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Convincing Empirical Evidence on the Six Member Jury

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The United States Supreme Court has recently been increasing its references to what it likes to call "empirical" data. A genuine issue is occasionally documented by such data, for example the "unusual" character of capital punishment in *Furman v. Georgia.* In some cases, however, the intent of such references is merely to ornament an already determined result; the famous footnote 11 in *Brown v. Board of Education* is an example. The Court generally cites "empirical" studies as lawyers cite cases, treating their summary conclusions as if they were holdings in prior cases. Applied to empirical research, this treatment encourages the notion that empirical findings, like case law, are infinitely mutable. The courts are thus diverted from using empirical studies for their intended purpose: to shed light on hitherto unknown facts.

A more critical use of empirical data would better inform the courts and force them to face openly those instances in which their decisions are based on theory and merely ornamented by the "facts." Assurance of critical examination in the courts would also force researchers more carefully to connect their summary conclusions with the results of their studies.

In two recent decisions concerned with replacing the traditional twelve-member jury with the six-member jury, the Supreme Court admitted that there was a crucial empirical issue: whether the reduction in jury size would affect trial results. In both opinions the Court cited empirical data as proof that there was no such effect. In *Williams*...
v. Florida,” which upheld the use of the six-member jury in criminal cases in state courts, the Court, as we have shown elsewhere, was misled in believing that there was such evidence.

The Court compounded its error in Colgrove v. Battin, which sanctioned the use of the six-member jury in federal civil litigation. After claiming retrospective support from the “empirical evidence” in Williams, the Court asserted that “four very recent studies have provided convincing empirical evidence of the correctness of the Williams conclusion that ‘there is no discernible difference between the results reached by the two different sized juries.’” Again the Court was misled; the four studies do not support this proposition. This failure to evaluate empirical research properly raises serious questions. To put these questions into sharper focus, this article will analyze the four studies cited in Colgrove and suggest several study designs that would produce the needed evidence.

I. THE FOUR STUDIES

On the surface all four studies do what their summaries claim: they compare the performance of twelve-member and six-member juries. Two of the studies, in Washington and New Jersey, compare jury trials within a system that allows litigants to choose between the two jury sizes. A third study, in Michigan, also used actual trial results in what is called a before-and-after study. Until July, 1970, civil cases in Michigan were tried before juries of twelve; after that date jury size was reduced to six. The fourth study was a laboratory study in which experimental juries viewed the same videotaped trial, and jury size was

5 413 U.S. 149 (1973).
6 See 399 U.S. at 101.
7 413 U.S. at 159 n.15 (emphasis added).
8 See text and notes at notes 10-46 infra.
9 See text and notes at notes 47-50 infra.
11 INSTITUTE OF JUDICIAL ADMINISTRATION, A COMPARISON OF SIX- AND TWELVE-MEMBER JURIES IN NEW JERSEY SUPERIOR AND COUNTY COURTS (1972) [hereinafter cited as New Jersey Study].
12 Note, Six-Member and Twelve-Member Juries: An Empirical Study of Trial Results, 6 U. MICH. J.L. REFORM 671 (1973) [hereinafter cited as Michigan Study].
randomly varied by the experimenter. Each of these approaches has shortcomings that can lead to erroneous conclusions if not properly handled. Unfortunately, all four studies failed to deal with these shortcomings and thus fail to provide reliable conclusions.

A. The Washington Study

Civil jury trials in the state of Washington are held before six-member juries, unless one of the litigating parties requests a twelve-member jury. The authors of this study tried to determine whether there is any difference between six- and twelve-member juries by comparing the results of 128 workmen's compensation trials.

Where an attorney is presented with the opportunity to demand a twelve-member jury, he or she is likely to do so only for a reason. The jury fee is usually twice that for a six-member jury, and the attorney knows that the court may view the larger jury as an added burden. Whenever the studied attribute is present for a reason, rather than after random distribution by chance, surface comparisons between results become meaningless. For example, in a recent examination our students were asked to comment on the following statement: "Convicted defendants who were given probation have lower recidivism rates than defendants who were sent to prison. It has been argued that this is proof of the beneficial effect of probation." Clearly, the defendants who received probation were different from those imprisoned; the overall comparison is bound to be meaningless. Similarly, if the cases brought before twelve-member juries differed from the cases brought before six-member juries, any subsequent comparison is meaningless.

