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# Jury Service in Lengthy Civil Trials



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# **JURY SERVICE IN LENGTHY CIVIL TRIALS**

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This publication is a product of a study undertaken in furtherance of the Center's statutory mission to conduct and stimulate research and development on matters of judicial administration. The analyses, conclusions, and points of view are those of the authors. This work has been reviewed by Center staff, and publication signifies that it is regarded as responsible and valuable. It should be emphasized, however, that on matters of policy the Center speaks only through its Board.

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## EXECUTIVE SUMMARY

Concern over the role of the jury in lengthy civil trials has focused on the characteristics of the jurors, the burdens of lengthy jury service, and the ability of the jurors to deal with the demands of massive amounts of evidence. This report, based on a compilation of juror records and telephone interviews with jurors, explores the differences in the characteristics and experiences of jurors selected to serve in lengthy civil trials and jurors selected to serve in similar trials of shorter duration.

Jurors selected for service in lengthy trials are more likely to be unemployed or retired, as well as unmarried. These differences are consistent with the general perception that the burden of jury service in lengthy trials falls primarily to those who are relatively free of other duties and responsibilities. Jurors in lengthy trials are also less likely to have a college education, another factor that may be related to selection of those most available to serve. Surprisingly, the characteristic that most clearly distinguishes jurors in lengthy trials is gender; jurors in lengthy trials are more likely to be women. These differences, although statistically significant, are relatively small in magnitude.

A majority of jurors from both long and short trials reported that their service interfered "very little" or "not at all" with their normal life, and no significant difference emerged on this item between the responses of long-trial jurors and the responses of short-trial jurors. Not surprisingly, long-trial jurors reported missing much more work as a result of their service. However, more than three-fourths of the employed jurors received full pay from their employers for the duration of their service, a finding that may explain in part the absence of differences between long-trial and short-trial jurors in the extent to which they felt jury service interfered with their normal life.

More than four-fifths of both long-trial and short-trial jurors responded that they would be willing to serve on the case if they had it to do over again, suggesting that jurors take their service seriously even in the face of some hardship. Even among those jurors who said that their service had interfered a great deal with their normal life, more than 60 percent said they would be willing to serve if they were called again for jury service. However, the inter-

### *Executive Summary*

views revealed a number of factors that appear to decrease willingness to serve again. Being asked to serve much longer than expected, missing more than a month of work, and being unable to deliberate either because of the juror's status as an alternate or because the case settled before deliberation—all lowered jurors' continuing willingness to serve. But even in such situations the proportions of jurors willing to serve again were high.

Jurors find testimony and evidence difficult at times; nearly three-fifths of the jurors said that the evidence in their case was "difficult" or "very difficult" to understand. Jurors in long trials were more likely to have found the evidence difficult, but it is instructive to note that even in short trials nearly 30 percent of the jurors found the evidence difficult. When asked for examples of something they found difficult, jurors mentioned scientific and technical issues more often than anything else; the difficulty of legal issues and problems in the style of evidence presentation were the next most often mentioned problems. Scientific, technical, and legal issues were mentioned as problems more often by long-trial jurors than by short-trial jurors. Some jurors from both long trials and short trials admitted that their attention wandered at times during the presentation of evidence, but long-trial jurors were more likely to report this.

The interview survey asked jurors about the helpfulness of a number of techniques and devices used in trials. These included pretrial instructions, lawyers' opening statements, allowing jurors to take notes, giving jurors copies of documents, and using charts and diagrams in evidence presentation. The survey also asked jurors how helpful they had found the lawyers and the witnesses. Jurors found all of the techniques and devices to be generally helpful, and they felt that the lawyers and witnesses had been helpful in assisting them to understand the case. Note taking by jurors, giving jurors copies of documents, and using charts and diagrams were more frequent in long trials than in short trials.

The jurors were asked about their experience with postevidence instructions and deliberation. A majority of deliberating jurors said the judge's postevidence instructions were "easy" or "very easy" to understand, but a substantial minority of long-trial jurors said the instructions were "difficult" or "very difficult." Jurors who had received written copies of the instructions viewed this practice as being of substantial benefit to their deliberations. Responses to a question about how time was spent in deliberation showed that most of the time was spent discussing the evidence rather than trying to understand the judge's instructions or trying to elect a

foreperson and set an agenda. Long-trial jurors deliberated for a considerably longer time than did short-trial jurors.

The study was limited by the fact that many of the jurors could not be located, but this does not appear to have resulted in a biased group of responding jurors. Another limitation is that the interviews with some jurors took place long after their trial experience. This may have diminished the recollections of jurors, thereby lessening differences that might once have been greater. Nevertheless, within these limitations, this study suggests that while jurors in long and short trials may differ, the differences are not great in magnitude and are offset somewhat by the seriousness with which all jurors approach their task.



## I. INTRODUCTION

A lengthy trial, which may last six months or more, places extraordinary demands on all aspects of the justice system. The demands placed on jurors in lengthy civil trials, however, may be special in nature. Former Chief Justice Burger, in his address to the Conference of [State] Chief Justices on August 7, 1979, expressed two general concerns regarding the role of jurors in such cases. First, he cautioned that the mass of complicated information introduced at trial, combined with the often difficult legal issues involved, may strain the abilities of jurors to make competent factual determinations. Second, he expressed concern about the fairness of requiring citizens to serve for extended periods as full-time jurors.

This study explores how a lengthy jury trial in a federal civil case may affect the perceptions of those chosen to serve as jurors.<sup>1</sup> The primary focus of this report is on the results of interviews with persons who served as jurors in federal civil trials. A separate assessment of the demographic characteristics of persons who served as jurors in lengthy civil trials is also presented. The responses and characteristics of jurors in lengthy trials are compared with those of jurors in similar trials of more typical duration.

Much is asked of jurors who serve in lengthy civil trials. For example, one complex case, in which the court questioned the ability of a jury to render a reasoned verdict, involved five classes of plaintiffs and more than one hundred defendants.<sup>2</sup> The court estimated that if the case went to trial, the parties would call at least 240 witnesses and introduce into evidence 24,000 documents averaging four pages each. Similarly, in another case concerning an alleged conspiracy among twenty-four primary defendants, almost one hun-

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1. This report combines and expands on two earlier unpublished reports: J. S. Cecil, *Demographic Characteristics of Jurors in Protracted Civil Trials* (1982), and E. A. Lind, *A Survey of Jurors' Reactions to Long and Short Federal Trials: Introduction and Summary* (1982). A third report, G. Bermant et al., *Protracted Civil Trials: Views from the Bench and the Bar* (Federal Judicial Center 1981), examines the reactions of judges and attorneys who participated in lengthy civil trials. All of these reports are available from the Information Services Office of the Federal Judicial Center.

2. *In re U.S. Fin. Sec. Litig.*, 75 F.R.D. 702 (S.D. Cal. 1977), *rev'd*, 609 F.2d 411 (9th Cir. 1979), *cert. denied*, 446 U.S. 929 (1980). This case involved eighteen consolidated lawsuits.

dred coconspirators, and the Japanese government to maintain artificially low prices for Japanese electronic products, the jury would have been asked to evaluate the conduct of the Japanese electronics industry and its distributors around the world over a period of approximately ten years.<sup>3</sup> Trials in such cases can last many months, or even years. A jury trial in the first case was estimated to require two years and in the second case, one year. Of course, jury trials of such duration are extremely rare. But concerns over the burden on jurors and their ability to consider the evidence arise in trials lasting longer than a few weeks, and such cases have increased in number in recent years.<sup>4</sup>

The initial difficulty confronted by a court in a lengthy trial is impanelling a jury that is representative of the community.<sup>5</sup> This becomes an especially difficult task in a lengthy trial when many persons seek to be excused from jury service. In trials lasting a week or less judges are generally reluctant to excuse persons from jury service. However, as the anticipated length of trial increases, the burden imposed on the potential jurors is given greater weight and more jurors are excused. An extended absence from the place of employment can result in economic loss and have a detrimental effect on the career of the juror.<sup>6</sup> Many who are not employed nevertheless have personal responsibilities that cannot go unmet for extended periods. In considering requests to be excused, the trial judge must balance the burden placed on the individual jurors against the interest of the litigants in having a trial before a repre-

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3. *Zenith Radio Corp. v. Matsushita Elec. Indus. Co.*, 478 F. Supp. 889 (E.D. Pa. 1979), *vacated*, 631 F.2d 1069 (3d Cir. 1980). For other instances in which the court discusses the burden confronting jurors in lengthy civil trials, see *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 702 (S.D.N.Y. 1978); *ILC Peripherals Leasing Corp. v. IBM*, 458 F. Supp. 423 (N.D. Cal. 1978), *aff'd per curiam*, 636 F.2d 1188 (9th Cir. 1980); *In re Boise Cascade Sec. Litig.*, 420 F. Supp. 99 (W.D. Wash. 1976).

4. In 1985 there were fifty-eight federal civil jury trials that lasted longer than twenty days. Administrative Office of the U.S. Courts, 1985 Annual Report of the Director, at tables C-7 and C-9. Although such lengthy trials are not numerous, they account for approximately 10 percent of the hours spent in trials in federal courts. G. Bermant et al., *supra* note 1, at 70.

5. "It is the policy of the United States that all litigants in Federal courts entitled to trial by jury shall have the right to grand and petit juries selected at random from a fair cross section of the community in the district or division wherein the court convenes." 28 U.S.C. § 1861 (1982). It is not required that each individual jury be representative of the community, but only that the jury be selected by a process that permits representation of a fair cross section of the community. *Taylor v. Louisiana*, 419 U.S. 522 (1975). For a discussion of the legal standards concerning the cross-section requirement and the characteristics of members of the community that should be represented in the selection process, see Comment, *The Cross-Section Requirement and Jury Impartiality*, 73 Calif. L. Rev. 1555 (1985). See also *Lockhart v. McCree*, 106 S. Ct. 1758 (1986).

6. In the words of one attorney, "No one who earns a decent living could afford to be on this jury." G. Bermant et al., *supra* note 1, at 53.

sentative cross section of the community.<sup>7</sup> Too lenient a policy in this regard may needlessly excuse prospective jurors with characteristics that are typical of the community.<sup>8</sup> On the other hand, too strict a policy may place improper burdens on individual jurors and others who depend on them, causing resentment toward jury service and perhaps even litigants.<sup>9</sup>

The single study of the jury selection process in a lengthy trial demonstrates the difficulty of obtaining a representative jury.<sup>10</sup> Eighty-four persons appeared for jury selection in a case that was to require a trial lasting more than two hundred days. Of these, forty-eight persons were excused by the judge because of the hardship lengthy jury service would impose. Those who were excused represented an important segment of the community; they were more likely to have an education beyond high school and more likely to have occupational experience that was relevant to the commercial issues raised in the litigation. In fact, all potential jurors with managerial, supervisory, scientific, or engineering experience were excused. Surprisingly, in exercising their limited number of peremptory challenges, the attorneys enhanced the unrepresentative nature of the jury by eliminating most of the remaining persons whose occupational experience was of uncertain but conceivable relevance to the issues to be litigated, leaving a

7. *Thiel v. Southern Pac. Co.*, 328 U.S. 217, 224 (1946) ("It is clear that a federal judge would be justified in excusing a daily wage earner for whom jury service would entail an undue financial hardship."). See also 28 U.S.C. §§ 1866(c), 1869(j) (1982); *United States v. Anderson*, 509 F.2d 312 (D.C. Cir. 1974); *United States v. Woodner*, 317 F.2d 649 (2d Cir. 1963); *City of Cleveland v. Cleveland Elec. Illuminating Co.*, 538 F. Supp. 1257 (N.D. Ohio 1980).

