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Juror First Votes in Criminal Trials

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Juror First Votes in Criminal Trials

Stephen P. Garvey, Paula Hannaford-Agor, Valerie P. Hans, Nicole L. Mott, G. Thomas Munsterman, and Martin T. Wells*

What explains the way in which jurors cast their first vote in a criminal trial, before the dynamics of the deliberation process take over? Analysis of 3,000 jurors in criminal trials in four major metropolitan areas indicates, consistent with prior research, that jurors pay great attention to the evidence. The stronger the evidence against the defendant, the more likely the juror is to vote guilty. We also find that jurors dislike police duplicity. Police officers who give unbelievable testimony will, all else being equal, push jurors toward a first vote of not guilty. Beyond that, our conclusions are specific and limited to a particular jurisdiction. A juror's beliefs about the fairness of the law or the harshness of the consequences of conviction make a difference in some jurisdictions under some circumstances, but not in other jurisdictions under different circumstances. We also find that African-American jurors in the District of Columbia sitting on cases involving minority defendants charged with drug offenses are, unlike jurors in other jurisdictions, less likely to vote for conviction on the first ballot (but not on the final one) compared to white jurors. Our results therefore highlight the importance of analyzing juror behavior at a more local level. Analyzing juror behavior at the aggregate level can conceal important local variation.

I. INTRODUCTION

What explains why a juror votes as he or she does in a criminal trial? That question has been asked and empirically analyzed many times using a variety of methodologies. The question often presupposes that personal characteristics of jurors, including demographic variables and individual attitudes, influence the votes they cast.

According to a recent review of the literature, "juror demographic characteristics have been only weakly and inconsistently related to juror verdict preferences."[1] Race is frequently cited as an exception to this generalization, with several studies having detected some form of in-group or own-race bias.[2] Similarly, with the exception of attitudes toward capital punishment, "no cluster of attitudes/values has received enough attention to allow firm conclusions to be drawn."[3] In fact, the "primary determinant"[4] of jury verdicts in criminal trials is neither the attitudes of the jurors nor their demographic profile, but the strength of the evidence against the defen-

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[1]Dennis J. Devine et al., Jury Decision Making: 45 Years of Empirical Research on Deliberating Groups, 7 Psychol. Pub. Pol'y & L. 622, 673 (2001); see also Randolph N. Jonakait, The American Jury System 159 (2003); Nancy J. King, Postconviction Review of Jury Discrimination: Measuring the Effects of Juror Race on Jury Decisions, 92 Mich. L. Rev. 63, 82 n.65 (1993); Michael J. Saks, What Do Jury Experiments Tell Us about How Juries (Should) Make Decisions?, 6 S. Cal. Interdisciplinary L.J. 1, 10–11 (1997); M. Juliet Bonazzoli, Note, Jury Selection and Bias: Debunking Invidious Stereotypes Through Science, 18 Quinnipiac L. Rev. 247, 263 (1998).

[2]Devine et al., supra note 1, at 673; King, supra note 1, at 82; see also Samuel R. Sommers & Phoebe Ellsworth, White Juror Bias: An Investigation of Prejudice Against Black Defendants in the American Courtroom, 7 Psychol. Pub. Pol'y & L. 201 (2001) (white juror bias against African-American defendants is less likely when race is salient); Theodore Eisenberg et al., Forecasting Life and Death: Juror Race, Religion, and Attitude Toward the Death Penalty, 30 J. Leg. Stud. 277 (2001) (African-American jurors are less likely to vote for death on first vote); James P. Levine, The Impact of Racial Demography on Jury Verdicts in Routine Adjudication, 33 Crim. L. Bull. 523, 531 (1997) (finding based on data from New York that acquittal rates increase as the proportion of the minority population in a county rises). For a recent review of the available social science research regarding race and juries, see Samuel R. Sommers & Phoebe C. Ellsworth, How Much Do We Really Know about Race and Juries? A Review of the Social Science Theory and Research, 78 Chi.-Kent L. Rev. 997 (2003).

[3]Devine et al., supra note 1, at 675.

[4]Id. at 686.

dant.[5] Consequently, the influence of attitudes and demographics, if any, can be hard to detect if the case against a defendant is strong. The influence of individual juror attitudes and demographics also risks getting lost in the jury's collective decision making, since another powerful determinant of the jury's final verdict is the size of the initial majority in favor of one verdict or another. The larger the size of that majority, the more likely the jury's final verdict will reflect its will.[6]

Accordingly, any effort to detect the influence of a juror's attitudes or demographic profile on his or her decision making, or at least his or her initial decision making, must not only control for the strength of the evidence against the defendant, it must also control for the influence of the initial majority on the jury's final verdict. The analysis presented here does just that. Using a new and unique data set based on more than 300 criminal cases tried in four major metropolitan jurisdictions, we try to identify the influence, if any, of a number of attitudinal and demographic variables on a juror's voting behavior. We control for the strength of the evidence against the defendant by using a variable reflecting the trial judge's assessment,[7] rendered before the jury returned its verdict, of the evidence's strength. We control for the influence of the initial majority on the jury's final vote by

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[5]Id.; see also Jonakait, supra note 1, at 221; Christy A. Visher, Juror Decision Making: The Importance of Evidence, 11 Law & Hum. Behav. 113–14 (1987).

[6]See, e.g., Devine et al., supra note 1, at 690 ("There are compelling data from numerous studies indicating that the verdict of the majority of the jury at the beginning of deliberation will be the jury's final verdict about 90% of the time."). See also Harry Kalven & Hans Zeisel, The American Jury 462 (1966).

[7]The questionnaires did not collect demographic information about the judge. Based on information collected from publicly available sources, we estimate that during the relevant time period approximately 52 judges served on the Los Angeles Superior Court (criminal), of whom approximately 35 were male, 17 female, 5 African American, 1 Hispanic, and 5 Asian/Pacific Islander; approximately 87 judges served on the Maricopa County Superior Court (criminal and civil), of whom approximately 66 were male, 21 female, and 7 Hispanic; approximately 29 judges served on the Bronx County Superior Court (criminal and civil), of whom approximately 22 were male, 7 female, 4 African American, and 4 Hispanic; approximately 75 judges served on the Superior Court of the District of Columbia (criminal and civil), of whom approximately 48 were male, 27 female, 31 African American, and 3 Hispanic. These estimates are based on information gathered from reviews of the 2000–2001 and 2001–2002 annual editions of *The American Bench* and the second and third editions of *The Directory of Minority Judges*. We thank Thomas W. Mills, Cornell Law Library, and Mireia Artigot, Cornell Law School LL.M. Class of 2004, for collecting the information.

focusing not on the jury's final vote (a vote that reflects the influence of the initial majority) but on each individual juror's first vote (a vote that generally reflects any such influence to a lesser degree).[8]

Overall, we find, consistent with prior research, that the strength of the evidence against a defendant is strongly and consistently related to how a juror casts his or her first vote. The stronger the evidentiary case against the defendant, the more likely the juror is to vote to convict. Moreover, the strength of the evidence against a defendant influences a juror's first vote no matter what the jurisdiction in which the defendant is tried. Likewise, we find, at least in cases in which a police officer testifies, that a juror is more likely, all else being equal, to vote to acquit if he or she finds the officer's testimony unbelievable. Again, this finding generally holds across all four jurisdictions. Beyond that, however, the factors tending to influence a juror's first vote vary from one jurisdiction to the next, thus highlighting the importance of looking at aggregate data in the disaggregate.