The Washington investigators recognized this problem, but thought it could be circumvented by words, stating "if we may properly assume that the assignment of jury size was essentially random . . . then we may conclude that the use of the smaller jury introduced no systematic bias into the trial outcomes." Later, they try to justify such an assumption by observing, "[W]e cannot provide assurance that there was no systematic interaction between particular kinds of cases and the agreement between attorneys to use the small jury, but our survey of the records reveals no obvious interaction of this sort." Thus, without basis, the study is presented as one of the few "quantitative comparisons

14 Washington Superior Court Rule 38 provides that, unless a party requests a twelve-member jury, all cases shall be tried before a six-member jury; the agreement of five-sixths of the jurors constitutes a verdict. WASH. SUPER. CT. R. 38.
15 Washington Study, supra note 10, at 595.
16 Id. at 596.
of the performances of . . . six- and twelve-member juries in comparable cases."\textsuperscript{17}

The investigators have ignored the fact that "random assignment" does not describe a selection \textit{result}; it is a characteristic of the selection \textit{procedure}, namely one that leaves the selection to chance. Lawyer stipulations, however, are anything but random events; there is good evidence that lawyers are more likely to opt for the larger jury if the amount in controversy is larger.\textsuperscript{18} It is therefore irrelevant to report the Washington finding that, in these workmen's compensation trials, six- and twelve-member juries found in equal proportions for the plaintiff,\textsuperscript{19} because not only the jury size, but also probably the amount in controversy, was different.

B. The New Jersey Study

The New Jersey study, also conducted in a system in which the litigants had a choice of jury size, recognized the possibility that different types of cases might be presented to the two types of juries and documented the impossibility of direct comparison. Yet the study failed to deal with this difficulty and, in its summary conclusion, thereby misled the unwary reader.

The study leaves no doubt as to the major differences between the cases tried before the two types of juries. Both settlements and verdicts of twelve-member juries are, on the average, three times as great as for

\begin{table}
\centering
\caption{Average Settlement and Verdict\textsuperscript{20}}
\begin{tabular}{lcc}
\hline
 & Six-member juries & Twelve-member juries \\
\hline
Average Settlement & $5,800 & $15,800 \\
Average Verdict & $8,600 & $24,300 \\
\hline
\end{tabular}
\end{table}

the six-member jury cases. Twelve-member jury cases also tended to be more complex. Twelve-member juries tried relatively few (twenty-three percent) of the total automobile negligence cases, but more (thirty-five percent) of the contract cases; eleven percent of the cases tried by twelve-member juries were "consolidated cases with verdicts for more

\textsuperscript{17} Id. at 594.
\textsuperscript{18} See Table 1 \textit{infra}. To document this fact in the instant case, we asked a prominent Seattle attorney, specializing in workmen's compensation cases, about this matter. While he was uncertain about the impact of the six-member jury on verdicts, he said he requested a twelve-member jury whenever he had a "big" case.
\textsuperscript{19} Forty-five percent of the six-member juries found for the plaintiff, while forty-six percent of the twelve-member juries did the same. \textit{Washington Study}, \textit{supra} note 10, at 595.
\textsuperscript{20} The data shown in Table 1 is from \textit{New Jersey Study}, \textit{supra} note 11, at 24.
than one party," while only six percent of the cases tried by six-mem-
ber juries fell into that category.\textsuperscript{21}

The study perceived the significance of these differences noting that "the 'bigger' cases are tried before twelve jurors"\textsuperscript{22} and that "the cases tend to be more complicated,"\textsuperscript{23} but it goes on to make invalid com-
parisons and merely adds a caveat to each conclusion. That such a qual-
ification is not enough is easily demonstrated.

