also* Devine et al., *supra* note 18, at 673 ("jury demographic factors interact with defendant characteristics to produce a bias in favor of defendants who are similar to the jury in some salient respect").

48. *See, e.g.*, Devine et al., *supra* note 18, at 686 (ample empirical research shows that the strength of the evidence is the primary determinant of case outcomes); Saks, *supra* note 18, at 10 (noting that "[t]he effects of evidence (and arguments) are considerably more potent than the effects of juror differences"). *Cf.* Valerie P. Hans, *The Illusions and Realities of Jurors' Treatment of Corporate Defendants*, 48 DEPAUL L. REV. 327, 341–43 (arguing that while juries may respond differently in some cases to business and corporate defendants, juror hostility toward business is not a likely cause of such differential treatment). *But see* Eisenberg et al., *supra* note 17, at 279 (finding individual juror effects in capital sentencing).

49. *See* Devine et al., *supra* note 18, at 673 (claiming that "juror demographic characteristics have been only weakly and inconsistently related to juror verdict preferences" (citations omitted)).

50. We exclude from the personal injury and products liability categories a massive combined Bendectin trial in the Southern District of Ohio in 1985. *See* Henderson & Eisenberg, *supra* note 23, at 519 n.159.

51. *See, e.g.*, Kevin M. Clermont & Theodore Eisenberg, *Trial by Jury or Judge: Transcending Empiricism*, 77 CORNELL L. REV. 1124, 1125 (1992).

52. *See, e.g.*, 2 *Hearings on H.R. 4000, The Civil Rights Act of 1990: Before the House Comm. on Education and Labor and the Subcomm. on Civil and Constitutional Rights of the House Comm. on the Judiciary*, 101st Cong., 2d Sess. 96 (1990) (statement of Victor Schachter).

53. Geographic effects in case outcomes are common. Theodore Eisenberg et al., *The Predictability of Punitive Damages*, 26 J. LEGAL STUD. 623, 640–41 (1997); STEPHEN DANIELS & JOANNE MARTIN, CIVIL JURIES AND THE POLITICS OF REFORM 69 (1995); ERIK MOLLER, TRENDS IN CIVIL JURY VERDICTS SINCE 1985 4 (1996). This does not establish that similar cases are

A. Summary Overview

Do these observed differences in trial outcomes correlate with trial unit demographics? Three leading demographic characteristics are race, income, and urbanization. As described above, lawyers have firm perceptions about the effects of race on juror decisionmaking. When observers report that awards and success rates in personal injury cases are higher in the Bronx than in neighboring Westchester County, the implicit explanation is clear. The higher rate of urbanization or the higher percentage of minorities in the Bronx leads to pro-plaintiff success rates and awards. And lower income levels may correlate with a willingness to provide access to deep pocket defendants. Even a causal mechanism of pro-plaintiff bias can be identified. Downtrodden minorities side with the "little guy" against big business. Thus, one might expect that some patterns in jury trial outcomes could be explained by correlating trial outcomes with the percentage of a trial unit's population that is black, with its urbanization, and with its poverty levels.

Table 1 explores race, poverty rates, and urbanization as explanations of jury trial outcomes.[54] It also contains summary statistics for the key variables used in the regressions that follow. Panel A summarizes the federal data. Panel B summarizes the state data.

To illustrate the table, Panel A's first row shows that, across 296 federal trial units with useful data, the mean black population proportion was 0.11 (or 11% of the population) and the median was 0.06 (or 6% of the population). The Panel's last three rows summarize the data on trial outcomes. For the 296 trial units, the mean plaintiff win rate at trial was 46% and the median was 45%. The figures in the table are computed first by computing a win rate for each trial unit and then taking the mean and median of those trial-unit-level computations. The mean award in cases won by plaintiffs, measured by averaging all awards within each trial unit and then taking the average of those trial unit averages, was $1.45 million, and the median of such averages was $1.14 million. The mean of the median awards in cases won by plaintiffs, measured by computing the median award in each trial unit and then averaging those medians, was $393,000. The median of the trial-unit-level median awards was $157,000.

For each of the relations between demographics and measures of trial outcome, the folk wisdom generates a definite prediction. Mean and median

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processed differently across trial units. Nor does the fact that differences exist necessarily mean that the differences are attributable to jury behavior. A similar table for judge trials would also show significant differences. We merely find that there is variation in observed win rates and award amounts across federal trial units. For summaries of the state trial data by locale, see BJS 1996, *supra* note 26; BJS 1992, *supra* note 26.

54. We do not explore the influence of gender, another prominent aspect of lawyer stereotypes. Unlike race and the other factors we study, the percentage of females does not vary substantially across trial units.

awards, as well as win rates, should each increase as the demographic characteristic increases in magnitude. To explore these relations, Panel A further shows in its last three columns the correlation between each of the three demographic characteristics and our computed measures of federal trial outcomes. For example, the fourth numerical column shows that the correlation coefficient between black population percentage and mean award in a trial unit is -0.017. Since correlation coefficients can range between -1 and +1, the black population mean award coefficient and all other Panel A correlation coefficients are small. None are statistically significant, and the negative sign on most of them suggests that, at this level of aggregation, demographic effects tend to be in a direction opposite to that of the folk wisdom.

TABLE 1
SUMMARY STATISTICS OF TRIAL UNIT DEMOGRAPHICS AND TRIAL OUTCOMES AND CORRELATIONS BETWEEN DEMOGRAPHICS AND OUTCOMES

				Correlation between demographic characteristic and . . .		
A. FEDERAL JURY TRIALS						
	Mean	Median	N	Mean Award	Median Award	Win Rate
Percent Black	11%	6%	296	-0.017	-0.001	0.12
Poverty Rate	0.16	0.14	296	-0.004	-0.011	-0.040
Percent Urban	36%	32%	296	-0.028	-0.069	-0.039
Plaintiff Win Rate	0.46	0.45	296			
Mean Award	1,448	1,144	296			
Median Award	393	157	296			
B. STATE JURY TRIALS						
Percent Black	12%	9%	45	-0.128	0.235	0.197
Poverty Rate	0.13	0.12	45	-0.118	0.410**	0.189
Percent Urban	94%	96%	45	-0.077	0.032	0.236
Plaintiff Win Rate	0.47	0.46	45			
Mean Award	2,995	312	45			
Median Award	62	45	45			

+ significant at 10%; * significant at 5%; ** significant at 1%
SOURCES.—Administrative Office of the U.S. Courts; Civil Trial Court Network; Bureau of the Census.
NOTE.—Award amounts are in thousands of year 2000 dollars. Statistics are first computed at the trial unit level. The reported means and medians are of these trial-unit-level means and medians.