8. See Jorde, *The Seventh Amendment Right to Jury Trial of Antitrust Issues*, 69 Calif. L. Rev. 1, 2-3 (1981) ("The [jurors' lack of familiarity with the complex issues in antitrust cases] is exacerbated by the procedures employed for jury selection, which tend to skew jury composition by disproportionately excluding from jury service those jurors who might be more familiar with complex issues or who might possess higher levels of skill and education necessary for comprehension and rational decisionmaking."). In considering the consequences of the excusal process, one judge noted, "When persons entitled to be excused from such a lengthy case have been eliminated from venire, must litigants be left with a panel consisting solely of retired people, the idle rich, those on welfare, and housewives whose children are grown?" *Bernstein v. Universal Pictures, Inc.*, 79 F.R.D. 59, 70 (S.D.N.Y. 1978).

9. Macauley et al., *The Never-ending Quest for Representative Juries: The Reluctant Juror*, 4 Det. C.L. Rev. 919, 928, 931 (1984) ("We raise the issue of the reluctant juror because policymakers are going to have to reach a decision on a proper balance between truly representative juries and the inconveniences and difficulties of dealing with those unwilling to serve."). See generally J. M. Van Dyke, *Jury Selection Procedures: Our Uncertain Commitment to Representative Panels* 111-137 (1977).

10. Note, *The Right to an Incompetent Jury: Protracted Commercial Litigation and the Seventh Amendment*, 10 Conn. L. Rev. 775 (1978). This article discusses the jury selection process in the fourteen-month antitrust trial in *SCM Corp. v. Xerox Corp.*, 463 F. Supp. 983 (D. Conn. 1978).

jury that was not representative of the level of education in the community and that apparently lacked any familiarity with the issues to be considered.<sup>11</sup> Of course, this is only a single case. But the case represents a pattern of findings that causes concern about the selection of jurors in lengthy cases.

Some jurors' relative lack of education and relevant experience may make their task of understanding complex and technical evidence very difficult. In one complex antitrust action in which the jury deadlocked after nineteen days of deliberation, the trial judge declared a mistrial and questioned the jurors concerning their comprehension of the evidence. On the basis of their responses and his own observations during the five-month trial, the judge noted:

Throughout the trial, the court felt that the jury was having trouble grasping the concepts that were being discussed by the expert witnesses, most of whom had doctorate degrees in their specialties. This perception was confirmed when the court questioned the jurors during the course of their deliberation and after they were discharged. When asked by the court whether a case of this type should be tried to a jury, the foreman of the jury said, "If you can find a jury that's both a computer technician, a lawyer, an economist, know all about that stuff, yes, I think you could have a qualified jury, but we don't know anything about that."<sup>12</sup>

Of course, the ability of the jury to understand the evidence and render a reasoned decision depends on the manner in which the evidence is presented. Skillful attorneys can adopt a variety of procedures that will ease the task of the jury. Expert witnesses can be used to instruct the jurors in the underlying principles of the complex evidence. The use of charts, graphs, and other demonstrative evidence may be particularly helpful. A judge can aid the task of

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11. Twenty-five of the thirty-nine jurors with education beyond high school were excused. Note, *supra* note 10, at 779-782. The jurors may have been challenged for reasons other than the conceivable relevance of their occupational experience. For example, during voir dire the jurors with relevant occupational experience may have indicated some reluctance to serve in such a lengthy trial and thus may have been excluded because of their reluctance rather than their occupational experience. See Macauley et al., *supra* note 9.

12. ILC Peripherals Leasing Corp. v. IBM, 458 F. Supp. 423, 488 (N.D. Cal. 1978), *aff'd per curiam*, 636 F.2d 1188 (9th Cir. 1980). Not all of the jurors agreed that comprehension of the evidence was beyond the capacity of the jury. One juror responded to the court's question, "Yes, I feel that a jury can definitely decide a case like this. I think that we were very close and it's really tragic that we didn't [decide], and I think that if I were IBM or Memorex, I would go to a jury again because it can be decided by a jury." See also Note, *Preserving the Right to Jury Trial in Complex Cases*, 32 Stan. L. Rev. 99, 114 n.78 (1979). In the antitrust case described previously, in which all of the potential jurors with relevant occupational experience were excused, the judge concluded, "The jury can follow the evidence and resolve factual issues." *Id.* at 114 n.79.

the jury by using innovative procedures in managing the trial. Issues can be narrowed prior to trial, thereby simplifying the task of the jurors. The trial can be structured to permit the jury to concentrate on specific tasks at each stage of the proceeding, with frequent instruction from the court concerning the issues to be considered. Permitting jurors to take notes and giving jurors copies of the documents are other techniques that may be helpful in a lengthy trial. In some cases appointment of a special master may be appropriate.<sup>13</sup>

Understanding the role of juries in lengthy trials has been limited by a lack of research into the burdens placed upon jurors by lengthy litigation.<sup>14</sup> The present research project was designed as a step in developing such information. However, a fundamental issue that arises in such cases—the issue of constitutional doctrine—is beyond the scope of this research. Recent cases have differed over the right to a jury trial under the Seventh Amendment in civil trials that involve the presentation of massive amounts of complex evidence.<sup>15</sup> Legal scholars differ in their assessment of this right to

13. See W. D. Brazil, G. C. Hazard & P. R. Rice (eds.), *Managing Complex Litigation: A Practical Guide to the Use of Special Masters* (American Bar Foundation 1983). Other suggestions for the presentation of issues to jurors in complex civil litigation are in *Manual for Complex Litigation*, Second (Federal Judicial Center 1985); Schwarzer, *Managing Antitrust and Other Complex Litigation: A Handbook for Lawyers and Judges* (Michie 1982); Austin, *Why Jurors Don't Heed the Trial*, 7 Nat'l L.J. 15 (1985); Committee on Juries of the Judicial Council of the Second Circuit, *A Report on Seven Experiments Conducted by District Court Judges in the Second Circuit*, 60 N.Y.U. L. Rev. 423 (1985); Dombroff, *Techniques to Simplify Complex Presentations at Jury Trials*, 4 Nat'l L.J. 21 (1982); Edquist, *The Use of Juries in Complex Cases*, 3 Corp. L. Rev. 277 (1980); McLaughlin, *Questions to Witnesses and Notetaking by the Jury as Aids in Understanding Complex Litigation*, 18 New Eng. L. Rev. 687 (1983); Meckler, *Complex Litigation: Effective Use of the Technical Expert*, 16 Trial 37 (1980); Nocenti, *Complex Jury Trials, Due Process, and the Doctrine of Unconstitutional Complexity*, 18 Colum. J.L. & Soc. Probs. 1, 6 (1983); Strawn & Munsterman, *Helping Juries Handle Complex Cases*, 65 Judicature 444 (1982); Withey, *Court-Sanctioned Means of Improving Jury Competence in Complex Civil Litigation*, 24 Ariz. L. Rev. 715 (1982).

14. "Neither the social science community nor the legal profession has furnished the courts with the information needed for empirically grounded judgments about the capacity of juries to rationally decide the issues posed by complex civil suits." Lempert, *Civil Juries and Complex Cases: Let's Not Rush to Judgment*, 80 Mich. L. Rev. 68, 70-71 (1981); see also *In re U.S. Fin. Sec. Litig.*, 609 F.2d 411, 420 (9th Cir. 1979) ("Although various views have been expressed about the practical abilities of jurors, there has been little substantive research done in the subject.").

15. According to the Seventh Amendment, "in suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved." U.S. Const. amend. VII. In a footnote in *Ross v. Bernard*, the Court suggested that "the practical abilities and limitations of juries" will affect the right to a trial by jury in civil cases. 396 U.S. 531, 539 n.10 (1970). Circuits have differed over whether the decision in *Ross* creates an exception to the right of a trial by jury for complex cases. Compare *In re U.S. Fin. Sec. Litig.*, 609 F.2d 411 (9th Cir. 1979), with *In re Japanese Elec. Prods. Antitrust Litig.*, 631 F.2d 1069 (3d Cir. 1980).

a trial by jury.<sup>16</sup> The trials in which the jurors in this study served were lengthy and may or may not have been complex. In focusing on lengthy cases, this study examines the functioning of the civil jury system in trials in which issues of jury competence were sometimes raised, but cases were not selected on the basis of the difficulty of the evidence.

The study first examines the demographic characteristics of jurors in long and short trials to determine if jurors in lengthy trials differ in education, employment status, and other characteristics from jurors serving in trials of more typical duration. Then, in presenting information gathered through telephone interviews with jurors, the study addresses how the burden of jury service differs in long trials, how the tasks of the jurors differ in long trials, and how various techniques for evidence presentation and juror instruction assist in overcoming any special difficulties that arise in long trials.

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16. Arnold, *A Historical Inquiry into the Right to Trial by Jury in Complex Civil Litigation*, 128 U. Pa. L. Rev. 829 (1980); Devlin, *Jury Trial of Complex Cases: English Practice at the Time of the Seventh Amendment*, 80 Colum. L. Rev. 43 (1980); Lempert, *Civil Juries and Complex Cases: Let's Not Rush to Judgment*, 80 Mich. L. Rev. 68 (1981); Redish, *Seventh Amendment Right to a Jury Trial: A Study in the Irrationality of Rational Decision Making*, 70 Nw. U.L. Rev. 486 (1975); Note, *The Right to Jury Trial in Complex Civil Litigation*, 92 Harv. L. Rev. 898 (1979); Comment, *Complex Civil Litigation and the Seventh Amendment Right to a Jury Trial*, 51 U. Chi. L. Rev. 581 (1984).

## II. APPROACH AND LIMITATIONS OF THE STUDY

### Identification of Jurors

The jurors in this study served in sixty federal civil trials. They were identified first by selecting a set of lengthy civil jury trials, then by selecting a matched set of trials of briefer duration, and finally by identifying the persons who served as jurors. Twenty-nine civil jury trials lasting twenty trial days or more were selected from the six federal judicial districts that had the greatest number of such trials between July 1976 and June 1979. Each of these twenty-nine lengthy trials was then matched with a shorter civil jury trial lasting one to six trial days. The matched shorter trials were from the same judicial district as the longer trials and, to the extent possible, were heard by the same judge, had the same or a similar "nature of suit" code, and were concluded at approximately the same time. Thirty-one short civil trials were selected for the study, including two short civil trials that were used in the analysis of juror characteristics to replace cases that settled during trial.<sup>17</sup> The median duration of these short trials was four trial days, typical for civil jury trials in cases of these types.<sup>18</sup> Table 1 presents the matched pairs of cases. Jurors and alternates serving in each of the trials were identified from the minutes of the court reporter, jury payment records, or a similar source. Unless otherwise indicated, alternate jurors were included in the analyses and are not distinguished from the regular jurors in the study.<sup>19</sup>

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17. Jurors in two of the short cases were excluded from the analysis of juror characteristics because these jurors sat in cases that settled during the first few days of trial. Since the selection process by which these jurors were chosen may not have anticipated a settlement and may have been predicated on expectations of a much longer trial, their demographic characteristics might not have been representative of the demographic characteristics of jurors in short civil trials. Jurors in these two cases did participate in the telephone interviews and were able to respond to issues that arose in the trial prior to settlement.

