Why do Louisiana Prosecutors Seek the Death Penalty in Aggravated Murder Cases? 
A Quantitative Study into the Effect of Seeking the Death 
Penalty on Prosecutorial Success in Louisiana 

Maxime Pradier 
A Senior Thesis in Political Science 
Advised by Professor Gregory Huber 
22 April 2019
Note: I chose to format this senior essay with single spacing. My adviser Prof. Huber approved this departure from the department’s guidelines.
Abstract
In this paper, I investigate a database monitoring the progression of aggravated murder cases prosecuted in Louisiana between 2012 and 2017. I seek to assess the plausibility of the “behavioral hypothesis,” a hypothesis claiming that seeking the death penalty (rather than a lesser penalty) in an aggravated murder case affects the behavior of the defendant, the jurors and the judge in a way that increases the probability that the case will result in a conviction and in a harsh sentence (i.e. life imprisonment or death). After closely comparing the progression of capital cases with that of non-capital cases, I find little evidence for this hypothesis. I find that capital cases are just as likely to result in a conviction as non-capital cases. I likewise find that capital cases are just as likely to result in a harsh sentence as non-capital cases. Interestingly, I find that capital cases are more likely to be indicted and that they are more likely to result in a “guilty as charged” plea deal, although these trends do not in the end make it more likely that capital cases will result in a conviction or in a harsh sentence. These findings come with important policy implications. If seeking the death penalty does not make prosecutorial success more likely, then the net benefit of seeking the death penalty is likely very negative, as the cost of capital prosecution is very high. Informing prosecutors about this study’s findings may therefore help induce changes in their use of prosecutorial discretion.

Introduction
On par with national trends1, the state of Louisiana has witnessed a significant decrease in its number of executions in recent decades. Since the end of the brief de facto prohibition of capital punishment in 1976, 28 defendants have been executed in Louisiana2. Only three defendants have been executed since 2000, and no execution has occurred since 20103. Mirroring these trends, the rate of death sentencing in Louisiana has also reached very low levels. In 2012, for instance, only 2.5% of death-eligible cases that closed that year resulted in a death sentence4.

Despite these trends, many prosecutors continue to seek the death penalty in Louisiana. In 2012, for instance, about 80% of all open death-eligible cases were capital5. I think it unlikely that Louisiana prosecutors are simply oblivious to the declining rate of death sentencing in the state; I find it more likely that prosecutors seek the death penalty for a purpose other than that of

---

3 Ibid.
4 According to the database used in this study (presented below).
5 Ibid.
obtaining death sentences. Many public defenders I met in Louisiana in fact believe that prosecutors seek the death penalty because they think that doing so makes prosecutorial success more likely\(^6\). According to this view, prosecutors believe that seeking the death penalty affects the behavior of defendants, judges, and juries in a way that increases the probability that cases will result in a conviction and in a harsh sentence (i.e. life imprisonment or death). For instance, prosecutors are thought to believe that defendants are more likely to take a plea deal when facing the death penalty than when facing a lesser penalty. Likewise, they are thought to believe that juries are more likely to convict a defendant when the case is capital. I refer to the belief that seeking the death penalty increases the conviction rate and sentence severity through such behavioral changes as the “behavioral hypothesis.”

In this study, I explored a rich dataset monitoring the progression of aggravated murder cases in Louisiana from 2012 to 2017 so as to provide some insights on the behavioral hypothesis. The dataset includes all cases whose defendants were arrested for aggravated murder between 2012 and 2017, for a total of over 600 cases. It was assembled by lawyers and interns working at the Louisiana Capital Assistance Center (LCAC), a non-profit law office representing indigent capital defendants in Louisiana. The dataset includes a wide array of information about each case’s progression, such as the case’s outcome and the stage of the proceedings when the death penalty was dropped (if at all).

After carefully comparing the progression of capital cases and with that of non-capital cases, I reach the following conclusions:

I find that cases that enter indictment as capital are more likely to be indicted than cases that enter indictment as non-capital. I argue that this correlation is unlikely to spuriously result from a correlation between capital status and case strength. Indeed, I do not find that cases indicted as capital are on average stronger than cases indicted as non-capital. However, I also argue that the correlation is unlikely to be causal either. Indeed, if grand jurors indicted capital cases more often simply because the cases are capital, then cases indicted as capital should be weaker on average than cases indicted as non-capital. But this is not the case.

I also find that cases that are capital at their outcome (i.e. at trial, plea, or post-indictment dismissal) are more likely to result in a “guilty as charged” plea deal than cases that are non-capital at their outcome. I argue that this correlation is unlikely to spuriously result from a correlation between capital status and case strength at the outcome. Indeed, cases that are capital at their outcome do not appear to be stronger on average than cases that are non-capital at their outcome. I suggest that the correlation is most likely causal in nature: I hypothesize that capital defendants are more willing to take “guilty as charged” plea deals than non-capital defendants because they wish to avoid facing a capital trial.

\(^6\) Bourke, Richard (Director of the Louisiana Capital Assistance Center). Personal interview. June 2017.
In the end, however, these two trends have no impact on the cases’ final outcome. Even if cases that are capital at indictment are more likely to be indicted, they do not perform any better than cases that are non-capital at indictment: they are just as likely to result in a conviction and in a harsh sentence. Likewise, even if cases that are capital at their outcome are more likely to result in a “guilty as charged” plea deal, they do not perform any better than cases that are non-capital at their outcome. In sum, these results seem inconsistent with the behavioral hypothesis.

These findings have important policy implications. Prosecuting capital cases is very costly, both in terms of financial resources and human resources. And so this study’s findings suggest that the net benefit of seeking the death penalty is likely very negative. Informing prosecutors about these findings may help induce changes in their use of prosecutorial discretion.

