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Ralph Black

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THE IMPACT OF JURY SIZE ON THE COURT SYSTEM

In recent years, the pressures of increasing costs and mounting case backlogs have generated many suggestions for reducing the number of jurors on the petite jury from twelve to some lesser number, usually six. While the practical necessity of saving time and money may be of primary concern, there are other values that may be endangered by altering the character of the jury. This comment focuses on the controversy engendered by proposals for reducing jury size. An attempt is made to raise important issues, to suggest areas for further research, and to draw some conclusions based on available data.

I. BACKGROUND

A. Constitutional Provisions

Two provisions of the United States Constitution are at the heart of the controversy over jury size. The right to trial by jury is one of the fundamental safeguards guaranteed to criminal defendants by the sixth amendment. Similarly, the seventh amendment provides the foundation for the availability of jury trial in civil cases. Neither amendment specifically states the number of jurors required. Thus, it has become necessary for the courts to interpret these amendments in an attempt to determine the constitutionality of proposals to abandon the twelve-person jury.

B. Federal Statutes and Rules

Pursuant to its authority to establish a judiciary, Congress has delegated rulemaking power with respect to the federal courts to the United

2. The sixth amendment reads in pertinent part: “In all criminal prosecutions the accused shall enjoy the right to a speedy and public trial, by an impartial jury . . . .” U.S. CONST. amend. VI.
3. The seventh amendment reads in pertinent part: “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.
4. For cases interpreting the sixth and seventh amendments regarding jury size, see notes 14, 23-25 infra and accompanying text.
5. “The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish . . . .” U.S. CONST. art. III, § 1.
States Supreme Court. Along with this general grant of rulemaking authority, 28 U.S.C. section 2072 contains express provisions preserving the right to trial by jury. Acting pursuant to this statutory authority, the Supreme Court has promulgated the Federal Rules of Civil Procedure, one of which provides that civil juries shall consist of twelve persons unless the parties stipulate otherwise. In criminal cases, Federal Rule of Criminal Procedure 23 provides for trial by a jury of twelve persons unless waived by the defendant.

C. Developments in the Case Law

While the federal rules seem relatively clear on the requirement for jury size, the courts have found it necessary to decide upon the propriety of juries of less than twelve. This has occurred because state courts are not covered by the federal rules and because the rules themselves are subject to attack on constitutional grounds.

In considering jury trial requirements of the states, the Supreme Court was initially faced with the question of whether the sixth and seventh amendments are incorporated into the fourteenth amendment due process clause and thereby made applicable to the states. The provisions of the seventh amendment have not yet been applied to the states. The traditional view had been that the sixth amendment was likewise inapplicable to the states. However, in Duncan v. Louisiana, the Court reversed its earlier position and held that the due

7. "Such rules shall . . . preserve the right of trial by jury as at common law and as declared by the Seventh Amendment to the Constitution." Id.
8. "The parties may stipulate that the jury shall consist of any number less than twelve . . . ." FED. R. CIV. P. 48.
9. Rule 23 reads in part:
   (b) Juries shall be of 12 but at any time before verdict the parties may stipulate in writing with the approval of the court that the jury shall consist of any number less than 12 or that a valid verdict may be returned by a jury of less than 12 should the court find it necessary to excuse one or more jurors for any just cause after trial commences.
FED. R. CRIM. P. 23(b).
10. See notes 8-9 supra.
12. E.g., Maxwell v. Dow, 176 U.S. 581 (1900). In Maxwell, a criminal defendant appealed his conviction by an eight-member jury in a Utah state court. The Supreme Court had held earlier that a twelve-member jury was required by the sixth amendment in federal criminal trials. Thompson v. Utah, 170 U.S. 343 (1898). But, in Maxwell the Court held that the rule of Thompson did not apply in state trials because the fourteenth amendment did not make the sixth amendment binding on the states. 176 U.S. at 604.
process clause of the fourteenth amendment requires state procedures to conform to the specifications of the sixth amendment.14

Having laid the groundwork in Duncan, the Court squarely faced the issue of jury size in criminal cases in Williams v. Florida.15 In Williams, the defendant's conviction by a six-member jury was held to satisfy the requirements of the sixth amendment.16 In the several years that have elapsed since the Williams decision, there has been a great deal of empirical research into the relationship between jury size and jury performance,17 and commentators have both supported18 and criticized19 the position of the Court. Despite this controversy, the Court reaffirmed the Williams decision in the recent case of Ballew v. Georgia.20 In Ballew, the use of a five-member jury in state criminal trials was struck down as violative of due process.21 It therefore appears that six

14. In Duncan, a defendant had been convicted without a jury in accordance with Louisiana law. The Court held that this constituted a denial of due process of law, and that the sixth amendment jury trial requirement was applicable to the states by virtue of the fourteenth amendment. Thus, Duncan specifically overruled Maxwell. Id. at 155.

15. 399 U.S. 78 (1970). Florida law, at the time, provided for a twelve-member jury only in capital cases. Id. at 80 n.3. When the defendant in a robbery case requested the twelve-member jury, his request was denied, and he appealed.

16. Id. at 86. The Supreme Court held that the sixth amendment guarantee of trial by jury was satisfied by a jury of six since there was no evidence that six-member juries did not perform as well as juries of twelve. Id. at 101-02.


20. 435 U.S. 223 (1978). The defendant, Ballew, appealed his conviction on the grounds that Georgia's use of a five-member jury violated his right to trial by jury as guaranteed by the sixth and fourteenth amendments. After an extensive review of the literature of the effects of size on jury performance, the Court concluded that a five-member jury was, indeed, unconstitutional. Id. at 245. But, at the same time, the Court reaffirmed the holding of Williams that a six-member jury is permissible, declaring:

While we adhere to, and reaffirm our holding in Williams v. Florida, these studies, most of which have been made since Williams was decided in 1970, lead us to conclude that the purpose and functioning of the jury in a criminal trial is seriously impaired, and to a constitutional degree, by a reduction in size to below six members. Id. at 239.

