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Potential Savings from Abolition of the Death Penalty in North Carolina

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Despite the long-term decline in the number of death sentences and the lack of executions, the cost of the death penalty in North Carolina remains high. To document this cost, the empirical analysis here focuses on a recent two-year period, comparing actual costs associated with capital proceedings, with likely costs in the absence of the death penalty. The conclusion: the state would have spent almost $11 million less each year on criminal justice activities (including appeals and imprisonment) if the death penalty had been abolished. Additional criminal justice resources would have been freed up and available to be redirected to other cases.

1. Introduction

In line with a nationwide trend, the death penalty has become quite rare in North Carolina. During 2007 and 2008 there were no executions and just twenty-five capital trials with four death penalties imposed, compared with over 1000 murders. Yet the cost of the death penalty to state government remains high. The state's payments for representation of capital defendants at

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trial and during post-conviction appeals add up to millions of dollars per year over and above what it would cost if these cases had proceeded noncapitally. This analysis provides an estimate of cost savings and other consequences, for better or worse, that would result if North Carolina abolished the death penalty.

The empirical analysis focuses on a two-year period, fiscal years 2005 and 2006, comparing actual costs to the state during that period that were associated with capital proceedings, with likely costs in the absence of the death penalty. The answer serves as a guide to what is at stake in considering abolition for sometime in the future.

The conclusion of the analysis is that North Carolina would have spent almost $11 million less each year on criminal justice activities (including imprisonment) without the death penalty. In addition, substantial resources would have been freed up within the courts and district attorneys offices that could have been used to prosecute other criminal cases more fully. But these budgetary and resource savings would not have been the whole story. The outcomes of some of the murder cases would have been different in the absence of the death penalty—not only the eleven cases in which a jury actually imposed the death penalty during the two-year window, but also some other cases that resulted in a plea to first-degree murder. There is reason to believe that some of those defendants would have pled out to a lesser offense—second-degree murder, say—if the district attorney had lacked the leverage provided by the death penalty. On the other hand, the resources freed up by not proceeding capitally could have been redeployed by the district attorneys to prosecute other cases more fully. The net effect of these changes may have had some effect on the murder rate in either direction—there is no firm basis in logic or empirical evidence to predict, except to say that any such effect would likely be small.

The focus here on the costs of the death penalty does not reflect a value judgment that cost considerations should be paramount. Clearly, there are questions of justice and crime prevention that are vitally important as well. Nevertheless, especially in this time of fiscal stringency, it is hard to claim that the effects of the death penalty on the state government budget are not relevant to an ethical debate on this subject. Extra expenditures on capital proceedings compete with other functions of state government, such as education and health care. Certainly, the debate in other states that have considered ending the death penalty has included a discussion of cost. That

was true in the two states that actually did decide to abolish, New Jersey and New Mexico, and elsewhere. For example, the Maryland Commission on Capital Punishment recommended abolition of the death penalty in 2008, arguing its conclusion in part on the cost study by the Urban Institute (Roman et al., 2008).

The estimates of potential savings from abolition are developed here as follows. The next section provides background information on the recent changes in the law, policy, and practice of capital litigation in North Carolina, and documents the declining rate of capital trials and death sentences. Section 3 explains the accounting method used to estimate the extra costs associated with the death penalty. Here I discuss the question of whether the death penalty has a deterrent effect on murder, and how it is used by prosecutors in plea negotiations. Section 4 then tabulates the estimated savings from abolition, including the impacts in the trial courts, appellate process, and prisons. The final section provides a sensitivity analysis, caveats, and conclusion.

2. Recent History of Law and Practice

North Carolina reserves the death penalty for murder cases in which there are aggravating circumstances. Imposition of a death sentence requires that the defendant be convicted of first-degree murder, either in a capital trial or following a guilty plea. The death sentence may only be imposed by a jury. Each jury member in a sentencing proceeding is to determine individually whether the State has proven one or more aggravating circumstances beyond a reasonable doubt, and then determine whether those aggravating circumstances outweigh any mitigating circumstances. If the jury is not unanimous in recommending death, then the judge is to sentence the convicted defendant to life without possibility of parole (LWOP).

