

## UNTANGLING THE ROLE OF RACE IN CAPITAL CHARGING AND SENTENCING IN NORTH CAROLINA, 1990–2009\*

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*The North Carolina Racial Justice Act provided that a defendant may state a claim for relief based on statistical evidence of discrimination in capital charging and sentencing decisions. This paper reports the methodology and findings of a McCleskey-style study of capital charging and sentencing decisions in North Carolina between 1990 and 2009. The findings reported here show that white victim cases and black defendant/black victim cases pull strongly in the opposite direction in these decisions. The primary model analyzing death sentencing among all death-eligible cases shows that—even after controlling for multiple measures of culpability—cases with at least one white victim face odds of receiving a death sentence that are 2.17 times the odds faced by all other cases ( $p < .001$ ). The evidence further suggests that this effect arises primarily in the charging decisions of prosecutors, where these state officials systematically disregard cases in which black defendants kill black victims. The odds of a black defendant/black victim case advancing to a capital trial are 2.6 times lower than the odds faced by all other cases ( $p < .001$ ). Juries were significantly less likely to impose a death sentence in the few white defendant/black victim cases (odds ratio 0.19,  $p < .05$ ). When these cases are excluded, the analysis of penalty trial decisions does not identify race effects. We do not find evidence of discrimination against black defendants generally or against black defendants who kill white victims specifically.*

*Ultimately, although this study refines the methodology used in previous studies of charging and sentencing in North Carolina, its results echo their conclusions. Our findings are also largely consistent with the broad trends identified in capital charging and sentencing studies across many jurisdictions in the 25 years since McCleskey. This lends credibility to our conclusion that despite ongoing protestations to the contrary, race plays a significant factor in charging and sentencing decisions.*

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2016] *RACE & CAPITAL SENTENCING IN N.C.* 1999

INTRODUCTION .....	1999
I. LEGAL FRAMEWORK.....	2001
A. <i>North Carolina Capital Punishment Law</i> .....	2002
B. <i>The North Carolina Racial Justice Act</i> .....	2003
II. PREVIOUS RESEARCH ON CAPITAL CHARGING AND SENTENCING IN NORTH CAROLINA .....	2004
III. STUDY DESIGN .....	2009
A. <i>Identifying Cases for Inclusion in the Study</i> .....	2011
B. <i>Populating the Level 3 Random Sample</i> .....	2013
IV. DATABASE DEVELOPMENT: COLLECT, CODE, ENTER, AND REVIEW.....	2014
V. DATA ANALYSIS .....	2018
A. <i>Analysis of Combined Risk of Receiving a Death Sentence</i> .....	2023
1. Comparative Selection Rates-Controlling for Race of Victim .....	2023
2. Logistic Regression Analysis .....	2026
B. <i>Analysis of Prosecutorial Decision to Advance Death- Eligible Homicide Cases to a Capital Trial</i> .....	2030
1. Comparative Selection Rates-Controlling for Race of Victim and for Black Defendant/Black Victim Cases .....	2031
2. Logistic Regression Analysis .....	2034
C. <i>Analysis of Jury Decision to Issue a Death Sentence at the Penalty Trial</i> .....	2036
1. Comparative Selection Rates.....	2038
2. Logistic Regression Analysis .....	2040
CONCLUSION .....	2043
APPENDIX A .....	2045
<i>Variable Definitions</i> .....	2045

## INTRODUCTION

The North Carolina General Assembly passed the North Carolina Racial Justice Act (the “RJA”) in August 2009.<sup>1</sup> This act provided that every person then sentenced to death in North Carolina and any person facing a potential death sentence in the future “may seek relief... upon the ground that racial considerations played a

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1. See N.C. GEN. STAT. §§ 15A-2010 to 2012 (2009) (repealed 2013).

significant part in the decision to seek or impose a death sentence.”<sup>2</sup> If a court found race to be a significant factor, the law required the court to convert a death sentence to a life sentence without parole or, for pending cases, to order that death not be sought.<sup>3</sup> The RJA provided that in stating a claim a defendant may rely on statistical evidence of race of defendant discrimination, race of victim discrimination, or racial discrimination in jury selection.<sup>4</sup>

This study sought to analyze, as rigorously as possible, the influence of discrimination based on the race of defendants or victims on capital charging and sentencing in North Carolina. At the bottom line, even after a complex analysis of relative culpability, the conclusions of this study echo and refine those of previous studies of charging and sentencing in North Carolina.<sup>5</sup> They also conform to the broad trends identified in the literature based on studies across many jurisdictions.<sup>6</sup> The analysis here strongly suggests that in death-eligible murder cases with at least one white victim, defendants are more likely to be sentenced to death than all other cases. We find that this results primarily from prosecutorial disregard at the charging stage of death-eligible murders in which black defendants kill only black victims.

The remainder of the paper proceeds in six sections. Part I of the paper presents key components of North Carolina capital punishment law, including the death penalty statutes and procedures and details of the RJA. We then review previous studies on capital charging and sentencing in North Carolina in Part II. Parts III and IV detail the

2. *Id.* § 15A-2012(a)(3). The North Carolina General Assembly repealed the Racial Justice Act in 2013. Act of June 19, 2013, ch. 154, sec. 5(a), 2013 N.C. Sess. Laws 368, 372 (repealing the RJA).

3. § 15A-2012(a)(3) (repealed 2013).

4. *Id.* § 15A-2011(b) (repealed 2013).

5. See, e.g., SAMUEL R. GROSS & ROBERT MAURO, DEATH AND DISCRIMINATION: RACIAL DISPARITIES IN CAPITAL SENTENCING 35 (1989); BARRY NAKELL & KENNETH A. HARDY, THE ARBITRARINESS OF DEATH PENALTY 93 (1987); Michael R. Radelet & Glenn L. Pierce, *Race and Death Sentencing in North Carolina, 1980–2007*, 89 N.C. L. REV. 2119, 2119–20 (2011).

6. See U.S. GEN. ACCOUNTING OFFICE, GAO/GGD-90-57, DEATH PENALTY SENTENCING: RESEARCH INDICATES PATTERN OF RACIAL DISPARITIES 5–6 (1990) (concluding, based on an evaluation synthesis of 28 capital charging and sentencing studies, that race of victim influenced decisions at all stages of the criminal justice system process); David C. Baldus & George Woodworth, *Race Discrimination in the Administration of the Death Penalty: An Overview of the Empirical Evidence with Special Emphasis on the Post-1990 Research*, 39 CRIM. L. BULL. 194, 202–26 (2003) (reaching the same conclusion based on research conducted after 1990); Catherine M. Grosso et al., *Race Discrimination and the Death Penalty: An Empirical and Legal Overview*, in AMERICA’S EXPERIMENT WITH CAPITAL PUNISHMENT 525, 525 (James Acker & Robert Bohm eds. 2014) (reviewing the literature up to 2013 and reaching the same conclusion).

2016] *RACE & CAPITAL SENTENCING IN N.C.* 2001

study design and implementation procedures. Our analysis is presented in Part V in three subsections. The first subsection presents our findings with respect to the overall risk of receiving a death sentence. This analysis combines all decisions into one question: did the defendant receive a death sentence? The second and third subsections separate the decisions into stages-focusing first on the prosecutorial decision to bring a death-eligible murder to a capital trial and, then, on the jury decision to impose a death sentence at the penalty trial. Each section of Part V begins by presenting unadjusted analyses, then adjusted analyses that control only for the number of statutory aggravating factors present in the case, and finally three fully-controlled logistic regression models. The first model includes only those control variables directly related to the culpability of the crime or the offender. The second and third consider the impact of personal and context variables, in sequence, on the findings.

Part VI presents a brief discussion of our conclusion that race was a significant factor in charging and sentencing decisions in North Carolina capital cases between 1990 and 2009. In particular, we conclude that defendants in white victim cases faced a significantly heightened risk of receiving a death sentence, and that part of this risk is explained by prosecutors' significant disregard of crimes that happen within the black community.

As noted above, this paper reports the methodology and findings of a *McCleskey*-style study of capital charging and sentencing decisions in North Carolina between 1990 and 2009.<sup>7</sup> The next section provides essential background information concerning North Carolina's law of capital punishment.

## I. LEGAL FRAMEWORK

The RJA expressly allowed claims to be filed on the basis of statistical evidence of discrimination in prosecutorial decisions to seek a death sentence, as well as in jury decisions to impose a death sentence.<sup>8</sup> Accordingly, the charging and sentencing study presented here sought to understand the role of race in the North Carolina criminal justice system, as well as in the specific decision-making behind seeking or imposing a death sentence. Any such study requires an understanding of the capital charging and sentencing law in the relevant jurisdiction.

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7. Details on the *McCleskey*-style methodology are provided below. See *infra* notes 75-77.

8. § 15A-2011(b) (repealed 2013).

*A. North Carolina Capital Punishment Law*

In North Carolina, a defendant must be guilty of first-degree murder to be eligible for the death penalty.<sup>9</sup> At one time, North Carolina sought to limit prosecutorial discretion by requiring a prosecutor to seek the death penalty in every statutorily death-eligible case.<sup>10</sup> The legislature removed this requirement in 2001 by granting prosecutors discretion to try death-eligible, first-degree murder cases without seeking the death penalty.<sup>11</sup> As in every other jurisdiction, a North Carolina prosecutor has discretion to seek or decline to seek the death penalty in a death-eligible murder case. Prosecutors also have the authority to bring the case to trial or to engage in plea negotiations.<sup>12</sup>

If the defendant is convicted of first-degree murder, the jury hears evidence on the presence of aggravating and mitigating circumstances and must consider four elements: (1) whether any statutory aggravating circumstances exist beyond a reasonable doubt; (2) whether sufficient mitigating circumstances exist to outweigh any aggravating circumstances found in step one; (3) whether aggravating circumstances outweigh the mitigating circumstances; and (4) after weighing the aggravating circumstances and the mitigating circumstances together, if the aggravators are sufficiently substantial so that the defendant should be sentenced to death.<sup>13</sup> The jury decision to impose a death sentence must be unanimous.<sup>14</sup> If the

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9. N.C. GEN. STAT. § 14-17(a) (2015). The statute codifies four types of first-degree murder: (1) Murder perpetrated by means of a weapon of mass destruction; (2) Murder perpetrated by poison, lying in wait, imprisonment, starving, or torture; (3) Willful, premeditated, and deliberate killing; and (4) Murder committed in the perpetration or attempted perpetration of any arson, rape or a sex offense, robbery, kidnapping, burglary, or other felony committed or attempted with the use of a deadly weapon (felony murder). *Id.*

10. See *State v. Case*, 330 N.C. 161, 163, 410 S.E.2d 57, 58 (1991) (stating that “if our law permitted the district attorney to exercise discretion as to when an aggravating circumstance supported by the evidence would or would not be submitted, our death penalty scheme would be arbitrary and, therefore, unconstitutional”); see also Seth Kotch & Robert P. Mosteller, *The Racial Justice Act and the Long Struggle with Race and the Death Penalty in North Carolina*, 88 N.C. L. REV. 2031, 2079–80 (2010) (discussing the unique attempt of North Carolina to limit the discretion of prosecutors).

11. § 15A-2004(a).

12. Rule 24 of the North Carolina General Rules of Practice for Superior and District Courts requires that a pretrial conference be held in every capital case where the parties consider the existence of evidence of aggravating circumstances and the appointment of assistant counsel for indigent defendants when the State is seeking the death penalty. N.C. SUP. & DIST. CT. R. 24.

13. § 15A-2000(b). Before 1995, the jury chose between death and life. Act of Mar. 23, 1994, ch. 21, sec. 1, 1993 N.C. Sess. Laws 59, 59.

14. § 15A-1237(b).

jurors cannot agree, the statute requires that the judge impose a sentence of life without the possibility of parole.<sup>15</sup>

*B. The North Carolina Racial Justice Act*

Passage of the RJA provided the impetus for this study. The RJA opened by declaring, “No person shall be subject to or given a sentence of death or shall be executed pursuant to any judgment that was sought or obtained on the basis of race.”<sup>16</sup> A defendant may establish a claim by showing that race was “a significant factor in decisions to seek or impose the sentence of death in the county, the prosecutorial district, the judicial division, or the State at the time the death sentence was sought or imposed.”<sup>17</sup> The RJA expressly identified statistical evidence as a type of evidence that is “relevant” to establishing a claim under the act.<sup>18</sup> Such a claim may allege discrimination in charging or sentencing decisions on the basis of the race of the defendant, the race of the victim, or discrimination in the exercise of peremptory challenges during jury selection.<sup>19</sup> The claim must assert that the discrimination can be documented “irrespective of statutory factors.”<sup>20</sup> The RJA applied retroactively to defendants sentenced to death at the time the act became law, but required that any person under a death sentence at that time file any motion under the act “within one year of the effective date of this act.”<sup>21</sup> Governor

15. *Id.* § 15A-2000(b).

16. N.C. GEN. STAT. § 15A-2010 (2009) (repealed 2013). Kentucky is the only other jurisdiction in the United States to have passed acts similar to the RJA. KY. REV. STAT. ANN. § 532.300 (LexisNexis 2016) (current through Ch. 133 of 2016 Legislative Session). The RJA differed in important ways from the Kentucky statutory scheme. The Kentucky law requires that a defendant prove that “racial considerations played a significant part in the decision to seek a death sentence in his or her case.” *Id.* § 532.300(4). While the Kentucky law is silent as to the appropriate geographic scope of inquiry, it has been understood to require that any proof of discrimination come from the defendant’s county. See David C. Baldus & George Woodworth, *Race Discrimination and the Legitimacy of Capital Punishment: Reflections on the Interaction of Fact and Perception*, 53 DEPAUL L. REV. 1411, 1467 n.215 (2004) (explaining the basis for this understanding). In addition, the Kentucky law requires the defendant to prove that race “was the basis of the decision to seek the death penalty” and to prove it “by clear and convincing evidence.” § 532.300(5).

17. N.C. GEN. STAT. § 15A-2011(a) (repealed 2013).

18. *Id.* § 15A-2011(b) (repealed 2013).

19. *Id.*

20. *Id.* This section may refer to the aggravating circumstances enumerated in the N.C. Code. N.C. GEN. STAT. § 15A-2000(e)(1)–(11) (2015). These factors intend to state characteristics of a murder that identify it as deserving heightened punishment. See, e.g., § 15A-2000(e)(1) (“The capital felony was committed by a person lawfully incarcerated.”); § 15A-2000(e)(9) (“The capital felony was especially heinous, atrocious, or cruel.”).

