William & Mary Law Review

December 1972

Statistical Studies of the Costs of Six-Man Versus Twelve-Man Juries

William R. Pabst Jr.

STATISTICAL STUDIES OF THE COSTS OF SIX-MAN VERSUS TWELVE-MAN JURIES

WILLIAM R. PABST, JR.*

During the past year, the six-man jury has replaced the traditional twelve-man jury in civil trials in the United States district courts as a result of the Supreme Court's landmark decision in *Williams v. Florida.*[1] This Article analyzes the savings in *jury* time (and costs) occasioned by this change. Although reducing jury size from 12 to six results in a direct saving in the total juror man-hours required to conduct a trial, it does not result in a corresponding saving in the time required to empanel and select a jury because of the heavy overhead time involved in jury selection. Thus, the change does not result in a saving in total trial time.

Many statistical studies are concerned with other aspects of the reduction in jury size. For example, by using traditional binomial sampling theory, David Walbert[2] has concluded that the probability of conviction with the six-man jury may be higher for "weak" cases than for "strong" cases. Herbert Friedman[3] also used sampling operating characteristic curves to show the effects which may result from a reduction in jury size as well as from the lessening of the unanimity requirement. Moreover, in bitterly opposing the reduction, Hans Zeisel[4] has noted critically the probability that fewer minority groups will be included on the six-man jury. All these studies assume the inevitability of both monetary and manpower savings as a result of the smaller jury; such an assumption, particularly with respect to manpower savings, is confirmed by the following statistics.

Studies have been made of the United States District Court for the

1. 399 U.S. 58 (1970).

2. Walbert, *The Effect of Jury Size on the Probability of Conviction: an Evaluation of Williams v. Florida,* 22 CASE W RES. L. REV. 529 (1971).

3. Friedman, *Trial by Jury: Criteria for Convictions, Jury Size and Type I and Type II Errors,* 26 AM. STATISTICIAN (April 1972).

4. Zeisel, *The Waning of the American Jury,* 58 A.B.A.J. 367 (1972).

District of Columbia[5] comparing the time periods required to litigate civil cases immediately preceding the change and shortly after its implementation. During the first half of 1971, 69 civil cases were tried with twelve-man juries; during the latter half, 78 cases functioned with six-man juries. Of the total number, about one-half involved automobile accident litigation, while personal injury suits predominated the remainder. This mix remained constant during the two periods of time.

The selection of a jury involves two basic steps—*voir dire* and selection of jurors from unchallenged panelists. The charts below show the following frequency distributions: time required for the *voir dire* panels and for the trials, the number of people required in the panels, the number challenged, and those not used.[6] From this data it is possible to estimate the relative costs of both the six- and twelve-man jury systems:

TYPE OF JURY	Number of Panels	Average Time for *Voir Dire*	Number of Trials	Average Trial Time
Six-Man.	78	52.0 min.	71	7.80 hours
Twelve-Man. ..	69	52.1 min.	66	7.80 hours

The information discloses virtually no reduction in time spent to empanel a jury or to try a case when the six-man jury is used.[7]

The number of persons used in the *voir dire* panels is indicated below·

TYPE OF JURY	Number of Panels	AVERAGE NUMBER		
		Per Panel	Challenged	Not Used
Six-Man.	78	21.67	6.46	6.94
Twelve-Man.	69	27.54	7.36	6.68

5. W Pabst, Jr., A Study of Juror Waiting Time Reduction, May 31, 1971 (unpublished paper prepared for the Law Enforcement Assistance Administration, United States Department of Justice). *See also* Pabst, *An End to Juror Waiting,* 55 JUDICATURE 277 (1972).

6. Other statistics which expand the data found in the text may be referred to in the Appendix.

7. Several long lasting panels·and·long lasting trials, outliers from the distributions, were excluded from these averages in order to avoid distortion. ..