We proceed as follows. Part II gives a brief description of the data. Part III reports a preliminary examination of the attitudinal and demographic variables used to model a juror's first vote. Part IV presents several models of a juror's first vote. Some models examine the data in the aggregate; others break it down according to jurisdiction.

II. The National Center for State Courts' Data

The National Center for State Courts (NCSC) gathered the data analyzed here as part of a project, funded by the National Institute of Justice, designed to study the problem of hung juries. The results of that study are reported in *Are Hung Juries A Problem?*,[9] which provides a full description of the data and the data-collection process.[10]

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[8]The jury's first vote will reflect the influence of the other jurors insofar as the members of the jury discuss the case before the first vote is taken. See Marla Sandys & Ronald C. Dillehay, First-Ballot Votes, Predeliberation Dispositions, and Final Verdicts in Jury Trials, 19 Law & Hum. Behav. 175, 191–92 (1995) (finding that substantial discussion often exists prior to a first vote such that first votes probably already reflect group-process effects).

[9]National Center for State Courts, Paula L. Hannaford-Agor, Valerie P. Hans, Nicole L. Mott & G. Thomas Munsterman, Are Hung Juries a Problem? (Sept. 30, 2002), available at <http://www.ncsconline.org/WC/Publications/Res_Juries_ HungJuriesPub.pdf>.

[10]Id. at 29–40.

Four trial court jurisdictions participated in the study: the Central Division, Criminal, of the Los Angeles County Superior Court, California; the Maricopa Country Superior Court (Phoenix), Arizona; the Bronx County Supreme Court, New York; and the Superior Court of the District of Columbia. Data were collected on noncapital felony trials from the various jurisdictions at different time intervals ranging from June 2000 to August 2001. Court personnel supervised the distribution and collection of the questionnaire packets. Different questionnaires were prepared for the judge who presided on the case, for the prosecution and defense attorneys, and for the jurors.

If a case proceeded through trial to jury deliberations, the clerk of the court or the judge was asked to complete a questionnaire gathering information about the case, including the charges against the defendant and the race of the defendant. The judge was also asked at that time to provide his or her estimate of the strength of the evidence against the defendant, as were the attorneys for the state and the defendant. The juror questionnaires, which gathered information about the juror's first vote, as well as attitudinal and demographic information, were completed after a verdict was announced or a mistrial declared due to a hung jury.[11]

III. DEMOGRAPHICS AND ATTITUDES

The survey instrument distributed to the jurors collected a range of demographic information, including race, gender, age, religiosity, household income, educational attainment, job status, and occupation.[12] The instrument also included attitudinal questions asking jurors to assess the fairness of the law and of the result in the case on which the juror served, the extent to which the juror placed trust in the courts and police in his or her community, and the extent to which the juror believed crime was a serious problem in his or her community.

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[11]If a mistrial was declared for some reason other than a hung jury, it was not included in the sample.

[12]Jurors were asked about their religiosity, that is, how "religious" they considered themselves to be, not about their denominational affiliation. Because the religiosity variable was significant in none of the models developed in the course of the analysis, we elected to exclude it from the models presented in Part IV.

Table 1:   Demographics and Juror First Vote

	Not Guilty	*Undecided*	*Guilty*	*n*	*p-Value*
African-American juror	46%	13%	41%	743	0.000***
White juror	31%	12%	57%	1,298	0.000***
Hispanic juror	36%	15%	49%	629	0.542
African-American juror-minority defendant	47%	12%	40%	651	0.000***
African-American juror-white defendant	22%	11%	67%	18	0.140
White juror-minority defendant	32%	13%	55%	960	0.008***
White juror-white defendant	30%	10%	60%	136	0.312
Hispanic juror-minority defendant	36%	13%	51%	496	0.955
Hispanic juror-white defendant	33%	9%	58%	33	0.617
Male	36%	11%	53%	1,206	0.311
Female	36%	15%	50%	1,920	0.311

NOTE: Significance levels test the hypothesis that the variables listed in the first column are not associated with a juror's first vote. Significance levels were calculated using ordered logit regression models accounting for the nonindependence of jurors who sat on the same case. The juror's first vote served as the dependent variable. Dummy variables reflecting the juror characteristic or juror characteristic-defendant characteristic combination listed in the first column served as the independent variable.

A. Demographics

With respect to demographic characteristics, the present study focused on four variables: the race, gender, and age of the juror and the race of the defendant. Jurors and defendants can be racially grouped in different ways. In the end, we elected to focus on three juror race categories (African American, white, Hispanic) and two defendant race categories (minority and white), where the minority defendant category included African-American and Hispanic defendants. This approach produced six basic juror race-defendant race combinations.

Table 1, which includes data from all four jurisdictions,[13] shows how jurors in each juror race and juror race-defendant race category voted on the first ballot, as well as the first vote of male and female jurors. The *n* in Table 1 (and in all subsequent tables) reflects the number of jurors who

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[13]The juries involved in the study were remarkably diverse. All jurisdictions, with the exception of Maricopa County, had an average of at least half of eight possible race/ethnic categories represented on their juries. The Bronx had close to two-thirds on average, and Los Angeles close to three-quarters. See Hannafor-Agor et al., supra note 9, at 40.

responded to the survey. A total of 3,497 jurors were included in the data set. The results reported in Table 1 exclude jurors who were neither African American, white, nor Hispanic, or who reported no race, those who failed to report the race of the defendant in the case on which they served, and those who failed to report their first vote. Consequently, only 2,670 jurors are included in Table 1's juror race categories, and only 2,294 in its juror race-defendant race categories.

African-American jurors were most likely to vote not guilty on the first ballot across all jurisdictions. Forty-six percent of African-American jurors voted not guilty on the first ballot, compared to 36 percent of Hispanic jurors and 31 percent of white jurors. White jurors were most likely to vote guilty, with 57 percent voting to convict, compared to 41 percent for African Americans and 49 percent for Hispanics. The difference between the first-vote pattern of white jurors and that of other jurors is statistically significant, as is the difference between the first-vote pattern of African-American jurors and other jurors.

Among the six juror race-defendant race combinations, African-American jurors sitting on cases involving minority defendants were most likely to vote not guilty (47 percent), and the difference between this combination and all others is statistically significant. African-American jurors sitting on cases involving white defendants were most likely to vote guilty, but this combination included very few jurors. Indeed, minority jurors seldom sat on cases involving white defendants. Of the 3,000+ jurors surveyed, only 18 were African-American jurors serving on a jury trying a white defendant, and only 33 were Hispanic jurors serving on a jury trying a white defendant. The largest juror race-defendant race group was white jurors trying minority defendants, amounting to 960 jurors.[14]

Excluding minority juror-white defendant combinations from the mix, white jurors were again most likely to vote guilty on the first ballot. Sixty percent voted for conviction when the defendant was white, and 55 percent voted for conviction when the defendant was minority. Overall, statistically significant differences emerged with respect to two of the combinations compared to all others: African-American juror-minority defendant and white juror-minority defendant. These racial differences are further explored in the regression models constructed in Part IV.

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[14]The small percentage of white defendants in the data is also reported in Hannaford-Agor et al., supra note 9, at 39 tbl.3.5.