Panel B is similar to Panel A except that it reports results for the two years, fiscal 1992 and calendar 1996, of CTCN state court jury trial data. Preliminarily, one should not expect this sample of state cases to be the best sample for detecting reliable urbanization effects. The forty-five CTCN sites

are forty-five of the largest seventy-five counties in the United States.[55] All but two of the state court sites have urbanization rates in excess of 84% and thirty-five of the forty-five sites have rates greater than 91%. In contrast, the median urbanization percentage for the federal trial units is 33%. Black population percentages and poverty rates exhibit substantially more variation. In the state data, black population percentages range from 1.6% to 45.8%, with a median of 9.2%. Poverty rates range from 2.9% to 24.2%, with a median of 11.7%. So the primary focus in the state sample should be on the relations between case outcomes and black population percentages, and between case outcomes and poverty rates.

Panel B, like Panel A, provides little support for stereotypical beliefs about trial outcomes and demographics. Neither black population percentages nor urbanization rates correlate with any of the three measures of trial outcome. Increased poverty rates do correlate significantly with increased trial-unit median award levels. This suggests that at least one bit of folk wisdom is worth exploring further. It also suggests that demographic effects may differ when comparing the mass of federal trials to a sample of urban-dominated state court trials.

To further explore these results, we move beyond summary statistical analyses. This is necessary because relations among demographic characteristics may mask one another. For example, differences in income and urbanization might conceal racial effects, or simple correlation coefficients may be too crude to detect effects. We use multivariate regression analysis to simultaneously account for the demographic factors.[56]

The first regression models explore mean award amounts. To see whether demographic characteristics correlate with tendencies towards extreme awards, we then report on regression models of awards in the 50th, 75th, and 90th percentiles. Next, the analysis shifts to models of whether plaintiffs won at trial. A last set of models combines whether plaintiffs won at trial with the award levels in successful cases. Thus, they examine together the case outcome characteristics—award levels and trial winners—studied separately in the earlier models.

B. Award Levels and Demographic Effects

1. Federal Court Jury Trial Awards.—To explore award levels in the federal data, we use regression models in which the dependent variable is the logarithm of the award in cases in which the plaintiff prevailed and there was

55. BJS 1992, *supra* note 26, at 1, 7.

56. Multivariate regression is a statistical technique that quantifies the influence of each of several factors (independent variables) on the phenomenon being studied (dependent variable). *See generally* MICHAEL O. FINKELSTEIN & BRUCE LEVIN, STATISTICS FOR LAWYERS 323–467 (Stephen Feinberg & Ingram Olkin eds., 1990).

an award.[57] The explanatory variables come from the census data, and we add the Hispanic population percentage as an additional variable. The demographic variables have differing values for each trial unit. They are:

- percent black: the percentage of the trial unit's over-eighteen population that is black;
- percent Hispanic: the percentage of the trial unit's over-eighteen population that is Hispanic;
- poverty rate: the percentage of the trial unit's population below the poverty level;
- percent urban: a measure of the percentage of the trial unit's population that lives in urban areas; and
- census period dummy variable equal to one for the trials terminated in years 1986–2000 (for which the 1990 census is used) and equal to zero for trials terminated in years 1979–85 (for which the 1980 census is used).

To further isolate effects that might be masked by heterogeneous case groupings within the sample, we run separate models for job discrimination cases, products liability cases, and tort cases. The tort regression models include dummy variables—not reported here—distinguishing among the subcategories of torts. The Appendix reports descriptive statistics relating population demographic characteristics to case outcomes for each of the three case categories.[58]

To promote comparability with the state data, which are limited to urban areas, we divide the federal sample into urban and non-urban components. The urban component includes all cases decided in locales that are 80% or more urban, according to the census. The non-urban component consists of cases decided in locales that are less than 80% urban. Table 2 reports models for the combined federal sample as well as for its urban and non-urban components.

With respect to race, in all nine of Table 2's regressions, the variable "black population percent" has a negative coefficient. In the full sample, in the urban sample for tort cases, and in the urban sample for products liability cases (models (5), (7), and (8)), the black population percentage coefficient is statistically significant or marginally statistically significant. Increasing black population percentage, while controlling for the other demographic

57. We use interval regression because, for some years, federal award amounts of $1000 or less were recorded in an unknown manner, and amounts of $9,999,000 or more are all recorded as $9,990,000. FEDERAL JUDICIAL CENTER, FEDERAL COURT CASES: INTEGRATED DATA BASE, 1970–1995: CODEBOOK FOR CRIMINAL, CIVIL, AND APPELLATE DATA, 1992–1995 (ICPSR 8429) (First ICPSR Version, Mar. 1997), at 62, *available at* http://www.icpsr.umich.edu:8080/ABSTRACTS/08429.xml?format=ICPSR [hereinafter ICPSR III]. The regression models account for the clustering of the data at the trial unit level. The Federal Judicial Center cautions that the protocol requiring award amounts in thousands of dollars is sometimes not followed. *Id.* at xxi.

58. Appendix Table 1.

characteristics, is negatively correlated with award levels. If there is a national version of a Bronx-award effect in federal courts that is related to race, nationwide data suggest that casual observers have mistaken its sign. No variable is as consistently negative as "black population percent."

"Hispanic population percent" behaves less consistently. In the non-urban products liability and tort models (models (6) and (9)), its coefficient is positive and statistically significant. In the urban products liability model (model (5)), it is negative and statistically significant. The coefficient also changes sign from the tort urban model to the tort non-urban model. The Hispanic population coefficient exhibits no significant effects in job discrimination cases.

It is not surprising that the Hispanic population percentage coefficient is ambiguous. However useful or limited the label "black" may be in identifying a person's characteristics, the label "Hispanic" evokes a mixture of views that reflects the differing groups comprising the United States' Hispanic population. The Bureau of the Census recognized sixteen different categories of Hispanic in the 1990 census.[59] A Cuban in southern Florida may evoke a different set of stereotypes than a Puerto Rican in the Bronx or a Mexican in Los Angeles. From this perspective, the absence of a consistent Hispanic effect is not surprising.

With respect to poverty rates, no consistent pattern emerges. The variable is positive in products liability cases, but negative in job discrimination cases and mixed in tort cases. It is highly significant only in the relatively small urban sample of products liability cases. It is not marginally statistically significant in any other model. The urbanization explanatory variable also changes signs across models and is not statistically significant.