21. Act of Aug. 6, 2009, ch. 464, sec. 2, 2009 N.C. Sess. Laws 1213, 1215 (repealed 2013) (“This act is effective when it becomes law and applies retroactively. For persons

Beverly Purdue signed the act into law on August 11, 2009, and it became effective immediately.<sup>22</sup>

Approximately 150 defendants from North Carolina's death row asserted RJA claims before the statutory period expired on August 10, 2010.<sup>23</sup> Four defendants received relief in two proceedings under the RJA based on claims that race was a significant factor in jury selection.<sup>24</sup> The North Carolina General Assembly amended the RJA in 2012,<sup>25</sup> and repealed it in 2013.<sup>26</sup>

## II. PREVIOUS RESEARCH ON CAPITAL CHARGING AND SENTENCING IN NORTH CAROLINA

Scholars continue to study the role of race in capital punishment in different jurisdictions at a steady pace.<sup>27</sup> This research suggests that the influence of the race of the defendant on capital charging and sentencing practices has diminished over the decades since *Furman v. Georgia*.<sup>28</sup> While studies in some jurisdictions have identified discrimination on the basis of the defendant's race, findings of such discrimination have become rare.<sup>29</sup> In contrast, studies

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under a death sentence imposed before the effective date of this act, motions under this act shall be filed within one year of the effective date of this act; for persons whose death sentence is imposed on or after the effective date of this act, motions shall be filed as provided in this act.”).

22. *Perdue Signs Racial Justice Act*, WRAL (Aug. 11, 2009), <http://www.wral.com/news/state/story/5769609/> [<https://perma.cc/VCK4-ZUP2>].

23. § 15A-1420(c) (setting out the procedures for a motion for appropriate relief).

24. Order Granting Motions for Appropriate Relief at 2, *North Carolina v. Golphin et al.*, 97-CRS-47314-15 (Sup. Ct. N.C. Dec. 13, 2012); Order Granting Motion for Appropriate Relief at 44–46, *North Carolina v. Robinson*, 91-CRS-23143 (Sup. Ct. N.C. Apr. 20, 2012). The State appealed both decisions to the Supreme Court of North Carolina. The Supreme Court of North Carolina remanded both decisions for new hearings on Dec. 18, 2015. The court found procedural errors in each decision. *North Carolina v. Robinson*, 368 N.C. 596, 596–97, 780 S.E.2d 151, 152 (2015); *North Carolina v. Augustine et al.*, 368 N.C. 594, 594–95, 780 S.E.2d 552, 552 (2015).

25. Act of July 2, 2012, ch. 136, sec. 3, § 15A-2011, 2012 N.C. Sess. Laws 471, 471–73 (amending the RJA, which was repealed in 2013).

26. Act of June 19, 2013, ch. 154, sec. 5(a), 2013 N.C. Sess. Laws 368, 372 (repealing the RJA).

27. See *Grosso et al.*, *supra* note 6, at app. A.

28. 408 U.S. 238, 238 (1972) (per curiam) (declaring the death penalty unconstitutional when arbitrarily or inconsistently applied); see U.S. GEN. ACCOUNTING OFFICE, GAO/GGD-90-57, DEATH PENALTY SENTENCING: RESEARCH INDICATES PATTERN OF RACIAL DISPARITIES 5–6 (1990) (concluding that, based on an evaluation synthesis of 28 capital charging and sentencing studies, the race of victim was found to influence decisions at all stages of the criminal justice system process); Baldus & Woodworth, *supra* note 6, at 202–26 (reaching the same conclusion based on research conducted after 1990).

29. See *Grosso et al.*, *supra* note 6, at 530–31.

overwhelmingly conclude that the race of the victim continues to influence capital charging and sentencing.<sup>30</sup> Most studies find that a defendant who killed at least one white victim is more likely to be charged with a capital crime and more likely to be sentenced to death.<sup>31</sup>

Studies of capital punishment in North Carolina parallel national trends. Early laws in North Carolina expressly made a wide range of crimes death eligible.<sup>32</sup> Pre-*Furman* studies conducted in North Carolina documented strong race effects based on the race of both the defendant and the victim.<sup>33</sup> Studies completed after *Furman*, however, frequently document race-of-victim discrimination but no independent discrimination based on the race of the defendant.<sup>34</sup>

Two teams of scholars published studies examining the influence of race on capital punishment in North Carolina in the 1980s.<sup>35</sup> First, Barry Nakell and Kenneth Hardy studied the outcomes of 661 cases in North Carolina in the twelve months following June 1, 1977.<sup>36</sup> Researchers collected and coded data from the state medical examiner, court records, police reports, and interviews with prosecutors and defense attorneys.<sup>37</sup> After controlling for the quality of the evidence and the seriousness of the offense, they concluded that “defendants in cases with white victims were six times more likely to be found guilty of first-degree murder than defendants in cases with nonwhite victims.”<sup>38</sup>

Samuel Gross and Robert Mauro included North Carolina in an eight-state study.<sup>39</sup> In North Carolina, the scholars used the Federal

30. See *supra* note 6 and accompanying text.

31. See Grosso et al., *supra* note 6, at 537.

32. Hugo Adam Bedau, *General Introduction*, in *THE DEATH PENALTY IN AMERICA: AN ANTHOLOGY* 1, 6–7 (Hugo Adam Bedau ed., 1967) (listing the North Carolina crimes with a mandatory death sentence as of 1837).

33. See Radelet & Pierce, *supra* note 5, at 2130–32 (reviewing the literature).

34. See U.S. GEN. ACCOUNTING OFFICE, GAO/GGD-90-57, *DEATH PENALTY SENTENCING: RESEARCH INDICATES PATTERN OF RACIAL DISPARITIES* 5–6 (1990) (concluding based on an evaluation synthesis of 28 capital charging and sentencing studies that race of victim was found to influence decisions at all stages of the criminal justice system process); Baldus & Woodworth, *supra* note 6, at 202–26 (reaching the same conclusion based on research conducted after 1990).

35. See generally GROSS & MAURO, *supra* note 5 (discussing sentencing and charging decisions in North Carolina); NAKELL & HARDY, *supra* note 5 (identifying elements that factor into the administration of the death penalty in North Carolina).

36. See NAKELL & HARDY, *supra* note 5, at 93.

37. *Id.*

38. *Id.* at 146–48.

39. See generally GROSS & MAURO, *supra* note 5 (discussing sentencing and charging decisions in North Carolina).

Bureau of Investigation's ("FBI") Supplemental Homicide Reports to analyze the risk of receiving a death sentence among all homicides from January 1976 through December 1980, finding that defendants in cases with at least one white victim were more likely than those with no white victims to receive a death sentence.<sup>40</sup> This disparity became smaller in controlled analyses and was not statistically significant.<sup>41</sup>

Two additional published studies examined the influence of race on capital punishment primarily in the 1980s and 1990s.<sup>42</sup> In the first, Isaac Unah examined the influence of race on first-degree and second-degree murder convictions between January 1, 1993 and December 31, 1997.<sup>43</sup> The study included all first-degree murder cases that resulted in a death sentence ( $n = 99$ ) or life without the possibility of parole ( $n = 303$ ), and a random sample of the remaining cases stratified to include cases from 26 of the state's 44 judicial districts ( $n = 118$ ).<sup>44</sup> He collected data from court files, appellate records, and elsewhere to develop a rich procedural and factual understanding of each case.<sup>45</sup> Unah also introduced controls for contextual factors including county political ideology, party affiliation of the district attorney, racial demographics, income, and crime rates.<sup>46</sup>

The study reported race of victim disparities, but no race of defendant disparities. The death-sentencing rate for cases with at least one white victim was 3.4%, more than double the 1.6% rate for all other cases ( $p < .01$ ).<sup>47</sup> Unadjusted analysis also revealed that nonwhite defendants who killed white victims faced the highest death-sentencing rate (5.1%), a rate significantly higher than that faced by white defendants who killed white victims (3.5%).<sup>48</sup>

40. GROSS & MAURO, *supra* note 5, at 35, 89 & tbl.5.1 (finding the disparity to be 13.6% of white victim cases versus 4.3% of black victim cases).

41. *Id.* at 90 tbl.5.2.

42. See generally Amy R. Stauffer et al., *The Interaction Between Victim Race and Gender on Sentencing Outcomes in Capital Murder Trials: A Further Exploration*, 10 HOMICIDE STUD. 98 (2006) (examining 153 North Carolina death penalty cases); Isaac Unah, *Empirical Analysis of Race and the Process of Capital Punishment in North Carolina*, 2011 MICH. ST. L. REV. 609 (2011) (analyzing the influence of race on first-degree and second-degree murder convictions) [hereinafter Unah, *Empirical Analysis*].

43. See Unah, *Empirical Analysis*, *supra* note 42, at 614, 634–35, 634 nn.127–30, 635 n.130 (describing study design and sample selection).

44. *Id.* at 634, 658 app.B.

45. *Id.* at 655 app.A (explaining data sources).

46. See *id.*

47. *Id.* at 636 fig.2, 637 (examining the influence of race on capital punishment between January 1, 1993 through December 31, 1997).

48. *Id.*

Based on a controlled stagewise analysis using Heckman probit estimates,<sup>49</sup> Unah concluded that the nonwhite defendant/white victim disparities did not arise from prosecutorial charging decisions, concluding that “prosecutors are ten percent less likely to seek the death penalty when a nonwhite individual kills a white individual than when a white kills a white.”<sup>50</sup> Rather, Unah concluded that the nonwhite defendant/white victim disparities emerge in jury sentencing decisions. Parallel analyses of jury decisions reported that juries are 8% more likely to impose a death sentence in nonwhite defendant/white victim cases than in white defendant/white victim cases.<sup>51</sup>

In the second study, Amy Stauffer and colleagues analyzed penalty trial decisions in 953 North Carolina death penalty cases between 1979 and 2002 and used the data to publish several papers.<sup>52</sup> The sample included the universe of penalty trials in the study period. Researchers collected case information from public records, including trial and appellate court files.<sup>53</sup> In addition to demographic information on the defendant and victim, the study controlled for use of a gun, multiple victims, rural/urban areas, public defender, defendants’ prior criminal history, contemporaneous rape or other felony charges, victim involvement in illegal activity, and whether the penalty hearing was a retrial.<sup>54</sup>

The first paper published from this research reported a modest disparity in the unadjusted rate that white victim cases received a death sentence (52.7%) relative to black victim cases (46.5%), but this disparity was not statistically significant.<sup>55</sup> It also reported that female victim cases were significantly more likely to receive a death sentence (57.5%) than male victim cases (45.4%) ( $p < .05$ ) and that white female victim cases were more likely to receive a death sentence than any other race/gender combination (58.8%).<sup>56</sup> While both gender and race were statistically significant predictors of death

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49. See *id.* (explaining the choice to use this statistical method). See generally James J. Heckman, *Sample Selection Bias as Specification Error*, 47 *ECONOMETRICA* 153 (1979) (explaining the use of Heckman probit estimates).

50. Unah, *Empirical Analysis*, *supra* note 42, at 639.

51. See *id.* at 649.

52. Stauffer et al., *supra* note 42, at 102–03. The scholars started with a universe of 1,074 but eliminated (i) 88 cases because the victim was not black or white and (ii) 31 cases because they did not have complete information for coding. For the latter, most of the cases were excluded because they lacked a penalty verdict form. *Id.*

53. *Id.* at 102.

54. *Id.* at 104–06.

55. *Id.* at 108 & tbl.2.

56. *Id.*

sentencing when introduced separately into a logistic regression model controlling for other variables of interest,<sup>57</sup> the findings dropped out of significance when the researchers introduced interaction terms for race and gender.<sup>58</sup> Subsequent papers reported no effect for victim race or gender after analyzing the data using propensity score matching rather than logistic regression.<sup>59</sup>

Finally, scholars published two additional papers toward the end of the first decade of this century.<sup>60</sup> In the first, Unah completed a second study in 2009 that analyzed the prosecutorial decision to seek a death sentence in 151 death-eligible murder cases in Durham County, North Carolina, between January 1, 2003, and December 31, 2007.<sup>61</sup> This study reported that prosecutors sought death at a lower rate in black victim cases (10.8%, 12/111) than in white victim cases (23.5%, 8/34) ( $p < .06$ ).<sup>62</sup> It also found that prosecutors sought death in 33% of black defendant/white victim cases (7/21), a rate almost four times the rate for all other cases (9.1%, 11/121) ( $p = .01$ ).<sup>63</sup> In logistic regression analysis, controlling for seven non-racial culpability factors, the study found that prosecutors were 43% more likely to seek the death penalty when the case involved a black defendant and a white victim than when the case involved a black defendant and a black victim.<sup>64</sup>

In the second study, Michael Radelet and Glenn Pierce analyzed the FBI's Supplemental Homicide Reports and a supplemental death row dataset to examine the influence of race on the outcomes in 14,749 North Carolina homicides, 368 of which resulted in a death

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57. *Id.* at 109 & tbl.3.

58. *Id.* at 109–10, 110 tbl.4, 111 tbl.5.

59. See, e.g., Wesley G. Jennings et al., *A Critical Examination of the “White Victim Effect” and Death Penalty Decision-Making from a Propensity Score Matching Approach: The North Carolina Experience*, 42 J. CRIM. JUST. 384, 384 (2014) [hereinafter Jennings et al., *A Critical Examination*]; Wesley G. Jennings et al., *A Propensity Score Matching Analysis of the Relationship Between Victim Sex and Capital Juror Decision-Making in North Carolina*, 52 SOC. SCI. RES. 47, 55 (2015).

60. See Radelet & Pierce, *supra* note 5, at 2119. See generally Isaac Unah, *Choosing Those Who Will Die: The Effect of Race, Gender, and Law in Prosecutorial Decision to Seek the Death Penalty in Durham County, North Carolina*, 15 MICH. J. RACE & L. 135 (2009) [hereinafter Unah, *Choosing Those Who Will Die*] (analyzing prosecutorial decision-making regarding death sentences).

61. Unah, *Choosing Those Who Will Die*, *supra* note 60, at 164.

62. *Id.* at 165–66, 166 tbl.2.

63. See *id.* at 167 & tbl.3.

64. See *id.* at 171 tbl.5, 172–73.

sentence.<sup>65</sup> This study documents a 3.9% death-sentencing rate for cases with at least one white victim compared to a 1.2% rate for black victim cases.<sup>66</sup> This large disparity, a ratio of 3.25, was statistically significant ( $p < .001$ ).<sup>67</sup> They also documented an unadjusted disparity within white victim cases, finding that black defendant/white victim cases faced a 6.1% death-sentencing rate, compared to a 2.9% death-sentencing rate for white defendant/white victim cases ( $p < .001$ ).<sup>68</sup>

Radelet and Pierce controlled for the presence of additional felony circumstances and additional victims and found that both variables were strong and significant predictors of death sentencing.<sup>69</sup> In a logistic regression analysis controlling for these variables, a case with at least one white victim still faced an odds ratio of 2.96 compared to all other cases.<sup>70</sup> The odds ratio did not vary by time period (1980–1989 and 1990–2007) or based on the number of additional factors present in the case.<sup>71</sup>

Each previous study in North Carolina has been limited by the data available to the researchers. For instance, previous studies have had access to only limited controls regarding offender culpability and the circumstances of the crime.<sup>72</sup> Further, many examine only the ultimate outcome of a case rather than the charging and sentencing decisions separately.<sup>73</sup> Finally, the Unah study, with the most complete procedural information and the broadest controls, did not have a statewide sample.<sup>74</sup>

### III. STUDY DESIGN

Our methodology follows that of the data-intensive study conducted by David Baldus and colleagues in Georgia and litigated in *McCleskey v. Kemp*.<sup>75</sup> This methodology has since been refined in

65. Radelet & Pierce, *supra* note 5, at 2138–40. The original sample included 15,281 homicide suspects. The study disregarded individuals suspected in a homicide in which the victim was not white or black, leading to a sample of 14,749. *Id.* at 2138.