18. Jury trials in the types of cases used in this study generally took somewhat longer than most civil jury trials. Administrative Office of the U.S. Courts, 1976 Annual Report of the Director 332, at table C-8.

19. No differences in demographic characteristics were found between regular jurors and alternate jurors.

**TABLE 1**  
**Comparison Cases**

Long Trials			Short Trials		
Case No.	Case Type	Trial Days	Case No.	Case Type	Trial Days
<b>C.D. Cal.</b>					
L-1	Contract action	31	S-1	Contract action	2
L-2 <sup>a</sup>	Antitrust	24	S-2	Trademark	5
L-3	Antitrust	54	S-3 <sup>b</sup>	Product liability	5
L-4	Contract action	25	S-4	FELA claim	3
L-5	Negotiable instruments	20	S-5	Personal injury, marine	4
L-6 <sup>a</sup>	Civil rights	29	S-6	Civil rights	3
<b>N.D. Cal.</b>					
L-7	Contract action	20	S-7 <sup>b</sup>	Contract action	6
L-8	Securities	42	S-8 <sup>a</sup>	Prisoner civil rights	4
			S-8 <sup>c</sup>	Securities	4
L-9	Securities	35	S-9 <sup>b</sup>	Civil rights	4
L-10 <sup>a</sup>	Antitrust	26	S-10	Antitrust	5
L-11 <sup>a</sup>	Antitrust	20	S-11 <sup>a,b</sup>	Patent	3
L-12	Contract action	20	S-12	Insurance contract	3
L-13 <sup>a</sup>	Antitrust	24	S-13	Personal injury, marine	2
L-14	Prisoner civil rights	22	S-14 <sup>b</sup>	Job discrimination	4
L-15 <sup>d</sup>	Antitrust	98	S-15 <sup>d</sup>	Contract action	6
<b>N.D. Ill.</b>					
L-16	Antitrust	43	S-16	Contract action	3
L-17	Antitrust	45	S-17	Contract action	4
L-18	Antitrust	25	S-18	Contract action	4
<b>S.D. Cal.</b>					
L-19 <sup>a,d</sup>	Securities	20	S-19 <sup>b,d</sup>	Fraud/truth in lending	5
L-20 <sup>a</sup>	Antitrust	73	S-20 <sup>a,b</sup>	Insurance contract	5
L-21 <sup>d</sup>	Contract action	45	S-21 <sup>d</sup>	Securities	4
<b>S.D.N.Y.</b>					
L-22 <sup>d</sup>	Product liability	34	S-22 <sup>d</sup>	Product liability	3
L-23 <sup>d</sup>	Antitrust	25	S-23 <sup>d</sup>	Contract action	3
L-24 <sup>a,d</sup>	Securities	111	S-24 <sup>a,d</sup>	Negotiable instruments	2
L-25	Const. of state statute	30	S-25	Securities	3
L-26 <sup>a</sup>	Antitrust	135	S-26	Personal injury	4
L-27	Personal injury	25	S-27	Personal injury	2
L-28	Personal injury	22	S-28	Personal injury	4
<b>E.D. Pa.</b>					
L-29	Antitrust	26	S-29	Contract action	2
			S-30 <sup>c</sup>	Product liability	3

<sup>a</sup>Case not included in sample for juror interview study.

<sup>b</sup>Different judge heard short-trial case.

<sup>c</sup>Case not included in sample for juror demographics study.

<sup>d</sup>Trial dates for companion cases were more than one year apart.

## Collection of Data

Data were collected from juror qualification questionnaires and telephone interviews. The demographic information used to compare the characteristics of jurors was retrieved from the qualification questionnaires completed by prospective jurors at the time they were notified of their selection for the jury wheel. Juror qualification questionnaires or equivalent information was obtained for 490 of the 521 jurors.<sup>20</sup> While success in retrieving the questionnaires varied slightly across districts, it did not vary with the long- or short-trial status of jurors. Because juries in lengthy trials typically are larger than juries in shorter trials, there were more jurors from lengthy trials in the sample: 281 jurors had served in lengthy trials, and 209 jurors had served in shorter trials.

The second part of the data collection involved telephone interviews with jurors who had participated in long and short civil trials.<sup>21</sup> Because of the sensitivity of the juror role, only jurors serving in cases that had reached a final resolution were included in the interviews. Jurors in thirteen cases still under appeal or awaiting some other form of resolution were excluded from the interview portion of the study.<sup>22</sup> As shown in table 1, there was a great deal of overlap in the sample of cases and jurors for these two parts of the study. Of the sixty cases in the study, forty-five were common to both the study of juror characteristics and the juror interviews.

A list of 400 jurors and alternates was developed from the group of 490 prospective jurors for whom we had obtained demographic

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20. Information on jurors serving in the Northern District of California was obtained from a commercial service that collects information on all persons who serve as jurors in state and federal courts. Information on jurors in the Eastern District of Pennsylvania was obtained from summary sheets prepared by the court, and made available to the attorneys, that list the characteristics of persons available for jury service. Both of these alternative sources provided information that was equivalent to the information taken from the juror qualification questionnaires in other districts.

21. The questionnaire used in the interviews is reproduced in appendix A.

22. At the time of the interviews with jurors, some of the judicial districts had local rules that restricted attorneys and others from speaking with jurors concerning their verdict or deliberations. *See, e.g.*, Rules for the United States District Court, Southern District of Ohio, § 5.6 (1985). The purpose of such rules is to avoid harassment of jurors in an effort to uncover evidence of improper conduct in order to set aside the verdict. *See generally* Note, *Public Disclosures of Jury Deliberations*, 96 Harv. L. Rev. 886 (1983). To ensure that this study did not interfere in even a remote way with the litigation, interviews were conducted only with jurors in cases in which the litigation was concluded in its entirety. Some of the local rules restricting access to jurors by news reporters have been set aside as a violation of the First Amendment right to a free press. *See In re Express-News Corp.*, 695 F.2d 807 (5th Cir. 1982). *See also* *United States v. Sherman*, 581 F.2d 1358 (9th Cir. 1978).

information; 207 of the jurors had served in long trials, and 193 had served in short trials. The jurors' most recent address and telephone number were obtained from the juror qualification questionnaire, the juror payment record, or a similar source of information established at the time of the jurors' service. Telephone numbers were validated through directory assistance. The jurors were then sent a letter from the chief judge in the district where the juror had served, describing the purpose of the interview, noting that the survey was being conducted with the permission of the court, and encouraging participation. The letter also stated that participation in the survey was entirely voluntary and not a part of jury service. Jurors whose telephone numbers could not be validated prior to the mailing of the judges' letters were also sent a postcard with the letter. This postcard offered five dollars if the jurors noted their current telephone number on the postcard, returned the card, and agreed to participate in the interview.<sup>23</sup>

The telephone interviews, as well as the verification of telephone numbers and postcard solicitation, were conducted in the summer of 1981 by a survey research organization under contract to the Federal Judicial Center.<sup>24</sup> Jurors were telephoned until they were contacted, or up to fifteen times. The interviews lasted approximately twenty minutes.

### **Limitations of the Study**

The fact that the analysis of demographic data and the juror interviews took place at a time considerably removed from the actual time of trial results in several limitations that should be noted at the outset. First, there may be some inaccuracy in the measurement of the demographic characteristics of jurors at the time of their service. The juror qualification questionnaires were completed when the jurors were notified of their selection for jury duty, in some instances as much as three years before the person's actual jury service. Some of the information on the questionnaire, such as employment status, marital status, and educational achievement, may have changed during this period. Supplemental analyses suggest that the questionnaire data are a reasonably accu-

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23. Forty-two of the 168 postcards were returned.

24. This study was undertaken under contract to the Federal Judicial Center by Market Facts, Inc., Public Sector Research Group, of Washington, D.C. The survey research was supervised by Glen Davis, Ph.D., whose assistance we greatly appreciate.

rate measure of status at the time of jury service.<sup>25</sup> However, the fact that much of the demographic information was collected at the time of the summons may result in some slight inaccuracies in analyses comparing groups of jurors at the time of the trial.

**TABLE 2**  
**Results of Attempts to Interview Jurors**

Result	Long-Trial Jurors	Short-Trial Jurors
Juror could not be located or contacted	39%	42%
Juror did not remember case	2%	5%
Juror refused to be interviewed	11%	11%
Interview completed <sup>1</sup>	48%	42%
Total jurors in sample	207	193
Total interviews completed	99	81

<sup>1</sup>The statistical comparison for this item was not significant.

Second, the length of time that passed from the date of the trial to the date of the interviews made it difficult to locate a considerable proportion of the jurors. Interviews were completed with 180 of the 400 jurors in the sample, an overall response rate of 45 percent. The major reason for attrition of study participants was failure to contact jurors because of difficulty in obtaining accurate addresses and telephone numbers for some of them. Approximately 40 percent of the jurors could not be found or were unavailable for interviews because they were deceased, were ill, or had moved. A small proportion, 4 percent of the sample, showed clear signs of confusion or could not recall the case, and their interviews were not included in the analysis. Of the 222 persons who were successfully contacted and remembered the case, 180 were interviewed, for a response rate of 81 percent of those contacted. Forty-two persons, or 19 percent of those who were contacted and remembered the case, declined the invitation to participate in an interview. There were no significant differences between long-trial and short-trial jurors with respect to response rate,<sup>26</sup> suggesting that attrition af-

25. Employment status is likely to be the most unstable measure. When the jurors participating in the interviews were asked to indicate their employment status at the time of the trial, their responses were in agreement with the information on the qualification questionnaires for 93 percent of the cases. There was a somewhat greater tendency for persons classified as unemployed on the basis of the qualification questionnaire to report in the interview that they were employed at the time of the trial, rather than the other way around. This suggests that the questionnaire data may slightly overestimate the proportion of unemployed or retired persons in the sample.

26. Some variation between any two groups is to be expected solely as the result of chance. When the test states that a comparison resulted in a finding of "no sig-

affected both groups in a similar manner. A comparison of response rates for the two groups is given in table 2.

**TABLE 3**  
**Comparison of Interviewed and Noninterviewed Jurors**

Juror Characteristic <sup>1</sup>	Interviewed	Noninterviewed <sup>2</sup>
Married <sup>3</sup>	81%	61%
Average age	46 yrs.	44 yrs.
Employed	75%	74%
White	87%	80%
College education	56%	46%

<sup>1</sup>This table compares characteristics of jurors as they were recorded on the juror qualification questionnaire. These questionnaires were not available for 12 of the persons in the sample.

<sup>2</sup>Includes jurors and alternates who could not be located or contacted, jurors who did not remember the case, and jurors who refused to be interviewed.