B. Attitudes

Jurors were asked a number of questions relating to their views of the criminal justice system. They responded on a scale ranging from one to seven, which we recoded on a scale ranging from one to three.[15] Table 2 shows the percentage of jurors who voted guilty on the first ballot at each of the three response levels. For example, the first row shows that among jurors who believed the law was fair in the case on which they sat ($n = 1,985$), 58 percent voted guilty on the first ballot, compared to only 38 percent among those who believed the law was unfair ($n = 134$). With only two exceptions—the extent to which the juror was worried about the consequences to the defendant of a conviction and the extent to which the juror believed crime was a serious problem in his or her community—the relationship between the juror's responses to each of the questions and the juror's first vote was statistically significant.

To identify the most important attitudinal variables, we constructed a series of regression models using the variables that achieved statistical significance in Table 2. Each of the models included a different combination of the Table 2 variables, and all the models included a variable controlling for the strength of the evidence based on the judge's preverdict estimate of the evidence's strength. The results are displayed in Table 3.[16]

Three variables achieve significance in all the models in which they appear: fairness of law, harshness of consequences, and police believability. Jurors who tended to believe that the law was unfair, that the consequences of convicting the defendant were too harsh, or that the police officers who testified were less believable, were more likely to vote not guilty on the first ballot, controlling for the strength of the evidence against the defendant.

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[15]Responses ranging from 1–2 were coded as 1; responses ranging from 3–5 were coded as 2; and responses ranging from 6–7 were coded as 3.

[16]We reproduced Table 3's fifth model without controlling for the strength of the evidence. Juror beliefs about the fairness of the law, the harshness of the consequences of conviction, and the believability of the police testimony remained significant. Juror trust in the police and importance of the police testimony also emerged as significant.

We also reproduced Table 3's fifth model limiting the data to one of each of the four jurisdictions. The believability of police testimony variable was significant in all the jurisdictions, and the consequences of conviction variable was significant in L.A. and D.C. The fairness of the law variable was significant only in L.A., and the fairness of the outcome variable was significant only in the Bronx.

Table 2: Attitudes and Juror First Vote—Percent Voting Guilty for Each Response Level (1–3 Scale)

	1	2	3	p-Value
How fair do you think the law was in this case? (1 = not at all fair; 3 = fair)	38% (n = 134)	37% (n = 893)	58% (n = 1,985)	0.000***
In some trials, a strict application of the law might not seem to produce the fairest possible outcome. In this trial, how fair would you say the legally correct outcome was? (1 = not at all fair; 3 = fair)	48% (n = 207)	44% (n = 1,047)	56% (n = 1,681)	0.000***
To what extent were you worried about the consequences to the defendant of a conviction by this jury? (1 = not at all; 3 = a great deal)	53% (n = 1,312)	51% (n = 1,098)	49% (n = 592)	0.472
In some trials, the consequences of conviction might seem either too harsh or too lenient for the particular case and defendant. How lenient or harsh do you think the consequences of a conviction were likely to be in this case? (1 = too lenient; 3 = too harsh)	62% (n = 186)	51% (n = 2,156)	41% (n = 383)	0.000***
How much trust and confidence do you have in the courts in your community? (1 = not at all; 3 = a great deal)	42% (n = 83)	46% (n = 1,209)	55% (n = 1,674)	0.000***
How much trust and confidence do you have in the police in your community? (1 = not at all; 3 = a great deal)	37% (n = 208)	45% (n = 1,372)	59% (n = 1,405)	0.000***
How important was police testimony in this case? (1 = not at all important; 3 = very important)	35% (n = 315)	48% (n = 945)	55% (n = 1,732)	0.000***
How believable was the police testimony in this case? (1 = not at all believable; 3 = very believable)	20% (n = 271)	39% (n = 1,127)	64% (n = 1,582)	0.000***
To what extent do you believe that crime is a serious problem in your community? (1 = not at all; 3 = a great deal)	56% (n = 161)	50% (n = 1,114)	52% (n = 1,704)	0.966

NOTE: Juror responses recoded from a 1 to 7 scale to a 1 to 3 scale. Significance levels test the hypothesis that the variables listed in the first column are not associated with a juror's first vote. Significance levels were calculated using ordered logit regression models accounting for the nonindependence of jurors who sat on the same case. The juror's first vote served as the dependent variable. The variables listed in the first column served as the independent variable.

Table 3:   Ordered Logit Regression Models of Juror First Vote—Evidentiary Strength and Attitudinal Variables (1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Model 1	Model 2	Model 3	Model 4	Model 5
Evidentiary strength (judge)	0.411*** (6.95)	0.392*** (6.75)	0.363*** (6.45)	0.357*** (6.55)	0.378*** (6.46)
Fairness of law	0.446*** (5.43)				0.242*** (2.68)
Fairness of outcome	0.007 (0.08)				0.000 (0.00)
Harshness of consequences	−0.436*** (4.28)				−0.357*** (3.16)
Trust in courts		−0.030 (0.35)			−0.061 (0.62)
Trust in police		0.394*** (4.90)	0.134* (1.78)		0.125 (1.42)
Police testimony (importance)			0.101 (1.30)	0.096 (1.31)	0.050 (0.61)
Police testimony (believability)			0.864*** (10.31)	0.901*** (11.25)	0.841*** (9.42)
Observations	2,384	2,651	2,535	2,649	2,213

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of t statistics in parentheses. The dependent variable is juror first vote. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale.

Accordingly, the regression models we construct in Part IV include these three variables and exclude the others.

IV. FIRST-VOTE MODELS

We next combine the demographic variables explored in Table 1 and the attitudinal variables explored in Tables 2 and 3 into a series of regression models. Initially, we look at all the jurisdictions in the study together. Later, we will examine each jurisdiction separately.

A. All Jurisdictions

Table 4 presents two sets of models, with each set containing two regression models. The models in the first set (Models 1 and 2) include only the race

Table 4: Ordered Logit Regression Models of Juror First Vote—Evidentiary Strength, Attitudinal, and Demographic Variables (1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Model 1	*Model 2*	*Model 3*	*Model 4*
Evidentiary strength (judge)	0.455***	0.432***	0.456***	0.433***
	(7.26)	(6.78)	(7.28)	(6.83)
African-American juror	−0.568***	−0.343**		
	(4.33)	(2.50)		
Hispanic juror	−0.098	−0.086		
	(0.75)	(0.61)		
Male juror	−0.017	−0.019	−0.017	−0.018
	(0.20)	(0.20)	(0.20)	(0.18)
Age of juror	0.048	0.054	0.050	0.056
	(1.45)	(1.43)	(1.48)	(1.46)
African-American juror-minority defendant			−0.596***	−0.378***
			(4.44)	(2.67)
African-American juror-white defendant			0.550	0.665
			(0.83)	(0.87)
White juror-white defendant			0.020	−0.058
			(0.06)	(0.20)
Hispanic juror-minority defendant			−0.092	−0.091
			(0.69)	(0.62)
Hispanic juror-white defendant			−0.123	−0.101
			(0.30)	(0.18)
Fairness of law		0.285***		0.281***
		(3.06)		(3.02)
Harshness of consequences		−0.410***		−0.404***
		(3.67)		(3.60)
Police testimony (believability)		0.883***		0.887***
		(9.02)		(9.05)
Observations	2,107	1,816	2,107	1,816