66. *Id.* at 2140.

67. *Id.* at 2140, 2151 tbl.A-3(a).

68. *Id.* at 2152 tbl.A-3(c).

69. *Id.* at 2141, 2152 tbl.A-4.

70. *Id.* at 2145, 2159 tbl.A-10(c).

71. *Id.* at 2145, 2159 tbl.A-11(b), 2160 tbl.A-12(b).

72. Both Unah and Stauffer applied a wide range of culpability controls. *See supra* notes 46, 54 and accompanying text.

73. *But c.f.*, Unah, *Empirical Analysis*, *supra* note 42, at 613 (examining charging and sentencing decisions as well as outcomes).

74. *See supra* note 44 and accompanying text.

75. *See McCleskey v. Kemp*, 481 U.S. 279, 286–91 (1987). For a thorough discussion of the studies underlying the *McCleskey* litigation, see DAVID C. BALDUS, GEORGE

numerous jurisdictions.<sup>76</sup> The characteristics of *McCleskey*-style studies are the following:

1. A sample of cases from a specific jurisdiction that is limited to death-eligible murders;
2. Comprehensive and detailed information on both statutory and non-statutory aggravating and mitigating non-racial case characteristics that, under the law of the jurisdiction, bear on the defendant's culpability;
3. Detail on decision-making in each case start-to-finish to facilitate describing and then statistically modeling the flow of cases through the system;
4. The inclusion of all penalty trial cases, including all death-sentenced cases;
5. Variables for the race and socioeconomic status (SES) of all defendants and victims;
6. To the extent possible, reliance on primary sources such as case files and court records; and
7. Mixed methods (qualitative, in the form case studies or narratives, and quantitative, in the form of aggregate or structural analyses) for documenting systemic race and geographic disparities.<sup>77</sup>

This study examines decision-making in death-eligible murder cases from North Carolina from 1990 through 2009. We selected cases using a three-level sampling scheme that included the universe of penalty trial cases. Level 1 contains all cases in which a defendant received a death sentence. Level 2 contains all death-eligible murder cases in which the prosecution sought a death sentence at a penalty trial but the defendant received life. Level 3 contains a stratified

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WOODWORTH & CHARLES A. PULASKI, JR., EQUAL JUSTICE AND THE DEATH PENALTY: A LEGAL AND EMPIRICAL ANALYSIS 1-3 (1990).

76. See, e.g., David C. Baldus et al., *Arbitrariness and Discrimination in the Administration of the Death Penalty: A Legal and Empirical Analysis of the Nebraska Experience (1973-1999)*, 81 NEB. L. REV. 486, 492-97 (2002) [hereinafter Baldus et al., *Analysis of the Nebraska Experience*]; David C. Baldus et al., *Racial Discrimination and the Death Penalty in the Post-Furman Era: An Empirical and Legal Overview, with Recent Findings from Philadelphia*, 83 CORNELL L. REV. 1638 (1998) [hereinafter Baldus et al., *Death Penalty in the Post-Furman Era*]; Katherine Barnes, David Sloss & Stephen Thaman, *Place Matters (Most): An Empirical Study of Prosecutorial Decision-Making in Death-Eligible Cases*, 51 ARIZ. L. REV. 305, 305-08 (2009); Raymond Paternoster et al., *Justice by Geography and Race: The Administration of the Death Penalty in Maryland, 1978-1999*, 4 U. MD. L.J. RACE, RELIGION, GENDER, & CLASS 1, 2, 15-24 (2004).

77. David C. Baldus et al., *Empirical Studies of Race and Geographic Discrimination in the Administration of the Death Penalty: A Primer on the Key Methodological Issues, in THE FUTURE OF AMERICA'S DEATH PENALTY* 153, 155 (Charles S. Lanier, William J. Bowers & James R. Acker eds., 2009).

random sample of death-eligible cases in which the prosecution could have but did not seek a death sentence.

Using these criteria, the study collected detailed information on 1,514 cases: (1) 314 cases in which a defendant received a death sentence; (2) 378 death-eligible murder cases in which the prosecution sought a death sentence at a penalty trial but the defendant received life; and (3) a random sample of 822 death-eligible murder cases in which the prosecution did not seek a death sentence.<sup>78</sup>

#### A. *Identifying Cases for Inclusion in the Study*

The North Carolina Department of Corrections (“DOC”) website keeps information on every person sentenced to death in North Carolina since 1977.<sup>79</sup> We used this information to identify the Level 1 cases.<sup>80</sup> To identify Level 2 cases, we started with earlier research supplemented with information from the DOC website, Westlaw, and a list of homicide cases from the North Carolina Administrative Office of the Courts (“AOC”).<sup>81</sup> We refer to the Level 1 and 2 cases combined as the “penalty trial cases.”

While it was possible to identify all penalty trial cases based on relatively accessible information, drawing an appropriate sample for Level 3 presented a greater challenge. As mentioned above, AOC provided a list of all defendants prosecuted for homicide in North Carolina during the study period. After substantial cleaning and removal of penalty trial cases, this list contained more than 13,400 cases.<sup>82</sup> As it was not possible to identify in advance which of these

78. See *infra* Table 1 for more details on the study sample.

79. See *Death Row Roster*, NC PUBLIC SAFETY, <http://www.ncdps.gov/Adult-Corrections/Prisons/Death-Penalty/Death-Row-Roster> [https://perma.cc/UUL7-3Z8E]; see also *Removed from Death Row*, NC PUBLIC SAFETY, <http://www.ncdps.gov/Adult-Corrections/Prisons/Death-Penalty/People-removed-from-death-row> [https://perma.cc/86LX-C7AD].

80. Professor Beth Bjerregaard and Professor Dwayne Smith kindly gave us a list of the capital penalty trial cases underlying their publication on decision-making in North Carolina capital penalty trials. See generally Stauffer et al., *supra* note 42 (describing the study).

81. To ensure that the list was complete, we compared it to lists of penalty trial cases kept by the North Carolina Office of Indigent Defense and the Center for Death Penalty Litigation in Durham, North Carolina. We also asked attorneys with lengthy capital practice experience to review it for completeness.

82. The original file provided by AOC contained approximately 33,000 lines of data relating to homicides. Each line reported on a case. The file contained extensive duplication. We deduplicated this file using multiple matches, including first and last names, trial dates, birth dates, and service dates. Subsequent analysis suggested that we improperly removed some cases from this list during deduplication. We reviewed the list from the beginning, repeated the deduplication protocols, and analyzed the impact of the

cases were death eligible, we sought to define a stratified random sample that would provide any viable RJA claim the strongest support available.

The language of the RJA suggested that both time and geography were important.<sup>83</sup> We therefore identified three relevant time periods for stratification by considering key changes in North Carolina death penalty law.<sup>84</sup> We also stratified the cases geographically by North Carolina Superior Court prosecutorial district.<sup>85</sup> To determine the number of cases required in each stratum, we sorted penalty trial cases into districts and time periods, as defined above. The target number of Level 3 cases for each stratum mirrored the number of penalty trial cases in that stratum.<sup>86</sup>

The next step was to identify death-eligible homicide cases from the AOC list. We divided the cases by district and time period using trial dates provided by AOC, thereby developing 118 separate lists.<sup>87</sup> Cases were sorted randomly, and staff attorneys reviewed cases in the order presented on the randomized lists until they identified the target number of death-eligible cases needed for that stratum.<sup>88</sup> The

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improperly removed cases on our sample. The improperly removed cases were distributed randomly throughout the study with respect to time and geographic area.

83. See N.C. GEN. STAT. § 15A-2011(a) (2009) (repealed 2013) (providing that a defendant must show discrimination “at the time the death sentence was sought or imposed” and “in the county, the prosecutorial district, the judicial division, or the State”).

84. The first period ran from January 1, 1990 until December 31, 1994. The end of this period roughly coincides with the advent of the sentence of life without parole in North Carolina. See Act of Mar. 23, 1994, ch. 21, sec. 1, 1994 N.C. Sess. Laws 59, 59–61 (codified as amended at N.C. GEN. STAT. § 14-17 (2015)). More precisely, it evenly divides the period between January 1990 and a change in law on July 1, 2001, allowing prosecutors to exercise discretion in whether to charge death-eligible murder capitally. See Act of May 17, 2001, ch. 81, sec. 3–4, 2001 N.C. Sess. Laws 163, 164–65 (codified as amended at N.C. GEN. STAT. § 15A-2004 (2015) (authorizing prosecutorial discretion and making the revisions effective July 1, 2001)). The second time period spans January 1, 1995, until December 31, 2000. The third period spans January 1, 2001, until December 31, 2009.

85. See *North Carolina Superior Court Prosecutorial Districts: Effective January 15, 2009*, N.C. CT. SYS., <https://web.archive.org/web/20140514063241/http://www.nccourts.org/Courts/Trial/District/Documents/DistrictCourtmap.pdf> [<https://perma.cc/FS6W-ZVR3>].

86. For example, if there were 12 penalty trial cases in a district and the 12 penalty trial cases were evenly divided between the three time periods (i.e., 4 cases in each period), the Level 3 sample from that district would ideally include 4 cases from each of the three time periods for a total of 12 cases.

87. Where the AOC did not provide a trial date, but did provide a date labeled “filing date,” we used the filing date for assignment. Where the AOC did not provide a trial date or a filing date, we used the year in the case number assigned by the courts for tracking the file.

88. Because of the need to conduct additional reviews for death eligibility, we instructed screeners to review cases until they identified two cases more than were required for the stratum. This review processes followed the methodology used by David

2016] *RACE & CAPITAL SENTENCING IN N.C.* 2013

process allowed us to populate the stratified sample of death-eligible murder cases randomly without knowing in advance the death eligibility of the cases on the AOC list.

*B. Populating the Level 3 Random Sample*

Staff attorneys screened cases to populate the Level 3 sample<sup>89</sup> by completing a Death Eligibility Screening Instrument (“DCI”) for each case reviewed.<sup>90</sup> This instrument guided them through a series of questions facilitating an initial judgment on (1) the sufficiency of the information available to assess the death eligibility of a case and (2) when possible, its death eligibility.<sup>91</sup> Attorneys deemed cases death eligible if the defendant was accused of first-degree murder under North Carolina law<sup>92</sup> and at least one statutory aggravating factor was present in the case.<sup>93</sup>

Each case initially deemed death eligible underwent a standardized review of the death eligibility finding.<sup>94</sup> When the question of death eligibility was close, a retired North Carolina Superior Court judge reviewed the case according to a written Death Eligibility Review Protocol, using the two-page Final Death

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Baldus and colleagues. See Baldus et al., *Death Penalty in the Post-Furman Era*, *supra* note 76, at 1669–70.

89. In several strata, the Level 3 sample slightly exceeds the target sample. In a few strata, we reviewed all candidate cases but did not identify the targeted number of death-eligible cases, usually due to information insufficiency. When this happened, staff attorneys coded additional cases from a different time period in the same district.

90. CATHERINE GROSSO & BARBARA O’BRIEN, N.C. RACIAL JUSTICE ACT CHARGING AND SENTENCING STUDY, DATA COLLECTION INSTRUMENT (Mar. 13, 2010) (on file with the *North Carolina Law Review*).

91. The research team created an electronic case file for each candidate case from court records, medical examiner records, media reports, and other sources. For most Level 3 cases, the case file also included an Official Crime Version report (“OCV report”) provided by the North Carolina DOC under a protective order prohibiting copying or recording and requiring prompt return of the source data. These reports provided essential factual information about the underlying crimes based on multiple sources such as police reports and witness interviews.

92. N.C. GEN. STAT. § 14-17 (2015).

93. *Id.* § 15A-2000(e). Data collected in the course of screening for death eligibility provided important information about the rate of death eligibility among homicides in North Carolina during the study period. This information allowed us to estimate the universe and to develop weights necessary for analysis using the Level 3 sample. After completing the death eligibility review, the staff attorney entered a code in a screening column in the randomly sorted stratum case list. The code indicated whether the case was potentially death eligible, not death eligible, outside the study period (pre-1990), or lacking in sufficient information to determine death eligibility. These codes were then used to calculate the sampling fractions and the weights for analysis as described below.

94. All defendant and victim race information was removed from cases during the review process.

Eligibility Screening Instrument and a one- or two-page narrative summary.<sup>95</sup>

At the end of this process, we had identified 1,514 cases in three strata for inclusion in the analysis. Level 1 included 314 cases resulting in a death sentence. Level 2 included 378 cases resulting in a life sentence or life without parole at a penalty trial. Level 3 included 822 death-eligible homicide cases that did not advance to a penalty trial. While Levels 1 and 2 include the universe of cases, Level 3 is a stratified sample that mirrors the number, geographical distribution, and date distribution of penalty trial cases in Levels 1 and 2.

#### IV. DATABASE DEVELOPMENT: COLLECT, CODE, ENTER, AND REVIEW

Staff attorneys and volunteers collected source material for each case in this study.<sup>96</sup> For every case, our goal was to obtain the most complete information available about the defendant, victim, circumstances of the crime, and procedural history.<sup>97</sup>

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95. Retired Superior Court Judge Melzer A. Morgan, Jr. reviewed the death eligibility of every “close case” blind to the race of both the victims and defendants. Judge Morgan was to consider whether a North Carolina appellate court would sustain a jury finding that the aggravator was present or that the case was death eligible. The Death Eligibility Review Protocol defined a “close case” as any case in which one or more of the following aggravators provided the sole basis for death eligibility: (1) The murder was especially heinous, atrocious, or cruel under § 15A-2000(e)(9); (2) the murder was committed for pecuniary gain under § 15A-2000(e)(6) *except* those cases involving a robbery or larceny; (3) there was a previous conviction for a violent felony under § 15A-2000(e)(3) *where the prior felony is a felony other than* homicide, attempted homicide, rape, sexual assault, attempted rape, attempted sexual assault, robbery, armed robbery, attempted robbery, felonious assault, attempted felonious assault, or felonious discharge of a firearm; (4) the murder was part of the defendant’s course of violent conduct toward another person or persons under § 15A-2000(e)(11) *unless* the case involves double homicide or a murder with a non-decedent victim at the scene; or (5) the defendant created great risk of death to more than one person by a hazardous weapon under § 15A-2000(e)(10). The protocol also defined as “close” any case where the finding of death eligibility contradicted a Rule 24 order finding that there were no aggravating circumstances in the case. The trial judge reviews death eligibility in every case as required by Rule 24 of the North Carolina General Rules of Practice for Superior and District Courts, N.C. SUP. & DIST. CTS. R. 24. Judge Morgan reversed the finding of death eligibility in 28 of these cases (18%). In all cases, he exercised final judgment as to whether a case was death eligible for purposes of inclusion in the study.