21. See note 20 supra.
is the smallest number of jurors that is constitutionally permissible in state criminal trials.

It is worth noting, however, that the Court may be much closer to a reversal of Williams than a superficial reading of Ballew might indicate. First, since Ballew dealt with the constitutionality of a five-member jury, the Court's statement in support of Williams\(^2\) is dictum. Second, almost none of the studies relied upon in Ballew refer in any way to a five-member jury but, rather, support the proposition that a twelve-person jury is superior to one with six persons.\(^3\) This is precisely the argument the Court expressly rejected in Williams when it held that the six-person jury was constitutional.\(^4\)

The other context in which the Court has discussed the nature of the right to jury trial is when the constitutionality of a federal rule is in question. In Colgrove v. Battin,\(^5\) a local rule providing for six-member juries in all civil cases was upheld because the contrary provision of Federal Rule of Civil Procedure 48,\(^6\) providing for juries of twelve unless the parties stipulate otherwise, was held to lack constitutional

\(^{22}\) Id.

\(^{23}\) In an attempt to show that juries of five are inferior to juries of six in important respects, the Ballew Court almost invariably cited studies that actually indicate that juries of six are significantly inferior to juries of twelve. Although the examples of this weakness in the Court's analysis are too numerous to permit exhaustive discussion, some are worth mentioning. First, in discussing the quality of jury deliberation, the Court cited a study by Thomas and Fink, correctly summarizing the findings of that study as follows: "The findings of 31 studies in which the size of groups from 2 to 20 members was an important variable...[indicated] that there were no conditions under which smaller groups were superior in the quality of group performance and group productivity." 435 U.S. at 233 n.11 (citing Thomas & Fink, Effects of Group Size, 60 PSYCH. BULL. 371, 376 (1963) [hereinafter cited as Thomas & Fink]). Later, in discussing the accuracy of jury decisions, the Court cited evidence from Saks, supra note 20, in which mock trials were held before undergraduates and former jurors. The study indicated that when former jurors were used, the percentage of "correct" decisions (Saks seems to define correctness in terms of consistency; thus, the decision most consistently produced is the correct one) was "71% for the 12-person groups and 57% for the six-person groups." 435 U.S. at 235. In both of these examples, the evidence cited by the Court strongly indicates that juries of twelve are superior to juries of six in important ways. Furthermore, on one of the few occasions that the Court used statistical research to directly support its position, it cited Nagel & Neef, Deductive Modeling to Determine an Optimum Jury Size and Fraction Required to Convict, 1975 WASH. L.Q. 933, 946 [hereinafter cited as Nagel & Neef], which indicates that a jury of between six and eight members is an optimum size. 435 U.S. at 234-35. But the Court failed to mention that this result is radically altered by a slight modification of the assumptions of the statistical model. See text accompanying notes 117-21 infra.

\(^{24}\) In so holding, the Court specifically rejected the contention that juries of twelve are superior to juries of six in any significant way, and concluded that "there is no discernable difference between the results reached by the two different sized juries." 399 U.S. at 101.

\(^{25}\) 413 U.S. 149 (1973).

\(^{26}\) FED. R. Civ. P. 48. See note 8 supra, for the text of this rule.
It remains to be decided whether a twelve-member jury is constitutionally required in federal criminal cases. *Williams* held that the sixth amendment does not require a twelve-member jury in state criminal cases. Logically, it would follow from the reasoning of *Colgrove* that Federal Rule of Criminal Procedure 23, providing for twelve-member juries in federal criminal trials, is without constitutional foundation, and that a federal court could adopt a local rule providing for smaller juries in criminal cases. However, this argument assumes that the states and the federal government are to be treated identically for purposes of interpreting the sixth amendment. This assumption may have been rendered untenable by the rather anomalous result in *Apodaca v. Oregon* that unanimity is required in federal jury trials but may be abandoned by the states.

On the few occasions when it has considered the questions raised by the jury size issue, the Ninth Circuit has closely adhered to the position of the Supreme Court. The Ninth Circuit relied heavily on *Williams* when it ruled in *Colgrove* that federal civil juries might consist of less than twelve persons. In *Dashiell v. Keauhou-Kona Co.*, the Ninth Circuit again followed *Williams*, rejecting plaintiffs' argument that *Williams* did not apply in diversity cases. The Ninth Circuit has also consistently and strictly applied the Supreme Court's holding in *Colgrove*. For example, *Colgrove* was directly relied on in rejecting the plaintiff's claim of a right to a jury of twelve in *Calhoun v. United"
The Ninth Circuit has been somewhat more expansive in its application of *Apodaca*. Relying on *Apodaca*, the Ninth Circuit held that there is no constitutionally protected right to representation of particular minority groups on a jury. In *United States v. Lopez*, the Ninth Circuit held that the unanimity requirement cannot be waived, again relying on *Apodaca*. Finally, based on both Williams and *Apodaca*, the Ninth Circuit held that jury size is not a question of constitutional stature.

II. THE JURY SIZE DEBATE

A. Issues

There are three related, yet distinct, questions that arise as to jury size. First, what size jury is constitutionally required? Since the seventh amendment is not applicable to the states, the size of state civil juries is a matter of state law. In state criminal trials, however, it is clear that a six-member jury is the minimum acceptable. The issue of constitutional requirements of jury size in federal criminal cases is still not absolutely settled, but, as the law now stands, the six-member jury is acceptable in federal civil cases. These conclusions about the constitutionality of the six-member jury may be subject to change, however, because of the weaknesses of the *Ballew* decision. In addition, the Court in *Colgrove* approved the six-member jury largely because it had done so in *Williams*; the *Williams* Court did so because it believed that the evidence indicated that juries of six performed just as well as juries of twelve in all important respects. But, current knowledge about jury performance, while something less than definitive, tends to indicate that juries of twelve are superior to juries of six.

