DOES JURY SIZE MATTER?

A REVIEW OF THE LITERATURE

Prepared for:
The Administrative Office of the Courts

Prepared by:
Nicole L. Waters, Ph.D.
Court Research Associate
The National Center for State Courts
300 Newport Avenue
Williamsburg, Virginia 23185

August 2004
Following discussions by the Blue Ribbon Commission on Jury System Improvement and the Task Force on Jury System Improvements, the Administrative Office of the Courts sought a review of social science research and a description of court practices nationwide that might inform policy decisions on reducing the size of juries in California.

Mr. John A. Larson, Senior Court Services Analyst of the Administrative Office of the Courts, served as the project director. Both Mr. Larson and Kristin Nichols, Senior Research Analyst, offered important editorial commentary.

Paula L. Hannaford-Agor, Principal Court Research Consultant at the National Center for State Courts, directed me to several key resources, provided substantive comments and assisted me with the detail-oriented legal footnotes. Sherry Keesee-Buchanan, Senior Administrative Specialist, provided valuable administrative support and Shauna Strickland, Court Research Analyst, formatted the final version.

Nicole L. Waters, Ph.D.
**INTRODUCTION**

The institution of trial by jury has its origins in the Magna Carta, which provided that “no free man shall be seized or imprisoned, or stripped of his rights or possessions, or outlawed or exiled, or deprived of his standing in any other way, nor will we proceed with force against him, or send others to do so, except by the lawful judgment of his equals or by the law of the land.”

Although the Magna Carta did not specify the number of peers necessary to comprise a jury, Sir Edward Coke’s various treatises on the laws of England established that the common practice was to impanel juries of which “the number of noble men that are to be triers are, 12, or more” due ostensibly because “the number of 12 is much respected in holy writ, as 12 apostles, 12 stones, 12 tribes, etc.” Although the number can be traced back to the very early times of common law, some contemporary courts question the utility of 12 jurors as compared to a smaller jury of eight or six.

California is among the majority of courts that has retained 12 jurors in civil and criminal trials. However, a recent request by the Administrative Office of the Courts of California to the National Center for State Courts (NCSC) called for a review of current information on the effects in California and nationwide of reducing the size of juries. This article reviews the literature and empirical work on jury size, including a 1990 study that examined the effects of reducing the size of juries in four California municipal courts from 12-persons to 8-persons.

The literature discusses both the advantages and the disadvantages of reducing the size of a jury. The purported advantages of reducing the size of jury panels—savings of time, money and resources by simply calling fewer citizens to serve—are especially alluring to courts. Employers who have fewer employees serving on jury duty could realize economic benefits, and the community as a whole could gain improved worker productivity. However, these benefits may be achieved at a cost to justice. Smaller juries are more likely to return more erroneous or capricious verdicts. The interpersonal dynamics of deliberations change with increases or reductions in the number of citizens on the jury, particularly for those holding views that differ from the majority. Furthermore, public trust and confidence in the jury as a fair and representative institution can be compromised as fewer minorities are represented on smaller juries.

**REDUCTION SAVES COURT RESOURCES**

The main thrust of the argument for reducing the size of juries is that doing so will save time and money and improve the efficiency of courts’ use of jurors. Statewide in fiscal year 2002-2003, California courts conducted approximately 5,800 felony jury trials, 3,000 misdemeanor jury trials, and 2,700 civil trials. Payment for jury duty varies by jurisdiction even within states; in California, jurors are not paid for the first day of jury duty, but beginning on the second day of service the compensation is increased to $15.00 per day plus mileage reimbursement. Although some jurisdictions may increase this amount, and supplemental pay for jurors may be acquired through employer compensation, California juror pay is low com-

---

1 Magna Carta Sec. 39 (English translation located at http://www.bl.uk/collections/treasures/magnatranslation.html).
2 Sir Edward Coke, the Third Part of the Institutes of the Law of England Ch. 29, Sec. 6 (1681).
4 Cal. Code Civ. Proc. § 220 (Deering 2004) (“A trial jury shall consist of 12 persons, except that in civil actions and cases of misdemeanor, it may consist of 12 or any number less than 12, upon which the parties may agree.”).
pared to most states. Essentially if courts reduced the jury size from 12 to 6, with 2 alternates for each, courts would reduce the amount spent on jury fees by approximately 40 percent; a reduction from 12 to 8 jurors with the addition of 2 alternates would reduce this amount by 29 percent.

