The Empirical Challenge to Death-Qualified Juries: On Further Examination

Michael Finch
Stetson University College of Law, finch@law.stetson.edu

Mark Ferraro
13th Judicial Circuit, Tampa, Florida

Follow this and additional works at: https://digitalcommons.unl.edu/nlr

Recommended Citation
Available at: https://digitalcommons.unl.edu/nlr/vol65/iss1/3
The Empirical Challenge to Death-Qualified Juries: On Further Examination

TABLE OF CONTENTS

I. Introduction .............................................. 21

II. Community Representation on the Death-Qualified Jury . 28
   A. Establishing a Fair-Cross-Section Violation ............ 30
   B. The Representation of Community Attitudes on Death-Qualified Juries ................................ 36
   C. The Representation of Minorities and Women on Death-Qualified Juries ................................ 44
   D. The Cumulative Effects of Death Qualification on the Representativeness of Juries .................... 50

III. The Conviction Proneness of Death-Qualified Juries ..... 51
   A. The Evidence on Conviction Proneness .................... 52

IV. Some Concluding Thoughts on the Challenge of Death Qualification ........................................... 61
   A. Defining the Category of Excludable Jurors ............. 61
   B. The Normative Issues Posed by Death Qualification... 66

V. Conclusion .................................................. 72
Appendix ................................................... 73

I. INTRODUCTION

It is likely, that in coming years, executions will become routine in

---

* Associate Professor of Law, Stetson University College of Law. B.A. 1975, Oberlin College; J.D. 1978, Boston University; S.J.D. Candidate, Harvard Law School.
** B.S. 1982, Taylor University; J.D. 1985, Stetson University College of Law. Assistant State Attorney, 13th Judicial Circuit, Tampa, Fla.

The authors would like to thank Robert Batey and Trevor Nagel, who provided valuable comments and criticisms throughout the completion of this research. We would also like to acknowledge the work of Fred Graves, Louise Petren, Veronica Richardson, and Connie Evans in the preparation of this Article, and the generosity of Stetson College of Law, whose research grants made this project possible.

---

21
America. The number of persons currently under sentence of death exceeds 1,400, more than a seven-fold increase in the population of death row since 1955. Last year, twenty-one persons were actually executed, and that number is expected to double in 1985. This resurgence in capital punishment is supported by every region of the country and—with the notable exception of racial minorities—every segment of the population. Contrary to the early hopes of abolitionists, there has been no public revulsion to the fact of capital punishment.

The quickening pace of executions has been facilitated by the exhaustion of legal challenges available to death-row inmates. In an increasing number of cases, the protracted process of appellate and post-conviction review has simply spent itself. And, through an activist review of capital cases, the Supreme Court has refined the jurisprudence of death so as to foreclose most generic attacks on the process of capital sentencing.

A few generic attacks do remain, however, and the most promising of these is the challenge to so-called "death-qualified" juries. In al-

3. Silas, supra note 1, at 49.
4. Id. at 48.
5. A recent survey indicates that 66 percent of the American public supports imposition of the death penalty for the crime of murder. This support extends throughout every age, educational, occupational, religious, political, and regional group reported in the survey. Only 44 percent of all blacks surveyed supported capital punishment, however, compared to 70 percent of white respondents. See Bureau of Justice Statistics, U.S. Dep't of Justice, Sourcebook of Criminal Justice Statistics 1982 262-63 (1983).
7. See Silas, supra note 1, at 48.
9. The phase "death qualification" is often used to refer to two distinct challenges of a juror's qualifications in capital cases. First, a juror may be challenged because his attitude toward capital punishment renders him unable to act fairly and impartially in deciding guilt. See Witherspoon v. Illinois, 391 U.S. 510, 522 n.21 (1968). Such "nullifiers" are not qualified to serve in any capacity at a capital trial. Second, a juror may be disqualified because his attitude toward capital punishment renders him unable, under any circumstances, to impose the death penalty, even though he could adjudicate guilt impartially. Id.
most all states authorizing capital punishment, juries are purged of prospective jurors who confess an inability to impose the death penalty should the defendant be convicted.\textsuperscript{10} This exclusion occurs even though these jurors demonstrate an ability to adjudicate impartially the guilt of the defendant, and even though there is a separate sentencing proceeding where death penalty opponents could be replaced by alternate jurors.\textsuperscript{11}

Though a staple of capital trials, the process of death qualification has long raised suspicions that the resulting jury is more prone to convict.\textsuperscript{12} The excluded juror’s predisposition to reject a capital sentence, it is argued, is not an isolated phenomenon. Clustered with this predisposition are a variety of attitudes and characteristics that produce a juror more favorable to criminal defendants.\textsuperscript{13} The right to exclude these jurors through death qualification effectively empowers the prosecution to mold a more conviction-prone jury, under the guise of selecting a jury that \textit{might} impose the death penalty \textit{if} the defendant were convicted of first-degree murder. In its worst manifestation, the process of death qualification is thought to threaten the gravest error to the process of screening the second group of jurors described above, and the jurors themselves will be referred to variously as “excludable jurors” or, occasionally, “excludables.” Unless the group of jurors designated as nullifiers is specifically referred to, it shall be assumed that such nullifiers are not part of the jury pool and have been properly screened.

Finally, a third group of jurors—“scrupled” jurors—consist of those jurors who oppose capital punishment but who have the ability both to adjudicate guilt impartially and to consider imposition of the death penalty. These jurors may not be disqualified from service on capital juries. See id. at 521-22. Unless otherwise stated, it is presumed that capital juries are not screened of scrupled jurors.


11. All modern statutory schemes provide for bifurcated proceedings in which the guilt and penalty decisions are made separately. \textit{See} \textit{Gillers, Deciding Who Dies}, \textit{129 U. Pa. L. Rev.} 1, 101-19 (1980). Usually it is the jury that determines the sentence in capital cases, although a small number of states reserve that decision for the judge. \textit{See id.} As one commentator has argued persuasively, there is little justification for removing excludable jurors when the jury lacks ultimate authority to impose a death sentence. \textit{See} \textit{Winick, Witherspoon in Florida: Reflections on the Challenge for Cause of Jurors in Capital Cases in a State in Which the Judge Makes the Sentencing Decision}, \textit{37 U. Miami L. Rev.} 825 (1983).


in our system of criminal justice: the conviction of an innocent person and the imposition of the irreparable penalty of death.

Whether the death-qualified jury is conviction prone is ultimately an empirical question. This was implicitly recognized in Witherspoon v. Illinois,14 where the Supreme Court found existing empirical evidence “too tentative and fragmentary to establish that jurors not opposed to the death penalty tend to favor the prosecution in the determination of guilt.”15 While ostensibly a rejection of the social science claim then presented, Witherspoon admitted the possibility that subsequent research might rehabilitate the “fragmentary” record before it, thus requiring a reexamination of the conviction-proneness argument at a later time.16

The response of the social science community to the perceived invitation of Witherspoon has been exceptional. In the seventeen years following Witherspoon, death qualification has been one of the most studied subjects in the area of sociological jurisprudence.17 The prod-

14. 39 U.S. 510 (1968). In Witherspoon, the Court invalidated under the fourteenth amendment the procedure whereby scrupled jurors, see supra note 9, were excluded from capital trials. The Court found that juries so constituted denied the accused the right to trial by an impartial jury as to the determination of the sentence. The Court was not persuaded, however, that the conviction of the accused was tainted by the exclusion of scrupled jurors, and thus only Witherspoon’s sentence was invalidated. As a practical matter, the holding in Witherspoon prescribed the future exclusion of scrupled jurors from any aspect of the capital trial, since it is universal practice to use the same jury for both adjudication of guilt and sentencing.

15. Witherspoon v. Illinois, 391 U.S. 510, 517 (1968). Although the quoted statement was made in response to Witherspoon’s argument that juries screened of scrupled jurors are prone to convict, the Court made clear that the same issue was preserved regarding the screening of excludable jurors (as defined in supra note 9).

Regarding a jury screened of excludable jurors, the Court observed:

A defendant convicted by such a jury in some future case might still attempt to establish that the jury was less than neutral with respect to guilt. If he were to succeed in that effort, the question would then arise whether the State’s interest in submitting the penalty issue to a jury capable of imposing capital punishment may be vindicated at the expense of the defendant’s interest in a completely fair determination of guilt or innocence—given the possibility of accommodating both interests by means of a bifurcated trial, using one jury to decide guilt and another to fix punishment. That problem is not presented here, however, and we intimate no view as to its proper resolution.


uct is more than a dozen reported investigations which, in the over-
whelming consensus of commentators, have confirmed three
empirical hypotheses: (1) jurors excluded because of their inability to
impose the death penalty are more attitudinally disposed to favor the
accused than are non-excluded jurors; (2) excluded jurors are more
likely to be black or female than non-excluded jurors; and (3) ex-
cluded jurors are more likely to actually acquit the accused than are
non-excluded jurors.18

The Witherspoon issue, as a consequence of the developing empiri-
cal evidence, as well as evolution in constitutional doctrine,19 has been
transmuted into two socio-legal claims. First, it is claimed that the
death-qualified jury has characteristics so significantly different from
those of nonqualified juries that the sixth amendment right to a jury
drawn from a "fair cross section" of the community is violated.20 Sec-
ond, it is claimed that the death-qualified jury is more conviction
prone—a response to the historical inquiry framed in Witherspoon—
and thus violative of the sixth and fourteen amendment guarantees of
an impartial jury.21

As the challenge to death qualification has moved from the re-
search journals to the courts, consensus has failed: most state and fed-
eral courts have rejected the empirical attack upon death
qualification.22 In more than a score of decisions, courts have dis-

---

18. For summaries of and commentary on the current research, see Colussi, The Un-
constitutionality of Death Qualifying a Jury Prior to the Determination of Guilt: The Fair-Cross-Section Requirement in Capital Cases, 15 CREIGHTON L. REV. 595
(1982); Gross, Determining the Neutrality of Death-Qualified Juries: Judicial Appraisal of Empirical Data, 8 L. & Hum. Behav. 7 (1984); Haney, Juries and the Death Penalty: Readdressing the Witherspoon Question, 26 CRIME & DELINQ. 512
(1980); White, supra note 10.

19. See infra text accompanying notes 31-36.

20. See infra text accompanying notes 96-135.

21. See e.g., Matteson v. King, 731 F.2d 1432 (5th Cir. 1985); Briley v. Booker, 746 F.2d
229 (4th Cir. 1984); Keeten v. Garrison, 742 F.2d 129 (4th Cir. 1984); Corn v. Zant,
708 F.2d 549 (11th Cir. 1983), reh'g denied, 714 F.2d 159, cert. denied, 104 S. Ct.
2670 (1984); Smith v. Balkom, 660 F.2d 573 (5th Cir. 1981), modified, 671 F.2d 858
cert. denied, 459 U.S. 882 (1982); Brinlee v. Crisp, 608 F.2d 839 (10th Cir. 1979),
missed the empirical claims for reasons ranging from methodological misgivings to doubts as to whether the social science evidence has legal significance at all. Reviewing these decisions, one encounters two familiar and chronic problems in the judicial effort to assess social science claims. The first is the judiciary's own tentativeness and skepticism in evaluating complex empirical evidence. This tentativeness often invites regression into doctrinal intransigence and disingenuity, as the courts grasp for ways to disbelieve what the social scientist are telling them. The second problem is the failure of social scientists to fully translate the empirical evidence into appropriate normative issues. Empirical evidence seldom speaks for itself; it requires, instead, refinement and interpretation whereby the courts are made aware of the possible value choices. This process has frequently been slighted in the challenge to death qualification, as the empirical evidence has been characterized as leading ineluctably to specific legal and normative judgments. The cumulative result is a fundamental unresponsiveness: the courts and the social scientists seem seldom to have spoken to each other or to have joined issue. As a consequence, the sharp divergence in judicial and social science opinion seems all too predictable.

In the following discussion we reexamine the empirical evidence and the normative questions presented in the challenge to death qualification. While we conclude that the current procedure for death qualification should be changed, our interpretation of the empirical claims and their significance diverges from that of most of the social science commentary. The evidence on death qualification, we shall maintain, fails to establish any compelling, unambiguous cause of action.


tion under existing constitutional doctrine. In this respect, must of the empirical evidence on death qualification has been overinterpreted by its proponents. Nonetheless, we conclude that even a more restrained interpretation of the evidence gives rise to constitutional value choices that, in the greater context of our criminal justice system, should prompt the courts to amend the current process of death qualification.

In Section II of this Article, we reexamine the evidence concerning the effects of death qualification on the characteristics of resulting petit juries. A review of that evidence, we shall maintain, reveals robust and consistent support for the claim that death-qualified juries are attitudinally and demographically different from non-qualified juries. The magnitude of this effect, however, is diluted substantially by the relatively small proportion of excludable jurors in the eligible jury populations, and by the relative degree of differences between qualified and non-qualified juries. The resulting effect thus falls short of the modicum of proof required by the courts in related challenges to jury selection procedures. Viewed as samples of community attitudes and characteristics, death-qualified juries appear sufficiently representative of their communities to withstand constitutional scrutiny under contemporary standards.

The evidence on the conviction proneness of death-qualified juries, by contrast, presents a less tractable and less precedented issue. As we shall discuss in Section III of this Article, there is ample evidence that death-qualified juries will at times decide cases differently, even though it is impossible to measure the magnitude of this difference. The difference will probably arise in a relatively small percentage of "close" cases, where death-qualified juries will be more prone to convict. Such close cases, in which death qualification matters, will be undetectable at trial or on appeal, and hence uncorrectable on a case-by-case basis. These cases are more likely to be those in which the defendant is either convicted of a lesser degree of homicide or sentenced to imprisonment rather than death. Furthermore, the difference in the outcome of death-qualified cases will result even though the conviction-prone jury is "impartial" in the accepted legal sense of the term, and even though the outcome is plausibly the correct one.

Thus, courts probably could, in good legal conscience, sustain the current process of death qualification against conventional constitutional challenge. There are overriding considerations, however, that militate against this response. The challenged procedure of death qualification is but part of a larger juror selection process that is peculiar to capital case adjudication. Through the formal and informal workings of this process, substantial segments of the community are withdrawn from jury service, and the resulting juries bear less and less resemblance to the populations from which they are drawn. This
skewing of the jury panel, moreover, seems inevitably a skewing in the single direction of conviction, even if the extent of the effect is unmeasurable.

A certain amount of jury manipulation is, admittedly, the necessary price for implementing capital punishment in a society where large minorities are opposed to the death penalty. At some point, however, the criminal justice system must examine itself critically and ask whether its commitment to infliction of the death penalty should yield to the preservation of the idea of representative juries. The challenge to death qualification, we contend, presents such a point. There are available procedural alternatives to the present scheme of death qualification that should be tried, and the unknown costs of procedural change should not outweigh the known costs of complacency. Constitutional values, if not constitutional precedent, counsel the wisdom of change.

II. COMMUNITY REPRESENTATION ON THE DEATH-QUALIFIED JURY

In Witherspoon v. Illinois, the Court's expressed concern was whether death-qualified juries are more prone to convict. The research that followed Witherspoon, however, most often addressed the different, if related, question of whether death-qualified juries have distinctive attitudinal and behavioral characteristics. This trend in research strategy can best be understood as a product of both theoretical and pragmatic concerns. At the time Witherspoon was decided, there was widespread (albeit tentative) acceptance of the theory that human behavior is often predictable from attitudes, characteristics, and personality types. This paradigm generated particular interest in the law and social science community, where researchers attempted to model juror behavior from various juror characteristics.

