Race and Death Sentencing for Oklahoma Homicides, 1990-2012

I. Introduction

In the first 15 years of the 21st century, we have seen several indicators that the use of the death penalty is in sharp decline in the United States. According to the Death Penalty Information Center, between 1996 and 2000 an annual average of 275 new prisoners arrived on America’s death rows, but by 2015 this figure had precipitously decreased to 49.\(^1\) The average number of executions per year has fallen nearly fifty percent since the last five years of the twentieth century, from 74 between 1996 and 2000 to 37 in the years 2011-2015.\(^2\) In just the past 10 years, seven states have abolished the death penalty;\(^3\) the Delaware Supreme Court invalidated that state’s statute in August 2016,\(^4\) and four more states – Washington, Oregon, Colorado and Pennsylvania – have seen their governors impose moratoria on executions. A September 2016 poll by the Pew Research Center found that slightly less than half of Americans (49 percent) supported the death penalty,\(^5\) the lowest level of support in more than 40 years. A 2015 poll by Quinnipiac indicates that more Americans (48%) now prefer a sentence of Life Imprisonment without Parole (which is available in all death penalty jurisdictions) to a death sentence (45%).\(^6\) Even in Oklahoma, a November 2015 poll found that the majority of the population (52 percent) would prefer a sentence of life plus restitution rather than the alternative of the death penalty.\(^7\) A second poll taken in July 2016 found that 55 percent of the “likely voters” in the state would prefer life

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\(^1\) This report is an early draft of an independent study (current through November 1, 2016), submitted to the Oklahoma Death Penalty Review Commission for its review of Oklahoma’s capital punishment system. The final study will be published by the Northwestern University School of Law in the fall of 2017. See Glenn L. Pierce, Michael L. Radelet, & Susan Sharp, Race and Death Sentencing for Oklahoma Homicides, 1990-2012, 107 Nw. U. J. Crim. L. & Criminology. The Commission is grateful to the authors for providing this study for its consideration during its review of Oklahoma’s death penalty. Please note: the Commission did not edit this draft report and any errors should be attributed to the authors. Moreover, the views reflected by the authors do not necessarily reflect those of the Commission. This study is included in the Commission’s report as a reference for Appendix I.

\(^2\) This report was authored by Glenn L. Pierce, Michael L. Radelet, and Susan Sharp. Radelet is a Professor of Sociology, University of Colorado-Boulder; Pierce is a Principal Research Scientist, School of Criminology & Criminal Justice, Northeastern University, Boston; Sharp is the David Ross Boyd Professor/Presidential Professor Emerita, Department of Sociology, University of Oklahoma. The three authors are listed alphabetically; each made equal contributions to this project. The authors wish to thank Melissa S. Jones and Amy D. Miller for their assistance in helping to build the Oklahoma death row data set.


\(^4\) Executions by Year, DEATH PENALTY INFO. CTR, http://www.deathpenaltyinfo.org/executions-year.


sentences without parole and mandatory restitution instead of the death penalty. These results document a changing climate around death penalty debates: apparently more Americans now prefer long prison terms rather than the death penalty.

One reason for the decline in support for and the use of the death penalty is growing concerns that the penalty is not reserved for “the worst of the worst.” In a nationwide Gallup Poll taken in October 2015, 41 percent of the respondents expressed the belief that the death penalty was being applied unfairly, and a 2009 Gallup Poll found that 59 percent of the respondents believed that an innocent person had been executed in the preceding five years. This concern is undoubtedly on the minds of many Oklahomans, since ten inmates have been released from its death row since 1972 because of doubts about guilt.

In this article, we examine another question that is related to the contention that the death penalty is reserved for the worst of the worst: the possibility that the race of the defendant and/or victim affects who ends up on death row. To do so, we will study all homicides that occurred in Oklahoma from January 1, 1990 through December 31, 2012, and compare those cases with the subset that resulted in the imposition of a death sentence.