In addition to the cost savings realized by the courts, courts may also conserve valuable court resources invested in trials. If the courts utilize fewer jurors it will in effect reduce the lengths of the voir dire, trial, and deliberations. In the previously noted study on reducing jury size from 12 to 8 conducted in 1990, researchers observed a reduction of approximately 28 percent in person-days across selection, trial, and deliberations for 8-person juries as compared to 12-person juries. This finding distinguishes between the time saved and the reduced number of people needed (including panel size and alternates).

The monetary savings extend beyond the courts to the litigants, jurors, and the local community. While the costs and benefits of reducing jury size are numerous and often not easily quantifiable, the local community, in addition to the courts, potentially saves money by reducing the sizes of juries. According to research estimates in the mid to late 1980s, a reduction in jury size from 12 to 8 in limited jurisdiction civil cases in California would save the litigant $120, the jurors $22, the court $87, and the cost to employers $1,728 per jury trial. Other analyses of the cost savings from 1980 suggested courts would not reap considerable savings, stating that the amount would be approximately one to two cents per person per year.

In addition, fewer citizens are required to report for jury duty if the court seats smaller jury panels, an area of potential cost savings beyond merely reducing jury sizes. Assuming a similar percentage of potential jurors in the pool are dismissed or excused from jury duty, fewer citizens would be excused without serving. While the reduction in jury panel size does not, in and of itself, produce more efficient utilization of citizens appearing for jury duty, the raw number of citizens called to jury duty will decrease. The public’s negative perception of jury duty prior to serving is shaped, in part, by the thought that they will be wasting their time. People believe they will not be selected to serve and the extended wait involved is frustrating. Several states, including California, have responded to this sentiment by implementing changes to improve utilization of potential jurors, such as a one-day or one-trial term of service or providing a daily call-in policy to prevent unnecessary waiting. New York has begun an investigation into the apparently low rate of juror utilization as part of a recent jury reform initiative.

A similar idea turned into practice in Maricopa County Arizona and in Las Vegas, Nevada. Maricopa County Superior Court has implemented a civil “short trial” program as a way to respond to the concerns of attorneys and litigants over the cost of mandatory

---


7 Jury fees are only part of the cost to hold a jury trial. In addition to jury fees there are administrative costs, postage fees for mailing summonses, data processing fees, etc. that would also be reduced, but much less dramatically. See G. Thomas Munsterman, JURY SYSTEM MANAGEMENT 141 (1996).

8 G. Thomas Munsterman et al., *A Comparison of the Performance of Eight- And Twelve-Person Juries* (1990). A person-day is equivalent to the workday for one person.

9 Id.

10 Peter W. Sperlich, *...And then there were six: The decline of the American jury*, 63 JUDICATURE 262 (1980).

11 Munsterman et al., supra note 8. However, Munsterman et al. noted that during the experimental manipulation of jury size the reduction in panel size was not proportionate to the reduction in the impaneled jury. The jury size was reduced by 33 percent, but the jury panel size was only reduced by 21 percent. See also Paula L. Hannafor-Agor, *Increasing the Jury Pool: Impact of an Employer Tax Credit* 10-12 (August 2004).


arbitration. In short trials, four-person juries are selected from panels of ten and, by definition, are one-day trials. Clark County District Court in Las Vegas modeled their variation of a civil summary jury trial concept on Maricopa’s program. In Las Vegas, a jury of four is chosen from a panel of twelve and requires a three-fourths majority decision rule. A judge pro tempore hears the case. Both parties pay for the cost of the judge to manage the case and the jury to decide on the facts. Thus far, jurors have responded favorably to the experience of a civil “short trial.”

Reduction Compromises Just Decisions

Contrasting the argument that courts will save resources, several researchers have urged courts to consider what would be lost by a reduction in the size of a jury. First and foremost in counter-arguments is whether the reduction alters the ability of jurors to render just decisions. The conclusions articulated in case law are not the same as those provided by empirical research.

Case Law

The U.S. Supreme Court addressed the issue of jury size thirty years ago. Two Supreme Court opinions (Williams decided in 1970 and Colgrove in 1973) found that a jury comprising six as opposed to twelve members does not violate a defendant’s constitutional rights to a fair and impartial jury. As a result of the Court’s decision affirming that six-person juries do not adversely affect the jury’s decision, state courts began reducing the size of juries. Yet among academics, a flurry of empirical work attempted to address concerns if, and how, the Court used empirical support in reaching its decision.