59. U.S. DEP'T OF COM., BUREAU OF THE CENSUS, CENSUS OF POPULATION AND HOUSING, 1990 [UNITED STATES]: SUMMARY TAPE FILE 3C (ICPSR 6054) (First ICPSR Release, June 1993), *available at* http://www.icpsr.umich.edu:8080/ABSTRACTS/06054.xml?format=ICPSR.

TABLE 2
REGRESSION MODELS OF AWARD LEVELS AS A FUNCTION OF TRIAL UNIT DEMOGRAPHICS: FEDERAL DISTRICT COURT JURY TRIALS 1979–2000

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	dependent variable = award amount (log)								
	Job discrimination			Products			Torts		
	full sample	urban	non-urban	full sample	urban	non-urban	full sample	urban	non-urban
Percent Urban	0.324	1.667	0.423	-0.116	-0.212	-0.575	-0.219	1.503	-0.218
	(1.18)	(0.84)	(1.13)	(0.27)	(0.05)	(1.15)	(1.11)	(0.61)	(0.85)
Black Population Percent	-0.735	-5.69	-1.132	-1.434	-3.633	-0.997	-0.831	-1.964	-0.255
	(1.20)	(0.89)	(1.14)	(1.73)+	(3.02)**	(0.93)	(2.00)*	(3.11)**	(0.39)
Hispanic Population	-0.205	-0.508	-0.001	1.787	-6.063	5.673	0.729	-0.628	1.560
	(0.30)	(0.65)	(0.00)	(1.04)	(5.51)**	(2.45)*	(1.29)	(0.54)	(2.00)*
Poverty Rate	-1.648	-1.460	-1.563	2.083	17.977	0.301	-0.508	2.003	-1.536
	(0.97)	(0.73)	(0.69)	(0.79)	(4.44)**	(0.10)	(0.45)	(0.93)	(0.98)
Period = 1986–2000	0.685	0.454	0.718	0.747	1.118	0.743	0.665	0.496	0.747
	(5.28)**	(1.40)	(4.51)**	(5.14)**	(2.97)**	(4.44)**	(8.76)**	(3.32)**	(7.62)**
Constant	4.586	3.524	4.555	5.396	4.326	5.666	5.458	5.021	5.076
	(17.76)**	(2.28)*	(14.92)**	(12.73)**	(1.37)	(12.23)**	(12.62)**	(3.28)**	(10.53)**
Observations	2,519	700	1,819	1,367	205	1,162	10,409	2,152	8,257
Probability > Chi-squared	0.0000	0.3114	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000

robust z statistics in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

SOURCES.—Administrative Office of the U.S. Courts, Bureau of the Census.

NOTE.—Tort models include dummy variables for separate tort categories. The full sample models include all cases. The urban sample models include cases in trial units with urbanization rates of 80% or more. The non-urban sample models include cases in trial units with urbanization rates of less than 80%.

The dummy variable tracking time periods is positive and significant in nearly all models. This suggests that inflation-adjusted awards increased from 1986–2000 compared to 1979–85. Results reported elsewhere suggest that this increase is not peculiar to the case categories discussed here. Indeed, the increase in contracts awards outpaced the increase in tort and products liability.[60]

2. *State Court Jury Trial Awards.*—For the CTCN state jury trial data, we again use regression analysis in which the dependent variable is the logarithm of the award (if any) in cases in which the plaintiff prevailed.[61] The explanatory variables come from the census data. The demographic variables have differing values for each county. They are:

- percent black: the percentage of the trial unit's over-eighteen population that is black;
- percent Hispanic: the percentage of the trial unit's over-eighteen population that is Hispanic;
- poverty rate: the percentage of the trial unit's population below the poverty level;
- percent urban: a measure of the percentage of the trial unit's population that lives in urban areas; and
- time period dummy variable equal to one for the trials terminated in 1996 and equal to zero for trials terminated in years 1991–92.

As for the federal data, the tort model also includes dummy variables (not reported here) distinguishing among the subcategories of torts. The state court data models also include dummy variables for states in which each county is located. These dummy variables also are not reported here. The Appendix reports descriptive statistics relating population demographic characteristics to case outcomes for each of the three case categories.[62]

Table 3 suggests that black population percentage does not correlate with award amounts at statistically significant levels. But the models raise a possible problem of multicollinearity among the explanatory variables.[63]

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60. Theodore Eisenberg, *Damage Awards in Perspective: Behind the Headline-Grabbing Awards in* Exxon Valdez *and* Eagle, 36 WAKE FOREST L. REV. 1129, 1134–36 (2001). *See also* Theodore Eisenberg, *Judicial Decisionmaking in Federal Products Liability Cases, 1978–1997*, 49 DEPAUL L. REV. 323, 327–28 (1999) (comparing award levels in products liability trials and contract trials).

61. Interval regression is not necessary because the state court data award amounts are not censored. ICPSR III, *supra* note 57, at 62.

62. Appendix Table 2.

63. For a brief discussion of and references on multicollinearity, see, *e.g.*, MICHAEL O. FINKELSTEIN & BRUCE LEVIN, STATISTICS FOR LAWYERS 350–52 (1990) (discussing multicollinearity); Frank O. Bowman, III & Michael Heise, *Quiet Rebellion II: An Empirical Analysis of Declining Federal Drug Sentences Including Data from the District Level*, 87 IOWA L. REV. 477, 541, 553 n.276 (2002).

Black population percentage and poverty rates are correlated (correlation coefficient = 0.58, p<.001), raising the issue of multicollinearity. If multicollinearity is present, the estimated standard errors of the regression coefficients are inflated, thereby potentially masking a statistically significant relation between the dependent and independent variables. Analysis of variance inflation factors indicates that multicollinearity is a modest, not dramatic, problem.[64] One could not conclude, based on this evidence, that a strong or significant correlation exists between black population percentage and trial award level.