Oklahoma is home to some 3.75 million citizens, of whom 75 percent are white, with the black, Native American, and Hispanic population each constituting about eight percent of the population. Racial and ethnic minorities are over-represented among those on death row, which housed 46 men and one woman as of July 1, 2016 (25 white, 20 black, 3 Native American, 2 Latino). Between 1972 and October 31, 2016, Oklahoma conducted 112 executions (with the first occurring in 1990), which ranks second among U.S. states behind Texas and gives Oklahoma the highest per capita execution rate in the U.S.

Of the 112 executed inmates, 67 were white (60 percent), 35 black, 6 Native American, 2 Asian, 1 Latino, and 1 whose race was classified as “Other.” The races of the homicide victims in the death penalty cases are also predominately white, with 83 of the 112 executed inmates convicted of killing at least one white victim (74.1 percent), 19 at least one black victim, 7 at least one Asian victim, 5 at least one Latino victim, 1 at least one Native American victim, and 1 who killed two people whose races are classified as “Other” (both the assailant and his two victims were Iraqi).
II. Previous Research

Concerns about the impact of the defendant’s and/or victim’s race on death penalty decisions have a long history in the U.S. Soon after the 1976 decision in Gregg v. Georgia that breathed new life into death penalty statutes, researchers led by the late University of Iowa legal scholar David Baldus began to study the possible relationships, with the most comprehensive study by Baldus and his team focusing on Georgia. Those race studies conducted prior to 1990 were reviewed by the U.S. government’s General Accounting Office in 1990, which produced a report concluding that in 82 percent of the 28 studies reviewed, “race of victim was found to influence the likelihood of being charged with capital murder or receiving the death penalty.”

In 2003, Baldus and George Woodworth in effect updated and expanded the GAO Report, reviewing 18 race studies that had been published or released after 1990. Their conclusions are worthy of a lengthy quote:

Overall, their results indicate that the patterns documented in the GAO study persist. Specifically, on the issue of race-of-victim discrimination, there is a consistent pattern of white-victim disparities across the systems for which we have data. However, they are not apparent in all jurisdictions nor at all stages of the charging and sentencing processes in which they do occur. On the issue of race-of-defendant discrimination in the system, with few exceptions the pre-1990 pattern of minimal minority-defendant disparities persists, although in some states black defendants in white-victim cases are at higher risk of being charged capitally and sentenced to death than are all other cases with different defendant/victim racial combinations.

Overall, Baldus and Woodworth concluded that the studies displayed four clear patterns: 1) with few exceptions, the defendant’s race is not a significant correlate of death sentencing, 2) primarily because of prosecutorial charging decisions, those who kill whites are significantly more likely than those who kill blacks to be sentenced to death, 3) black defendants with white victims are especially likely to be treated more punitively, and 4) counties with large numbers of cases with black defendants or white victims show especially strong impacts on black defendants or on those with white victims.

Professor Baldus passed away in 2011, but one of his students, Catherine Grosso, has taken the reigns and assembled a team that has continued Baldus’s work. Among their publications is one that recently updated the Baldus literature review. Published in 2014, the researchers had by then identified 36 studies that had been completed after the 1990 GAO Report. Their review identified four patterns:

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22 Id., at 202.
23 Id., at 214-25.
• Four of the studies did not discover any race effects.

• Four found independent effects of the race of the defendant (that is, effects that remained after statistically controlling for other relevant variables).

• Twenty-four studies in 15 jurisdictions found significant race-of-victim effects.

• Nine found that black defendants with white victims were more harshly treated than other homicide defendants.25

Unfortunately, none of these post-1990 studies focused on Oklahoma, and only one credible study has explored the possibility of racial disparities in Oklahoma in the post-\textit{Furman} years.26 In that study, first published in \textit{Stanford Law Review},27 Samuel Gross and Robert Mauro studied all homicides and death sentences in Oklahoma during the 53-month period, August 1976 through December 1980.28 Thus, these data are almost forty years old. Included were 45 death sentences imposed in 898 cases.29 Initially the researchers found that death sentences were imposed in 16.7 percent of the cases in which a black was suspected of killing a white (B-W), 6.6 percent of the cases where a white was suspected of killing a white (W-W), and 1.5 percent of the black on black (B-B) cases.30

If the homicide was accompanied by other felony circumstances, no cases with black victims resulted in a death sentence, compared to 50.6 percent of the white victim cases. If the victim and defendant were strangers, 21.8 percent of the white Victim cases resulted in a death sentence, compared to 3.4 percent of such cases with black victims.31