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror first vote. The reference category for the juror race variables in Models 1 and 2 is white juror. The reference category for the juror race-defendant race variables in Models 3 and 4 is white juror-minority defendant. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale.

of the juror. The models in the second set (Models 3 and 4) include the various juror race-defendant race combinations. The first model in each set includes only the demographic variables. The second model adds the attitudinal variables. All the models control for the strength of the evidence, using the judge's assessment of evidentiary strength.[17]

A consistent pattern emerges. First, evidentiary strength is significant in all the models, as are the three attitudinal variables. Second, in the models focusing on the race of the juror, African-American jurors are more likely, compared to white jurors, to vote not guilty on the first ballot, regardless of whether the attitudinal variables are included in the model. Hispanic jurors are more likely to vote not guilty compared to white jurors, but the difference between Hispanic jurors and white jurors fails to reach statistical significance. Third, among the various juror race-defendant race combinations, African-American jurors who sit on cases involving minority defendants are more likely to vote not guilty on the first ballot compared to white jurors who sit on cases involving minority defendants. The difference between these two groups is statistically significant regardless of whether the attitudinal variables are included in the model. None of the differences between the other juror race-defendant race combinations and the white juror-minority defendant combination reaches statistical significance.

To further explore the influence of race, we divided the sample into two groups based on the nature of the most serious crime charged. One group included those jurors who sat on cases in which the most serious crime charged was one involving a victim. This group includes, for example, first- and second-degree murder, manslaughter, rape, sexual assault, robbery, burglary, and arson.[18] The remaining crimes were grouped into the category of victimless crimes.[19] Victimless crimes accounted for 41 percent of the cases;

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[17]The data also included the prosecuting attorney's and the defense attorney's assessments of the strength of the evidence. We chose to use the judge's assessment because the judge is in principle supposed to be an impartial observer. Future research using the NCSC data should investigate what factors influence a judge's assessment of the strength of the case against a defendant. Such an investigation is beyond the scope of the present analysis.

[18]The complete list of crimes included in this category is as follows: first-degree murder, second-degree murder, manslaughter, rape, sexual assault, sexual conduct with a minor, robbery, assault, child abuse or neglect, burglary, larceny or theft, arson, and attempted murder.

[19]The complete list of crimes included in this category is as follows: illegal drug possession, illegal drug sale, illegal drug manufacture, driving while intoxicated or under the influence, weapons offenses, forgery, and unlawful flight. The bulk of the cases in this category are drug offenses.

drug offenses accounted for 73 percent of victimless crimes. Two models were constructed for each group. The first model in each group focuses on the race of the juror. The second model focuses on the race of the juror and the race of the defendant in combination.

Table 5 reveals a new dynamic. The strength of the evidence remains significant in all models, but the racial and the attitudinal variables now behave differently, depending on whether the case involved a victim. In cases involving victims, the African-American juror and African-American juror-minority defendant effect seen in Table 4 disappears.[20] Neither of these variables is significantly associated with a juror's first vote. In contrast, all the attitudinal variables retain their significance. Two other racial categories, African-American juror-white defendant and white juror-white defendant, neither of which was significant in Table 4, achieve significance in Table 5's second model. Both these results should be received with caution, however. The African-American juror-white defendant category includes only six observations, and the white juror-white defendant category includes only 37 observations, almost all of which come from Maricopa County.

The picture changes when we shift to victimless crimes. Once again, the strength of the evidence is significant in both models. Now, however, the statistically significant race effects seen in Table 4 reemerge. African-American jurors are once again less likely to vote guilty on the first ballot compared to white jurors. Likewise, African-American jurors sitting on cases involving minority defendants (charged with victimless crimes) are, compared to white jurors sitting on cases involving minority defendants (charged with victimless crimes), less likely to vote guilty on the first ballot. Among the attitudinal variables, in contrast, only the variable capturing believability of police testimony achieves significance. The fairness of law and consequences of conviction variables lose significance. Moreover, when the defendant is charged with a victimless crime, the age of the juror also becomes marginally significant (at the 10 percent level), suggesting that older jurors are more likely to vote guilty on the first ballot compared to younger ones.

The results in Table 5 suggest the following conclusions. When the crime with which the defendant is charged involves a victim, a juror's first

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[20]The African-American juror-minority defendant effect persisted in an unreported model in which the sample had been limited to victim crimes and from which the three attitudinal variables had been excluded. The effect disappeared when the attitudinal variables were added back in.

Table 5: Ordered Logit Regression Models of Juror First Vote—Evidentiary Strength, Attitudinal and Demographic Variables by Victim and Victimless Crimes (1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Victim Crimes		Victimless Crimes	
	Model 1	*Model 2*	*Model 3*	*Model 4*
Evidentiary strength (judge)	0.387***	0.390***	0.509***	0.506***
	(4.31)	(4.35)	(5.07)	(5.04)
African-American juror	−0.115		−0.620***	
	(0.60)		(3.14)	
Hispanic juror	0.110		−0.399	
	(0.65)		(1.40)	
Male juror	−0.111	−0.115	0.126	0.099
	(0.89)	(0.92)	(0.73)	(0.58)
Age of juror	0.010	0.011	0.126*	0.126*
	(0.20)	(0.22)	(1.95)	(1.96)
Fairness of law	0.299**	0.291**	0.222	0.230
	(2.54)	(2.47)	(1.34)	(1.39)
Harshness of consequences	−0.560***	−0.557***	−0.185	−0.176
	(3.50)	(3.51)	(1.16)	(1.11)
Police testimony (believability)	0.623***	0.638***	1.356***	1.358***
	(4.95)	(5.01)	(8.66)	(8.72)
African-American juror-minority defendant		−0.215		−0.606***
		(1.08)		(2.91)
African-American juror-white defendant		2.146***		−0.118
		(8.42)		(0.10)
White juror-white defendant		−0.762**		0.191
		(2.40)		(0.47)
Hispanic juror-minority defendant		0.022		−0.293
		(0.13)		(0.96)
Hispanic juror-white defendant		0.777		−0.934
		(1.12)		(0.96)
Observations	1,043	1,043	708	708

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror first vote. The reference category for the juror race variables in Models 1 and 2 is white juror. The reference category for the juror race-defendant race variables in Models 3 and 4 is white juror-minority defendant. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale.

vote is influenced by the strength of the evidence and by his or her beliefs about the fairness of the law, the consequences of conviction, and the believability of the police testimony. Race, however, has no detectable influence. In contrast, when the defendant is charged with a victimless crime, race does

Table 6: Racial Combinations by Jurisdiction (Frequency Counts)

	L.A.	*Maricopa*	*Bronx*	*D.C.*	*Total*
African-American juror-minority defendant	122	12	178	385	697
African-American juror-white defendant	2	7	8	3	20
White juror-minority defendant	291	256	64	369	980
White juror-white defendant	5	127	3	3	138
Hispanic juror-minority defendant	268	46	154	46	514
Hispanic juror-white defendant	3	22	8	1	34
Total	691	470	415	807	2,383

exercise influence. In particular, African-American jurors sitting on cases with minority defendants are less likely to vote guilty on the first ballot, compared to white jurors sitting on cases with minority defendants.

The results presented so far are based on all the jurisdictions lumped together. However, each of the jurisdictions differed, among other ways, in the overall racial composition of their juries and in the overall racial profile of their defendants. We now look at each of the four jurisdictions separately in order to see if the results obtained so far hold true across individual jurisdictions.