The Death Penalty in the United States and in Louisiana

Over the course of the 20th century, the U.S. Supreme Court has significantly restricted states’ use of the death penalty7. While the death penalty used to be available to punish a wide variety of crimes (murder, treason, rape, etc.), the Supreme Court has progressively compelled states to restrict their use of capital punishment. In Coker v. Georgia (1977), for instance, the Supreme Court issued a broad but stringent guideline on the matter, ruling that a penalty must be proportional to the crime8. In Coker, for instance, the Court found that this proportionality requirement prevented a state from sentencing to death a defendant who had been found guilty of raping an adult woman9. Eventually, the Supreme Court ruled in Kennedy v. Louisiana (2008) that murders committed with an “aggravated factor” are the only crimes against the person that may be punished with the death penalty10. The Court opinion states that the ruling does not apply to “treason, espionage, terrorism, and drug kingpin activity,” that is crimes that the Court considers “offenses against the State.” Accordingly, several states punish acts such as treason (e.g. California11) or plane hijacking (e.g. Mississippi12) with capital punishment, although no such cases have occurred in recent years.

---

9 Ibid.
State legislation varies in what is considered murder and what is recognized as an “aggravating factor.” In Louisiana, the criminal code considers as murders those homicides that are committed with “a specific intent to kill or to inflict great bodily harm.” The code distinguishes between second-degree murders and first-degree murders, the latter involving an aggravated factor. Louisiana’s criminal code recognizes over a dozen aggravated factors, such as murdering a child under 12 or an adult above 65. Consistent with the U.S. Supreme Court’s jurisprudence, only first-degree murder can be punished with the death penalty. Second-degree murders are punished with life imprisonment without possibility of parole. Despite the legal distinction between first- and second-degree murder, it is not unusual for prosecutors in Louisiana to “overcharge” homicide cases: prosecutors tend to seek first-degree murder even in cases that are more likely to be second-degree murder cases, just in case.

In addition to restricting the range of cases eligible to capital punishment, the U.S. Supreme Court has also issued guidelines for sentencing defendants convicted of a capital crime. In Gregg v. Georgia (1976), in particular, the Court ruled that defendants convicted of a capital crime could not be sentenced to death automatically. Rather, the Court ruled, state legislation must provide juries with alternative penalties that they can sentence the defendants to. Most state laws, including Louisiana’s, provide life imprisonment without possibility of parole as such an alternative.

The Gregg decision also found unconstitutional what are known as “unitary trials,” that is trials wherein the jury or judge is asked to determine simultaneously whether the defendant is guilty and whether the defendant should be punished with the death penalty. Consistently with this jurisprudence, capital trials are nowadays split into two phases: one wherein a verdict of “innocent” or “guilty” is rendered (the “guilt determination phase”) and one wherein the

---


14 Ibid.


16 Bourke, Richard (Director of Louisiana Capital Assistance Center). Personal interview. June 2017.


19 Ibid.
convicted defendant’s penalty is determined (the “sentencing phase”). The Gregg case, as well as the closely-following decision Locket v. Ohio (1978), emphasized the Constitutional role that mitigating factors must play in the sentencing phase. The Court’s jurisprudence indeed indicates that defendants have a right to present mitigating factors to the jury or judge who is tasked with determining the sentence. In Penry v. Lynaugh, for instance, the Supreme Court found that a jury may consider a defendant’s alleged mental deficiencies during the sentencing phase.

I end this section by briefly presenting the standard progression of an aggravated murder case in Louisiana. When someone is suspected of having committed first-degree murder, the person is arrested and charged with first-degree murder. The prosecutor in charge of the case decides whether to seek the death penalty or life imprisonment against the defendant, a decision that the prosecutor is free to reverse later on as long as the charges are not downgraded to a lesser offense. The prosecutor may also dismiss the case at any point, although this very rarely occurs before indictment. If the case is not dismissed, it eventually goes to a grand jury, who determines whether there is probable cause to indict the defendant. The grand jury can indict the defendant for first-degree murder or for a lesser crime (e.g. second-degree murder); it can also refuse to indict the defendant. If the defendant is not indicted for first-degree murder, the prosecutor may no longer seek the death penalty. Following indictment, the prosecutor is free to downgrade (but not upgrade) the charges faced by the defendant. Eventually, the case either goes to trial, results in a plea deal, or is dismissed by the prosecutor. If a capital case results in a plea deal, the deal will almost certainly involve dropping the death penalty. If the case goes to trial, the jury may refuse to sentence to death during the sentencing phase. Note that defendants are free to give up their right to be tried by a jury, having the option of being tried by a judge instead.

Hypotheses

According to the “behavioral hypothesis” introduced above, seeking the death penalty affects the behaviors of defendants, juries and judges in a way that increases the conviction rate

---

22 Ibid.
24 Bourke, Richard (Director of Louisiana Capital Assistance Center). Personal interview. June 2017.
25 To be precise, the prosecutor does not downgrade the charges. As mentioned earlier, prosecutors often overcharge defendants, seeking for instance both first-degree murder, second-degree murder and manslaughter. If the grand jury accepts all these charges (as it often does), the prosecutor may dismiss the most severe charge after indictment, thus effectively “downgrading” the case.
and the severity of the penalty. In this section, I outline more explicitly what these behavioral changes are and how they are predicted to occur as a result of the capital status. In formalizing these hypotheses, I draw on the views held by many capital defenders in Louisiana.

Let us first consider the effect of seeking the death penalty on defendants. The “behavioral hypothesis” expects that defendants are risk-averse, and so it predicts that defendants are likely to take plea deals to avoid the uncertainty of a trial. It further expects that defendants are all the more likely to take a plea deal as the severity of the punishment that they face increases. And so, the hypothesis predicts that defendants are more likely to take a plea deal if they face capital punishment than if they face life imprisonment. It is true that death sentences are very rare in Louisiana nowadays, but defendants are likely risk-averse enough to refuse to take the chance. In addition, it is likely that defendants overestimate the probability that they could be sentenced to death, as prospect theory tells us that risk-averse people tend to overestimate small probabilities of loss-incurring events when making decisions under uncertainty.