The average number per panel decreased from 27.54 to 21.67, a reduction of only 21 percent, despite the fact that only half as many jurors were to be selected. In practice, the number selected for the six-man jury was either seven or eight (six, plus one or two alternates), the number selected for the twelve-man jury was almost always 14 (12, plus two alternates). Alternates hear the case with the members of the jury, but do not participate in the jury deliberation unless a regular juror must be replaced during the course of the trial.

Surprisingly, the number of challenges is almost as large for the six-man as for the twelve-man jury Challenging prospective jurors is an integral part of the initial maneuvering of the trial lawyer, and it appears that the number of challenges is not dependent upon the percentage of people to be selected. The average number of unused prospective jurors in the panels also remained constant for both types of juries. Thus, the safety margin apparently is geared to the number of challenges rather than to the percentage of jurors to be selected from the panel.

Total man-hours expended for both the six- and twelve-man juries can be determined by multiplying the average panel size by *voir dire* time, plus the jury size multiplied by trial time. The difference between the totals represents the overall direct saving in man-hours:

Six-Man: [21.61 men (panel) X 52.0 min.]
       + [7.5 men (jury) X 7.80 hours]
       = [18.8 + 58.5] = 77.3 man-hours

Twelve-Man: [27.54 men (panel) X 52.1 min.]
       + [14.0 men (jury) X 7.80 hours]
       = [23.9 + 109.2] = 133.1 man-hours]

The above computation yields a saving in direct man-hours per trial of 55.8 hours, or about 41.9 percent.

This saving in direct labor is substantial, but the nature of the juror selection system is such that the overall savings may be related more directly to the size of the panels than to the reduction in direct juror hours. A possible explanation is that the size of the juror call-in from day to day is dictated largely by the size of the panels and by the daily peaks generated when several panels are called simultaneously If the 147 civil cases had been the only ones litigated, this indirect factor could be calculated and total savings in manpower made precise. But, in addition, the court heard 500 criminal cases in which the same judges and

the same jurors participated. Thus, it is not possible to isolate the effect on overhead that the potential savings from the reduction to six-man civil juries might have had.

Since the change to the six-man civil juries occurred in June, 1971, general information comparing the first and second halves of the year is illustrative of what transpired. The following table collects the pertinent information:

AVERAGE NUMBERS	1st Half 1971	2nd Half 1971	Reduction	Percentage Reduction
Daily Call-In.	120	105	15	12.5
Carry Over (in trials)	70	60	10	14.1
Jurors Available.	190	165	25	13.4
Daily Peak Usage..	132	111	21	16.1
Peak Usage/Jurors Available.	67%	61%		

Since twelve-man civil juries were used during the first half of 1971, and six-man juries were used during the second half, the reductions between the halves shown above are in the expected direction, but are larger than might be expected. Since the 147 civil cases represents about 22.7 percent of the total number of civil and criminal cases, and since the direct saving potential in civil cases was found above to be 41.9 percent, the overall saving that might be expected for the court would be about 9.5 percent.

The fact that the percentage reductions in both the number of jurors called-in and the daily peak usage were much larger than 9.5 percent suggests that other management changes were occurring in the court between the first and second halves of 1971. The reduction in daily peak usage of 16.1 percent suggests that the reduction in juror needs resulted as much from better scheduling as from the change to the six-man jury in civil cases.