North Carolina reinstated the death penalty in 1977 following clarification by the Supreme Court of the United States (SCOTUS) of what procedures would pass constitutional muster in capital cases. Capital defendants are accorded special due-process protections, reflecting the fundamental view that "death is different" (Cook and Slawson, 1993; Fry and Humphries, 2009). Defendants are entitled to two defense attorneys from the time that the district attorney first gives notice of intent to proceed capitally. Best practice requires a vigorous motion litigation by the defense, which includes some

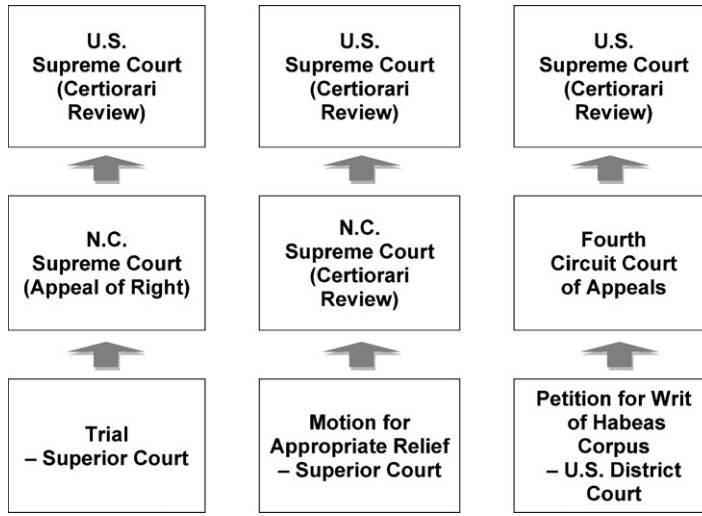

Figure 1. Channels of Review in a Capital Case.

pretrial motions that are specific to capital cases. In a capital trial, the jury must be death qualified, which is to say that each juror is determined during *voir dire* to be open to the possibility of voting for a death sentence. If the trial results in conviction for first-degree murder, then the same jury is retained for the sentencing phase, where evidence is presented on aggravating and mitigating circumstances. If the jury does impose the death sentence, the defendant is entitled to continuing representation by two attorneys during post-conviction appeals.

Defendants sentenced to death have the right of direct appeal to the North Carolina Supreme Court. (Murder defendants sentenced to LWOP after a jury trial have a right to appeal to the Court of Appeals rather than the Supreme Court.) If the Supreme Court does not provide relief, then attorneys file a *certiorari* petition with the SCOTUS. If that is denied, as it usually is, then lawyers investigate and present a Motion for Appropriate Relief (MAR) in NC Superior Court. There may be a hearing, and a review by *certiorari* to the NC Supreme Court. The defendant then has the right to file a *habeas* petition in federal district court, with review by the Fourth Circuit Court of Appeals and *certiorari* petition to SCOTUS. Cases often return to state courts for additional litigation. The various channels for review are depicted in Figure 1.

Table 1. Recent History of Death Penalty in North Carolina

Calendar year	Change in policy or law in North Carolina	Capital trials	Death sentences
1993		[a]	32
1994	LWOP mandated for first-degree murder convictions	[a]	27
1995		[a]	34
1996	Open-file discovery in post-conviction proceedings mandated	[a]	25
1997		[a]	22
1998		[a]	20
1999		[a]	24
2000		[a]	18
2001	IDS given responsibility to appoint defenders in first-degree murder proceedings; Prosecutors given right to negotiate plea in capital cases Capital punishment outlawed for mentally retarded	50	14
2002		36	7
2003		22	6
2004	Pretrial open file discovery mandated in felony cases	24	4
2005	Supreme Court bars application of death penalty for crimes committed while under the age of 18	19	6
2006		24	5
2007		11	3
2008		14	1

Source: Policy and law: Fry and Humphries (2009). Counts of capital trials and death sentences provided by Center for Death Penalty Litigation.
Note: Capital trials include retrials and resentencing hearings resulting from successful appeals, as well as second trials following an earlier mistrial.
[a]No data are available.