This paradigm also had special relevance to the problem of death qualification. Even in 1968, surveys of death-qualified jurors were revealing consistent differences in their attitudes and characteristics. Such jurors, it appeared, were more likely to be "authoritarian" personality types, holding more favorable attitudes toward crime control.

25. See supra note 17.
27. See, e.g., H. Zeisel, supra note 17; Goldberg, supra note 17; Wilson, supra note 17. These studies were mentioned in Witherspoon v. Illinois, 391 U.S. 510, 517 n.10 (1968).
methods and the state, and less favorable attitudes toward due process concerns and the criminally accused. The prevailing behavioral theory at the time of Witherspoon thus suggested that these discernible differences in the characteristics of death-qualified jurors were evidence of conviction proneness. Moreover, the proof of conviction proneness through the accumulation of data on juror characteristics had methodological advantages. Such data could be collected at relatively modest cost, could be collected for larger segments of the population, and could be analyzed by well-developed statistical techniques. Alternative strategies for proving the phenomenon of conviction proneness—the study of actual juror behavior or the stimulation of that behavior—seemed less feasible economically and methodologically.

Not surprisingly then, the principal research findings in the decade following Witherspoon consisted of survey and questionnaire data. But with the Supreme Court’s 1975 decision in Taylor v. Louisiana, this indirect proof of conviction proneness was to acquire independent legal significance. In Taylor, the court announced that state jury selection procedures might violate the sixth amendment simply because resulting juries have characteristics that differ from those of the population from which they are drawn. Thus, jury selection procedures resulting in “substantial” underrepresentation of blacks, hispanics, and women were invalidated as violations of the “fair-cross-section” requirement, even in the absence of actual proof that the resulting juries functioned differently or were more conviction prone.

The decision in Taylor was to work a transformation in the empirical attack on death qualification. Recent challenges to death qualifica-

28. See H. Zeisel, supra note 17; Goldberg, supra note 17; Wilson, supra note 17.
32. Id. at 532 (quoting Ballard v. United States, 329 U.S. 187, 193-94 (1946)). The Court at one point recognized that the inclusion of women jurors “may not . . . make an iota of difference,” but nonetheless was willing to invalidate the state’s procedure that lead to the under-inclusion of women jurors. Id. This absence of any evidence of unfairness or prejudice prompted Justice Rehnquist to dissent. Id. at 538-39, 543 (Rehnquist, J., dissenting). Subsequent decisions by the Court indicate that it will continue to invalidate jury selection procedures without requiring actual proof of behavioral effects. See, e.g., Duren v. Missouri, 439 U.S. 357 (1979); Castaneda v. Partida, 430 U.S. 482 (1977) (Mexican-Americans); Peters v. Kiff, 407 U.S. 493 (1972) (blacks).
tion have continued to argue the conviction proneness of qualified juries, but the emphasis has often shifted to the distinctive characteristics of those juries, which allegedly underrepresent the variety of constituencies and concerns found in the communities from which they are drawn. In essence, this strategy has reduced the burden of proving a casual link between juror characteristics and juror behavior: given a demonstrable alteration in the profile of juror characteristics, and suggestive evidence that this alteration might affect the outcome in jury trials, actual proof that death-qualified juries are conviction prone need not to be established under the more demanding conventions of social science. This transformation in the empirical challenge to death qualification is illustrated by the single circuit court opinion sustaining that challenge. In *Grigsby v. Mabry*, the eighth circuit found the exclusion of capital opponents to be a violation of the “fair-cross-section” requirement of the sixth amendment, even though it took pains to support its opinion with evidence that death-qualified juries are more prone to convict. As noted by the dissent in *Grigsby*, the related arguments of fair-cross-section and conviction proneness appears to have emerged.

A. Establishing a Fair-Cross-Section Violation

In assessing a challenge to jury selection procedures under the fair-cross-section doctrine, the Court has required the proof of three elements:

In order to establish a prima facie violation of the fair-cross-section requirement, the defendant must show (1) that the group alleged to be excluded is a “distinctive” group in the community; (2) that the representation of this group in venires from which juries are selected is not fair and reasonable in relation to the number of such persons in the community; and (3) that this underrepresentation is due to systematic exclusion of the group in the jury-selection process.

Application of the *Duren* test in a typical fair-cross-section challenge presents no definitional problems; the controversy usually centers on the sufficiency of the statistical proof. Invocation of this challenge in the context of death qualification, by comparison, raises novel interpretive issues. One such issue, which has led to considera-

35. For example, while applying the analytical test for challenges under the “fair-cross-section” doctrine, *see infra* text accompanying note 37, the court stated that the “fundamental issue” was the conviction proneness of death qualified juries. *Grigsby v. Mabry*, 758 F.2d 226, 244 n.2 (8th Cir. 1985) (Gibson, J., dissenting).
36. *Grigsby v. Mabry*, 758 F.2d 226, 244 n.2 (8th Cir. 1985) (Gibson, J., dissenting).
ble controversy and confusion in the lower courts, is whether excludable jurors are a distinctive, cognizable group entitled to protection under the sixth amendment. A second issue, repeatedly misconceived by those courts applying the Duren test to excludable jurors, concerns the appropriate comparison for determining whether excludable jurors are "fairly and reasonably" represented on death-qualified juries. Judicial error in addressing both these issues, we maintain, has precluded accurate interpretation of the empirical evidence relating to the particular characteristics of death-qualified jurors.

Several courts have refused to recognize excludable jurors as a cognizable group under the fair-cross-section doctrine. The fourth and fifth circuits have justified their refusal on the ground that excludable jurors are disqualified from jury service because of their inability to fulfill a legal responsibility to consider imposition of the death penalty. This disqualification, it is argued, removes excludable jurors from the larger population of legitimate jurors entitled to protection under the sixth amendment. According to this view, excludable jurors have no cognizable legal status under the sixth amendment; thus there is no need to inquire further under the Duren standard.


40. See infra note 57 and accompanying text.

41. See, e.g., Keeten v. Garrison, 742 F.2d 129, 133 (4th Cir. 1984) (citing Lockett v. Ohio 438 U.S. 586, 596-97 (1978)) ("Although the right to a jury trial includes the right to a jury venire drawn from a representative cross-section of the community, it does not include the right to be tried by jurors who are unable or unwilling to follow the law and the instructions of the trial judge in a capital case."); Smith v. Balkcom, 660 F.2d 573, 582 (5th Cir. 1981) (unalterable opposition to capital punishment is a legitimate disqualification even though it reduces the possibility of achieving a true cross-section on the particular jury).

42. See, e.g., supra note 41.

43. This position has been supplemented by an additional argument, which also dispenses of the fair-cross-section argument without analysis of the empirical data. The court in Smith v. Balkcom, 660 F.2d 573 (5th Cir. 1981), modified, 671 F.2d 858 (5th Cir. 1982), suggested that the fair-cross-section doctrine guarantees the right to a representative jury venire (i.e., the jury pool before juror qualification in specific cases) but not the right to representative juries. Id. at 583 n.26. This position rests on a fundamental misunderstanding of the fair-cross-section doctrine. Concededly, a capital defendant is "not entitled to a jury of any particular composition" or to a jury that exactly replicates the community profile. Taylor v. Louisiana, 419 U.S. 522, 538 (1975) (citations omitted). Random juror selection and the small size of juries, among other causes, will preclude exact duplication of the community profile. See Winick, Prosecutorial Peremptory Challenge Practices in Capital Cases: An Empirical Study and a Constitutional Analysis, 81
This view is not only peculiarly formalistic, it is irreconcilable with \textit{Witherspoon} itself. \textit{Witherspoon} expressly recognized that the propriety of death qualification presents distinctive issues depending on whether the guilt or the penalty phase of a trial is examined.\textsuperscript{44} The very point of the challenge to death qualification under \textit{Witherspoon} is that the two phases are discrete events: one in which death qualification is appropriate, and the other in which it may be questionable. In fact, the specific relief granted in \textit{Witherspoon} distinguished between the constitutional impact of juror exclusion on convictions and sentences.\textsuperscript{45} Therefore, the lower courts’ refusal to examine the impact of death qualification on the guilt-determination phase of a trial, based on the asserted ground that excludable jurors are unfit to serve during the sentencing phase, begs the legal question. At most, the practical interrelatedness of the guilt and penalty phases might ultimately justify total exclusion from jury service; it does not obviate the need for constitutional scrutiny in the first instance.

A more substantial objection to the cognizability of excludable jurors under \textit{Duren} is that they lack any distinct identity as a community group. Excludable jurors, it is noted, acquire their distinction in a limited judicial setting and are otherwise a nondescript, heterogeneous—

\begin{footnotesize}
\begin{itemize}
  \item MICHL. REV. 1, 65-66 (1982). But the fact that excludable jurors are part of the original jury venire, and removed later at trial, is practically irrelevant. The excludable juror’s attitude toward capital punishment is an automatic ground for exclusion, and produces the same type of effect on subsequent juries as would, for example, the deletion of women from jury venires. The only distinction is that death qualification requires an \textit{in-court} determination since, unlike gender, the juror’s attitude toward capital punishment is not readily ascertainable through administrative communication. Thus, there is no functional distinction between the screening of jurors through venire selection, and their screening through pretrial voir dire. Local juries as \textit{a group} will suffer the same type of jury to community representativeness. See Keeten v. Garrison, 578 F. Supp. 1164, 1183 (W.D.N.C. 1984), \textit{rev’d}, 742 F.2d 129 (4th Cir. 1984); Colussi, \textit{supra} note 18, at 611 (“The Supreme Court has never found that the systematic exclusion must occur at a particular point in the jury selection process.”)
  \item In \textit{Witherspoon}, the Court stated that a defendant convicted by a death-qualified jury:
    \begin{itemize}
      \item in some future case might still attempt to establish that the jury was less than neutral with respect to guilt. If he were to succeed in that effort, the question would then arise whether the State’s interest in submitting the penalty issue to a jury capable of imposing capital punishment may be vindicated at the expense of the defendant’s interest in a completely fair determination of guilt or innocence—given the possibility of accommodating both interests by means of a bifurcated trial, using one jury to decide guilt and another to fix punishment.
    
    \item The Court expressly noted that its holding invalidated only the sentence, and not the conviction of \textit{Witherspoon}. \textit{Id.} at n.21. This distinction was reiterated in the companion case, \textit{Bumper v. North Carolina}, 391 U.S. 543, 545 (1968).
  \end{itemize}
\end{itemize}
\end{footnotesize}
ous segment of the community. By comparison, those groups commonly protected under the fair-cross-section doctrine are discrete, self-conscious parts of the community who are often historical victims of governmental discrimination. Unlike excludable jurors, these protected groups may share a common outlook and experience, and their underrepresentation on local juries implicates fundamental egalitarian and communitarian values.

There is both shadow and substance to the argument stated above. The attempt to distinguish excludable and protected jurors, based on the latter's recognition in the community at large, misconceives the purpose of the fair-cross-section doctrine. The doctrine is not an appendage to the equal protection clause. It safeguards the functioning of the jury as much, if not more, than it secures the community status of discrete minorities. Nor does the underrepresentation of identifiable community groups present some special threat to the functioning of juries that necessitates their special protection. At present, there is weak evidence at best to indicate that identifiable demographic groups


Persons who would not be willing to vote for the death penalty come from diverse backgrounds and experiences, and may have diverse views on all other matters. . . . They do not comprise a distinctive, self-conscious group; one's identity is defined in part by his or her gender, race, religion, and other matters, but not generally by one's views on the single question of whether one would vote against death if chosen as a juror in a capital case.

See also Grigsby v. Mabry, 758 F.2d 226, 245-47 (8th Cir. 1985) (Gibson, J., dissenting).

47. See, e.g., People v. Fields, 35 Cal. 3d 329, 353, 673 P.2d 680, 694-95, 197 Cal. Rptr. 803, 818 (1984), cert. denied, 105 S. Ct. 267 (1985) ("Opponents of capital punishment are not traditional victims of discrimination. Their exclusion from capital juries is not a badge of servitude or an assertion of inferiority . . . nor a perpetuation of stereotypes . . . ."); Grigsby v. Mabry, 758 F.2d 226, 244-47 (8th Cir. 1985) (Gibson, J., dissenting).


Trial by jury presupposes a jury drawn from a pool broadly representative of the community as well as impartial in a specific case. . . . [T]he broad representative character of the jury should be maintained, partly as assurance of a diffused impartiality, and partly because sharing in the administration of justice is a phase of civil responsibility.

Id. at 227 (Frankfurter, J., dissenting).
bring distinctive behavioral and voting patterns to jury service.49 The Court apparent to recognize this in Taylor v. Louisiana, when it conceded that the effect of the exclusion of women from jury service is unknown.50 Therefore, as a matter of constitutional policy, there is no justification for denying protection to excludable jurors simply because they lack recognition in the non-judicial community. To the contrary, if excludable jurors are proven to have distinctive characteristics that affect the jury's function, they may have greater claim to protection than conventional community groups.

Even if limitation of the fair-cross-section doctrine to conventional community groups is unjustified by constitutional policy, there remains a pragmatic concern that may be influencing the courts. The variety of challenges to jury selection procedures has multiplied in recent years, as the courts have been asked to scrutinize an array of juror qualifications ranging from age to job classifications.51 As a consequence, the courts may legitimately fear the seeming limitless-ness of the fair-cross-section doctrine, which threatens to transform every jury selection criterion into a constitutionally cognizable group identity.52

Yet the challenge to death qualification hardly seems the point at which to draw arbitrary, if pragmatic, limits to the fair-cross-section doctrine. The challenge to death qualification is unusual in that it draws upon an extensive array of empirical studies that attempt to demonstrate particular effects on the jury's operation.53 If anything, recognition of the empirical challenge to death qualification would be precedent that increases the burden of proof in other fair-cross-section cases. The evidence on death qualification, moreover, goes to the very impartiality of capital juries, a core component of the constitutional right to trial by jury. More so than conventional community group challenges to jury selection procedures,54 the challenge to death qualification implicates those concerns that underlie the sixth amendment.

52. See Grigsby v. Mabry, 578 F.2d 226, 245-46 n.5 (8th Cir. 1985) (Gibson, J., dissenting); Zeigler, supra note 51, at 1062 ("Courts may fear that if they find many occupational and income groups cognizable, the presence and effectiveness of the doctrine may inspire innumerable challenges to jury selection procedures.").
53. See Grigsby v. Mabry, 569 F. Supp. 1273 (E.D. Ark. 1983), aff'd, 758 F.2d 226 (8th Cir. 1985) (noting that in prior challenge to age qualifications, there was "no evidence or empirical data" to demonstrate that excluded age group shared a "decisional outlook"); Zeigler, supra note 51, at 1059-60 (observing that occupational, educational and income groups have failed to establish their attitudinal distinctiveness).
54. See supra note 49.
Thus, neither judicial nor constitutional policy justifies the refusal to extend the fair-cross-section doctrine to excludable jurors. If, as opponents of death qualification maintain, excludable jurors share distinctive attitudes and characteristics that bear on their performance as jurors, the Duren standard should apply.