96. Research team members collected data from the University of North Carolina School of Law Kathrine R. Everett Law Library, AOC electronic archives, county courts, the Office of the Chief Medical Examiner, and resources available online.

97. Sources of data included (1) primary records from superior court files; (2) appellate court opinions and records on appeal; (3) OCV Medical Examiner; (4) information on the DOC website; (5) media reports; (6) criminal background information on LexisNexis; (7) archived issues of the Capital Update published by the Center for Death Penalty Litigation; and (8) occasionally, conversations with attorneys

The bridge between the case files and our database is the DCI-a 29-page questionnaire that staff attorneys completed for each case.<sup>98</sup> Development of the DCI began with a systematic review of (1) the Supreme Court of North Carolina comparative proportionality review jurisprudence<sup>99</sup> and (2) previous capital charging and sentencing studies in North Carolina and other jurisdictions.<sup>100</sup> We tailored the DCI to include information on the factors identified in this review and to capture complete procedural information as well as details about the defendant, the victim, and the circumstances of the crime. The DCI documents the statutory basis for the cases and includes questions relating to strength of evidence, defenses, and possible motives.<sup>101</sup> In addition to completing the 29-page DCI, staff attorneys drafted a short narrative description of the case that included its procedural history and all facts bearing on homicidal liability and the presence of aggravating factors.

We undertook several measures to enhance the accuracy and consistency of coding decisions.<sup>102</sup> Staff attorneys coded all cases

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involved in the case. With the exception of the OCV reports, these data are available from the author upon request. For conclusions drawn from this data, see *infra* Part V.

98. GROSSO & O'BRIEN, N.C. RACIAL JUSTICE ACT CHARGING AND SENTENCING STUDY, *supra* note 90.

99. A staff attorney reviewed 482 Supreme Court of North Carolina opinions between 1979 and 2009 to develop a list of factors that the Supreme Court of North Carolina relied on in making decisions about whether a death sentence was disproportionate under state law. See N.C. RACIAL JUSTICE ACT STUDY PROJECT, CODING PROTOCOL 2-5 (Feb. 12, 2010) (on file with the *North Carolina Law Review*); Factors Supporting Findings of Proportionality or Disproportionality (2009) (on file with the *North Carolina Law Review*); North Carolina Reported Decisions Under G.S. 15A-2000 (2009) (on file with the *North Carolina Law Review*).

100. We reviewed the data collection instruments used in studies of various geographic locations and subsets of the military. See Baldus et al., *Analysis of the Nebraska Experience*, *supra* note 76, at 532-40 (Nebraska); Baldus et al., *Death Penalty in the Post-Furman Era*, *supra* note 76, at 1667-75 (Philadelphia); David C. Baldus et al., *Racial Discrimination in the Administration of the Death Penalty: The Experience of the United States Armed Forces (1984-2005)*, 101 J. CRIM. L. & CRIMINOLOGY 1227, 1249-61 (2011) [hereinafter Baldus et al., *United States Armed Forces*] (United States Armed Forces); Unah, *Empirical Analysis*, *supra* note 42, at 634-35, 634 nn.127-30 (North Carolina).

101. See generally O'BRIEN & GROSSO, N.C. RACIAL JUSTICE ACT CHARGING AND SENTENCING STUDY, *supra* note 90 (surveying cases through a 29-page questionnaire).

102. Coding decisions form a process of using information, possibly from several sources, to assign a finding to one of a set of predefined categories. For example, "defendant knew the victim" could be a category. We designed a series of review exercises to test the reliability and accuracy of the coding. A second team of staff attorneys entered information from the DCI into the database at Michigan State University College of Law. They reviewed coding against the narrative summaries and identified inconsistencies and possible errors. In one such review, an experienced staff attorney reviewed all cases coded in the first several weeks of the coding process and all cases coded by each new staff attorney in her or his first two weeks of coding. A second similar staff attorney reviewed

under the supervision of experienced attorneys.<sup>103</sup> They received detailed instruction on the substantive and procedural stages of a capital prosecution in North Carolina, relevant death penalty law, and a written study-coding protocol. Once coding of a DCI was completed, an experienced attorney reviewed it,<sup>104</sup> sometimes resulting in corrections or requests for reconsideration.<sup>105</sup>

The coding protocol articulated evidentiary standards for different sections of the DCI and stated procedures for identifying and addressing missing information.<sup>106</sup> For example, the protocol provided that, for questions largely unrelated to the defendant's culpability (such as those dealing with procedure), the evidentiary standard is whether the reported facts reasonably support one or more of the available coding options.<sup>107</sup> In contrast, for questions bearing most centrally on culpability, the DCI often asks whether the fact at issue is "expressly stated or strongly suggested in the file."<sup>108</sup> In

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hundreds of cases to verify that the number of aggravators recorded in the case accurately followed decisions of the Supreme Court of North Carolina with respect to double counting of evidence.

103. Most of the staff attorneys had finished law school within one or two years of this project. In addition, more than fifteen volunteers worked on this project, primarily in data collection. Volunteers included law students, one undergraduate student, and others. No volunteers screened or coded cases.

University of North Carolina School of Law Professor Richard Rosen, attorney Adam Stein, and Project Manager and Lead Staff Attorney Jennifer Marsh supervised a total of 37 staff attorneys. Professor Rosen bore primary responsibility for resolving any legal issues that arose while coding the DCI with respect to North Carolina capital punishment law, relying on guidance provided by Professor Robert L. Farb in his *North Carolina Capital Case Law Handbook*. See generally ROBERT L. FARB, NORTH CAROLINA CAPITAL CASE LAW HANDBOOK (2d ed. 2004) (explaining case law affecting trial and sentencing regarding first-degree murder charges). Professor Rosen recorded these legal issues and their resolutions in a log available for coders to consult, a copy of which is available from the authors upon request.

104. When experienced staff attorneys conducted the reviews, they presented any legal issues that arose to Professor Rosen or Mr. Stein.

105. For instance, staff attorneys continued to assess the death eligibility of each case assigned for coding. Some cases were found not to be death eligible once coding began. Upon further review, we excluded cases that did not result in a homicide conviction. While these cases appeared factually death eligible, a prosecutor's decision to forgo homicide charges raised enough concerns about the accuracy of our information or the strength of the evidence to support a decision to exclude these cases from the random sample.

106. See O'BRIEN & GROSSO, N.C. RACIAL JUSTICE ACT CHARGING AND SENTENCING STUDY, *supra* note 90.

107. O'BRIEN & GROSSO, N.C. RACIAL JUSTICE ACT CHARGING AND SENTENCING STUDY, *supra* note 90, at 9.

108. A fact is "expressly stated" in the file, when, for example, the defendant's prior mental illness is stated in an expert report or uncontradicted testimony to which the court or defense counsel refer. Determining whether a factor is "strongly suggested" by the file often calls for an inferential judgment. For example, if throughout an entire file, which

2016] *RACE & CAPITAL SENTENCING IN N.C.* 2017

applying this standard, staff attorneys were to consider whether an appellate court presented with a finding of fact adverse to the defendant would determine upon review of the “whole record” that “*any* rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt.”<sup>109</sup> When considering facts relating to aggravation or mitigation, the protocol instructed staff attorneys to weigh information “as a reasonable juror would be expected to do.”<sup>110</sup>

Additional rules addressed information insufficiency and conflicting evidence. When an underlying fact related to the basis of liability, conflicts in evidence were resolved in a way that supported the fact finder’s determination.<sup>111</sup> Similarly, when evidence about a fact bearing on aggravation or mitigation was ambiguous or conflicting, the person analyzing the data was to code it in the way that “support[s] the legitimacy of the sentence.”<sup>112</sup>

Staff attorneys were also prohibited from making independent coding decisions that would be inconsistent with certain factual determinations known as a “controlling finding of fact.”<sup>113</sup> This rule ensured that coders did not override official fact-finding with their own judgment. Controlling findings of fact are made only by fact finders; namely, juries in the instance of jury trials; judges during

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appears to be reasonably complete, there is no mention of the defendant’s previous murder charge, it is reasonable to conclude that the accused had no such charge.

109. See *Jackson v. Virginia*, 443 U.S. 307, 319 (1979).

110. However, the protocol expressly prohibits a coder from crediting a defendant’s exculpatory statement unless there was independent corroborating evidence in the file. An inculpatory statement may be given ordinary weight. N.C. RACIAL JUSTICE ACT STUDY PROJECT, *supra* note 99, at 10.

111. To illustrate this point, the coding protocol instructs staff attorneys that “in a first degree murder conviction case, the coder can assume that the fact finder credited the government’s witnesses, drew all rational inferences from the witnesses’ testimony against the accused, discounted the defendant’s testimony, and refused to accept any disputable inference in his or her favor.” *Id.* at 12. The next sentence in the protocol contrasts the following situation:

On the other hand, if it is plain that the accused intentionally killed the victim with premeditation, the fact of a plea bargain resulting in a second degree murder conviction should not change coding that the killing was factually intentional and premeditated if the evidence is legally sufficient to support a first degree murder conviction.

*Id.*

112. *Id.* at 13. The protocol continues, “Hence in resolving such ambiguities and conflicts, it is important whether the case resulted in a death sentence or less. In death cases, ambiguities and conflicts should be resolved in an aggravating direction, whereas in all other cases, ambiguities and conflicts should be resolved in a mitigating direction.” *Id.* at 13.

113. N.C. RACIAL JUSTICE ACT STUDY PROJECT, *supra* note 99, at 5–7.

bench trials; or judges in cases of an accepted guilty plea for first-degree murder.<sup>114</sup> In addition, an appellate court ruling that the evidence is not sufficient as a matter of law to support a finding of first-degree murder or of an aggravator is a controlling fact.<sup>115</sup>

This process of reviewing and coding data created a database with machine-readable information about each case in the study. The next section of the paper explains how we analyzed this data and presents our findings.

## V. DATA ANALYSIS

We analyzed the data overall and in stages in an effort to determine whether race was a significant factor in the decision to seek or impose the death penalty between 1990 and 2009 in North Carolina. This project does not set out to prove causation. Rather, it seeks to identify what facts about a defendant in a death-eligible murder case made the person more likely to be charged as a capital offender and to be sentenced to death and whether race—race of the defendant or race of the victim, or the combined race of defendant and victim—persisted as an important fact notwithstanding other important characteristics.<sup>116</sup> The question is not whether race consciously motivated decision-makers, but whether it was associated with a significant increase or decrease in an adverse outcome for which no other factor(s) could account.

Before analyzing the data collected and coded as described above, it was necessary to calculate the appropriate weights. Because the study includes the universe of penalty trial cases, all cases in Levels 1 and 2 have a weight of “1”. As noted above, staff attorneys reviewed Level 3 cases for death eligibility using randomized lists of cases that had been divided into individual strata.<sup>117</sup> For each case reviewed, the staff attorney noted whether the case was death eligible, not death eligible, or whether the case file lacked sufficient

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114. Prosecutors are never fact finders, and thus, their charging and plea-bargaining decisions are never controlling.

115. Excluding the subset of defendants found not guilty at trial is a deliberately conservative approach. There is a risk that this approach could introduce some bias in our estimates if the prosecutors’ decisions were particularly aggressive in these cases.

116. Alternately stated, we consider when, as a group, cases containing a certain attribute exhibit a particular adverse outcome at a significantly higher (or lower) rate than cases in which it is absent.

117. The term “stratum” refers to a single district and time period. There are three strata in each district, one for each time period.

information to make a determination.<sup>118</sup> We used this information to calculate the sampling fraction for each stratum.<sup>119</sup>

Table 1 provides an overview of the study sample by design level (Levels 1, 2, and 3), race of defendant and victim, time period, and in total cases. As noted above, the study analyzes 1,514 cases: all 314 cases in which a defendant received a death sentence, all 378 death-eligible murder cases in which the prosecution sought a death sentence at a penalty trial but the defendant received life, and a random sample of 822 death-eligible murder cases in which the prosecution did not seek a death sentence at a penalty trial. The descriptive statistics show that the defendants in the study are overwhelmingly male (94%). Almost 60% of the total defendants are black (Column E, Row 5), but only 50% of the defendants sentenced to death are black (Column B, Row 5). The next largest group comprises white defendants and then Native American defendants.<sup>120</sup> The number of cases in the database decreases over time, as expected from trends in homicide rates (Column E, Rows 15–18).

118. O'BRIEN & GROSSO, N.C. RACIAL JUSTICE ACT CHARGING AND SENTENCING STUDY, *supra* note 90, at 9–13.

119. A sampling fraction is the sample size expressed as a fraction of the population of the stratum. Weight is the reciprocal of the sampling fraction, so if one-third of the cases in a stratum are in our sample, then each sampled case has weight 3 since it “represents” three cases in the population. In this study, the sampling fractions and corresponding weights are estimated because we do not know the numbers of death-eligible cases in Level 3 strata. Weight uncertainty is taken into account via multiple imputations in our final, confirmatory analyses of each model.

120. Others have observed an emerging Hispanic population in the South generally, and in North Carolina, in particular. See Marla R. Emery, Clare Ginger & Jim Chamberlain, *Migrants, Markets, and the Transformation of Natural Resources Management: Galax Harvesting in Western North Carolina*, in *LATINOS IN THE NEW SOUTH: TRANSFORMATIONS OF PLACE* 69, 70 (Heather A. Smith & Owen J. Furuseth eds., 2006) (“Restructuring of the U.S. labor market has led to especially strong growth in the Latino population of North Carolina, which experienced a 45% net immigration rate between 1995 and 2000.”); Heather A. Smith & Owen J. Furuseth, *Making Real the Mythical Latino Community in Charlotte, North Carolina*, in *LATINOS IN THE NEW SOUTH: TRANSFORMATIONS OF PLACE* 191, 191–93 (Heather A. Smith & Owen J. Furuseth eds., 2006) (reporting on and reviewing studies documenting growth of Latino population in North Carolina). See generally *LATINOS IN THE NEW SOUTH: TRANSFORMATIONS OF PLACE* (Heather A. Smith & Owen J. Furuseth eds., 2006) (exploring trends associated with the increase of Latinos in the United States). This trend is not reflected in the homicide cases in our study.