Over the last three decades, appellate courts have vacated numerous death sentences due to a finding of Constitutional error or a change in the legal scope of the death sentence. (In recent years, two new bars to execution have been imposed, for mental retardation and for crimes committed before the age of 18.) A successful post-conviction process may result in an order for a retrial, a resentencing hearing, or simply a substitution of a life sentence for death. In any event, implementing these special due process protections is costly to the state and federal government, since in practice both sides of the adversarial process are publicly financed.

A previous analysis of the costs of processing murder cases in North Carolina found that the extra costs to the state accrued due to capital cases amounted to $4 million per year (Cook and Slawson, 1993). That study is out of date for a variety of reasons, as suggested by the time line in Table 1

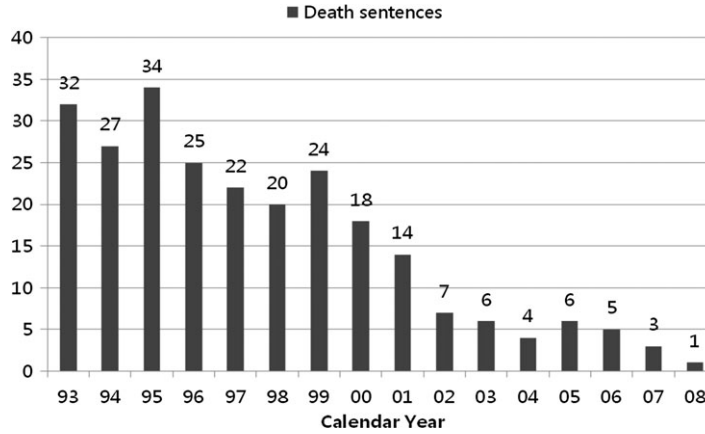

Figure 2. Trends in Death Sentences since 1993.
Source: Table 1 of this paper.

and the trend depicted in Figure 2. Since 1993, North Carolina eliminated the parole possibility for life sentences given in first-degree murder cases, and more recently allowed district attorneys to accept a plea of guilty to first-degree murder in exchange for a LWOP sentence. The Office of Indigent Defense Services was created and assigned responsibility for appointing defense counsel in murder cases rather than leave this vital function to local judges; this change was an important step in ensuring a high-quality defense. These and other changes help explain the dramatic drop in the number of capital trials and in the number of defendants sentenced to death each year. However, a complete explanation for this drop in the use of the death penalty must take account of the national trend. The death row population in the United States peaked in 2000 and has declined every year since then. Two states, New Mexico and New Jersey, have recently abolished the death penalty, and repeal has been seriously debated in Maryland and other states. Concerns about the cost of the death penalty have figured quite prominently in the debate.[1]

1. Ian Urbina, "Citing Cost, States Consider End to Death Penalty," *New York Times* February 24, 2009; Tim Jones, "Resistance to Death Penalty Growing," *Chicago Tribune* April 8, 2007; David Von Drehle, "Death Penalty Walking," *Time* January 4, 2008; Corrina Barrett Lain, "The New Case against the Death Penalty," *Christian Science Monitor* May 11, 2009.

Table 2. Persons Removed from Death Row since NC Reinstated Death Penalty in 1977

	Successful appeal	Death (suicide or natural causes)	Execution
1977–1984	20	2	2
1985–1989	20	1	2
1990–1994	47	1	3
1995–1999	10	3	9
2000–2004	44	5	19
2005–2008	18	7	9[a]
Total	**159**	**19**	**44**

Source: http://www.doc.state.nc.us/DOP/deathpenalty/removed.htm (accessed 7/14/09).
Note: Cases in which the death penalty was reinstated following a resentencing hearing are not included as "removals."
[a]There have been no executions since August 2006.

Meanwhile, the distinctive pattern of flows into and out of death row has continued. Most departures from death row have not been due to execution, but rather to a successful appeal that has resulted in retrial, resentencing, commutation, or judicially vacated sentences (see Table 2).

The current situation (as of July, 2009) is that capital trials continue to occur, although at a low rate by recent historical standards. There have been no executions since August, 2006 due to litigation concerning the use of lethal injection as the means of execution. The death row population stands at 163.

