Sentenced to Die? A Comparison of Factors Leading to Death Sentences and Executions

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Section I: Introduction

The question of racial bias in the American criminal justice system is a well-studied one, particularly as it pertains to the death penalty. A plethora of studies have identified race-of-victim effects, whereby offenders who kill white victims are more likely to be sentenced to death than those who kill non-white victims.[1] However, a surprising feature of the administration of the United States death penalty is that only a small percentage of death-sentenced offenders are actually executed; a much larger number of offenders see their sentences overturned on appeal or are simply 'warehoused' on death row.[2] Few researchers have investigated whether the race-of-victim effects, or other legal and extralegal effects, persist at the execution stage. Following the approach of Phillips and Marceau,[3] this thesis measures the effects of a variety of case characteristics on both death sentences and executions across the following three cases: Harris County, Texas, from 1992 through 1999[4]; a selection of eight judicial districts across Louisiana from 1976 through 2014[5]; and South Carolina from 1993 through 1997.[6] Using these analyses, the thesis highlights which disparities are mitigated, maintained, and amplified by the execution process.

The remainder of this thesis is structured as follows: Section II reviews the relevant literature surrounding racial bias in death sentencing, while Section III reviews previous attempts to quantify the impact of racial bias in executions. Section IV summarizes the data and methods used in three case studies, and Section V presents the results of those case studies as well as an

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[1] Grosso et al., 2014
[2] Baumgartner et al., 2018
[3] Phillips & Marceau, 2020
[4] Phillips, 2008
[5] Lyman et al., 2021
[6] Songer & Unah, 2006

additional, national analysis. Finally, Section VI concludes by discussing the limitations of these results and important directions for future research.

Section II: Racial Bias in Death Sentencing

In 1972, the United States Supreme Court ruled that the death penalty, as it was administered at the time, was arbitrary and capricious and therefore unconstitutional under the Eighth Amendment.[7] Among the rationales for this ruling was the concern that the death penalty was governed by a variety of extralegal factors, including race. Many states promptly instituted revised death penalty statutes, and several of these laws were upheld by the Supreme Court in 1976.[8] The system that the Court approved in 1976 was intended to fix the problem of arbitrariness through a number of reforms, including a bifurcated trial, a sanctioning process that included the weighing of aggravators and mitigators, and mandatory appellate review. Critically, the Court's 1976 decision was not based on the actual outcomes of death penalty cases, as it was in 1972; rather, it was a prediction that these reforms would reduce bias once they were implemented.

Beginning in the 1980s, social scientists began to analyze the effectiveness of these reforms. One of the first attempts to do so was a study by David Baldus that was groundbreaking both in scope and methodology.[9] Baldus' team evaluated every defendant convicted of a death-eligible offense in Georgia during the period from 1973 through 1978 and applied several measures to estimate the culpability of each defendant. They then analyzed a number of legally relevant and extralegal factors and determined that, even when controlling for the level of culpability, defendants who killed white victims were around four times more likely to be sentenced to death than defendants who killed non-white victims. This study was significant in

[7] *Furman v. Georgia*, 1972
[8] *Gregg v. Georgia*, 1976
[9] Baldus et al., 1983

that it identified and collected data on the entire pool of death-eligible homicides in a jurisdiction over a specified time period. Although compiling this broad pool is extremely time-consuming, it is essential to calculating the size of a disparity. For the remainder of this thesis, a study that collects data on such a pool of all death-eligible homicides will be labeled a "Baldus-type study."

Following Baldus' original analysis of Georgia through the 1970s, dozens of other researchers began conducting Baldus-type studies on a variety of jurisdictions and time periods. A 1990 Congressional report from the United States General Accounting Office reviewing 28 Baldus-type studies concluded that 82% showed a significant race-of-victim effect.[10] A 2014 follow up indicated that, of 36 empirical studies conducted since the GOA report, at least 24 demonstrated clear race-of-victim impacts.[11] These studies apply a wide array of methodologies, yet the highest quality ones have several features in common. First, they begin with as broad a pool of offenders as possible. This is critical because each phase of the criminal justice process, from prosecutorial decisions to seek the death penalty through a jury's decision to impose capital punishment, is potentially impacted by racial bias. Thus, a study that only evaluates cases that have a death penalty trial, for instance, may overlook substantial bias in which cases prosecutors decide to charge capitally. Second, the highest quality Baldus-type studies collect information not just on the offender and victim, but also on the egregiousness of the crime. There are a number of available measures for offender culpability that allow researchers to confirm that race-of-victim effects are not due to other factors (i.e. that white-victim crimes do not also tend to involve more heinousness, multiple victims, or some other legally aggravating factor). Measures that control for legally relevant aggravating factors are often called adjusted disparities, while measures that simply report the uncontrolled ratios of white- and non-white

[10] General Accounting Office, 1990
[11] Grosso et al., 2014

victim crimes that result in death sentences are often referred to as unadjusted disparities. Unadjusted disparities can offer useful insight, yet for obvious reasons they are less empirically sound than adjusted disparities.

Section III: Racial Bias in Executions

A unique feature of American capital punishment is that only a small minority of death sentences are carried out. Of the more than 8,000 capital sentences handed down since 1973, only 16% were carried out by the end of 2013. By contrast, over 42% were overturned on appeal or commuted.[12] The analysis of finalized cases, or those who are no longer on death row, is even more surprising: as of 2013, 25% of inmates left death row through execution, whereas 66% saw their death sentence reversed and the remainder died of other causes.[13] Given the small number of death sentences that result in executions, it is reasonable to question whether the extralegal factors that are so influential in the death sentencing stage may also play a role here.

A handful of researchers have attempted to determine whether such disparities exist using a variety of methods. Some have attempted to repeat a Baldus-type study, but one that begins with a pool of death-sentenced offenders rather than a pool of death-eligible homicide cases. Jacobs et al. provided an early example of this type of analysis, looking at 16 states and finding that non-white offenders who killed white victims are more likely to have a death sentence carried out.[14] However, this study used a dichotomous approach that classified offenders as executed or non-executed, which obscures a substantial amount of variation within the non-executed category (i.e. offenders whose sentence is reversed on appeal, offenders who die of natural causes, offenders who commit suicide, or offenders who escape from prison). Petrie and Coverdill, who performed a similar analysis of death-sentenced offenders in Texas, addressed

[12] Baumgartner et al., 2018
[13] Ibid.
[14] Jacobs et al., 2007

this problem by evaluating both executions and appellate relief.[15] They found that the lower execution rate for non-white victim cases was not due to greater appellate relief, but rather to longer delays between sentence and execution; in other words, white victim cases only appeared to result in more executions because they were processed faster.

Another attempt to quantify the race-of-victim effect on the shift from death sentences to executions comes from Alesina and La Ferrara. They conceptualize an "error rate" that measures how often appellate courts at both the state and federal levels overturn death sentences, and find that this error rate is the highest for cases involving non-white offenders who kill white victims.[16] This suggests that the charging and sentencing process discriminates against that category of offenders. Interestingly, they also find that the disparity is almost exclusively found in southern states and that the error rate is higher at the federal level, implying that federal appellate courts do more to correct biases. However, all three of these studies—Jacobs et al, Petrie and Coverdill, and Alesina and La Ferrara—fail to meet one of the key criteria that distinguish a high quality Baldus-type study: they do not start with a broad pool of offenders. Each of these studies draws only from a pool of offenders who have been sentenced to death, and thus is unable to account for disparities that may occur at the prosecutorial or sentencing levels. We may know, for example, that federal courts reverse 9% more cases involving non-white offenders who kill white victims, but unless we know how great the disparity in the original stages of the criminal justice process was we are unable to conclude to what extent the federal courts have addressed the problem of racial bias.[17] To draw this conclusion, we would need to look at the system as a whole: in other words, we would need to evaluate what factors and biases play a role in

[15] Petrie & Coverdill, 2010
[16] Alesina & La Ferrara
[17] Ibid.

determining which offenders get sentenced to death, and then analyze whether the process of selecting cases for execution mitigates, maintains, or amplifies those biases.

Two studies thus far have attempted to conduct this evaluation, although they approached the problem in different ways. One study, by Baumgartner et al., compared the demographics of all homicide victims nationally between 1975 and 2005 with the demographics of all homicide victims nationally whose killers were executed between 1976 and 2015.[18] The results showed that white victims made up a much larger share of execution cases (76%) than total cases (51%), while Black victims made up a much smaller share of execution cases (15%) than total cases (46%). This indicates that, on the national level, offenders who kill white victims appear to be more likely to be executed. However, this type analysis is unable to show whether white-victim homicides are more likely to be death-eligible, highly aggravated, or occur in states that authorize or actively use the death penalty; accordingly, a different approach is also needed.