Several researchers analyzed the question: are decisions by 12-person juries routinely different than 6-person juries? Hans Zeisel published one of the most notable pieces in 1971. He showed that statistically, 6-person juries would be less representative, more variable, and, on a more positive note, less likely to deadlock than 12-person juries. In fact, a more recent study supports this latter finding that small groups of 5 as compared to 10 are more likely to reach consensus.

Empirical studies relied upon in the court’s decisions (Williams and Colgrove) did not find significant differences between 6- and 12-person juries. However, Richard Lempert examined these studies and addressed potential reasons why no differences were found. He inferred that, as past jury research has found, the evidence in most cases clearly favors one side. Therefore, to find disagreement in verdicts between juries of varying sizes would be rare, calculated at 14 percent at most. Thus, the large number of cases with evidence clearly favoring one side masked the results of several studies reporting no statistically

---

14 For more details, see G. Thomas Munsterman, Jury News: A Cost-Free Civil Jury Trial? 19 Court Manager 35-36.
16 State Court Organization, 1998, supra note 6, at 278-82 (Table 42).
18 Zeisel, supra note 17.
19 Nicholas Fay et al., Group Discussion as Interactive Dialogue or as Serial Monologue: The Influence of Group Size. 11 Psych. Sci., 481 (2000); Examining the Work of the State Courts, 2004 (forthcoming).
21 Lempert, supra note 17.
significant verdict differences between 6- and 12-person juries.

In 1978, the U.S. Supreme Court granted certiorari in the case of Ballew v. Georgia, an appeal from a conviction of distribution of obscene materials on grounds that a five-person jury was unconstitutional.\textsuperscript{22} In Ballew, Supreme Court Justices were afforded the opportunity of reviewing more empirically sound research on jury size conducted in response to the Court’s earlier decisions in Williams and Colgrove. Yet despite Justice Blackmun’s acknowledgment of the social science research stating in his majority opinion that smaller juries were less likely to have quality deliberations,\textsuperscript{23} to represent wide-ranging viewpoints,\textsuperscript{24} and to produce accurate decisions,\textsuperscript{25} surprisingly his conclusion was not to uphold the threshold of twelve jurors. Instead, he concluded that six jurors was the ultimate minimum threshold, thereby accepting Mr. Ballew’s declaration that a five-person jury violated his constitutional rights.

Why did the Court reach this decision even though the social science evidence showed otherwise? Perhaps the Justices considered the larger repercussions that would result from an opinion so divergent from precedent and court practice. First and foremost, several states had already accepted and implemented, post-Williams and Colgrove, juries with less than 12 jurors—especially in civil trials. Such a reversal of opinion would potentially have a widespread and disruptive impact.\textsuperscript{26}

### Predictability of Verdicts and Awards

Most states implementing a reduction in jury size generally did so only for civil or misdemeanor cases. As with the prevalence of smaller juries in civil cases as compared to criminal cases, the literature similarly reflects more information on how the reduction in size affects civil juries. Since the late 1970s, researchers have continued to question empirically the effects of reducing jury size. In 1996, Saks reaffirmed earlier work that smaller juries are more unpredictable.\textsuperscript{27}

The implications of unpredictability are critical to court administration. The parties’ abilities to assess the likely outcomes serve as a basis for pretrial negotiations. Settlements are more likely when one party recognizes the likelihood of an unfavorable outcome at trial. Therefore, unpredictability undermines effective plea-bargaining or settlement attempts. Ironically, unpredictability is the most frequently voiced concern about juries when compared to judges; jury verdicts, especially civil, are generally less predictable than bench awards. Reducing the size of juries would likely amplify this effect.

One measurement of whether a jury decision is reasonable is to compare it to what the judge would have decided in the same case. The difficulty of this measurement resides in the timing of the judge’s assessment of the trial—before or after the jury reveals its verdict. However, in the California study, the disagreement rate between the judge and the jury was not significantly different in 8-person versus 12-

\textsuperscript{23} Id. at 232-33.
\textsuperscript{24} Id. at 233.
\textsuperscript{25} Id. at 233-34.
\textsuperscript{26} Valerie P. Hans & Neil Vidmar, Judging the Jury 171 (1986).
person juries.\textsuperscript{28} Other work has reported similar results, finding no significant differences in judge-jury disagreement rates.\textsuperscript{29}