In 2016 a second study of death sentencing in Oklahoma was published.32 The paper attempted to look at death sentencing in Oklahoma in a sample of 3,595 homicide cases over a 58-year time span, 1973-2010. Unfortunately, some of the data presented by the authors in that paper is incorrect, so the paper is not useful. For example, in Appendix B we are told that 8 percent of the white-white homicides contained “capital” or “first-degree” (as opposed to “second-degree” murder charges) (137/1,696), compared to 53 percent of the black-black cases (348/659).33 We are also told that the data set includes 1,030 cases “charged capital” in which whites were accused of killing Native Americans, although the authors also report that there were only 42 white-Native American cases in their sample. In an email to Radelet dated August 18, 2016, lead author David Keys acknowledged that they undoubtedly received bad data from the State of Oklahoma.34

25 \textit{Id.}, at 538-39. Because some of the studies reached more than one of these conclusions, the sum of these findings (41) is greater than the total number of studies (56).


28 \textsc{Gross & Mauro}, supra note 26, at 233.

29 \textit{Id.}, at 235.

30 \textit{Id.}

31 \textit{Id.}, at 235.

32 \textsc{David P. Keys & John F. Galliher}, \textit{Nothing Succeeds Like Failure: Race, Decisionmaking, and Proportionality in Oklahoma Homicide Trials, 1973-2010}, in \textit{Race and the Death Penalty: The Legacy of \textit{McCleskey v. Kemp} 125} (David P. Keys & R. J. Maratea eds. 2016). We mention this study only to show our awareness of it and to alert future students of the death penalty in Oklahoma that its data is fundamentally flawed, from which no conclusions are possible.

33 \textit{Id.}, at 142.

34 Email exchange available with the author (Radelet).
Appendix IA: Race and Death Sentencing for Oklahoma Homicides, 1990-2012

III. Methodology

We examined all cases in which the death penalty was imposed for Oklahoma homicides that occurred between January 1, 1990, and December 31, 2012. Using 23 years of homicide data allowed us to use a sample with enough cases in it to detect patterns. We ended with cases in 2012 because we found only one death penalty case for a 2013 murder, and any homicides that occurred in 2013 or later might still be awaiting final disposition. During those 23 years, the state recorded some 5,090 homicides, for an annual average of 221.5

A. Homicide Data Set

To begin, we assembled a data set on all Oklahoma homicides with an identified perpetrator over a 23 year period from 1990 to 2012. We obtained these data from the FBI’s “Supplemental Homicide Reports,” or SHRs. Supplemental Homicide Reports are compiled from data supplied by local law enforcement agencies throughout the United States, who report data on homicides to a central state agency, which in turn reports them to the FBI in Washington for inclusion in its Uniform Crime Reports. While the Reports do not list the suspects’ or victims’ names (and only the month, year and of the offense — not the specific date), they do include the following information: the month, year, and county of the homicide; the age, gender, race, and ethnicity of the suspects and victims; the number of victims; the victim-suspect relationship; weapon used; and information on whether the homicide was accompanied by additional felonies (e.g., robbery or rape). Local law enforcement agencies usually report these data long before the defendant has been convicted, so offender data are for “suspects,” not convicted offenders.

The SHRs include information on all murders and non-negligent manslaughters, but they do not differentiate between the two types of homicides. They define murders and non-negligent manslaughters as “the willful (nonnegligent) killing of one human being by another. Deaths caused by negligence, attempts to kill, assaults to kill, suicides, and accidental deaths are excluded.”

In addition, the SHRs have a separate classification for justifiable homicides, which are defined as “(f) the killing of a felon by a law enforcement officer in the line of duty; or (2) the killing of a felon, during the commission of a felony, by a private citizen.” Because the data come from police agencies, not all the identified suspects are eventually convicted of the homicide.