This approach can be found in a recent study conducted by Phillips and Marceau.[19] This study began with a dataset compiled by Baldus et al. as part of an analysis called the Charging and Sentencing Study that looked at Georgia from the period 1973 through 1979.[20] The Charging and Sentencing Study analyzed a random sample of 2,483 death-eligible defendants, of which 127 were sentenced to death. Baldus et al. found an unadjusted disparity of 8.2 (10.92% of white victim cases received a death sentence compared to 1.33% of non-white victim cases), and a logistic regression that controlled for twenty-three other factors revealed an adjusted disparity of 4.3.[21] In other words, an offender who killed a non-white victim was 4.3 times more likely to be

[18] Baumgartner et al., 2018
[19] Phillips & Marceau, 2020
[20] Baldus et al., 1990
[21] Ibid.

sentenced to death than an offender who committed the exact same crime, but with a white victim.

Phillips and Marceau took the Charging and Sentencing Study a step further by expanding the dataset to include the final dispositions of the 127 death sentences.[22] Notably, they addressed the problem of a false dichotomy between executed and non-executed by removing the eight cases that were not resolved judicially (i.e. offenders who died of natural causes or were still on death row); this meant that, of the 119 cases who remained, all of them were either executed (24) or granted appellate relief (95). Phillips and Marceau then ran the same analyses as Baldus et al., only this time focusing on the processes that selected 24 defendants for execution out of 2,483 that were eligible (as opposed to Baldus et al., who focused on the processes that selected 127 defendants for a death sentence out of the 2,483 that were eligible). In doing so, they found an unadjusted disparity of 17 (2.26% of white victim cases resulted in an execution compared to 0.13% of non-white victim cases).[23] Although the smaller number of executions did not allow them to run the original regression model used by Baldus et al. and thereby compute a single adjusted disparity, Phillips and Marceau divided the other variables across eighty individual models. Of the eighty models, seventy-nine showed that white-victim homicides were at least twice as likely to result in an execution than non-white victim homicides.[24]

The final results generated by Phillips and Marceau are the most accurate measurement to date of the total race-of-victim disparity in the American death penalty system. They examine the entire process that selects a handful of offenders to be executed out of the entire pool of offenders who have committed death-eligible crimes, and they control for a number of aggravating factors to ensure that the disparities are not due to legal explanations. Execution is

[22] Phillips & Marceau, 2020
[23] Ibid.
[24] Ibid.

the point of no return in the criminal justice system, and Phillips and Marceau show that race-of-victim disparities are very much still in effect at that point.

Section IV: Data Sources

Much like Phillips and Marceau expanded upon an original dataset compiled by Baldus, this thesis expands upon three datasets compiled by researchers across the southern United States. Each dataset meets the two criteria that were previously identified as critical components of high quality Baldus-type studies. They include information on the aggravation level of each offense, and they represent a broad pool of death-eligible homicides. Additionally, each of them allows for analysis of both decision making stages: the decision to sentence a defendant to death, and the decision to carry out that death sentence. This section will briefly summarize the key findings of each original study.

Harris County, Texas

The data for Harris County, Texas, comes from a study by Phillips that analyzes 504 defendants indicted for capital murder between 1992 and 1999.[25] Harris County, which contains the city of Houston, is one of the most active death penalty regions in the country. As Phillips notes, at the time his article was written, Harris County had carried out more executions (104) than any state other than Texas. The next closest was Virginia, which had carried out 102.

Of the 504 defendants, 129 were tried capitally and 98 received a death sentence. Unadjusted disparities indicate that 30% of all white victim cases went to a capital trial, compared to 26% of hispanic victim cases and 23% of Black victim cases. The disparities continue at the death sentencing level: 23% of white victim cases resulted in a death sentence, compared to 21% of hispanic victim cases and 18% of Black victim cases.

[25] Phillips, 2008

A logistic regression showed that the lower rates of capital trials and death sentences in Black victim cases exist despite the fact that these cases tend to be more heinous and involve multiple victims, two key legal aggravating factors. The regression also indicated that, while the charging and sentencing processes were significantly influenced by legal factors such as an elevated heinousness level, they were also significantly influenced by extralegal factors, including the presence of a female victim.

Louisiana

The data for Louisiana come from a study by Lyman et al. that examines homicides in eight judicial districts across the state from 1976 to 2014.[26] Their sample included 1,882 capitally charged cases, of which 385 resulted in a capital trial and 107 received a death sentence. Unadjusted disparities show that 30.9% of white victim cases were ultimately prosecuted capitally, while only 13.0% of Black victim cases received the same treatment.
Once again, these disparities continued through the death sentencing process, with 9.3% of white victim cases resulting in a death sentence compared to 3.4% of Black victim cases.

For their regression analyses, Lyman et al. created four categories of offender/victim race combinations and used black offender/black victim as the baseline. Both of the white victim categories were significantly more likely to result in a death sentence; specifically, white offenders who killed white victims were 2.3 times more likely to receive a death sentence compared to black offenders who killed black victims, and black offenders who killed white victims were 2.4 times more likely to receive a death sentence. Lyman et al. also combined race and gender for one category and found that black male offenders who killed white female victims were 5.5 times more likely to receive a death sentence.

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[26] Lyman et al., 2021

In addition to racial effects, Lyman et al. found that a number of crime characteristics significantly increased the likelihood of a case resulting in a death sentence. Among these were multiple victims, a child or elderly victim, and a rape that accompanied the homicide. By comparison, the judicial district in which a crime occurred and the relationship between the defendant and victim did not seem to have any major effects on which cases received death sentences.

South Carolina

Finally, data from South Carolina comes from an analysis by Songer and Unah of prosecutorial decisions to seek the death penalty in homicide cases from 1993 to 1997.[27] During that period, South Carolina saw 2,319 homicide defendants; of these, prosecutors chose to seek the death penalty 130 times. Songer and Unah used Supplemental Homicide Reports to match additional information with victims and offenders, and were able to collect this data for 84 of the 130 cases.

Their results showed that, although non-whites were more likely to be homicide victims during the period in question (1,416 non-white victims compared to 865 white victims), more white victim cases resulted in a decision to seek the death penalty (66 white victim cases compared to 18 non-white victim cases). This leads to an unadjusted disparity of 5.8 (prosecutors sought the death penalty in 7.6% of white victim cases compared to 1.3% of non-white victim cases).

In a logistic regression, Songer and Unah found that a number of statutory aggravators had statistically significant influences on prosecutorial decisions to seek the death penalty, including murder associated with theft, murder associated with criminal sexual conduct, murder with multiple victims, or murder of a child. However, the regression model also revealed an

[27] Songer & Unah, 2006

adjusted race-of-victim disparity of 3.1: prosecutors were 3.1 times more likely to seek the death penalty in white victim cases than non-white victim cases.

Section V: Results

In each of the original studies referenced above, the authors conducted regression analyses to measure the effect of each predictor variable on whether a given case results in a death sentence (or, in the case of the South Carolina study, a capital prosecution). However, given the small number of death sentences that are carried out, it is not feasible to re-run these regressions with execution as the dependent variable. Instead, the following tables report only simple, unadjusted ratios.

Harris County, Texas

For example, the first column of Table 1 reports the number and percentage of Harris County capital indictments that contained each case characteristic. The second column reports the same values for Harris County death sentences. The third column provides the ratios of the percentages in the first two stages, and the fourth column gives the percentage of capital indictments with the relevant characteristic that resulted in a death sentence. The first row of Table 1 shows that 30 out of 504 capitally indicted defendants, or 6%, raped their victim. Out of the 98 defendants who were sentenced to death, 16, or 16%, raped their victim. The ratio of 16 / 6 = 2.74, meaning that homicides involving rape were 2.74 times more likely to be represented at the death sentencing level than the capital indictment level. Finally, the fourth column shows that 53% of capitally indicted defendants who raped their victims, or 16 out of 30, were sentenced to death. The table is sorted the ratio associated with each characteristic, meaning that characteristics at the top of the table (rape, other aggravators, asphyxiation, etc) are the strongest predictors of whether a defendant will be sentenced to death, while the characteristics at the

bottom of the table (low heinousness, having an Asian victim, and multiple suspects) reduce the likelihood that a defendant will be sentenced to death.