The one fault on the general record was the court's failure to reduce the number of jurors available by more than 13.4 percent—a reduction less than the percentage reduction of peak usage. Thus, the utilization,
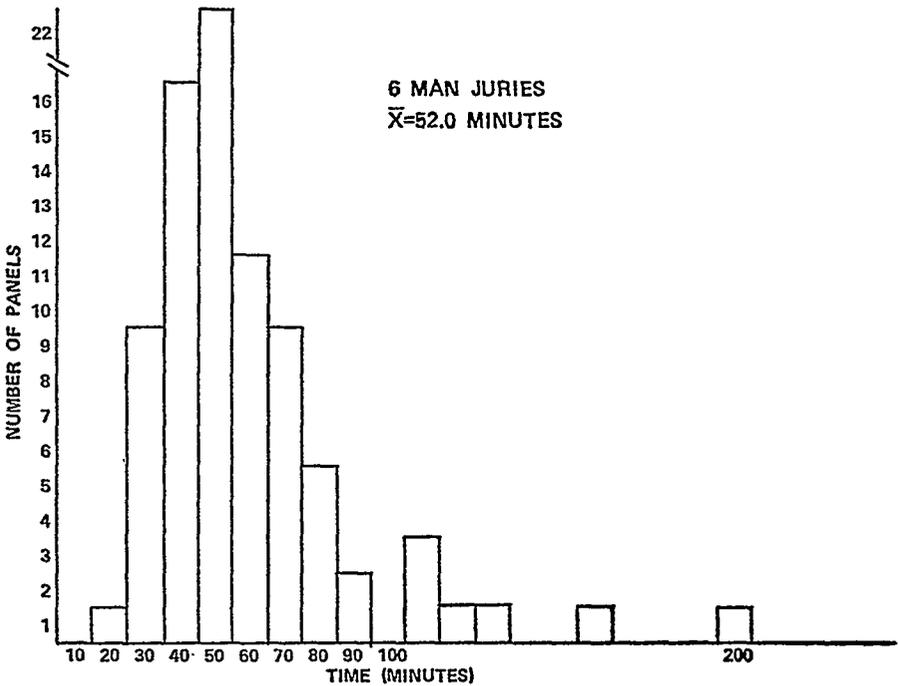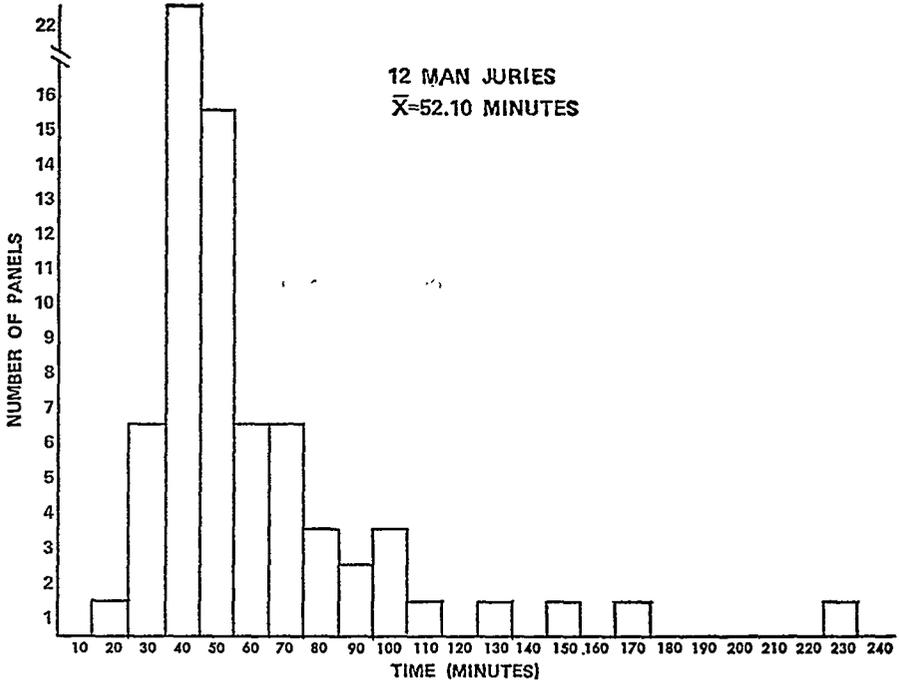
ratio—that is, the ratio of peak usage to jurors available—decreased from 0.67 to 0.61. The supply of jurors called in, on the average, was not decreased as much as the demand.