56 This is similar to the methodology used in other studies that Pierce and Radelet have conducted using information from the Supplemental Homicide Reports. See Glenn L. Pierce & Michael L. Radelet, Death Sentencing in East Baton Rouge Parish, 1990-2008, 71 LOUISIANA LAW REVIEW 147 (2011); Glenn L. Pierce & Michael L. Radelet, The Impact of Legally Inappropriate Factors on Death Sentencing for California Homicides, 1990-99, 46 SANTA CLARA LAW REVIEW 1 (2005); Michael L. Radelet & Glenn L. Pierce, Choosing Those Who Will Die: Race and the Death Penalty in Florida, 45 FLORIDA LAW REVIEW 1 (1994); Michael L. Radelet & Glenn L. Pierce, Race and Death Sentencing in North Carolina: 1980-2007, 89 NORTH CAROLINA LAW REVIEW 2119 (2011). The methodology was developed and first used by GROSS & MAURO, supra note 26, at 35-42.
57 See http://www.hcpr.gov/content/pub/pdf/nitmhp.pdf (last visited August 1, 2016). We have used SHR data in other research projects, and an earlier version of this paragraph was included in Glenn L. Pierce & Michael L. Radelet, The Impact of Legally Inappropriate Factors on Death Sentencing for California Homicides, 1990-99, 46 SANTA CLARA LAW REVIEW 1, 15 (2005).
58 The racial designations used in the UCR are defined as follows: (1) white. A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. (2) black. A person having origins in any of the black racial groups of Africa. (3) American Indian or Alaskan Native. A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition. (4) Asian or Pacific Islander. A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent. (5) Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa. (6) Unknown). Federal Bureau of Investigation, http://www.ucrdatatool.gov/offenses.cfm (last visited August 1, 2016).
60 Id.
62 Id.
For our project, a total of 4,815 homicide suspects were identified from Oklahoma SHR's for homicides committed during the period 1990 through 2012. Only those SHR cases that recorded the gender of the homicide suspect were included in the sample, effectively eliminating those cases in which no suspect was identified. In other words, for SHR homicide cases where no suspect gender information was recorded, we assumed that the police had not been able to identify a suspect for that particular homicide incident, rendering sentencing decisions irrelevant.

Finally, we constructed one new SHR case and added it to our data when we found a death penalty case with no corresponding case in the existing SHR data. To better pinpoint the race differences, we also dropped 82 cases in which there were multiple victims who were not all the same races, and an additional 64 cases where either the victim or offender was Asian. This resulted in a reduction of 146 homicide cases (three percent of the original sample of 4,815 homicide cases) and one addition, resulting in a final sample size of 4,668 cases.

In addition to the race of the victim, the SHR data include information on the number of homicide victims in each case, and on what additional felonies, if any, occurred at the same time as the homicide. These variables are key to the analysis reported below.

B. Death Row Data Set

Unfortunately, there is no state agency, organization, or individual who maintains a data set on all Oklahoma death penalty cases. We thus had to start from scratch in constructing what we call the “Death Row Data Set.”

To do this, we used data compiled by the NAACP Legal Defense and Educational Fund, Inc., and issued in a (usually) quarterly publication called “Death Row USA.” This highly-respected source lists (by state) the name, race and gender of every person on America’s death rows. Unfortunately, it contains no other information about the defendant (e.g., age), victim (e.g., name, age, race), or crime (e.g., date, location, or circumstances).

Copies of most back issues of Death Row USA are available online, and other issues are available in hard copy in many law libraries, including the University of Colorado’s. From these sources we made copies of all the Oklahoma inmates listed in the 83 issues of Death Row USA published in the years 1990-2012. From those we identified the additions to the lists, since the additions would give us a preliminary list of those sentenced to death for homicides committed on or after January 1, 1990. We were not interested in the names of inmates who were on death row in the first issue we examined since all of those inmates were convicted of murders from the 1970s or 1980s. We were only interested in the additions, and then only those sent to death row for murders committed on or after January 1, 1990.

With that list, we conducted internet searches for information about the crime – specific date, county of offense, name of victim/s (and age, sex, and race), and the like. All those whose crimes occurred in the 1980s or after December 31, 2012 were deleted. We also used a web site maintained by the Oklahoma Department of Corrections to confirm the inmate’s race and gender, as well as the county of conviction and the inmate’s date of birth. Because this source provides only the date of the conviction, not the date of the offense, information on the date of offense had to be obtained from other sources (primarily newspaper articles and published appellate decisions in the case).