Table 1: Frequency of Crime Characteristics among Capital Indictments and Death Sentences (Harris County, Texas)

Characteristic:	N (%) of Capital Indictment with Characteristic (Total N = 504)	N (%) of Death Sentences with Variable (Total N = 98)	Ratio (% of D.S. / % of Indictments)	% of Indictments with Variable Resulting in D.S.
Rape	30 (6%)	16 (16%)	2.74	53%
Other Aggravator	12 (2%)	5 (5%)	2.14	42%
Asphyxiated	46 (9%)	19 (19%)	2.12	41%
White Female Victim	70 (14%)	27 (28%)	1.98	39%
Female Victim	138 (27%)	53 (54%)	1.98	38%
Remuneration	24 (5%)	9 (9%)	1.93	38%
Victim Vulnerable Age (6-16 or over 60)	59 (12%)	22 (22%)	1.92	37%
Heinousness Level 3 (most)	111 (22%)	39 (40%)	1.81	35%
Kidnapping	49 (10%)	15 (15%)	1.57	31%
Stabbed	51 (10%)	15 (15%)	1.51	29%
Multiple Victims	86 (17%)	25 (26%)	1.50	29%
Defendant Prior Violent Conviction	97 (19%)	28 (29%)	1.48	29%
Adult Defendant (over 29)	94 (19%)	27 (28%)	1.48	29%
Beaten	70 (14%)	17 (17%)	1.25	24%
Child Victim (under 6)	17 (3%)	4 (4%)	1.21	24%
White Victim	205 (41%)	47 (48%)	1.18	23%
Appointed Attorney	369 (73%)	83 (85%)	1.16	22%
White Defendant	122 (24%)	26 (27%)	1.10	21%
Hispanic Victim	121 (24%)	25 (26%)	1.06	21%

Defendant Prior Non-Violent Conviction	228 (45%)	47 (48%)	1.06	21%
Male Defendant	480 (95%)	96 (98%)	1.03	20%
Burglary	50 (10%)	10 (10%)	1.03	20%
Asian Defendant	15 (3%)	3 (3%)	1.03	20%
Young Defendant (20-29)	224 (44%)	44 (45%)	1.01	20%
Black Defendant	249 (49%)	47 (48%)	0.97	19%
Hispanic Defendant	118 (23%)	22 (22%)	0.96	19%
Black Victim	141 (28%)	25 (26%)	0.91	18%
Heinousness Level 2	258 (51%)	43 (44%)	0.86	17%
Shot	373 (74%)	62 (63%)	0.85	17%
Robbery	361 (72%)	53 (54%)	0.76	15%
Teen Defendant (under 20)	186 (37%)	27 (28%)	0.75	15%
Victim Prior Conviction	69 (14%)	10 (10%)	0.75	14%
Multiple Defendants Indicted	248 (49%)	32 (33%)	0.66	13%
Asian Victim	48 (10%)	6 (6%)	0.64	13%
Heinousness Level 1 (least)	135 (27%)	16 (16%)	0.61	12%

Figure 1 compares the ratios from the third column with the odds ratios from Phillips' logistic regression. With the exception of a few outliers—such as male defendant (1.03, 3.82) and remuneration (1.93, 7.17)—both sets of values are closely correlated, suggesting that the unadjusted ratios are accurate indicators of the relative strength of each characteristic.

Figure 1: Comparison of Logistic Regression Results and Ratios for Death Sentences (Harris County, Texas)

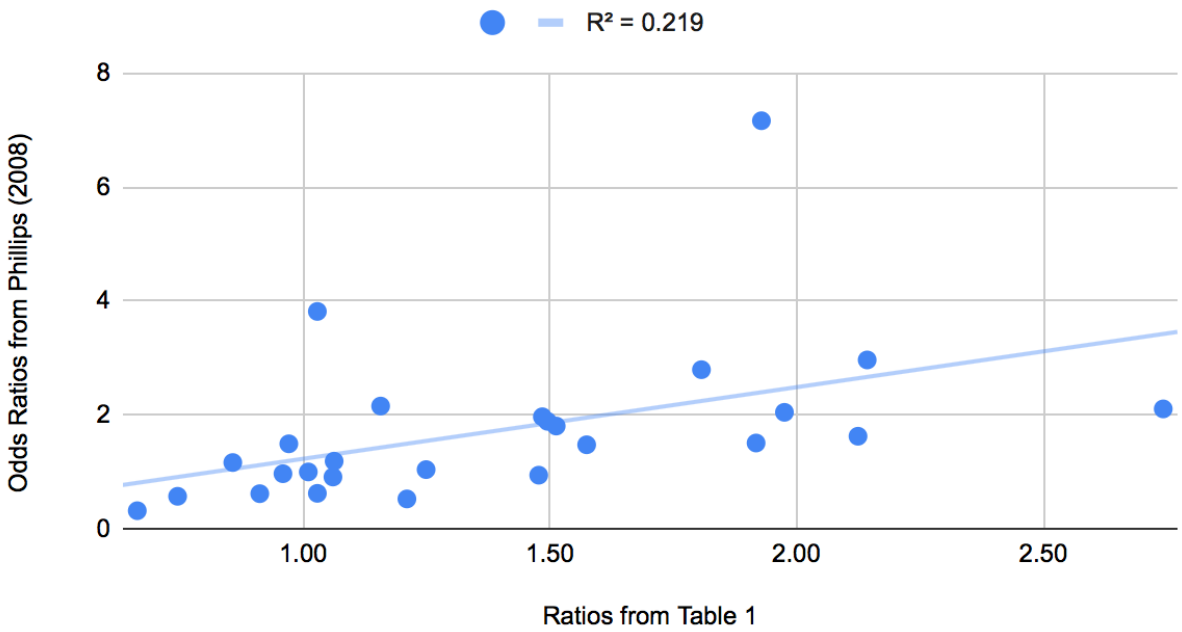


Table 2 presents a similar analysis to Table 1, but instead focusing on which death sentences result in executions. To again examine the first row, we see that 4 out of 98 death sentenced defendants, or 4%, had at least one child victim. Out of the 50 defendants who were executed, 3, or 6%, had at least one child victim. This represents a ratio of 1.47, showing that defendants with child victims were 1.47 times more likely to be executed than sentenced to death. The final column indicates that 75% (3 out of 4) death sentenced defendants with a child victim were executed.

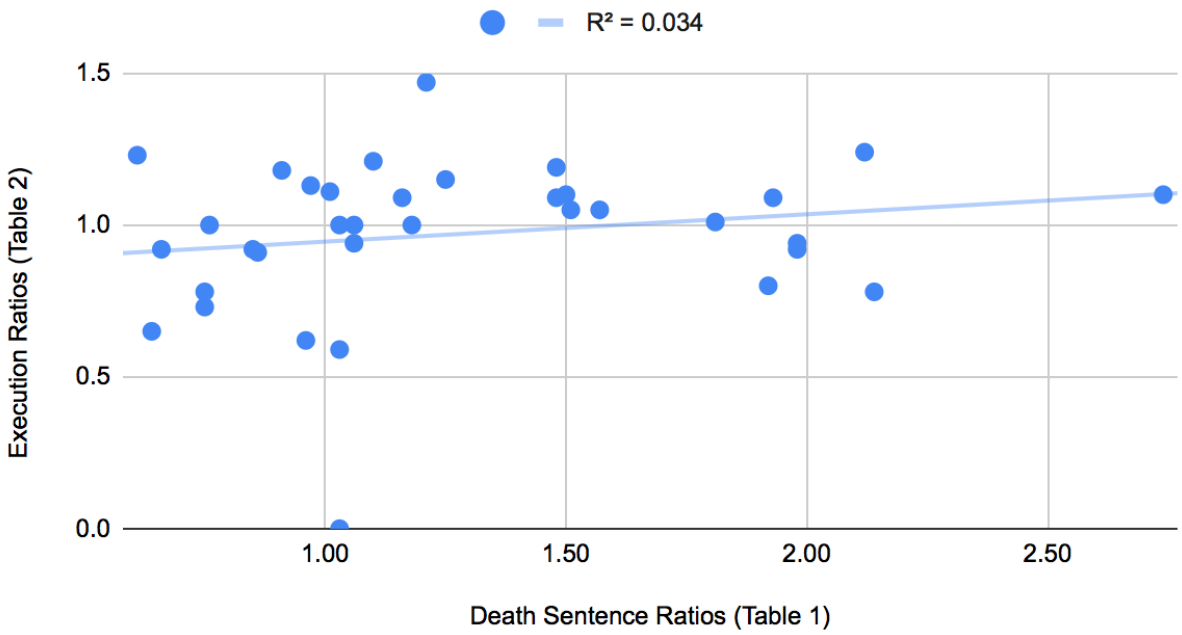
Table 2: Frequency of Crime Characteristics among Death Sentences and Executions (Harris County, Texas)