B. Separate Jurisdictions

The tables that follow examine each of the four jurisdictions separately. For each jurisdiction, we present four models of the juror first vote. Each model contains the juror race-defendant race combinations explored thus far, together with the attitudinal variables. The models differ in terms of the crimes they cover. The first model in each table includes all crimes, the second focuses on crimes involving victims, and the third focuses on victimless crimes. We also include a model on one kind of victimless crime: drug offenses.[21]

Before presenting these models, we first explore the racial geography of each of the four jurisdictions. Table 6 shows the number of jurors in each of the six juror race-defendant race combinations in each of the four jurisdictions.

Minorities make up most of the defendants in each jurisdiction, but the racial profile of the juries in each jurisdiction is distinctive. In L.A.,

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[21]This category includes crimes of possession, sale, and manufacture.

African Americans, whites, and Hispanics are all represented on criminal juries. In Maricopa, white jurors dominate, while in the Bronx, African-American and Hispanic jurors dominate. In D.C., meanwhile, Hispanics are largely absent, with African Americans and whites dominating.

1. Los Angeles

Among the jurors surveyed in Los Angeles who reported their race, 741 are included in the following analysis. The L.A. jurors reflect the jurisdiction's racial diversity. One-hundred-thirty-four of the jurors were African American, 316 were white, and 291 were Hispanic.[22] Of the 893 juror observations of defendant race included in the analysis, 531 were of African-American defendants, and 350 were of Hispanic defendants. Only 12 jurors sat on cases involving white defendants.[23] Thus, in L.A., African-American, white, and Hispanic jurors sit in judgment of minority defendants. Table 7 displays the models previously described when the sample is limited to L.A.

Focusing on the first model, which includes all crimes, and the second, which includes crimes involving victims, the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant racial combinations emerge as significantly related to juror first vote. Little, however, can be drawn from these results. The African-American juror-white defendant combination included only two observations, the white juror-white defendant combination included only five observations, and the Hispanic juror-white defendant combination included only three observations.[24] All the attitudinal variables are significant in each of the first two models, with the exception of the believability of police testimony vari-

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[22]A total of 959 jurors were surveyed in L.A. Of them, 142 identified themselves as belonging to another racial category (mostly Asian/Pacific Islander), and 76 were missing. These observations are excluded from the analysis.

[23]A total of 935 juror observations of defendant race were collected in L.A. Of them, 36 defendants were identified as belonging to another racial category (half of which was Asian), and 6 were missing. These observations are excluded from the analysis.

[24]We reproduced the models reported in Table 7 limiting the sample to cases involving the white juror-minority defendant, African-American juror-minority defendant, and Hispanic juror-minority defendant combinations and excluding the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant combinations from the models. The variables reported as significant in the Table 7 models were significant in the reproduced models.

Table 7: Los Angeles—Ordered Logit Regression Models of Juror First Vote
(1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Model 1 *All* *Crimes*	*Model 2* *Victim* *Crimes*	*Model 3* *Victimless* *Crimes*	*Model 4* *Drug* *Offenses*
Evidentiary strength (judge)	0.375***	0.259	1.159***	1.159***
	(3.16)	(1.64)	(3.44)	(3.44)
African-American juror-minority defendant	−0.384	0.045	−0.550	−0.550
	(1.34)	(0.10)	(1.33)	(1.33)
African-American juror-white defendant	31.198***	31.283***		
	(30.28)	(29.73)		
White juror-white defendant	−1.215***	−0.838**		
	(4.21)	(2.34)		
Hispanic juror-minority defendant	−0.169	−0.070	−0.222	−0.222
	(0.75)	(0.33)	(0.41)	(0.41)
Hispanic juror-white defendant	31.233***	31.340***		
	(30.48)	(30.09)		
Male juror	−0.068	−0.113	−0.146	−0.146
	(0.36)	(0.45)	(0.38)	(0.38)
Age of juror	0.062	0.043	0.038	0.038
	(0.89)	(0.42)	(0.34)	(0.34)
Fairness of law	0.733***	0.988***	0.423	0.423
	(3.62)	(3.45)	(1.04)	(1.04)
Harshness of consequences	−0.466**	−0.990***	0.437	0.437
	(2.09)	(3.67)	(1.03)	(1.03)
Police testimony (believability)	0.609***	−0.019	1.893***	1.893***
	(2.69)	(0.07)	(4.53)	(4.53)
Observations	503	282	165	165

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror first vote. The reference category for the juror race-defendant race variables is white juror-minority defendant. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale. For further discussion of the results for the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant variables, see infra note 24 and accompanying text.

able in the model limited to crimes involving victims.[25] Indeed, the strength of the evidence variable also loses significance in that model.

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[25]Jurors in L.A. were surveyed between June and October 2000, a period during which considerable public and media attention was devoted to revelations of police corruption in the Rampart Area of the Los Angeles Police Department. The official LAPD Board of Inquiry report on the scandal was made public on March 1, 2000. See L.A. Police Dep't, Board of Inquiry into

With respect to the second two models, which focus on victimless crimes and drug crimes, the results for each model are the same because all the victimless crimes in the L.A. sample were drug offenses. Moreover, none of these cases involved a white defendant. Consequently, all the racial combinations involving a white defendant dropped out of the two models. None of the remaining two racial combinations (African-American juror-minority defendant and Hispanic juror-minority defendant) is significantly related to a juror's first vote. The only significantly related variables are the strength of the evidence and the believability of police testimony.

Overall, the results from L.A. generally correspond to the results obtained from the aggregate models presented in Table 5, with the significant and notable exception that the race effects observed in Table 5 for victimless crimes do not emerge.

2. Maricopa County

The next jurisdiction we examine is Maricopa County. The racial landscape of Maricopa is very different from that of L.A. In Maricopa, the vast majority of jurors were white. Of the 662 jurors included in the following analysis, 545 were white, while only 94 were Hispanic and only 23 were African American.[26] Of the 520 juror observations of defendant race included in the analysis, 183 were of African-American defendants, 177 were of white defendants, and 160 were of Hispanic defendants.[27] Thus, in Maricopa, white jurors sit in judgment of white defendants and minority defendants. Table 8 presents the models.

The strength of the evidence variable is significantly related to a juror's first vote in all of the models. So, too, with the exception of Model 4, is the variable related to the believability of police testimony. Among the juror

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the Rampart Area Corruption Incident: Public Report (2000). Among other things, the investigation revealed that police officers fabricated evidence and offered false testimony in order to secure convictions against innocent defendants. As a result, jurors serving during June–October 2000 may have been more skeptical of police testimony and less likely to convict in comparison to jurors serving before the public disclosure of the scandal.

[26]A total of 727 jurors were surveyed in Maricopa County. Of them, 20 identified themselves as belonging to another racial category (approximately half Asian/Pacific Islander and half Native American), and 45 were missing. These observations are excluded from the analysis.

[27]A total of 596 juror observations of defendant race were collected in Maricopa County. Of them, 57 defendants were identified as belonging to another racial category (all of which were "other"), and 19 were missing. These observations are excluded from the analysis.