In sum, prosecutors should obtain more plea deals (and therefore more convictions) if they seek the death penalty rather than life imprisonment.

Defendants’ willingness to avoid the death penalty is in fact expected to be so great that defendants are likely to plead “guilty as charged” to first-degree murder so as to avoid facing a capital trial. By contrast, defendants facing a sentence of life imprisonment have no incentive to plead guilty to first-degree murder. In fact, they do not even have an incentive to plead guilty to second-degree murder, as second-degree murder is also punished with life imprisonment; it is rational for defendants in non-capital cases to only plead to manslaughter, which carries a much smaller penalty. In other words, seeking the death penalty should also be a way for prosecutors to obtain more “guilty as charged” pleas and therefore harsher sentences.

Let us then consider the effect of seeking the death penalty on juries (or judges, when defendants give up their right to be tried by their peers), starting with grand juries. While grand juries are technically not permitted to do so, it is plausible that grand jurors regard a case’s capital status as a signal for the case’s strength, a heuristic that would in turn affect their decision to indict the case. Since grand jury proceedings tend to be shorter and less in-depth than actual trials, it is indeed not implausible that grand jurors rely partially on heuristics to determine probable cause, consciously or not. In sum, seeking the death penalty should be a way for prosecutors to get more defendants indicted and thus, plausibly, convicted.

---

26 Bourke, Richard (Director of Louisiana Capital Assistance Center). Personal interview. June 2017.

Let us now consider trial juries. First, it is plausible that trial jurors, like grand jurors, regard capital status as a signal for strength, although most likely to a lesser extent than grand jurors given the heightened standard that the prosecution is subject to during trial. Second, jurors are likely to regard life imprisonment as less severe a penalty when the case is capital than when it is not, a cognitive bias that could make it easier for jurors to convict (and sentence to life imprisonment) when the case is capital. Indeed, it is very plausible that jurors regard a penalty as less severe when it is contrasted with a more severe penalty, especially if the penalty it is contrasted to is as severe as a death penalty. While I do not have independent evidence to assess the plausibility of this cognitive bias, I mention it as a reasonable possibility. Note that the bias could occur even though capital trials separate the guilt determination phase from the sentencing phase, as jurors are aware that the case is capital in the guilt determination phase. In sum, seeking the death penalty should be a way for prosecutors to get more defendants convicted.

These predicted causal mechanisms can be summed up in the following hypotheses:

- Hypothesis 0: Seeking the death penalty increases the probability that a case gets indicted.
- Hypothesis 1: Seeking the death penalty increases the probability that a case results in a conviction.
  - Hypothesis 1bis: Seeking the death penalty increases the probability that a tried case results in a conviction.
- Hypothesis 2: Seeking the death penalty increases the probability that a case results in a life imprisonment sentence or a death penalty. For convenience, I refer to a sentence that is either a life imprisonment (“LI”) sentence or a death penalty (“DP”) sentence as a “LI/DP” sentence. I refer to the related rate as the “LI/DP” rate.
- Hypothesis 3: Seeking the death penalty increases the probability that a case results in a plea deal.
  - Hypothesis 3bis: Seeking the death penalty increases the probability that a case results in a “guilty as charged” plea deal.

**Methodology**

**Dataset**

The dataset that I use in this paper was assembled at the Louisiana Capital Assistance Center (LCAC), a non-profit capital law office established in New Orleans in 1993. LCAC offers full legal representation to indigent defendants in Louisiana. In addition, LCAC runs various policy research projects. One such project involved assembling the database that I used in this study. Eileen Johnson (YC ‘19), Arjun Malik (UPenn ‘18), and I significantly updated the database during the internship that we completed at LCAC during the summer of 2017.
The dataset contains standardized information on all cases whose defendants were arrested for first-degree murder in Louisiana between 2012 and 2017. The list of all such cases was transmitted to LCAC by the Louisiana Office of the Public Defender. LCAC interns then gathered information on these cases from public court minutes obtained from Louisiana’s Clerk of Court offices. The standardized variables contain a wide array of information on the cases. It includes information about each case’s arrest (charges, date), indictment (outcome, date), and final outcome (plea, trial or dismissal by the prosecution; verdict and possible penalties). It also includes information on when the death penalty was dropped by the prosecutor (if at all).

**Missing data**

The dataset includes a handful of cases that lack some key information. Most importantly, there are 6 cases (out of the 432 closed cases) whose capital status was not filled out. This information can however be inferred for certain stages of the proceedings. For instance, 2 of these 6 cases were not indicted for first-degree murder, and so we know that these cases were non-capital after indictment. When the capital status of these cases cannot be inferred in such a way, I drop the cases from my analysis. Since a very small fraction of cases are affected, I do not expect that dropping these cases affected the results of this study.

**Data analysis**

To test Hypotheses 0 to 3b above, I compare the progression of capital cases with the progression of non-capital cases, as described in this section. Because the capital status of a case can change as the case progresses, I discriminate between capital and non-capital cases at various stages of the proceedings: before indictment, at indictment, during the case’s post-indictment outcome, and during the case’s final stage. Table 1 defines these stages in greater detail. I use this partitioning because the outcome of each of these stages may plausibly both affect the case’s performance (i.e. verdict and sentence) and itself be affected by the capital status of the case. Note that the behavioral hypothesis predicts that only some some of these outcomes are affected by the capital status of the case. For instance, the behavioral hypothesis does not predict that cases that are capital before indictment are less likely to be dismissed before indictment. Yet, I test for all these relationships anyway, as finding unpredicted relationships may affect the plausibility of the behavioral hypothesis. I now describe the comparisons that I make for each stage.