Characteristic:	N (%) of Death Sentences with Variable (Total N = 98)	N (%) of Executions with Variable (Total N = 50)	Ratio (% of Executions / % of D.S.)	% of D.S. with Variable Resulting in Execution
Child Victim (under 6)	4 (4%)	3 (6%)	1.47	75%
Asphyxiated	19 (19%)	12 (24%)	1.24	63%
Heinousness Level 1 (least)	16 (16%)	10 (20%)	1.23	63%
White Defendant	26 (27%)	16 (32%)	1.21	62%
Defendant Prior Violent Conviction	28 (29%)	17 (34%)	1.19	61%
Black Victim	25 (26%)	15 (30%)	1.18	60%
Beaten	17 (17%)	10 (20%)	1.15	59%
Black Defendant	47 (48%)	27 (54%)	1.13	57%
Young Defendant (20-29)	44 (45%)	25 (50%)	1.11	57%
Rape	16 (16%)	9 (18%)	1.10	56%
Multiple Victims	25 (26%)	14 (28%)	1.10	56%
Remuneration	9 (9%)	5 (10%)	1.09	56%
Adult Defendant (over 29)	27 (28%)	15 (30%)	1.09	56%
Appointed Attorney	83 (85%)	46 (92%)	1.09	55%
Kidnapping	15 (15%)	8 (16%)	1.05	53%
Stabbed	15 (15%)	8 (16%)	1.05	53%
Heinousness Level 3 (most)	39 (40%)	20 (40%)	1.01	51%
White Victim	47 (48%)	24 (48%)	1.00	51%
Defendant Prior Non-Violent Conviction	47 (48%)	24 (48%)	1.00	51%
Male Defendant	96 (98%)	49 (98%)	1.00	51%
Robbery	53 (54%)	27 (54%)	1.00	51%
White Female Victim	27 (28%)	13 (26%)	0.94	48%

Hispanic Victim	25 (26%)	12 (24%)	0.94	48%
Female Victim	53 (54%)	25 (50%)	0.92	47%
Multiple Defendants Indicted	32 (33%)	15 (30%)	0.92	47%
Shot	62 (63%)	29 (58%)	0.92	47%
Heinousness Level 2	43 (44%)	20 (40%)	0.91	47%
Victim Vulnerable Age (6-16 or over 60)	22 (22%)	9 (18%)	0.80	41%
Other Aggravator	5 (5%)	2 (4%)	0.78	40%
Victim Prior Conviction	10 (10%)	4 (8%)	0.78	40%
Teen Defendant (under 20)	27 (28%)	10 (20%)	0.73	37%
Asian Victim	6 (6%)	2 (4%)	0.65	33%
Hispanic Defendant	22 (22%)	7 (14%)	0.62	32%
Burglary	10 (10%)	3 (6%)	0.59	30%
Asian Defendant	3 (3%)	0 (0%)	0.00	0%

Figure 2 compares the Harris County capital indictment / death sentence ratios from Table 1 with the death sentence / execution ratios from Table 2. There are two notable findings from Figure 2: first, the death sentence ratios as a whole have a larger range of effect sizes than the execution ratios. This suggests that the factors outlined above, including legally relevant and extralegal ones, have more of an influence on the death-sentencing process than the execution process. Second, the trendline is slightly positive, meaning that the execution process as a whole slightly amplifies the effects of the case factors included in the analysis. However, this is a broad generalization, as many factors increase the odds of a death sentence but reduce the odds of an execution, or vice versa. The following paragraphs present factor-specific analyses.

Figure 2: Comparison of Factors Leading to Death Sentences and Executions (Harris County, Texas)



Race: At the death sentencing level, victim race had a noticeable impact. White victim and Hispanic victim cases were represented at higher rates among death sentences than capital indictments, while Black and Asian victim cases were represented at lower rates. At the execution level, there was some degree of reversal: most notably, the representation of Black victim cases increased from death sentences to executions. White victim cases made up the same proportion of death sentences and executions, and the representation of Hispanic victim and Asian victim cases declined. It appears that, although killers of white victims are treated more harshly than killers of Black victims in the death-sentencing phase, this disparity is somewhat mitigated by the execution stage. Likewise, the discrimination against killers of Hispanic victims during the death sentencing phase is somewhat mitigated during the execution process. Killers of Asian victims appear to be treated more leniently throughout the entire process.

Defendant race had a noticeably smaller impact throughout both stages. Among death sentences, white defendants were represented at a higher rate relative to capital indictments,

while the representation of other defendant races saw no major changes. At the execution level, both white and Black defendants saw much higher representation than among death sentences, while the representation of Hispanic defendants dropped noticeably. No Asian defendants were executed. As a result, white defendants seem to be treated the most harshly throughout the process, followed by Black defendants. Defendants of other races are generally treated more leniently.

Legal factors: At the death sentencing stage, a number of legally relevant aggravators appear to result in harsher treatment. Especially violent homicides such as those involving rape, asphyxiation, kidnapping, and stabbing, as well as those with multiple victims or involving a high degree of heinousness, were all at least one and a half times more likely to be represented among death sentences than capital indictments. Other factors, such as moderate or low heinousness, shooting, and homicides that occurred during the commission of a robbery, reduced the odds of a case receiving a death sentence. This suggests that the death sentencing process effectively selects the most severe cases for the death penalty: those with higher heinousness, more gruesome methods of murder, or multiple victims. Likewise, homicides with lower heinousness and (relatively) less gruesome methods of murder are effectively sorted out.

The impact of legally relevant aggravators is much more mixed at the execution level. Asphyxiation remains a strong predictor of which death sentences will be carried out, but low heinousness also has a strong positive effect: in fact, low heinousness is one of the top predictors of executions. Other aggravators (rape, multiple victims, kidnapping, stabbing) have much smaller positive effects, and the remainder either have no effect (high heinousness, robbery) or reduce the odds of an execution (shooting, moderate heinousness). Given that the appellate stage of the process focuses on different concerns than the sentencing phase, it makes sense that most

legal aggravators are not relevant during the execution stage. However, the strong positive impacts of both asphyxiation and low heinousness, factors with opposite effects in the previous stage, suggests that the system as a whole may be more arbitrary than analyses of only the death sentencing phase would suggest.

Defendant characteristics: A number of social characteristics make a defendant more likely to receive a death sentence, such as having a prior violent conviction or being an adult. Additionally, some factors, such as being a teenager at the time of the crime, make a defendant less likely to receive a death sentence. All of these effects suggest that the most culpable defendants (those with violent criminal histories or those of mature age) are treated more harshly. Additionally, all of these effects are seen again at the execution stage, amplifying their overall impact. However, there is an additional defendant characteristic that also increases the odds of both a death sentence and an execution: having an appointed attorney. This means that the poorest defendants—those who are unable to hire an attorney, and thus must have one appointed by the court—are treated more harshly at all stages of the process.

Victim characteristics: At the death sentencing level, victim characteristics are some of the strongest predictors of which cases will receive the death penalty. Killers of female victims, especially white female victims, are much more likely to be sentenced to death, as are killers of very young or very old victims. Those who kill victims with prior convictions, interestingly, are significantly less likely to receive a death sentence, suggesting that courts view their crimes as less severe. At the execution stage, however, nearly all of these trends are reversed. Female victims (including white female victims), as well as killers of vulnerable-aged victims, are less likely to have their death sentences carried out. This suggests that the effects of biases based on

victimology are mitigated to an extent. However, killers of victims with criminal histories continue to be treated more leniently, even through the execution stage.

Louisiana

Table 3 presents the same data as Table 1—frequencies and ratios of crime characteristics among capitally charged cases and death sentences—but with respect to the set of judicial districts in Louisiana studied by Lyman et al. The crime characteristics in Table 3 are again sorted by effect size, such that characteristics at the top make death sentences the most likely and characteristics at the bottom make death sentences least likely. Figure 3 shows that the unadjusted ratios calculated in Table 3 are very strongly correlated with the odds ratios found by Lyman et al., suggesting that the unadjusted ratios are accurate indicators of which factors impact the death sentencing process.