As predicted, the evidence overwhelmingly points to greater variability in award amounts for smaller juries as compared to larger juries. Saks cites the mathematical law of large numbers to provide evidence that the larger the sample size, the closer the average matches the population value.\textsuperscript{30} Visually, this can be seen in the graph (below) reproduced from Saks’s article.\textsuperscript{31} Saks explains that reducing the sample size by one-half (from 12 to 6) increases the variability, or standard error, by 41 percent.\textsuperscript{32}

The same theory of errors applied to criminal cases suggests that criminal verdicts will also be affected by the size of the jury. Saks proposes that because criminal verdicts are dichotomous and skewed in favor of guilt findings, the increase in variation of verdicts from smaller juries produces more “errors.”\textsuperscript{33} A common framework for errors categorizes Type I and Type II errors. Type I is an error of commission, or more specifically when a jury finds a defendant guilty and punishes him or her when in fact the defendant was not guilty. The other possibility is a Type II error, an error of omission in which a jury erroneously acquits when in fact the defendant was guilty. Saks suggests that the jury, in effect, will decide more erroneous acquittals (Type II) than erroneous convictions (Type I). He explains that this is because the conviction rate is near 80%; there are more possibilities for jurors to erroneously vote not guilty when the defendant was actually guilty (Type II).\textsuperscript{34} Our justice system is designed to accept more Type II errors in hopes of reducing the number of Type I errors (i.e., wrongful convictions). An earlier study found that 6-person juries actually convict as often as 12-person juries, but the smaller jury more often convicts of a lesser charge.\textsuperscript{35}

**Small-Group Decisions**

Researchers hypothesize that smaller juries differ from larger juries in both the quality and dynamics of deliberations. Mock jury research demonstrates 6-person juries perform worse when recalling the evidence.\textsuperscript{36} However, these results depend upon the type of problem solving. For instance, the likelihood that at least one juror will retain a piece of evidence increases in larger

\begin{center}
\includegraphics[width=\textwidth]{chart.png}
\end{center}

In deciding the award for any given case, larger juries will produce more moderate awards -- that is, fewer very large or very small awards -- than smaller juries. Therefore, awards by 12-person juries are more predictable.

---

\textsuperscript{28} Munsterman et al., supra note 8.


\textsuperscript{30} Saks, supra, note 27.

\textsuperscript{31} Reproduced from id. at 264.

\textsuperscript{32} Id. at 263. The standard error is increased by the square root of 2 or 1.41, resulting in an increase in variability of 41 percent.

\textsuperscript{33} Id. at 264.

\textsuperscript{34} Id.

\textsuperscript{35} Polk et al., supra note 29.

\textsuperscript{36} R. Steiner, Group Process and Productivity (1972).
groups. In long trials, memory recall is improved in jurors of 12-person juries over juries of 6 or 8 people.\textsuperscript{37} Essentially, the cumulative process of memory recall improves with more individuals. Other social psychology work on group decisions hails decisions made by larger groups because of the counterbalancing of prejudices.\textsuperscript{38} Twelve-member juries have a better chance of including a juror holding a minority viewpoint. Even more so, assuming it is expressed, a voice expressing a minority viewpoint is more often heard in larger groups.\textsuperscript{39}

Group dynamics also change with the size of the jury. Assuming a unanimous jury decision rule, a proportionately small dissenting faction will be more steadfast in a larger jury than a smaller jury. For example, a 10-2 split vote in deliberations is not equivalent to a 5-1 split. According to a popular social psychology experiment on conformity and persuasion in small groups, Asch found that over one-third of his participants verbally responded with an obviously incorrect answer to conform to other members’ responses.\textsuperscript{40} In his experiment, participants were asked to visually compare the length of several lines. When all others, thought to be fellow participants who in fact were actually confederates in the experiment, gave an incorrect answer 35 percent of the participants doubted their own better judgment in favor of the group’s decision despite the clarity of the correct decision. Translating this finding into a jury scenario, the single minority vote in a 5-1 split will more likely acquiesce to the majority than if there were a 10-2 split in a 12-person jury. Minority factions of one are considerably less persuasive than factions with two or more individuals. As Asch found, having one sympathizer reduces the pressure to conform. In effect, reducing jury size may reduce the likelihood of hung juries.