Actual application of the Duren standard, however, has not proven so simple. Even where courts have concluded that excludable jurors have “distinctive” characteristics and thus are cognizable groups under the sixth amendment, they have repeatedly erred in determining whether these distinctive characteristics are “fairly and reasonably” represented on death-qualification juries. The lower courts’ error results from the atypical manner in which the distinctiveness of excludable jurors is manifested. When a challenge to jury selection is brought by a conventional community group—women, for example—the group is treated as sui generis; male jurors in the community, accordingly, are not thought competent to represent the female perspective. The adequacy of the representation of women on juries, therefore, can be determined in a straightforward manner by comparing their proportionality in the community with their proportionality in local jury venires. The discovered difference in these proportions reveals the adequacy of women’s representation on local juries.

Excludable jurors, by contrast, are somewhat fungible with non-excludable jurors. That is, while excludable jurors as a group contain more individuals with attitudes favorable to the defense, non-excludable jurors as a group also contain individuals with pro-defendant attitudes. Therefore, a conventional comparison between the number of excludables in the community and the number in the jury pool will


57. See infra text accompanying note 64. In this respect, both the district court and appellate opinions in Grigsby v. Mabry are mistaken. These courts assumed that excludable jurors have “distinctive” attitudes toward criminal justice that are not represented by any other jury group. See Grigsby v. Mabry, 559 F. Supp. 1273, 1283 (E.D. Ark. 1983). Thus, given the total elimination of excludable jurors through death qualification, there is no “adequate representation” of these jurors and their attitudes in resulting juries. Id. at 1286. As demonstrated in the subsequent discussion, however, excludable jurors are not the exclusive representative of attitudes favorable to criminal defendants, even though they may have “distinctively” large percentages of these attitudes in their group. Therefore, the Grigsby analysis produces an incorrect measure of the attitudinal effects of death qualification. See also infra note 58.
overstate the magnitude of the reduction in attitudes (or characteristics) resulting from death qualification. Since the goal is to protect the representation of juror attitudes and characteristics—rather than to protect one group (excludable jurors) that holds those attitudes and characteristics—the relevant comparison is that between the proportion of attitudes and characteristics on juries before and after death qualification.\textsuperscript{58} It is the discovered difference in these proportions that indicates the presence of an unconstitutional effect.

It thus can be seen that the challenge to death qualification under the fair-cross-section doctrine requires variation on the typical statistical analysis. Excludable jurors are, in essence, surrogates for various juror characteristics that are thought necessary to the proper operation of a jury. While the treatment of excludable jurors is, in the first instance, the focus of judicial scrutiny, the jurors are not and need not be protected for their own sake. In this respect, excludable jurors differ from those community groups who are the usual focus of constitutional protection and who are protected, to some extent, because of their community identity. This variation on conventional sixth amendment analysis, however, should not obscure the fact that the ultimate goal of the analysis is unvarying: to determine whether resulting juries are functionally acceptable microcosms of the communities from which they are drawn.

B. The Representation of Community Attitudes on Death-Qualified Juries

The most consistent finding yet produced by empirical studies of death qualification is that excludable jurors are more solicitous of a defendant's due process rights, and less supportive of strict crime control, than are qualified jurors.\textsuperscript{59} In six studies conducted since

\textsuperscript{58} We would emphasize that we are not making the fictional assumption that jurors consist solely of a bundle of discrete attitudes or demographic characteristics. Measurable attitudes and characteristics are but indirect evidence of a juror's more complex personality, which in turn may affect her performance as a juror. Yet, so long as the empirical challenge to death qualification rests upon this indirect evidence, that evidence must be evaluated on its own terms, \emph{i.e.}, it must be quantified and used in making comparisons between the types of jurors who may serve in capital cases.

We also recognize that attitudes or characteristics do not affect behavior singularly. That is, the particular \emph{combination} of these attitudes and characteristics in a juror may be more determinative of the behavioral effect. To date, however, only one study has developed a composite index that quantifies the juror's cumulative response to a series of attitudinal questions. \textit{See} Jurrow, supra note 12. As we suggest in later discussion, \textit{see infra} note 73, Jurow's reported findings do not appear to alter the conclusions that can be drawn from an analysis of the individual attitudinal findings.

\textsuperscript{59} \textit{See, e.g.}, Bronson, I, II & III, \textit{supra} note 17; Fitzgerald & Ellsworth, \textit{supra} note 17; Jurow, \textit{supra} note 12; Harris Study, \textit{supra} note 17.
Witherspoon, researchers have discovered sizable and significant attitudinal differences among excludable jurors. Several of these attitudinal differences pertain to issues that are likely to arise frequently in homicide trials. They include, for example, a juror's belief in the legal presumption of innocence, the belief that failure to testify implies guilt, and the belief that the insanity defense is a loophole. Other attitudinal differences more generally concern the juror's disposition toward judicial activism and other themes of law and justice. Examples include a juror's belief that courts are overly technical in protecting the constitutional rights of defendants, on the belief that defense attorneys are untrustworthy.

Table I sets forth some of the principal findings on attitudes disclosed by contemporary research. The attitudinal findings presented are a representative sample, emphasizing those attitudes that have been studied by several researchers. One critical introductory comment is offered: all the studies, with the exception of the recent work of Fitzgerald and Ellsworth, contain serious methodological problems. In particular, the findings for "excludable" jurors fail to omit those jurors who would be removed from jury panels because of their inability to adjudicate guilt impartially. The inclusion of these "nullifiers," it is agreed, is improper given current juror qualification standards. Moreover, the studies that fail to eliminate this quite sub-

60. The statements of attitudes contained in Table I, we would emphasize, are not verbatim reproductions of the various attitudinal statements found in the several studies. Several statements have been reduced to a simple, summary form for ease of presentation. Compare Table I with Bronson II & III, supra note 17, at 24; Fitzgerald & Ellsworth, supra note 17, at 49-50. In addition, some attitudes have been converted from negative to positive statements (and vice versa) to enable uniform presentation. For these reasons, direct comparisons between study findings are not reliable indication of the magnitude of attitudinal differences among study populations. Table I does illustrate, however, the consistency in differences between the excludable and non-excludable jurors regarding attitudes that address similar concerns in the criminal justice system.

61. This flaw in the Bronson I, Jurow, and Harris studies is discussed in Fitzgerald & Ellsworth, supra note 17, at 39. It should also be noted that the Bronson studies, in addition to including nullifiers in the study group of excludable jurors, fail to define the excludable group with the appropriate Witherspoon question. Bronson's designation of excludable jurors is based on their statement of strong opposition to capital punishment, rather than their avowed refusal to actually impose the death penalty. Further research by Bronson indicates, however, that the two groups may be largely interchangeable. See Bronson II & III, supra note 17, at 18 (93 percent of those strongly opposed to capital punishment would also refuse to impose it).

62. See Witherspoon v. Illinois, 391 U.S. 510, 522 n.21 (state may exclude jurors who make clear "that their attitude toward the death penalty would prevent them from making an impartial decision as to the defendant's guilt"). A second methodological reservation was raised in Hovey v. Superior Court, 28 Cal. 3d 1, 616 P.2d 1301, 168 Cal. Rptr. 1280 (1980). In Hovey, the court opined that the death-qualification studies might be biased because of their failure to
substantial number of nullifiers from the group of excludable jurors will likely produce an overstatement of the magnitude of attitudinal differences between excludable and includable jurors. For this reason, the findings of Fitzgerald and Ellsworth are the most reliable estimate of the magnitude of attitudinal differences. The other studies do have value, however, in confirming the clear trend in survey findings.

Several inferences can be drawn from Table I. First, there is an overwhelming trend among excludable jurors to show more solicitude for the constitutional protections (e.g., the right against self-incrimination) and the possible defenses (e.g., the insanity defense) of the accused. Furthermore, the Fitzgerald and Ellsworth study reveals that excludable and includable jurors also differ in their holding of strong attitudes. It is reasonable to assume that such strong attitudes are more likely to influence juror behavior, and that such attitudes will not be as easily suppressed during deliberation.

omitted those jurors who would automatically vote for the death penalty. Id. at 62-69, 616 P.2d at 1343-46, 168 Cal. Rptr. at 170-74. These jurors, it was suggested, might have more extreme anti-defendant attitudes, and the failure to exclude them from study groups (as they are excluded by law) might produce exaggerated differences between truly death-qualified and non-qualified juries. Id.

Subsequent empirical research has disclosed that few jurors, in fact, vote automatically for the death penalty in capital cases. See, e.g., Grisby v. Mabry, 569 F. Supp. 1273, 1207 (E.D. Ark. 1983) (studies cited); Kadane, supra note 17. Thus, the effect of the failure to remove automatic-death voters from study groups will be negligible. Grisby v. Mabry, 569 F. Supp. 1273, 1307-08 (E.D. Ark. 1983).

While there is no direct evidence that nullifiers, as such, hold the most pro-defendant attitudes, Jurow's attitudinal questionnaire did reveal much higher "anti-authoritarianism" among those with the most extreme attitudes against capital punishment. See Jurow, supra note 12, at 585. Bronson also found greater pro-defendant attitudes among strong capital opponents. See Bronson II & III, supra note 57, at 17. It is reasonable to assume that nullifiers will usually be among the strongest opponents of capital punishment, and hence will hold stronger pro-defendant attitudes. See infra note 177.
Table 1: Attitudinal Studies - 1971 to Present

(“Exc” = excludable jurors; “Inc” = includable jurors)

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Study (Year)</th>
<th>% Exc’s Agreeing</th>
<th>% Inc’s Agreeing</th>
<th>Total % Difference</th>
<th>% Exc’s Strongly Agreeing</th>
<th>% Inc’s Strongly Agreeing</th>
<th>Total % Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to testify indicates guilt</td>
<td>Fitzgerald (1984)</td>
<td>24%</td>
<td>32%</td>
<td>9%</td>
<td>11%</td>
<td>16%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Bronson I (1971)</td>
<td>21%</td>
<td>26%</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bronson II (1980)</td>
<td>17%</td>
<td>51%</td>
<td>34%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bronson III (1980)</td>
<td>38%</td>
<td>41%</td>
<td>3%*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harris (1971)</td>
<td>28%</td>
<td>34%</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insanity plea is a loophole</td>
<td>Fitzgerald</td>
<td>59%</td>
<td>78%</td>
<td>19%</td>
<td>28%</td>
<td>52%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>Bronson I</td>
<td>61%</td>
<td>83%</td>
<td>22%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bronson II</td>
<td>48%</td>
<td>77%</td>
<td>29%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bronson III</td>
<td>26%</td>
<td>67%</td>
<td>41%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harris</td>
<td>57%</td>
<td>67%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crackdown on criminals will reduce crime</td>
<td>Fitzgerald</td>
<td>20%</td>
<td>41%</td>
<td>21%</td>
<td>6%</td>
<td>23%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Bronson I</td>
<td>52%</td>
<td>82%</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bronson II</td>
<td>19%</td>
<td>71%</td>
<td>52%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bronson III</td>
<td>19%</td>
<td>61%</td>
<td>42%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harris</td>
<td>45%</td>
<td>56%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presume accused is innocent</td>
<td>Fitzgerald</td>
<td>74%</td>
<td>68%</td>
<td>6%*</td>
<td>56%</td>
<td>50%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Harris</td>
<td>95%</td>
<td>94%</td>
<td>1%*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defense attorneys must be watched</td>
<td>Fitzgerald</td>
<td>65%</td>
<td>74%</td>
<td>9%</td>
<td>21%</td>
<td>39%</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Harris</td>
<td>72%</td>
<td>83%</td>
<td>11%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegally obtained evidence should be excluded</td>
<td>Fitzgerald</td>
<td>64%</td>
<td>57%</td>
<td>7%*</td>
<td>50%</td>
<td>38%</td>
<td>12%*</td>
</tr>
<tr>
<td>All laws should be strictly enforced</td>
<td>Fitzgerald</td>
<td>46%</td>
<td>57%</td>
<td>11%</td>
<td>22%</td>
<td>38%</td>
<td>16%</td>
</tr>
</tbody>
</table>

* = Not statistically significant at p < .05

Table I reveals wide variation in the magnitude of attitudinal differences reported. The more reliable findings of Fitzgerald and Ellsworth, for example, show attitudinal differences ranging from 6 to 24

---

64. The studies presented in Table I consist, in order of presentation, of Fitzgerald & Ellsworth, supra note 17, at 43; Bronson I, supra note 57, at 8; Bronson II & III, supra note 57, at 19, 26 (two separate studies published in the same article); and Harris Study, supra note 17, at 18, 20, 26, 30, 31 (excludable jurors defined as those who “could never vote for the death penalty”).
percent. The question arises, therefore, do these differences constitute excludable jurors as a "distinctive" group in the community under the fair-cross-section doctrine? Although there is no guiding precedent in answering this question, the better answer would seem to be "yes." The reported attitudes are highly relevant to criminal adjudication, the attitudinal differences are quite large, and the pattern of differences is uniformly consistent. At a minimum, the findings should justify further inquiry under the Duren standard to determine whether the process of death qualification ultimately produces capital juries with attitudes substantially different from those of the community at large.

The ultimate impact of death qualification on jury attitudes will result from the interaction of two factors: absolute attitudinal differences, and the proportion of excludable jurors in the community. This phenomenon can be demonstrated by a simple hypothetical. Assume that a community excludes lawyers from jury service. Assume that lawyers constitute 1 percent of the community. Assume, finally, that 100 percent of all lawyers believe in the presumption of innocence, while only 50 percent of the remainder of the community so believes. In a jury of pool of 1000 persons, from which lawyers are excluded, 500 jurors (50 percent) will believe in the presumption of innocence. If lawyers were not excluded, then 505 jurors in the pool (50.5 percent), would believe in the presumption of innocence. Thus, jurors remaining after lawyer exclusion would still seem to "fairly and reasonably" represent the attitude presuming innocence. Lawyers, therefore, could be constitutionally excluded unless lawyers, as such, were protected from exclusion under some other provision of law.

Although prior research has continually failed to quantify the ultimate effect of death qualification on jury attitudes, that effect can be proximately estimated by assuming likely proportions of excludable jurors in the population. The proportion of excludable jurors, after eliminating from the population all "nullifiers," will probably range from 5 to 20 percent (based on past survey findings). Adopting the

---

65. The actual magnitude of differences reported in Fitzgerald & Ellsworth will vary upward or downward from the reported differences. However, since Fitzgerald and Ellsworth fail to report this "margin of error," or other data from which it can be calculated, we shall use the mean numbers reported by them. See W. MENDENHALL, INTRODUCTION TO PROBABILITY AND STATISTICS 258-68 (1983).

66. The attitudinal evidence has been thought sufficient to constitute excludable jurors a distinctive group by those courts that have applied the fair-cross-section analysis. See, e.g., Keeten v. Garrison, 578 F. Supp. 1164, 1181 (W.D.N.C. 1984), rev'd, 742 F.2d 129 (4th Cir. 1984); Grigsby v. Mabry, 569 F. Supp. 1273, 1283 (E.D. Ark. 1983), aff'd, 758 F.2d 226 (8th Cir. 1985).

67. This assumes that the pool remains constant at 1000.

68. It is difficult to be precise in calculating the exact number of excludables in the population, since many studies fail to eliminate nullifiers and fail to report findings from which one could estimate the number of nullifiers. In addition, the
more reliable attitudinal findings of Fitzgerald and Ellsworth, one can estimate the ultimate impact of death qualification in communities with these various proportions of excludable jurors. This range of effects is set forth in Table II.