3. Accounting Methods and Assumptions

The main question investigated here is what savings North Carolina state government could expect if the death penalty were abolished. (The abolition of the death penalty in North Carolina would also have cost implications for the federal court system due to federal post-conviction proceedings, but these are not included in what follows.) Much of the savings to the state would come in the form of reduced expenditures for specific government-sponsored activities that are affected by the special requirements of capital cases. The bulk of the savings of this sort would come in the defense representation of indigent murder defendants during the trial phase, and both the defense and state representation during appeals and post-conviction phases. There would also be budget implications for the prisons, since prisoners on death row would be resentenced to life, in which case they could eventually be eligible for transfer from close security to less expensive, medium security.

On the other hand, the prison population would be somewhat larger because executions would cease. The goal here is to estimate the *net* savings, taking account of such additional costs.

The abolition of the death penalty would have other consequences that are unlikely to be reflected in agency budgets. In the trial courts, the main consequence of abolition would likely be to free up resources that could be devoted to other cases, rather than to reduce trial court budgets. In particular, I assume that the number of courtrooms, judges, prosecutors, and support staff would not be affected by the abolition of the death penalty, nor would the budget of the NC Supreme Court. If correct, then the resources that would be freed up within the criminal justice system by abolition are an opportunity cost of the death penalty—or more precisely, that opportunity cost should be defined as the potential improvement in the quality of justice for the entire flow of criminal cases. In principle it is possible to put a price on the resources that would be freed up by abolition (Cook and Slawson, 1993), under the dubious assumption that the public value of their contribution is exactly equal to the amount they are actually paid.[2] No attempt to monetize the in-kind savings is made in what follows; rather the in-kind savings in resources are kept separate from the direct reductions in expenditures for particular activities.

To be more precise, the goal here is to estimate the hypothetical financial and in-kind consequences of abolishing the death penalty on July 1, 2004. Abolition is then the counterfactual scenario, against which the observed flow of costs is compared. This comparison requires a number of assumptions about the consequences of abolition; these assumptions are spelled out at each step of the way, and summarized here.

The financial consequences of North Carolina's abolishing the death penalty would extend far into the future, but the analysis here focuses on the first two years of the counterfactual (fiscal years 2005 and 2006). Subsequent savings would depend on such unknowns as future legislation and litigation that will have the effect of changing the scope of the death penalty and

2. There is reason to believe that a dollar spent in the public sector has substantially *greater* value than a dollar spent in the private sector. Public expenditures are financed by taxes, and taxes distort economic choices and are costly to collect. Estimates of the full cost of collecting an additional dollar of taxes range from $0.33 to $0.46 (Boardman et al., 2006, p. 429). If public expenditures are subjected to a cost–benefit test, then the marginal dollar expended would therefore have to generate $1.33 to $1.46 in public benefit.

due process requirements; popular sentiment regarding the death penalty (which may influence juries' decisions as well as choices made by district attorneys); state programs for funding capital cases; and trends in the murder rate. All of these areas have been in flux during recent decades, and there is every reason to believe that law and practice regarding the death penalty will continue to evolve. Lacking a crystal ball, I make estimates for the recent past and offer the result as a best guess about the flow of savings in the future, with the proviso that there is considerable uncertainty around this steady-state assumption.[3]

In summary form, the principal assumptions made in this analysis include the following:

1. The flow of murder indictments would be unaffected by abolition.
2. Murder cases that in fact proceeded capitally would instead have proceeded much like the serious murder cases that in fact proceeded noncapitally. In particular, I assume that the relevant counterfactual for the cases that proceeded capitally is a subset of the cases where the district attorney chose to proceed noncapitally. That subset includes those murder cases that were not dismissed, and which were disposed of either by guilty plea to murder or murder trial.
3. All offenders on death row on July 1, 2004 would be (costlessly) resentenced to life without possibility of parole, and assigned to incarceration conditions on the same basis as other prisoners sentenced to LWOP.
4. Post-conviction activity for those who had been sentenced to death would follow the same course as those who in fact were sentenced to LWOP.

The first of these assumptions is particularly contentious, since it requires a judgment about the deterrent effect of the death penalty. The remaining

3. It should be pointed out that my steady-state assumption informs my accounting method for trial costs. Instead of attempting to estimate the extra costs of proceeding capitally for all cases during the two-year window, I instead compute the extra costs associated with those cases that were disposed of during that window. In fact, some of the costs for these cases were incurred prior to July 1, 2004, so attributing the full costs to the "window" overstates the true cost for that period; on the other hand, my approach neglects the costs associated with cases that were ongoing during the window but not disposed of by June 30, 2006, and in that respect understates the total. In a steady-state situation, the out-of-window costs would balance out.

assumptions are developed in the context of the empirical work that follows.