Table 3: Frequency of Crime Characteristics among Capital Charges and Death Sentences (Louisiana)

Characteristics:	N (%) of Capital Charges with Variable (Total N = 1822)	N (%) of Death Sentences with Variable (Total N = 107)	Ratio (% of D.S. / % of Charges)	% of Charges with Variable Resulting in D.S.
Rape	34 (2%)	7 (7%)	3.51	21%
Black Male/White Female*	122 (7%)	23 (21%)	3.21	19%
Burglary	51 (3%)	8 (7%)	2.67	16%
Elderly Victim (over 64)	175 (10%)	25 (23%)	2.43	14%
Multiple Victims	232 (13%)	30 (28%)	2.20	13%
Black/White*	402 (22%)	44 (41%)	1.86	11%
Stranger	455 (25%)	45 (42%)	1.68	10%
Knife	224 (12%)	22 (21%)	1.67	10%
Other Firearm	257 (14%)	25 (23%)	1.66	10%
Other Felony	125 (7%)	12 (11%)	1.63	10%

Robbery	459 (25%)	43 (40%)	1.60	9%
White/White*	423 (23%)	32 (30%)	1.29	8%
Child Victim (under 12)	135 (7%)	10 (9%)	1.26	7%
JDC 24	393 (22%)	27 (25%)	1.17	7%
JDC 19	370 (20%)	25 (23%)	1.15	7%
Family/Intimate Relation	195 (11%)	13 (12%)	1.14	7%
JDC 14	153 (8%)	10 (9%)	1.11	7%
JDC 16	112 (6%)	7 (7%)	1.06	6%
JDC 1	293 (16%)	18 (17%)	1.05	6%
Handgun	929 (51%)	43 (40%)	0.79	5%
Acquaintance	710 (39%)	32 (30%)	0.77	5%
JDC 9	157 (9%)	7 (7%)	0.76	4%
White/Black*	68 (4%)	3 (3%)	0.75	4%
Other/Unknown Weapon	412 (23%)	17 (16%)	0.70	4%
Multiple Defendants Indicted	978 (54%)	39 (36%)	0.68	4%
JDC 22	209 (11%)	8 (7%)	0.65	4%
JDC 15	135 (7%)	5 (5%)	0.63	4%
Unknown Relation	462 (25%)	17 (16%)	0.63	4%
Black/Black*	929 (51%)	28 (26%)	0.51	3%
Unknown Aggravator	473 (26%)	14 (13%)	0.50	3%
Drugs	197 (11%)	3 (3%)	0.26	2%

*[Offender] / [Victim]

Figure 3: Comparison of Logistic Regression Results and Ratios for Death Sentences (Louisiana)

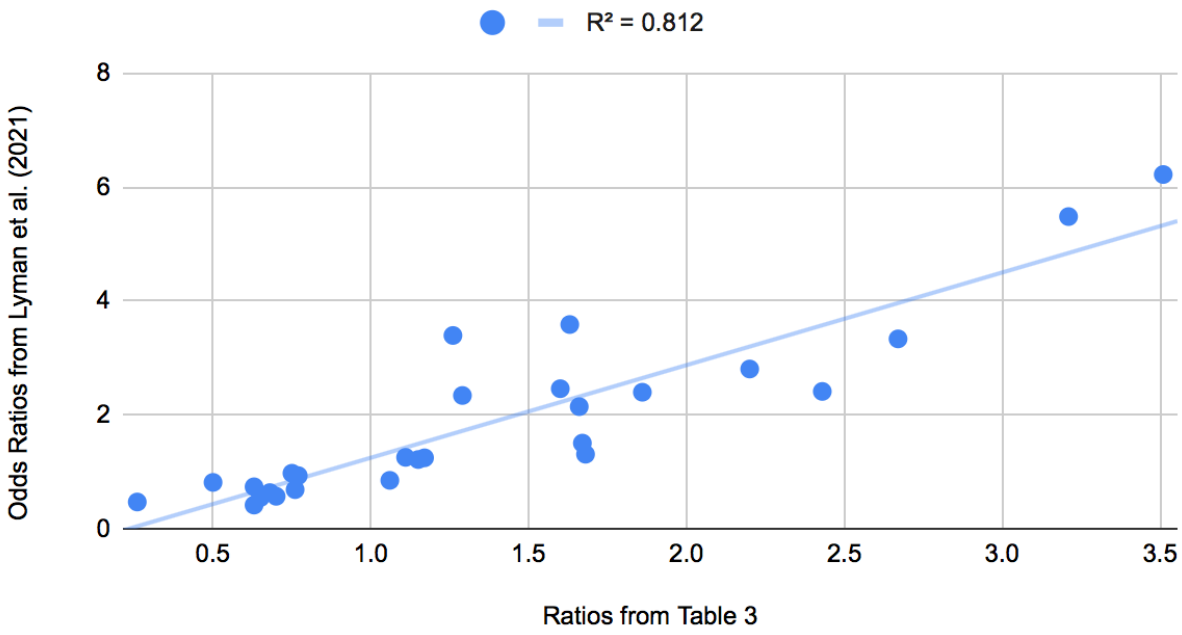


Table 4 presents data on the same set of cases, but this time with a focus on which characteristics correlate with carrying out a death sentence. As Figure 4 indicates, there is only a very faint positive correlation between each characteristic's impact on death sentences and executions; the execution process as a whole may slightly amplify the disparities of the sentencing process, but factor-specific analysis is needed. Additionally, Figure 4 shows that, compared to Harris County, the effect sizes of crime characteristics in Louisiana are much more similar across both stages of the process. While execution ratios still tend to be smaller, the shift is nowhere near as dramatic as it was for the Texas example.

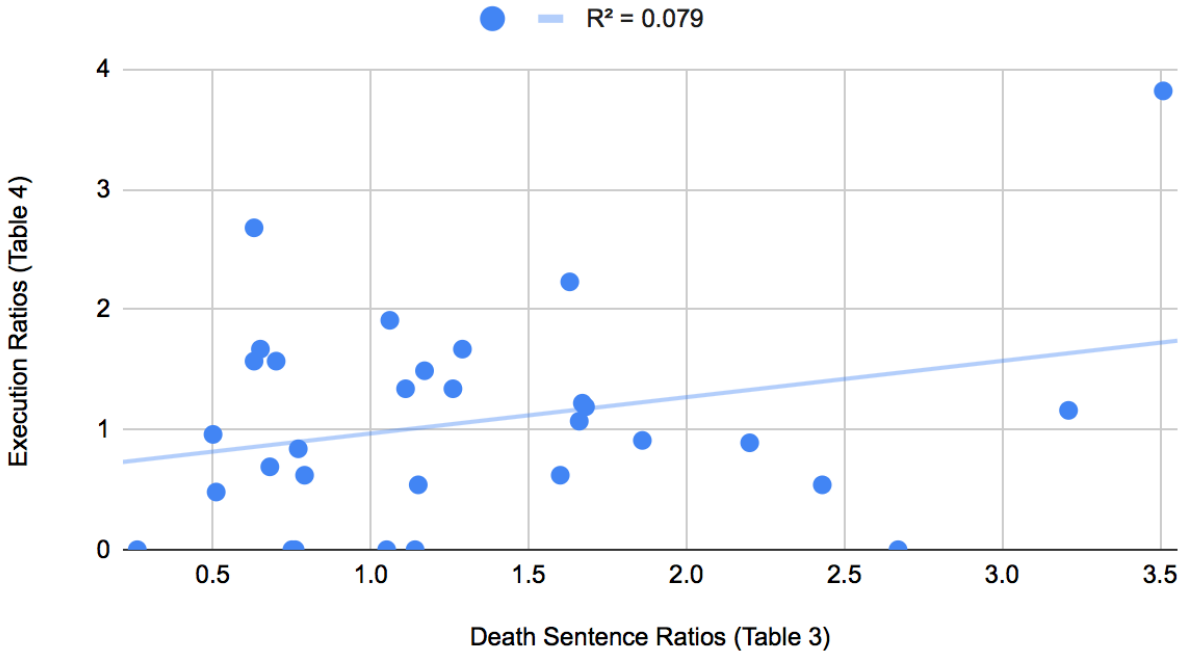
Table 4: Frequency of Crime Variables among Death Sentences and Executions (Louisiana)