<sup>3</sup> $z = 3.90, p < .01$ . (Statistical comparisons for all other items were not significant.)

Furthermore, comparison of demographic characteristics of jurors who were interviewed with those of jurors who were not interviewed disclosed only one systematic difference between the two groups: Interviewed jurors were more likely to be married. Table 3 presents the results of this comparison. There were no significant differences between the two groups with respect to age, employment status, race, or education. An additional comparison revealed that interviewed jurors were more likely to have served in more recent cases than noninterviewed jurors. However, there is no evidence that the attrition in the study distorted the findings regarding the extent to which jury service results in a personal burden or creates difficulty in comprehension of evidence.

Apart from the limitations resulting from attrition, the interview data may be limited in their accuracy because of misinterpretations or misrecollections of events surrounding the trial by the jurors. Since service on the jury often occurred several years before the interview, the passage of time may have diminished somewhat the feeling of burden associated with lengthy service, or the feeling of frustration in attempting to understand some of the evidence. Any sharp differences that existed in the perceptions of jurors in long and short civil trials may have become less extreme with the passage of time. This process may have affected long-trial jurors

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nificant difference," or some similar phrase, what is meant is that statistical tests have failed to rule out such chance variation as the only source of differences between the two groups. Differences reported here and elsewhere as "significant" have been found by statistical tests to meet the ".05" level of statistical significance, unless otherwise indicated. That is, these differences would be expected to occur fewer than five times in a hundred samples by chance alone.

and short-trial jurors in different ways. Since the jurors serving in long trials spent more time in the courtroom, it may be that their recollections of the events of the trial were clearer than the recollections of jurors in trials that lasted only a few days. No examination of this possible difference between jurors in long and short trials was undertaken.

These limitations are not mentioned to suggest a lack of confidence in the findings. To the contrary, these findings appear to represent the most accurate information available on the burdens of jury service and the difficulty of comprehending the evidence in lengthy civil trials. The limitations are mentioned to permit others to reach independent conclusions concerning the strength of the findings.<sup>27</sup>

The next chapter discusses demographic differences between jurors in lengthy and jurors in shorter civil trials and is followed by chapters discussing hardships of jury service, the presentation of evidence, and jury deliberations. Although a number of differences were found between long-trial and short-trial jurors, the importance of these differences remains open for discussion. To facilitate differing interpretations, we present the findings first without comment, reserving our own interpretations for the final chapter.

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27. There may be some question about the unit of analysis used in this study. The results presented in this report compare the demographic characteristics and reactions of individual jurors in long and short trials, rather than aggregating these data according to the type of jury—long-trial or short-trial—on which they served. Since the primary questions concern the burdens of jury service and the difficulty of comprehending the evidence presented at trial, issues that may affect individuals in different ways, it is appropriate to analyze these issues at the level of the individual jurors. Since the analyses of demographic characteristics describe characteristics of individuals who served as jurors, these findings cannot be extended with confidence to differences in juries (as opposed to jurors) in long and short trials. Furthermore, the sample of jurors from a matched set of shorter trials was selected to permit an assessment of the special or unique difficulties that confront jurors in lengthy civil trials. Since this matched set of jurors participated in cases that were as similar as possible to the lengthy cases except for the duration of the trials, the jurors are not representative of all jurors in federal civil trials.



### III. CHARACTERISTICS OF JURORS

Jurors who serve in lengthy trials differ in demographic characteristics from jurors who serve in short trials. Table 4 compares the characteristics of jurors in long and short trials. The comparisons confirm that jurors in long trials are more likely to be unemployed or retired, more likely to be unmarried, and less likely to have a college education.<sup>28</sup> However, the magnitude of these differences is modest, only about ten percentage points. The differences are consistent with the differences noted in the earlier case study of jury selection in a lengthy civil trial.<sup>29</sup>

TABLE 4  
Characteristics of Jurors Serving in Long and Short Trials

Juror Characteristic	Long-Trial Jurors	Short-Trial Jurors	<i>z</i>	Significance
Unemployed or retired	30%	22%	2.02	<i>p</i> < .05
College graduate	22%	32%	2.58	<i>p</i> < .01
Not married	32%	23%	2.16	<i>p</i> < .05
Female	57%	43%	3.14	<i>p</i> < .01
Over 64 years old	12%	9%	.87	n.s.
Nonwhite	19%	16%	1.05	n.s.

28. More specifically, the analyses compare jurors serving in long and short trials to determine whether jurors in lengthy trials are more likely to (1) be unemployed or retired; (2) report completing four or more years of college; (3) be sixty-five years old or older; (4) be unmarried (i.e., single, widowed, separated, or divorced); (5) be female; and (6) indicate a racial category other than "white." An additional note is necessary concerning the variable "unemployed or retired." One part of the juror qualification questionnaire simply asked the juror to check whether he or she was "employed" or "unemployed." Another part of the questionnaire asked the juror to indicate his or her occupation. Jurors who were retired responded in several different ways. Some checked "unemployed" in the first part and in the occupation section indicated they were retired. Others checked neither "employed" nor "unemployed," but then in the occupation section indicated that they were retired. Finally, we suspect that many retired jurors checked "unemployed," but then did not indicate later that they were retired. The analyses that follow combine all of these jurors into the single employment-status category of "unemployed or retired." The demographic variables are described in greater detail in appendix B.

29. Note, *supra* note 10, at 776-783.

The greatest difference between the two groups is in gender: 57 percent of the jurors in long trials, and 43 percent of the jurors in short trials, were women.<sup>30</sup> This difference was also found in the study of jury selection just mentioned.<sup>31</sup> Since it is improper to excuse women from jury service on the basis of their gender alone,<sup>32</sup> it is likely that the greater proportion of women serving in lengthy trials is an indirect consequence of some other feature of the jury selection process. This difference and its relationship to differences in employment status and education are considered in further detail in appendix C.

Jurors in lengthy trials are not older than those in shorter trials. No significant difference in representation in long trials of those over sixty-four years old was found. Several cutoff points for distinguishing the ages of the two groups were examined, but again no significant differences were found. The distributions of the ages of the jurors in the two groups are almost identical; their mean ages differ by only one year (short-trial jurors = 45.2 years; long-trial jurors = 46.4 years). The lack of a significant difference in the ages of the jurors is surprising, since several observers have suggested that jurors' age is a consistent distinguishing feature of long and short trials.

Although greater proportions of jurors in long trials were nonwhite, this difference did not reach the level of statistical significance.<sup>33</sup>

In summary, there were significant differences in some demographic characteristics between jurors serving in short trials and jurors serving in long trials: Jurors in long trials were more likely to be unemployed or retired, to be unmarried, and to be female and were less likely to have completed four years of college.

Since this study examines the characteristics only of the jurors selected to serve, it is difficult to identify the feature of the jury selection process that results in these differences in characteristics. However, there are some potential explanations. Since the persons appearing in the courtroom for the selection process for each pair of long and short trials were presumably drawn at random from the same pool of eligible jurors, preexisting differences are unlikely to account for these findings. The long and short trials were matched to the extent possible for judge and type of case, so differ-

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30. The significance tests for differences in characteristics are based on the difference in the proportions. See J. L. Fleiss, *Statistical Methods for Rates and Proportions* 23 (Wiley 2d ed. 1981).

31. Note, *supra* note 10, at 779.

32. *Taylor v. Louisiana*, 419 U.S. 522 (1975).

33. Similar efforts to identify differences in the representation of specific racial groups, rather than the general category of "nonwhite," were unsuccessful.

ences in jury selection practices of judges or factors related to the type of case are also unlikely to account for the findings. The most likely explanation is that the differences are related to the judicial policy of excusing some persons from jury service in lengthy trials. However, a factor that cannot be ruled out as possibly contributing is the manner in which attorneys exercised their peremptory challenges. Whatever the source of the differences, it is clear that the jury selection process works differently in long trials.



## IV. HARDSHIPS OF JURY SERVICE

The interviews with jurors examined a number of issues related to possible hardships of long jury service. The questions included whether jury service interfered with normal life, whether jurors who were employed were paid by their employers during their jury service, and if so, whether they received full pay. Another question asked whether the jurors would be willing to serve in the trial again if called upon to do so.

As a preliminary question, the jurors were asked whether they had served for a longer period than, a shorter period than, or about the period of time they had originally anticipated. As might be expected, long-trial jurors were much more likely to respond that they had served longer than they had anticipated. In fact, fully one-half of the long-trial jurors answered that they had served "much longer" than they had originally expected, while less than 4 percent of the short-trial jurors gave this answer.

**TABLE 5**  
**Jurors' Assessment of Interference with Normal Life and Willingness to Serve Again**

Question	Long-Trial Jurors (n = 99)	Short-Trial Jurors (n = 81)
In general, how much would you say serving as a juror interfered with your normal life?		
Not at all	36%	35%
Very little	28%	36%
Somewhat	20%	21%
Very much	16%	8%
If you had it to do over again, would you still be willing to serve as a juror on this case?		
Yes	85%	93%

NOTE: Statistical comparisons for both items were not significant.

Table 5 shows the responses to the questions asking whether service had interfered with the juror's normal life and whether the juror would be willing to serve again under similar circumstances. Surprisingly, long-trial and short-trial jurors did not differ significantly in their answers to the first question. As shown in table 5, about 65 percent of the jurors reported some interference, but few

jurors said that jury service had interfered “very much” with their normal lives. A follow-up question asking for examples of such interference most frequently elicited work-related examples, mentioned by 32 percent of those responding. This issue is discussed in greater detail below. The next most often cited examples were problems in taking part in family activities, mentioned by 15 percent of those responding to this question, and transportation difficulties associated with jury service, mentioned by 11 percent of those responding. Long-trial and short-trial jurors did not differ with respect to the examples they gave.

The potential for economic hardship from jury service is certainly substantial, but the interview data suggest that little of the burden is borne by jurors. Lengthy service as a juror can cause prolonged absence from the place of employment; employed jurors serving in long trials reported missing much more work than did employed jurors serving in short trials. A majority of employed jurors in long trials (64%) reported missing more than a month of work. Of course, none of the employed jurors in short trials reported missing more than a month of work, and a majority of them (56%) reported missing only a week of work or less. Nevertheless, it appears that jurors’ employers support much of the direct economic burden of jury service. More than 90 percent of the employed jurors were paid by their employers for the days they were absent because of jury service, and of these, more than 90 percent received full pay for the time they missed. The percentage of jurors paid by their employers and the percentage receiving full pay did not differ between those in long and those in short trials. There remains the issue of the economic burden experienced by self-employed jurors. The data suggest that relatively few jurors who are either completely or partly self-employed serve in lengthy trials, presumably because of the economic burden. Such jurors are very rare in long trials (4%) and more common in short trials (17%).

Of course, there are professional and occupational hardships that are not alleviated by the continuation of wages, and there is some indication that the interviewed jurors experienced such burdens. As mentioned above, when jurors who indicated some interference with their normal life were asked for examples of things they wanted to do but could not, the most frequently mentioned category of examples concerned absence from work. Some examples of the jurors’ comments convey the nature of the problem:

“[I] couldn’t work overtime.”

“It took me away from work at an important time when there were a lot of things going on.”

“[I could not] get to work, which is very important to me.”