How would abolition affect the murder rate? A common belief that the death penalty reduces the murder rate begins with the presumption that some would-be killers are deterred by the possibility of being executed.[4] My assumption that the murder rate would be unaffected by abolition does not deny the possibility that some would-be murderers consider the consequences, and would be more likely to desist in the face of greater expected punishment. Rather, this assumption is motivated by two arguments, one theoretical and one empirical: (1) It is not at all clear as a theoretical matter that abolition would reduce expected punishment for murder in North Carolina—only a minuscule percentage of murderers are executed under the current regime, and abolition would free up resources that could actually be used to increase the punishment for other defendants; (2) The econometric evidence on the deterrent effect of the death penalty provides little guidance, leaving it an open statistical question whether the effect is to reduce or increase the murder rate.

Turning to the first point, the potential importance of the deterrence mechanism is undercut by the fact that in practice the likelihood of execution for murder is vanishingly small. The 11 murder defendants who were sentenced to death during FY 2005 and 2006 can be compared with over 1000 criminal homicides in North Carolina during that period. The historical record predicts that just two or so of those eleven will actually be executed.[5] A reasonable estimate, then, is that the probability that any given murderer will be arrested, indicted, convicted, sentenced to death, and executed in North Carolina is on the order of one in 500 (0.2%).

Given this reality, a calculating killer would consider not just the logical possibility of being put to death, but also the array of other (far more likely) legal consequences. The death penalty may affect which sentence

4. The belief in the extra deterrent effect of the death penalty (over and above the deterrent effect of life imprisonment) is not shared by leading criminologists, for whom the consensus is that there is no deterrent (Radelet and Lacock, 2009).

5. Since the death penalty was reinstated in 1977, 222 individuals have been removed from death row: just forty-four (20%) have been executed. If that fraction is applied to the eleven death penalties imposed during FY2005 and 2006, then two is the best guess of the number of individuals who will be executed.

is ultimately imposed through its influence on plea negotiations and other mechanisms. During FY 2005 and 2006, those who were indicted for murder were either sentenced to LWOP (16%) or a less severe sentence (56%), or were not convicted (27%). It can be argued that the most severe of these penalties, LWOP, is imposed more frequently than it would be in the absence of the death penalty as a result of the fact that the death penalty provides leverage to prosecutors in plea negotiations. Some defendants who plead guilty to first-degree murder (and hence are sentenced to LWOP) in the face of the district attorney's threat to take them to trial, might otherwise hold out for a better deal.

But while the death penalty strengthens the prosecutor's bargaining position in some cases, it comes at a cost in terms of the additional resources required to proceed capitally. Capital proceedings divert the resources of trial courts that could instead be utilized to prosecute other defendants more vigorously, including other murder defendants—almost half of whom currently have their cases dismissed or are convicted of a relatively minor crime (see below). The net effect of the death penalty on the average severity of sentence for murder defendants is hence ambiguous.

To be more precise, suppose that a rational actor is considering the possibility of committing murder under one of two regimes, distinguished by whether or not a possible consequence for murder is a death sentence followed by execution. The decision of whether to commit murder for this rational actor is guided by an expected utility calculation, with the following parameters in the death-penalty regime:

$U = C$ if does not commit murder
$U = 1$ if commits murder and gets away with it (probability P)
$U = 0$ if executed (probability conditional on conviction of P_{D})
$U = A$ if sentenced to life (with conditional probability P_{L})[6]
$U = B$ if sentenced to lesser penalty (with conditional probability P_{S})

Assume: $0 < A < B < C < 1$.

Then he will commit murder in the death-penalty regime if:

$$P + (1 - P)\,[P_{\mathrm{L}}A + P_{\mathrm{S}}B] > C.$$

6. A sentence of "Life" should be understood to include both the mandatory sentence for first-degree murder (LWOP) and the sentence for second-degree murder (life).