The study's finding on trial time was that "cases tried before twelve-
member juries take approximately twice as much trial time as those
tried before six (11 hours compared to 5.6). One important reason
... is that the cases tend to be more complicated."\textsuperscript{24} There is nothing
wrong with this statement; there is no hint that smaller jury size has
anything to do with reducing trial time. Yet the summary begins
with the statement that "[u]se of six-member juries in civil cases can
result in substantial savings in trial time ... ."\textsuperscript{25} There is not a shred of
evidence to support this claim. Indeed, a reasonable conclusion would
be that the trial time difference was caused by the decreased complex-
ity of the cases, and not by a decrease in jury size.

Consider the following assumptions, each consistent with the evi-
dence presented in the New Jersey study, about the relationship
between trial time, complexity of cases, and size of juries:

(1) 25 percent of the cases tried before six-member juries are
"complex;" 75 percent are "simple." The ratio is reversed for
twelve-member juries.

(2) Average trial time for all "complex" cases is 15 hours; average
trial time for all "simple" cases is 3 hours.

Under these circumstances, as Table 2 shows, the average trial time for
all six-member jury cases is 6 hours and the average trial time for all
twelve-member jury cases is 12 hours, as found in the New Jersey
study.\textsuperscript{26} In our assumed data, however, complex cases tried before six-
member juries take as long as complex cases before twelve-member
juries, and the average trial time of simple cases is similarly unaffected
by the size of the jury.

Perhaps the most disconcerting aspect of the study is that the authors
apparently knew what analysis was required by the data. When they
found that the average deliberation time of six-member juries was 1.2

\textsuperscript{21} Id. at 16.
\textsuperscript{22} Id. at 24.
\textsuperscript{23} Id. at 25.
\textsuperscript{24} Id. at 26.
\textsuperscript{25} Id. at 5.
\textsuperscript{26} The actual findings were 5.6 hours and 11 hours. Id. at 26.
TABLE 2

<table>
<thead>
<tr>
<th>Trial Time in Hours</th>
<th>Six-Member Jury</th>
<th>Twelve-Member Jury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Simple Cases</td>
<td>Complex Cases</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>9</td>
<td>6</td>
</tr>
</tbody>
</table>

Percentage of Total Cases

75%  25%

hours, compared to 1.8 hours for the twelve-member juries, they became concerned. Afraid that this difference might be interpreted as less diligent deliberation, and thus reflect poorly on the six-member jury, the authors suddenly improve their mode of analysis for this one result. They report "that six-member juries deliberate as long as twelve-member juries when the verdicts are for damages above $10,000." At no other point is this method of comparing only comparable groups of cases repeated. For this reason, none of the other findings is valid.

Whatever differences or nondifferences were observed, the data does not indicate that they can be attributed to the difference in jury size, with one exception: there will be savings in juror manpower. To come to that conclusion, however, no study is required.

C. The Michigan Laboratory Experiment

The Michigan laboratory study avoided the difficulties of comparability of cases by showing just one videotaped case to a series of six- and twelve-member juries. A price must be paid for such experimental cleanliness; for instance, since the trial is not real, the validity of drawing inferences to real trials is uncertain. That problem will be by-passed for present purposes, and the study will be discussed as if the laboratory trials had been real ones.

The experiment also had a more serious drawback. The use of only

27 Id. at 28–29.
28 Id. at 29 (emphasis added).
29 Id. at 8, 33–34.
30 Laboratory Study, supra note 18, at 719.
31 For a discussion of the problems of simulation and generalization, see Zeisel, Experimental Techniques in the Law, 2 J. Legal Studies 113 (1973).
one trial had the disadvantage of narrowing the experimental experience and increasing the difficulties of drawing general conclusions. This drawback was aggravated by the fact that this trial was very special. The evidence in the case overwhelmingly favored the defendant; of sixteen juries, not one found for the plaintiff. This overpowering bias makes the experiment irrelevant. On the facts of this case, any jury under any rules would probably have arrived at the same verdict. Hence, to conclude from this experiment that jury size generally has no effect on the verdict is impermissible.\(^3\)

\[\text{TABLE 3} \]