The pre-indictment stage spans from arrest to indictment; its outcome is whether the case gets dismissed by the prosecution. Insofar as the pre-indictment dismissal rate may affect the conviction rate (and thus also the LI/DP rate), I investigate whether the capital status of a case impacts its pre-indictment dismissal rate. To put this comparison in context, I also determine whether cases that are capital before indictment are more likely to result in a conviction and in a LI/DP sentence than cases that are non-capital before indictment. Indeed, a decrease in the
dismissal rate would be valuable to prosecutors only if it did not come with a decrease in the conviction rate and/or the LI/DP rate. Note that the behavioral hypothesis does not predict any relationship between a case’s capital status and its pre-indictment outcome.

The indictment stage includes the grand jury proceedings; its outcome is the indictment result—that is, whether the case gets indicted and, if so, the indictment charges. Insofar as the indictment outcome of a case may impact its performance, I investigate whether the capital status of a case impacts its indictment outcome. In particular, I determine whether cases that enter indictment as capital are more likely to get indicted than cases that enter indictment as non-capital. I also determine whether they are more likely to get indicted for first-degree murder. Again, I put this comparison in context by determining whether indicted cases are in the end more likely to result in a conviction and in a LI/DP sentence if they entered indictment as capital. Indeed, an increase in the indictment rate would be useful to prosecutors only if it did not come with a decrease in the conviction rate and/or in the LI/DP rate. Note that I compare the conviction rate and the LI/DP rate of cases indicted for first-degree murder separately from the conviction rate and the LI/DP rate of cases indicted for a lesser offense, as the effect of a case’s capital status may be affected by the indictment charges (although such an interaction is not predicted by the behavioral hypothesis).

The post-indictment stage spans from the indictment to the case’s final stage; its outcome is whether the prosecutor downgrades the case’s charges. Since first-degree murder cases may have a different conviction rate and LI/DP rate than lesser offense cases, I investigate whether capital cases indicted for first-degree murder cases are less likely to be downgraded than

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description of the stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-indictment</td>
<td>This stage spans from arrest to indictment. Most cases are capital at this stage: 363 cases were capital cases while only 63 were non-capital. At this stage, the cases may be dismissed by the prosecution.</td>
</tr>
<tr>
<td>Indictment</td>
<td>This stage only includes indictment. Most cases enter indictment as capital: 356 cases enter indictment as capital, 60 enter indictment as non-capital. At this stage, the grand jury may indict the defendant for first-degree murder, indict the defendant for a lesser offense, or not indict the defendant at all.</td>
</tr>
<tr>
<td>Post-indictment</td>
<td>This stage spans from the indictment to the final stage. At this stage, the prosecution may downgrade the charges faced by the defendant, a decision that may affect the capital status of the case.</td>
</tr>
<tr>
<td>Final stage</td>
<td>This stage only includes the case’s end-result: trial, plea or dismissal. Most cases reach this stage as non-capital: 76 cases were capital, 310 were not.</td>
</tr>
</tbody>
</table>

Table 1: The four stages presented in greater detail, including their outcome.
non-capital cases indicted for first-degree murder. Again, I put this comparison in context by determining whether downgraded cases are in the end more likely to result in a conviction and in a LI/DP sentence if they were downgraded as capital.

The final stage includes the case’s final outcome: the case is either tried, pleaded to, or dismissed. I investigate whether cases that are capital in this final stage are more likely to result in a conviction and in a LI/DP sentence. I also determine whether capital cases are more likely to result in a plea deal than non-capital cases.

To better interpret all these comparisons, I test whether the differences in proportions are statistically significant using Pearson’s $\chi^2$ tests. I report the p-values alongside the $\chi^2$ values.

Before presenting the results, I stress an obvious but important point. The comparisons presented above only indicate whether the capital status of a case is correlated with the stages’ outcomes and the case’s performance. If I find that the relevant correlations hold, I will then have to determine whether the correlations are plausibly causal in nature before I can conclude on the plausibility of the behavioral hypothesis. Indeed, it is possible that any correlation that I find is simply spurious. There is in fact a very likely plausible source of spuriousness that I particularly scrutinize the data for: a case’s strength may affect its capital status and the case’s performance/stage outcomes. Indeed, it is possible that prosecutors are more likely to seek the death penalty in cases that they are more confident about.

Two conceptions of “strength” must be distinguished. Case strength derives both from the quality of the evidence and from the quality of the prosecution relative to the quality of the defense. I refer to the strength deriving from the quality of the evidence as “intrinsic strength.” I refer to the strength deriving from both the quality of the evidence and from the quality of the prosecution relative to the quality of the defense as “effective strength.” Since capital cases tend to enjoy a defense of greater quality than non-capital cases, a case of any given intrinsic quality should be of greater effective quality if it is non-capital than if it is capital. The source of spuriousness that I should scrutinize the data for, I argue, involves effective quality, not intrinsic quality. Indeed, if prosecutors base their decision to seek the death penalty on strength, I find it most likely that they not only consider the quality of the evidence but also the quality of the prosecution relative to the quality of the defense.

Results and Comments

Table 3 through Table 6 compare capital cases with non-capital cases at each of the stages introduced above.

Pre-indictment

Table 3 compares cases that are capital before indictment with cases that are non-capital before indictment. Note first of all that most cases are capital at this stage of the proceedings:
cases are capital while only 63 cases are non-capital. Table 3 shows that capital cases are less often dismissed before indictment than non-capital cases, although the difference is not statistically significant ($\chi^2 = 0.85$, $p = 0.36$). The table also highlights that cases that are capital before indictment result in a conviction more often than cases that are non-capital, although the difference is not statistically significant ($\chi^2 = 1.09$, $p = 0.30$). The table finally shows that cases that are capital at this stage result in a LI/DP sentence more often than non-capital cases, although the difference is again not statistically significant ($\chi^2 = 0.32$, $p = 0.25$). The difference is smaller if we compare the LI/DP rates of only those cases that resulted in a conviction ($\chi^2 = 0.24$, $p = 0.62$). In sum, these trends do not suggest that a case’s pre-indictment capital status has a significant impact on its pre-indictment outcome or its final performance. This finding is consistent with the behavioral hypothesis.