As the computations in Table II reveal, there is a relatively small difference in the attitudinal composition of the jury pool before and after death qualification. Assuming the largest specific proportion of excludable jurors yet disclosed by survey research—17 percent—the attitudinal differences in the eligible jury populations vary from 1 percent to 3.7 percent. And, assuming the proportion of excludable jurors reported in the case of Grigsby v. Mabry (11 percent), the greatest attitudinal difference is approximately 2 percent.

---

percentage of excludables will inevitably vary, depending on the number of opponents of capital punishment, and the number of blacks (and to a less extent, women) in the relevant population. See infra text accompanying notes 80-81. Estimates of the percentage of excludables include: 17 percent, see Fitzgerald & Ellsworth, supra note 17, at 43 (based on research in Alameda County, California); 11 percent, see Precision Research Survey, supra note 17, at 19, (based on research in Arkansas), cited in Grigsby v. Mabry, 569 F. Supp. 1273, 1285 (E.D. Ark. 1985); and approximately 5 percent, see Winick, supra note 43, at 28 (based on research in one Florida judicial circuit) (adjustment made for estimated nullifiers). In addition, a rough estimate of the national percentage of excludable jurors in 1974 can be made drawn from the Harris Study, supra note 17. The Harris survey found that 31 percent of all respondents could never vote for the death penalty, id., at 5, and that more than half of these (56 percent) would be unable to adjudicate a defendant guilty even knowing that the defendant could be subsequently sentenced to death only by a unanimous jury vote. Id. at 34. Thus, one can roughly estimate that 15 percent of the surveyed population would be excludable jurors after screening for nullifiers. Of course, figures based on a 1971 population will exaggerate current opposition to the death penalty, since that opposition has declined substantially during the intervening years. See BUREAU OF JUSTICE STATISTICS, U.S. DEPT OF JUSTICE, supra note 5, at 262-64. Suffice it to say that we have adopted a range of population values that seems reasonably calculated to produce estimates of the likely range of effects resulting from death qualification.
Table II: Attitudinal Representation on Death-Qualified (DQ) and Non-Qualified (NQ) Jury Panels

Percentage of Jurors with Attitude, Assuming Stated Percentage of Excludable Jurors in Population:

| Attitude                                      | 5% DQ Jury | 5% NQ Jury | Difference | 10% DQ Jury | 10% NQ Jury | Difference | 17% DQ Jury | 17% NQ Jury | Difference | 20% DQ Jury | 20% NQ Jury | Difference |
|-----------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Failure to testify indicates guilty           | 32.3%      | 31.9%      | .4%        | 32.3%      | 31.4%      | .9%        | 32.3%      | 30.8%      | 1.5%       | 32.3%      | 30.5%      | 1.8%       |
| Insanity Plea is a loophole                   | 78%        | 77.1%      | .9%        | 78%        | 76.1%      | 1.9%       | 78%        | 74.8%      | 3.2%       | 78%        | 74.2%      | 3.8%       |
| Guilty if brought to trial                    | 32.3%      | 32%        | .3%        | 32.3%      | 31.7%      | .6%        | 32.3%      | 31.3%      | 1%         | 32.3%      | 31.1%      | 1.2%       |
| Harsher treatment is not solution to crime    | 59%        | 60%        | 1%         | 59%        | 61.1%      | 2.1%       | 59%        | 62.7%      | 3.7%       | 59%        | 63.2%      | 4.2%       |
| Exclude illegally seized evidence             | 56.5%      | 56.9%      | .4%        | 56.5%      | 57.2%      | .7%        | 56.5%      | 57.8%      | 1.3%       | 56.5%      | 59%        | 1.5%       |
| Better that guilty go free, than to convict innocent | 44%        | 44.9%      | .9%        | 44%        | 45.9%      | 1.5%       | 44%        | 47.1%      | 3.1%       | 44%        | 47.7%      | 3.7%       |

69. The percentages set forth in Table II are based on the findings presented in Fitzgerald & Ellsworth, supra note 17, at 43. The percentage of jurors holding each attitude set forth in Table II is based on the total number of respondents agreeing to the attitudinal statement, including those who agree both “strongly” and “somewhat.” For a full description of the computational process used in compiling Table II, see Appendix, infra.
The attitudinal impact of death qualification can be further understood by examining the probability of an attitude’s appearing on a particular twelve-person jury. Assuming that community attitudes appear in particular jury through randomized distribution, one can estimate the probability of an attitude’s appearance both before and after death qualification. By way of example, there will be 3.8 percent more jurors strongly disfavoring the insanity defense when the 20 percent excludable jurors in a population have been removed. When juries are death-qualified in such a population, the probability of randomly drawing at least one juror who strongly disfavors the insanity defense is .999 (virtually certain); the probability of drawing three or more such jurors is .985; and the probability of drawing six or more such jurors is .652. If juries in the same population were not death qualified, by comparison, the corresponding probabilities would be .999 (again virtually certain), .965, and .510. Thus, in this hypothetical population, death qualification has little effect except insofar as it occasionally adds an additional juror attitude to a jury on which that attitude is already well represented. And this effect, we might add, occurs because we have assumed both a substantial attitudinal difference (24 percent) between excludable and includable jurors, together with a substantial population (20 percent) of excludable jurors. Less extreme assumptions are probably appropriate in most instances.

Therefore, if the fair-cross-section doctrine is invoked to challenge the effects of death qualification on the representation of community attitudes, it appears that these attitudes are “fairly and reasonably” represented notwithstanding the process of death qualification. Fair


71. The selection of jurors, of course, will not be purely random. The process of voir dire and peremptory challenge, in particular, will assert a strong, non-random influence on juror characteristics. See infra text accompanying notes 136-55. Nonetheless, the challenge to death qualification is directed at insuring the most randomly representative jury pool at least prior to the further screening processes that may occur at trial.

72. The probability calculations presented in the text are based on the largest attitudinal difference pertaining to specific criminal defense concerns reported in Fitzgerald & Ellsworth. See supra Table I. Thus, the calculations illustrate the greatest effect that death qualification might have, assuming the reliability of the findings reported in Fitzgerald and Ellsworth.

73. We would emphasize that extant research on attitudinal differences—upon which our analysis is based—focuses too much on particular attitudes and not enough on particular attitudinal makeups of jurors. The importance of attitudes at trial may result from the presence of a juror with a strong attitudinal disposition that, in its totality, renders the juror less conviction prone. The only research that attempts to measure the total attitudinal makeup of jurors is that of Jurow, supra
and reasonable representation, concededly, is a normative standard and not an empirical determination; the courts could deem the attitudinal differences reported sufficient to invoke constitutional protection. Yet, two factors suggest that a fair-cross-section violation will not be found in the given circumstances. First, in related challenges to the composition of juries, discussed more fully in the next section, the courts have not been willing to invalidate procedures that produce effects on the magnitude of 1 to 3 percent. Second, use of the fair-cross-section doctrine in the present circumstances is premised on the unproven assumption that attitudes affect jury behavior and thus implicate sixth amendment concerns. Given the modest attitudinal differences produced by death qualification, it is doubtful that the process would be invalidated where the underlying assumption is somewhat speculative.

C. The Representation of Minorities and Women on Death-Qualified Juries

The fair-cross-section requirement of the sixth amendment originated in decisions addressing the racial and gender composition of juries. Racial and gender disparities have constantly drawn the close scrutiny of the Court, which has been willing to assume that such disparities can affect the performance of the jury. Because race and gender have been historical bases for governmental discrimination, the Court has viewed race and gender disparities in jury service as evils independent of any particular effect on the jury’s function.

Survey data has long confirmed that blacks and women are less

---

note 12. Jurow’s research, using a composite index of several attitudes, seeks to measure the “authoritarianism” and “anti-authoritarianism” of excludable and non-excludable jurors. Id. at 580, 603-04. Jurow reports that, on a scale of 10 to 30, excludable jurors had a mean “authoritarian” scope of 18.7, compared to a mean for all other jurors of 22.4 (weighted). Excludable jurors had a mean “anti-authoritarian” score of 16.8, compared to a mean for all other jurors of 15.1 (weighted). Whether such differences are functionally important is impossible to say; their magnitude does not seem great, however, on a scale of 10 to 30.

More importantly, Jurow’s research fails to exclude nullifiers, who presumably hold some of the more extreme attitudes of the study group. Given the small number of excludable jurors—18 of 187—and the likelihood that many of these were also nullifiers, see supra note 68, Jurow’s findings probably overstate appreciably the attitudinal effects of death qualification. This probability is supported by Jurow’s finding that juror groups with less extreme views on capital punishment—the large majority of Jurow’s sample—show relatively minor differences in attitudinal means. Jurow, supra note 12, at 585-88.

---

74. See infra text accompanying notes 82-95.
75. See infra text accompanying notes 104-05.
76. See Ziegler, supra note 51, at 1049-57.
77. Id. at 1055. See also supra text accompanying notes 33.
supportive of capital punishment and criminal sanction. From this finding one could reasonably infer that blacks and women would, if considered for jury duty in an actual capital case, be less willing to vote for death penalty and hence would be disproportionately excluded through death qualification. Provided the magnitude of this exclusion was substantial, death qualification would be challenged under the sixth amendment on grounds more precedented, and more favored, then that of attitudinal disparity.

Several contemporary surveys have addressed the impact of death qualification on the race and gender of jurors. The surveys, summarized in Table III, confirm that the impact of death qualification falls more heavily on blacks and women. As with studies on attitudes, however, the surveys on race and gender often contain a methodological flaw: most of the surveys fail to eliminate from the population of excludable jurors those jurors who fail to qualify for jury service because they could not determine guilt or innocence impartially. If survey findings were adjusted to eliminate these "nullifiers" from the jury population, the impact of death qualification would be reduced appreciably. Thus, the findings of Fitzgerald and Ellsworth are, again, the most reliable findings on the magnitude of the impact of death qualification.

Table III-A: Survey Findings on the Demographic Effects of Death Qualification

<table>
<thead>
<tr>
<th>Study (Year)</th>
<th>Demographic Group (% of Sample)</th>
<th>% of Group Excluded</th>
<th>% of Others Excluded</th>
<th>Difference in Rates of Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitzgerald (1984)</td>
<td>Blacks (13.2%)</td>
<td>25.5%</td>
<td>16.5%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Women (51.2%)</td>
<td>21%</td>
<td>13%</td>
<td>8%</td>
</tr>
<tr>
<td>Precision Research</td>
<td>Blacks (12.4%)</td>
<td>45%</td>
<td>11%</td>
<td>34%</td>
</tr>
<tr>
<td>Survey (1981)</td>
<td>Women (51%)</td>
<td>21%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Bronson I (1971)</td>
<td>Blacks- Hispanics (5.5%)</td>
<td>29%</td>
<td>9%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Women (45.7%)</td>
<td>13%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Bronson III (1980)</td>
<td>Blacks (9.2%)</td>
<td>22%</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Harris Survey (1971)</td>
<td>Blacks (14%)</td>
<td>46%</td>
<td>29%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Women (50%)</td>
<td>37%</td>
<td>24%</td>
<td>13%</td>
</tr>
</tbody>
</table>

78. BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, supra note 5, at 262-64.
79. By way of illustration, the Precision Research Survey, supra note 17, reveals that 36 percent of blacks were nullifiers, compared to 9 percent of whites; and 13 percent of females were nullifiers, compared to 10 percent of males. Id. Furthermore, this survey revealed considerable overlap in the categories of excludables and nullifiers. Id. at 19.
80. The studies included in Table III-A are, in order of presentation, Fitzgerald & Ellsworth, supra note 17, at 47; Precision Research Survey, supra note 17, at 19;
Table III-B: Measurements of the Demographic Impact of Death Qualification

<table>
<thead>
<tr>
<th>Study (Year)</th>
<th>Demographic Group</th>
<th>Death-Qualified Absolute Disparity</th>
<th>Death-Qualified Absolute Impact: 12 Person Jury</th>
<th>Comparative Disparity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitzgerald (1984)</td>
<td>Blacks: DQ-12%</td>
<td>1.2%</td>
<td>.14 juror</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>NQ-13.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women: DQ-46.8%</td>
<td>2.4%</td>
<td>.28 juror</td>
<td>4.6%</td>
</tr>
<tr>
<td></td>
<td>NQ-51.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precision Research Survey (1981)</td>
<td>Blacks: DQ- 8.4%</td>
<td>4.4%</td>
<td>.53 juror</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>NQ-12.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women: DQ-47.9%</td>
<td>3.1%</td>
<td>.37 juror</td>
<td>6.1%</td>
</tr>
<tr>
<td></td>
<td>NQ-51%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronson I (1971)</td>
<td>Blacks: DQ-4.4%</td>
<td>1.1%</td>
<td>.14 juror</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Hispanics: NQ-5.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women: DQ-44.3%</td>
<td>1.4%</td>
<td>.16 juror</td>
<td>4.4%</td>
</tr>
<tr>
<td></td>
<td>NQ-45.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronson III (1980)</td>
<td>Blacks: DQ-7.8%</td>
<td>1.4%</td>
<td>.17 juror</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>NQ-9.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women: DQ-46.2%</td>
<td>3.8%</td>
<td>.45 juror</td>
<td>7.5%</td>
</tr>
<tr>
<td></td>
<td>NQ-50%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table III-A reveals that women and blacks are, in fact, excludable at higher rates through death qualification than are men and whites. It thus becomes important to determine whether the magnitude of the difference in exclusion rates is sufficient to establish a violation of the fair-cross-section doctrine. Case precedent provides considerable guidance in interpreting the evidence on the demographic composition of death-qualified juries. Three methods of interpretation, summarized in Table III-B, have been referred to by the courts in adjudicating demographic challenges to jury composition under the sixth amendment and the equal protection clause.82 The “absolute disparity” mea-

---

81. The studies included in Table III-B are, in order of presentation, Fitzgerald & Ellsworth, supra note 17, at 47; Precision Research Survey, supra note 17, at 28; Bronson I, supra note 17, at 18, 22; Bronson II & III, supra note 17, at 28; Harris Study, supra note 17, at 5.

82. See Beale, supra note 38, at 273-77. A fourth measure of disparity is based on “standard deviation analysis,” which indicates the likelihood that jury variations are attributable to random fluctuation. Id. at 276. This measure is of little value.
sure (column 2 in Table III-B) consists of the difference in the percentage of group members in a jury population before and after a challenged process is used.\textsuperscript{83} The findings of Fitzgerald and Ellsworth, for example, reveal that blacks constituted 13.2 percent of the jury population before death qualification, and 12 percent of the jury population after death qualification, producing an absolute disparity of 1.2 percent in the jury population.\textsuperscript{84}

Related to the absolute disparity standard is the "absolute impact" standard (column 3 in Table III-B). This measure takes the finding of absolute disparity and then multiplies that figure by the number of jurors on a particular panel\textsuperscript{85} (always twelve in the case of capital juries). The absolute impact of death qualification on blacks, again based on the findings of Fitzgerald and Ellsworth, is a reduction of .14 black juror per average twelve-person jury.