\text{JURY SIZE, PREDELIBERATION VOTE, AND DELIBERATION OUTCOME}

<table>
<thead>
<tr>
<th></th>
<th>Six-member</th>
<th></th>
<th>Twelve-member</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In predeliberation vote, jurors favoring:</td>
<td></td>
<td>In predeliberation vote, jurors favoring:</td>
<td></td>
</tr>
<tr>
<td>Plaintiff</td>
<td>Defendant</td>
<td>Final Verdict</td>
<td>Plaintiff</td>
<td>Defendant</td>
</tr>
<tr>
<td>0</td>
<td>6(^*)</td>
<td>Def.</td>
<td>1</td>
<td>11(^*)</td>
</tr>
<tr>
<td>0</td>
<td>6(^*)</td>
<td>Def.</td>
<td>1</td>
<td>11(^*)</td>
</tr>
<tr>
<td>1</td>
<td>5(^*)</td>
<td>Def.</td>
<td>1</td>
<td>11(^*)</td>
</tr>
<tr>
<td>1</td>
<td>5(^*)</td>
<td>Def.</td>
<td>1</td>
<td>11(^*)</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td></td>
<td>2</td>
<td>10(^*)</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Hung</td>
<td>2</td>
<td>10(^*)</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Hung</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Def.</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

\(^*\) Sufficient majority for verdict existed before deliberation began.

These difficulties are exacerbated by a third circumstance. The experimental juries were instructed according to Michigan law, in which agreement by five out of six, or ten out of twelve jurors constitutes a verdict. Before deliberations began, each juror was asked to record privately which party he or she favored at that time. This predeliberation vote\(^3\) revealed that six of the twelve-member juries and four of the six-member juries had reached the required majority before deliberation began. For these ten juries, deliberation was a mere formality, as shown in Table 4. Thus, because the experimenter had selected a case that was heavily slanted in favor of the defendant, only six juries engaged in meaningful deliberations. Since three of those juries never reached a verdict, the experiment had only three successful jury delib-

\(^3\) The mistake of concluding that no difference exists between two institutions, such as six- and twelve-member juries, when a difference does in fact exist is called a Type II error. A major approach to reducing the risk of such errors is to increase the sample size.

\(^3\) This data and that reported in Table 3 were not reported in the original study; the author was kind enough to provide the details that allowed reanalysis of some of the data.
erations. Such a small sample is in itself an inadequate basis for any in-
ferences.

TABLE 4
AVERAGE DELIBERATION TIME OF JURIES

<table>
<thead>
<tr>
<th>Predeliberation Vote</th>
<th>Six-member jury</th>
<th>Twelve-member jury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient majority for verdict existed before deliberation</td>
<td>7 minutes (4 juries)</td>
<td>8 minutes (6 juries)</td>
</tr>
<tr>
<td>Sufficient majority did not exist before deliberation</td>
<td>38 minutes (4 juries)</td>
<td>36 minutes (2 juries)</td>
</tr>
</tbody>
</table>

Nevertheless, one alleged finding should be more specifically dis-
cussed here, because on the surface it tends to support the Court’s
notion that the smaller jury may result in more open discussion among
the jurors. The laboratory study found “a tendency for six-member
minority jurors to participate more than twelve-member minority
jurors.” The minority juror in six-member juries occupied an aver-
age of twenty-one percent of the total deliberation time, compared to
an average of thirteen percent for the minority juror in the twelve-
member juries. The numbers are accurate, but the comparison is in-
valid; the juror’s participation time in one case is divided by six, in
the other by twelve. If a juror in a six-member jury talks for the same
amount of time as a juror in a twelve-member jury, this method of
computation will prove that the juror on the six-member jury partici-
pated twice as much. An appropriate method to compare individual
participation would be to double the twelve-member average (or halve
the six-member average) to allow for the difference in jury size. If the
study’s error is corrected, the difference shifts slightly in favor of the
twelve-member jury.