37. 591 F.2d 1243, 1245 (9th Cir. 1978), cert. denied, 439 U.S. 1118 (1979).
38. Bradley v. Superior Court, 531 F.2d 413, 416 (9th Cir. 1976).
39. 581 F.2d 1338, 1342 (9th Cir. 1978).
40. Bretz v. Crist, 546 F.2d 1336, 1341 (9th Cir. 1976).
41. See note 11 supra and accompanying text.
42. See text accompanying note 21 supra.
43. See notes 28-32 supra and accompanying text.
45. See notes 22-24, supra and accompanying text.
46. Although the Colgrove Court did take note of some research conducted subsequent to *Williams*, 413 U.S. at 159 n.15, the decision seemed to rest on the conclusion that "since [Williams], much has been written about the six-member jury but nothing that persuades us to depart from the conclusion reached in Williams." 413 U.S. at 158-59 (footnote omitted).
47. See note 24 supra.
Thus, the constitutional issues may not be as well settled as they seem to be initially.

Second, what is the optimum size for a jury? Presumably, a rational and just society would, within the confines of constitutional requirements, choose to use the optimum size jury. This is a policy issue that can best be resolved by an empirical analysis of jury performance and a determination of the relative values to be assigned to the competing interests served by the judicial system. Mathematical modeling techniques have been used to demonstrate that the degree to which a society is willing to protect the innocent at the cost of freeing some of the guilty is a critical factor in determining an optimum jury size. Another important consideration is how much expense and court congestion will be tolerated in order to obtain a given quality of jury performance.

Third, is the twelve- or the six-member jury truly superior? In several respects, this is the central issue in the jury size controversy. The Williams decision established the principle that constitutional issues with regard to jury size were to be resolved by an analysis of jury performance as a function of size. Thus, if the six-member jury is found to perform at least as well as the twelve-member jury in all important respects, then Williams, Colgrove, and Ballew will all have a sound empirical and legal foundation. But, if the twelve-member jury is found

49. Nagel & Neef, supra note 23, at 964-65, develop a deductive model designed to determine the optimum jury size. The optimum jury size is that size at which the number of errors the jury makes is minimized. There are two type of errors which the authors considered important: the number of innocent persons wrongly convicted and the number of guilty persons wrongly acquitted. Id. at 945. In an attempt to determine the relative weight to be assigned to these types of errors, they relied on Blackstone's statement that it is preferable that ten guilty people should go free than that one innocent man should be wrongly convicted. Id. at 945 n.18. Because of this ten to one weighting scheme, Nagel and Neef determine the optimum jury size to be somewhere between six and eight. Id. at 946.

50. See notes 41-48 supra and accompanying text.
51. See discussion in section II. B. infra.
53. Id. at 964-65.
54. See notes 23-24 supra and accompanying text.
55. Inasmuch as Williams was founded on the notion that juries of six perform at least as well as juries of twelve, supra note 24, a scientific confirmation of this fact would place Williams on solid ground. Colgrove, in turn, based its approval of the six-member jury on Williams, supra note 46, and therefore definitive proof of the soundness of the Williams holding would also tend to strengthen the decision in Colgrove. Furthermore, the weakness of Ballew, supra note 23, would be less striking if there were substantial scientific documentation of the holding in Williams that juries of six perform as well as juries of twelve. Also, the reaffirmation of Williams by the Court in Ballew, supra note 20, would be more credible if based on empirical evidence and statistical verification.
to be superior in important ways, then these decisions and the constitutionality of the six-member jury should be questioned. Furthermore, deciding between six- and twelve-member juries may be much more important than determining an optimum jury size because, as a practical matter, most advocates of smaller juries and most jurisdictions that have adopted smaller juries select six as the alternative rather than twelve. Therefore, the remainder of this comment focuses on the arguments for and against juries of six and twelve members respectively. In this discussion, unlike other comments, an attempt is made to give some coverage to all relevant points rather than limiting discussion to a single criterion such as the effects of size on verdicts. This more general approach, however, requires a more extensive balancing of values than more limited discussions.

B. Methodological Considerations

Before proceeding to an analysis of the arguments in the jury size controversy, some general comments should be made regarding the techniques used in the research relied upon by the courts and commentators. It is important to note, however, that no research design can be perfect and that the following comments are merely intended to give the reader some rational basis for assigning weight to the evidence to be discussed in later sections.

One type of evidence often relied on in the debate over jury size is empirical research using results of actual jury trials. One problem with this type of research is that differences in jury verdicts that are attributable to differences in jury size may reasonably be expected to occur in only a small fraction of actual trials because “most cases are clear.”

56. E.g., authorities cited in note 17 supra.
57. E.g., the jurisdictions mentioned by the Court in Ballew v. Georgia, 435 U.S. at 244 n.43: Colorado, Florida, Kentucky, and Massachusetts.
58. See, e.g., Nagel & Neef, supra note 23, wherein the authors discuss the jury size question solely in terms of the correctness of the verdict, as it relates to the guilt or innocence of the defendant.
60. Lempert, Uncovering “Nondiscernible” Differences: Empirical Research and The Jury Size Cases, 73 MICH. L. REV. 643, 648 (1975) (emphasis omitted) [hereinafter cited as Lempert]. Lempert reanalyzed data presented by H. Kalven, Jr. & H. Zeisel, The American Jury (1966) [hereinafter cited as The American Jury], and concluded that verdict differences due to jury size can reasonably be expected to appear in a maximum of 14.1% of all cases. Lempert, supra, at 653. This result is confirmed by Nagel’s and Neef’s finding that juror behavior reflects their personal background approximately 11% of the time. See Nagel & Neef, supra note 23, at 952. Nagel and Neef conclude that all differences between juries of various sizes is attributable to this 11% “independent mind” component. Lempert, supra note 26, at 954 & n.30.
This means that even if verdict differences due to jury size appear in a large number of cases, this fact may not be appreciated or discussed by commentators because of customs in the scientific community regarding statistical significance. It also means that researchers may have to use extremely large sample sizes before they will be able to discern any statistically significant differences between verdicts of different-sized juries. The cost and impracticality of large scale research based on actual jury trials may make such an experiment virtually impossible.

Another problem with much empirical research using actual cases is that there are insufficient controls for influential factors. For example, one must insure that the types of cases tried before six- and twelve-member juries are really the same. Also, studies that review jury verdicts before and after a jurisdiction changes from twelve to six jurors may fail to control for other simultaneous changes that could affect the outcomes of trials.