**Table 1: North Carolina Charging and Sentencing Study, 1990–2009: Descriptive Statistics\***

	A	B		C		D		E	
		<i>Level 1: Penalty Trial, Death</i>		<i>Level 2: Penalty Trial, Life</i>		<i>Level 3: No Capital Trial</i>		<i>Total Cases</i>	
		<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
1.	Full database	314	21%	378	25%	822	54%	1,514	100
2.	Male	305	97%	361	95%	763	93%	1,429	94%
3.	Female	9	3%	17	4%	59	7%	85	6%
4.	White	138	44%	137	36%	255	31%	530	35%
5.	Black	158	50%	217	57%	520	63%	895	59%
6.	Hispanic	5	2%	3	1%	28	3%	36	2%
7.	Native American	12	4%	19	5%	17	2%	48	3%
8.	Other	1	<1%	2	<1%	2	<1%	5	<1%
9.	White victim	212	67%	214	57%	355	43%	781	52%
10.	Other victim	102	32%	164	43%	467	57%	733	48%
11.	White defendant/white victim	129	41%	119	31%	227	28%	475	31%
12.	Black defendant/white victim	68	22%	88	23%	114	14%	270	18%
13.	Black defendant/black victim	85	27%	115	30%	380	46%	580	38%
14.	White defendant/black victim	5	2%	16	4%	22	3%	43	3%
15.	1990–1994	118	38%	133	35%	227	28%	478	32%
16.	1995–1999	128	41%	143	38%	265	32%	536	35%
17.	2000–2004	49	16%	72	19%	215	26%	336	22%
18.	2005–2009	19	6%	30	8%	115	14%	164	11%

Table 1 is an unweighted breakdown of the cases in the sample rather than weighted estimates of the population breakdown. Level 3 cases are weighted in subsequent analyses in this paper. In addition, the subsequent analyses exclude any case not involving black or white defendants and victims.<sup>121</sup>

In the analyses below, we present unadjusted disparities, tables controlling only for the number of statutory aggravating circumstances, and finally, logistic regression used to control for

\* This paper follows a conservative rounding rule. The fraction must be .6 or greater to round up. Otherwise, the calculation is rounded down.

121. This follows standard practices where the representation rates of other race or ethnic groups are too small for meaningful quantitative analysis. *See, e.g.,* Stauffer et al., *supra* note 42, at 103.

significant non-racial factors. The coding process described above provided more than 200 possible control variables for each outcome variable analyzed in the study. In the logistic regression, we sought to identify statutory and other legitimate, non-racial control variables that most consistently and reliably predict whether a case will advance to the more punitive outcome. The resulting statistical models implicitly match cases by a race-neutral measure of culpability, statistically inferred from the decision-makers' acts, and then estimate the impact of racial factors controlling for level of culpability in a manner analogous to Table 3.

In each case, we started our analysis for each outcome variable ("Death1, CapTrial, and PTDeath") with a simple model using only the statistically and theoretically important statutory aggravating and mitigating factors as controls.<sup>122</sup> This model also regularly included one race of defendant variable ("DefB") and one race of victim variable ("WhiteVic") so as to isolate race effects from the control variables.<sup>123</sup> Working from this core model, we used two different logistic regression procedures, or PROCs, in SAS<sup>124</sup> (proc logistic and logistic) to analyze the importance of each possible control variable individually and in small groups.<sup>125</sup> This process allowed us to identify the most important control variables for each outcome variable, which ranged from 50 to 70 key variables.

We then worked with these key variables to specify three models for each outcome variable. The first model analyzed, as candidate variables for inclusion, those controls that bore directly on the culpability of the defendant or the circumstances of the crime. The culpability-only model appears in Column B in each regression table.

The second model evaluated the importance of personal variables to the outcome variable at issue. Personal variables coded aspects not specifically related to the defendant's culpability or the nature of the crime, such as the gender of the victim, the relationship

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122. Death1 codes the fact of receiving a death sentence. CapTrial codes a prosecutorial decision to bring the case to trial seeking a death sentence (i.e., to a capital trial). PTDeath codes the fact of receiving a death sentence in a penalty trial. PTDeath further limits the universe to those cases reaching a penalty trial. See *infra* Appendix A, Variable Definitions.

123. Including the race variables in this model helps to exclude non-racial variables that are highly correlated with one or both race variables and are insignificant after controlling for race variables.

124. The data analyses for this paper were generated using SAS software.

125. One macro can be manipulated to step variables into the model in order of statistical importance. This model typically understates the statistical significance. The second macro applies weights more precisely and, therefore, estimates statistical significance more accurately.

between defendant and victim, or the fact of having an appointed attorney. Column C of each regression table reports the model including these variables.

The third model included context variables in the analysis. These variables evaluated the potential effects of factors related to broader social and political contexts of the cases in the study. Prior research has shown that factors such as a locality's homicide rate,<sup>126</sup> prevailing political ideology,<sup>127</sup> racial demographics,<sup>128</sup> and economic health<sup>129</sup> may be associated with the use of the death penalty. We therefore analyzed several contextual variables to assess whether they could explain the racial disparities we found in charging and sentencing decisions. Specifically, we controlled for each county's murder rate,<sup>130</sup> political conservatism,<sup>131</sup> portion of the population that was black,<sup>132</sup>

126. See Theodore Eisenberg, *Death Sentence Rates and County Demographics: An Empirical Study*, 90 CORNELL L. REV. 347, 358 (2005) (finding that the rate of death sentencing decreases as a county's homicide rate increases). *But see* David Jacobs, Jason T. Carmichael & Stephanie L. Kent, *Vigilantism, Current Racial Threat, and Death Sentences*, 70 AM. SOC. REV. 656, 667 (2005) (finding that states with the higher violent crime rates were more likely to sentence capital defendants to death).

127. See David Jacobs & Jason T. Carmichael, *Ideology, Social Threat, and the Death Sentence: Capital Sentences Across Time and Space*, 83 SOC. FORCES 249, 267 (2004) (finding that states with Republican leadership were more likely to have the death penalty); David C. Nice, *The States and the Death Penalty*, 45 W. POL. Q. 1037, 1044–45 (1992) (finding higher rates of execution in states with a more politically conservative population).

128. See Eisenberg, *supra* note 126, at 357 tbl.2 (finding that a county's death sentence rate decreases as the county's black population increases). *But see* David Jacobs & Jason T. Carmichael, *The Political Sociology of the Death Penalty: A Pooled Time-Series Analysis*, 67 AM. SOC. REV. 109, 126 (2002) (finding that states with larger black populations were more likely to have the death penalty).

129. See Eisenberg, *supra* note 126, at 357 tbl.2 (finding that the rate of death sentencing decreases as a county's per capita income increases).

130. See UNIFORM CRIME REPORTING STATISTICS, <http://www.ucrdatatool.gov/> [<https://perma.cc/AJ5K-FF7E>]. The Uniform Crime Report did not include statistics from every county for every year. The annual North Carolina crime report provided the data missing. N.C. DEP'T OF PUB. SAFETY, <http://crimereporting.ncdoj.gov> [<https://perma.cc/5JJR-PMUV>].

131. We calculated political conservatism using the percentage of votes cast for the Republican candidate in the presidential election nearest to the time of the case. For the underlying data, see *N.C. Census Lookup: State Comparisons*, LOG INTO NC, [http://data.osbm.state.nc.us/pls/linc/dyn\\_line\\_main.show](http://data.osbm.state.nc.us/pls/linc/dyn_line_main.show) [<https://perma.cc/HPP2-D5MA>]. This practice is common among like studies. See Noelle E. Fearn, *A Multilevel Analysis of Community Effects on Criminal Sentencing*, 22 JUST. Q. 452, 465 (2005); Jeffrey T. Ulmer & Brian Johnson, *Sentencing in Context: A Multilevel Analysis*, 42 CRIMINOLOGY 137, 151 (2004).

132. *N.C. Census Lookup: State Comparisons*, *supra* note 131 (gathering county population by year).

2016] *RACE & CAPITAL SENTENCING IN N.C.* 2023

and per capita personal income.<sup>133</sup> In each instance, we calculated the variable based on the location and time of each case.

The section below proceeds in three parts. The first part presents unadjusted and then controlled analysis for the combined risk of receiving a death sentence. The second presents the findings with respect to the prosecutorial decision to bring a case to a capital trial. Finally, the third part reports the analysis of jury decisions at penalty trials.

*A. Analysis of Combined Risk of Receiving a Death Sentence*

Death-eligible murder cases in North Carolina during the 1990–2009 study period resulted in a death sentence in an estimated 6% of the cases (285/4,929).<sup>134</sup> This rate resembles the rate observed in other jurisdictions in the 1990s and later.<sup>135</sup>

1. Comparative Selection Rates-Controlling for Race of Victim

Table 2 presents the statistically unadjusted disparities in the treatment of white victim cases. These analyses compare the percentage of white victim cases that receive a death sentence to the percentage of black victim cases that receive a death sentence. White victim cases make up less than one half of the estimated universe (45%, 2,254/4,929). Yet, white victim cases are 3.3 times more likely (8.6%/3.4%) to receive a death sentence than black victim cases (estimated  $n = 2,675$ ) ( $p < .0001$ ). This unadjusted disparity suggests that race of victim may influence charging and sentencing decisions. These analyses, however, do not consider whether the relative culpability of white victim and black victim cases can account for the observed disparity.

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133. *Interactive Data*, BUREAU OF ECONOMIC ANALYSIS, U.S. DEP'T OF COM., <http://www.bea.gov/itable> [<https://perma.cc/B2YF-DDDY>] (containing per capita income by country for 1990–2010 from Bureau of Economic Analysis).

134. *See infra* Table 2.

135. *See, e.g.*, John J. Donohue III, *An Empirical Evaluation of the Connecticut Death Penalty System Since 1973: Are There Unlawful Racial, Gender, and Geographic Disparities?*, 11 J. EMPIRICAL LEGAL STUD. 637, 641 (2014) (5.8%, 12/205); Paternoster et al., *supra* note 76, at 52 fig.1 (5.8%).

**Table 2: Statewide Unadjusted Rate at Which Cases Result in a Death Sentence by Race of Victim**

	A	B	C	D	E	F
		<i>Selection Rate</i>	<i>Weighted n</i>	<i>Difference (line 1–line 2)</i>	<i>Ratio (line 1/line 2)</i>	<i>p</i>
1.	White victim	8.6%	195/2,254	5.2%	2.5	<.0001
2.	Black victim	3.4%	90/2,675			
3.	Overall rate	5.8%	285/4,929			

The aggravating factors listed in North Carolina's death penalty statutes provide a simple way to measure the relative culpability of defendants in different cases.<sup>136</sup> Theoretically, the number of aggravating factors in a case provides one approximation of its level of aggravation.<sup>137</sup> Table 3 groups the cases by the number of aggravating circumstances. Column A reports the number at each level. Column B, Rows 1–5, demonstrates that, as we would expect theoretically, the number of aggravators present in a case influences the likelihood of a case resulting in a death sentence. Approximately 2.2% of cases with a single aggravating circumstance result in a death sentence, 3.8% with two aggravators, 6.9% with three aggravators, 9.6% with four aggravators, and 17.4% of cases with five or more aggravating circumstances. This suggests, as one would expect, that decision-makers in North Carolina view cases with a higher number of aggravating circumstances as more culpable and more worthy of a death sentence.

Columns D through F report the data after controlling for race of the victim at each level of aggravation. These controls allow for a comparison of the rate at which white victim cases result in a death sentence to the rate at which black victim cases result in a death sentence at a particular level of aggravation. This disaggregates the overall selection rates and disparity reported in Table 2 by level of aggravation. If the disparity can be explained by disparate levels of culpability, we would not expect to see disparities once the cases are disaggregated.

136. See *supra* note 20 and accompanying text.

137. This measure has been used in previous studies and by state courts. See, e.g., Baldus et al., *Analysis of the Nebraska Experience*, *supra* note 76, at 534, 550–51 (noting that the number of statutory aggravating factors is both theoretically and practically relevant to evaluating the culpability of defendants); Baldus et al., *Death Penalty in the Post-Furman Era*, *supra* note 76, at 167 (noting that courts in New Jersey and Pennsylvania have applied this method).

**Table 3: Measuring Disparities in the Rate at Which Cases Receive a Death Sentence, Controlling for the Race of Victim and Number of Statutory Aggravating Circumstances**

	A	B	C	D	E	F	G
	<i>Number of Aggravators</i>	<i>Overall Rate</i>	<i>n</i>	<i>Race of Victim</i>	<i>Rate by Race of Victim</i>	<i>Ratio</i>	<i>p</i>
1.	One	2.2% (38/1,693)	393	white victim	3.2% (23/713)	2.1	.03
				black victim	1.5% (15/980)		
2.	Two	3.8% (52/1,368)	354	white victim	5.9% (35/596)	2.7	<.01
				black victim	2.2% (17/772)		
3.	Three	6.9% (60/875)	261	white victim	7.6% (38/502)	1.3	.39
				black victim	5.9% (22/373)		
4.	Four	9.6% (46/478)	156	white victim	17.1% (32/187)	3.6	<.01
				black victim	4.8% (14/291)		
5.	Five or more	17.4% (89/510)	212	white victim	26.6% (67/252)	3.1	<.01
				black victim	8.5% (22/258)		

However, the disparate selection rates persist. The selection rates by race of victim in Column E document that white victim cases are more likely to receive a death sentence *at every level of aggravation*. For cases with a single aggravating circumstance in Row 1 or two aggravating circumstances in Row 2, white victim cases are more than two times more likely to receive a death sentence than all others ( $p = .03$  and  $p < .01$ ). Cases at the mid-level of aggravation in Row 3 reflect a more modest disparity (1.3) in the same direction, but the disparity is not statistically significant. Surprisingly, however, in the four aggravating factors category, white victim cases are much more likely to receive a death sentence (ratio 3.6,  $p < .01$ ), as are those in the five or more category (ratio 3.1,  $p < .01$ ).

While the white victim disparity weakens with the introduction of controls (from a relative risk of 4.0 to an average risk of 2.8), this disparity persists after controlling for the number of statutory aggravating circumstances in each case. The persistence of strong statistically significant disparities even at the highest level of aggravation is noteworthy (Lines 4 and 5). Harry Kalven, Jr. and Hanz Zeisel's "liberation hypothesis" suggested that decision-makers

in the most and least aggravated cases are likely to be in the grip of fact and, therefore, somewhat immune from arbitrary and irrelevant case characteristics.<sup>138</sup> In contrast, decision-makers in cases in the mid-range of aggravation are less likely to be in the grip of fact, and therefore, may more readily be influenced by arbitrary and irrelevant case characteristics, such as race.<sup>139</sup> These results run counter to the liberation hypothesis by showing disparities across all levels of aggravation and particularly at the highest and lowest levels of aggravation.

## 2. Logistic Regression Analysis

Logistic regression allows us to develop more complete models of decision-making, taking into consideration a full range of aggravating and mitigating evidence. Again, it is possible that more complete controls would explain the observed disparities. Table 4 presents three logistic regression models of the overall decision to impose a death sentence. There are 285 death sentences among 1,381 cases evaluated in this model. The weighted universe includes 4,929 cases.

As noted above, this analysis combines the effects of all decisions leading to a death sentence (“Death1”). The outcome variable asks only whether the case resulted in a death sentence. A case is coded “1” if it received a death sentence. All other cases are coded “0”. Column B presents a model relying only on culpability controls. The controls related to factors including statutory aggravating and mitigating factors, types of evidence and defenses, details of the crime, and method of killing. In Column C, the second model adds theoretically and statistically significant personal controls. The third model, in Column D, adds theoretically and statistically significant context controls.

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138. Baldus et al., *supra* note 77, at 145 (citing HARRY KALVEN, JR. & HANS ZEISEL, *THE AMERICAN JURY* 164–67 (1966)).

139. *Id.*

2016]

RACE &amp; CAPITAL SENTENCING IN N.C.