The change to a six-man jury in civil cases made possible a paper saving in direct man-hours (and costs) of about 42 percent, even though the reduction in panel size was only 21 percent.[8] By contrast, the reduction in direct man-hours with the six-man jury does not reduce judge time, lawyer time, or witness time, since the time spent to empanel a jury and to try a case was almost equal regardless of whether the six- or twelve-man jury was used. The reduction in jury size, therefore, could have little effect on trial time or court delay. Nevertheless, whether the legal consequences of a six-man jury system are compensated by the reduction in the number of jurors, as the references strongly doubt, the direct potential saving of this small part of overall court costs are appreciable.
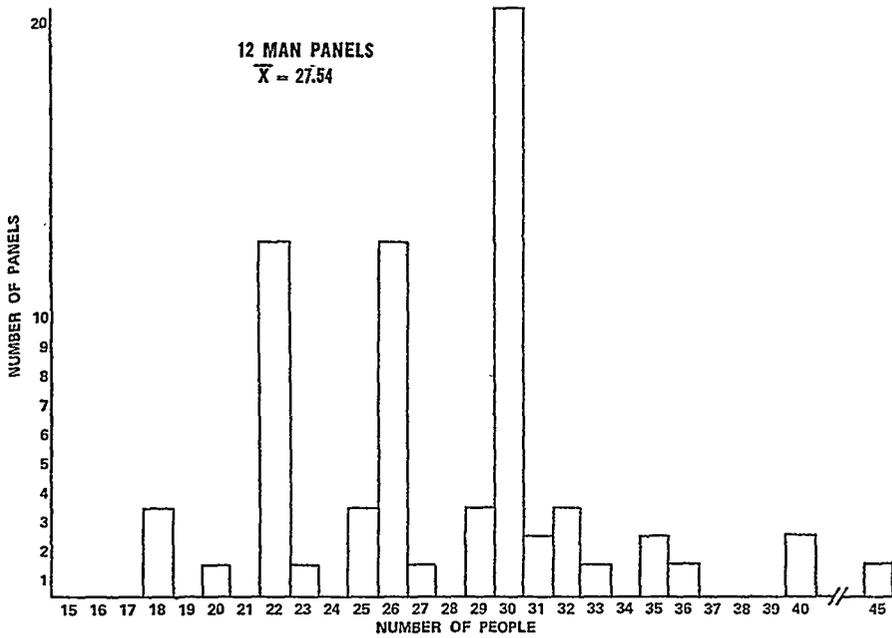
---