Surprisingly, however, the percentage of jurors citing work-related examples did not differ between those in long and those in short trials.

Still, the jurors' responses to the question about their willingness to serve again were overwhelmingly affirmative. Only a small percentage of both long-trial and short-trial jurors said they would be unwilling to serve again, and there was no significant difference between the responses of jurors in the two types of trials.

Although willingness to serve again was not directly related to trial length, it was related to jury service that exceeded the expected length, which was in turn affected by the length of the trial. Among those jurors who said that the length of their service greatly exceeded their expectations, 75 percent said they would be willing to repeat the experience; however, more than 95 percent of those who said that the length of their service was less than they had expected said they would be willing to serve again. Another factor that appeared to be related to willingness to serve again was whether the respondent had participated in deliberations. The difference in the percentage of affirmative responses (82%) for alternates and jurors who did not deliberate because of midtrial terminations and the percentage of affirmative responses (92%) for deliberating jurors fell just short of statistical significance. While it seems that there are factors that diminish the willingness of jurors to serve again in a similar trial, the length of the trial is not such a factor, especially if the juror expects the period of jury service to be lengthy and has the opportunity to participate in the jury deliberations.



## V. PRESENTATION OF INFORMATION AT TRIAL

A number of questions were asked about information the jurors received during the trial. These included several general questions about difficulties in understanding the evidence or in maintaining interest and paying attention. In addition, there were questions on specific types of information, such as judicial instructions at the beginning of the trial, opening statements, and testimonial evidence, as well as questions about whether various aids to understanding helped or would have helped.

These questions do not directly address the issue of whether jurors were able to comprehend the evidence. However, they do examine whether jurors *thought* they understood the evidence. Responses to the general questions are discussed first to describe the overall dimensions of potential difficulties. Responses to the specific questions are then addressed to explore possible solutions to difficulties.

**TABLE 6**  
**Jurors' Evaluation of the Difficulty of Evidence**

Question	Long-Trial Jurors (n = 99)	Short-Trial Jurors (n = 81)
In general, how difficult did you feel the evidence was to understand? <sup>1</sup>		
Very easy	9%	21%
Easy	45%	50%
Difficult	35%	24%
Very difficult	11%	5%

<sup>1</sup> $\chi^2(3) = 8.43, p < .05.$

Table 6 presents the distribution of responses to the question asking jurors about the difficulty of the evidence. In general, jurors in long trials found the evidence to be more difficult than did jurors in short trials. Forty-six percent of the long-trial jurors rated the evidence as "difficult" or "very difficult," while only 29 percent of the short-trial jurors did so. Although jurors in long trials found the evidence more difficult to understand, this difference must be interpreted with the recognition that a minority of both groups of

jurors said they found the evidence difficult to understand. Some jurors may have been reluctant to admit that they found the evidence difficult to understand, though additional analyses make this unlikely.<sup>34</sup>

An analysis was conducted to investigate the possible influence of juror characteristics such as employment status, gender, and educational achievement on the jurors' estimates of the difficulty of the evidence. None of these factors was related to the difficulty ratings or to the general finding that evidence in long trials is more difficult. In other words, the difference in ratings of the difficulty of evidence in long trials and short trials is not the result of differences in the personal characteristics of jurors in the two types of cases.

**TABLE 7**  
**Jurors' Responses to Questions on Interest in Evidence and Attention**

Question	Long-Trial Jurors (n = 99)	Short-Trial Jurors (n = 81)
In general, how interesting did you find the evidence and testimony? <sup>1</sup>		
Very interesting	29%	39%
Interesting	58%	47%
Dull	6%	14%
Very dull	7%	0%
How often did you find your attention wandering during the presentation of the evidence? <sup>2</sup>		
Not at all	16%	45%
Not very often	38%	31%
Occasionally	40%	24%
Quite a bit	6%	0%

<sup>1</sup> $\chi^2(3) = 10.83, p < .05.$

<sup>2</sup> $\chi^2(3) = 21.71, p < .01.$

34. Since jurors undoubtedly felt a measure of responsibility for having rendered a verdict of substantial consequence to the litigants, they may have been hesitant to admit that they had difficulty understanding the evidence. Although this explanation of the generally positive evaluations of the evidence cannot be ruled out, additional analysis suggests that it is unlikely. If the jurors' responses to the difficulty question were motivated by some need for self-justification, one would expect the need to be stronger, and the difficulty ratings lower, among respondents who rendered verdicts. When the responses of those who deliberated (and presumably rendered a verdict, though our data do not address this fact) were compared with the responses of those who, because they were alternates or jurors in cases disposed of during trial, did not deliberate (and therefore did not render a verdict), no difference was found in the ratings of the difficulty of the evidence. Additional support for the validity of the difficulty ratings comes from examination of the relationship between the ratings and the time required for deliberation. As would be expected for a rating that actually reflects the difficulty of the material under consideration, difficulty ratings were higher in trials with longer deliberations.

Table 7 shows the distribution of responses to the questions asking the jurors how interesting they found the evidence and whether their attention wandered during the presentation of evidence. Responses to both of these questions revealed differences between long-trial and short-trial jurors. Short-trial jurors generally rated the evidence more interesting than did long-trial jurors. However, this finding should be viewed with caution. If one looks at the percentage of jurors rating the evidence as either "interesting" or "very interesting," there is no difference between jurors in long trials and jurors in short trials. The difference emerges because the short-trial jurors more often rated the evidence "very interesting," and the long-trial jurors more often rated it "very dull."

A stronger indication of potential problems in the attention of jurors in long trials is seen in the responses to the second of these questions. As shown in table 7, 46 percent of the long-trial jurors admitted that their attention wandered occasionally, while only 24 percent of the short-trial jurors admitted that level of inattention. Of course, long-trial jurors had more time during which their attention could wander.

The sixty-eight jurors who rated the evidence as either "difficult" or "very difficult" (45 jurors serving in long trials and 23 jurors serving in short trials) were asked to give an example of evidence that was hard to understand, and these examples were classified into a number of categories. The most frequent category of examples was that of scientific and technical evidence; 62 percent of the respondents giving examples mentioned such evidence as being difficult. Some responses show the type of evidence that fell into this category:

"They used computer terms that were hard to understand at first."

"There was testimony about genetic splicing, and test tubes, and genetics . . . that was hard to understand by the jury."

". . . [testimony] involving stocks and bonds and trading, how the market works."

Problems with legal topics and problems with the manner in which evidence was presented were the next most frequently mentioned sources of difficulty, each mentioned by 19 percent of the respondents giving examples. Some examples relating to legal topics follow:

"The evidence given by the plaintiff was wrapped around maritime laws that were vague and confusing."

". . . rules that govern real estate procedures."

Some examples relating to the manner of presentation follow:

"It was in Spanish, and difficult to hear the interpretation at times."

"They were talking about the layout of the hallway and yet showed no diagrams."

Of course, long-trial jurors generally gave more examples because they rated the evidence as more difficult. When this tendency for long-trial jurors to give more examples was taken into account, no substantial differences were found in the frequency with which any of the categories of examples were mentioned. In other words, it appears that technical and scientific terms, legal topics, and problems with the presentation of evidence cause difficulties whether they occur in long trials or in short trials.

The jurors were asked how helpful they had found the opening statements, the attorneys, and the witnesses. The 85 percent of the jurors who had received pretrial instructions were also asked to rate the helpfulness of such instructions. With the exception of their ratings concerning opening statements, a majority of respondents rated each item as "very helpful." The opening statements were rated "very helpful" by only 38 percent of the jurors. There were no significant differences between long-trial and short-trial jurors in their answers to these four questions.

The jurors were also asked whether they had encountered several aids to comprehension: note taking, receiving copies of documents and exhibits, and the use of charts and diagrams. Each of these aids was far more likely to have been encountered by long-trial than by short-trial jurors. In response to questions about their reactions to the aids, a majority of the jurors who took notes rated that practice as "very helpful," a majority of those who were given copies of documents rated that practice as "very helpful," and a majority of those who saw charts and diagrams rated them as "easy" to understand.

A final question in this part of the interview asked the jurors to suggest ways that an attorney in a similar case could make the evidence easier to understand. As might be expected, the most frequent response, mentioned by 24 percent of the jurors, was that the presentation should be made clearer. Other frequent responses were that the presentation should be briefer and that the attorneys should use simpler, less technical language, suggested by 13 percent and 12 percent of the jurors, respectively. Examples of these three types of responses follow:

*Clearer presentation:*

“In the opening statement they [should] state their case, stay to the basic facts, and not go off on tangents—try to make it clear what they have proved. And the closing arguments could be brighter.”

“. . . that they talk slower and explain things more.”

*Briefer presentation:*

“. . . not to keep talking about the same things over and over again.”

“Don’t go over the evidence too much. Don’t belabor the evidence and the issues so much.”

*Less technical language:*

“. . . that they attempt to talk in straightforward language and not use so many technical terms.”

“Put it in very simple, easy-to-understand language.”

Long-trial and short-trial jurors differed in the frequency with which they suggested brevity in presentation of evidence; 18 percent of the long-trial jurors mentioned brevity, while only 6 percent of the short-trial jurors mentioned it.



## VI. DELIBERATIONS

Of the 180 persons interviewed, 123 participated in deliberations; the remaining 57 were either alternates who were excused before deliberations or jurors in trials that terminated before the case was given to the jury. Seventy-eight percent of the respondents in short trials were involved in deliberations, compared with 61 percent of the respondents in long trials. Those who deliberated were asked how difficult they found the postevidence judicial instructions, whether they found the instructions regarding liability or the instructions regarding damages more difficult, and how difficult it was for them to understand the process of reaching a verdict. They were asked whether they had been instructed to reach a general or a special verdict and whether they believed the other type of verdict would have been easier to render than the one they used. Also, they were asked how long they spent deliberating and whether they devoted most of their deliberation time to interpreting the instructions, discussing the case, or structuring the deliberation process. Finally, the jurors were asked about the role the foreperson played in the deliberations.

**TABLE 8**  
**Jurors' Ratings of the Difficulty of Postevidence Instructions**

Question	Long-Trial Jurors (n = 60)	Short-Trial Jurors (n = 63)
In general, how easy were the judge's instructions to understand? <sup>1</sup>		
Very easy	25%	50%
Easy	45%	42%
Difficult	25%	6%
Very difficult	5%	2%
How easy was it for you to understand how you were to reach a verdict? <sup>2</sup>		
Very easy	14%	25%
Easy	37%	51%
Difficult	37%	21%
Very difficult	12%	3%

<sup>1</sup> $\chi^2(3) = 12.92, p < .05.$

<sup>2</sup> $\chi^2(3) = 9.49, p < .05.$

Table 8 shows the results of the question asking the jurors how difficult they found the post-evidence instructions. The long-trial jurors were more likely than the short-trial jurors to say that they found the instructions difficult to understand, though only a minority of the long-trial jurors said so. The jurors' education, employment status, and gender were unrelated to their ratings of the difficulty of the instructions. Nor did these variables contribute to the difference between long-trial and short-trial jurors in their ratings of the difficulty of the instructions. When asked whether the liability or the damages portion of the instructions had caused them greater difficulty, the jurors showed no clear choice.