Still another potential difficulty with this type of research is that it

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61. There are two important types of errors in empirical research. Type I errors occur when the researcher assumes a relationship to exist between two variables when none actually exists. In the jury size research, a type I error would occur if the experiment indicated that size affected jury performance when, in fact, it did not. Type II errors occur when one rejects a hypothesis which is, in fact, true. This would happen if a researcher concluded that there exists no relationship between jury size and performance when such a relationship does actually exist. Lempert, supra note 60 at 657. The conventions of social science research, however, which are overly concerned with guarding against type I error, may mask the existence of a real relationship between size and jury verdicts. Id. at 659.

62. Of course, the possibility of spotting trends associated with jury size increases with the number of trials (and, hence, the number of divergent verdicts) examined. If a sufficiently large number of verdicts were examined some of the objections that I have made . . . would be weakened. However, given the expense involved . . . , the desire of researchers to finish their work in a reasonably short time, and general expectations about what can be proved with relatively small samples, I would guess that reports of an "ideal design" experiment would be based on between 100 and 300 trials. Lempert, supra note 60, at 653 n.37.

63. Id.

64. Jury size research experimenters sometimes select jurisdictions where the size of the jury is optional, e.g., I.J.A. Study, supra note 17, at 1. But there is a danger in this technique. If those cases in which the parties chose the twelve-member jury were systematically different from the cases in which they chose the six-member jury, differences associated with the different-sized juries might in fact be attributable to the differing nature of the cases heard . . . . It is clear that such a systematic difference existed in the New Jersey study [where] twelve member juries were chosen when more money was at stake. Lempert, supra note 60, at 646 n.12 (referring to the I.J.A. Study, supra note 17).

65. An example of the difficulties with "before and after" studies is the problem encountered in the Michigan Study, supra note 17. At approximately the same time that jury size was decreased from twelve to six, Michigan also made substantive changes in the law affecting the incidence of pre-trial settlement. This meant that the types of cases heard by the six-member juries were not necessarily comparable with those heard by the twelve-member juries. Zeisel & Diamond, "Convincing Empirical Evidence" on the Six Member Jury, 41 U. CHI. L. REV. 281, 288-89 (1974) [hereinafter cited as Zeisel & Diamond].
rests on the inaccurate assumption that juries are randomly selected. In addition, research that looks only at verdict differences may ignore differences between six- and twelve-member juries in other areas. Finally, in order to develop an experimental procedure that is sufficiently random to produce valid results, it may be necessary to resort to measures that may be unconstitutional and thus impossible for practical purposes.

To circumvent many of these problems, some researchers have attempted to evaluate the impact of changing the number of jurors by conducting laboratory type experiments. But these experiments have their own weaknesses that must be recognized. First, such experiments may or may not use actual jurors. If actual jurors are not used, researchers must be careful to avoid groups that differ in important ways from the normal jury selection pool. Second, to be useful, the group must be asked to solve a problem that is analytically similar to, and as complex as, the case that a jury would typically hear. Third, because the participants in the experiment know they are not deciding actual cases, there may be differences in the deliberation process due to the

66. "The sampling model postulates that jurors are selected by some independent random process. Although one may assume that a particular venire is selected from a given population at random, it is clear that chance does not entirely determine the final composition of a sitting jury." Lempert, supra note 60, at 664-65 (footnote omitted).

67. When discussing the effect of size on the probability of conviction, Nagel and Neef point out the interesting possibility that cancellation effects may mask actual differences: The same conviction rate would not mean that a change in jury size had no effect on the probability of conviction. Presumably, defense counsel would be more willing to bring their weak cases before a twelve-person jury . . . . On the other hand, prosecutors would probably be more willing to bring their weak cases before a six-person jury . . . . These two effects may offset each other in such a way that the cases brought before six-person juries result in the same . . . . conviction rate observed in a different sample of cases brought before twelve-person juries.

Nagel & Neef, supra note 23, at 935.

68. For example, one possible method for exploring jury size effects on jury performance has been suggested by Zeisel and Diamond, supra note 65, at 291. In this proposed experiment, cases would be assigned to six or twelve-member juries by some random method and the results of a large number of such cases would then be compared. But, this very randomization may lead to constitutional problems. "This kind of randomization, even if practical, might be unconstitutional, however, because one or the other group of defendants would be favored without adequate justification." See Nagel & Neef, supra note 23, at 935.

69. Because social status and other factors have an impact on jury performance, it is important that laboratory experiments select jurors to avoid groups which deviate from the norms of the general population in significant ways. For further discussion of this problem and the particular hazards involved in the use of college students as "mock" jurors, see Lempert, supra note 60, at 667 & n.70.

70. One of the weaknesses of laboratory experiments is that the test subjects "are given limited time to solve problems quite different than those faced by jurors." See Lempert, supra note 60, at 667.
unrealistic circumstances. Finally, if the researcher attempts to monitor deliberation to insure its realism, the very act of monitoring, which would be done presumably with the participants' knowledge, may influence the results.

The third type of procedure that has been used to discover whether size affects jury performance is deductive or mathematical modeling. While this approach avoids many problems involved in the methods just discussed, it has been used less frequently, probably because it is more difficult to explain. The fact that causes confusion is that modeling is a technique that operates deductively on empirical input to produce a conclusion that is internally logical and consistent. This means that a "model" will produce results no more valid than the empirical input with which one begins. Thus, when discussing evidence based on modeling, one must be careful to explain the reliability of the empirical data involved and the effects of possible changes in that data.

C. Arguments Favoring the Six-Member Jury

1. No Differences in Verdicts Exist

In Williams, the Supreme Court held that the six-member jury is constitutional, basing its holding on the lack of convincing evidence

71. In their discussion of the "mock" jury technique, Nagel and Neef point out that "[t]he approach has the disadvantage of lacking realistic jury trial procedure, personnel, and variety that may affect the comparisons." Nagel & Neef, supra note 23, at 937 n.9.

72. "One might note the potential problem that the monitoring process could make the jury self-conscious and affect its deliberation, but the available evidence suggests that the problem exists more in theory than in practice." Lempert, supra note 60, at 704 (footnote omitted).

73. The best example of the effective use of deductive modeling in the area of jury size research is the article by Nagel & Neef, supra note 23.