2027

**Table 4: Logistic Regression Models Analyzing the Combined Effect of Charging and Sentencing Decisions**

	A	B		C		D	
		<i>Culpability Controls</i>		<i>Culpability with Personal Controls</i>		<i>Culpability with Personal and Context Controls</i>	
		Odds Ratio	Regression Coefficient	Odds Ratio	Regression Coefficient	Odds Ratio	Regression Coefficient
1. WhiteVic <sup>†</sup>		2.17	0.7762***	2.00	0.6915**	2.01	0.6992**
2. AggE2		10.74	2.3736***	17.33	2.8526***	19.91	2.9910***
3. AggE3		3.48	1.2455***	2.99	1.0942***	3.05	1.1147***
4. AggE8		7.16	1.9689***	7.08	1.9574***	6.70	1.9023***
5. AggE9		3.24	1.1750***	3.34	1.2057***	3.34	1.2043***
6. Disrobe		2.63	0.9649**	2.01	0.6972*	1.93	0.6581*
7. EvidType3		2.39	0.8716*	-	-	-	-
8. EvidType10		3.24	1.1741***	3.11	1.1361***	3.13	1.1408***
9. EvidType11		2.04	0.7111***	2.08	0.7307***	2.10	0.7427***
10. GratuitousFelony		2.43	0.8871**	2.06	0.7251*	2.05	0.7180*
11. HeadWound		1.75	0.5585*	1.87	0.6267**	1.85	0.6126**
12. Instigator		2.04	0.7108*	1.97	0.676*	2.02	0.7048*
13. MoneyMotive		3.13	1.1413*	3.15	1.146*	2.95	1.0818*
14. PleasureKill		2.60	0.9541**	2.69	0.9892**	2.63	0.9661**
15. SeverePain		1.94	0.6642**	2.21	0.7938***	2.20	0.7896***
16. Trauma		6.00	1.7921***	5.42	1.6904***	5.76	1.7505***
17. TwoVic		4.79	1.5663***	4.60	1.5264***	4.54	1.5128***
18. MitF4		0.12	-2.0990**	0.08	-2.5656**	0.07	-2.6112**
19. CoPConflict		0.46	-0.7811*	0.40	-0.9154*	0.42	-0.8700*
20. DefenseType1		0.20	-1.5990**	0.20	-1.5906*	0.21	-1.5432*
21. DefenseType15		0.21	-1.5834***	0.29	-1.2462***	0.27	-1.3288***
22. DRage		0.33	-1.1111**	0.38	-0.9667**	0.39	-0.9550**
23. NoSpAgg		0.93	-0.0715*	0.92	-0.0787*	0.92	-0.0854*
24. ProvokeQ		0.28	-1.2769*	0.35	-1.0493*	0.36	-1.0310*
25. TookResp		0.09	-2.4367***	0.08	-2.4635***	0.08	-2.4928***
26. VCriminal		0.28	-1.2714**	0.34	-1.085*	0.35	-1.0656*
27. YoungDef		0.28	-1.2733**	0.24	-1.4193**	0.26	-1.3531**
$R^2 = .69$ ( <i>culpability</i> )							
28. DVHome				0.40	-0.912*	0.41	-0.8970*
29. FemVic				1.78	0.5772*	1.82	0.5977**
30. VStranger				2.32	0.8402**	2.39	0.8720**
$R^2 = .70$ ( <i>with personal controls</i> )							
31. VoteSplit1						1.05	0.0440*
32. PercentBlack						1.02	0.0237*
$R^2 = .71$ ( <i>with personal and context controls</i> )							

\*  $\leq .05$ , \*\*  $< .01$ , \*\*\*  $< .001$ <sup>†</sup> Variable definitions are provided in Appendix A.

The WhiteVic variable in Row 1 shows the odds ratio estimate and regression coefficient (with p-value indicated). This variable is

included to show the effect of having at least one white victim on the risk of receiving a death sentence. The primary model analyzing death sentencing among all death-eligible cases includes 26 other statistically and theoretically significant culpability controls. These variables include codes for individual statutory aggravating or mitigating circumstances where the statutory definitions best captured the nature of culpability or mitigation. In other instances, the control variables more precisely measure a factor otherwise included in a broader statutory aggravator. For example, TwoVic divides cases into two groups: single victim cases versus multiple victim cases. The felony murder aggravator captures the occurrence of a second homicide at the time of the murder but also references other violent homicides.<sup>140</sup> The TwoVic variable provides a more precise measure of the kind of culpability at issue. In other instances, the variable measures a factor otherwise understood to be relevant to assessing the culpability of the offender or the crime, such as who instigated the murder or what types of evidence or defenses were available.

The primary culpability model finds that white victim cases face odds of receiving a death sentence that are 2.17 times higher than the odds faced by all other cases ( $p < .001$ ). This finding echoes the 2.96 odds ratio reported by Radelet and Pierce in their study based on the FBI's Supplement Homicide Reports.<sup>141</sup> We would expect the additional controls in this study to explain part of the disparities reported in studies with more limited controls, as they do. Yet the identification of substantial statistically significant disparities based on the race of the victim across multiple studies lends credence to the suggestion that race of victim plays a significant role in charging and sentencing decisions.

Thus, the first model shows that the race of the victim is practically and statistically significant. The only question for the second and third models in this table is whether some factor unrelated to culpability better explains the observed disparity than race alone. Column C shows that three personal variables were theoretically and statistically significant and are included in the culpability with personal controls model. Note that when these variables are included, EvidType 3 (the fact that the defendant was identified by a police officer) in Line 7 falls out of significance and is removed from the model. Even after controlling for the victim's gender, the fact that the crime occurred in the defendant or co-defendant and victim's home,

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140. See N.C. GEN. STAT. § 15A-2000(e)(5) (2015).

141. See Radelet & Pierce, *supra* note 5, at 2145.

and the fact that the victim was a stranger to the defendant, white victim cases face odds of receiving a death sentence that are 2.0 times higher than those faced by all others ( $p < .01$ ). While these personal controls help explain part of the disparity, they do not provide an alternate explanation to race of the victim.

Finally, the model presented in Column D adds 2 county-level context variables: one compares the level of political conservatism (“VoteSplit1”) and a second controls for the portion of the county population that was black (“PercentBlack”). These were the only context variables that even approached statistical significance. This model also included all of the control variables included in Column C. The WhiteVic variable in Line 1 shows that the context variables had very little impact on the influence of race of the victim disparities. As before, defendants in white victim cases face odds that are 2.0 times higher than those faced by defendants in black victim cases ( $p < .001$ ).

The overall statewide analysis of charging and sentencing decisions in death-eligible murder cases identified consistent disparities in the treatment of cases involving at least one white victim. These disparities appear in both unadjusted analyses and in adjusted procedures that control for defendants’ culpability. As noted above, this white victim disparity is consistent with disparities reported in earlier studies of North Carolina’s capital punishment system,<sup>142</sup> as well as with studies in other jurisdictions during this time period.<sup>143</sup>

This kind of analysis is useful in providing an overall picture of the death sentencing process, but it blurs the role of distinct decision-makers and limits the ability to consider precise avenues to address observed disparities. The next two subsections present analyses by decision-makers. The first looks at prosecutorial decisions to bring a case to a capital trial. The second considers jury decisions to impose a death sentence at the penalty trial.

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142. *Id.*

143. See, e.g., Baldus et al., *United States Armed Forces*, *supra* note 100, at 1270 tbl.4 (odds ratio 2.5,  $p = .11$ ); Michael J. Songer & Isaac Unah, *The Effect of Race, Gender, and Location on Prosecutorial Decisions to Seek the Death Penalty in South Carolina*, 58 S.C. L. REV. 161, 204 tbl.7 (2006) (odds ratio 3.16,  $p < .01$ ); Marian R. Williams & Jefferson E. Holcomb, *Racial Disparity and Death Sentences in Ohio*, 29 J. CRIM. JUST. 207, 216, 215 tbl.3 (2001) (odds ratio 1.66,  $p < .01$ ).

*B. Analysis of Prosecutorial Decision to Advance Death-Eligible Homicide Cases to a Capital Trial*

Prosecutors in North Carolina bring death-eligible homicides to a capital trial in about 13% of the cases (656/4,924).<sup>144</sup> The question at this stage of analysis is whether the white victim disparities observed in overall death sentencing can be traced to the charging decisions. The stage-wise analysis suggests what might appear to be the opposite story from the overall conclusions. In addition to preferential charging and sentencing of white victim cases, these data suggest that cases taking place within the black community, where black defendants kill only black victims, advance to a capital trial at significantly and practically lower rates than all other cases. In fact, the fully controlled model suggests that the *de*-selection of black defendant/black victim cases best captures the role of race in the charging decision rather than the preferred selection of white victim cases.

Although this finding that prosecutors are less likely to bring death-eligible defendants within the black community to a capital trial has not previously been reported in a charging and sentencing study of which we are aware, it is consistent with findings in related research. John Blume and colleagues analyzed the demographics of death row by comparing murder and death sentence data, seeking to understand why blacks are underrepresented on death row.<sup>145</sup> They concluded that blacks who murder blacks are underrepresented on death row in part “due to the evidence of prosecutorial reluctance to seek death in ‘black on black’ cases.”<sup>146</sup> More recently, Frank Baumgartner and his colleagues studied every execution since 1976 and reported that black victim’s cases are “vastly underrepresented among victims of those executed” and suggested, based on this finding, that race-of-victim bias “can work . . . to decrease the perceived seriousness of crimes against Black victims.”<sup>147</sup>

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144. See *infra* Table 5.

145. See John Blume, Theodore Eisenberg, & Martin T. Wells, *Explaining Death Row’s Population and Racial Composition*, 1 J. EMPIRICAL LEGAL STUD. 165, 168 (2004). See generally Alexandra Natapoff, *Underenforcement*, 75 FORDHAM L. REV. 1715 (2006) (reviewing the literature and examining the sociolegal implications for “underenforcement” of crimes against the poor, racial minorities, and the otherwise politically vulnerable).

146. Blume, Eisenberg, & Wells, *supra* note 145, at 192, 202–03.

147. Frank R. Baumgartner, Amanda Grigg & Alisa Mastro, *#BlackLivesDon’tMatter: Race-of-Victim Effects in US Executions, 1976–2013*, 3 POL., GROUPS, & IDENTITIES 209, 215–16 (2015).

1. Comparative Selection Rates-Controlling for Race of Victim and for Black Defendant/Black Victim Cases

Table 5 presents the unadjusted selection rates at which prosecutors bring cases to a capital trial. Line 1 shows that white victim cases remain significantly more likely to face a capital trial than cases with only black victims. The relative risk that white victim cases will be brought to a capital trial is 2.1 (18.6%/8.9%,  $p < .0001$ ). These rates show an even larger disparity than seen overall with a 9.7-point selection rate difference in charging compared to a 4.4-point difference in overall death sentencing (Table 5, Line 1, Column D versus Table 3, Column E).

A larger difference in selection rates for black defendant/black victim cases versus all others, however, provided the first suggestion of an alternative understanding of the role of race in this stage. Line 2 focuses on cases in which black defendants killed only black victims, showing that these cases faced one-half the risk faced by all other cases of advancing to a capital trial (0.5,  $p < .0001$ ). Prosecutors bring black defendant/black victim cases to a capital trial 8.5% of the time (217/2,565). In contrast, prosecutors bring all other cases to a capital trial 18.6% of the time (439/2,359). These rates demonstrate a 10.1-point difference in the relative risk of a capital trial. This suggests that most of the disparity reported in Line 1, between white victim cases and black victim cases, can be traced more precisely to black defendant/black victim cases.

**Table 5: Statewide Unadjusted Rate at Which Cases Advance to Capital Trial by Race of Victim and Combined Race of Defendant and Victim**

	A	B	C	D	E	F
		%	<i>n</i>	<i>Difference</i>	<i>Ratio</i>	<i>p</i>
1.	White victim	18.6%	418/2,249	9.7 pts.	2.1	<.0001
	Black victim	8.9%	238/2,675			
2.	Black defendant / black victim	8.5%	217/2,565	-10.1 pts.	0.5	<.0001
3.	All other	18.6%	439/2,359			
4.	Overall rate	13.3%	656/4,924			

As before, these disparities fail to account for the relative culpability of different cases but provide a starting suggestion that race may play some role in charging practices. The next analyses explore how charging decisions and prosecutorial discretion to pursue a capital trial is affected by aggravating circumstances.

Table 6 considers the likelihood that a death-eligible case will advance to a capital guilt trial controlling for the number of aggravating circumstances in the case and the race of the victim. Charging practices appear to relate rationally to the number of aggravating circumstances in the case. As the number of aggravating circumstances increases from Row 1 to Row 5, the likelihood that a case will advance to a capital trial, in Column B, increases in steps from 7.7% to 29%.

**Table 6: Measuring Disparities in the Rate at Which Cases Advance to a Capital Trial, Controlling for the Race of the Victim and Number of Statutory Aggravating Circumstances**

	A	B	C	D	E	F	G
	<i>Number of Aggravators</i>	<i>Overall Rate</i>	<i>n</i>	<i>Race of Victim</i>	<i>Rate by Race of Victim</i>	<i>Ratio</i>	<i>p</i>
1.	One	7.7% (131/1,694)	393	white victim	9.8% (70/713)	1.6	.02
				black victim	6.2% (61/980)		
2.	Two	10.5% (143/1,363)	353	white victim	15.2% (90/591)	2.2	<.01
				black victim	6.9% (53/772)		
3.	Three	14.9% (130/875)	261	white victim	17.3% (87/502)	1.5	.06
				black victim	11.5% (43/373)		
4.	Four	20.7% (99/478)	156	white victim	36.4% (68/187)	3.4	<.01
				black victim	10.7% (31/291)		
5.	Five or more	29.0% (148/510)	212	white victim	39.3% (99/252)	2.1	<.01
				black victim	19.0% (49/258)		

Columns D through G separate the cases by race of victim and level of aggravation. Again, white victim cases advance to capital trials at a higher rate than black victim cases at every level of aggravation, but the disparities generally are not as large as those observed in the overall death sentencing analysis. At the first level, cases with one aggravating circumstance, white victim cases advance to a capital trial at 1.6 times the rate of black victim cases ( $p < .02$ ). This disparity increases to 2.2 at the second level ( $p < .01$ ) but then decreases to 1.5 and falls to marginal significance at the third level ( $p = .06$ ). As before, the fourth and fifth levels show increased levels

of disparities and statistical significance. White victim cases with four aggravating circumstances are 3.4 times more likely to advance to a capital trial than black victim cases ( $p < .01$ ), which mirrors the disparity observed at this level of aggravation in the overall death-sentencing analysis. White victim cases with five or more aggravating circumstances are more than twice as likely (2.1) to advance to a capital trial as black victim cases ( $p < .01$ ). Controlling for the number of aggravating circumstances in the case does not eliminate the white victim disparities.