Table 8 also shows the responses to a question designed to assess the success of the instructions in aiding the jurors' understanding of how they were to go about reaching a verdict. Long-trial jurors were more likely than short-trial jurors to report that it was "difficult" or "very difficult" for them to understand how to reach a verdict. In fact, almost half of the long-trial jurors reported difficulty in this area. Responses to the question about the type of verdict the jurors were asked to give showed that jurors in long trials were more likely to have been asked to give special verdicts than were jurors in short trials. Sixty-four percent of the long-trial jurors reported having been told to give special verdicts, while only 41 percent of the short-trial jurors said they had been told to do so. A follow-up question asked the jurors whether they thought it would have been easier to reach a decision if they had been told to use the other type of verdict. The jurors appeared to agree with the judge's decision about the form of verdict more often than not: Most said that a different form of verdict would not have made it easier to reach a decision. This finding was unaffected by the length of trial the jurors had been involved in.

Table 9 reports the responses to the question asking jurors how long they had deliberated. As expected, long trials produced much longer deliberations than did short trials. A majority of the short-trial jurors reported deliberating for four hours or less, and a majority of the long-trial jurors reported deliberating for three days or more.

The jurors were asked what they had spent the most time discussing, in order to determine whether discussion of procedural matters or of the meaning of the instructions distracted them from their consideration of the evidence. Apparently this was not the case: 78 percent of the jurors reported that they had spent the most time in deliberations discussing the evidence and each other's understanding of it. Long-trial and short-trial jurors did not differ in their responses to this question.

**TABLE 9**  
**Reported Length of Deliberations**

Question	Long-Trial Jurors (n = 60)	Short-Trial Jurors (n = 63)
About how long did you and your fellow jurors discuss the case before you either reached a verdict or decided you could not reach a verdict? <sup>1</sup>		
One hour or less	0%	8%
One to four hours	5%	60%
Four hours to one day	8%	6%
One to two days	30%	19%
Three to five days	24%	7%
More than five days	33%	0%

<sup>1</sup> $\chi^2(5) = 61.70, p < .01.$

Finally, the jurors were asked what functions the foreperson had assumed during deliberations, with more than a single response permitted to this question. The most common answer was that the foreperson had organized or led the discussion (67%), and the second most common answer was that the foreperson had recorded votes (47%). The role played by the foreperson did not appear to differ between long trials and short trials.



## VII. CONCLUSIONS

The findings suggest that jurors in lengthy civil trials have a somewhat different experience from that of jurors in similar shorter trials. However, these differences are generally small in magnitude and of uncertain significance in assessing jurors' role in lengthy trials. The findings also suggest a number of steps that could be taken to minimize some of the differences. The federal judiciary, in protecting the rights of litigants and supervising the jury system, will determine whether and to what extent these findings require modification of existing practices. We simply summarize the findings and offer our interpretations of them.

The burden of jury service in the lengthy civil trials we examined was certainly much greater than in the short civil trials and typically required service that was more than four times as long. But surprisingly, jurors in the lengthy trials did not report significantly greater interference with their lives. Furthermore, an overwhelming majority of jurors in both long and short trials indicated that they would serve again.

The data suggest several reasons for this unexpected finding. First, many employers continue to pay jurors for the days they miss because of jury service, thereby reducing what would otherwise be a substantial economic hardship. Second, the process of selecting a jury for a lengthy trial appears to result in a group of jurors who are least likely to be harmed by jury service. For example, self-employed persons rarely serve in lengthy trials. Jury selection in lengthy trials appears to produce juries that differ in demographic characteristics from those impanelled for briefer trials: Jurors in lengthy trials are more likely to be unemployed, be unmarried, be female, and have less than a complete college education. We have no objective means of determining if these differences affect the deliberation process. Demographic characteristics were not related to the reported degree of difficulty with evidence or the judges' instructions. Such differences may be a legitimate cause for concern; we reiterate, however, that the differences are small in magnitude and of uncertain importance in assessing the role of jurors in lengthy trials.

A third reason for the lack of a difference in the reported burden of jury service is the seriousness with which jurors approach their

task. It is apparent that those who serve in both long and short trials have a strong sense of civic duty that permits them to undertake this task and serve without regret. This civic-mindedness, demonstrated by the overwhelming number of jurors who indicated a willingness to serve again, is a valuable resource to our system of justice. Nevertheless, while the length of the trial in itself did not diminish willingness to serve, two factors that were related to willingness to serve deserve closer attention. Willingness to serve was diminished when the length of jury service greatly exceeded the amount of time the juror expected to serve. Also, those who were not permitted to deliberate, either because of their status as alternates or because the case terminated during the trial, indicated a diminished willingness to serve again. Therefore, judges and attorneys can help to preserve the civic-minded attitude toward jury service by providing reasonably accurate estimates of the amount of time that will be involved and by impanelling a jury without designating alternates, thus permitting all jurors to deliberate about a verdict.<sup>35</sup> Putting aside the factors that may diminish jurors' willingness to serve, the interviews suggest that jurors are willing to undergo a modest degree of inconvenience to meet their obligation of jury service.

Jurors in long trials were more likely than jurors in short trials to report that they found the evidence to be difficult. This difference was not as great as we had expected, however; 46 percent of the jurors in long trials indicated that the evidence was difficult, compared with 29 percent of the jurors in short trials. Jurors in both long and short trials mentioned scientific and technical evidence as posing the greatest difficulty. Since jurors in lengthy trials considered greater amounts of evidence than did jurors in short trials, we were unable to determine if the greater difficulty arose from the amount of evidence or the nature of the evidence. Jurors in long trials also were more likely to report that they found the evidence uninteresting and more likely to admit that their attention wandered occasionally during the trial.

These findings suggest to us that concerns about the unique difficulty of the evidence in protracted civil trials may have been overstated. While difficulty with the evidence is more likely to be encountered in lengthy trials, such problems arise in shorter trials as

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35. The Manual for Complex Litigation suggests postponing the designation of alternates until immediately prior to deliberation, in order to ensure that the jurors remain attentive. To avoid resentment by jurors at being dismissed prior to deliberation, the manual also suggests that the judge advise the jurors at an early stage in the trial that some may be excused later. Manual for Complex Litigation, Second, § 21.41 (Federal Judicial Center 1985).

well. Apart from the difficulty posed by the evidence, jurors in lengthy trials are more likely to find the evidence boring and to have greater difficulty attending to the presentations. The principal problem seems to be the great amount of attention required by lengthy presentation of evidence.

Some of the problems posed by the presentation of evidence in lengthy trials can be overcome by greater use of a number of practices and techniques. Jurors who heard pretrial instructions, were permitted to take notes and inspect documents and exhibits, and were permitted to examine charts and diagrams indicated that all these devices were helpful in enabling them to understand the evidence. Our impression is that jurors benefit from some of these aids to presentation and that if they are not used, greater difficulty with the evidence results.

Additional difficulties can be overcome by greater attention by judges and attorneys to the opportunities that are available for summarizing the case and instructing the jury. Opening statements by attorneys were not particularly helpful, for jurors in either long or short trials, perhaps because attorneys did not fully take advantage of the opportunity they offered to prepare the jurors for the evidence that followed. Compared with jurors in short trials, jurors in long trials indicated more difficulty in understanding how they were to reach a verdict. In any event, these two areas merit further attention by judges and attorneys.

This study has a number of limitations, the most important being that the interviews were conducted after—sometimes long after—the period of jury service. The study is also limited by the lack of any clear standard against which to compare the functioning of the long-trial jurors examined; an assessment of jurors' performance in lengthy trials depends on the expected level of adequate performance in such trials, and this standard varies across observers. For our part, we were surprised by how well the jury system appears to function in such cases. Jurors reported that they were not overburdened, that the evidence was sometimes difficult but manageable, and that deliberations progressed in a manner that was conducive to arriving at a principled and reasoned decision.



**APPENDIX A**  
**Juror Experience Questionnaire**



JUROR EXPERIENCE QUESTIONNAIRE

Long ... 1  
Short ... 2

Interviewer: \_\_\_\_\_

Field Service Name: National Telephone Center

Date: \_\_\_\_\_ Time Began: \_\_\_\_\_ AM/PM Time Ended: \_\_\_\_\_ AM/PM

Hello, I'm \_\_\_\_\_ from Market Facts, Inc., a public opinion research company. Is this (RESPONDENT'S LAST NAME ON CARD) household?

May I please speak with (RESPONDENT NAMED ON CARD)?

(IF QUALIFIED RESPONDENT IS NOT AVAILABLE, ARRANGE FOR CALLBACK AND RECORD ON CALL RECORD CARD.)

I'm calling for the Federal Judicial Center. We are conducting a study for the Center to help the courts get a better understanding of what it is like to serve as a juror. By now you should have received a letter from the chief judge in your federal court district telling you about the study.

We would like to interview you about your experience as a juror on the (CASE NAME FROM CARD) case, which ran from (BEGINNING DATE) to (COMPLETION DATE). Judge (NAME OF JUDGE FROM CARD) was the judge.

IF RESPONDENT SHOWS SIGNS OF CONFUSION ABOUT WHICH CASE WE'RE TALKING ABOUT, WRITE HIS OR HER COMMENTS BELOW.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

First, however, I want to assure you that this interview is being made with the court's permission. The interview is not part of your jury duty and is entirely voluntary. Some of the information you provide us will be related to information you provided when you served as a juror. However, the Federal Judicial Center will never identify you by name, and when the results of the study are presented, they will be presented only as statistical summaries or anonymous remarks.

1. The interview will take about 20 minutes. Are you willing to participate?

Yes ..... 1                      No ..... 2

IF RESPONDENT IS WILLING BUT UNABLE AT THIS TIME, ARRANGE CALLBACK AND RECORD ATTEMPT ON RECORD SHEET. IF RESPONDENT IS UNWILLING, THANK RESPONDENT AND RECORD "REFUSAL" ON RECORD SHEET.

2a. When you were called for jury duty were you employed?

Yes ..... 1                      No ..... 2 (SKIP TO Q. 2d)

2b. What kind of work were you doing at that time?

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What type of company did you work for?

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2c. Were you self-employed at that time?

Yes ..... 1 (SKIP TO Q. 2h)    No ..... 2 (SKIP TO Q. 3)

Both self-employed and employed by a company ..... 3  
(SKIP TO Q. 2f)

2d. Were you retired at the time of the trial?

Yes ..... 1                      No ..... 2 (SKIP TO Q. 3)

2e. What kind of work were you doing before you retired?

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What type of company did you work for?

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- 2f. Did your employer pay you for the days you missed while you were on the jury?
- Yes ..... 1
  - No ..... 2 (SKIP TO Q. 2h)
  - Don't know ... 3 (SKIP TO Q. 2h)
- 2g. Did you receive full pay or only partial pay for the days you missed?
- Full pay ..... 1            Partial pay ..... 2
- 2h. About how many days of work did you miss because you were on the jury? Did you miss (READ LIST)?
- Less than 1 week ..... 1
  - 1 week ..... 2
  - 1 to 2 weeks ..... 3
  - 2 weeks to a month ... 4
  - Longer than a month .. 5
3. Thinking back to how long you originally expected to serve as a juror, did you serve (READ LIST)?
- Much longer ..... 1
  - Somewhat longer ..... 2
  - About as long ..... 3
  - Somewhat shorter ..... 4
  - Much shorter ..... 5
  - (DO NOT READ) Don't know ..... 9

RESPONDENTS WHO REPORT NO EXPECTATIONS ARE CODED AS "DON'T KNOW."