74. Though the development and use of a mathematical model can present complex practical problems, the underlying principles are simple and familiar. A model consists of from one to several hundred interrelated equations. The formulation of the equations is the process by which theoretical assumptions are translated into mathematical representations. The variables in the equations represent the empirical data which will be plugged into the model. Even the simple algebraic equation $3x = y$ is a model of sorts. The assumption it represents is that $y$ is three times as great as $x$. The independent variable $x$ can be replaced by data (e.g., real numbers such as 5, 12, or 62) and the dependent variable $y$ will then give the "answer."

In a model to determine an optimum jury size, the inputs will be data about how jurors behave in various sized groups and the "answer" or outputs will be the numerical size of the jury.

For a brief but thorough discussion of the theoretical aspects of deductive modeling, see generally Nagel & Neef, supra note 62, at 937 & n.10.

75. See note 16 supra.
of verdict differences between six- and twelve-member juries. Since the Williams decision in 1970, there have been several empirical studies and laboratory experiments indicating that there are indeed no verdict differences between six- and twelve-member juries.

2. Minorities Receive Adequate Representation by Six-Member Juries

Proponents of the twelve-member jury contend that six-member juries do not adequately represent minority viewpoints. One response to this criticism has been that the Constitution does not require minority representation that is proportional to their numbers in the general population. But, while improved minority representation may not be constitutionally required, it is a factor that, for policy reasons, should make the twelve-member jury preferable. Finally, though it may appear that the twelve-member jury would have an advantage in this area, any perceived benefits are offset by the fact that the twelve-member jury tends to factionalize. The verdict of a twelve-member jury reflects the strength of factions formed by three or four members and the lower levels of participation by other jurors.

3. A Six-Member Jury Provides More Participant Satisfaction

Proponents of the six-member jury point to small group research to show that groups with six members are more likely to produce satisfied participants than are groups of twelve. This is an argument that does not relate to verdict differences or to constitutional issues and is merely claimed as an added advantage of the six-member system.

76. See note 24 supra. But in reaching this conclusion, the Court relied on studies that involved surveys of judges and attorneys who commented on their experiences with six-member civil juries. Zeisel, supra note 19, at 713-15.


78. See section II.D.2 infra.

79. "All that the Constitution forbids, however, is systematic exclusion of identifiable segments of the community from jury panels and from the juries ultimately drawn from those panels; a defendant may not, for example, challenge the makeup of a jury merely because no members of his race are on the jury..." Apodaca v. Oregon, 406 U.S. at 413.


81. Id.

82. For one study reaching the conclusion that smaller groups have more satisfied participants, see Hare, A Study of Interaction and Consensus in Different Sized Groups, 17 AM. SOC. REV. 261 (1952) (discussion of interaction, consensus, and leader skill in small groups).
4. The Six-Member Jury Will Reduce Hung Juries

One of the best documented differences between six- and twelve-member juries is that the smaller panels will fail to reach a verdict ("hang") in less than half as many cases as the larger panels. Propo-

nents of the six-member jury claim this as an advantage because the outcome of a case is less likely to depend on the relative economic sta-

tatus of the litigants. Furthermore, a decrease in the number of hung juries helps reduce costs and allows judicial resources to be better used.

5. The Quality of Decisions Is Comparable

The quality of decisions and the decision making process is of major concern in the discussion of jury size. Several arguments have been advanced to prove that the decision making process of the six-member jury is as good, if not better, than that of the twelve-member jury. The larger the jury, the more likely it is to break into factions that can adversely affect the deliberative process. It also should be pointed out that a jury of six is much closer to the optimum jury size of seven, which was tentatively established through deductive modeling by Nagel and Neef.

6. Six-Member Juries Save Time and Money

One significant advantage of the six-member over the twelve-member jury is that it saves time, thereby helping to reduce court congestion. Some reduction in delay may, in part, be attributed to the fact that six-member juries are less likely to hang. Also, it is possible that

83. Statistics indicate that twelve-member juries hang approximately five percent of the time. See THE AMERICAN JURY, supra note 60, at 453. But, one study indicated that if a six-member jury is used, this number is cut in half. See Zeisel, supra note 19, at 720.

84. When a hung jury occurs, the defendant is effectively acquitted unless the plaintiff (or the prosecution in a criminal case) decides to go to the trouble and expense of retrying the case. In the civil context, at least, this may be a significant factor because plaintiffs may be deterred from retrying the case unless they are very wealthy or the case is extremely vital. See generally Note, Smaller Juries and Non-Unanimity: Analysis and Proposed Revision of the Ohio Jury System, 43 U. CIN. L. REV. 583, 600 n.115 (1974) [hereinafter cited as Smaller Juries].

85. "The greatest saving may well result from the reduction of hung juries, in which the entire expense is irrecoverably lost and nothing is accomplished." Id. at 602.

86. See 100-04 infra and accompanying text.

87. This argument seems to imply that if a jury factionalizes, attention will be focused on "winning" the argument and not on rationally deliberating the merits of the case. See gener-

ally, Smaller Juries, supra note 84, at 600 n.105.

88. See note 23 supra.

89. See notes 83 & 85 supra.
the number of jury trials will be reduced because defendants will be less inclined to request a jury.\textsuperscript{90} Furthermore, there is evidence that a six-member jury will require less time than a twelve-member jury for voir dire,\textsuperscript{91} trial,\textsuperscript{92} and deliberation.\textsuperscript{93}

One obvious area of cost reduction is the savings directly attributable to changing the number of jurors from twelve to six.\textsuperscript{94} Presumably, there also would be some cost reduction that would result indirectly from the time savings discussed earlier.