In the end, we identified 155 death sentences imposed against 151 offenders for homicides committed 1990-2012. Two men, Karl Myers and Darrin Pickens, had two separate death sentences imposed in two separate trials for two separate homicides, so each defendant is counted twice.

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44 See id.
Appendix IA: Race and Death Sentencing for Oklahoma Homicides, 1990-2012

On multiple victim homicides, we counted the homicides with at least one female victim as homicides with female victims.

IV. Results

A. Frequencies and Cross-Tabulations

Table 1 displays descriptive statistics from our data. There are a total of 4,668 homicides included, of which 2,060 (44.1 percent) involved both white suspects and white victims, and 1,266 (27.1 percent) involved black suspects and black victims. There are 427 cases with a black suspect and white victim (9.1 percent), and 143 cases with a white suspect and a black victim (3.1 percent).

Table 2 shows that overall, 145 (3.06 percent) of the homicides with known suspects resulted in a death sentence. Homicides with white victims are the most likely to result in a death sentence. Here 106/2703 resulted in death (3.92 percent), whereas 37/1965 of the homicides with nonwhite victims resulted in death (1.88 percent).

Table 3 looks at only those homicides with male victims. There are a sufficient number of cases to make conclusions only for cases with either white or black victims. Of the white male victim cases 2.26 result in a death sentence, but only .77 of the black male cases result in a death sentence. Thus, homicides with white male victims are 2.94 times more likely to result in death than cases with black male victims (2.26 divided by .77).

Table 4 shows that homicides with at least one female victim are 4.6 times more likely to result in a death sentence (7.21 percent) than the homicides with no female victims shown in Table 5 (1.57 percent). There are 1,255 cases in the data with at least one female victim, and again we focus on differences between cases with white victims and black victims, and do not look at the other race/ethnicity categories that have low sample counts. The data show only small differences in death sentencing rates among cases with at least one female victim between white (257 percent) and black (6.67 percent) victims. Clearly, race makes less of a difference when women are killed than when men are killed.

Table 5 examines the percentage of cases that resulted in a death sentence by the race of the defendant. There is virtually no difference in the probability of a death sentence by race of defendant, with 5.2 percent of the white offenders sentenced to death and 5 percent of the nonwhite defendants.

Table 1: Oklahoma Homicides by Suspect’s and Victim’s Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity of Victim</th>
<th>White Only</th>
<th>Black Only</th>
<th>Hispan. Only</th>
<th>Nat. Am. Only</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Suspect</td>
<td>2060</td>
<td>143</td>
<td>38</td>
<td>99</td>
<td>2340</td>
</tr>
<tr>
<td>Black Suspect</td>
<td>427</td>
<td>1266</td>
<td>42</td>
<td>30</td>
<td>1765</td>
</tr>
<tr>
<td>Hispanic Suspect</td>
<td>65</td>
<td>21</td>
<td>133</td>
<td>8</td>
<td>227</td>
</tr>
<tr>
<td>Nat. Am. Suspect</td>
<td>151</td>
<td>15</td>
<td>12</td>
<td>158</td>
<td>336</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2703</td>
<td>1445</td>
<td>225</td>
<td>295</td>
<td>4668</td>
</tr>
</tbody>
</table>

Table 2: Oklahoma Homicides and Death Sentences by Race of Victim

<table>
<thead>
<tr>
<th>Race of Victim</th>
<th>No. of Suspects</th>
<th>No. of Death Sentences</th>
<th>Percentage Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Victim</td>
<td>2703</td>
<td>106</td>
<td>3.92</td>
</tr>
<tr>
<td>Black Victim</td>
<td>1445</td>
<td>27</td>
<td>1.87</td>
</tr>
<tr>
<td>Hispanic Victim</td>
<td>225</td>
<td>6</td>
<td>2.67</td>
</tr>
<tr>
<td>Native American Victim</td>
<td>295</td>
<td>4</td>
<td>1.36</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4668</td>
<td>143</td>
<td>3.06</td>
</tr>
</tbody>
</table>

65 These 57 suspects were implicated in 27 cases with black victims, 6 with Hispanic victims, and 4 with Native American victims. The 1,965 victims included 1,445 cases with black (only) victims, 225 with Hispanic victim only, and 295 with Native American victim only.