8. Although hidden by noncomparable elements, the possible direct savings appeared to be realized in the United States District Court for the District of Columbia. In fact, the larger-than-expected savings in overall *juror time* for both civil and criminal cases lend credence to the contention that better management can be more effective than reduced jury sizes in saving juror costs. Better management practices certainly were instituted during this time.
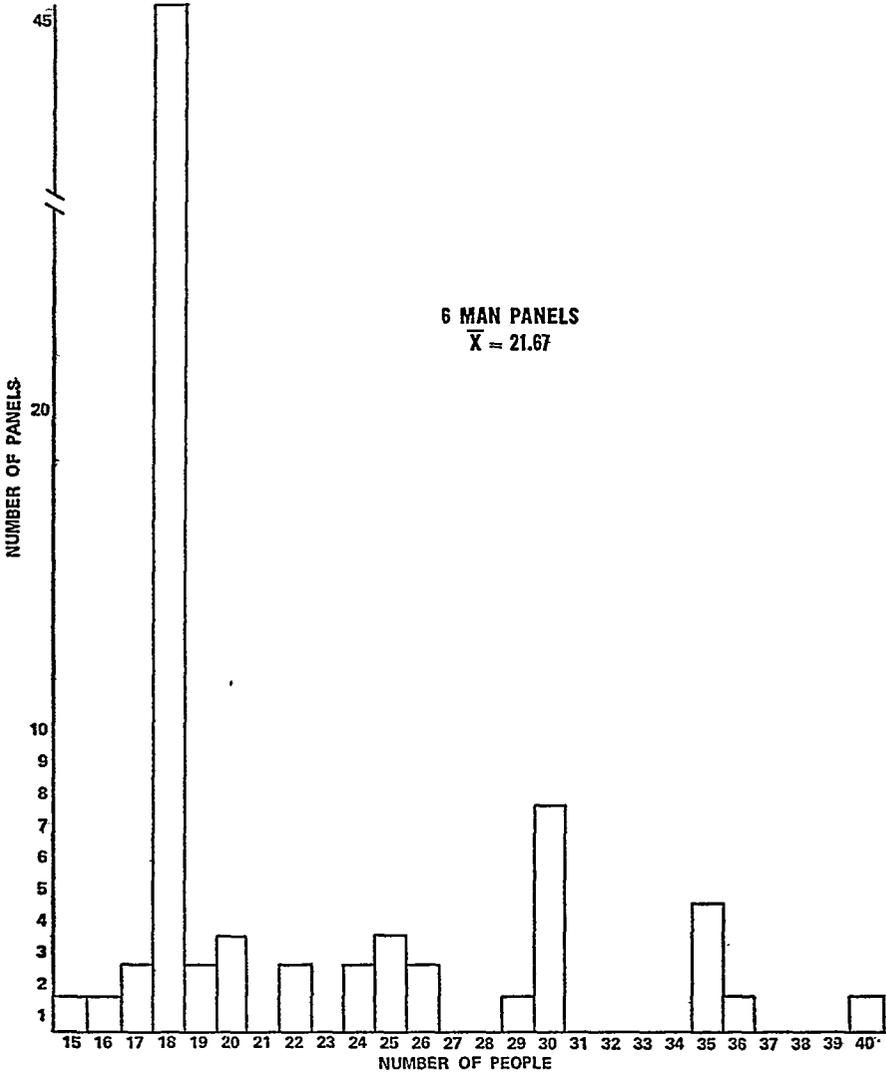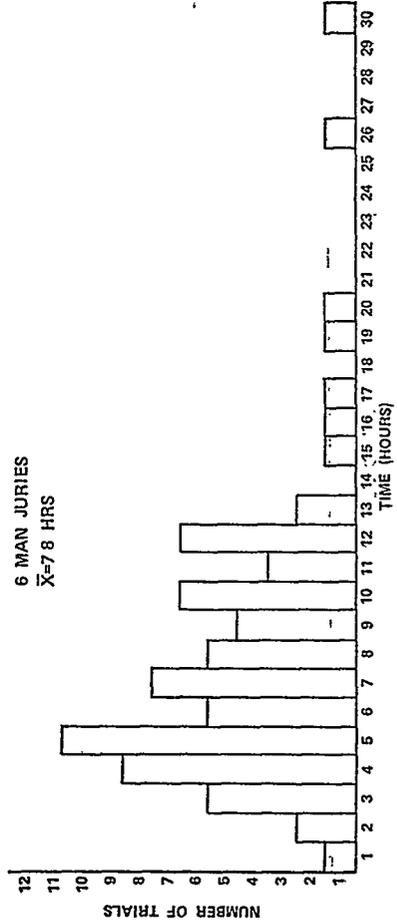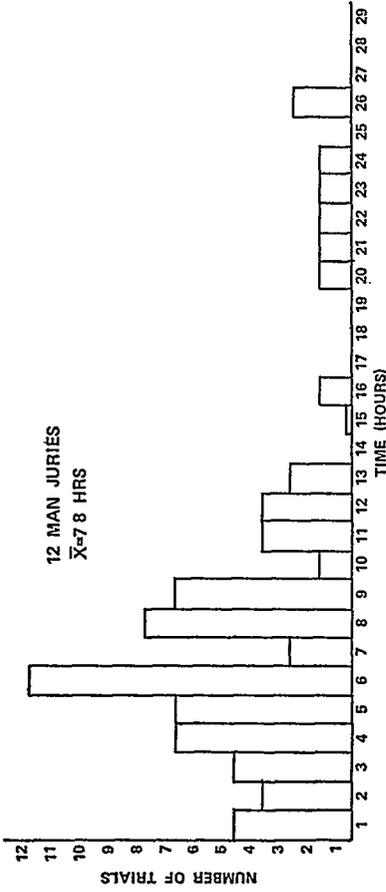
APPENDIX