Table 8: Maricopa County—Ordered Logit Regression Models of Juror First Vote (1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Model 1 *All* *Crimes*	*Model 2* *Victim* *Crimes*	*Model 3* *Victimless* *Crimes*	*Model 4* *Drug* *Offenses*
Evidentiary strength (judge)	0.397***	0.350*	0.475**	0.698**
	(2.76)	(1.76)	(2.14)	(2.28)
African-American juror-minority defendant	−0.332	−0.224		
	(0.54)	(0.35)		
African-American juror-white defendant	−0.338	31.797***	−1.517	35.047***
	(0.34)	(27.81)	(1.00)	(37.05)
White juror-white defendant	−0.158	−0.939**	−0.204	0.114
	(0.38)	(2.06)	(0.39)	(0.09)
Hispanic juror-minority defendant	−0.428	−0.305	0.533	34.247***
	(1.16)	(0.79)	(0.18)	(24.33)
Hispanic juror-white defendant	−0.139	0.074	−1.218	34.927***
	(0.22)	(0.10)	(1.12)	(25.46)
Male juror	−0.159	−0.351	−0.127	−0.142
	(0.72)	(1.25)	(0.26)	(0.22)
Age of juror	−0.077	−0.104	−0.002	0.151
	(0.73)	(0.79)	(0.01)	(0.31)
Fairness of law	0.286	0.001	1.153**	0.667
	(1.47)	(0.00)	(2.36)	(0.49)
Harshness of consequences	−0.213	−0.094	−1.109	−0.212
	(0.71)	(0.27)	(1.64)	(0.15)
Police testimony (believability)	1.275***	1.081***	1.755***	1.757
	(5.45)	(3.87)	(3.64)	(1.72)
Observations	405	252	151	70

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror first vote. The reference category for the juror race-defendant race variables is white juror-minority defendant. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale. For further discussion of the results for the African-American juror-white defendant, Hispanic juror-minority defendant, and Hispanic juror-white defendant variables, see infra note 28.

race-defendant race combinations, one stands out. When the sample is limited to crimes involving victims, white jurors sitting on cases with white defendants are less likely to vote guilty on the first ballot compared to white jurors sitting on cases with minority defendants. This result suggests that the white juror-white defendant effect seen in Table 5's second model is driven primarily by jurors from Maricopa. Once again, however, this result needs to be treated with caution because the number of observations for the white

juror-white defendant category is only 32. The remaining racial combina-
tions that achieve statistical significance all involve even fewer observations.[28]

The race effect observed in Table 5 when the sample was limited to
victimless crime thus appears to come from neither L.A. nor Maricopa. Our
next jurisdiction is the Bronx.

3. The Bronx

Like L.A. and Maricopa, the Bronx also has a distinctive racial makeup. Of
the 557 jurors included in the analysis, 249 were African American, 226 were
Hispanic, and 82 were white.[29] Of the 605 juror observations of defendant
race included in the analysis, 275 were of African-American defendants, 309
were of Hispanic defendants, and only 21 were of white defendants.[30] Thus,
in the Bronx, minority jurors sit in judgment of minority defendants.

The pattern in the Bronx is actually very much like that in Maricopa,
despite the differing racial profiles of the two jurisdictions. The variables
measuring the strength of the evidence and the believability of the police
testimony are significant in all the models, much as they are in Maricopa.
Moreover, although several racial combinations achieve statistical signifi-
cance in a number of the models, the only racial combinations with large
numbers of observations are those involving minority defendants, and

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[28]Model 2's African-American juror-white defendant combination contains only one observa-
tion. Model 4's African-American juror-white defendant combination contains only one obser-
vation, while its Hispanic juror-minority defendant combination contains only two observations
and its Hispanic juror-white defendant combination contains only five observations. The
African-American juror-minority defendant combination in Models 3 and 4 contained no obser-
vations and therefore dropped out of the models.

We reproduced the models reported in Table 8 limiting the sample to cases involving the
white juror-minority defendant, white juror-white defendant, and African-American juror-
minority defendant combinations and excluding the African-American juror-white defendant,
Hispanic juror-minority defendant, and Hispanic juror-white defendant combinations from the
models. The variables reported as significant in Table 8 were significant in the reproduced
models. The gender variable emerged as significant in Model 2 ($t = -1.70$), and the "harshness
of consequences" variable emerged as significant in Model 3 ($t = -1.76$).

[29]A total of 800 jurors were surveyed in the Bronx. Of those, 43 identified themselves as belong-
ing to another racial category (over half of which was "other"), and 200 were missing. These
observations are excluded from the analysis.

[30]A total of 671 juror observations of defendant race were collected in the Bronx. Of them, 52
defendants were identified as belonging to another racial category (most of which were
"other"), and 14 were missing. These observations are excluded from the analysis.

Table 9: The Bronx—Ordered Logit Regression Models of Juror First Vote
(1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Model 1 *All* *Crimes*	*Model 2* *Victim* *Crimes*	*Model 3* *Victimless* *Crimes*	*Model 4* *Drug* *Offenses*
Evidentiary strength (judge)	0.572***	0.781***	0.393**	0.436**
	(3.81)	(5.48)	(2.37)	(2.72)
African-American juror-minority defendant	0.373	0.551	0.222	0.209
	(0.92)	(1.04)	(0.31)	(0.28)
African-American juror-white defendant	3.006***	3.713***	3.038***	
	(5.09)	(5.93)	(3.25)	
White juror-white defendant	37.848***	33.919***	36.438***	
	(46.19)	(25.50)	(25.09)	
Hispanic juror-minority defendant	0.512	0.319	0.956	0.787
	(1.26)	(0.52)	(1.25)	(0.98)
Hispanic juror-white defendant	0.416	3.121***	−34.497***	
	(0.19)	(5.36)	(24.99)	
Male juror	0.008	−0.030	−0.271	−0.053
	(0.03)	(0.09)	(0.48)	(0.09)
Age of juror	−0.037	−0.068	−0.014	−0.161
	(0.30)	(0.45)	(0.09)	(0.85)
Fairness of law	−0.163	−0.272	0.087	0.085
	(0.61)	(0.75)	(0.17)	(0.15)
Harshness of consequences	−0.317	−0.767*	−0.092	−0.254
	(1.12)	(1.73)	(0.17)	(0.48)
Police testimony (believability)	1.201***	1.026***	1.833***	1.784***
	(4.46)	(2.76)	(4.51)	(4.01)
Observations	255	167	88	67

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror first vote. The reference category for the juror race-defendant race variables is white juror-minority defendant. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale. For further discussion of the results for the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant variables, see infra note 31.

neither of the two racial combinations involving minority defendants reported in Table 9 reveals a statistically significant association with the juror's first vote.[31] Thus, the race effect observed in Table 5 for victimless crimes does not appear to come from the Bronx.

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[31]Model 1's African-American juror-white defendant combination includes seven observations and the white juror-white defendant combination includes three observations. Model 2's African-American juror-white defendant combination includes four observations, the white

4. The District of Columbia

That leaves D.C., which presents yet another racial demography. Of the 826 jurors included in the analysis, most were either African American or white. African-American jurors numbered 398; white jurors numbered 381. Hispanic jurors numbered only 47.[32] Of the 918 juror observations of defendant race included in the analysis, 810 were of African-American defendants, 12 were of white defendants, and 96 were of Hispanic defendants.[33] Thus, in D.C., African-American and white jurors sit in judgment of minority defendants, most of whom are African American.