TABLE 3
AWARD LEVELS AS A FUNCTION OF TRIAL UNIT DEMOGRAPHICS: 45 LARGE URBAN COUNTIES: STATE COURT JURY TRIALS, FISCAL YEAR 1992, CALENDAR YEAR 1996

	dependent variable = award amount (log)		
	Torts	Products	Employment
Percent Urban	2.022	-1.522	2.914
	(1.27)	(0.44)	(1.29)
Black Population Percent	-1.020	3.396	0.281
	(0.67)	(1.27)	(0.09)
Hispanic Population Percent	-0.593	1.199	-0.186
	(0.56)	(0.64)	(0.05)
Poverty Rate	7.552	-3.729	11.886
	(1.86)+	(0.59)	(1.96)+
Year of Trial	-0.035	0.008	0.038
	(2.09)*	(0.08)	(0.69)
Constant	71.296	-7.939	-73.686
	(2.09)+	(0.04)	(0.67)
Observations	4,544	111	206
R-squared	0.18	0.13	0.22

robust t statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
SOURCES.—Civil Trial Court Network, Bureau of the Census.
NOTE.—Tort model includes dummy variables for separate tort categories. All models include dummy variables for states.

It is also possible that minority poverty rates relate to award amounts differently than do white poverty rates. We have run models similar to those in Table 3 except that the poverty rates of whites, blacks, and Hispanics are

64. No variance inflation factor (VIF) in the fullest models exceeds nine. This passes one rule-of-thumb test for multicollinearity, any VIF greater than 10, but the VIF is marginal with respect to another test, based on the mean of all VIFs. STATA CORP., 3 STATA REFERENCE MANUAL RELEASE 7, at 111 (2001). For use of VIF to assess a potential problem of multicollinearity in a law-related context, see David Jacobs & Jason T. Carmichael, *The Political Sociology of the Death Penalty: A Pooled Time-Series Analysis*, 67 AM. SOC. REV. 109, 121–24 nn.12, 13. In tort and employment case models not reported here, the percent black independent variable is substantially different than when the poverty rate variable is excluded compared to when the poverty rate variable is included as an independent variable.

computed separately and each used as independent variables instead of a single poverty rate variable. In none of the models does the black population percentage achieve significance at the 0.05 level. In employment models, the poverty-rate effects interestingly differ. The white poverty rate significantly correlates ($p<0.01$) with increased awards while the black poverty rate significantly correlates ($p<0.01$) with decreased awards.[65] In the tort and products models, neither the black nor the white poverty rates are statistically significant.

As noted above, the state court results cannot be treated as conclusive with respect to a rural-urban effect. All of the counties in the state case sample are among the seventy-five most populous counties in the country. None are truly rural. But, the state court sample is comparable to that portion of the federal sample limited to highly urbanized areas. The main differences between the two samples are the significance in the federal sample of both black population percentage and poverty rates in products liability cases. They are both insignificant and in an opposite direction in the state sample.

3. Quantile Regression Results.—A different version of the stereotypical demographic beliefs is also worth exploring. It may be that the mass of cases is not affected differently by demographic factors. Under this version, only certain parts of the award distribution, the largest awards, may be dominant in locales that give extreme awards. The regressions reported above test mean effects. Quantile regression allows one to test for the relation between an explanatory variable and a percentile in the distribution of the dependent variable, rather than the mean.[66] To explore other possible relations between more extreme award levels and demographics, we used quantile regression on the 50th, 75th, and 90th percentiles of award levels.[67]

4. Federal Jury Trial Data.—With respect to federal trials, significant effects exist for median regression (regression on the 50th percentile) in tort cases. Increasing black population percentages correlate with lower median awards and increasing poverty rates correlate with higher median awards.

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65. Alternative measures of race-specific poverty rates are the percentage of the population (not just black population) that consists of blacks below the poverty level and the percentage of the population that consists of whites below the poverty level. Models employing variables representing these measures of poverty suffer from serious multicollinearity. *See supra* note 63.

66. Quantile regression estimates the relation between explanatory variables and the median (or other percentile) of the dependent variable. Ordinarily, least squares regression estimates the relation between explanatory variables and the mean of the dependent variable. For discussion of quantile regression, see, *e.g.*, Roger Koenker & Gilbert Bassett, Jr., *Regression Quantiles*, 46 ECONOMETRICA 33 (1978). For applications of quantile regression, see, *e.g.*, Theodore Eisenberg & Martin T. Wells, *Ranking and Explaining the Scholarly Impact of Law Schools*, 27 J. LEGAL STUD. 373, 410 (1998); ANGELA HAWKEN ET AL., RAND INST. CIV. JUSTICE, THE EFFECTS OF THIRD-PARTY, BAD FAITH DOCTRINE ON AUTOMOBILE INSURANCE COSTS AND COMPENSATION tbs.3.4, 3.5 (2001).

67. These quantile regressions do not account for the clustering of cases at the trial unit level.

For products liability cases, increasing black population percentages correlate with lower median awards. Significant effects do not emerge for job discrimination cases.

Regression on the 90th percentile award level in job discrimination cases and products liability cases yields no statistically significant demographic effects for the three principal demographic categories. For tort cases, however, significant effects do emerge. The black population percentage correlates negatively and significantly ($p = 0.03$) with the highest decile of awards, as does the poverty rate ($p = 0.02$). The urbanization percentage also correlates negatively with award levels, but the result is marginally statistically significant ($p = 0.10$).

Regression on the 75th percentile yields a significant ($p = 0.01$) and negative coefficient for the black population percentage in job discrimination cases. For products liability cases, regression on the 75th award percentiles yields no statistically significant demographic effects for the three principal demographic categories. For tort cases, a negative and significant ($p = 0.03$) correlation exists between the 75th percentile and increased urbanization.

For the full sample federal data, therefore, the statistically significant relations between demographics and award levels tend to flow in opposite directions from stereotypical beliefs.

5. State Jury Trial Data.—For the CTCN state court data, statistically significant effects do emerge. In employment cases, both increased urbanization and increased poverty rates correlate with higher median awards. Increased black population percentages correlate with lower median awards. None of the demographic variables are significant in explaining the 75th percentile. Increasing poverty rates correlate with a higher 90th percentile.

In tort cases, increased urbanization and increased poverty again correlate with higher median awards. They also correlate with a higher 75th and the 90th percentile. In products liability cases, the demographic effects are not significantly correlated with the highest awards quartile or decile except that increased black population percentages correlate with a higher top decile ($p = 0.049$).

Taken together, these results suggest that much of the folk wisdom about jurors and award levels is oversimplified. Any directly observable "little-guy effect" is more a function of income or urbanization than of race. And the effect is far from universal across case categories or between state and federal courts.

C. Plaintiff Win Rates at Trial and Demographic Effects

To explore the trial success rates summarized in Table 1, we use logistic regression models in which the dependent variable is 1 when plaintiff wins at

trial and 0 when defendant wins.[68] The data consist of all cases tried before juries in which judgment was entered for plaintiff or defendant. The explanatory variables are the same as those used in the award level models, with the three demographic variables—black population percentage, poverty rates, and urbanization—as the variables of primary interest. We again divide the federal cases into those in urban and non-urban areas.