**Indictment**

Tables 4a and 4b compare cases that enter indictment as capital with cases that enter indictment as non-capital. Table 4a compares indictment and conviction rates while Table 4b compares LI/DP rates.

Note first of all that most cases are still capital at this stage of the proceedings: 356 cases enter indictment as capital, while only 60 enter indictment as non-capital. Table 4a shows that capital cases tend to be indicted more often than non-capital cases: while 94% of capital cases were indicted, 80% of non-capital cases were indicted. This difference is statistically significant at the 0.01 level ($\chi^2 = 12.12$, $p < 0.01$). Capital cases are indicted for first-degree murder slightly

<table>
<thead>
<tr>
<th>Before indictment</th>
<th>Capital cases – 363 in total –</th>
<th>Non-capital cases – 63 in total –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraction of cases that got dismissed ($\chi^2 = 0.85$, $p = 0.36$)</td>
<td>2% – 7 out of 363</td>
<td>5% – 3 out of 63</td>
</tr>
<tr>
<td>Fraction of cases that resulted in a conviction ($\chi^2 = 1.09$, $p = 0.30$)</td>
<td>72% – 263 out of 363</td>
<td>65% – 41 out of 63</td>
</tr>
<tr>
<td>Fraction of cases that resulted in a LI/DP sentence ($\chi^2 = 0.32$, $p = 0.25$)</td>
<td>32% – 117 of 363</td>
<td>25% – 16 out of 63</td>
</tr>
<tr>
<td>Fraction of cases ending in a conviction that resulted in a LI/DP sentence ($\chi^2 = 0.24$, $p = 0.62$)</td>
<td>44% – 117 of 263</td>
<td>39% – 16 out of 41</td>
</tr>
</tbody>
</table>

Table 3: comparing capital cases and non-capital cases before indictment. The raw counts of cases come after the dashes. The $\chi^2$ value and the p-value testing for the statistical significance of the difference in proportions is indicated in the first column.
more often than non-capital cases, although the difference is not statistically significant ($\chi^2 = 0.30, p = 0.58$).

Table 4a additionally shows that cases that enter indictment as capital result in a conviction slightly more often than cases that enter indictment as non-capital: 74% of capital cases went on to result in a conviction, while 68% of non-capital cases did. The difference is however not statistical significance ($\chi^2 = 0.55, p = 0.46$), and it seems to be only due to the fact that capital cases are more often entered than non-capital cases. Indeed, if we compare the conviction rates of cases that were indicted, non-capital cases fare better (although not statistically significantly): cases that are indicted for first-degree murder result in a conviction slightly more often if they entered indictment as non-capital (87% vs. 83%). Likewise, cases that are indicted for a lesser offense result in a conviction more often if they entered indictment as non-capital (83% vs. 73%).

<table>
<thead>
<tr>
<th>At indictment</th>
<th>Capital cases – 356 in total –</th>
<th>Non-capital cases – 60 in total –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraction of cases that were indicted ($\chi^2 = 12.12, p &lt; 0.01$)</td>
<td>94% – 335 out of 356</td>
<td>80% – 48 out of 60</td>
</tr>
<tr>
<td>Fraction of cases that were indicted for first-degree murder ($\chi^2 = 0.30, p = 0.58$)</td>
<td>55% – 195 out of 356</td>
<td>50% – 30 out of 60</td>
</tr>
<tr>
<td>Of which resulted in a conviction ($\chi^2 = 0.09, p = 0.77$)</td>
<td>83% – 161 out of 195</td>
<td>87% – 26 out of 30</td>
</tr>
<tr>
<td>Of which got dismissed ($\chi^2 = 0.01, p = 0.92$)</td>
<td>11% – 21 out of 195</td>
<td>13% – 4 out of 30</td>
</tr>
<tr>
<td>Fraction of cases that were indicted for a lesser offense ($\chi^2 = 1.52, p = 0.22$)</td>
<td>39% – 140 out of 356</td>
<td>30% – 18 out of 60</td>
</tr>
<tr>
<td>Of which resulted in a conviction ($\chi^2 = 0.45, p = 0.50$)</td>
<td>73% – 102 out of 140</td>
<td>83% – 15 out of 18</td>
</tr>
<tr>
<td>Of which got dismissed ($\chi^2 = 1.79, p = 0.18$)</td>
<td>22% – 31 out of 140</td>
<td>6% – 1 out of 18</td>
</tr>
<tr>
<td>Fraction of cases that resulted in a conviction ($\chi^2 = 0.55, p = 0.46$)</td>
<td>74% – 263 out of 356</td>
<td>68% – 41 out of 60</td>
</tr>
</tbody>
</table>

Table 4a: comparing capital cases and non-capital cases entering indictment (indictment and conviction rates). The raw counts of cases come after the dashes. The $\chi^2$ value and the p-value testing for the statistical significance of the difference in proportions is indicated in the first column.
<table>
<thead>
<tr>
<th>At indictment</th>
<th>Capital cases – 356 in total –</th>
<th>Non-capital cases – 60 in total –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraction of cases that resulted in a LI/DP sentence ($\chi^2 = 0.64$, p = 0.42)</td>
<td>33% – 117 out of 356</td>
<td>27% – 16 out of 60</td>
</tr>
<tr>
<td>Fraction of cases ending with a <em>conviction</em> that resulted in a LI/DP sentence ($\chi^2 = 0.40$, p = 0.53)</td>
<td>44% – 117 out of 263</td>
<td>39% – 16 out of 41</td>
</tr>
<tr>
<td>Fraction of cases <em>indicted for</em> first-degree murder that resulted in a LI/DP sentence ($\chi^2 = 0.21$, p = 0.64)</td>
<td>43% – 84 out of 195</td>
<td>37% – 11 out of 30</td>
</tr>
<tr>
<td>Fraction of cases <em>indicted for</em> first-degree murder and ending with a <em>conviction</em> that resulted in a LI/DP sentence ($\chi^2 = 0.52$, p = 0.47)</td>
<td>52% – 84 out of 161</td>
<td>42% – 11 out of 26</td>
</tr>
<tr>
<td>Fraction of cases <em>indicted for</em> a lesser offense that resulted in a LI/DP sentence ($\chi^2 = 0.01$, p = 0.92)</td>
<td>24% – 33 out of 140</td>
<td>28% – 5 out of 18</td>
</tr>
<tr>
<td>Fraction of cases indicted for a lesser offense and ending with a <em>conviction</em> that resulted in a LI/DP sentence ($\chi^2 \sim 0$, p \sim 1)</td>
<td>32% – 33 out of 102</td>
<td>33% – 5 out of 15</td>
</tr>
</tbody>
</table>