VOIR. DIRE TIMES

12 MAN JURIES
X̄=52.10 MINUTES

(Y-axis: NUMBER OF PANELS; X-axis: TIME (MINUTES))

6 MAN JURIES
X̄=52.0 MINUTES

(Y-axis: NUMBER OF PANELS; X-axis: TIME (MINUTES))

PANEL SIZES   CIVIL CASES 1971

12 MAN PANELS
$\overline{X} = 27.54$

NUMBER OF PANELS

NUMBER OF PEOPLE

PANEL SIZES   CIVIL CASES 1971

6 MAN PANELS
$\overline{X}$ = 21.67

TIMES OF TRIALS
CIVIL TRAILS 1971

12 MAN JURIES
X̄=7 8 HRS

6 MAN JURIES
X̄=7 8 HRS

NUMBER NOT USED IN PANELS
ALL CIVIL TRIALS 1971

12 MAN JURIES
X̄=6 68

6 MAN JURIES
X̄=6 94
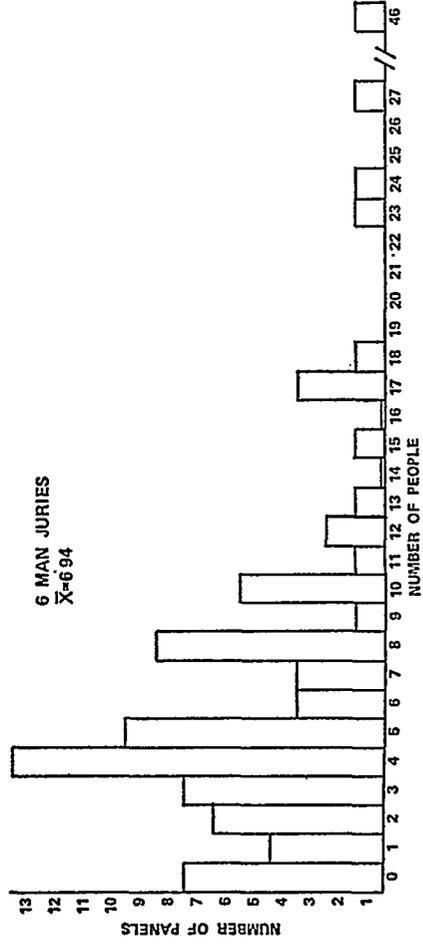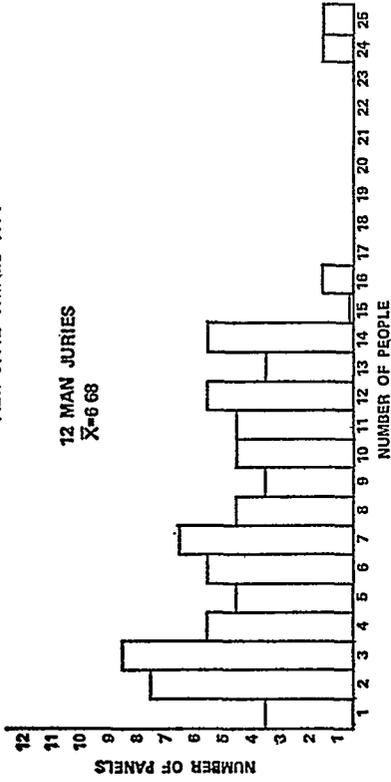
NUMBER CHALLENGED IN PANELS   ALL CIVIL CASES 1971

12 MAN JURIES
$\bar{X}=7.36$

NUMBER OF PEOPLE

NUMBER OF PANELS

6 MAN JURIES
$\bar{X}=6.46$

NUMBER OF PEOPLE

NUMBER OF PANELS