4a. In general, how much would you say serving as a juror interfered with your normal life? Would you say (READ LIST)?

Not at all ..... 1 (SKIP TO Q. 5)

Very little ..... 2

Somewhat ..... 3

Very much ..... 4

4b. Could you give me an example of two things which you wanted to do, but could not because you were serving on jury duty?

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5. If you had it to do over again, would you still be willing to serve as a juror in this case?

Yes ..... 1

No ..... 2

Don't know ... 9

Now, I'd like to ask you some questions about the preliminary charge to the jury, that is, the part of the trial before the evidence and testimony were presented.

6a. Do you remember whether the judge gave the jury some instructions about the case before the evidence and testimony began?

Yes, the judge gave instructions ..... 1

No, the judge gave no instructions ..... 2 (SKIP TO Q. 7)

Don't know ..... 9 (SKIP TO Q. 7)

6b. In general, how helpful were these instructions to your understanding of the trial? Would you say (READ LIST)?

Not helpful ..... 1

Somewhat helpful ..... 2

Very helpful ..... 3

(DO NOT READ) Don't know ..... 9

7. Now, I'd like you to think back to the lawyers' opening statements, that is, the presentations by the lawyers before the first witness testified. How helpful would you say their presentations were? Would you say (READ LIST)?

Not helpful ..... 1

Somewhat helpful ..... 2

Very helpful ..... 3

(DO NOT READ) Don't know ..... 9

Now, I'd like to ask some questions about the part of the trial when the evidence and testimony were presented.

8a. In general, how difficult did you feel the evidence was to understand? Would you say (READ LIST)?

Very easy ..... 1 (SKIP TO Q. 9)

Easy ..... 2 (SKIP TO Q. 9)

Difficult ..... 3

Very difficult ..... 4

(DO NOT READ) Don't know ..... 9 (SKIP TO Q. 9)

8b. Can you give me an example of evidence that was difficult to understand? (PROBE WELL.)

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9. In general, how interesting did you find the evidence and testimony? Did you find them (READ LIST)?
- Very interesting ..... 1
  - Interesting ..... 2
  - Dull ..... 3
  - Very dull ..... 4
- (DO NOT READ) Don't know ..... 9
10. How often did you find your attention wandering during presentation of the evidence? Would you say (READ LIST)?
- Not at all ..... 1
  - Not very often ..... 2
  - Occasionally ..... 3
  - Quite a bit ..... 4
- (DO NOT READ) Don't know ..... 9
- 11a. Did you take notes during the evidence and testimony?
- Yes ..... 1 (SKIP TO Q. 11c)
  - No ..... 2
- 11b. As you recall, did the judge allow the jury to take notes during this part of the trial?
- Yes ..... 1
  - No ..... 2
  - Don't know/No response .... 9
- IF RESPONDENT SAYS JUDGE SAID NOTHING ABOUT TAKING NOTES, CODE AS "DON'T KNOW/NO RESPONSE."

11c. How much did taking notes help you understand the evidence? Was it (READ LIST)?

Not helpful ..... 1

Somewhat helpful ..... 2

Very helpful ..... 3

(SKIP TO Q. 12a)

(DO NOT READ) Don't know ..... 9

11d. Looking back now, do you think taking notes would have helped you understand the evidence? Would it have been (READ LIST)?

Not helpful ..... 1

Somewhat helpful ..... 2

Very helpful ..... 3

(DO NOT READ) Don't know ..... 9

12a. Did the lawyers hand copies of documents or exhibits to the jury during the evidence and testimony?

Yes ..... 1

No ..... 2 (SKIP TO Q. 13a)

Don't know .... 9 (SKIP TO Q. 13a)

RECORD "YES" ONLY IF RESPONDENT WAS GIVEN A COPY ON PAPER TO EXAMINE. IF RESPONDENT WAS ONLY SHOWN VISUAL DISPLAYS (E.G., SLIDES) CODE AS "NO."

12b. How much did copies of the documents help you understand the evidence? Were they (READ LIST)?

Not helpful ..... 1

Somewhat helpful ..... 2

Very helpful ..... 3

(DO NOT READ) Don't know ..... 9

- 13a. How often did the attorneys or witnesses use charts or diagrams when they presented evidence? Did they use them (READ LIST)?
- Never ..... 1 (SKIP to Q. 13c)
  - Sometimes ..... 2
  - Often ..... 3
- (DO NOT READ) Don't know ..... 9
- 13b. How easy were these charts or diagrams to understand? Would you say they were (READ LIST)?
- Very easy ..... 1
  - Easy ..... 2
  - Difficult ..... 3
  - Very difficult ..... 4
- (DO NOT READ) Don't know ..... 9 (SKIP TO Q. 14)
14. In general, how helpful were the witnesses in helping you understand the case? Would you say (READ LIST)?
- Not helpful ..... 1
  - Somewhat helpful ..... 2
  - Very helpful ..... 3
- (DO NOT READ) Don't know ..... 9
15. In general, how helpful were the attorneys in helping you understand the case? Would you say (READ LIST)?
- Not helpful ..... 1
  - Somewhat helpful ..... 2
  - Very helpful ..... 3
- (DO NOT READ) Don't know ..... 9

- 16. If you were asked to advise an attorney in a similar case on how he or she could make it easier for the jury to understand the evidence, what would you suggest?

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Now, I'd like to ask you some questions about the part of the trial when the jury discussed the case and deliberated to reach a verdict.

- 17a. Sometimes cases are settled out of court; or, you may have served as an alternate juror. Did you deliberate and discuss the case with the rest of the jury?

Yes ..... 1                      No ..... 2 (SKIP TO SCRIPT BEFORE Q. 24)

After all the testimony and evidence were given, the judge gave the jury some instructions before you and your fellow jurors deliberated. At that time the judge told you about your duty as a juror and about the law in the case.

- 17b. In general, how easy were the judge's instructions to understand? Would you say: (READ LIST)?

Very easy ..... 1  
 Easy ..... 2  
 Difficult ..... 3  
 Very difficult ..... 4

(DO NOT READ) Don't know ..... 9 (SKIP TO Q. 17d)

17c. Which of the following two kinds of instructions did you find more difficult to understand? (READ LIST)

How to decide who was at fault ..... 1

or

How much was owed if someone else was at fault (PAUSE) .... 2

or

Were they equally difficult to understand? ..... 3

(DO NOT READ) Don't know ..... 9

17d. Sometimes a judge will give the jury written instructions before they discuss the case. These might include instructions about the law in the case or what the jury needs to decide during deliberation. Did you receive a written copy of the judge's instructions?

Yes ..... 1

No ..... 2 (SKIP TO Q. 18)

Don't know .... 9 (SKIP TO Q. 18)

17e. How helpful were the written instructions? (READ LIST)

Not helpful ..... 1

Somewhat helpful ..... 2

Very helpful ..... 4

(DO NOT READ) Don't know ..... 9

18. How easy was it for you to understand how you were to reach a verdict? Did you find it (READ LIST)?

Very easy ..... 1

Easy ..... 2

Difficult ..... 3

Very difficult ..... 4

(DO NOT READ) Don't know ..... 9

19a. Judges give instructions to juries about the kind of verdict they must decide. Sometimes a judge asks the jury for an overall decision about who was at fault and how much was owed in a case. Other times, a judge asks the jury to answer specific questions he or she asked and sometimes gives the jury a list of questions. Did the judge (READ LIST)?

Ask for an overall decision about who was at fault and how much was owed ..... 1 (SKIP TO Q. 19b)

or

Ask you to reach a verdict on specific questions that he or she asked ..... 2 (SKIP TO Q. 19c)

(DO NOT READ) Don't know ..... 9 (SKIP TO SCRIPT BEFORE Q. 20a)

19b. Would it have been easier for the jury to make a decision if the judge had asked you to answer specific questions?

Yes ..... 1

No ..... 2 (SKIP TO SCRIPT BEFORE Q. 20a)

Don't know .... 9

19c. Would it have been easier for the jury to make a decision if the judge had only asked for your overall decision?

Yes ..... 1

No ..... 2

Don't know .... 9

Now, I'd like to ask you some questions about the deliberation part of the trial, that is, when you and your fellow jurors discussed the case after the judge had given you your instructions.

20a. About how long did you and your fellow jurors discuss the case before you either reached a verdict or decided you could not reach a verdict? Would you say (READ LIST)?

Less than 1 day ..... 1

1-2 days ..... 2

3-5 days ..... 3 (SKIP TO SCRIPT BEFORE Q. 21)

More than 5 days .... 4

20b. About how many hours did you discuss the case? Would you say (READ LIST)?

- 30 minutes or less .... 1
- 30-60 minutes ..... 2
- 1-4 hours ..... 3
- Almost all day ..... 4

When the jury discusses a case like the one you served on, they usually do three things: discuss what the judge's instructions meant; try to clear up each other's understanding about the evidence; and things like electing a foreman and setting an agenda about the order in which to discuss things.

21. Could you tell me which of these you spent the most, second most, and least time doing? (READ LIST)

- Discussing what the judge's instructions meant ..... 1
- Clearing up each other's understanding of the evidence .. 2
- Electing a foreman; setting an agenda, etc. .... 3

22a. Did any member of the jury suggest ways to organize the discussion of the case? (PROBE: For example, did anyone suggest what questions you should talk about first, or that the jury should vote separately on different parts of the case?)

- Yes ..... 1
- No ..... 2 (SKIP TO Q. 22c)
- Don't know ... 9 (SKIP TO Q. 23)

22b. How much did the suggestions help you decide the case? Would you say they were (READ LIST)?

- Not helpful ..... 1
- Somewhat helpful ... 2
- Very helpful ..... 3

(DO NOT READ) Don't know ..... 9

22c. How helpful would it have been if someone had suggested a way of organizing the jury's discussion of the case? Would it have been (READ LIST)?

Not helpful ..... 1

Somewhat helpful ... 2

Very helpful ..... 3

(DO NOT READ) Don't know ..... 9

23. Thinking back for a moment to the role the foreman played in the deliberations, what did the foreman do? Did he or she suggest how the jury should organize discussion of the case, or, for example, did he or she only record votes? What sort of role did that person play? (DO NOT READ LIST, ACCEPT MULTIPLE RESPONSES)

Led/organized discussion ..... 1

Recorded votes ..... 2

Clarified evidence/Requested information from judge ..... 3

Other (SPECIFY)

\_\_\_\_\_

\_\_\_\_\_

Don't know ..... 9

Now, I'd like to ask you just a few more questions to finish up the interview.

24. What was the last grade of school you completed?
- Completed grade school or less  
(8 years or less) ..... 1
  - Some high school, not completed  
(9-11 years) ..... 2
  - Completed high school (12 years) ..... 3
  - Some college, not completed  
(13-15 years) ..... 4
  - Completed college  
(16 years) ..... 5
  - Postgraduate work started or completed  
(17 or more years) ..... 6
25. During the time you were a juror, were there any children in your household who usually depend primarily upon you for care?
- Yes ..... 1                      No ..... 2
26. Respondent's sex (ASK IF YOU CAN'T TELL FROM INTERVIEW)
- Male ..... 1                      Female ... 2

It's been nice speaking with you. Thank you for your help.