\textbf{D. Arguments Favoring the Twelve-Member Jury}

1. Verdict Differences Exist That Favor Twelve-Member Juries

There are a number of arguments that, together, seem effectively to rebut the contention that there exist no significant differences in the verdicts of six and twelve-member juries.\textsuperscript{95} One argument is that the differential rate of hung juries is clear evidence that the verdicts of the two different-sized juries do in fact differ.\textsuperscript{96} Advocates of the twelve-member jury argue that, at least in criminal cases, the hung jury is an important safeguard for the defendant and that the twelve-member jury is thus preferable.\textsuperscript{97} Also, there have been serious methodological criticisms of the studies supporting the conclusion that verdicts do not

\begin{itemize}
\item \textsuperscript{90} "[T]he increased possibility that a six-member jury will deviate from a predictable norm for juries means a larger "gamble" in requesting a jury. The increased risk could well result in the increase in the incidence of jury waiver and thereby reduce the incidence of jury trials." \textit{Note, Constitutional Law—Trial by Jury Guaranty of Seventh Amendment: Local Court Rule May Establish Number of Jurors at Six in Federal Civil Cases, 49 WASH. L. REV. 1146, 1157 (1974) [hereinafter cited as \textit{Local Court Rule}]. This argument seems logical, but reduced delay at the cost of increased risk in our judicial system would seem to be a trade-off of questionable value.}
\item \textsuperscript{91} One study found that the average time consumed for voir dire in six-member jury trials was, on the average, 45\% less than that required for the twelve-member panels. \textit{See I.J.A. STUDY, supra} note 17, at 27.
\item \textsuperscript{92} The \textit{I.J.A. STUDY} found that on the average, six-member juries reduced trial time by almost 50\%. \textit{Id.} at 26-27.
\item \textsuperscript{93} The use of six-member juries may reduce deliberation time by as much as 32\%. \textit{Id.} at 29.
\item \textsuperscript{94} This point is based on the simple deduction that if one cuts in half the number of jurors required per trial, jury fees, meals, accommodations and administrative costs will be correspondingly reduced. \textit{See generally I.J.A. STUDY, supra} note 17.
\item \textsuperscript{95} \textit{See Section II.C. 1 supra.}
\item \textsuperscript{96} \textit{See note 83 supra.}
\item \textsuperscript{97} "Kalven and Zeisel present some data that indicate that in almost two-thirds of hung-jury cases the jury will have hung with a majority for conviction . . . . The findings are corroborated . . . by the further finding with a much larger sample that in 80 per cent of the cases in which the jury hangs the judge would vote to convict . . . ." Lempert, \textit{supra} note 60, at 678 n.100 (citing \textit{THE AMERICAN JURY, supra} note 60, at 460)).
\end{itemize}
vary with jury size. Finally, there is convincing proof that when the number of jurors is reduced from twelve to six there is a substantial increase in the likelihood that an innocent person will be convicted.

2. Minority Viewpoints Are Represented

One of the strongest arguments favoring the twelve-member jury is that it better represents minority viewpoints. Professor Zeisel has demonstrated by simple statistical calculation that a six-member jury is less likely than a twelve-member jury to contain one member from a minority group and that there is an even greater difference in the chance that two members from such a minority group would appear on a six-member jury. This evidence is important because it shows that a minority group has a much better chance of being represented on any given twelve-member jury than on any given six-member jury. The significance of this data increases when one realizes that while one minority juror is extremely unlikely to be able to maintain his views under the pressure from the majority, two minority jurors have at least a fair chance of holding out. The presence of jurors from minority groups is also important because it may suppress the expression of bias.

98. The evidence relied upon by the Court in Williams was largely impressionistic and was by no means solidly scientific. See note 76 supra. The I.J.A. Study and the Michigan Study, supra note 17, have also been criticized for methodological weaknesses. See notes 64, 65 supra. Bermant & Coppock, supra note 77, have been criticized because the cases studied involved an unusual workmen's compensation procedure and may, therefore, not provide a sound basis for generalization. See Lempert, supra note 60, at 646 n.12. The laboratory study in Jury Decision-Making Processes, supra note 17, is flawed because it used an extremely small sample and a case unlikely to reveal differences which might exist between different-sized juries. Zeisel & Diamond, supra note 65, at 286-87.

99. "[A]s the jury size decreases, the probability of convicting either an innocent or a guilty defendant increases." Nagel & Neef, supra note 17, at 946.

100. For purposes of this discussion, a minority group is any subset of the community which holds values substantially different from those held by the majority of the community. However, while this definition is not limited to members of ethnic or racial minority groups, there are clearly very important types of minority groups with especially strong interests to protect.

101. Given a minority group which constitutes 10% of the population from which the jury is drawn, a six-member jury will have a minority group members 53% of the time whereas twelve-member juries would exclude all minority representatives in only 28% of all cases. See Zeisel, supra note 19, at 716.

102. Using the same 10% minority group, a six-member jury will have two or more members of the minority group in only 11% of all cases whereas a twelve-member jury would have two or more minority group representatives 34% of the time. Id.

103. "Without initial support there is little or no chance that a single minority juror will hold out against the majority." Lempert, supra note 60, at 676 n.98.
by one person that could influence others.104

An argument in support of the six-member jury was that proportionate representation is not constitutionally required for any minority group.105 While this is true, it does not deal with the real issue—whether six-member and twelve-member juries are so similar that the six-member jury is acceptable under the sixth and seventh amendments.106 If the requirement of Williams that the jury be large enough to prevent government oppression107 can be read to mean that juries should be large enough to prevent the majority from overwhelming the minority, then the twelve-member jury would seem to be both preferable and constitutionally necessary.

The point was also made that the difference in minority representation may be counteracted by diminished participation in twelve-member juries.108 To some degree, the lower participation levels in the twelve-member jury are due to the fact that more jurors are present to divide up any given amount of time for deliberation.109 Furthermore, even though the twelve-member jury may factionalize more often, this may not necessarily detract from the quality of deliberations because the interaction between majority and minority, not the interaction between jurors as individuals, is the critical element in jury deliberation.110

Finally, advocates of the six-member jury argue that juries are usually dominated by those of high social status, who have a higher level

104. See id. at 672.

Another possible advantage to the presence of minority group members on a jury is that they may be able to provide valuable insights into aspects of the life styles and cultures of the minorities they represent. In some cases this might help jurors unfamiliar with such matters to better understand a case. Id. But it should be noted that this could very easily result in minority group members acting as "cultural experts" and improperly influencing the thinking of fellow jurors.

105. See note 79 supra.

106. See text and authorities cited in notes 46 & 47 supra.

107. 399 U.S. at 100.