Group consensus is typically reached more easily in smaller groups.\textsuperscript{41} Some studies have also found that more positive interactions ensue with small groups. For instance, psychologists in Scotland found that in experimental studies of small (5-person) versus large (10-person) groups, members in the 10-person groups were more influenced in their decision by one dominant speaker and the 5-person groups were more influenced by group members with whom they interacted during discussion of the issue.\textsuperscript{42} Similarly, in other studies, the most influential member of the group is the one who is most talkative.\textsuperscript{43} Generally, the larger the group, the less time proportionately each member has to participate. While consensus is more likely achieved in small groups, the quality of the deliberations with respect to improved memory and better integration of diverse viewpoints is more likely achieved in larger groups.

**Representation**

Reducing the size of a jury potentially deteriorates public confidence that juries reflect a fair cross-section of their communities. The public expects courts through the use of juries to represent the larger community and its viewpoints. Zeisel applied principles of probability theory to this issue.\textsuperscript{44} He explains that if the population is comprised of a minority of 10 percent (e.g., of a specified race, political affiliation, age) a sampling of 12-person juries will have a 72 percent chance of seating at least one of those in the minority, whereas a sampling of 6-person juries will

\begin{itemize}
  \item \textsuperscript{37} Lempert, supra note 17, at 686.
  \item \textsuperscript{38} Id. at 688.
  \item \textsuperscript{39} Id.
  \item \textsuperscript{40} Solomon Asch, Opinions and Social Pressure, 19 Sci. Am. 31-35 (1955); see also discussion on applying this theory to juries in Lempert, supra note 16.
  \item \textsuperscript{41} Fay, supra note 19.
  \item \textsuperscript{42} Id. at 485.
  \item \textsuperscript{43} Hare, A Study of Interaction and Consensus in Different Sized Groups, 17 Am. Soc. Rev. 261 (1952); Hoffman, Group Problem Solving, 2 Advances in Experimental Soc. Psych. 99, 11 (1965).
  \item \textsuperscript{44} Zeisel, supra note 17.
\end{itemize}
have only a 47 percent chance of seating a minor-
ity.\textsuperscript{45} Demographic representativeness is but one
condition for a wide range of values and beliefs to
be heard on a jury. In an article presented to the
National Consortium on Racial and Ethnic Fairness
in the Courts, it was asserted that minority represen-
tation should be at least 25 percent to “reenfranchise
the minority citizens who have been systematically
excluded for many years.”\textsuperscript{46} Representation of vari-
ous viewpoints on the impaneled jury is even more
important in light of Asch’s findings on conformity.\textsuperscript{47}

**Conclusion**

Jury duty can be a rewarding and satisfying experi-
ence as confirmed by exit interviews with jurors after
service.\textsuperscript{48} For one, jury duty provides citizens with
a lesson in civics. Many citizens’ only contact with
the court is for jury duty.\textsuperscript{49} In effect, when courts
reduce the number of potential jurors, they also re-
duce the number of citizens exposed to the courts.
Jurors gain first-hand experience verifying the effi-
cacy of the justice system. As de Tocqueville
observed of the U.S. jury system, “the jury, which is
the most energetic means of making the people rule,
is also the most efficacious means of teaching it how
to rule well.”\textsuperscript{50}

Based on a review of the literature, it is evident that
reducing the size of juries will save money, yet likely
be less representative of the community. Much of
the literature questions the accuracy and predictabil-
ity of smaller-sized juries. Predictability is the
cornerstone for parties in a dispute. Effective plea-
bargaining and settlement attempts rely upon more
predictable outcomes. In sum, evaluating the best
size for a jury incorporates many considerations. To

\textsuperscript{45} Id.
\textsuperscript{46} Ralph Chandler, *Remarks on the Problem of Under-Representation of Minorities on Juries*, paper presented at the First Michi-
 gan Conference of Racial and Ethnic Fairness in the Legal System and the 15th Annual Meeting of the National Consortium on
Racial and Ethnic Fairness in the Courts (April 2003).
\textsuperscript{47} See, *supra*, note 34; see also, Samuel R. Sommers & Phoebe C. Ellsworth, *How Much Do We Really Know About Race and
\textsuperscript{48} Diamond, *supra* note 12.
\textsuperscript{49} David Rottman et al., *Perceptions of the Courts in Your Community: The Influences of Experience, Race and Ethnicity*, (unpub-
\textsuperscript{50} Alexis deTocqueville, *Trial by jury in the United States* excerpt from *Democracy in America* (1945) in *Before the Law* (John J.