**APPENDIX B**  
**Juror Demographic Variables and Values**



This appendix describes the manner in which the demographic characteristics of the jurors were identified. Demographic data on 490 jurors were collected. The demographic variables were taken from two slightly different versions of the juror qualification questionnaire (AO Form 178). These questionnaires were completed when the person was selected for inclusion in the “jury wheel,” a list of persons eligible for jury duty during a two- to four-year period. In one district, comparable data were obtained from a service that provides such information. Demographic information was found for approximately 85 percent of the jurors serving on the 58 trials selected for study. Six demographic variables are examined—age, gender, marital status, race, employment status, and education. The data are fairly complete; missing data range from 8 percent for race to 0 percent for gender.

#### **Age at Time of Trial**

The questionnaire asks for the age and birth date of the juror. Since the questionnaires were filled out some time prior to the time of the trial, these responses were transformed to provide the juror’s age at the time of the trial. Ages ranged from 21 years to 77 years, with a median of 47 years. For purposes of the report, age was reduced to a dichotomous variable: less than 65 years old and 65 years and older.

#### **Gender**

The questionnaire asks the person to indicate a “form of address,” either Mr., Mrs., Miss, or other (Dr., etc.). These responses were recoded to indicate male or female gender.

#### **Marital Status**

The questionnaire asks the person to indicate whether he or she is “married,” “single,” “widowed,” or “divorced/separated.” (One version of the juror qualification questionnaire omits the “divorced/separated” category.) These responses were recoded into two categories: “married” and “unmarried,” with the latter category including persons who are single, widowed, divorced, or separated.

## *Appendix B*

### **Race**

The questionnaire asks the person to indicate one of five racial categories (Indian, Oriental, Black, White, or Other). (On one version of the questionnaire the person is asked to write out his or her race. This response was coded to correspond to the above categories.) These responses were recoded into "white" and "nonwhite" categories.

### **Employment Status**

The questionnaire asks the person to indicate whether he or she is employed or unemployed. This dichotomy was used in the preliminary analysis.

### **Educational Achievement**

In general, educational achievement was recorded in four different ways: the number of years completed in grade school, high school, or trade/vocational school, and the number of years above high school. These responses were transformed into the dichotomous variable of "four or more years of college education" and "less than four years of college education."

**APPENDIX C**  
**Further Analyses of**  
**Demographic Characteristics**



As indicated in the text, jurors in lengthy civil trials are more likely to be unemployed or retired, to be unmarried, and to be women, and they are less likely to have completed four or more years of college. These demographic differences are difficult to interpret, since the characteristics that distinguish jurors in lengthy trials may overlap considerably. For example, many of the jurors in lengthy trials who did not complete four years of college also may be unemployed or retired. This appendix reexamines these differences in an effort to isolate the independent effects of the demographic characteristics and to develop a simpler model that describes the differences in characteristics of jurors serving in lengthy trials.

**TABLE 10**  
**Frequency Table Used in Logit Analysis**

(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	1	1	1	29	25	54
1	1	1	2	7	11	18
1	1	2	1	45	55	100
1	1	2	2	34	18	52
1	2	1	1	3	2	5
1	2	1	2	2	7	9
1	2	2	1	12	5	17
1	2	2	2	41	21	62
2	1	1	1	8	7	15
2	1	1	2	4	8	12
2	1	2	1	12	7	19
2	1	2	2	38	14	52
2	2	1	1	0	1	1
2	2	1	2	4	0	4
2	2	2	1	3	2	5
2	2	2	2	13	4	17

NOTE: The columns are as follows: (1) marital status: 1 = married, 2 = unmarried; (2) employment status: 1 = employed, 2 = unemployed or retired; (3) educational achievement: 1 = four or more years of college education, 2 = less than four years of college education; (4) gender: 1 = male, 2 = female; (5) number of jurors in long civil trials; (6) number of jurors in short civil trials; and (7) total number of jurors.

Logit analysis is used to permit simultaneous consideration of the demographic variables.<sup>1</sup> Table 10 presents the data used in this

1. Logit analysis uses linear models to account for the odds of individuals with certain sets of characteristics falling into one of two groups. In this study, logit analysis is used to account for the odds of jurors with certain sets of demographic characteristics serving in long trials or in short trials, with the long or short duration of

analysis. The two demographic variables on which the two groups of jurors did not differ—age and race—were not included in the analysis to avoid an excessive number of cells with no observations. Ten models are presented in table 11. Three- and four-way interactions are not significant, and models employing these terms are not presented.<sup>2</sup>

TABLE 11  
Fitted Logit Models

Model Number	Model Effects	Likelihood Ratio $\chi^2$	df	p
<b>Standard Models</b>				
1	<i>M, W, E, G, E × G</i>	13.08	10	0.219
2	<i>M, E, G, E × G</i>	14.55	11	0.204
3	<i>E, G, E × G</i>	17.33	12	0.138
4	<i>M, W, E, G</i>	21.21	11	0.031
<b>Nonstandard Models</b>				
5	<i>M, W, G, E × G</i>	13.19	11	0.281
6	<i>M, G, E × G</i>	14.62	12	0.263
7	<i>E, E × G</i>	19.42	13	0.111
8	<i>M, E × G</i>	17.45	13	0.180
9	<i>G, E × G</i>	17.43	13	0.180
10	<i>E × G<sup>1</sup></i>	19.62	14	0.143

NOTE: All variables are coded 0-1. Variables in the models: *M* = marital status; *W* = employment status (work); *E* = educational achievement; and *G* = gender.

1. The *E × G* effect in this model allows low-education women to differ from men and high-education women.

The first three of the standard models fit the data reasonably well.<sup>3</sup> Among these, model 3 offers an adequate fit by including

the trial serving as a dichotomous dependent variable. Logit models are described in J. Fox, *Linear Statistical Models and Related Methods, With Applications to Social Research* (1984); and J. H. Aldrich & F. D. Nelson, *Linear Probability, Logit and Probit Models* (1984).

2. The four-way interaction just exceeds the level of significance ( $\chi p^2[1] = 2.941, p \leq .09$ ). The Pearson's  $\chi^2$  is used instead of the Likelihood Ratio  $\chi^2$ , since it is more accurate with tables with small cell sizes. See S. E. Fienberg, *The Analysis of Cross Classified Categorical Data*, app. IV (2d ed. 1980).

3. Both standard and nonstandard models are presented. In the standard models, if an interaction is present, then the main effects must be present in the model. These models are sometimes described as "hierarchical." In the nonstandard models, one or more main effects of an interaction may be omitted. Such nonstandard models are described as "nonhierarchical." Magidson, Swan and Berk, *Estimating Nonhierarchical and Nested Log-Linear Models*, 10(1) *Sociological Methods and Research* 3-49 (August 1981); Rindskopf, *Nonstandard Loglinear Models*, Theory, Research and Application Bulletin, Center for Advanced Study in Education, City University of New York Graduate Center (November 1986).

only the effects of gender, education, and their interaction. As shown in table 12, the effect of the interaction between gender and education is quite strong and is the only significant effect. The contrast between model 1 and model 2 indicates that the main effect of employment status (*W*) is not significant, and the contrast between models 2 and 3 indicates that the main effect of marital status (*M*) is not significant. Among the standard models, model 3 is preferred, since it is the simplest model that includes the effect of the interaction between gender and education.

TABLE 12  
Comparisons of Individual Effects of Demographic  
Characteristics

Models Contrasted	Independent Effect	$LR \chi^2$	<i>df</i>	<i>p</i>
1 v. 2	<i>W</i>	1.47	1	n.s.
2 v. 3	<i>M</i>	2.78	1	n.s.
1 v. 4	<i>E</i> × <i>G</i>	8.13	1	≤ .01
7 v. 10	<i>E</i>	0.20	1	n.s.
6 v. 8	<i>G</i>	2.83	1	n.s.
5 v. 6	<i>W</i>	1.43	1	n.s.
8 v. 10	<i>M</i>	2.17	1	n.s.

NOTE: Variables in the models: *M* = marital status; *W* = employment status (work); *E* = educational achievement; and *G* = gender.

Among the nonstandard models, model 10 appears to fit the data by including only the interaction of educational achievement and gender without the main effect of either variable. This interaction term has been structured to compare women with low educational achievement with the other three groups—women with high educational achievement, men with high educational achievement, and men with low educational achievement. Again, the contrasts in table 12 among the nonstandard models indicate that none of the main effects are significant, including the main effects of educational achievement (*E*) and gender (*G*).

As indicated in table 13, models 10 and 3 differ in their estimates of the probability of women with four years of college serving in a lengthy civil trial; model 3 treats this as a separate group, whereas model 10 combines this group with male jurors. Unfortunately, because of the small number of women with four or more years of college education in the sample ( $n = 43$ ), it is difficult to determine if women with high educational achievement are distinct from men.

These findings suggest some qualification of the earlier conclusion that jurors in long trials are more likely to lack a college edu-

**TABLE 13**  
**Predicted Probabilities of Serving as a Juror in a Lengthy Civil Trial**

Model	Male, High Education	Female, High Education	Male, Low Education	Female, Low Education
3	.53	.40	.51	.69
10	.50	.50	.50	.69

cation than jurors in short trials. In fact, the greater representation of jurors without a college education in lengthy trials is due to the greater proportions of women without a college education who serve in lengthy civil trials.

The reason for the greater representation of women without four years of college as jurors in lengthy civil trials is not clear. It is not the case that such persons are selected to serve because they are more likely to be unemployed, since employment status does not distinguish the jurors either independently or when gender is taken into account. Some other aspect of the selection process is likely to be responsible for the differences. Perhaps the nature of the employment held by women with less than a college education is such that participation in lengthy trials is not as difficult as it is for men and other employed women.<sup>4</sup> Additional research will be required to verify that the jury selection process in lengthy civil trials results in an unusually high percentage of women with less than four years of college education, and to learn why this occurs.

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4. Our efforts to examine the jury selection process were unsuccessful. Transcripts of the voir dire in these trials were unavailable. For a limited number of trials we obtained some information on the characteristics of jurors who participated in the selection process. However, the pattern of data suggested that some form of prescreening had taken place in selecting the jury in the lengthy trials prior to the point at which we obtained information on the juror characteristics. It is common for some judges who are about to preside over jury selection in a lengthy trial to request that the court clerk supervising the jury send to the courtroom only those persons who will be able to serve for the anticipated length of the trial. Such a practice is not recorded as part of the jury selection process. Finally, it is possible, although we believe unlikely, that the difference in juror characteristics is an artifact of our effort to match lengthy trials with similar shorter trials. Jurors serving in lengthy trials were paired with jurors serving in shorter civil trials at about the same time. Since both sets of jurors served at about the same time, the pools of persons from which the jurors were selected should have been similar in their demographic characteristics, suggesting that any resulting differences were due to the manner in which jurors are selected for service in long and short civil trials.

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