D. The Michigan Before-and-After Study

The twelve-member jury was replaced in Michigan on July 23, 1970
by the six-member jury. If nothing but jury size had changed at that
time, it would be sensible to compare trial results before the change
with results after it. The trouble is that unknown simultaneous changes

34 Colgrove v. Battin, 413 U.S. 149, 159 n.15 (1973). The Court referred to Note, Reduc-
ing the Size of Jurors, 5 U. Mich. J.L. Reform 87 (1971), which uses experience from small
group research, primarily game playing, to show that smaller groups lead to wider
participation.

35 Laboratory Study, supra note 13, at 784.

36 The researchers could also have compared the participation by minority jurors as a
group, rather than individually. The respective percentages for minority jurors in each
jury could be aggregated, and a comparison of the totals would indicate the relative
magnitude of minority participation.
may have also affected the trial results, and it is difficult to exclude such a possibility. In this study the situation is worse, because two important changes are known to have occurred at the crucial point in time. A mediation board was instituted, and procedural rules were modified to allow discovery of insurance policy limits. Under these circumstances it is difficult, if not impossible, to say whether any observed change or part of a change is due to the reduction in jury size or the other changes. If the various causes operate in opposite directions, a finding of no difference might be equally spurious.

To illustrate this point, consider the study's data that the average award in automobile negligence cases in which the jury found for the plaintiff was $11,147 with twelve-member juries and $23,768 with six-member juries. The probability of settling a particular case without trial is related to the size of that case; the largest cases are least likely to be settled. If the creation of the mediation board and better discovery procedures increased the proportion of settled cases, the average size of cases reaching trial would be increased. The data therefore could not be used to support a conclusion that six-member juries give higher damage awards. It is equally improper, however, for the author of the study to treat this difference as "not statistically significant" and thereby claim support for his hypothesis that "the six-member jury's damage awards are identical to the twelve-member jury's awards."

Other data in the study are similarly questionable. A wider variation in amounts awarded by six-member juries is indicated by the data for

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37 See Michigan Study, supra note 12, at 675.
38 Id. at 679–81.
39 Id. at 691. Another before-and-after study, in Rhode Island, showed a similar increase in the average size of awards—from $33,000 for twelve-member juries to $52,000 for six-member juries. E. Beisner & R. Varrin, The Impact of the Six-Man Jury, Brown University, 1973 (mimeograph).
41 Michigan Study, supra note 12, at 705. The author reaches this result primarily by reducing the apparent increase by a factor of ten percent, the decline in the purchasing power of the dollar as measured by the Consumer Price Index. One might require proof that inflation actually affected the jury. In any event, one must admire the author's ingenuity in removing an unwanted finding to reach a result that he seems to have sought from the start.
42 Id. at 704.
automobile negligence cases; they show a standard deviation—the statistical measure of variation—of $58,335 for the six-member jury awards and a standard deviation of $24,834 for the awards of twelve-member juries.\textsuperscript{43} We like this data, because we predicted it:

A result of this reduction in [jury] size is an increase in the gamble which litigants or defendants take in going before a jury; reduction of their size will reduce the predictability of jury verdicts . . . . An elementary statistical calculation again reveals that these averages of juror evaluations in comparable cases will fluctuate more in 6-member juries than they do in 12-member juries.\textsuperscript{44}

Unfortunately, we cannot claim support from this data, for it is flawed by the same weaknesses that render the study's comparison of average awards suspect.

Since the investigator had no such methodological scruples, however, it is surprising that this data showing a "difference" is not mentioned in the crucial conclusion of the study: "this study provides empirical statistical evidence which tends to support Justice White's statement in \textit{Williams v. Florida} that 'there is no discernible difference between the results reached by the two different-sized juries.'"\textsuperscript{45} Such last sentences have a special attraction to those who like the conclusion and hence tend to disregard the hedging that comes earlier. The statement of conclusion was particularly improper because the Michigan study dealt only with civil trials, while \textit{Williams} dealt with criminal juries.