66 That is, there are so few cases with black, Hispanic, or Native American victims that small fluctuations in the number of death sentences will result in large proportional differences.
However, there is much more to this story. Table 6 looks at the percentages of death penalty cases by the race of the victim. Here we see that 1.9 percent of those who were suspected of killing nonwhites were ultimately sentenced to death (37 divided by 1965), whereas 3.9 percent (106 divided by 2705) of those suspected of killing whites ended up on death row. The probability of a death sentence is therefore 2.05 times higher for those who are suspected of killing whites than for those suspected of killing nonwhites.
Table 7 combines both suspect’s and victim’s races/ethnicities. The percentages of nonwhite defendant/nonwhite victim and white defendant/nonwhite victim cases ending with death sentences was 1.9 and 1.8 percent death sentence respectively. In sharp contrast, 5.5 percent of the white-on-white homicides resulted in a death sentence, compared to 5.8 percent of the nonwhites suspected of killing white victims. The gender of the victim also makes a very large difference in who ends up on death row. As Table 8 shows, 16 percent of the defendants suspected of killing males (no female victims) were sentenced to death, compared to 72 percent of those who were suspected of killing one or more women.

**Table 7: Death Sentences by Races of Defendant and Victim**

*Defendant-Victim Race/Ethnicity*

(W= White; NW=Nonwhite)

<table>
<thead>
<tr>
<th>Defendant-Victim Race/Ethnicity</th>
<th>NW-W</th>
<th>W-W</th>
<th>NW-NW</th>
<th>W-NW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>606</td>
<td>1991</td>
<td>1653</td>
<td>275</td>
<td>4525</td>
</tr>
<tr>
<td></td>
<td>.942</td>
<td>.967</td>
<td>.981</td>
<td>.982</td>
<td>.969</td>
</tr>
<tr>
<td>Death Penalty Imposed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>37</td>
<td>69</td>
<td>32</td>
<td>5</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>.058</td>
<td>.033</td>
<td>.019</td>
<td>.018</td>
<td>.031</td>
</tr>
<tr>
<td>Total</td>
<td>643</td>
<td>2060</td>
<td>1685</td>
<td>280</td>
<td>4668</td>
</tr>
</tbody>
</table>

Chi Square 25.48; 3 df; p<.001

Table 9 (on next page) shows the likelihood of a death sentence by the race and gender of the victim. Among those suspected of killing white males, 2.5 percent are sentenced to death, whereas among those suspected of killing nonwhite males, only .8 percent are sent to death row. On the other hand, 25 percent of those suspected of killing white females are sentenced to death, as are 6.4 percent of those suspected of killing nonwhite females.

Finally, Table 10 (on next page) displays the percent of death penalty cases broken down by the presence of zero, one, or two “additional legally relevant factors.” The factors we included are 1) whether the homicide event also included additional felonies, and 2) whether there were multiple victims. All cases had 0, 1, or 2 of these factors present. Table 10 shows what would be expected: 17 percent of the cases with no additional legally relevant factors ended with a death sentence, 6.2 percent of the

**Table 8: Death Sentences by Gender of Victim (V=Victim)**

<table>
<thead>
<tr>
<th>Death Penalty Imposed</th>
<th>No Female V</th>
<th>1+ Female V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>3378</td>
<td>1146</td>
<td>4535</td>
</tr>
<tr>
<td></td>
<td>.984</td>
<td>.928</td>
<td>.969</td>
</tr>
<tr>
<td>Death Penalty Imposed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>54</td>
<td>89</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>.016</td>
<td>.072</td>
<td>.031</td>
</tr>
<tr>
<td>Total</td>
<td>3433</td>
<td>1235</td>
<td>4668</td>
</tr>
</tbody>
</table>

Chi Square 97.07; 1 df; p<.001

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Note: When the analysis examines the potential effect of more than one independent variable the likelihood of a death sentence, we combine the separate racial/ethnic minority categories (i.e., black, Hispanic, and Native American) into a single minority category. Each of these minority subgroups are recognized as groups that are subject to subject to discrimination.
We now turn our attention to pinpointing the effects of each of our predictor variables.