Assuming other things equal, he will commit murder in the abolition regime if:

$$P + (1 - P)\,[q_{\mathrm{L}}A + q_{\mathrm{S}}B] > C$$

where $q_{\mathrm{L}} \geq P_{\mathrm{L}} + P_{\mathrm{D}}$, and $P_{\mathrm{S}} \geq q_{\mathrm{S}}$.

The assumption here is that the cases that would have resulted in execution are instead sentenced to life imprisonment, and the court resources freed up by ending capital prosecutions could be used to convert some of the cases that were disposed of with a lesser penalty to life imprisonment. An increase in the overall conviction rate, $1 - P$, is also a possible consequence of abolition, but is not considered here.

The prospect of committing murder is less attractive in the abolition regime than the death-penalty regime if:

$$P_{\mathrm{L}}\mathrm{A} + P_{\mathrm{S}}\mathrm{B} > q_{\mathrm{L}}\mathrm{A} + q_{\mathrm{S}}\mathrm{B}, \text{ which simplifies to}$$

$$A(q_{\mathrm{L}} - P_{\mathrm{L}}) - B(P_{\mathrm{S}} - q_{\mathrm{S}}) < 0.$$

Because the overall probability of conviction remains unchanged,

$$P_{\mathrm{L}} + P_{\mathrm{S}} + P_{\mathrm{D}} = q_{\mathrm{L}} + q_{\mathrm{S}}. \text{ Rearranging terms, we have}$$

$$q_{\mathrm{L}} - P_{\mathrm{L}} > P_{\mathrm{D}}B/(B - A) \tag{1}$$

as the condition under which murder is less attractive under the abolition condition.

Condition (1) requires that in moving from the death-penalty regime to the abolition regime, the probability of a life sentence must increase by more than the original probability of execution: that is, $q_{\mathrm{L}} - P_{\mathrm{L}} > P_{\mathrm{D}}$. But that is not sufficient. Sufficiency depends on the relative magnitudes of A and B. If the offender views life imprisonment as almost as aversive as execution, and the lesser penalty as more attractive, $B >> A \approx 0$, then (1) will be satisfied if relatively few lesser penalties are converted to life imprisonment in the abolition regime.

The conclusion, then, is that abolition may have the effect of either increasing or reducing the attractiveness of murder for the rational offender, depending on the extent to which the likelihood of life imprisonment is increased under abolition, and the relative utility values of execution, life imprisonment, and a lesser penalty.

The econometric evidence on the effect of the death penalty is also relevant. Numerous economists and criminologists have attempted to determine whether the death penalty (as utilized in the modern era in the United States) has a deterrent effect on murder. The statistical analyses of this issue have often employed state-level panel data to determine whether changes in law and practice of the death penalty generate changes in the criminal homicide rate. One systematic review of the available evidence concludes that despite various claims to the contrary, this evidence tends to be very weak. The probability that a murderer will be put to death is slight (even in Texas). Thus the effect of these executions, if any, tends to be obscured by the natural variation in homicide rates, and, as noted in point 1, by the potential counterbalancing effect of the capital cases tying up resources that instead could go to fuller prosecution of other murder cases. Unsurprisingly, the econometric analysis of the deterrent effect of the death penalty provides little guidance even as to the basic question of whether the death penalty as practiced tends to result in fewer or more criminal homicides (Donohue and Wolfers, 2006a, 2006b).

Of course there are economists who disagree. Isaac Ehrlich's research in this regard has received the most attention, motivating the creation of an expert panel of the National Academy of Sciences—whose report was skeptical of Ehrlich's findings (Blumstein et al., 1978). Ehrlich himself offered this summary statement in 1996: ". . . in all studies supporting the deterrence hypothesis, the conditional risk of execution, while having a significant deterrent effect, has the least impact on the incidence of murder relative to equal percentage changes in apprehension, conviction or punishment risks, and that the alternative, and most frequently used sanction for murder—the length of imprisonment—also exerts a statistically significant discouraging effect on murder (Erhlich, 1996, p. 63)." This summary suggests that the overall deterrent effect of the criminal justice system on murder depends on the distribution of prosecution resources among cases—the concentration of resources on a few cases is likely to be less effective with respect to deterrence than a more even distribution that raises the likelihood of conviction and a long prison term.