These four studies, plus the nonexistent evidence in \textit{Williams},\textsuperscript{46} moved the Supreme Court to conclude in \textit{Colgrove} that there is no discernible difference between twelve- and six-member juries either in criminal or in civil cases. It is a disconcerting picture.

\textsuperscript{43} \textit{Id.} at 689.
\textsuperscript{44} Zeisel, Six-Man Juries, Majority Verdicts—What Difference Do They Make?, March 15, 1973 (Occasional Papers from The University of Chicago Law School, No. 5). \textit{See also} Zeisel, \textit{supra} note 4, at 717–18.
\textsuperscript{45} \textit{Michigan Study}, \textit{supra} note 12, at 711.
\textsuperscript{46} This evidence consisted of the following:

\begin{enumerate}
\item Judge Wiehl cited with approval \textit{C. Joiner, Civil Justice and the Jury} (1962), in which Joiner states that "it could easily be argued that a six-man jury would deliberate equally as well as one of twelve." Joiner offered no evidence, hence Judge Wiehl had none either.
\item Judge Tamm had presided over five-member juries in condemnation trials in the District of Columbia and found the juries satisfactory.
\item Cronin reported on a run of forty-three six-member juries, obtained by stipulation of counsel, in one court of limited jurisdiction in Massachusetts; the highest verdict there was $2,500. The court clerk is said to have found these verdicts "about the same as those returned by regular twelve-member juries." Three lawyers (given preferential calendar treatment for their consent to the six-member jury) also could see no particular reason why the verdicts should be different.
\item The Monmouth, New Jersey County Court had tried one negligence case with a six-member jury, seemingly without any deleterious effect. \textit{See} Zeisel, \textit{supra} note 4, at 714–15.
\end{enumerate}
II. SATISFACTORY EXPERIMENTS

Although no study has produced satisfactory evidence regarding the impact of six-member juries, there are strategies for studying this question that would produce the needed information.

The ideal research design would test the effects of jury size in a jurisdiction in which six-member juries are optional. A series of cases could be tried simultaneously before two juries, one composed of six members and the other of twelve. The parties' counsel would select eighteen jurors to form the two juries; before the trial, without the knowledge of either jury, the attorneys and the court would decide which jury would decide the case. The jurors would not learn whether their jury made the real decision until deliberations were completed. This design would permit a comparison of jury reactions to the same trial and would allow a direct assessment of the effect of jury size. While this design would not violate the essential rights of the litigants or the integrity of the trial, it would require the consent of the trial court and the litigants.

In the next best design, comparable sets of cases would be tried before six- and twelve-member juries. Again, one would choose a jurisdiction in which jury size is optional. The study would exclude all cases in which a party insisted on a twelve-member jury or chose a six-member jury for reasons other than the lower fee. In the remaining cases, the parties would be indifferent about jury size, and the attorneys would be asked to agree to a lottery to determine whether their case would be tried before a six-member or twelve-member jury. In these cases, all litigants would pay only the six-member jury fee. This random assignment of cases would provide a properly controlled experiment in which comparable sets of cases are tried by six- and twelve-member juries.

Two other possible experimental designs are suggested by the laboratory and before-and-after studies discussed above. A before-and-after design could conceivably develop useful data if the underlying assumption of such studies—no concomitant changes except the ex-

47 Evidence from an ongoing and not yet reported experiment suggests the wisdom of keeping this knowledge from the jury. That experiment, conducted by the authors with the cooperation of judges in the District Court for the Northern District of Illinois, suggests that, despite all precautions, a real jury in a criminal case is less likely to convict than a mock jury of the same size sitting in the courtroom with the real jury. It would seem that the real jury has a more demanding concept of "proof beyond a reasonable doubt." Cf. H. Kalven, Jr. & H. Zeisel, THE AMERICAN JURY 182-90 (1966).