**B. Multiple Logistic Regression Analysis**

Table 11 presents the results from a statistical technique called logistic regression. This is the statistical technique of choice used to predict a dependent variable that has two categories, such as whether or not a death sentence is imposed. Logistic regression models estimate the average effect of each independent variable (predictor) on the odds that a convicted felon would receive a sentence of death. An odds ratio is simply the ratio of the probability of a death sentence to the probability of a sentence other than death. Thus, when one's likelihood of receiving a death sentence is \(\frac{.75}{.25} = 3\) to 1. The dependent variable is a natural logarithm of the odds ratio, \(y\), of having received the death penalty. Thus, \(y = \ln(\text{odds ratio})\).

Recall that when interpreting odds ratios, an odds ratio of one means that someone with that specific characteristic is just as likely to receive a capital sentence as not. Odds ratios of greater than one indicate a higher likelihood of the death penalty for those offenders who have a positive value for that particular independent variable. When the independent variable is continuous, the odds ratio indicates the increase in the odds of receiving the death penalty for each unitary increase in the predictor.

Table 11 shows that there are five variables in our model that are associated with who is sentenced to death in Oklahoma: 1) having a white female victim, 2) having a white male victim, 3) having a female victim from a minority race or ethnicity, 4) having one additional legally relevant factor (a homicide event with more than one victim OR one in which there were additional felony circumstances present, and 5) having two additional legally relevant factors present (a homicide event with more than one victims AND one in which there were additional felony circumstances present. The reference category for the latter two variables is “no additional factors.” We also included a variable measuring the race of the defendant (white vs. minority), but that factor was not statistically significant.

It is no surprise that having one or both legally relevant factors increases the odds of a death sentence dramatically. Let’s focus on the column labeled Exp $\beta$. The Exp $\beta$ for “one additional aggravator” is 3.439 (rounded to 3.4), which is also the odds ratio. Thus, after controlling for all the other variables in the model, the odds of receiving a death sentence are 5.4 times higher in cases with one additional legally relevant factor (compared to cases with no additional legally relevant factors). When the two additional legally relevant factors are both present, the Exp $\beta$ tells us that the odds of a death sentence are 12.847 (12.8) times higher than cases where no additional factors are present. This is what would be expected – clearly those cases are highly aggravated.

More interesting are the effects of race and gender. Here the excluded category (the comparison group) includes cases with male victims, minority races (black, Hispanic, or Native American). The Exp $\beta$ in Table 11 shows that the odds of a death sentence for those with white female victims are 9.59 times higher than in cases with minority male victims. The odds of a death sentence for those with white male victims are 3.22 times higher than the odds of a death sentence with minority male victims. Finally, the odds of a death sentence for those with minority female victims are 8.68 times higher than the odds of a death sentence with minority male victims. And all these race/gender effects are net of our two control variables (multiple murder victims and the presence of additional felony circumstances), and all are statistically significant.

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50 Logistic regression is a statistical method to predict the value of one variable with a series of other variables. The technique is regularly used in studies of race and death sentencing. See, e.g., David C. Baldus, George Woodworth, & Charles A. Pulaski, Jr., Equal Justice And The Death Penalty 78 n.55 (1990) (explaining how logistic regression models can be used to calculate the odds of a death sentence); Gross & Mauro, supra note 15, at 248–52 (using a logistic regression model to help predict the probability of a death sentence); Raymond Paternoster et al., Justice by Geography and Race: The Administration of the Death Penalty in Maryland, 1978–1999, 4 MARGINS 1, 51–44 (2004) (using logistic regression to address the relationship between victim and offender race).
V. Conclusion

The data show that death sentencing in Oklahoma is not related to the race of the defendant. However, there are rather large disparities in the odds of a death sentence that correlate with the gender and the race/ethnicity of the victim. Controlling for other factors — the presence of additional felony circumstances and the presence of multiple victims — cases with white female victims, cases with white male victims, and cases with minority female victims are significantly more likely to end with a death sentence in Oklahoma than are cases with nonwhite male victims.