Table 4b: comparing capital cases and non-capital cases entering indictment (LI/DP rate). The raw counts of cases come after the dashes. The $\chi^2$ value and the p-value testing for the statistical significance of the difference in proportions is indicated in the first column.

Table 4b additionally suggests that capital cases result in a LI/DP sentence more often than non-capital cases. The difference is however not statistically significant ($\chi^2 = 0.64$, p = 0.42). This is also true if we compare the LI/DP rate of only those cases that went on to result in a conviction ($\chi^2 = 0.40$, p = 0.53). If we limit our attention to cases indicted for first-degree murder cases, capital cases again have a slightly higher LI/DP rate than non-capital cases, although it still is not statistically significant ($\chi^2 = 0.21$, p = 0.64 for all indicted cases; $\chi^2 = 0.52$, p = 0.47 for only those cases that ended in a conviction). If we limit our attention to cases indicted for a lesser offense, non-capital cases have a slightly higher LI/DP rate, although the difference is not statistically significant ($\chi^2 = 0.01$, p = 0.92 for all indicted cases; $\chi^2 \sim 0$, p \sim 1 for only those cases that ended in a conviction).

In sum, the only statistically significant correlation that I find at the indictment stage is that cases entering indictment as capital are indicted more often than cases entering indictment as non-capital. This correlation is unlikely to be causal in nature. Indeed, if capital cases were indicted more often simply because they are capital, then the effective strength of indicted capital cases should on average be weaker than the effective strength of indicted non-capital cases. But
this is not the case: the conviction rate and the dismissal rate of indicted capital cases are statistically indistinguishable from the conviction rate and the dismissal rate of indicted non-capital cases. Note that this finding seems to discredit Hypothesis 0.

Note that the correlation is also unlikely to spuriously result from a correlation between capital status and effective strength. Indeed, capital cases are not stronger than non-capital cases: the conviction rate and the dismissal rate of indicted capital cases are statistically indistinguishable from the conviction rate and the dismissal rate of indicted non-capital cases. It would be tempting to hypothesize that the correlation between capital status and effective strength only holds before and at indictment. This would explain why capital cases do better at indictment (higher indictment rate) but not after (same conviction rate and dismissal rate). However, I do not think that this suggestion holds water. It is not clear why capital cases would lose strength after indictment. And even if it were, it is unclear why prosecutors hypothesized to seek correlating capital status with effective strength would not adjust the capital status of their cases after indictment so as to reestablish the correlation.

Having rejected the most plausible explanations, I am not sure how to explain this correlation. Whatever its cause, the correlation between capital status and indictment rate in the end does not matter for prosecutors, as the boost in indictment that capital cases enjoy does not result in a boost in the conviction rate or in the LI/DP rate.

<table>
<thead>
<tr>
<th>Post-indictment</th>
<th>Capital cases – 195 in total –</th>
<th>Non-capital cases – 30 in total –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraction of cases indicted for first-degree murder cases that got downgraded to a lesser offense ($\chi^2 = 63.93, p &lt; 0.01$)</td>
<td>5% – 9 out of 195</td>
<td>57% – 17 out of 30</td>
</tr>
<tr>
<td>Fraction of downgraded cases that ended with a conviction ($\chi^2 \sim 0, p \sim 1$)</td>
<td>89% – 8 out of 9</td>
<td>94% – 16 out of 17</td>
</tr>
<tr>
<td>Fraction of downgraded cases that resulted in a LI/DP sentence ($\chi^2 \sim 0, p \sim 1$)</td>
<td>44% – 4 out of 9</td>
<td>53% – 9 out of 17</td>
</tr>
<tr>
<td>Fraction of downgraded cases ending in a conviction that resulted in a LI/DP sentence ($\chi^2 \sim 0, p \sim 1$)</td>
<td>50% – 4 out of 8</td>
<td>56% – 9 out of 16</td>
</tr>
</tbody>
</table>

Table 5: comparing capital cases and non-capital cases at the post-indictment stage. The raw counts of cases come after the dashes. The $\chi^2$ value and the p-value testing for the statistical significance of the difference in proportions is indicated in the first column.
**Post-indictment**

Table 5 compares cases that are capital at the post-indictment stage with cases that are non-capital at the post-indictment stage. It shows that capital cases are much less often downgraded than non-capital cases: while 5% of capital cases get downgraded, 57% non-capital cases do. The difference is highly statistically significant ($\chi^2 = 63.93, p < 0.01$). It is unclear from the data what the cause of this discrepancy is.

Table 5 additionally shows that the conviction rate of cases downgraded as capital is statistically indistinguishable from the conviction rate of cases downgraded as non-capital ($\chi^2 \sim 0, p \sim 1$). Likewise, it shows that the LI/DP rate of cases downgraded as capital is statistically indistinguishable from the LI/DP rate of cases downgraded as non-capital, whether we compare all downgraded cases ($\chi^2 \sim 0, p \sim 1$) or only those downgraded cases that resulted in a conviction ($\chi^2 \sim 0, p \sim 1$). In sum, while the post-indictment outcome is correlated with the case’s post-indictment capital status, the case’s final performance is not.