A final standard for assessing the magnitude of disparities in jury service is "comparative disparity" measure (column 4 in Table III-B). This measure responds in part to a limitation of the absolute disparity and absolute impact measures.\textsuperscript{86} The absolute measures, while expressing the impact of the selection practice on the general jury population, fail to capture the relative consequences of that practice for a protected group. For example, a minority group constituting 10 percent of the potential jury population will suffer an absolute disparity of only 5 percent when its representation is reduced to 5 percent of the actual jury population. Yet, to the extent that the affected group is as much a concern as the affected jury population, the absolute disparity standard fails to report an important consequence: that the protected group has suffered a 50 percent relative reduction in its representation on jury panels. Thus, the comparative disparity measure adjusts for this limitation through dividing the absolute disparity by the percentage of protected group members in the population. To illustrate, Fitzgerald and Ellsworth report that blacks suffer an absolute disparity of 1.2 percent because of death qualification, while they suffer a comparative disparity of 9 percent.

None of these measures, we should emphasize, has been consist-
ently used by the lower courts.87 Nor has the Supreme Court adopted any particular measure or combination of measures in assessing jury disparities.88 Application of each of these measures to the evidence on death qualification, however, does provide several benchmarks against which the evidence can be assessed.

Table III-B reveals absolute disparities in the jury service of blacks ranging from 1.2 percent to 4.4 percent, and absolute disparities in the jury service of women ranging from 1.4 percent to 3.8 percent. Even accepting the larger estimates—which probably overstate the actual figures considerably—this degree of disparity falls far short of the benchmark established by precedent. To date, no case has found an absolute disparity of 10 percent legally significant, and challenges based on disparities as large as 12 percent have been rejected on occasion.89 By comparison, absolute disparities greater than 20 percent have consistently sustained challenges to jury selection procedures.90

Table III-B reveals comparative disparities in the jury service of blacks ranging from 9 percent to 35 percent, and comparative disparities in the jury service of women ranging from 3 percent to 7.5 percent. Obviously, the prevalence of women in the general population substantially reduces the threat that women will, as a group be greatly

88. See Alexander v. Louisiana, 405 U.S. 625, 630 (1972) (no particular mathematical standards apply in assessing exclusionary practices; all possible explanatory factors must be considered).
89. See, e.g., United States v. Gometz, 730 F.2d 475, 478 (7th Cir. 1984) (absolute disparity of .57 percent insufficient); United States v. Tuttle, 729 F.2d 1325, 1327-28 n.4 (11th Cir. 1984) (absolute disparities of 6.3 percent or 9.1 percent not sufficient; minimum of 10 percent required); United States v. Hafen, 726 F.2d 21, 23 (1st Cir. 1984) (absolute disparity of 2.02 percent insufficient); United States v. Hawkins, 661 F.2d 436, 442 (5th Cir. 1981) (absolute disparities of 1.75 percent and 2.45 percent insufficient), cert. denied, 466 U.S. 999 (1982); United States v. Duran De Amesquita, 582 F. Supp. 1326, 1330 (S.D. Fla. 1984) (absolute disparity of 6.7 percent insufficient); United States v. Musto, 540 F. Supp. 346, 355-57 (D.N.J. 1982) (absolute disparities of 4.2 percent, 5.4 percent and 7.5 percent insufficient), aff'd sub nom. United States v. Aimont, 715 F.2d 822 (3d Cir. 1982). See also Beale, supra note 38, at 278 n.60 (further cases cited).
90. See, e.g., LaRoche v. Perrin, 718 F.2d 500, 502 (1st Cir. 1983) (absolute disparity of 26.2 percent insufficient); Birn v. Montgomery, 709 F.2d 690, 699-700 (11th Cir. 1983) (absolute disparities of 32.9 percent and 17.6 percent sufficient), on reh'g, 725 F.2d 587 (11th Cir.), reh'g denied, 729 F.2d 1468 (11th Cir. 1984). See also Beale, supra note 38:

Although disparities between 10% and 15% have been found significant in a few cases, several courts have held disparities in this range insufficient to establish a prima facie case of either an equal protection or a fair cross section violation. Absolute disparities between 15% and 20% have generally been deemed significant, and disparities of more than 20% have almost universally been deemed sufficient to establish a prima facie case.

Id. at 278.
underrepresented in the eligible jury population. The same is not true, however, for minorities, whose numbers in the general jury population will often be small.

Cases in which the comparative disparity standard has been used are limited in number, as relatively few courts have employed this standard. A comparative disparity of 38 percent has sustained a legal challenge, at least when accompanied by a large absolute disparity (14.4 percent).91 At the same time, comparative disparities of 33 percent and 59 percent have been found insufficient, at least when accompanied by small absolute disparities (3.43 percent and 1.54 percent, respectively).92 Based merely on prior case law, then, the comparative disparities produced in death qualification constitute weak proof of a constitutional violation respecting black jurors, and no proof at all of a violation respecting women.93

No court has yet invalidated the process of death qualification because of its impact on the demographic representativeness of resulting juries.94 In fact, the demographic impact seems most often to have been urged as secondary support for the larger challenge to death qualification. The evidence set forth above, as interpreted through the evolving judicial standards for statistical proof, suggests that death qualification does not sufficiently diminish the demographic representativeness of juries to sustain, alone, a fair-cross-section argument. This is not to say, of course, that the demographic effect is numerically inconsequential for constitutional concerns. The statistical requirements for jury challenges are still in an evolutionary period, and constitutional standards could be redefined to give new legal significance

---


92. United States v. Test, 550 F.2d 557, 559 (10th Cir. 1976). See also United States v. Hafen, 726 F.2d 21, 23 (1st Cir.) (comparative disparity of 54.2 percent but absolute disparity of only 2.02 percent), cert. denied, 104 S. Ct. 2179 (1984); United States v. Musto, 540 F. Supp. 346, 356-57 (D.N.J. 1982) (comparative disparity of 79.2 percent but absolute disparity of only 4.2 percent), aff'd sub nom. United States v. Aimont, 715 F.2d 822 (3d Cir. 1982); Beale, supra note 38, at 280.

93. The same result is suggested under the absolute impact standard. The absolute impact of death qualification ranges from .14 juror to .53 juror. See supra Table III-B. No court has yet invalidated a jury selection process when the absolute impact is less than one juror per twelve-person jury. See, e.g., United States v. Tuttle, 729 F.2d 1325, 1327, 1329 (11th Cir. 1984). See also Beale, supra note 38, at 280 ("The courts that have applied the impact standard have generally concluded that the challenger failed to prove a sufficient disparity when proportionate minority representation would have added only one or two additional minority jurors to a typical grand or petit jury.")

94. A number of courts have, however, supplemented their analysis by reference to the demographic effects of death qualification. See, e.g., Grigsby v. Mabry, 758 F.2d 226, 231 n.9 (8th Cir. 1985); Keeten v. Garrison, 578 F. Supp. 1164, 1182 (W.D.N.C. 1984), rev'd, 742 F.2d 129 (4th Cir. 1984).
to the numbers. But such redefinition of standards would appear to be needed if the fair-cross-section challenge to death qualification is to succeed.

D. The Cumulative Effects of Death Qualification on the Representativeness of Juries

In the preceding analysis we have examined several quantitative arguments concerning discrete effects of death qualification. Contrary to the conclusion of many commentators, we have suggested that death qualification fails to produce any particular effect that alone is clearly violative of the fair-cross-section doctrine. Yet, while it is analytically helpful to isolate the various components of the Witherspoon challenge, such isolation is not compelled when evaluating the legal effect of the various findings. That is, while no attitudinal or demographic effect alone states a cause of action, cumulatively these effects could not be deemed significant.

The Court's decision in Ballew v. Georgia, which found five-person criminal juries violative of the sixth amendment, provides significant precedent for interpreting the cumulative effects of death qualification. In Ballew, the Court identified several effects that a reduction in jury size might produce, including a dilution in the attitudinal and demographic representativeness of juries, and an increase in their tendency to convict. While finding no constitutional infirmity in any particular effect, the Court struck down the use of five-person juries in light of the totality of its effects.

A clear analogy can be drawn between Ballew and the problem of death qualification. What is unclear is whether Ballew's rationale has vitality outside the context of a challenge to jury size. Both concurring justices in Ballew, and subsequent lower court judges, have viewed Ballew as an instance of line-drawing: at some point the reduction in jury size had to cease, and that point was at five jurors. Under this view, the Ballew discussion of the empirical evidence is

95. For critical commentary on the emerging statistical standards, see D. Baldus & J. Cole, supra note 29, at 78-90. Further guidance might be forthcoming in the 1985-86 Supreme Court term, if the Court grants review of Davis v. Zant, 721 F.2d 1478 (11th Cir. 1983), aff'd sub nom. Davis v. Kemp, 752 F.2d 1515 (11th Cir. 1984). That case poses the question whether absolute disparities of 18.4 percent and 18.1 percent in the jury service of women and blacks, respectively, are sufficient to shift to the state the burden of justifying selection procedures.

97. Id. at 234-37.
98. Id. at 239, 242.
99. For a detailed comparison of the Ballew rationale and the empirical challenge to death qualification, see White, supra note 10, at 377-96.
supportive dicta, but in no way establishes a new empirical standard for evaluating sixth amendment claims. Further justification for this view is found in the fact that Ballew validated six-person juries, even though the quantitative evidence against them was no less compelling than that against five-person juries.\footnote{102}

One can only speculate whether the Court will eventually extend the Ballew rationale to other contexts, and such speculation is made especially difficult given the current Court's incontinence in adhering to precedent.\footnote{103} Thus, the historical Witherspoon question—whether death-qualified juries are actually conviction prone—looms in importance. For not only does the empirical proof of conviction proneness have independent legal significance under Witherspoon, it could suggest further importance for the exigous evidence of a fair-cross-section violation. Proof of conviction proneness may demonstrate that the effects of death qualification on jury representation are not simply speculative; and such proof may suggest that the cumulative effects of death qualification implicate concerns similar to those prompting the Court's action in Ballew.

III. THE CONVICTION PRONENESS OF DEATH-QUALIFIED JURIES

The hypothesis that juror attitudes and characteristics are reliable predictors of jury behavior has not fared well in the years since Witherspoon. Numerous attempts to model jury behavior, and to develop a science of jury selection, have produced few, if any, strong correlations between pre-existing juror traits and actual voting behavior.\footnote{104} As a result, the behavioral paradigm that underlies much of the research on the conviction proneness of death-qualified juries has been questioned.\footnote{105}

It is important, however, to distinguish between the general failure of empirical research to create reliable, explanatory models of jury behavior, and the specific effort of death-qualification research to establish some process influence on jury verdicts. For one thing, generalized research findings from non-capital adjudication are not directly transferable to capital cases, where the trial procedures and environ-
ment differ markedly. Research on death qualification is a far more refined inquiry, addressing a carefully delimited study group and case type. It is entirely plausible that strong opponents of capital punishment will tend to adjudicate capital cases differently, even though Democrats and Republicans, for example, show no measurable voting differences in conventional adjudication.

Furthermore, the perceived failure of generalized jury research results largely from concerns not germane to the study of death qualification. Generalized research has failed in its effort to detect strong and consistent correlations between juror characteristics and juror behavior, and in its effort to supply comprehensive predictive models. The research on conviction proneness, by comparison, attempts neither to model capital case outcomes nor to make predictions in specific cases. Such research attempts to establish that death qualification will, from time to time, in cases that may not be identifiable, yield convictions that would not result were death qualification eliminated. And of greater importance, what might be a "weak" finding for general jury research—for example, that only 10 percent of the variation in verdicts can be correlated with jury traits—might have considerable legal significance in the context of death qualification. Evidence that 10 percent of the variation in capital convictions results from death qualification may constitute compelling proof that the process undermines the right to trial by an impartial jury, even if capital verdicts remain otherwise unpredictable. Thus, it is vital to identify the specific empirical and legal issues addressed by the research on death qualification.

A. The Evidence on Conviction Proneness

As indicated earlier, direct proof of the phenomenon of conviction proneness poses several methodological problems. Because of contemporary legal restrictions on access to trial juries, observation of an inquiry into the actual decisional process is practically impossible. Researchers must rely, instead, on simulations or artificial summaries of the trial process. Yet these attempted proximations of actual trials

106. That the death-qualification studies may constitute an exception to the general jury research findings is recognized in R. Hastie, S. Penrod & N. Pennington, supra note 49, at 127.

107. See W. Loh, supra note 26, at 402; R. Hastie, S. Penrod & N. Pennington, supra note 49, at 126-33.

108. For this reason, the evidence on death qualification will not be adequate to prove that a specific conviction is a product of the process. Thus, if the courts were to require situational proof of prejudice, no challenge to death qualification would likely succeed. See supra text accompanying notes 166-67.


110. See, e.g., Grigsby v. Mabry, 758 F.2d 226, 237 (8th Cir. 1985); D. Vinson & P. Anthony, supra note 28, at 49.
inevitably invite the criticism that they are unrealistic and hence unreliable. Among the major inadequacies of simulation research are the following: (1) individuals who volunteer to participate in simulations will differ from actual jurors, who are compelled to serve and who are screened through voir dire; (2) the representation of evidence through simulated video tapes or written case summaries diminishes the actual impact of evidence, thus giving exaggerated importance to juror attitudes and traits; and (3) the voting of jurors in mock cases is not attended with the gravity and responsibility that are present when the accused's life is really at stake, again giving exaggerated importance to juror traits.

All of these criticisms are valid and pose legitimate threats to the reliability of research not based on actual trial investigation. As a matter of policy, however, the imperfections of extant research should not preclude its use in the challenge to death qualification. The state can hardly insulate its jury process from study and then repudiate research for its lack of authenticity. Principles of fair play suggest that the burden of proof should be lessened when the defendant has special possession of determinative information. At a minimum, simulated research findings should be accorded presumptive validity when the state presents no countervailing evidence, and when the simulated research conforms to contemporary standards of empirical inquiry.

At present, there are five reported studies attempting to measure the conviction proneness of death-qualified jurors, and the principal findings of these studies are set out in Table IV. Only one of the studies, that of Cowan, Ellsworth, and Thompson (hereinafter, Cowan) is a highly reliable measure of conviction proneness. Several

---

111. See, e.g., Grigsby v. Mabry, 758 F.2d 226, 237 (8th Cir. 1985); Hovey v. Superior Court, 28 Cal. 3d 1, 61-62, 616 P.2d 1301, 1342, 168 Cal. Rptr. 128, 169 (1980).
112. See, e.g., Cowan, supra note 12, at 61-62 (study participants consisting of individuals responding to newspaper advertisements; payment of $10 for participation); Jurow, supra note 12, at 577 (paid employees of Sperry Rand Corporation).
113. See, e.g., Bernard & Dwyer, supra note 17, at 110 (written case description); Cowan, supra note 12, at 53 (two and one-half hour simulated videotape); Jurow, supra note 12, at 582 (tape recorded case description); Harris Study, supra note 17, at 41 (written case description).
114. Cleary, Presuming and Pleading: An Essay on Juristic Immaturity, 12 Stan. L. Rev. 5, 12 (1959) (when evidence lies within the control of one party, that party should bear the burden of proof on matters relating to such evidence). See also Grigsby v. Mabry, 758 F.2d 226, 237 (8th Cir. 1985) ("[I]t is the courts who have often stood in the way of surveys involving real jurors and we should not now reject a study because of this deficiency.")
115. Significantly, the states involved in death-qualification challenges have yet to summon specific empirical evidence that rebuts the challengers' evidence.
116. The studies reported in Table IV are, in order of presentation, Cowan, supra note 12, at 68; Jurow, supra note 12, at 583; Bernard & Dwyer, supra note 17, at 112; Harris Study, supra note 17, at 35 (based on the single homicide case used by Harris).
aspects of the other studies undermine their usefulness. All four fail to remove "nullifiers" from the group of excludable jurors, and none of the four uses video tapes or similar devices to provide a more realistic presentation of the simulated cases. Therefore, the work of Cowan provides the best evidence of the phenomenon of conviction proneness, even though the other studies confirm the direction of the findings.