108. See Lempert, supra note 60 at 693.

109. "[T]his difference is in part artifactual. Assuming equal participation by each member, the percentage participation of members of a larger group will always be less than the percentage participation of members of smaller groups . . . ." Lempert, supra note 60, at 693. See, Local Court Rule, supra note 90, at 1156-57.

110. It has already been mentioned, see note 79 supra, that twelve-member juries are more likely than six-member juries to deliberate in factions. There is some evidence that this phenomenon forces those jurors who find themselves in the minority to participate more. This means that the levels of participation between minority and majority factions are usually relatively equal so that, taken in combination, these results reduce the impact of the evidence indicating low participation levels for individuals. See Lempert, supra note 60, at 695-98 & nn.166-180.
of participation than those of a low social status. If one assumes that members of minority groups are usually of a lower social status, the conclusion would be that even though twelve-member juries include more minority group members, these members contribute little to the decision, meaning that the larger jury may not be much better than the six-member jury. While this analysis may diminish the representative capacity of twelve-member juries, it does not prove that six-member juries provide equivalent or even adequate representation.

3. Hung Juries Are Desirable Because They Favor The Defendant

One might assume that both the defendant and prosecution or plaintiff have an equal opportunity to benefit from the indecisive result of a hung jury. However, in the overwhelming majority of criminal cases, the defendant benefits from a hung jury. It is true that a hung jury does not preclude retrial and the possibility of ultimate conviction. However, retrial is expensive and rarely occurs, so that a hung jury is, in many instances, the functional equivalent of an acquittal.

In the civil setting, a reduction of hung juries may diminish the advantage afforded to those of high economic status. Thus, in civil cases the fact that six-member juries reduce hung juries may represent an advantage for the smaller jury. But, in criminal cases the advantages afforded the defendant by a hung jury may be sufficient to outweigh any monetary savings resulting from the use of the six-member jury.

4. Twelve-Member Juries Render Better Decisions

When considering the arguments regarding the quality of decisions rendered by the six- and twelve-member juries, it is important to focus on the meaning of "quality" in this setting. Perhaps one of the best approaches is that used by Nagel and Neef, who discussed the "quality" of decisions in terms of the number of innocent persons convicted.

111. It is known that individuals with high social status serve on juries more frequently and have higher levels of participation in the deliberative process than do low status individuals. When combined with the fact that low participators will contribute even less to a twelve-member jury than to a six-member jury, see note 108 supra, it is logical to assume that low status individuals will have less input, and therefore less influence, on a twelve-member jury than on a jury of six. This result may counteract, to some degree, the increased representation that twelve-member juries seem to provide. See, Local Court Rule, supra note 90, at 1156-57.

112. See note 98 supra.

113. See Lempert, supra note 60, at 678 n.100.

114. See note 84 supra.

115. See, Smaller Juries, supra note 84, at 602.
and the number of guilty persons acquitted.116 If it is assumed that the possibility of convicting an innocent person is thirteen times more serious than the possibility of releasing a truly guilty individual,117 the twelve-member jury is the best decision-maker.118 However, if it is only assumed to be ten times more serious to convict an innocent person than to release a guilty person,119 a six-member jury is probably a better decision-maker.120 Thus, a relatively small change in the weighting factor can change the determination of an optimum jury size.121

Another measure of the quality of the jury decision is consistency. It has been demonstrated that the decisions of six-member juries tend to be less consistent and more subject to random deviation than those of twelve-member juries.122 This favors a jury of twelve because, although consistency does not automatically lead to accuracy, it does seem to improve the likelihood that accurate decisions will result. Also, consistency and dependability of result may itself be an advantage because it gives the appearance of fairness.

Advocates of the twelve-member jury also point out that much of the advantage claimed for the six-member jury in the area of decision-making rests on the results of laboratory experiments involving small groups.123 Because of the weaknesses of this research technique,124 these results are suspect. It is also pointed out that there are circumstances in which the very presence of several additional jurors can be important in reaching an accurate decision.125 Finally, there is some evidence that heterogeneous groups are more likely to make correct

116. See note 49 supra.
117. After consideration of their empirical premises and the data utilized in their study, Nagel and Heef concluded that "society by supporting the twelve-person unanimous jury considers convicting the innocent 13 times worse than not convicting the guilty and is impliedly willing to let 13 guilty persons go free to save one innocent person from conviction."
Nagel & Neef, supra note 13, at 959.
118. Id. at 959 n.33.
119. See note 49 supra.
120. Id.
121. This is a highly significant result of the Nagel and Heef model because it demonstrates the importance of normative values on the determination of an optimum jury size.
122. No matter how one varies the basic assumptions about jury performance, one result that is constant is that six-member juries will render decisions that deviate farther from the average and are thus more likely to reflect error and chance factors. Nagel & Neef, supra note 23, at 972-73 and accompanying text.
123. For a relatively comprehensive discussion of the small group research which supports the use of a six-member jury, see Lempert, supra note 60, at 689-98.
124. See text and authorities cited in notes 69-72 supra.
125. Twelve-member juries are likely to perform better when the decision is of the intuitive nature and when memory is a critical element. Lempert, supra note 60, at 686-87.
decisions than homogeneous groups.\textsuperscript{126} Since twelve-member juries are more likely to include representatives of minority groups,\textsuperscript{127} such a jury would be more heterogenous than one of six members and thus more likely to reach a correct decision.

5. Six-Member Juries May Not Be Advantageous in Terms of Saving Time and Money

While adoption of the six-member jury will probably save time and money,\textsuperscript{128} these savings may not be as significant as they appear.\textsuperscript{129} In essence, advocates of twelve-member juries argue that the savings of time and money must be balanced against the decrease in quality and the diminished representation of minorities.\textsuperscript{130} Depending on how these competing interests are weighed, the six-member jury may or may not be advantageous.

6. The Twelve-Member Jury Better Represents the Community

The argument here is that the twelve-member jury is more likely to render decisions that approximate the decisions the community would make should all members of the community sit in judgment on the case.\textsuperscript{131} This argument may be true, but it seems to suggest only that the twelve-member jury will be more popular, not that it will render a better decision. However, since the concept of jury trial is based on judgment by one's peers, there may be something to be said for this argument in a philosophical sense.