**Final stage**

Table 6a and 6b compare cases that are capital at their outcome with cases that are non-capital at their outcome. Table 6a primarily compares conviction rates while Table 6b primarily compares LI/DP rates. I indicate the rates of non-capital cases indicted for a lesser offense, although I will not compare them with the rates of capital cases. Indeed, it does not appear that the capital status of a case influences the charges that it faces in any meaningful way, and so it would not make sense to compare capital first-degree murder cases with non-capital lesser offense cases. At the indictment stage, I indeed did not find that the capital status has a significant effect on the indictment charges. Additionally, while I found at the post-indictment stage that there is a correlation between capital status and downgrading rate, this correlation turns out to be irrelevant, as capital downgraded cases do not fare any differently from non-capital downgraded cases.

Table 6a indicates that most cases are non-capital at the final stage: 76 cases are capital while 310 are not. Table 6a also suggests that capital cases are more often dismissed than non-capital cases: while 18% of capital cases were dismissed, 8% of non-capital cases were. The difference is statistically significant at the 0.05 level ($\chi^2 = 3.69, p = 0.05$). This is an unexpected finding, and I am not sure how to explain it. Whatever its cause, this discrepancy does not matter in the end, as the conviction rate and the LI/DP rate of capital cases is statistically indistinguishable from the conviction rate and the LI/DP rate of non-capital cases: 82% of the former resulted in a conviction while 88% of the latter did ($\chi^2 = 0.96, p = 0.33$) and 46% of the former resulted in a LI/DP sentence while 44% of the latter did ($\chi^2 = 0.81, p = 0.37$).

Table 6a also indicates that capital cases go to trial less often than non-capital cases: while 18% of capital cases go to trial, 35% of non-capital cases do. The difference is statistically
Table 6a: comparing capital cases and non-capital cases at their final stage. The raw counts of cases come after the dashes. The $\chi^2$ value and p-value testing for the statistical significance of the difference in proportions is indicated in the first column. As explained in the body text, I only compare the case counts of the second and third column (in blue).

significant at the 0.05 level ($\chi^2 = 3.69$, $p = 0.05$). Once they go to trial, capital cases result in a conviction more often than non-capital cases: 100% of capital trials resulted in a conviction, while 88% of non-capital trials do. The difference is however not statistically significant ($\chi^2 = 0.63$, $p = 0.43$). Note that this finding seems to discredit Hypothesis 1bis.

As shown by Table 6b, tried capital cases result in a LI/DP sentence more often than tried non-capital cases, although the difference is not statistically significant: 100% of tried capital cases result in a LI/DP sentence while 84% of non-capital cases do ($\chi^2 = 1.31$, $p = 0.25$) and 100% of tried capital cases ending in a conviction result in a LI/DP sentence while 95% of tried non-capital cases ending in a conviction do ($\chi^2 ~ 0$, $p = 0.95$).

<table>
<thead>
<tr>
<th>At outcome</th>
<th>Capital cases – 76 in total</th>
<th>Non-capital cases – 310 in total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Degree</td>
<td>First Degree – 122</td>
</tr>
<tr>
<td>Fraction of cases that got dismissed ($\chi^2 = 3.69$, $p = 0.05$)</td>
<td>18% – 14 out of 76</td>
<td>8% – 10 out of 122</td>
</tr>
<tr>
<td>Fraction of cases that went to trial ($\chi^2 = 3.69$, $p = 0.05$)</td>
<td>18% – 14 out of 76</td>
<td>35% – 43 out of 122</td>
</tr>
<tr>
<td>Of which resulted in a conviction ($\chi^2 = 0.63$, $p = 0.43$)</td>
<td>100% – 14 out of 14</td>
<td>88% – 38 out of 43</td>
</tr>
<tr>
<td>Fraction of cases that resulted in a plea deal ($\chi^2 = 0.60$, $p = 0.44$)</td>
<td>63% – 48 out of 76</td>
<td>57% – 69 out of 122</td>
</tr>
<tr>
<td>Fraction that resulted in a “guilty as charged” plea deal ($\chi^2 = 5.61$, $p = 0.02$)</td>
<td>20% – 15 out of 76</td>
<td>7% – 9 out of 122</td>
</tr>
<tr>
<td>Fraction of cases that resulted in a conviction ($\chi^2 = 0.96$, $p = 0.33$)</td>
<td>82% – 62 out of 76</td>
<td>88% – 107 out of 122</td>
</tr>
</tbody>
</table>
Table 6b: comparing capital cases and non-capital cases at their outcome. The raw counts of cases come after the dashes. The $\chi^2$ value and p-value testing for the statistical significance of the difference in proportions is indicated in the first column. As explained in the body text, I only compare the case counts of the second and third columns (in blue).

Table 6a also shows that capital cases result in a plea deal more often than non-capital cases: while 63% of capital cases result in a plea, 57% of non-capital cases do. The difference is however not statistically significant ($\chi^2 = 0.60$, $p = 0.44$). Note also that capital cases are much more likely to result in a “guilty as charged” plea deal than non-capital cases: 20% of capital cases resulted in a “guilty as charged” plea deal while only 7% of non-capital cases did. This difference is statistically significant at the 0.05 level ($\chi^2 = 5.61$, $p = 0.02$).

These findings seem to discredit Hypothesis 3 and confirm Hypothesis 3b. It is unlikely that the correlation between capital status and the rate of “guilty as charged” plea deals spuriously results from a correlation between capital status and effective strength at the outcome, as cases that are capital at their outcome are not stronger than cases that are non-capital at their outcome. Indeed, the conviction rate of capital cases is statistically indistinguishable from that of non-capital cases. Additionally, the dismissal rate of capital cases is not lower than that of
non-capital cases (in fact, it is much greater). I find it more likely that the correlation between capital status and the rate of “guilty as charged” plea is causal in nature, in the way described by the behavioral hypothesis.