117. See supra note 113.
<table>
<thead>
<tr>
<th>STUDY (Year)</th>
<th>Acquittal Rate of Excludable/Excludeable Jurors</th>
<th>Acquittal Rate Before Death Qualification</th>
<th>Acquittal Rate After Death Qualification</th>
<th>Difference</th>
<th>Acquittal Rate Before Death Qualification</th>
<th>Acquittal Rate After Death Qualification</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cowan (1981)</td>
<td>46.7%/ 22.1%</td>
<td>24.7%</td>
<td>22.1%</td>
<td>2.6%</td>
<td>27%</td>
<td>22.1%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Jurow I</td>
<td>66.6%/ 56.2%</td>
<td>57.3%</td>
<td>56.2%</td>
<td>1.1%</td>
<td>55.4%</td>
<td>56.2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Jurow II</td>
<td>57.1%/ 40.5%</td>
<td>42.2%</td>
<td>40.5%</td>
<td>1.7%</td>
<td>43.7%</td>
<td>40.5%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Bernard &amp; Dwyer (1984)</td>
<td>12% / 8.2%</td>
<td>8.3%</td>
<td>8.2%</td>
<td>.1%</td>
<td>8.8%</td>
<td>8.2%</td>
<td>.6%</td>
</tr>
<tr>
<td>Harris (1971)</td>
<td>22% / 20 %</td>
<td>20.2%</td>
<td>20%</td>
<td>.2%</td>
<td>20.4%</td>
<td>20%</td>
<td>.4%</td>
</tr>
</tbody>
</table>

118. For explanation of the computations involved in determining these percentages, see infra, Appendix.
The findings summarized in Table IV reveal differences in the absolute acquittal rates of excludable jurors that are sizable and consistent. Even though some of the findings are not statistically significant, they are part of a uniform pattern in which death-qualified jurors, as a group, vote to convict more often than excludable jurors. Particularly suggestive are the more reliable findings of Cowan that reveal the largest reported difference (24.7 percent) in the acquittal rates of the two types of jurors.

In considering the conviction proneness of death-qualified juries, courts have often given primary emphasis to these absolute differences in acquittal rates. This emphasis, however, leads to a misunderstanding of the data's importance. Three further considerations should be taken into account in determining the legal impact of the findings. First, the difference in acquittal rates should be adjusted to reflect the proportion of excludable jurors in the jury population. The pertinent comparison is between death-qualified and nonqualified juries—which is a function of population proportions—and not between excludable and includable jurors. Second, the probability of selecting one (or more) acquittal jurors in a twelve-person jury should be considered. The pertinent inquiry is how death qualification affects the voting pattern of particular juries, given the legal requirement of a unanimous vote for conviction. Third, one should consider the type and frequency of cases in which the phenomenon of conviction proneness will occur. The findings on conviction proneness are reliable only insofar as the experimental research case is one that will be duplicated in the criminal justice system; the representativeness of research case, then, must be examined.

Table IV illustrates the effect that the proportion of excludable jurors has on absolute acquittal rates. As evidenced by the findings of Cowan, the difference in absolute acquittal rates varies between 2.6 and 4.9 percent, depending on whether excludable jurors constitute 10 percent or 20 percent, respectively, of the eligible juror population. But even these findings fail to capture the true effect of death qualification on particular jury verdicts. Capital verdicts are obviously not based on mass public opinion polls, but on the unanimous vote (in the

119. See, e.g., Bernard & Dwyer, supra note 57, at 112; Jurow, supra note 12, at 583.
120. See, e.g., Keeten v. Garrison, 578 F. Supp. 1164, 1172-75 (W.D.N.C. 1984), rev’d, 742 F.2d 129 (4th Cir. 1984); Grigsby v. Mabry, 569 F. Supp. 1273, 1297-1301 (E.D. Ark. 1983), aff’d, 758 F.2d 226 (8th Cir. 1985); Hovey v. Superior Court, 28 Cal. 3d 1, 142-53, 274 Cal. Rptr. 128, 168 Cal. Rptr. 128, 142-53 (1980). In Grigsby, the court casually dismissed this contention by noting that “reasonable conclusions about the differences between [death-qualified and non-qualified] jurors can be drawn.” Id. It is just such conclusions that we attempt to estimate in the following discussion.
instance of conviction) of a twelve-person jury. If one assumes that excludable jurors appear in juror pools on a random basis, then the general effect of death qualification can be proximated by determining the reduced likelihood of obtaining an “acquittal” juror on a twelve-person jury after death qualification.121

Tables V and VI set forth the probabilities of obtaining one or more acquittal jurors both before and after death qualification. Table V is based on the voting patterns reported in the work of Cowan, and represents the effect of death qualification assuming either a 10 percent or 20 percent proportion of excludable jurors in the eligible juror population. Table VI is based on the voting patterns in the work of Jurov, and is included to illustrate an important aspect of case research on the phenomenon of conviction proneness.

Table V: Probability of Obtaining Acquittal Juror(s) on Death-Qualified and Non-Qualified Juries (Cowan)122

<table>
<thead>
<tr>
<th>Type Jury</th>
<th>Probability of X Acquittal Jurors Assuming 10% Excludables</th>
<th>Probability of X Acquittal Jurors Assuming 20% Excludables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X= 1+ 2+ 3+ 6+ 7+</td>
<td>X= 1+ 2+ 3+ 6+ 7+</td>
</tr>
<tr>
<td>Death-Qualified</td>
<td>.949 .778 .511 .007</td>
<td>.951 .782 .517 .032 .007</td>
</tr>
<tr>
<td>Non-Qualified</td>
<td>.967 .835 .599 .013</td>
<td>.977 .877 .671 .077 .022</td>
</tr>
<tr>
<td>Difference</td>
<td>.018 .057 .088 .021</td>
<td>.026 .085 .154 .045 .015</td>
</tr>
</tbody>
</table>

121. For a similar analysis of the effects of a reduction in jury size on verdicts, see Lempert, supra note 70, at 681-88. See also Ballew v. Georgia, 435 U.S. 237, 236-37 (1978).

122. See Cowan, supra note 12, at 68. The reported findings, we should note, are based on the first-ballot preferences of jurors prior to deliberation. While first-ballot and final-ballot preferences will probably vary somewhat, first-ballot preferences appear to be a highly reliable indication of the voting differences among excludable and includable jurors. Id. at 68-69.

For discussion of the methodology used in constructing Tables V and VI, see Appendix.
Table VI: Probability of Obtaining Acquittal Juror(s) on Death-Qualified and Non-Qualified Juries (Jurow)\textsuperscript{123}

<table>
<thead>
<tr>
<th>Type Jury</th>
<th>Probability of X Acquittal Jurors Assuming 10% Excludables</th>
<th>Probability of X Acquittal Jurors Assuming 20% Excludables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X= 1+ 2+ 3+ 6+ 7+</td>
<td>X= 1+ 2+ 3+ 6+ 7+</td>
</tr>
<tr>
<td>Death-Qualified</td>
<td>1.000 .999 .994 .766 .560</td>
<td>1.000 .999 .994 .770 .565</td>
</tr>
<tr>
<td>Non-Qualified</td>
<td>.999 .995 .790 .591</td>
<td>.999 .996 .812 .622</td>
</tr>
<tr>
<td>Difference</td>
<td>.001 .024 .031</td>
<td>.002 .042 .067</td>
</tr>
</tbody>
</table>

Initially, one might ask whether the probability of obtaining at least one acquittal juror is the only relevant concern, since it takes but one juror to prevent conviction. While this probability is relevant, it fails to take account of the difficulty a lone juror may have in resisting the persuasions of the eleven remaining jurors. A well-established finding of past jury research is that a dissenting juror is less likely to abandon her position when she has one or more confederates.\textsuperscript{124}

Therefore, it may be vital that the defense obtain two or more acquittal jurors on the panel, and a reduction in the likelihood of obtaining an acquittal confederate may be strong ground for challenging the process of death-qualification.

The research of Cowan, depicted in Table V, reveals that death qualification may have its greatest effect in reducing the size of acquittal minorities. The first section of Table V assumes that 10 percent of the relevant jury population consists of excludable jurors. Given such a population, of whom 24.8 percent are acquittal jurors (the acquittal rate in Cowan's study population), death qualification has the following effects. In approximately two cases in one hundred (.018), death qualification will eliminate the possibility of at least one acquittal juror. In approximately six cases in one hundred (.057), death qualification will eliminate the possibility of two or more acquittal jurors. Finally, in approximately nine cases in one hundred (.088), death qualification will eliminate the possibility of three or more acquittal jurors. Thus, to the extent that "confederates" are needed on the jury to withstand a conviction majority, Cowan's work suggests that death qualification will produce an appreciably greater number of convictions. Moreover, the effect increases as the proportion of excludables

\textsuperscript{123} Jurow, supra note 12, at 583.

\textsuperscript{124} Ballew v. Georgia, 435 U.S. 237, 236 (1978). See also Lempert, supra note 70, at 673-75.
in the community rises to 20 percent: in approximately nine cases in one hundred (.085), death qualification will eliminate the presence of at least one acquittal confederate.

The findings based on the research of Cowan represent the effects of death qualification in cases of the type simulated by Cowan. In this simulation the overall acquittal rate was 24.8 percent, suggesting a relatively strong case for the state. The strength of the prosecution's case will obviously vary, however, and this variation will directly affect the predicted impact of death qualification on acquittal rates.

The importance of case characteristics is illustrated by the findings of Jurow, Bernard, and Dwyer (hereinafter, Jurow). In the first case simulation reported by Jurow, majorities of both excludable and includable jurors thought the accused innocent (67 percent and 56 percent, respectively). Table VI demonstrates the possible effects of death qualification in such a case. As a casual review of that table reveals, death qualification will probably be inconsequential in cases like that simulated by Jurow. Regardless of whether one assumes a 10 percent or 20 percent population of excludables, neither the probability of a single acquittal vote nor that of two or three acquittal votes varies appreciably: fewer than 1 percent of all cases will be affected by death qualification.

The hypothetical case of Bernard and Dwyer discloses a related possibility. That case resulted in acquittal votes from only 12 percent of excludable jurors and 8 percent of includable jurors, suggesting that the evidence of guilt was considerable. When the jurors were formed into twelve-person juries for deliberation, no jury voted to acquit. Although subject to methodological criticism, the research of Bernard and Dwyer illustrates that, when the evidence of guilt is unequivocal, the influence of juror characteristics may be lessened or eliminated.

Therefore, one is unable to generalize comfortably about the effects of death qualification on acquittal rates. Several, highly variable factors preclude reliable prediction: the proportion of excludable ju-

125. Jurow, supra note 12, at 583.
126. Bernard & Dwyer, supra note 17, at 112.
127. Id. at 111. Of the 15 juries formed by Bernard & Dwyer, 14 voted to convict, while one "hung."
128. Bernard & Dwyer conclude that excludable and includable jurors are indistinguishable, based on the jury voting results described in the text and the statistically insignificant differences in the voting preferences of individual jurors. However, three cautionary comments are in order: (1) Bernard & Dwyer's case was clearly biased in the direction of guilt; (2) one of 15 juries did hang, which could be suggestive; and (3) excludable jurors were individually less conviction prone, and the small, "insignificant" differences could possibly become significant if the study population were enlarged. See Lempert, supra note 70, at 662 n.58 (statistical insignificance may be function of sample size).
rors in the pertinent community; the magnitude and strength of differences between excludable and includable jurors; the size of the dissenting faction required to withstand a majority willing to convict; and the strength of the prosecution's case. Yet the empirical evidence seems too consistent to deny that death qualification will *ex proprio vigore* alter the outcome in at least some capital cases. Furthermore, what might be relatively small proportion of cases may constitute a numerically significant number of capital defendants whose convictions are the incidental product of a jury selection process.\textsuperscript{129}

One can also engage in reasoned speculation about the type of case in which death qualification will work its effect. Death qualification is likely to be effectual in "close" cases where the acquittal jurors are a relatively small minority (Cowan's case type, for example).\textsuperscript{130} In such cases, the ambiguity of proof may be such that juror traits can influence verdict choices, and the probability that death qualification will destroy an acquittal minority is greatest. To some extent, then, the challenge to death qualification asks how much a criminal justice system values the minority perspective.

A further, and somewhat ironic, implication of the research on death qualification is that the process may pose a greater threat to those *not* actually sentenced to death. Many, if not most, capital sentences result in cases where the evidence of guilt is substantial.\textsuperscript{131} Those courts reviewing capital cases show an increasing willingness to

\textsuperscript{129} See Ballew v. Georgia, 435 U.S. 223, 237-38 (1978) ("Disparities . . . appear in only small percentages. Nationwide, however, these small percentages will represent a large number of cases. And it is with respect to those cases that the jury trial right has its greatest value.")

\textsuperscript{130} As one commentator has noted, most cases are "clear," thus presenting less opportunity for jury characteristics to affect verdicts. Lempert, *supra* note 70, at 648. Drawing on earlier research reported in H. Kalven & H. Zeisel, The American Jury (1966), Lempert estimated that approximately 14 percent of all cases are "close" ones in which jury characteristics might be influential. Lempert, *supra* note 70, at 653. Yet, as noted by Lempert, the actual percentage of cases where jury characteristics may be influential is probably lower. *Id.* at n.36. On the other hand, it should be noted that The American Jury reports a larger percentage of disputed cases (i.e., where judge and jury disagree and, presumably, where decisions may be "close") in homicide trials. H. Kalven & H. Zeisel, *supra*, at 68-69 (judge and jury agree in 72 percent of all cases, but in only 59 percent of murder cases).

See generally Saks, The Limits of Scientific Jury Selection: Ethical and Empirical, 17 Jurimetrics J. 3, 22 (1976) ("If the evidence against a defendant is very strong or very weak, it isn't going to matter who is on the jury. If the evidence is close, then the jury selection could make the difference.").

recite the often compelling (and grisly) evidentiary records of guilty. By comparison, capital cases that produce prison sentences may offer the greatest opportunity for error. It is plausible that juror characteristics can be particularly influential when juries are asked to distinguish among the lesser forms of homicide. Furthermore, those sentenced to prison may, as a practical matter, have fewer opportunities to challenge trial court error than those who are sentenced to death, thus increasing the risk of uncorrected error.

Accordingly, if the threat of death qualification is present in all capital cases—and there is no reason to think it is limited to "hardcore" cases—then the frequent raising of the Witherspoon challenge by death-row inmates may have miscast the nature of the problem. In a large sense, death qualification may have more to do with wrongful prison terms than with wrongful executions. Given the increasing indications that courts have become impatient with the protraction of capital appeals, it would be unfortunate if the challenge to the process of death qualification were viewed as "just another" death-row argument.

IV. SOME CONCLUDING THOUGHTS ON THE CHALLENGE TO DEATH QUALIFICATION

A. Defining the Category of Excludable Jurors

Contemporary studies of death qualification represent well-designed efforts to avoid the methodological flaws of earlier research. The group of excludable jurors has been more narrowly defined, the standard of exclusion has been more carefully articulated, and the threats to study validity have been consciously managed. Thus, contemporary study findings are above much of the methodological reserva-
vation that justified summary disposition of earlier challenges to death qualification.