1. Federal Court Jury Trial Win Rates.—Table 4 reports logistic regression models for the federal data. The overall pattern with respect to win rates is similar to that for award levels. A principal result is the absence of consistently strong correlations. In the job discrimination and products liability trials, the full-sample models fail to achieve statistical significance. Only the tort models and the urban sample models achieve statistical significance. Again, any simple race-based explanation fails. In the full-sample models (models (1), (4), and (7)), only one significant effect emerges: a negative correlation between urbanization and plaintiff success in the full sample of job discrimination cases.

In the urban samples (models (2), (5), and (8)), increasing black population percentages do correlate significantly with greater plaintiff win rates in all three case categories. But the race effect changes sign in the job discrimination and products liability non-urban samples (models (3) and (6)), and is not significant in the tort non-urban sample (model (9)).

Poverty rates show a pattern almost opposite to that of black population percentage. The coefficient for poverty rate is negative in all three urban models and is statistically significant in the job discrimination model and nearly significant in the tort model. It changes sign in all three non-urban models but is not statistically significant in any of them. Both poverty and race may therefore function in different ways in urban and non-urban settings.

One of the most robust results is the reasonably consistent direction of the time-period variable in tort and products liability models. The negative sign of its coefficient suggests that plaintiff win rates in products liability and tort cases have decreased over time.

68. Because the dependent variable is dichotomous (plaintiffs win or lose at trial), we use logistic regression. DAVID W. HOSMER & STANLEY LEMESHOW, APPLIED LOGISTIC REGRESSION (2d ed. 2000).

TABLE 4
LOGISTIC REGRESSION MODELS OF PLAINTIFF WINNING AT TRIAL AS A FUNCTION OF TRIAL UNIT DEMOGRAPHICS
FEDERAL DISTRICT COURT JURY TRIALS 1978–2000

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	dependent variable = plaintiff win at trial								
	Job discrimination			Products			Torts		
	full sample	urban	non-urban	full sample	urban	non-urban	full sample	urban	non-urban
Percent Urban	-0.384	0.778	-0.130	0.103	3.697	0.053	-0.021	1.314	0.093
	(2.00)*	(0.56)	(0.62)	(0.44)	(2.31)*	(0.19)	(0.18)	(1.03)	(0.71)
Black Population Percent	0.948	2.384	-0.402	-0.058	1.510	-0.888	0.635	1.287	0.034
	(1.39)	(4.13)**	(0.82)	(0.07)	(2.00)*	(1.18)	(1.50)	(2.67)*	(0.12)
Hispanic Population Percent	0.256	1.185	-0.689	-0.048	-0.100	-0.597	-0.244	0.098	-0.241
	(0.40)	(1.22)	(1.03)	(0.08)	(0.14)	(0.78)	(0.66)	(0.16)	(0.55)
Poverty Rate	-1.236	-4.035	0.692	1.936	-1.002	2.315	-0.216	-1.928	0.299
	(1.04)	(2.22)*	(0.63)	(1.31)	(0.44)	(1.41)	(0.35)	(1.65)+	(0.56)
Period = 1986–2000	0.163	0.339	0.066	-0.196	-0.653	-0.160	-0.078	-0.160	-0.059
	(1.86)+	(1.48)	(0.73)	(2.07)*	(2.10)*	(1.55)	(1.59)	(1.49)	(1.01)
Constant	-0.309	-1.504	-0.435	-0.944	-3.666	-0.887)	0.384	-1.108	0.668
	(2.00)*	(1.34)	(2.56)**	(4.90)**	(2.29)*	(3.98)**	(1.36)	(0.96)	(2.02)*
Observations	7,312	2,051	5,261	4,616	725	3,891	21,434	,4426	17,008
Probability > Chi-squared	0.2697	0.0000	0.5828	0.0537	0.0000	0.4337	0.0000	0.0000	0.0000

robust z statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
SOURCE.—Administrative Office of the U.S. Courts, Bureau of the Census.
NOTE.—Tort models include dummy variables for separate tort categories. The full sample models include all cases. The urban sample models include cases in trial units with urbanization rates of 80% or more. The non-urban sample models include cases in trial units with urbanization rates of less than 80%.

2. *State Court Jury Trial Win Rates.*—As in the case of federal trials, the overall pattern in state trials is one of fairly consistent insignificant correlations between demographic factors and plaintiff trial win rates. In the three models reported in Table 5, black population percentage and urbanization never achieve statistical significance. Increased poverty rates do correlate with higher plaintiff win rates in tort cases, but are insignificant in products liability and employment cases. Note that the size of the poverty rate coefficient is larger in employment cases than it is in tort cases. It is likely that the much larger sample size in tort cases results in the statistically significant effect.

The coefficient for the time period dummy variable is consistently negative and is nearly significant in the products liability model. In the forty-five counties in the state court sample, plaintiff win rates in products liability cases decreased from the early- to the mid-1990s.

TABLE 5
PLAINTIFF WINNING AT TRIAL AS A FUNCTION OF TRIAL UNIT DEMOGRAPHICS: 45 LARGE URBAN COUNTIES: STATE COURT JURY TRIALS, FISCAL YEAR 1992, CALENDAR YEAR 1996

	dependent variable = plaintiff wins at trial		
	Torts	Products	Employment
Percent Urban	0.462	-2.030	0.122
	(1.15)	(1.11)	(0.07)
Black Population Percent	-0.188	1.911	-1.680
	(0.36)	(0.85)	(0.59)
Hispanic Population Percent	-0.827	-1.297	-0.800
	(1.93)+	(0.77)	(0.37)
Poverty Rate	2.272	0.274	3.627
	(2.61)**	(0.06)	(0.67)
Year of Trial	-0.013	-0.112	-0.034
	(1.29)	(1.92)+	(0.70)
Constant	25.492	224.540	67.761
	(1.26)	(1.94)+	(0.70)
Observations	9,976	327	383
Probability > Chi-squared	<.0001	<.0001	.2439

robust z statistics in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%
SOURCE.—Civil Trial Court Network.
NOTE.—Tort model includes dummy variables for separate tort categories. All models include dummy variables for states.