48 In the cases actually tried before a twelve-member jury, the difference between the six- and twelve-member jury fee could be made up by state subsidy or a research grant.
experimental one—could be verified. The trouble is that there can never be any assurance that nothing else changes; no method other than random assignment of cases provides such assurance.

Competently designed laboratory experiments, on the other hand, can put a microscope to details of the deliberation process that cannot be properly observed in an actual court. In the Michigan laboratory study, it was discovered too late that most jurors favored the defendant before deliberations began. Better pilot testing would have identified this difficulty, and a case could have been selected that offered more choice to the “jurors.” Such balance will suffice if the number of “trials” is sufficiently large. If the sample is small, however, it will be advisable to equalize the initial vote distributions by assigning members to juries based on their initial ballots. This technique allows the experimenter to have all experimental juries begin with a vote distribution that requires meaningful deliberation. Such juror assignment presupposes that the initial vote is a function of individual juror characteristics, not a function of jury size. In addition, it would be preferable to have more than a single case on tape.

Since each of the discussed designs has particular advantages and insufficiencies, an approach that combines a variety of research designs will provide the best results.

CONCLUSION

The flaws in these studies are, as we have shown, not complex and surely not beyond the reach of modest expertise. It would be unfair, however, to place the blame for accepting unsatisfactory evidence entirely on the Supreme Court. If lawyers and social scientists write poor studies, and if legal journals publish them, the courts should be entitled to cite them. Yet the courts know how to consider critically traditional types of evidence presented in adversary proceedings.

The danger in asking for critical evaluation is that the courts might decide to ignore all such evidence. This turn, however, is not likely; there are too many issues in which such evidence is clearly needed. What is required is not simply judicial accessibility to such evidence through journals, but critical presentation in trial courts by experts under cross-examination. The real problem may be that too few trial

49 In a jurisdiction that allows majority decisions, all juries should include more than one out of six jurors who initially disagree with the majority. Ideally, the initial vote distribution should cover the entire range of possibilities including, for example, 4 to 2 (8 to 4) and 2 to 4 (4 to 8) to control for the possibility that the course of deliberations is determined by the particular position of the majority.

50 See H. Zeisel, Say It With Figures 190–99 (5th ed. 1968).
lawyers appreciate the potential of such evidence and are content with citing studies in briefs. The citations thus reach the courts without the needed scrutiny. If the evidence has not been presented at trial, but the appellate court feels the need for it, there is ample precedent for the court to inform itself through informal inquiries directed at experts. In People v. Collins, where proof was attempted through statistical calculus, the California Supreme Court appended to its opinion a statistical essay that clearly came from informal consultation.

Perhaps the ultimate solution lies in eliminating a misleading label. "Empirical evidence" is a pleonasm; all evidence is, or ought to be, empirical. The term has come to distinguish systematically gathered facts from the facts in the individual case as they are traditionally defined. Perhaps the time has come when "empirical" legal studies should simply be called legal studies. Such wording would reflect a desire for critical and intelligent use of these studies as an integral part of legal analysis.

In the meantime, the "convincing empirical evidence" discussed above has had a more immediate practical effect. After Williams several federal district courts, encouraged by the Chief Justice, promulgated rules making the six-member jury mandatory in civil cases. When this effort was upheld in Colgrove, the movement spread; today over sixty of the ninety-four district courts have made the six-member civil jury mandatory. The courts have now asked Congress to bring the remaining districts into line with legislation requiring the six-member jury in civil cases throughout the federal system.

Occasionally the lack of standards for evaluating empirical evidence will lead not to the citation of a study but to its rejection. Thus, an appellate court could excuse rejection by the trial court of such evidence as follows:

The judge determined that the elaborate statistical tables prepared from published lists by an expert for the defendants and designed to compare the composition of the 1963 jury list, the 1963 registered voter list, and the 1963 police list did not present sufficient evidence on which to base any findings on this point. It was within his discretion not to be convinced by these tables, no matter how carefully and accurately they may have been drawn as a matter of statistical analysis. In light of his extensive discussion of them in his rulings, we are unable to discern any substance to the argument that the judge dismissed them peremptorily.