There is growing reason to suspect, however, that extant research findings may actually understate the magnitude of the problem raised by death qualification. Recent studies of the process of voir dire in capital cases, together with changes in the legal standard for excluding prospective jurors, indicate that the sweep of death qualification may exceed that previously disclosed.

Contemporary researchers have been careful to define the relevant group of excludable jurors by their response to a specific question: "Is your attitude toward the death penalty such that as a juror you would never be willing to impose it in any case . . . ?" By limiting the category of excludable jurors to those answering "yes" to the above question, researchers have attempted to avoid the over-inclusiveness that rendered earlier studies suspect. Yet, it has become clear that the above-quoted inquiry defines too narrowly those jurors who are, in fact, excluded.

The first evidence that jurors were being excluded under a more spacious standard was presented in a 1984 study by Erick Schnapper, Assistant Counsel to the NAACP Legal Defense and Educational Fund. Reviewing some fifteen years' use of the Witherspoon standard of jury qualification, Schnapper discovered that the standard was neither simply nor clearly applied. Instead, Schnapper found that jurors had been excluded even though their answers to the Witherspoon inquiry were indecisive and uncertain, and even though they vacillated in their statement of opposition to capital punishment. Finding that trial courts were applying the Witherspoon standard for exclusion too casually, Schnapper urged that exclusion be permitted only when—in the words of the Witherspoon Court—the juror's inability to impose the death penalty was "unmistakably clear."

Any hope that the courts might hew to Schnapper's fastidious proposal were dashed in the Court's recent death-qualification decision, Wainwright v. Witt. In Witt, the Court extended broad discretion

137. See, e.g., id. at 62; Fitzgerald & Ellsworth, supra note 17, at 40.
138. The research presented in Witherspoon v. Illinois, 391 U.S. 510, 521-22 (1968), for example, identified the attitudes and verdict choices of "scrupled" jurors, see supra note 9, rather than those of the more limited group of excludable jurors. See studies cited supra note 26. See also Grigsby v. Mabry, 758 F.2d 226, 236 (8th Cir. 1985); Fitzgerald & Ellsworth, supra note 17, at 35-36.
140. "[O]ne recurring and overarching reality is apparent: the attitude of individual veniremen toward the death penalty is often as uncertain, divided, and wavering as that of society itself." Id. at 1077.
141. Id. at 993-932.
142. Id. at 989-93, 1078.
to the trial courts to exclude jurors, based on good sense and intuition, notwithstanding the juror’s inability to declare clearly his capacity to impose the death penalty.\textsuperscript{144} The merits of the \textit{Witt} approach to death qualification are debatable. But it seems likely that \textit{Witt} will lead to more conviction-prone panels. Contemporary research on death qualification is based on a study group defined more narrowly than in practice or, after \textit{Witt}, as a matter of law. This more conservative approach results in an understatement of the effects of death qualification, since there is ample evidence to suggest that “scrupled” jurors—those who generally oppose the death penalty but do not express on unequivocal refusal to impose it—usually share the pro-defendant prespective of excludable jurors.\textsuperscript{145}

There remains a second reason to suspect that the effects of death qualification are not fully captured by the reported research. In a pioneer study, Professor Bruce Winick discovered that the formal process

\begin{itemize}
\item[144.] After \textit{Witt}, the standard and the practice of death qualification will be more expansive. First, a juror who fails to articulate his death penalty attitude with the “unmistakable clarity” called for in \textit{Witherspoon} may nonetheless be excluded when it appears that his attitude will “prevent or substantially impair the performance of his duties as a juror in accordance with his instructions and oath.” \textit{Wainwright v. Witt}, 105 S. Ct. 844, 846 (1985) (quoting \textit{Adams v. Texas}, 448 U.S. 38, 45 (1980)). Second, a trial judge may exclude when he is “left with the definite impression that a prospective juror would be unable to faithfully and impartially apply the law.” \textit{Id.} at 853. Moreover, when this impressionistic judgment is made, “deference must be paid to the trial judge who sees and hears the juror,” even though the printed record reveals that the juror was uncertain of his disposition or unable to articulate it. \textit{Id.}
\item[145.] There is no available research that measures precisely the difference in the attitudes and conviction rates of scrupled jurors, but there are suggestive findings. In Jurow’s study of “authoritarianism,” for example, excludable jurors averaged a score of 18.7 on a scale of 10-30 (lower numbers suggesting less authoritarianism), scrupled jurors averaged a score of 21.3, and all other jurors averaged a score of 22.7 (weighted). Jurow, \textit{supra} note 12, at 587 (Table VI). The same pattern of attitudinal differences—in which pro-defendant attitudes increase as opposition to capital punishment increases—can be found in Bronson II & III, \textit{supra} note 17, at 17, 26, and in Bronson I, \textit{supra} note 17, at 8. In fact, the three Bronson studies reveal that scrupled jurors (defined as those who opposed—but not strongly—capital punishment) have more defendant-prone attitudes on virtually every attitudinal question.
There is similar, though somewhat less compelling evidence regarding the conviction-proneness of scrupled jurors. In Jurow’s simulated cases, one case revealed that scrupled jurors acquitted at a higher rate than both excludable and non-scrupled jurors, while a second case revealed no significant differences. Jurow, \textit{supra} note 12, at 583. The Harris Study revealed that acquittal votes for each of four summarized cases increased as the researchers moved from respondents with “low scruples” to those with “medium/low scruples” and “high scruples.” Harris Study, \textit{supra} note 17, at 35.

Thus, the available evidence seems to suggest clearly that the expansion of death qualification to exclude those jurors who are scrupled, but who do not express on unequivocal opposition to the death penalty, will accentuate the anti-defendant, conviction-proneness of resulting juries.
of death qualification may be followed by further, informal death qualification through voir dire.\textsuperscript{146} That is, prosecutors appear to use information obtained during the death qualification process to weed out scrupled choices by preemptory challenge. In the judicial system studied by Winick, prosecutors were successful in eliminating almost all jurors with qualms about the death penalty.\textsuperscript{147} Of course, it might be argued that preemptory challenges are freely and equally available to both the prosecution and the defense, and that the net effect is neutral. This conclusion, however, overlooks the fact that the proportion of scrupled jurors is often so small that the defense cannot possibly counterbalance the prosecution's practice through a responsive use of peremptory challenges.\textsuperscript{148} The result is that capital juries will represent a narrow range of attitudes toward capital punishment, ranging from supportive to neutral.\textsuperscript{149}

Informal death qualification through peremptory challenges seems especially unjust given the present power of courts to exclude jurors based on undifferentiated impressions and intuitions.\textsuperscript{150} Not only may the judge err on the side of exclusion, the open-ended process of qualification elicits juror responses from which the prosecution can formulate peremptory challenges that directly undermine the original \textit{Witherspoon} holding—which stated that the exclusion of scrupled jurors denies capital defendants the right to trial by an impartial jury.\textsuperscript{151}

Professor Winick's suggested remedy for the abuse of peremptory challenges, a more narrowly limited inquiry under \textit{Witherspoon},\textsuperscript{152}

\textsuperscript{146} Winick, \textit{supra} note 43. Winick's five-year study of peremptory practices in one Florida judicial circuit revealed that 77 percent of all jurors with scruples about capital punishment were peremptorily challenged by the prosecution, compared to 28 percent of all non-scrupled jurors. \textit{Id.} at 35.

\textsuperscript{147} The prosecution's peremptory practices, it should be noted, followed an even greater number of prosecutorial challenges for cause (usually of the \textit{Witherspoon} variety). Thus, of the original venire consisting of 147 scrupled jurors, 67 were successfully challenged for cause by the prosecution, 24 were eliminated for cause by the courts, and 40 were perempted by the prosecution. By comparison, only four scrupled jurors were successfully challenged to perempted by the defense. \textit{Id.} at 30-31.

\textsuperscript{148} \textit{See id.} at 48-49.

\textsuperscript{149} In Winick's study—which was conducted in a jurisdiction containing an unusually low percentage of scrupled jurors (13 percent)—the number of scrupled jurors remaining for service after death qualification was 6 percent. \textit{Id.} at 30-31.

\textsuperscript{150} \textit{See supra} notes 143-145 and accompanying text.


\textsuperscript{152} Professor Winick's proposal for a strictly delimited voir dire would seem incompatible with the unstructured, impressionistic process outlined in \textit{Witt}. \textit{See supra} note 144. Winick also recommended that, in jurisdictions where the guilt and sentencing phases are separate, pre-trial voir dire be limited to the determination of a juror's ability to judge guilt impartially—leaving to after trial the death qualification of the sentencing jury. \textit{Winick, supra} note 43, at 87. This deferral of death qualification is, of course, the remedy sought in the present challenge to death qualification. \textit{See, e.g., Grigsby v. Mabry}, 758 F.2d 226, 243 (8th Cir. 1985).
has been foreclosed by the court's decision in Witt. Yet, there is an alternative remedy that may reduce substantially the opportunity for abuse of peremptory challenges, while preserving the opportunity for legitimate use of those challenges. Death qualification could be reserved until after the completion of non-Witherspoon voir dire and the exercise of peremptory challenges. The process of circumventing Witherspoon through peremptory challenges will seldom be possible if peremptories are exercised in ignorance of a juror's attitude toward capital punishment. In effect, the prosecution and the defense would exercise peremptory challenges based on full disclosure of the type of information typically elicited during non-capital voir dires.\footnote{Death qualification itself would be the special province of the trial court unsupplemented by additional peremptory challenges.}

The proposed remedy would not, admittedly, be a perfect palliative. Death qualification is an inexact process, and occasionally there may be excludable jurors who elude the process of detection. Yet, to the extent that peremptories are intended to provide a margin of error for correcting mistakes in jury qualification, the broad Witt standard for death qualification seems already to have created a margin of error favoring the prosecution. It will probably be the infrequent occasion when disclosure of a juror’s attitude toward capital punishment serves any peremptory purpose other than the circumvention of Witherspoon.\footnote{But even if the Supreme Court were to adopt the Grigsby position, there would remain the problem of prosecutors’ discovering scrupled jurors through the search for nullifiers. The continuing potential for abuse is illustrated by the voir dire quoted in Witt, which lead to the disqualification of a juror incapable of adjudicating guilt impartially. Wainwright v. Witt, 105 S. Ct. 844, 848 (1985). We suggest that all peremptory challenges should be used before any form of death qualification occurs.}

153. As the Court has noted, there is no constitutional right to the use of peremptory challenges. See Swain v. Alabama, 380 U.S. 202, 219 (1965). Thus, to the extent that this discretionary practice creates the opportunity for infringement of constitutional values, it can be modified. Of course, if defense counsel should conclude that ordinary peremptory practice is in his client’s best interests, there is an reason why the option of modifying peremptory practices cannot be waived.

154. In actuality, prosecutorial abuse of peremptory challenges may serve two illegitimate purposes: first, the circumvention of Witherspoon by eliminating scrupled jurors from the prospective sentencing phase; and second, the elimination of defendant-prone jurors from the guilt-adjudication phase. Lest this inference appear too cynical, consider the following quote from Grigsby:

It should be noted here that as soon as the prosecutor got a "guilty" verdict he waived the death penalty. Why? If he knew from the beginning that he would not press for the death penalty, then one could argue that he first stated that the state would seek the death penalty in order to get a "death qualified" jury, one that he felt would more likely convict than a non-death qualified jury.

The proposed remedy for abuse of peremptory challenges might also be questioned because it does not fully foreclose the opportunity for abuse by savvy attorneys. There may be substance to this objection insofar as the proposed remedy is imperfect. Doubtless, some cunning attorneys will develop circumspect means of eliciting information that suggests the juror's attitude toward capital punishment. And the proposed remedy would clearly require more careful monitoring of voir dire by the court. Yet, it would seem that opposing counsel attuned to the possibility of circumspection can provide an important check to such abuse. Furthermore, it should be recalled that the attitudes and characteristics of excludable jurors are not homogeneous. Accordingly, the attempt to infer the death-qualified status of prospective jurors through indirect questioning may be less promising than one might initially think.

Curtailing the potential for abuse of death qualification through peremptory challenges will not obviate all, or even most, injurious effects alleged to result from death qualification. But restrictions on peremptory challenges would at least remove the taint of knowing governmental manipulation of capital juries, and would do so with few incidental effects. In addition, restrictions on peremptory challenges would somewhat reduce the possibility that the worst potential of death qualification will be realized.

B. The Normative Issues Posed by Death Qualification

The empirical challenge to death qualification may present the most complex socio-legal claims yet addressed by the courts. As demonstrated earlier, uncertainty inheres in every aspect of the capital jury's operation, whether one focuses on the method of identifying excludable jurors or the deliberate process through which verdicts are reached. So it is that, some seventeen years after Witherspoon, no definitive conclusions can be stated as to the frequency or the magnitude of the effects of death qualification.

Yet, it is hardly characteristic for courts to demand dispositive empirical evidence before acting upon behavioral assumptions. Constitutional jurisprudence is replete with behavioral premises less tested than the hypothesis of death qualification. The results and precepts of prior restraint, police interrogation, evidentiary exclusion and

155. See supra text accompanying note 64.
school desegregation\textsuperscript{159} are but a few illustrations of the Supreme Court's propensity to transform behavioral suspicions into doctrine. In fact, the challenge to death qualification presents the uncommon situation where courts have the opportunity to formulate constitutional standards \textit{after} the behavioral premises have been investigated.

Nor is it likely that further empirical research can add significantly to the current understanding of death qualification. The true magnitude of the phenomenon of conviction proneness is probably unmeasurable,\textsuperscript{160} given the complexity of capital cases and capital adjudication. A certain amount of judicial conjecture is needed, even if it is a more informed sort than that to which courts are accustomed.

What does remain for resolution are \textit{normative} questions, for which courts are aptly suited. In its largest sense, the challenge to death qualification asks what pains the criminal justice system is willing to take to avoid convictions that are the incidental product of state insistence that capital juries have potential to impose the death penalty. The argument against death qualification appears to rest on one of the most hallowed of our legal tenets: that neither procedural convenience nor law enforcement should be exulted over the protection of the unjustly accused.\textsuperscript{161} So characterized, the argument seems compelling.

Further examination, however, reveals that the challenge is a more subtle and less reflexive one. The current safeguards that accompany capital trials and appeals are the most elaborate of our criminal justice system.\textsuperscript{162} Jurors, in particular, are selected with inordinate care,\textsuperscript{163} and a host of procedural and evidentiary restrictions insure that the potential for juror error is minimized.\textsuperscript{164} Furthermore, the opportunities for detection of "error," as it is understood by the courts, are numerous and repetitive.\textsuperscript{165} Thus, even if death-qualified juries

\begin{itemize}
\item \textsuperscript{159}Wilkey, \textit{The Exclusionary Rule: Why Suppress Valid Evidence?}, 62 \textit{Judicature} 214 (1978).
\item \textsuperscript{160}In Keeten v. Garrison, 578 F. Supp. 1164 (W.D.N.C.), rev'd, 742 F.2d 129 (4th Cir. 1984), expert testimony was offered in an attempt to quantify the impact of death qualification. Predictably, experts for the two sides differed sharply in their assumptions and in their predictions of impact. As to consequence, the district court did not rest its opinion on specific findings of impact. \textit{Id.} at 1185-86.
\item \textsuperscript{161}See, e.g., Burch v. Louisiana, 441 U.S. 130, 139 (1979); Ballew v. Georgia, 435 U.S. 223, 244 (1978).
\item \textsuperscript{162}See generally Kaplan, \textit{supra} note 134, at 571-76.
\item \textsuperscript{163}\textit{Id.} at 571 (citing evidence that jury selection takes more than four times longer in capital cases).
\item \textsuperscript{165}Kaplan, \textit{supra} note 134, at 572-73.
\end{itemize}
occasionally produce different verdicts, there is arguably no reason to impeach those verdicts in the absence of legally cognizable error that suggests those verdicts may be flawed.