Summing up, the death penalty in North Carolina has been applied in such a small percentage of murder cases that the threat of execution is likely to play a small role, if any, in the decisions made by would-be murderers. There may be ancillary effects of the death penalty on the actual severity of

noncapital punishment due to leverage in plea bargaining or the opportunity cost of capital prosecutions, but it is not clear whether the net effect is to make the average punishment more or less severe. The econometric evidence provides no clear guidance on whether the death penalty tends to reduce or increase the homicide rate. Given the ambiguous conclusions from both logic and evidence, I proceed on the assumption that abolition of the death penalty in North Carolina would not affect the homicide rate, and that abolition would not have affected the flow of murder cases through the North Carolina trial courts in FY 2005 and 2006.

4. Data on Murder Cases during Trial Phase

To understand how capital punishment is influencing the flow of murder cases through the trial courts, I compiled information on all cases in which the defendant was indicted and arraigned for murder, and which were disposed of (by trial, guilty plea, or dismissal) during a particular two-year period, fiscal years 2005 and 2006.[7] The data indicate that of the 1034 defendants arraigned for murder, a total of just twenty-nine were tried capitally and eleven were sentenced to death (including two who were sentenced by a jury after pleading guilty). But for 274 (27%) cases the district attorney indicated early in the proceeding that he *intended* to seek the death penalty. That is relevant since the decision to proceed capitally engenders extra costs, whether or not the defendant is ultimately tried capitally.

The district attorney may formally indicate that he has evidence of an aggravating circumstance and intends to seek the death penalty either at arraignment or at a "Rule 24" conference before a judge. If the district attorney is proceeding capitally, then the defendant is entitled to the "super due process" protections that have been put in place by state law and constitutional precedent. In particular, the defendant is to be represented by two attorneys, and since most defendants are unable to pay for this assistance, the usual practice is for the State to appoint both attorneys. Those appointments are made and financed by the Office of Indigent Defense Services (IDS).

The analysis uses two sources of administrative data to track murder cases through the trial phase, combining the computerized files kept by

7. If a case ended in mistrial, it was excluded unless it was disposed of later (by a successful trial or other means) within the two-year window.

the Administrative Office of the Courts (AOC) with the files kept by IDS (which include data on payments to attorneys and experts).[8] While neither file includes an explicit indication of whether a murder case was prosecuted capitally, the IDS data do indicate whether a defendant was represented by two attorneys at state expense. That indicator serves to identify most of the cases that ever proceeded capitally.[9] Additional information on capital prosecutions was provided by the Center for Death Penalty Litigation, which keeps a record of all capital trials. Those cases are a subset of the cases that proceeded capitally following arraignment—most capital cases end with a guilty plea or a noncapital trial rather than a capital trial.

The flow chart (Figure 3) follows the 1034 murder cases that were disposed of during FY 2005 or 2006. Of these cases, 274 proceeded capitally, as indicated by the IDS record that two attorneys had been appointed to represent the defendant. Most of those cases resulted in a guilty plea to first- or (more commonly) second-degree murder, but fifty-eight went to trial. Of those trials, twenty-nine were capital, resulting in nine death sentences. Including those cases, forty-nine of the fifty-eight trials resulted in conviction for first-degree murder, and only four resulted in a finding of not guilty. Two additional death sentences were imposed following guilty pleas.

The noncapital cases included the bulk of the weaker cases, as indicated by the fact that they ended up being dismissed by the prosecutor or a judge: of the 239 dismissals, 201 were never capital. It is also true that trials in cases that were never capital were more likely to result in a not-guilty verdict (30%) than was true in trials for cases that proceeded capitally (7%).