D. Models that Combine Plaintiff Wins and Award Levels

We also explore models (not fully reported here) that combine both whether an award was obtained and the level of the award. In such models, cases in which plaintiffs lost at trial are treated as yielding a zero award. Exploring these models can be helpful because some demographic effects pull in opposite directions in the award models and the win-at-trial models. In federal cases, for example, Table 2 shows that increasing black population percentage correlates with reduced awards, but Table 4 shows that increasing black population percentage correlates with higher win rate levels. By combining cases both won and lost, one might be able to determine whether black population percentage has a net pro-plaintiff or anti-plaintiff correlation.

The decision whether to include plaintiff losses as zero awards should be driven by the outcome of primary interest. If one is interested in explaining the level of awards, one might not want that model driven by whether there was an award. This task is better handled by the models reported in Tables 2 and 3, which exclude plaintiff losses and thereby avoid massive numbers of zero values for the dependent variable. On the other hand, if one is primarily interested in the expected value of a case being tried, including losses that yield zero awards, it is appropriate to account for losses as well as victories.

Because losses are frequent, the dependent variable in models that include losses often equals zero. A potential problem with such models is that the large number of zero awards pushes the model towards measuring whether an award was given, with less emphasis on the size of awards in plaintiff victories. We use tobit regression models, which are appropriate for such truncated data,[69] to explore the relation between demographic characteristics and expected values.

We use the same explanatory variables as in Tables 4 and 5. In federal court job discrimination cases, none of the demographic variables achieve statistical significance in explaining expected award levels in the full-sample model. In the urban sample, black population percentage significantly correlates ($p = 0.011$) with larger expected awards, so the higher trial win rate more than compensates for the lower award levels. The coefficient for the poverty rate variable is negative and significant ($p = 0.05$) in the same sample.

69. *See, e.g.*, JAN KMENTA, ELEMENTS OF ECONOMETRICS 560–63 (2d ed. 1986). The models we employ also account for the clustering of the data by federal court trial units and state court counties.

In federal court products liability cases, none of the demographic variables are statistically significant in the three models. In the tort urban sample, poverty rates correlate negatively ($p = 0.008$) with award levels.

In the state court models, poverty rates correlate with increased expected award levels in tort cases. No significant relation between demographic factors and case outcomes emerges in the other case categories. As expected, these models behave much like models that explain whether an award was given and also confirm the general inability of demographic characteristics to explain case outcomes.

E. Discussion of Effects

Reasonable observers can construe the above results differently. Our impression is that there is little support for strong stereotypical views of demographic influences on observed trial outcomes. The correlations that do exist are not robust across the state and federal data sets, case categories, or even within the federal data set. However, some results are sufficiently interesting to warrant further discussion.

1. Race Effects.—Table 4 shows that increased black population percentage correlates with increased plaintiff win rates in the urban subsets of federal job discrimination and tort cases. But Table 5 shows that the black population percentage coefficient is negative (though statistically insignificant) in state court employment and tort cases. Since the state court sample is limited to urban areas, one might expect an effect in the same direction as in the urban portion of the federal sample. And, with respect to award levels, black population percentage correlates with reduced, not increased, awards in all federal models.

But the negative coefficient for black population percentage has its weakest magnitude in the Table 2 federal award urban model. This is the same class of cases with the largest positive and most significant black population coefficient in the models examining which party wins at trial. And the tobit model for urban job discrimination cases shows a significant correlation between expected award levels and black population percentage. These fairly consistent relations between race and urban job discrimination cases make it tempting to hypothesize that increased black population percentage improves the prospects of plaintiffs in job discrimination cases.

The hypothesis would be more than mere speculation. Blacks and other minorities may well view matters of discrimination differently than whites. Surveys suggest that blacks believe there is more discrimination in society than whites do.[70] And evidence from capital-punishment litigation, another area in which blacks and whites differ sharply in their perceptions of the

70. *See, e.g.*, Cheever & Naiman, *supra* note 17.

legal system's fairness, establishes that black and white jurors do behave differently.[71] It would not be shocking if a racial demographic effect were stronger in job discrimination cases than in tort cases where racial identity with the issues is likely much less crystallized.

This "race-urban-discrimination-case" hypothesis encounters two data-based objections. First, why doesn't the race effect emerge in non-urban federal job discrimination cases? Second, why doesn't it emerge in the state sample?

For non-urban federal discrimination cases, the absence of a race effect may relate to lower black population percentages in rural areas than in urban areas. Urbanization and black population percentage are correlated. In the urban federal sample, the mean black population percentage is 18%. In the non-urban federal sample, the mean black population percentage is 11%.[72] Outside urban areas, juries may be less likely to achieve a critical mass of black jurors that would allow their differing views of discrimination to affect trial outcomes.[73] The result could be an observed difference between urban and non-urban case outcomes.

For state court employment cases, three factors might prevent a similar black population percentage effect. First, given the broad scope of federal civil rights laws, and the tradition of federal courts as the primary forum for civil rights action,[74] state court employment discrimination cases may qualitatively differ from federal cases. Second, federal court jury selection procedures may result in greater black participation on juries than do state court selection procedures. Third, and most importantly, the black population percentages in the forty-five CTCN counties are more similar to the percentages in the federal *non-urban* sample than to the federal urban sample. The mean black population percentage in employment cases in the CTCN state data is 12%, much closer to the federal non-urban sample's black population of 11% than to the federal urban sample's 18%.[75]

2. Poverty Rate Effects.—Table 5 shows a statistically significant positive correlation between poverty rates and plaintiff wins in state tort cases. But Table 4, in the federal urban tort model (model (8)), shows a

71. *See* Eisenberg et al., *supra* note 17, at 285 (noting that "black jurors were more apt than white jurors to cast their first vote for life").

72. These black population percentages are based on the distribution of trials. The black population percentages reported in Table 1 are based on the distribution of trial units.

73. In urban areas (those 80% or more urban according to census data), the mean black population percentage in job discrimination trials won by plaintiffs is 20% compared to 17% in trials lost by plaintiffs. In non-urban areas, the mean black population percentage in job discrimination trials won by plaintiffs is 11%, the same as the percentage in trials lost by plaintiffs.

74. *See* Theodore Eisenberg & Stewart Schwab, *The Reality of Constitutional Tort Litigation*, 72 CORNELL L. REV. 641, 655 (1987).