Justices Rehnquist and O'Connor have suggested that challenges to death qualification should, in fact, be accompanied by proof of actual prejudice.\(^\text{166}\) But if this were to be adopted as a legal standard, the empirical challenge to death qualification would be effectively rendered moot. Specific explanations for the phenomenon of conviction proneness are as yet inadequate. Many of the tentative explanations—that death-qualified jurors are more credulous of the prosecution's evidence, or that they accept a lower threshold for the prosecution's burden of proof\(^\text{167}\)—would be undemonstrable in a particular case even if one were able to determine that a particular state of credulity was "error." Furthermore, if death qualification works its effect in close cases, there will usually be evidentiary ground for sustaining trial court verdicts. In short, situational prejudice will usually be undetectable.

More importantly, the challenge to death qualification is principally a challenge to different, as distinguished from wrongful, verdicts. An inherent feature of our jury system is that two certifiably impartial juries may differ in their assessment of guilt, and that difference may result from distinctions in the makeup of the two juries. In the absence of conventional legal error, either verdict is final and accepted regardless of its metaphysical correctness. But, while jury variation is tolerable in our semi-randomized system of juror selection, it may not be when variation results from the systematic, tendentious screening of jurors.

In the last analysis, the challenge to convictions produced by death qualification is entwined inextricably with the challenge to the representativeness of death-qualified juries. Alone, either the fair-cross-section or the conviction-proneness argument can be parsed to the point where no "compelling" legal cause is stated. It does not seem that death qualification leads to legally significant underrepresentation of blacks, women, or civil libertarians, even though it is clear that

\(^{166}\) Woodard v. Hutchins, 104 S. Ct. 752, 754 (1984) (Rehnquist, J., concurring). The position of Justices Rehnquist and O'Connor seems in conflict with the Court's earlier holdings, which require no showing of actual prejudice when the defendant has been convicted by an unconstitutionally-composed jury. See, e.g., Duren v. Missouri, 439 U.S. 357, 368 (1978); Ballew v. Georgia, 435 U.S. 223, 244-45 (1978).

\(^{167}\) The most sophisticated research to date can be found in Cowan, supra note 12. This research disclosed that death-qualified juries tend to be more impressed with prosecution witnesses, tend to be less stringent in the application of the reasonable doubt standard, and tend to produce less information and debate during deliberation. Id. at 69-72, 75-76. The differences reported by Cowan, though statistically significant at times, were not overwhelming in magnitude; thus, the findings can only be viewed as suggestive at this point.
all three groups are diminished by the process. Nor can it be said that death qualification greatly increases the risk of wrongful convictions, even though it seems clear that an appreciable number of convictions can be traced to the process.

Thus, the conviction proneness of death-qualified juries is objectionable, not so much because it produces errant verdicts, but because the resulting verdicts may be traced to alterations in the community mix on juries. This is a point over which several circuit court panels continue to trip in their insistence that an apparently "impartial" jury verdict by a death-qualified jury is constitutionally firm. The point is that the accused is entitled to trial by an impartial jury, fortuitously selected (for the most part), and free of systematic selection biases that increase the odds against her. The constitutional norm in criminal juries is, mutatis mutandis, the community as is.

If it is conceded that death qualification compromises the right to a jury trial by some unmeasurable extent, if is incumbent upon the state to justify the practice. Since all concede that death qualification must occur at some trial stage before the sentence can be determined, the state's principal contention must be that the present scheme is the only feasible one. One claim raised by the lower courts, that death qualification may be in the defendant's best interests, seems specious unless the state is willing to grant the defendant the option to waive this paternalistic protection in exchange for better odds against conviction.

---

168. See, e.g., Rowan v. Owens, 752 F.2d 1186, 1190 (7th Cir. 1984); Keeten v. Garrison, 742 F.2d 129, 134 (4th Cir. 1984); Smith v. Balkcom, 660 F.2d 573, 578 (5th Cir. 1981), modified, 671 F.2d 858 (5th Cir. 1982). This position is soundly rebutted in Winick, supra note 43, at 59-60. See also Grigsby v. Mabry, 578 F.2d 226, 241-42 (8th Cir. 1985).

169. See, e.g., Smith v. Balkcom, 660 F.2d 573 (5th Cir. 1981), modified, 671 F.2d 858 (5th Cir. 1982); People v. Fields, 35 Cal. 3d 329, 332, 673 P.2d 689, 694, 197 Cal. Rptr. 803, 817, cert denied, 105 S. Ct. 267 (1984). The court in Smith opined that members of the jury determining guilt might, after convicting the defendant of first-degree murder, contain "whimsical doubt" about their decision that could carry over to the penalty phase. These jurors, the argument goes, would be less likely to sentence the defendant to death. The original court in Smith could cite no evidence to support its theory. Smith v. Balkcom, 660 F.2d 573, 581 (5th Cir. 1981).

There are several dubious aspects to this argument. First, the court assumes that the sentencing jury would consist of completely new members; other courts have assumed that only the excludable jurors would be replaced at the sentencing phase. See, e.g., Grigsby v. Mabry, 758 F.2d 226, 243 (8th Cir. 1985); Keeten v. Garrison, 578 F. Supp. 1164, 1186 (W.D.N.C.), rev'd, 742 F.2d 129 (5th Cir. 1984). Thus, it is plausible that those jurors serving during both phases—who have themselves entertained "whimsical doubt" during jury deliberations—could moderate the sentencing decision. Second, if the evidence in the case raises doubts about conviction, this is precisely where a defendant might desire a less conviction-prone excludable juror at the guilt-determination phase. See supra text accompanying note 124. The trade-off suggested by the court—a more conviction-
A more plausible state justification can be drawn from historical practice. The process of death qualification arose in a era when the death sentence followed automatically from conviction for a capital crime. Death qualification served the salutary function of screening out "nullifiers," who might acquit the guilty in order to avoid the non-discretionary infliction of a death penalty.170 The modern fear, expressed by one appellate court, is that excludable jurors might be surreptitious nullifiers who elude detection at voir dire.171

The claim that death qualification is needed to screen further for nullifiers, whatever is historical status, has been undermined by the decision in Wainwright v. Witt.172 In Witt, the Court has sanctioned broad trial court discretion—trial courts may play their numbers—in screening capital opponents.173 Any doubts that a juror can adjudicate the case impartially may be resolved against qualification, thereby eliminating the need for secondary screening mechanisms. Furthermore, it seems somewhat disingenuous to grasp at the unproven assumption that excludable jurors are latent nullifiers as a means of rebutting the confirmed phenomenon of conviction proneness.

The remaining justification for the present scheme of death qualification seems to be the unknown procedural costs that will result if excludable jurors are not removed until after the guilt determination phase is concluded.174 This change would probably necessitate the use of alternate jurors, who would be substituted at the sentencing phase.175 Although the use of alternate jurors is established practice in most jurisdictions,176 one cannot predict the consequences of routinizing this practice in all capital cases. Yet, it seems evident that such administrative trepidation alone cannot justify resistance to reform, if the proven cost of the present system is the constitutionally infirm conviction of capital defendants.177 The deferral of death qualification until after guilt is determined, like other procedural innovations, will

---

prone jury for a less death-prone jury—seems one that the accused is unlikely to make. In any event, if it is a tradeoff that the accused should have the discretion to make.

170. See generally Oberer, supra note 12, at 549-52; White, supra note 10, at 354-57.
173. See supra text accompanying note 144.
175. Id. See also Grigsby v. Mabry, 758 F.2d 226, 243 (8th Cir. 1985).
176. See, e.g., FED. R. CRIM. P. 24 (on the use of alternate jurors).
177. See, e.g., Ballew v. Georgia, 435 U.S. 223, 244 (1978). See generally Winick supra note 43, at 58. Both the courts and the commentators have questioned whether changes in jury practice in the relatively small number of capital cases will actually produce great administrative cost and inconvenience. See e.g., Grigsby v. Mabry, 758 F.2d 226, 243 (8th Cir. 1985); White, supra note 10, at 400.
eventually be assimilated into trial practice; any imagined problems can be dealt with as they materialize.

Thus, the critical question in the challenge to death qualification is whether courts will recognize the empirical evidence that establishes a constitutional violation. This is by no means clear. As one commentator has observed, empirical challenges to the death penalty tend to invite the clash of experts, and the confusion of voices, that make courts reluctant to act on the strength of social science evidence. The evidence on death qualification is peculiarly subject to this disputation, since the alleged faults with the process are not the palpable, predictable stuff with which courts are accustomed to dealing. Like sub-atomic particles or some unisolated bacteria, the effects of death qualification elude precise description or quantification. It is just such effects that courts might fail to see.

The effort to discern the elusive effects of death qualification also has the potential to obscure the courts' larger vision of the extensive juror manipulation that is part of our present system. Winick's research on the peremptory practices of prosecutors only confirmed what was suspected long before Witherspoon: the state is highly suspicious of jurors with scruples about capital punishment, and intent upon ridding them from capital juries. Indeed, it takes one with the credulity of the Queen in Through the Looking Glass—who made a habit of believing several impossible things before breakfast each morning—to take seriously the state's current contention that excludable jurors are otherwise fungible with qualified jurors. The state's own practice belies its claim.

It must also be remembered that the screening of excludable jurors is preceded by an often extensive disqualification of "nullifiers," those jurors whose opposition to capital punishment is so great that they could not participate in any aspect of capital adjudication. These nullifiers, concededly, cannot serve on capital juries. Yet, the social science commentators have too easily conceded that these nullifiers can be ignored in assessing the practical consequences of death qualification. Like the screening of excludable jurors, the screening of nullifiers decimates the representation of protected juror groups and constrains the presence of more defense-prone jurors. The "unfit-

179. See supra text accompanying notes 143-54.
180. L. CARROLL, THROUGH THE LOOKING GLASS (1898).
181. See supra note 3.
182. See id.
183. This effect is illustrated by the Precision Research Survey, supra note 17, which was used in Grigsby. That survey disclosed that 36 percent of blacks would be eliminated as nullifiers, compared to only 9 percent of whites. Id. at 20. Further-
ness" of these jurors for service, moreover, results from an individual conscience that, in non-capital cases, constitutes a cherished and serviceable part of the jury's conscience. The social cost of these jurors' loss should not be overlooked when interpreting the effects of death qualification, even if these jurors lack legal cognizability.

V. CONCLUSION

The death qualification of excludable jurors, therefore, is but one facet of a larger system that produces capital juries looking nothing like the community from which they are drawn. So long as death is an unacceptable criminal penalty to substantial segments of our society, some skewing of juries through death qualification will continue. But it is one thing for our courts to bow to necessity, and quite another for them to over-imagine what is necessary. Put simply, the current process of death qualification has yet to justify itself, and that is a burden that the system should carry.

more, the survey revealed that most nullifiers are strongly opposed to capital punishment. *Id.* at 18. As indicated earlier, strong opponents of capital punishment usually express the more pro-defendant attitudes, and usually show less tendency to convict. See *supra* notes 59 & 61. Thus, the logical (and commonsensical) inference is that the elimination of nullifiers will magnify those injurious effects produced by the screening of excludable jurors.

Furthermore, the dilution of community representation must be understood in the context of the common underrepresentation of minorities and women on jury selection lists. The extensive evidence confirming such underrepresentation is summarized in J. VANDYKE, *supra* note 87, at 23-43. Vandyke notes that "non-whites are underrepresented on juries in the vast majority of courts in this country." *Id.* at 28. Vandyke also notes that 88.9 percent of jury service surveys find that women are underrepresented, and often in substantial percentages. *Id.* at 39-40.
APPENDIX

(1) In determining the percentage reduction in attitudes, supra Table II, and in acquittal votes, supra Table IV, resulting from death qualification, the following formula was used:

\[ p = \text{percentage of death-qualified jurors with attitude/characteristic} \]
\[ r = \text{percentage of death-qualified jurors in population} \]
\[ x = \text{percentage of excludable jurors with attitude/characteristic} \]
\[ y = \text{percentage of excludable jurors in population} \]
\[ D = \text{difference in makeup of death-qualified and non-qualified juries.} \]

\[ D = p - [(p \cdot r) + (x \cdot y)] \]

By way of illustration, Fitzgerald and Ellsworth report that 32.3 percent of death-qualified jurors agree that "failure to testify indicates guilt." By comparison, 23.5 percent of excludable jurors so believe. Thus, assuming excludable jurors constitute 20 percent of the jury population, the attitudinal effect of death qualification is as follows:

\[ D = .323 - [(0.323 \cdot 0.80) + (0.235 \cdot 0.20)] \]
\[ = .323 - [(0.2584) + (0.047)] \]
\[ = .323 - 0.305 \]
\[ = .018 \]
\[ = 1.8\% \]

(2) In determining the probabilities of the appearance of an attitude, or the appearance of an acquittal vote, the following binomial probability distribution was used:

\[ p(y) = \text{probability of selecting "y" number of jurors with designated characteristic on twelve-person jury.} \]
\[ n = \text{number of jurors per jury (12).} \]
\[ p = \text{percentage of jurors in entire population with designated characteristic.} \]
\[ q = \text{percentage of jurors in entire population without designated characteristic.} \]

\[ p(y) = \frac{n!}{y!(n-y)!} (p)^y(q)^{n-y} \]

Of course, the pertinent empirical question in the study of jury impact is whether a twelve-person jury will have at least a minimum number

184. See supra text accompanying notes 70-72.
185. See supra text accompanying note 122.
186. See generally W. MENDENHALL, supra note 65, at 173-75.
of jurors with a designated characteristic. That is, if two acquittal jurists are thought necessary to avoid a conviction, the pertinent issue is the probability that a particular twelve-person jury will have two, three, etc., jurors, as distinct from no or only one acquittal juror. The probability of having at least two acquittal jurors can thus be determined in the following way:

\[
Pr \text{ (two or more acquitters)} = 1 - Pr \text{ (no acquitter)} - Pr \text{ (one acquitter)}^{187}
\]

By way of illustration, assume that 74.8 percent of the jurors in a population disfavor the insanity defense. The probability of finding one such juror on a randomly-selected twelve-person jury is calculated as follows:

\[
Pr \text{ (1 or more jurors disfavoring insanity plea)} = 1 - Pr \text{ (no juror disfavoring insanity plea)}
\]

\[
= 1 - \frac{12!}{0!(12-0)!} (.748)^0 (.252)^{12}
\]

\[
= .999997
\]

The probability that at least two jurors will disfavor the insanity defense is calculated as follows:

\[
Pr \text{ (2 or more jurors)} = 1 - Pr \text{ (no juror)} - Pr \text{ (one juror)}
\]

\[
= 1 - (0) \frac{12!}{1!(12-1)!} (.748)^1 (.252)^{11}
\]

\[
= .999997
\]

187. See id. at 175. See generally M. SPIEGEL, STATISTICS 99-104, 115 (1961); Lempert, supra note 70, at 643.