As shown by Table 6b, capital plea deals result in a LI/DP sentence more often than non-capital plea deals: while 44% of capital pleas resulted in a LI/DP sentence, 16% of non-capital cases did. This difference is statistically significant at the 0.01 level ($\chi^2 = 9.66, p < 0.01$). This discrepancy is likely driven by the fact that more capital plea deals are “guilty as charged” deals.

Table 6a finally indicates that capital cases result in a conviction slightly less often than non-capital cases, although the difference is not statistically significant: 82% of capital cases and 88% of non-capital cases result in a conviction ($\chi^2 = 0.96, p = 0.33$). Table 6b indicates that capital cases result in a LI/DP sentence slightly more often than non-capital cases, although the difference is again not statistically significant: 46% of capital cases result in a LI/DP sentence while 39% of non-capital cases do ($\chi^2 = 0.81, p = 0.37$). The difference is slightly greater if we compare only those cases that ended in a conviction, but it still is not statistically significant: 56% of capital cases that ended with a conviction result in a LI/DP sentence while 44% of non-capital cases do ($\chi^2 = 1.99, p = 0.16$).

It is unclear, therefore, whether prosecutors benefit from the aforementioned correlation between capital status and the LI/DP rate of plea deals. Indeed, unless prosecutors know in advance whether their case will be pleaded to, the relevant rates that they must compare to assess the benefits of seeking the death penalty are the LI/DP rates of all cases entering the final stage, not the LI/DP rates of just those cases that were pleaded to. And, as remarked above, the LI/DP rate of all capital cases entering the final stage is statistically indistinguishable from the LI/DP rate of all non-capital cases entering the final stage.

**Conclusion**

In this study, I explored a rich dataset monitoring the progression of all cases whose defendants were arrested for first-degree murder in Louisiana between 2012 and 2017. I sought to assess the plausibility of the “behavioral hypothesis,” a view claiming that seeking the death penalty in an aggravated murder case affects the behavior of the defendant, the jurors and the judge in a way that increases the probability that the case will result in a conviction and in a harsh sentence (i.e. life imprisonment or death).

After comparing capital cases with non-capital cases, I identify the following statistically significant patterns:

- Cases that enter indictment as capital are more likely to be indicted than cases that enter indictment as non-capital. This pattern in the end does not matter, as the former cases are
just as likely to result in a conviction and in a LI/DP sentence than the latter cases. Additionally, this pattern is most likely not causal in nature.

- Cases that are capital at the post-indictment stage are less likely to be downgraded than cases that are non-capital at the post-indictment stage. This pattern in the end does not matter, as the former cases are just as likely to result in a conviction and in a LI/DP sentence than the latter cases.
- Cases that are capital at their outcome are more likely to be dismissed than cases that are non-capital at their outcome. This pattern in the end does not matter, as the former cases are just as likely to result in a conviction and in a LI/DP sentence than the latter cases.
- Cases that are capital at their outcome are less likely to go to trial than cases that are non-capital at their outcome. This pattern in the end does not matter, as the conviction rate and the LI/DP rate of capital trials is statistically indistinguishable from the conviction rate and the LI/DP rate of non-capital trials.
- Cases that are capital at their outcome are more likely to result in a “guilty as charged” plea deal than cases that are non-capital at their outcome. This pattern however does not change the fact that capital cases are not pleaded to more often than non-capital cases.
- Cases that are capital at their outcome and that result in a plea deal are more likely to result in a LI/DP sentence than cases that are non-capital at their outcome and that result in a plea deal. Unless prosecutors can determine after indictment whether the case will be pleaded to, this pattern does not matter in the end, as the LI/DP rate of capital cases is statistically indistinguishable from the LI/DP rate of non-capital cases.

The evidence is therefore mostly inconsistent with the behavioral hypothesis. Most notably, the capital status of a case does not seem to be correlated with the probability that the case results in a conviction and the probability that it results in a LI/DP sentence. And so the evidence seems to discredit Hypothesis 1 and Hypothesis 2. And while I do find that cases that are capital at indictment are more often indicted, I argue that the correlation is not causal in nature, thus discrediting Hypothesis 0. Additionally, cases tried as capital do not seem to result in a conviction more often than cases tried as non-capital, a finding that discredits Hypothesis 1bis. Finally, the capital status of case does not seem impact the probability that the case results in a plea deal, a finding that discredits Hypothesis 3.

The only finding consistent with the behavioral hypothesis is that capital cases are more likely to result in a “guilty as charged” plea deal (Hypothesis 3b). But this pattern does not matter in the end, as it does not make the LI/DP rate of cases that are capital at their outcome greater than the LI/DP rate of cases that are non-capital at their outcome.
Important implications emerge from these findings. Prosecuting capital cases is very costly, both in terms of financial resources and human resources. While I was not able to find how much prosecuting cases capitally costs the state of Louisiana, I found that around 10% of the Louisiana State Public Defender’s 2017 annual budget was allocated to indigent capital defense, for a total of over $7 million\(^{28}\). It is likely that the prosecutorial costs are even greater, as prosecutors tend to be given more resources than public defenders. This study’s findings thus suggest that the net benefit of seeking the death penalty is very negative. And so informing prosecutors about this study may help induce changes in their use of prosecutorial discretion. Even prosecutors who are ideologically attached to the death penalty would likely be influenced to some extent by the evidence presented, if just in the way they prioritize cases.

Acknowledgement

I would like to thank Professor Gregory Huber for his guidance and feedback throughout this project. I would also like to thank the Louisiana Capital Assistance Center and its Director Richard Bourke for authorizing me to use their data for this study. I would finally like to thank Eileen Johnson (Yale ‘19) and Arjun Malik (UPenn ‘18) for their help in updating LCAC’s case database during the summer of 2017.

References


Bourke, Richard (Director of Louisiana Capital Assistance Center). Personal interview. June 2017.