Variable:	N (%) of Death Sentences with Variable (Total N = 107)	N (%) of Executions with Variable (Total N = 8)	Ratio (% of Executions / % of D.S.)	% of D.S. with Variable Resulting in Execution
Rape	7 (7%)	2 (25%)	3.82	29%
JDC 15	5 (5%)	1 (13%)	2.68	20%
Other Felony	12 (11%)	2 (25%)	2.23	17%
JDC 16	7 (7%)	1 (13%)	1.91	14%
White/White*	32 (30%)	4 (50%)	1.67	13%
JDC 22	8 (7%)	1 (13%)	1.67	13%
Other/Unknown Weapon	17 (16%)	2 (25%)	1.57	12%
Unknown Relation	17 (16%)	2 (25%)	1.57	12%
JDC 24	27 (25%)	3 (38%)	1.49	11%
Child Victim (under 12)	10 (9%)	1 (13%)	1.34	10%
JDC 14	10 (9%)	1 (13%)	1.34	10%
Knife	22 (21%)	2 (25%)	1.22	9%
Stranger	45 (42%)	4 (50%)	1.19	9%
Black Male/White Female*	23 (21%)	2 (25%)	1.16	9%
Other Firearm	25 (23%)	2 (25%)	1.07	8%
Unknown Aggravator	14 (13%)	1 (13%)	0.96	7%
Black/White*	44 (41%)	3 (38%)	0.91	7%
Multiple Victims	30 (28%)	2 (25%)	0.89	7%
Acquaintance	32 (30%)	2 (25%)	0.84	6%
Multiple Defendants Indicted	39 (36%)	2 (25%)	0.69	5%
Robbery	43 (40%)	2 (25%)	0.62	5%
Handgun	43 (40%)	2 (25%)	0.62	5%
Elderly Victim (over 64)	25 (23%)	1 (13%)	0.54	4%
JDC 19	25 (23%)	1 (13%)	0.54	4%

Black/Black*	28 (26%)	1 (13%)	0.48	4%
Burglary	8 (7%)	0 (0%)	0.00	0%
Family/Intimate Relation	13 (12%)	0 (0%)	0.00	0%
JDC 1	18 (17%)	0 (0%)	0.00	0%
JDC 9	7 (7%)	0 (0%)	0.00	0%
White/Black*	3 (3%)	0 (0%)	0.00	0%
Drugs	3 (3%)	0 (0%)	0.00	0%

*[Offender] / [Victim]

Figure 4: Comparison of Factors Leading to Death Sentences and Executions (Louisiana)



Race: Lyman et al. present race by offender/victim combinations. However, at the death sentencing stage, it still appears that victim race is the more relevant predictor: both categories of white victim cases result in increased odds of a death sentence, while both categories of Black victim cases make a death sentence less likely. Interestingly, however, defendant race has opposite effects depending on victim race. Among white victim cases, Black defendants receive death sentences at higher rates than white defendants; among Black victim cases, white

defendants receive death sentences at higher rates. In other words, within a single victim race, interracial homicides are treated more harshly at the death sentencing stage.

At the execution stage, the effects of race are largely amplified. White defendants who kill white victims are executed at the highest rate. However, Black defendants, regardless of the race of their victim, are actually less likely to be represented among executions than they are among death sentences (although Black killers of white victims are still more likely to be executed than Black killers of Black victims). Furthermore, not a single white killer of a Black victim was executed over the time period studied. As a result, the execution process amplifies the racial disparities of the death sentencing process both by increasing the execution rates of killers with white victims and by decreasing the execution rates of killers with Black victims.

Geography: Tables 3 and 4 also present data for each judicial district (JDC) included in Lyman et al.'s sample. Among death sentences, the judicial districts are all relatively clustered around the center; the "harshest" district sentenced 7% of its capitally charged defendants to death, while the "most lenient" sentenced 4%. Among executions, however, this range expands dramatically: the harshest district carried out 20% of its death sentences, while the most lenient carried out none. Accordingly, district differences are much more pronounced at the execution level. Even more interestingly, a number of districts saw large shifts in relative harshness or leniency between the two stages. JDC 15, which was the most lenient district in the death sentencing stage (only sentencing 4% of capitally charged defendants to death), became the harshest district in the execution stage (carrying out 20% of its executions). Likewise, JDC 19 was one of the harshest districts in terms of death sentences (which it applied to 7% of all capitally charged defendants); however, it was also one of the most lenient executioning districts, only carrying out 4%.

Of course, some of this may be due to the small number of total executions (eight, for the sample studied). JDC 15 and JDC 19 actually carried out the same number of executions, at one each; that one execution simply counted for a higher percentage of JDC 15's five death sentences than it did of JDC 19's twenty-five. Regardless of the rarity of executions, however, the fact remains that certain districts are much harsher than others throughout the process. For example, JDC 24 accounted for only 22% of capital charges, but 25% of death sentences and 38% of executions. JDC 1 and JDC 9 together accounted for 25% of capital charges, 24% of death sentences, and 0% of executions. There is no denying the fact that an offender who commits a murder in JDC 1 or JDC 9 is at a much lower risk of execution than an offender who murders someone in JDC 24.

Crime characteristics: A number of crime characteristics have their expected impacts on the death sentencing process. Notably, many aggravators, such as rape, burglary, an elderly victim, multiple victims, the use of a knife, and a child victim increase the likelihood of a death sentence, while factors such as the use of a gun or the presence of drugs made a death sentence less likely. This follows the theory that more culpable defendants are selected for capital punishment, while relatively less culpable defendants (i.e. those who used less gruesome methods of killing or were intoxicated) are treated less harshly. Interestingly, both homicides against strangers and against family members or intimate partners were more likely to receive the death penalty than homicides against mere acquaintances, even though acquaintance homicides were the most prevalent. A final important note is that three related characteristics each significantly reduced the likelihood of a death sentence: other/unknown weapon, unknown relation, and unknown aggravator. The causal relationship between missing information and a low chance of receiving a death sentence is ambiguous at best; for example, investigators may

not dedicate as many resources to cases that seem less heinous and therefore are less likely to receive the death penalty in the first place, or other factors may impact the resources devoted to the investigation and that lack of resources may reduce the likelihood of a death sentence. However, this correlation is important to note because of how it shifts in the execution stage.

At the execution stage, certain factors continue to increase the likelihood of executions. These include rape, the presence of a child victim, the use of a knife, and the murder of a stranger. A number of other factors, including the use of a gun and the murder of an acquaintance, continue to make executions less likely. Additionally, several characteristics, such as killing an intimate partner or using drugs, are not represented among any of the eight executions. On the whole, however, it appears that the execution stage largely amplifies the effects seen at the death sentencing level. The one significant exception, however, has to do with the unknown information categories. Both the other/unknown weapon and unknown relation characteristic are represented at a much higher rate among executions than they are at other stages, which suggests that the lack of information is not entirely explained by the hypothesis that investigators devote fewer resources to cases because they are less heinous or deserving of the death penalty.

South Carolina

Table 5 once again presents analysis of the factors that make homicides more likely to receive a death sentence, this time for South Carolina. However, Figure 5 presents a slightly different analysis than the ones before it; Songer and Unah's study focused not on death sentences as the outcome of interest, but rather on prosecutorial decisions to seek the death penalty. Accordingly, the ratios and odds ratios presented in Figure 5 refer to these decisions rather than death sentences. The ratios presented along the x-axis of Figure 5 are calculated in

the same way as the ratios presented in Table 5, with the only distinction being that they calculate the change from homicides to death penalty cases (i.e. cases where prosecutors chose to seek the death penalty) rather than the change from homicides to death sentences. The odds ratios presented along the y-axis measure this same change. As Figure 5 indicates, these two sets of ratios are very strongly correlated, suggesting that the unadjusted ratios are an accurate indicator of which factors influence prosecutorial decisions to seek the death penalty. Because the small number of death sentences prevents an effective logistic regression, this is the best available indicator for the accuracy of the unadjusted ratios.