75. The federal/state sample disparity in poverty rates is much smaller. The mean urban federal sample poverty rate for job discrimination cases is 14.6% compared to 13.5% for the CTCN sample. The non-urban federal sample has a mean poverty rate of 14.5%.

negative correlation between poverty rates and plaintiff trial victories. Table 4 also shows that this negative correlation is statistically significant in federal urban job discrimination cases (model (2)). So poverty rates are not a unifying explanation of the pattern of outcomes and do not uniformly influence outcomes in the expected direction.

Another interesting effect is the significant positive relation between poverty rates and awards in federal urban products liability trials, reported in Table 2 (model (5)). This provides some support for those who believe that poor jurors are eager to render high awards against corporate manufacturers. But the absence of such a significant effect in non-urban federal trials (model (6)) and in state court products liability cases (Table 3) is then puzzling. If poorer urban federal jurors are willing to extract large awards from corporations, one might expect poorer state court jurors in urban areas to do the same. And if the federal urban jurors are eager to punish corporations in products liability cases, it is puzzling that the same federal urban products liability sample shows a negative (insignificant) correlation between increasing poverty rates and plaintiff win rates in Table 4 (model (5)).

Differences in the juror pools in federal and state courts might explain divergence between state and federal court results. For example, in state tort cases, award levels increase with poverty rates to a marginally significant degree (Table 3), and plaintiff win rates increase significantly with poverty rates (Table 5). It may be that juror pool differences explain the failure of a consistent pattern to emerge in federal cases.

So one should not dismiss the observed demographic effects simply because they emerge only in one court system. But the failure of any demographic effect to transcend the federal and state data sets and case categories, or even to exist in both the federal urban and non-urban samples, suggests that much of the demographic folk wisdom needs to be reconsidered.

IV. Case Makeup Effects

A. Selection Effect Considerations

Since the data include only trial outcomes, we should consider the implications of selection effects. Disputes selected for trial are not a random cross section of filed disputes.[76] Assume a trial unit's juries are known to be or believed to be favorable to plaintiffs. The perceived bias is so strong that nearly all good cases for plaintiffs settle. The residue of tried cases shows a low win rate for plaintiffs in what is a pro-plaintiff trial unit. One cannot observe the pro-plaintiff tendency because it does not manifest itself at the trial stage. The trial unit could be extremely pro-plaintiff, but might produce few plaintiff victories at trial.

76. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

Three considerations limit the impact of selectivity on our results. First, for most purposes observers are not making claims about *all* the cases filed in a geographic area. The strongly held views focus on jury behavior. The Bronx effect is not subtle. It is a descriptive claim that, *in tried cases*, jury awards and success rates are observably higher in urbanized minority areas. In demonstrating the partial incorrectness of these beliefs by looking at tried cases, selectivity concerns are irrelevant.

Second, the plaintiff victories that led local juries to be known as pro-plaintiff, thereby generating a possible selectivity problem, had to have occurred at some time. Our federal data reach back to 1978 and include highly active periods of personal injury tort and civil rights litigation. Selectivity based on local juries' behavior can skew results if that behavior has been fully absorbed into the local legal consciousness. For our results to be over-whelmed by selectivity, local juror reputations had to be established before 1978 and remain in place through the present.

Third, many case characteristics survive the selection effect. If groups of cases share features at both the pretrial and trial stages, then observing tried cases provides relevant, if incomplete, information about cases ending before trial. Most importantly, pretrial success rates are highly correlated with trial success rates.[77] Groups of cases that tend to do well at trial also tend to do well at the pretrial stage. Furthermore, groups of cases that tend to do well after litigation (those resolved by trial or by pretrial motion) also tend to do well at the pretrial settlement stage.[78] If a group of cases or districts show low or high trial success rates relative to each other, that relationship probably also exists in cases that do not reach trial. In general, there is not a mass of pretrial cases with gross win rate or award characteristics that are *opposite* to those in tried cases.[79]

B. Varying Case Quality Across Trial Units

The above results are most useful at the descriptive level. They refute the notion that most award levels or win rates are in fact higher in areas with larger black population percentages. This analysis has important limitations. In testing the relationship, for example, of black population percentage to trial outcomes, black population percentage may be a proxy for other factors, both demographic and non-demographic. To the extent it is a proxy for other demographic factors, adding other demographic variables for income and the like, as in Tables 2 through 5, addresses the problem.

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77. Theodore Eisenberg, *The Relationship Between Plaintiff Success Rates Before Trial and at Trial*, 154 J. ROYAL STATISTICAL SOC'Y ser. A, pt. 1, at 111, 113 (1991).

78. Theodore Eisenberg, *Negotiation, Lawyering, and Adjudication: Kritzer on Brokers and Deals*, 19 L. & SOC. INQ. 275, 292–93 (1994).

79. Theodore Eisenberg & James A. Henderson, Jr., *Inside the Quiet Revolution in Products Liability*, 39 UCLA L. REV. 731, 744–58 (1992) (noting that parties resolving cases informally likely do so with reference to the likely outcome of the case at trial and detailing data that bear out this assumption).

But black population percentage may correlate not only with other demographic factors, but also with case quality. Imagine, for example, that plaintiffs file weaker employment discrimination cases in districts with larger black population percentages. Perhaps lawyers operating in these districts are less able in filtering cases, and this correlates with increased black population percentage. If job discrimination case trial success rates decrease as black population percentages increases, it may be because weaker cases are filed in the higher black population districts.

Here, the selection effect triggered by the settlement process should tend to mute, by the trial stage, success rate differences based on case quality. If juror demographics have substantial effects known to both sides, the parties will take those effects into account in pretrial settlement negotiations. Cases in which the effects would be extreme, such as assuring one side's victory, tend to settle to save trial costs. The residue of tried cases may not correlate strongly with demographic factors known to influence trial outcomes.

Nevertheless, it remains plausible that case quality systematically varies across trial units. Perhaps stronger (or weaker) cases are filed in Delaware, for example, than in a division of the District of Wyoming. Our claim here is that, at the descriptive level, beliefs about how cases have in fact been resolved are inaccurate or exaggerated. We need not resolve the influence of possible variations in case quality.

V. Conclusion

We find little robust evidence that a trial locale's population demographics help explain jury trial outcomes. In tort cases, jury trial awards and plaintiff success rates do not consistently increase significantly with black population percentage. The mixed racial effects in tort cases are telling because the number of observations—over 30,000 federal and state tort trials—is surely large enough to detect a socially meaningful effect. The demographic effects that do emerge are not present in both federal and state courts. If there is a national Bronx effect in tort cases, it is likely tied more to poverty than to race. We do find evidence in state courts of increased plaintiff success rates and award size in tort trials held in more impoverished urban areas. But this effect does not emerge in federal tort trials in urban areas. So poverty is likely not the only factor at work, and federal-state juror pool differences may be the explanation.