Likewise, the judge acted within his discretion in refusing to admit similar tables based on interviews with persons not before the court. The defendants concede that the tables were based on hearsay evidence and can point to no statute or case in this Commonwealth requiring their admission. The fact that some commentators have recommended admission of properly conducted surveys, and that some courts in other jurisdictions have admitted them, does not mean that the judge here was in error in excluding tables based on data from a private survey specifically conducted in behalf of the defendants.

Commonwealth v. Beneficial Finance Co., 275 N.E.2d 33, 50 (Mass. 1971). I like to think that these surveys were competent evidence; I conducted them. [H.Z.]

51 68 Cal. 2d. 319, 438 P.2d 33, 66 Cal. Rptr. 497 (1968); see Fairley & Mosteller, A Conversation About Collins, supra.

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53 Hearings on H.R. 8285 Before the Subcomm. on Courts, Civil Liberties, and the Ad-
The truth is that a reduction in jury size is bound to affect both the composition and the verdicts of civil juries. There will be less frequent representation of minorities on juries. The American Civil Liberties Union and the National Association for the Advancement of Colored People have pointed out the undesirability of this development at a time when minority grievances have been rechanneled from political forums into the courts. In addition to this change in the quality of the jury, the mere reduction of its size must increase the variability of the jury's verdicts. Greater fluctuation in verdicts results in a lower degree of predictability and thus an increase in the gamble that litigants take in going before a jury. There is elegant proof of trial lawyers' perception of this predicament. In some district courts, the six-member rule has been circumvented by a stipulation that allows the two alternate jurors to participate in the deliberation, resulting in the novelty of an eight-member jury.

The surface argument for the proposed reduction in size is economy. The federal court system would save about four million dollars annually if all civil juries were composed of six members. This amount is not negligible, but neither is it formidable; it represents about two percent of the judicial budget and only about one-thousandth of one percent of the total federal budget.

Moreover, it would be a mistake to regard the size of the federal civil jury as an isolated question. Some district court judges are already trying criminal cases—albeit by stipulation of counsel—before juries of six members. State legislatures across the country are teeming with bills, some already enacted, to reduce civil and criminal juries and to abandon the unanimity requirement. The movement to reduce the size of the federal civil jury must be seen in this context. If the country wants to reconsider the desirability of the civil jury, it should be done in open and direct debate. Perhaps such a debate should begin.

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54 See Zeisel, supra note 4, at 715–20.
55 Hearings, supra note 53 (testimony of Charles Morgan, Jr., Executive Director, ACLU, and Nathaniel Jones, General Counsel, NAACP).
56 See Zeisel, supra note 4, at 717–18; text at notes 37–38 supra.
57 The claim for saving a considerable amount of time, in addition to saving juror fees, has never been substantiated or even made plausible. With voir-dire proceedings in the federal courts largely conducted by the trial judge, who addresses all jurors at the same time, there is little room for further savings. See Zeisel, supra note 4, at 711. The desperation of the supporters of the time-saving argument may be seen from testimony of Judge Edward T. Devitt, Chief Judge, United States District Court for Minnesota. He felt impelled to report: "Six jurors move in and out of a jury box in a shorter time than twelve." Hearings, supra note 53 (October 10, 1973).
But to pare the jury down and allow it to decay from the insufficiencies we impose is shabby treatment for an institution that has served the nation well.

At this point in the development only Congress can save the twelve-member jury. There is much talk now about re-establishing the authority of the Congress vis-à-vis the Executive. If the Congress also cares to re-establish its authority vis-à-vis the judiciary, it can undo this unseemly whittling down of the jury by simply re-establishing the twelve-member jury for all federal trials.

At a time when much of our justice system is under suspicion and public mistrust has reached the highest officer in the land, the integrity of the jury has survived. This would seem to be an inappropriate moment to punish it, even if money could be saved. Four million dollars might not be the right price for abandoning half of the American jury.