The results from D.C. tell a story quite unlike those of the other jurisdictions. As in the Bronx, several of the racial combinations with white defendants bear a statistically significant relationship with the juror's first vote, but once again these combinations involve small numbers of observations and so provide little basis upon which to generalize.[34] Unlike in the Bronx,

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juror-white defendant combination includes one observation, and the Hispanic juror-white defendant combination includes three observations. Model 3's African-American juror-white defendant combination includes three observations, the white juror-white defendant combination includes one observation, and the Hispanic juror-white defendant combination involves three observations.

We reproduced the models reported in Table 9 limiting the sample to cases involving the white juror-minority defendant, African-American juror-minority defendant, and Hispanic juror-minority defendant cases and excluding the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant combinations from the models. The variables reported as significant in Table 9 were significant in the reproduced models, with the exception of the "harshness of consequences" variable in Model 2, which lost significance ($t = -1.49$).

[32]A total of 933 jurors were surveyed in D.C. Of them, 31 identified themselves as belonging to another racial category (almost half of which was Asian/Pacific Islander), and 76 were missing. These observations are excluded from the analysis.

[33]A total of 918 juror observations of defendant race were collected in D.C. None were identified as belonging to another racial category, and none were missing.

[34]Model 1's African-American juror-white defendant combination includes three observations, the white juror-white defendant combination includes three observations, and the Hispanic juror-white defendant combination includes one observation. Model 3's African-American juror-white defendant combination includes three observations, the white juror-white defendant combination includes three observations, and the Hispanic juror-white defendant combination includes one observation. Model 4's African-American juror-white defendant combination includes three observations, the white juror-white defendant combination includes three observations, and the Hispanic juror-white defendant combination includes one observation.

Table 10:   District of Columbia—Ordered Logit Regression Models of Juror First Vote (1 = Not Guilty, 2 = Undecided, 3 = Guilty)

	Model 1 *All* *Crimes*	*Model 2* *Victim* *Crimes*	*Model 3* *Victimless* *Crimes*	*Model 4* *Drug* *Offenses*
Evidentiary strength (judge)	0.478***	0.420***	0.573***	0.513**
	(4.75)	(2.90)	(3.80)	(2.61)
African-American juror-minority defendant	−0.350**	−0.183	−0.578**	−0.652**
	(2.07)	(0.82)	(2.10)	(2.07)
African-American juror-white defendant	−1.516***		−1.620***	−1.941***
	(9.87)		(6.02)	(6.16)
White juror-white defendant	−1.559***		−1.917***	−2.307***
	(9.46)		(7.76)	(8.56)
Hispanic juror-minority defendant	−0.009	0.118	−0.380	−0.821
	(0.02)	(0.27)	(0.40)	(0.61)
Hispanic juror-white defendant	−33.153***		−36.722***	−34.368***
	(31.79)		(34.47)	(31.43)
Male juror	0.123	0.038	0.296	0.163
	(0.75)	(0.17)	(1.13)	(0.47)
Age of juror	0.157***	0.090	0.243**	0.333**
	(2.81)	(1.21)	(2.56)	(2.48)
Fairness of law	0.102	0.209	−0.025	−0.135
	(0.75)	(1.23)	(0.11)	(0.36)
Harshness of consequences	−0.438***	−0.642**	−0.249	−0.241
	(2.77)	(2.43)	(1.48)	(1.02)
Police testimony (believability)	0.824***	0.674***	1.089***	1.593***
	(5.43)	(3.09)	(4.73)	(4.78)
Observations	653	342	304	206

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror first vote. The reference category for the juror race-defendant race variables is white juror-minority defendant. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale. For further discussion of the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant variables, see infra note 34.

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We reproduced the models reported in Table 10 limiting the sample to cases involving the white juror-minority defendant, African-American juror-minority defendant, and Hispanic juror-minority defendant combinations and excluding from the model the African-American juror-white defendant, white juror-white defendant, and Hispanic juror-white defendant combinations. The variables reported as significant in Table 10 were significant in the reproduced models, and the "harshness of consequences" variable emerged as significant in Model 3 ($t = −1.92$).

however, the African-American juror-minority defendant combination is statistically significant in three of the four models. It achieves significance when the sample includes all crimes, and when the sample is limited to victimless crimes and drug offenses.[35] Moreover, when the sample is limited still further to cases involving victimless crimes other than drug crimes ($n = 98$), the African-American juror-minority defendant effect disappears.[36] Thus, the race effect observed in Models 1, 3, and 4 appears to be the product of African-American jurors sitting on cases involving minority defendants charged with drug offenses who, in comparison to white jurors sitting on the same cases, are less likely in such cases to cast a first vote for conviction.

The race effects observed in the aggregate data in Table 5 therefore appear to be driven primarily by the voting behavior of African-American jurors in the District of Columbia sitting on drug cases involving minority defendants. Moreover, the age effect observed in Table 5 also appears to be driven primarily by D.C. jurors. The age of the juror was significant in none of the models for the other jurisdictions. In D.C., however, age achieves significance in the same models in which the African-American juror-minority defendant combination achieves significance.

We hasten to emphasize that these effects are associated with a juror's reported first vote. In order to investigate whether they survive to the jury's final vote, we reproduced Table 10's third and fourth models, substituting the jury's decision to convict or acquit for the juror's first vote as the dependent variable. The results are shown in Table 11.

The race effect observed in Table 10 disappears in Table 11. In neither model do either of the surviving juror race-defendant race combinations achieve significance. Other variables also behave differently in the move from Table 10 to Table 11. For example, the evidentiary strength variable is significant in Model 1, but not in Model 2, while the age of the juror is sig-

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[35]The African-American juror-minority defendant race effect observed in Table 10's fourth model (limited to drug offenses) persists when all the attitudinal variables presented in Table 2 are included in the model ($t = -2.02$). The age effect observed in the fourth model also persists ($t = 2.18$).

[36]Once drug offenses are excluded, the category of victimless crimes in D.C. is comprised exclusively of weapons offenses. The number of jurors who served on cases involving victimless crimes in D.C. totaled 442. Of these, 307 served on cases involving drug offenses, and 135 served on cases involving weapons offenses. Missing data reduced the number of observations in the weapons-only model reported in the text to $n = 98$.

Table 11: District of Columbia—Logit Regression Models of Conviction/ Acquittal (0 = Not Guilty, 1 = Guilty)

	Model 1 *Victimless Crimes*	Model 2 *Drug Offenses*
Evidentiary strength (judge)	0.765*	0.541
	(1.89)	(1.19)
African-American juror-minority defendant	0.408	0.060
	(1.04)	(0.17)
Hispanic juror-minority defendant	0.248	−0.358
	(0.25)	(0.38)
Male juror	0.390	0.621
	(1.15)	(1.33)
Age of juror	−0.105	−0.272*
	(0.81)	(1.79)
Fairness of law	0.428	0.861**
	(1.05)	(2.17)
Harshness of consequences	−0.062	−0.180
	(0.21)	(0.66)
Police testimony (believability)	1.567***	1.158*
	(3.51)	(2.06)
Observations	252	154

*Significant at 10 percent; **significant at 5 percent; ***significant at 1 percent.