With respect to employment discrimination cases, we again find no consistent pattern. Increasing black population percentages do correlate with higher plaintiff win rates in federal urban trials but not in state urban trials or federal non-urban trials. Award levels do not significantly increase with increased black population percentages in federal or state court. We find little evidence of a significant correlation between poverty rates and higher awards

or win rates in employment cases. The most significant effect is a negative correlation between increased poverty rates and plaintiff win rates in urban federal trials.

Our results do not negate the possibility of litigation "hot spots," where awards or plaintiff win rates are unusually high.[80] Nor do the results refute evidence that forum affects case outcomes.[81] They do suggest that such hot spots may be more a function of local conditions than of widespread demographic patterns. The pattern of inconsistent or non-robust demographic effects offers indirect support for what other research suggests: that the evidence in a case is by far the most powerful influence on its outcome.[82] Juror characteristics are most often of minor, secondary importance.

And what about the Bronx? As the Rose and Vidmar contribution to this Symposium suggests, reports about even its extremity in civil trial awards appear to be exaggerated.[83]

80. *See* Clermont & Eisenberg, *supra* note 23 (analyzing whether a meaningful correlation exists between forum choice and case outcome).

81. *See* Clermont & Eisenberg, *supra* note 23.

82. Clermont & Eisenberg, *supra* note 51, at 1152 & n.68.

83. Rose & Vidmar, *supra* note 2, at 1897–98.

APPENDIX

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APPENDIX TABLE 1

TRIAL AWARDS & PLAINTIFF WIN RATES BY DEMOGRAPHIC QUARTILES

FEDERAL DISTRICT COURT JURY TRIALS 1978 – 2000 (NUMBER OF CASES IN PARENTHESES) (AWARDS IN THOUSANDS OF 2000 DOLLARS)

CASE QUARTILE	Torts			Products			Job discrimination		
	Award Mean	Award Median	Win Rate	Award Mean	Award Median	Win Rate	Award Mean	Award Median	Win Rate
BLACK POPULATION % QUARTILE									
1st = lowest percent	1,435 (2,569)	161	.50 (6,143)	2,133 (374)	474	.33 (1,327)	1,068 (697)	141	.42 (2,054)
2nd	1,413 (2,585)	152	.51 (6,220)	1,435 (316)	328	.30 (1,263)	1,463 (561)	144	.35 (2,084)
3rd	1,586 (2,595)	181	.53 (6,100)	1,981 (336)	346	.32 (1,312)	1,169 (620)	143	.39 (2,037)
4th = highest percent	957 (2,683)	132	.54 (5,996)	1,862 (345)	336	.33 (1,278)	828 (644)	104	.41 (1,993)
POVERTY RATE QUARTILE									
1st = lowest poverty rate	1,619 (2,631)	149	.51 (6,139)	1,499 (313)	280	.28 (1,310)	1,385 (607)	141	.38 (2,065)
2nd	1,191 (2,562)	153	.52 6,099)	1,827 (340)	409	.32 (1,287)	1,043 (692)	121	.42 (2,031)

3rd	1,300 (2,921)	157	.56 (6,525)	2,289 (353)	423	.33 (1,303)	1,027 (641)	136	.40 (2,033)
4th = highest poverty rate	1,256 (2,318)	173	.50 (5,696)	1,811 (365)	383	.35 (1,280)	1,036 (582)	121	.37 (2,039)
PERCENT URBAN QUARTILE									
1st = lowest urbanization	1,165 (2,615)	132	.50 (6,116)	1,889 (344)	396	.33 (1,295)	882 (685)	109	.42 (2,042)
2nd	1,439 (2,835)	186	.55 (6,384)	1,625 (356)	379	.33 (1,302)	1,285 (619)	128	.38 (2,103)
3rd	1,534 (2,476)	166	.51 (5,863)	1,746 (336)	330	.32 (1,296)	1,496 (594)	129	.38 (1,996)
4th = highest urbanization	1,236 (2,502)	148	.52 (6,081)	2,253 (310)	401	.31 (1,284)	857 (624)	157	.39 (2,027)

SOURCES.—Federal Courts Integrated Data Base: 1970–2000, Bureau of the Census.

NOTE.—Trial unit quartiles are computed using the number of cases within the three case categories: the quartiles of urbanization in job discrimination cases are calculated using job discrimination cases, the quartiles in products liability cases are calculated using products liability cases, and the quartiles in personal injury tort cases are calculated using personal injury tort cases. Therefore, for example, the quartiles of urbanization in products liability cases differ from the quartiles of urbanization in job discrimination cases because more job discrimination cases are brought in urban areas. Award amounts are based on cases with non-zero awards for plaintiffs. Win rates are computed using all jury trials and therefore have substantially greater numbers of cases than summary statistics of award amounts, which are computed using only plaintiff victories.

APPENDIX TABLE 2
TRIAL AWARDS & PLAINTIFF WIN RATES BY DEMOGRAPHIC QUARTILES
45 LARGE URBAN COUNTIES: STATE COURT JURY TRIALS, FISCAL YEAR 1992, CALENDAR YEAR 1996 (NUMBER OF CASES IN PARENTHESES)
(AWARDS IN THOUSANDS OF 2000 DOLLARS)

CASE QUARTILE	Torts			Products			Employment		
	Award Mean	Award Median	Win Rate	Award Mean	Award Median	Win Rate	Award Mean	Award Median	Win Rate
BLACK POPULATION % QUARTILE									
1st = lowest percent	2,131 (1,122)	41	.44 (2,632)	776 (26)	259	.33 (82)	361 (59)	173	.59 (100)
2nd	374 (1,166)	51	.46 (2,567)	1157 (29)	357	.35 (83)	607 (76)	182	.52 (147)
3rd	759 (1,329)	53	.48 (2,815)	1,451 (30)	519	.34 (87)	731 (27)	251	.49 (55)
4th = highest percent	573 (991)	82	.48 (2,111)	1,040 (29)	322	.41 (75)	1,030 (46)	282	.55 (88)
POVERTY RATE QUARTILE									
1st = lowest poverty rate	2,029 (1,137)	35	.43 (2,711)	769 (26)	409	.32 (84)	261 (59)	73	.56 (106)
2nd	295 (1,209)	40	.48 (2,531)	1,589 (30)	444	.32 (94)	547 (47)	202	.48 (98)