Table 5: Frequency of Crime Variables among Homicides and Death Sentences (South Carolina)

Variable:	N (%) of Homicides with Variable (Total N = 2425)	N (%) of Death Sentences with Variable (Total N = 34)	Ratio (% of D.S. / % of Homicides)	% of Homicides with Variable Resulting in D.S.
Multiple Victims	93 (4%)	11 (32%)	8.44	12%
Rape	27 (1%)	2 (6%)	5.28	7%
GOP Prosecutor	844 (35%)	26 (76%)	2.20	3%
White Victim	924 (38%)	28 (82%)	2.16	3%
Female Victim	602 (25%)	18 (53%)	2.13	3%
Stranger	571 (24%)	16 (47%)	2.00	3%
Theft	510 (21%)	12 (35%)	1.68	2%
Knife	269 (11%)	6 (18%)	1.59	2%
Rural District	1420 (59%)	29 (85%)	1.46	1%
Elderly Victim*	149 (6%)	2 (9%)	1.44	2%
Male Defendant**	2037 (88%)	34 (100%)	1.14	2%
Gun	1725 (71%)	23 (68%)	0.95	1%
Black Defendant**	1660 (72%)	15 (45%)	0.63	1%
District > 1/3 Non-White	1366 (56%)	12 (35%)	0.63	1%

Intimate Relation	517 (21%)	4 (12%)	0.55	1%
Arson	19 (1%)	0 (0%)	0.00	0%
Child Victim (under 12)*	70 (3%)	0 (0%)	0.00	0%
*Reduced N: Valid Total N = 2321, Valid Death Sentence N = 22				
**Reduced N: Valid Total N = 2317, Valid Death Sentence N = 34				

Figure 5: Comparison of Logistic Regression Results and Ratios for Decisions to Seek the Death Penalty (South Carolina)

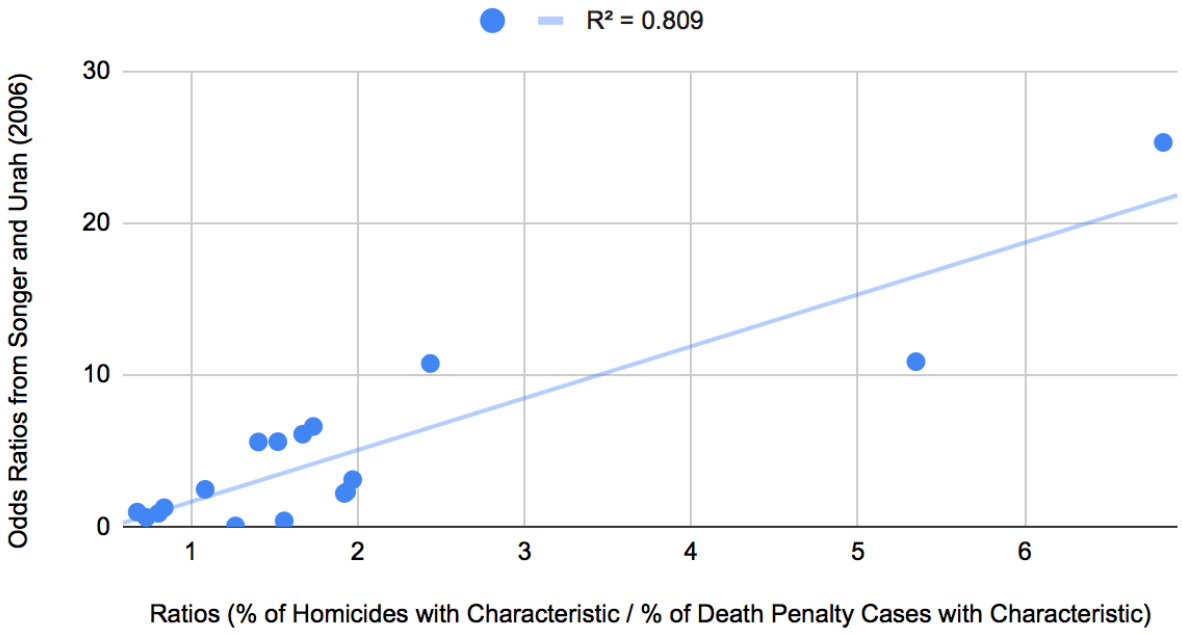


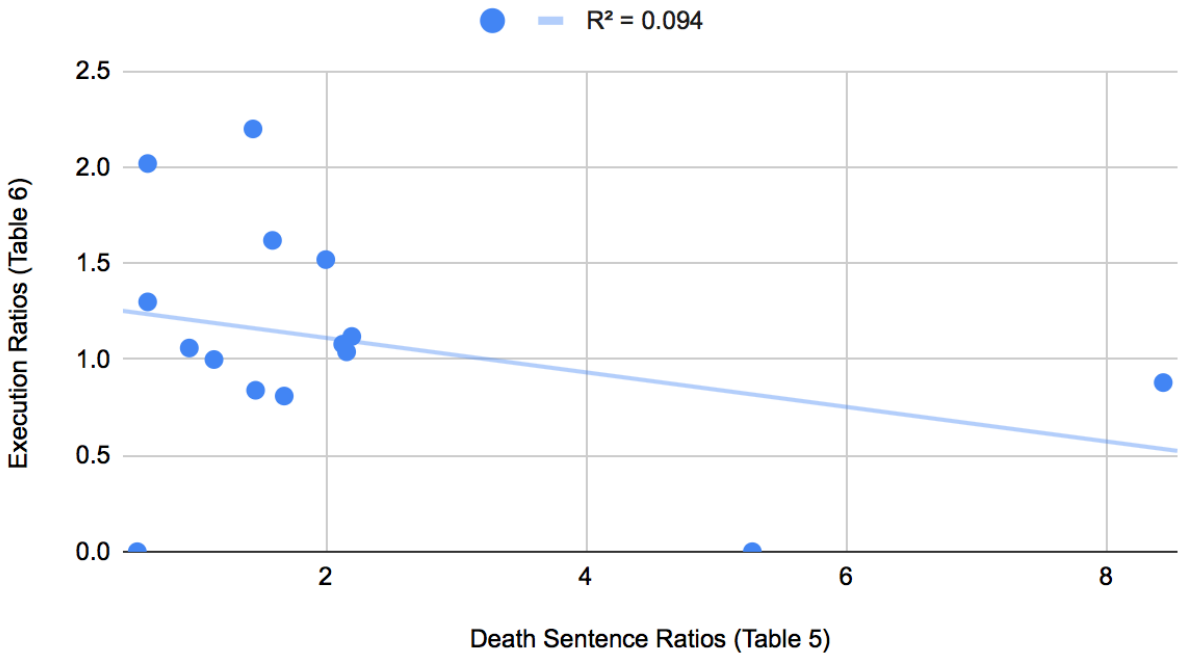
Table 6 presents the effects of the same characteristics on executions. As Figure 6 shows, with the exception of a few outliers, both sets of effects are very similar in size. Additionally, there is a very slight negative correlation between the two sets of effects, suggesting that the execution phase may in some ways mitigate the disparities created during the death sentencing phase. As before, however, this is a broad generalization, and factor specific analysis is needed.

Table 6: Frequency of Crime Variables among Death Sentences and Executions (South Carolina)

Variable:	N (%) of Death Sentences with Variable (Total N = 34)	N (%) of Executions with Variable (Total N = 7)	Ratio (% of Executions / % of D.S.)	% of D.S. with Variable Resulting in Execution
Elderly Victim (over 64)*	2 (9%)	1 (20%)	2.20	50%
District > 1/3 Non-White	12 (35%)	5 (71%)	2.02	42%
Knife	6 (18%)	2 (29%)	1.62	33%
Stranger	16 (47%)	5 (71%)	1.52	31%
Black Defendant	15 (44%)	4 (57%)	1.30	27%
GOP Prosecutor	26 (76%)	6 (86%)	1.12	23%
Female Victim	18 (53%)	4 (57%)	1.08	22%
Gun	23 (68%)	5 (71%)	1.06	22%
White Victim	28 (82%)	6 (86%)	1.04	21%
Male Defendant	34 (100%)	7 (100%)	1.00	21%
Multiple Victims	11 (32%)	2 (29%)	0.88	18%
Rural	29 (85%)	5 (71%)	0.84	17%
Theft	12 (35%)	2 (29%)	0.81	17%
Rape	2 (6%)	0 (0%)	0.00	0%
Intimate Relation	4 (12%)	0 (0%)	0.00	0%
Arson	0 (0%)	0 (0%)	-	-
Child Victim (under 12)*	0 (0%)	0 (0%)	-	-

*Reduced N: Valid Death Sentence N = 22, Valid Execution N = 5

Figure 6: Comparison of Factors Leading to Death Sentences and Executions (Louisiana)



Race: At the death sentencing level, both victim and offender race appear to have strong impacts. Offenders who kill white victims are represented at a substantially higher rate among death sentences than homicides, while Black offenders are represented at a substantially lower rate. At the execution level, however, these disparities are somewhat mitigated: Black offenders are more represented among executions relative to death sentences, while the rate of offenders who kill white victims remains constant. This suggests that, while the more lenient treatment of Black offenders may be reversed to an extent, the harsher treatment towards killers of white victims is maintained.

District characteristics: A number of Songer and Unah's variables focus on the district in which each prosecution occurred. As Table 5 shows, defendants in districts with Republican prosecutors and defendants in rural districts are represented at a much higher rate among death sentences than among homicides. Likewise, defendants in districts that are more than one-third non-white are represented at a much smaller rate among death sentences. At the execution level,

however, many of these trends are reversed: defendants in districts that are more than one-third minority are more likely to have their death sentences carried out, while defendants in rural districts see their odds of being executed reduced. Defendants in districts with Republican prosecutors continue to see an elevated risk of execution, but the ratio from death sentences to executions is smaller than the ratio from homicides to death sentences. On the whole, district-level disparities appear to be somewhat mitigated by the execution process.