NOTE: Absolute value of *t* statistics in parentheses. The dependent variable is juror final vote. The reference category for the juror race-defendant race variables is white juror-minority defendant. White juror-white defendant, African-American juror-white defendant, and Hispanic juror-white defendant combinations dropped out of the models due to small numbers and lack of variation in outcomes. The models account for the nonindependence of jurors who sat on the same case. The evidentiary strength variable is coded on a 1 to 7 scale. The attitudinal variables are coded on a 1 to 3 scale. The juror race, juror race-defendant race, and sex variables are 0–1 dummy variables. The age variable is coded on a 1 to 6 scale.

nificant in Model 2, but not in Model 1. Moreover, the age effect in Model 2 reverses direction. In other words, while Table 10 suggests that older jurors are more apt to cast an initial vote for conviction in drug cases, Table 11 suggests that they are actually less likely to vote to convict. In fact, the only variable that behaves the same in Table 11 as it does in Table 10 is the variable measuring the believability of police testimony. Further work would need to be done in order to identify the variables associated with a juror's decision to change his or her mind between the first vote and the final one.[37]

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[37]For a review of the available research regarding the influence of the jury's deliberations and the nature of its deliberations on the final verdict, see Devine et al., supra note 1, at 690–98.

V. CONCLUSIONS

Our study provides new information about how the personal characteristics of individual jurors contribute to their initial verdicts in criminal jury trials. Using data from deliberating jurors, our project reinforces certain conclusions of previous work employing other methodologies and other samples. It goes beyond prior work insofar as it deepens our understanding of how individual characteristics interact with other features of a criminal jury trial to produce a verdict.

First, we find that in criminal jury trials, the evidence matters. Prior studies have reached the same conclusion.[38] Nonetheless, because much of our analysis focuses on the impact of individual juror characteristics, we think it worthwhile to underscore the critical importance of the evidence introduced at trial. In virtually all the models reported here, the trial judge's assessment of the strength of the evidence against the defendant is powerfully associated with a juror's first vote. We emphasize this link to highlight the fact that, despite many differences between them, judge and jury tend to agree on the strength of the evidence.[39]

Next, we find that police credibility matters. The believability of police testimony had a significant impact on juror first votes in most of our models. Most of the jurors believed the police testimony they heard. All else being equal, however, the more a juror questioned the believability of an officer's testimony, the more likely he or she was to vote for acquittal on the first ballot. We therefore demonstrate empirically a phenomenon many observers have simply presumed—that variation in juror beliefs about police credibility is a key determinant of verdict preferences.[40] Juror beliefs about

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[38]Social psychologists and jury researchers Saul Kassin and Lawrence Wrightsman concluded some years ago that "virtually all experts in the area agree that the overwhelming majority of verdicts is decided not by . . . extralegal factors, but by the strength, quality, and presentation of the evidence." The Psychology of Evidence and Trial Procedure 8 (Saul Kassin & Lawrence S. Wrightsman eds., 1985). See also Kalven & Zeisel, supra note 6, at 56–58; Devine et al., supra note 1, at 686; Hannaford-Agor et al., supra note 9, at 54–56.

[39]The overlap and divergence between judge and jury assessments of the evidence are explored in greater detail in Theodore Eisenberg et al., Judge-Jury Agreement in Criminal Cases: A Partial Replication of Kalven & Zeisel's *The American Jury*, J. Empirical Leg. Stud. (forthcoming 2005).

[40]One *Los Angeles Times* reporter, writing about the first Rodney King beating trial, observed that the most important explanation offered for the Simi Valley jury's acquittal of the police officers who beat Rodney King, despite videotaped evidence of the beating, was the jury's

the fairness of the applicable law and the fairness of the legally correct outcome are also significantly related to initial verdict choices in several of the models.[41]

Finally, we add to a growing and important body of research regarding the influence of race and ethnicity on juror behavior.[42] Despite a tremendous interest in the potential effects of race on a juror's behavior in a criminal case, few studies have to date searched for such effects using real jurors deciding real cases.[43] The available mock jury studies have found that a juror's race is sometimes associated with his or her assessment of the strength of the evidence and sometimes with his or her verdict preferences. Some researchers maintain that these effects depend on whether race is a salient feature of the case.[44] Our study was able to go beyond these efforts, examining the role of juror race both independently and in connection with case characteristics.

Our findings suggest that race has a limited influence on a juror's first vote. The aggregate data suggest the existence of a relationship between a jurors' race and his or her first vote, with African-American jurors being

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"sympathy for the police—a willingness to give law enforcement the benefit of the doubt. It's a tendency some trace to the popular notion that police form 'the thin blue line' separating order from anarchy." Janny Scott, What Swayed the Jury?, L.A. Times, May 2, 1992.

[41]For a fuller discussion of the role of jurors' fairness perceptions, see Paula L. Hannaford-Agor & Valerie P. Hans, Nullification at Work? A Glimpse from the National Center for State Courts Study of Hung Juries, 78 Chi.-Kent L. Rev. 1249 (2003).

[42]See Sommers & Ellsworth, supra note 2.

[43]In a recent review on race and jury decision making, Sommers and Ellsworth found a surprising lack of empirical research in the previous decade. Most of the available research involved mock juries. See Samuel R. Sommers & Phoebe C. Ellsworth, Race in the Courtroom: Perceptions of Guilt and Dispositional Attributions, 26 Personality & Soc. Psych. Bull. 1367 (2000). Likewise, little research exists on the effects of juror race in civil proceedings. See Michael E. Antonio & Valerie P. Hans, Race and the Civil Jury: How Does a Juror's Race Shape the Jury Experience?, in Psychology in the Courts: International Advances in Knowledge 69–81 (Ronald Roesch, Raymond R. Corrado & Rebecca Dempster eds., 2001). Capital cases represent one area in which recent research has examined the influence of juror race using data collected from interviews with jurors who served on such cases. See, e.g., William J. Bowers et al., Death Sentencing in Black and White: An Empirical Analysis of Jurors' Race and Jury Racial Composition, 3 U. Pa. J. Const. L. 171 (2001); Eisenberg et al., supra note 2.

[44]Compare King, supra note 1, at 86–87 (suggesting that high salience of race in a case might increase the impact of a juror's race), with Sommers & Ellsworth, supra note 2, at 1012–16 (asserting that high salience of race in a case diminishes the impact of white racial bias). See also Prejudice, Discrimination, and Racism (John F. Dovidio & Samuel L. Gaertner eds., 1986).

more likely to vote for acquittal compared to white jurors. This effect persists even when various attitudinal variables are taken into account. Yet these aggregate results appear ultimately to derive from a particular type of case being tried in a particular jurisdiction; namely, drug offenses being tried in the District of Columbia.[45] Moreover, even this isolated effect disappears after jurors have had an opportunity to deliberate. We found no evidence that a D.C. juror's race is related to the jury's decision to convict.[46]

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[45]In a controversial article published shortly after the acquittal of O.J. Simpson, Paul Butler identified this particular type of case as one in which he believed race-based jury nullification was appropriate. See Paul Butler, Racially Based Jury Nullification: Black Power in the Criminal Justice System, 105 Yale L.J. 677, 715 (1995). Butler's argument was based in part on his experience as a prosecutor in the District of Columbia, the one jurisdiction in our study in which a juror's race correlated with his or her first vote.

[46]Prior research focusing on the sentencing verdicts of capital jurors similarly suggests that any influence a juror's race may have on his or her initial verdict fades or disappears altogether once the final vote is taken. See Eisenberg et al., supra note 2, at 302; Bowers et al., supra note 43, at 199.