**Table 7: Measuring Disparities in the Rate at Which Black Defendant/Black Victim (“BDBV”) Cases Advance to a Capital Trial, Controlling for the Number of Statutory Aggravating Circumstances**

	A	B	C	D	E	F	G
	<i>Number of Aggravators</i>	<i>Overall Rate</i>	<i>n</i>	<i>Race of Victim</i>	<i>Rate by Race of Victim</i>	<i>Ratio</i>	<i>p</i>
1.	One	7.7% (131/1,694)	393	BDBV	6.0% (57/947)	0.6	.01
				other	9.9% (74/745)		
2.	Two	10.5% (143/1,363)	353	BDBV	6.1% (44/716)	0.4	<.01
				other	15.3% (99/647)		
3.	Three	14.8% (130/875)	261	BDBV	10.7% (39/363)	0.6	.02
				other	17.8% (91/512)		
4.	Four	20.7% (99/478)	156	BDBV	10.9% (31/284)	0.3	<.01
				other	34.9% (68/195)		
5.	Five or more	29.0% (148/510)	212	BDBV	17.7% (45/254)	0.4	<.01
				other	40.2% (103/256)		

Table 7 evaluates whether the same findings apply with respect to black defendant/black victim disparities. Column B replicates Table 6, Column B, showing the increasing rate at which prosecutors bring a case to a capital trial as the number of aggravators increases from Line 1 to Line 5. Columns D through G divide the cases into black defendant/black victim cases versus all other cases at each level of aggravation. Again, cases in which a black defendant killed only black victims are significantly less likely to be brought to a capital trial than all other cases at every level of aggravation. The largest

disparity appears at the lowest level of aggravation (Level 1), where black defendant/black victim cases are 60% less likely to be brought to a capital trial ( $p < .01$ ). At Level 2, black defendant/black victim cases face a relative risk of 0.4 ( $p < .01$ ). At Level 3, which did not show statistically significant disparities in the identical white victim analyses, selection rates show a statistically significant relative risk of 0.6. The disparity persists at similar rates in Levels 4 and 5 (0.3 and 0.4, respectively,  $p < .01$  for each).

The simple statutory controls imposed in Tables 6 and 7 show that the disparate treatment of white victim cases and of black defendant/black victim cases cannot be explained simply as a result of the nature of the death-eligible homicides involved. Even at the highest level of aggravation, with four or five or more statutory aggravating factors present in the case, these cases face different outcomes based on race.

## 2. Logistic Regression Analysis

Again, logistic regression allows us to control for a broad range of factors relating to the culpability of the defendant and the circumstances of the crime. Table 8 presents three logistic regression models of the prosecutorial decision to bring a death-eligible murder case to trial seeking a death sentence. Because of the disparities reported above, we continued to analyze the importance of all race variables in logistic analyses of this outcome variable. Analysis of every control variable and every subgroup of control variables considered the practical and statistical significance of each variable when controlling for all possible combinations of mainline race effects (race of defendant or race of victim), possible interaction race effects (black defendant/black victim, white defendant/white victim, black defendant/white victim, white defendant/black victim), and without race controls. This analysis demonstrated that the failure to bring black defendant/black victim cases to capital trials best explains the race effects observed in this decision. This variable consistently stepped in over the white victim case variable and excluded all other race variables. For that reason, the fully specified models presented below include only the black defendant/black victim variable (“BDBV”).

**Table 8: Logistic Regression Models Analyzing the Decision to Bring a Case to a Capital Trial**

	A	B		C		D	
		<i>Culpability Controls</i>		<i>Culpability with Personal Controls</i>		<i>Culpability with Personal and Context Controls</i>	
		Odds Ratio	Regression Coefficient	Odds Ratio	Regression Coefficient	Odds Ratio	Regression Coefficient
1.	BDBV <sup>†</sup>	0.39	-0.9385***	0.39	-0.9470***	0.38	-0.9726***
2.	AggE3	2.18	0.7794**	2.06	0.7246**	2.03	0.7104**
3.	AggE8	8.52	2.1421***	6.80	1.9163**	7.33	1.9914**
4.	AddCrime	2.63	0.9680***	2.46	0.8999***	2.63	0.9661***
5.	EvidType1	2.43	0.8870*	2.51	0.9208*	2.47	0.9053*
6.	EvidType3	4.00	1.3873***	4.18	1.4298***	4.37	1.4748***
7.	EvidType8	1.74	0.5524*	1.77	0.5687*	1.83	0.6072*
8.	EvidType10	2.79	1.0274***	2.68	0.9867***	2.75	1.0102***
9.	Fugitive	4.64	1.5345***	5.11	1.6319***	4.15	1.4241***
10.	HeadWound	1.99	0.6885**	2.01	0.6966**	2.02	0.7012**
11.	ManyWound	2.42	0.8821**	2.16	0.7678**	2.16	0.7697**
12.	MoneyMotive	2.72	0.9987*	2.85	1.0462*	2.7160	0.9992*
13.	PleasureKill	5.22	1.6519***	4.59	1.5240**	5.16	1.6405***
14.	PreArmed	1.86	0.6226***	1.93	0.6555**	1.92	0.6501**
15.	PriorThreat	2.13	0.7546*	2.54	0.9339**	2.62	0.9642***
16.	SeverePain	3.08	1.1249***	2.96	1.0833***	3.19	1.1594***
17.	Trauma	20.46	3.0185***	20.32	3.0113***	20.37	3.0138***
18.	TwoVic	3.38	1.2172***	2.93	1.0751**	2.86	1.0493**
19.	DefenseType5	0.36	-1.0165**	0.37	-0.9932*	0.36	-1.0102*
20.	DefenseType14	0.11	-2.2027***	0.09	-2.3613***	0.09	-2.3648***
21.	DefenseType15	0.38	-0.9619**	0.44	-0.8130*	0.47	-0.7528*
22.	DRage	0.46	-0.7730*	0.50	-0.6985*	0.50	-0.6943*
23.	EvidType5	0.38	-0.9781***	0.36	-1.0177***	0.35	-1.0548***
24.	EvidType12	0.29	-1.2298***	0.32	-1.1326***	0.32	-1.1497***
25.	GangLoyalty	0.17	-1.7802**	0.17	-1.7906*	0.18	-1.6972*
26.	HateRev	0.49	-0.7241**	0.58	-0.5514*	0.55	-0.5976
27.	NoLongPlan	0.91	-0.0912**	0.92	-0.0886**	0.91	-0.0892**
28.	NoSpAgg	0.92	-0.0825*	0.91	-0.0917*	0.92	-0.0822*
29.	ResidDoubt	0.21	-1.5740*	0.26	-1.3652*	0.27	-1.3122*
30.	TookResp	0.06	-2.7957***	0.07	-2.7339***	0.06	-2.7881***
$R^2 = .83$							
31.	DVHome			0.30	-1.1971**	0.31	-1.1710**
32.	FemVic			1.95	0.6700**	1.88	0.6309**
$R^2 = .83$							
33.	Poverty					0.61	-0.4893*
$R^2 = .84$							

\* ≤ .05, \*\* &lt;.01, \*\*\* &lt; .001

<sup>†</sup> Variable definitions are provided in Appendix A.

The outcome variable in this model, CASeek, codes the fact of advancing to a capital trial. A case is coded “1” if it advanced to a

capital trial. All other cases are coded “0”. There are 642 capital trials among 1,380 cases evaluated in these models. The weighted universe estimates 4,924 cases. As previously, the first model, Column B, includes only culpability controls. The second, Column C, adds theoretically and statistically significant personal controls. The third, Column D, adds theoretically and statistically significant context controls. The race variable BDBV appears in Row 1. This variable is coded “1” if the case involves a black defendant and only black victims. All other cases are coded “0”.

The culpability model, Column B, finds that black defendant/black victim cases face odds of advancing to a capital trial that are 0.39 times lower than the odds faced by all other cases ( $p < .001$ ), even after controlling for all theoretically and statistically significant culpability control variables. In Column C, two personal control variables met the model specification requirements: the fact that the crime happened in the defendant or co-defendant and victim’s home and that the victim was a woman. Including these variables in the model does not change the odds that a prosecutor will bring a black defendant/black victim case to a capital trial (odds ratio 0.39,  $p < .01$ ). Finally, the model reported in Column D includes one context variable, controlling for per capita personal income. Including this variable in the model only very slightly lowers the odds that a prosecutor will bring a black defendant/black victim case to a capital trial (odds ratio 0.38,  $p < .01$ ).

*C. Analysis of Jury Decision to Issue a Death Sentence at the Penalty Trial*

Juries in North Carolina during the study period imposed a death sentence in 44.5% of penalty trials (286/643). As noted above, the database contains the universe of cases that advanced to a penalty trial between 1990 and 2009. We identified 643 penalty trials in this period. Table 9 shows the race of defendants and victims in these cases: 272 white defendant cases, 371 black defendant cases, 413 white victim cases, and 230 black victim cases. White defendant/white victim cases constitute the largest defendant/victim subset.

Importantly, the reluctance of prosecutors to bring black defendant/black victim cases to capital trials changes the demographic profile of the cases that advance to a penalty trial. White defendant cases and white victim cases represent a higher proportion of penalty trial cases. Table 9, Line 1, shows that white defendant cases constitute 31% of the estimated universe and 42% of penalty trials. Even more dramatically, in Line 3, white victim cases move from 45%

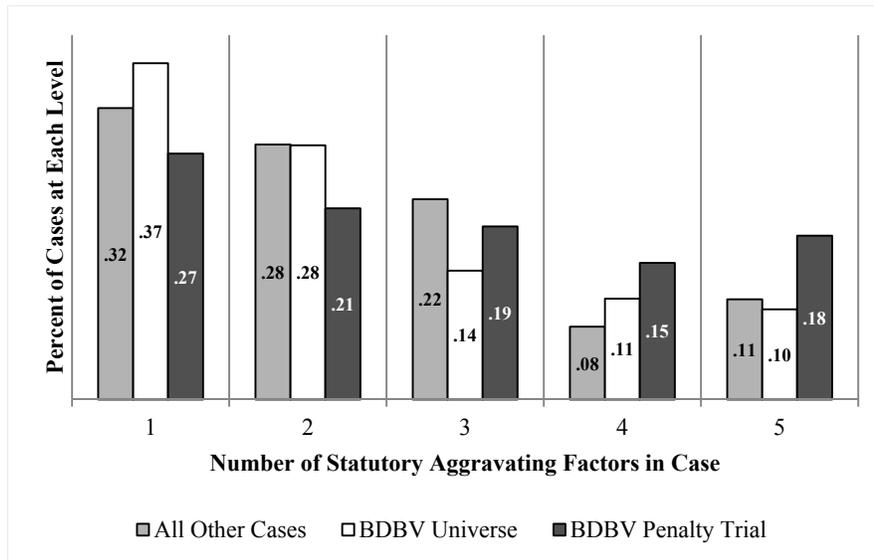
of the estimated universe to 64% of penalty trial cases. This results directly from prosecutorial decisions not to advance black defendant/black victim cases to capital trials as discussed above. Indeed, black victim cases fall from 55% of the estimated universe to 36% of penalty trials, and black defendant/black victim cases fall from 53% to 32%, respectively.

**Table 9: Representation Rates Across Stages**

	A	B		C		D	
		<i>Estimated Universe</i>		<i>Penalty Trial Cases</i>		<i>Death Sentenced Cases</i>	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1.	White defendant	1,865	31%	272	42%	133	46%
2.	Black defendant	4,204	69%	371	58%	153	53%
3.	White victim	2,733	45%	413	64%	196	68%
4.	Black victim	3,336	55%	230	36%	90	31%
5.	Black defendant/black victim	3,206	53%	209	32%	85	30%
6.	Black defendant/white victim	998	16%	162	25%	68	24%
7.	White defendant/white victim	1,735	29%	251	39%	128	45%
8.	White defendant/black victim	130	2%	21	3%	5	2%
9.	TOTAL	6,069		643		286	

This artifact of prosecutorial selection impacts the universe at this stage. Figure 1 presents the distribution of death-eligible cases by number of aggravating circumstances in three subsets: (1) the non-black defendant/black victim cases in the estimated universe (i.e., all other cases) (light grey); (2) the black defendant/black victim cases in the estimated universe (“BDBV universe”) (white); and (3) the black defendant/black victim cases reaching a penalty trial (“BDBV penalty trial”) (dark grey). The BDBV penalty trial cases appear more aggravated than either of the other subsets. For example, 18% of BDBV penalty trial cases (37/208) have five or more aggravating circumstances as compared to 10% of BDBV universe (254/2,564) or 11% of all other cases (256/2,360). Likewise, 15% of BDBV penalty trial cases have four aggravating circumstances (31/208) compared to 11% of BDBV universe cases (284/2,564) or 8% of all other cases (196/2,360).

**Figure 1. Comparison of Distribution by Number of Aggravating Circumstances of Non-BDBV Death-Eligible Cases to Distribution of BDBV Cases in (1) the Estimated Universe of Death-Eligible Homicides and (2) the Universe of Cases Reaching a Penalty Trial**



The same pattern appears at the other end of the scale. Fewer of the BDBV penalty trial cases have one or two aggravating factors (27% (57/208) and 21% (44/208), respectively) than do BDBV universe cases (37% (947/2,564) and 28% (716/2,564), respectively) or all other cases (32% (745/2,360) and 28% (651/2,360), respectively).

The exercise of prosecutorial discretion at the charging phase means that jurors faced a universe in which to make penalty trial decisions that differed in racial demographics from the universe faced by prosecutors when making charging decisions. Stagewise analysis, like that presented here, allows us to limit the analysis to the actual universe of cases jurors faced, i.e., the penalty trial universe and to focus on a single decision made in each case by the jury—the decision to issue a death sentence or not.

### 1. Comparative Selection Rates

The rates at which different racial subsets of cases receive a death sentence at a penalty trial are reported in Table 10. Note that four of the six racial subsets report statistically significant or marginally significant disparities. The strongest disparity appears in

the few cases in which a white defendant killed only black victims. In unadjusted analyses, cases in this subset faced a considerably lower risk of receiving a death sentence than all other cases reaching a penalty trial. Five of these twenty-one cases resulted in a death sentence: 24% compared to 45% (281/622) of the remaining cases. White defendant/black victim cases face 52% of the risk faced by other cases. This disparity only approaches statistical significance ( $p = .07$ ) perhaps because of the small sample size. The remaining disparities suggest that defendants in white victim cases (line 1), white defendants (line 2), and white defendants with white victims (line 5) face a significantly higher risk of receiving a death sentence.