Legal characteristics: Legal aspects of each homicide have an impact on which defendants are sentenced to death. Specifically, killers with multiple victims and those who commit rape or theft are represented at a higher rate among death sentences than homicides. Arson and killing child victims were rare, and no death sentences contained either characteristic. However, each of the legal characteristics that did have an effect on death sentencing had the opposite effect on the execution process. The offenders with multiple victims and those who committed theft were both less likely to be represented among executions than among death sentences, and no death sentences against offenders who committed rape were carried out. This means that, while legally aggravated cases are more likely to result in a death sentence, their death sentences are actually less likely to be carried out.

Extralegal characteristics: A number of extralegal characteristics related to the victim, defendant, and crime have significant impacts on the death sentencing process. Among these, defendants who kill female, stranger, or elderly victims, use a knife, or are male are represented at a higher rate among death sentences than homicides. Killers who use a gun or kill an intimate partner, by comparison, are represented at lower rates. With a few exceptions, each of these effects is amplified by the execution process. Killers of elderly and stranger victims, as well as those who use a knife, continue to be represented at a higher rate among executions than death

sentences, as did killers of female victims to a smaller extent. Likewise, the negative effect of intimate relation homicides was amplified, as no killers of intimate partners were executed. The proportion of male defendants technically remained constant from death sentences to executions, but that was because all of the death sentenced defendants were male. Finally, the effect of gun homicides shifted directions, as they were slightly overrepresented among executions relative to death sentences.

General Results

It is important to clarify that neither amplifying or mitigating the disparities created at the death sentencing level necessarily improves or worsens the equity of the sentencing process. For example, an effective system should discriminate against the most heinous and aggravated offenses, so it is doubtful that an appellate and execution process that mitigated that discrimination would create a more just system. At the same time, racial disparities are clearly inequitable, and thus an appellate system that mitigated them would be more just than a system that amplified or maintained them. As a result, a simple measure of whether executions amplify or mitigate is inadequate.

Even so, it is difficult to draw conclusions about how the execution process compares to the death sentencing one. In Harris County, for example, victim race disparities appear to be somewhat mitigated, while defendant race disparities are maintained or amplified; the effects of legal aggravators are both mitigated (low heinousness) and amplified (asphyxiation); defendant disparities are generally amplified, including disparities based on defendant culpability and defendant poverty; and victim characteristics are mostly mitigated. In Louisiana, by contrast, victim race disparities are amplified, while disparities associated with interracial homicides are mitigated; geographical disparities are amplified or maintained; and the effects of most crime

characteristics are amplified, with a few notable exceptions (such as the missing information categories). Finally, in South Carolina, victim race disparities are maintained while defendant race disparities are mitigated; district disparities are largely mitigated; the effects of legal aggravators are largely mitigated; and the effects of nearly all extralegal crime characteristics are amplified. Clearly, there are vast differences both between different variables and between the same variables across different case studies.

This last observation gives rise to a number of implications, not least that state-level differences may have a moderating effect on whether the execution process amplifies or mitigates death sentencing disparities. While the death sentencing and execution processes of states differ on a vast number of variables, one easily quantifiable example is discretion: how much discretion does the state exercise in selecting defendants for death sentences or executions? A system that selects nearly all defendants operates with a very low level of discretion, while a system that selects a very small number of defendants operates with a high level of discretion. Fortunately, the three case studies outlined above offer a substantial degree of variation with regard to discretion.

Table 7 outlines the death sentencing and execution rates for each case study. Harris County is clearly the least discriminating of all three. South Carolina was the most discriminating in terms of death sentences, while Louisiana was the most discriminating in terms of executions.

Table 7: Death Sentencing and Execution Rates by Case Study			
Case Study:	Death Sentencing Rate	Execution Rate (given a Death Sentence)	Execution Rate (overall)
Harris County, Texas	19.4%	51.0%	9.9%
Louisiana	5.9%	7.5%	0.4%
South Carolina	1.4%	20.6%	0.3%

As outlined above, it is more useful to focus on whether specific factors are amplified or mitigated than whether the execution stage as a whole has an amplifying or mitigating effect. The most commonly studied factor with regard to death sentencing disparities is victim race, and comparing the amplification or mitigation of victim race disparities with degree of discrimination yields an interesting correlation. In Harris County, the case with the highest execution rate (and therefore least discrimination), victim race disparities were somewhat mitigated. In South Carolina, the case with the median execution rate, victim race disparities were largely maintained. And in Louisiana, the case with the lowest execution rate (and therefore the highest degree of discrimination), victim race disparities were amplified. This correlation leads to the hypothesis that greater discrimination (i.e. lower execution rates) leads to greater racial disparities. To a certain extent, this is a logical suggestion: systems that select fewer individuals for execution naturally have more room for extralegal biases to play a role.

Unfortunately, this is a very difficult hypothesis to test, and a full examination must take place in a future paper. Figure 7 presents a test of an altered version of this hypothesis using a database compiled by Baumgartner of 8,672 death sentences from every state that has handed down a death sentence since 1972.[28] Because victim race is not readily available, Figure 7

[28] Baumgartner, 2021

instead presents offender race disparities compared to execution rates. Specifically, the y-axis presents the ratio of the percentage of white offenders at the execution level over the percentage of white offenders at the death sentencing level; this is the same ratio found in the third column of Tables 1 through 6. Higher ratios show that white offenders are overrepresented among executions relative to death sentences, while lower ratios show that they are underrepresented.

Figure 7: Comparison of Execution Rate and White Offender Ratio

As Figure 7 shows, low execution rates are strongly correlated with high overrepresentation ratios, and vice versa. The states that carry out more than 25% of death sentences all show ratios close to 1.00, meaning that the proportion of white offenders does not change from death sentences to executions. States with very small execution rates, however, execute white offenders at significantly higher rates than they sentence them to death. Of course, understanding whether these rates amplify, maintain, or mitigate existing disparities requires data on what disparities, if any, were created in the death sentencing process. This data is not readily

available. Nevertheless, the findings in Figure 7 support the hypothesis that states with lower execution rates (and therefore more discrimination) show greater racial disparities.

Section VI: Conclusion

As outlined previously, any conclusions that can be drawn from the above analyses are inevitably limited. The incredibly small number of executions, particularly in Louisiana and South Carolina, mean that it is impossible to calculate adjusted disparities, or odds ratios, through logistic regressions. As a result, the ratios presented above are necessarily unadjusted, and therefore the possibility of confounding variables remains high. Additionally, the small number of executions means that arbitrary changes could have had dramatic repercussions. For example, imagine a hypothetical defendant in South Carolina who committed a homicide with a knife, was sentenced to execution, and happened to die of a heart attack on the day before his scheduled execution. Had he lived a day longer, his execution would have counted as an additional execution of a knife-using defendant, which would have caused the execution ratio associated with the knife variable to jump from 1.62 to 2.78. As this hypothetical example shows, the size of each individual ratio is subject to a significant degree of arbitrariness.

A second, and more important, limitation is that each of the case studies focused on variables expected to have an impact on death sentencing decisions (or, in the case of South Carolina, death seeking decisions). While many of these variables undoubtedly have impacts on the execution stage, there is no reason to believe that other variables do not also impact this latter process. As a result, the analyses above are likely limited in the scope of which relevant case characteristics they include. Examples of other factors could include execution rate (as outlined above), length of time since death sentence, attorney type during the appellate process, other defendant factors (such as age, health condition, mental health status, etc) that affect their ability

to be legally executed, a measure of errors during the original trial, or any other number of variables. Future investigation is clearly needed.

Fortunately, the above findings do present a suggested path for how to conduct this investigation. Ideally, future research should begin along the lines of a traditional Baldus-type study by examining a wide pool of death eligible offenders and collecting data on both legally relevant and extralegal factors. However, this research should also collect information on factors hypothesized to influence executions, such as the ones outlined above. This will allow for a comparison of which factors influence each stage of the death sentencing and execution process and whether the latter amplifies, maintains, or mitigates disparities created in the former, or introduces new disparities altogether. Of course, it is also possible that the execution process, even more so than the death sentencing process, has no overriding causal factors and instead is governed to a great extent by arbitrariness. While arbitrariness may be more disappointing than extralegal disparities from a social science viewpoint, from the perspective of justice, both are damning.

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