\textsuperscript{126} See Thomas & Fink, supra note 23, at 381.
\textsuperscript{127} See notes 101-02 supra.
\textsuperscript{128} See notes 85, 90-94 supra.
\textsuperscript{129} At least one study has concluded that voir dire time would not be substantially reduced and that overall trial time and court congestion would not be significantly affected by the reduction of juries from twelve to six members. These results appear to be explained by the fact that there is a high overhead involved in jury selection which must be paid whether juries are composed of six or twelve members. Another factor is that the number of challenges of jurors remained virtually the same after jury size was reduced from six to twelve. This means that about the same amount of time would be spent in impaneling a jury of six as a jury of twelve. See Pabst, supra note 17, at 327-28.
\textsuperscript{130} In Ballew, the Court recognized that it is important to balance the potential savings in time and money against the important constitutional values threatened by reducing the size of juries. 435 U.S. at 243.
\textsuperscript{131} "[T]he twelve-member jury is more likely than the six-member jury to have a pro-plaintiff majority when a majority of the community would favor the plaintiff and it is more likely to have a pro-defendant majority when a majority of the community would favor the defendant." Lempert, supra note 60, at 684.
7. Tradition Favors Twelve

The twelve-member jury has a foundation deeply rooted in tradition and history. This foundation may be the basis of an argument for the retention of the twelve-member jury. Furthermore, it also has been argued that the Constitution does not permit weighing the merits of various jury sizes but instead mandates the number twelve because this was the universally accepted practice in the eighteenth century.

III. Conclusions

Although more research is required in some areas, it is possible to reach some conclusions based upon available information about the effects of size on jury performance. It does appear that six-member juries may produce some savings in time and in money. However, twelve-member juries clearly represent the community in general and minority groups in particular more effectively than do six-member juries. Evidence on the quality of decision-making is in conflict, but on balance it appears that twelve-member juries are superior in this respect.

The six-member jury may reduce the number of hung juries and produce more satisfied participants. But, a twelve-member jury will

132. Zeisel argues that the number twelve was selected by a several hundred year long trial and error search for the appropriate sized jury, and that it is by no means an accident. See Zeisel, supra note 19, at 712.
133. In Colgrove, the majority reasoned that jury size was only constitutionally significant if it affected jury performance. Finding no evidence of such a relationship, the Court upheld the reduction in jury size. 413 U.S. at 157. But, in his dissent, Justice Marshall pointed out: Today a majority of this Court may find six-man juries to represent a proper balance between competing demands of expedition and group representation. But as dockets become more crowded and pressures on jury trials grow, who is to say that some future Court will not find three, or two, or one a number large enough to satisfy its unexplained sense of justice? It should be clear that the constitutional rights which are so vulnerable to pressures of the moment are not really protected by the Constitution at all. . . . Since some definition of "jury" must be chosen, I would therefore rely on the fixed bounds of history which the Framers, by drafting the Seventh Amendment, meant to "preserve." Id. at 181-82. (Marshall, J., dissenting).
134. Nagel and Neef point out that their model could more precisely predict jury behavior given good empirical data. See Nagel & Neef, supra note 23, at 978.
135. Despite the findings of Pabst, see note 129 supra, it is fair to assume that some of the time and money savings claimed for the six-member jury are valid. See notes 90-94 supra.
136. See note 131 supra.
137. See notes 101-02 supra.
138. See sections II.C.5 and II.D.4 supra.
139. See note 83 supra.
140. See note 82 supra.
behave more consistently and in accord with community standards and will allow more people to participate in the judicial process.

Thus, the real problem is one of weighing competing interests. In effect, the question becomes, is the associated price in extra time and expense that is necessitated by the twelve-member jury justified in order to obtain better minority representation, better quality decisions, and more public participation? While the decision may be a difficult one to reach with respect to civil cases, the choice seems much clearer in the criminal context. The twelve-member jury is less likely to convict an innocent person. Twelve-member juries also hang more frequently, which affords a criminal defendant an extra margin of safety. Given a criminal justice system that presumes one innocent until proven guilty beyond a reasonable doubt, these are extremely significant advantages.

The twelve-member jury may be, and in the criminal context probably is, superior to smaller juries. But, this does not, in and of itself, change the state of the law. Williams and Colgrove still permit the use of six-member juries in state criminal and federal civil trials. However, as indicated earlier, the Ballew decision seems to weaken the position of the Court and gives rise to speculation that a reversal of Williams and Colgrove is within the realm of possibilities.

Regardless of its outcome, the controversy over jury size may provide a valuable lesson in the use of scientific research in courts. Sophisticated and capable men who sit on the United States Supreme Court have been heavily criticized for their use of social science research

141. See note 131 supra.
142. This is simply a result of the inescapable fact that if we use twelve-member juries twice as many people will get a chance to participate in the judicial process than if we use six-member juries.
143. See note 99 supra.
144. See note 97 supra.
145. See note 23 supra and accompanying text.
146. In this case, the Court might be more willing than usual to reverse its earlier position because the issue is one of constitutional interpretation, and there is considerable empirical evidence favoring a change. These are precisely the conditions the Court itself identified as necessary to justify disregarding the general rule of stare decisis: Stare decisis is usually the wise policy, because in most matters it is more important that the applicable rule of law be settled than that it be settled right. . . . This is commonly true even where the error is a matter of serious concern, provided correction can be had by legislation. But in cases involving the Federal Constitution, where correction through legislative action is practically impossible, this Court has often overruled its earlier decisions. The Court bows to the lessons of experience and the force of better reasoning, recognizing that the process of trial and error, so fruitful in the physical sciences, is appropriate also in the judicial function.

Commentators and courts must be careful to use scientific research when it is available and to avoid under- or overstating its implications when it is used. Because of the difficulties and dangers inherent in the use of scientific evidence, there may be considerable merit in Justice Marshall's argument that the Constitution should be interpreted by fixed historical standards. Research and statistical analysis can determine facts and define issues, but in the final analysis, policy decisions must rest on value judgments concerning the relative merit of competing interests.

Ralph Black

147. See Zeisel, note 19 supra; Zeisel & Diamond, note 65 supra, at 281-82.  
148. See note 133 supra.