**Table 10: Selection Rates-Percent of Cases in Each Subject Receiving a Death Sentence at Penalty Trial**

	A	B %	C <i>n</i>	D <i>Difference</i>	E <i>Ratio</i>	F <i>p</i>
1.	White victim	47.5%	196/413	8.4 pts.	1.21	.05
	Black victim	39.1%	90/230			
2.	Black defendant	41.2%	153/371	-7.7 pts.	0.84	.05
	White defendant	48.9%	133/272			
3.	Black defendant/ black victim	40.7%	85/209	-5.6 pts.	0.88	.20
	All other	46.3%	201/434			
4.	Black defendant/ white victim	42.0%	68/162	-3.3 pts.	0.93	.47
	All other	45.3%	218/481			
5.	White defendant/ white victim	51.0%	128/251	10.7 pts.	1.26	<.01
	All other	40.3%	158/392			
6.	White defendant/ black victim	23.8%	5/21	-21.4 pts.	0.53	.07
	All other	45.2%	281/622			
7.	Overall rate	44.5%	286/643			

The small number of white defendant/black victim cases precludes analysis of the impact of the number of aggravating circumstances on disparities. Table 11 shows this analysis by race of victim. In this situation, controlling for the number of aggravators in the case causes the observed disparities to fall out of statistical significance and in two instances (Line 3 and 4) to decrease or reverse. These results suggest that the observed disparities in treatment of white victim cases may be explained by different levels of culpability.

**Table 11: Measuring Disparities in the Rate at Which Cases Receive a Death Sentence at a Penalty Trial, Controlling for Race of Victim and Number of Statutory Aggravating Circumstances**

	A	B	C	D	E	F	G
	<i>Number of Aggravators</i>	<i>Overall Rate</i>	<i>n</i>	<i>Race of Victim</i>	<i>Rate by Race of Victim</i>	<i>Ratio</i>	<i>p</i>
1.	One	29.0% (38/131)	393	white victim	32.9% (23/70)	1.3	.34
				black victim	24.6% (15/61)		
2.	Two	36.4% (52/143)	353	white victim	38.9% (35/90)	1.2	.47
				black victim	32.1% (17/53)		
3.	Three	46.1% (60/130)	261	white victim	43.7% (38/87)	0.8	.46
				black victim	51.2% (22/43)		
4.	Four	50.0% (46/92)	156	white victim	52.5% (32/61)	1.2	.66
				black victim	45.2% (14/31)		
5.	Five or more	63.4% (90/142)	212	white victim	67.3% (68/101)	1.2	.18
				black victim	53.7% (22/41)		

## 2. Logistic Regression Analysis

Logistic regression analyses allow for consideration of a broader range of culpability factors. In a fully controlled logistic regression (shown in Table 12), the white defendant/black victim variable steps into the model first and to the exclusion of any other race variable. This variable is coded “1” if the defendant is white and all victims are black. Otherwise it is coded “0”. These twenty-one cases face odds of receiving a death sentence that are less than 20% of those faced by all other cases (odds ratio 0.19,  $p < .05$ ).<sup>148</sup>

148. The opposite of this story provides a different perspective. If we limit the penalty trial database to black victim cases, black defendants face odds of receiving a death sentence at a penalty trial that are 4.9 times higher than those faced by white defendants ( $p < .05$ ) in a fully specific logistic regression model.

**Table 12: Logistic Regression Model of Jury Decision to Impose Death at Penalty Trial**

	A	B	C
		<i>Odds Ratio Estimate</i>	<i>Regression Coefficient</i>
1.	WDBV <sup>†</sup>	0.19	-1.6573*
2.	AggE3	2.89	1.0609***
3.	AggE7	5.62	1.7269**
4.	AggE9	4.52	1.5075***
5.	AssaultGun	8.23	2.1078**
6.	Disrobe	3.04	1.1115***
7.	Execution	1.81	0.5931**
8.	NumVicScale	1.74	0.5547*
9.	MitF4	0.05	-3.0207***
10.	MitF6	0.31	-1.1814***
11.	MitF7	0.27	-1.3028***
12.	ContributePris	0.42	-0.8681***
13.	DefenseType1	0.26	-1.3337*
14.	DRage	0.51	-0.6698*
15.	DselfD	0.16	-1.8346**
16.	HateRev	0.50	-0.6882**
$R^2 = .44$			

\* ≤ .05, \*\* &lt; .01, \*\*\* &lt; .001

<sup>†</sup> Variable definitions are provided in Appendix A.

The consistent importance of the white defendant/black victim cases led us to look at these cases qualitatively to evaluate whether factors that escaped quantitative analyses could explain the overwhelming disparities in treatment. The primary researchers reviewed the narrative summaries for every white defendant/black victim case. The coding team prepared these summaries as they coded the DCIs. The primary researchers also had access to the documents in the electronic case file where the narrative required clarification. This review did not identify any reason the culpability of these cases would not be controlled accurately by the model or suggest any explanation for this distinct treatment.

If we treat these cases as outliers and exclude them from the analysis of this outcome variable we find no evidence of race effects at penalty trial. No race variables approach practical or statistical significance in logistic regression. Table 13 shows the race of defendant variable reports an odds ratio of 0.89 with a *p*-value of 0.60.

These findings echo research suggesting the white defendant/black victim cases are underrepresented on death row and

among executions.<sup>149</sup> The lack of other race findings is also consistent with findings reported by Jennings and colleagues in their study of North Carolina penalty trials.<sup>150</sup>

**Table 13: Logistic Regression Model of Jury Decision to Impose Death at Penalty Trial Excluding 21 Cases in Which a White Defendant Killed a Black Victim**

A	B	C
	<i>Odds Ratio Estimate</i>	<i>Regression Coefficient</i>
1. DefB <sup>†</sup>	0.89	-0.1152 ( <i>p</i> = .60)
2. AggE3	3.00	1.0974***
3. AggE7	6.17	1.8190**
4. AggE9	4.53	1.5111***
5. AssaultGun	10.13	2.3150**
6. Disrobe	2.84	1.0450**
7. Execution	1.70	0.5310*
8. GratuitousAttack	2.22	0.7979**
9. NumVicScale	1.82	0.5972*
10. MitF4	0.05	-3.0755***
11. MitF6	0.26	-1.3352***
12. MitF7	0.26	-1.3644***
13. ContributePris	0.39	-0.9451***
14. DefenseType1	0.23	-1.4622*
15. DRage	0.35	-1.0535**
16. DselfD	0.03	-3.5093**
17. HateRev	0.53	-0.6332*
$R^2 = .49$		

\*  $\leq .05$ , \*\*  $< .01$ , \*\*\*  $< .001$

<sup>†</sup> Variable definitions are provided in Appendix A.

149. Baumgartner et al., *supra* note 147, at 211–12.

150. Jennings et al., *A Critical Examination*, *supra* note 59, at 384.

## CONCLUSION

The RJA asked whether race played a significant role in decisions to seek or impose a death sentence in North Carolina capital cases. This research demonstrates that from 1990–2000, race was a statistically significant factor in each of those considerations. Further, our research untangles the conflicting ways in which race impacted these decisions. Our findings relate to three racial subgroups:

1. White Victim Cases: Cases in which the defendant killed at least one white victim were significantly more likely to receive a death sentence than cases in which the defendant killed only black victims (odds 2.17,  $p < .01$ ).
2. Black Defendant/Black Victim Cases: Prosecutors were significantly less likely to bring cases in which black defendants killed only black victims to a capital trial than any other case (odds ratio 0.39,  $p < .01$ ).
3. White Defendant/Black Victim Cases: Juries were significantly less likely to sentence defendants to death in cases where white defendants kill only black victims than any other case (odds ratio 0.19,  $p < .05$ ). No race effects remain once the white defendant/black victim cases are excluded from the analysis.

This study did not identify any evidence of race-of-defendant discrimination or evidence that black defendants who killed white victims faced more punitive treatment. However, our findings are consistent with findings from similar studies in North Carolina and nationally.<sup>151</sup> First, the race of the victim exercises a substantial impact on the likelihood that a death sentence will be reached. Defendants who killed at least one white victim faced more than twice the odds of receiving a death sentence than those defendants who killed no white victims. Second, at the charging stage, we find that prosecutors are significantly less likely to bring cases involving black defendants and black victims to a capital trial than they are any other racial combination. This effect persists even when we take into consideration county-level factors like those Eisenberg examined to explain the underrepresentation of black-on-black murder cases on death row.<sup>152</sup> Finally, at the sentencing stage, juries were significantly less likely to sentence white defendants who killed only black victims

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151. See *supra* Part II.

152. See Eisenberg, *supra* note 126, at 359.

to death, but any race effects disappeared when we excluded this relatively small number of cases from the analysis.

These findings pull in opposite directions in a manner that brings to mind the research on the racial composition of death row's population by Blume and colleagues.<sup>153</sup> That study, based on twenty-three years of murder and death sentencing data, concluded that race "plays a substantial role in the administration of the death penalty, but it tugs in two different directions."<sup>154</sup> The treatment of white victim cases and black defendant/black victim cases pull strongly in opposite directions in capital charging and sentencing in North Carolina between 1990 and 2009. Our study works to illuminate these disparate effects.

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153. See Blume, Eisenberg, & Wells, *supra* note 145, at 165.

154. *Id.* at 190–92 (identifying the two directions as an increased risk of a death sentence for black defendants who kill white victims versus a decreased risk of a death sentence for black defendants who kill black victims).

## APPENDIX A

**Variable Definitions**

	<i>Variable Name</i>	<i>Explanation</i>
1	AggE2	N.C. GEN. STAT. § 15A-2000(e)(2) (2015). Defendant previously committed a capital felony.
2	AggE3	N.C. GEN. STAT. § 15A-2000(e)(3) (2015). Defendant previously convicted of a violent felony.
3	AggE7	N.C. GEN. STAT. § 15A-2000(e)(7) (2015). Murder committed to hinder a governmental function or the enforcement of law.
4	AggE8	N.C. GEN. STAT. § 15A-2000(e)(8) (2015). Murder committed against law enforcement officer, employee of the Department of Correction, jailer, fireman, judge or justice, former judge or justice, prosecutor or former prosecutor, juror or former juror, or witness against the defendant, while engaged in performance of his official duties or because of the exercise of his official duty.
5	AggE9	N.C. GEN. STAT. § 15A-2000(e)(9) (2015). Murder was especially heinous, atrocious, or cruel.
6	AddCrime	Defendant charged with at least one additional crime.
7	AssaultGun	Defendant shot victim with an assault rifle.
8	BDBV	Case involved a black defendant and all black victims.
9	ContributePris	Defendant has potential to contribute to prison life.
10	CoPConflict	Case evidence suggests credibility problems of co-defendant or witness who received consideration in his or her own pending criminal case who testified for the state.
11	DAddict	Evidence in the record suggested that the defendant was addicted to a drug or alcohol around the time of the offense.

<i>Variable Name</i>	<i>Explanation</i>
12 DefenseType1	Insufficient evidence to prove defendant's culpability or conduct beyond a reasonable doubt.
13 DefenseType5	Defendant played a less substantial role than competitor.
14 DefenseType14	Insanity.
15 DefenseType15	Lack of mens rea because of mental illness or intoxication.
16 DefB	Defendant is a racial minority.
17 Disrobe	Victim or a non-decedent victim was forced to disrobe or was disrobed by perpetrator (in whole or in part).
18 DRage	Defendant acted in rage.
19 DselfD	Defendant acted in perceived self-defense.
20 DVHome	Homicide occurred in residence of victim and defendant or co-defendant.
21 EvidType1	Pretrial identification of the defendant occurred.
22 EvidType3	Defendant identified by a police officer.
23 EvidType5	Defendant confessed to murder.
24 EvidType8	Weapon found linking defendant to murder.
25 EvidType10	Physical evidence specifically linking defendant to murder.
26 EvidType11	Testimony of primary witness was corroborated.
27 EvidType12	Defendant had a motive to commit murder.
28 Execution	Execution-style homicide (homicide against a subdued or passive victim).
29 FemVic	At least one victim was female.
30 Fugitive	File at least suggests that defendant was a fugitive from a prior violent felony crime.

<i>Variable Name</i>	<i>Explanation</i>
31 GangLoyalty	Defendant motivated at least partly by loyalty to gang member or associate.
32 GratuitousAttack	File at least suggests that defendant continued or resumed a painful attack on a decedent victim after it was apparent the victim was dying.
33 GratuitousFelony	Case involved a contemporaneous felony and homicide that was unnecessary to complete the crime to the point of being gratuitous.
34 HateRev	Crime motivated by long-term hatred of victim or revenge for prior harm to defendant or another.
35 HeadWound	Victim received wounds to the head.
36 Instigator	Defendant instigated the offense (if there were co-perpetrators).
37 ManyWound	Victim suffered many wounds.
38 MitF4	N.C. GEN. STAT. § 15A-2000(f)(4) (2015). Defendant was an accomplice in or accessory to a murder committed by another person, and the defendant's participation was relatively minor.
39 MitF6	N.C. GEN. STAT. § 15A-2000(f)(6) (2015). Defendant's capacity to appreciate the criminality of the conduct or to conform his or her conduct to the requirements of law was impaired.
40 MitF7	N.C. GEN. STAT. § 15A-2000(f)(7) (2015). Defendant's age at the time of the murder.
41 MoneyMotive	Defendant motivated at least partly by the ability to acquire money in the killing (contract kill, insurance proceeds, inheritance).
42 NoLongPlan	Homicide was not planned for more than five minutes.

<i>Variable Name</i>	<i>Explanation</i>
43 NoSpAgg	None of the special aggravators attributable to defendant are present in the case. These include lying in wait, lack of remorse, expressions of pleasure with homicide, resisting arrest, escape, previous attempt to murder victim, announcement of intent to kill victim in advance to third party, hiding victim, and similar behavior.
44 NumVicScale	A three-level scale based on the number of victims in the case. 1 = 1 victim; 2 = 2 or 3 victims; 3 = 4 or more victims.
45 PercentBlack	A continuous variable based on the percent of black residents by county and year.
46 PleasureKill	File at least suggests that defendant expressed pleasure with the homicide.
47 Poverty	Comparison North Carolina median income to median income in county for each year of study. If county median income is less than state median income, poverty = 1. Otherwise, poverty = 0. Codes assigned to individual cases by county and year of sentencing.
48 PreArmed	Defendant or co-perpetrator came to the scene of the crime with the weapon ultimately used to kill the victim.
49 PriorThreat	File at least suggests that defendant threatened victim in victim's presence to kill victim's family members or others who were close to victim, or announced in advance to a third person an intention to kill the victim.
50 ProvokeQ	Other disputes and fights where it is unknown who provoked the altercations.
51 ResidDoubt	Evidence suggests residual doubt about guilt.
52 SeverePain	Victim suffered severe physical pain.
53 TookResp	Defendant took responsibility for the offense (other than confession to capital murder).
54 Trauma	Defendant suffered physical or psychological trauma (e.g., brain injuries or observing a parent be killed).

2016] *RACE & CAPITAL SENTENCING IN N.C.* 2049

<i>Variable Name</i>	<i>Explanation</i>
55 TwoVic	Case involved more than one victim.
56 VCriminal	Victim had a bad criminal reputation or a criminal record.
57 VoteSplit1	This measure averaged the percent of voters voting for the Republican candidate in 1988, 1992, 1996, 2000, 2004, and 2008 in each county to create a continuous variable. Codes assigned to individual cases by county.
58 VStranger	Defendant did not know victim before the murder.
59 WDBV	Case involved white defendant and all black victims.
60 WhiteVic	Case involved at least one white victim.
61 YoungDef	Defendant is less than 20 years old.