Guilty pleas for cases that proceeded capitally were much more likely to be for first-degree murder (33% of all pleas) than was true for noncapital cases (4% of pleas). Recalling that first-degree noncapital murder carries a mandatory sentence of LWOP, it is surprising that any defendant would decide to plead guilty instead of going to trial, where there is a chance of a better outcome—unless a trial also creates the possibility of a worse outcome. Presumably most of the first-degree murder pleas for the capital cases occurred in the shadow of a threatened capital trial with the possibility of

8. Details on the construction of this dataset are available from the author on request.

9. The recent study of defense costs by the Office of Indigent Defense Services (2008) utilizes a similar approach.

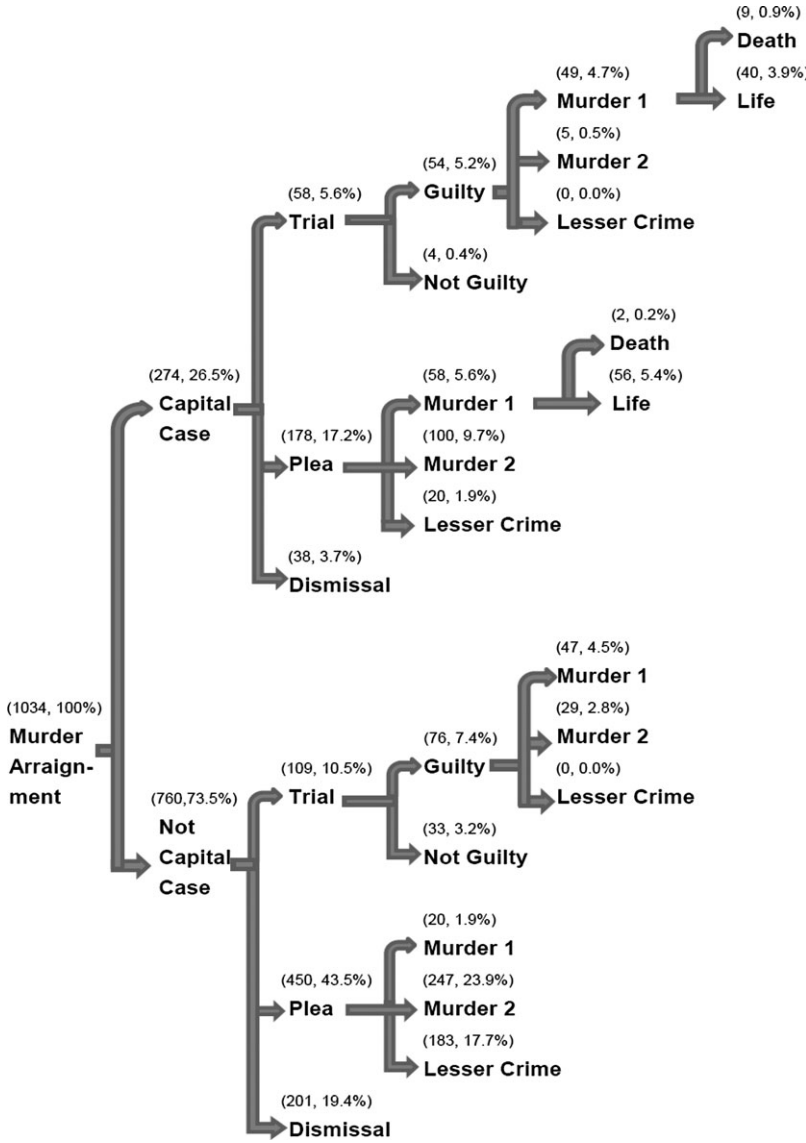

Figure 3. Flow Chart of Murder Cases during Trial Phase.

death sentence.[10] (Since 2001, prosecutors who had evidence of an aggravating circumstance in a murder case have been given discretion of whether

10. Kuziemko (2006) analyzed the effect of the introduction of the death penalty in New York State in 1995. She found evidence that the threat of the death penalty

to pursue the death penalty. In practice, that discretion allows them to use the death sentence as a bargaining tool.) On the other hand, two of the pleas to first-degree murder included no such bargain, and in fact were followed by a sentencing hearing that resulted in the death penalty. It was also true that twenty of the noncapital cases resulted in a first-degree plea.

Figure 4 provides another representation of the distribution of outcomes for capital and noncapital cases. The third bar showing the combined distribution of cases demonstrates the large drop off between indictment and final disposition. Of the over 1000 cases indicted for murder, only 174 were actually convicted of first-degree murder (including the eleven death sentences). On the other hand, 276 of these cases resulted in dismissal or a jury verdict of not guilty. The most common outcome, with 381 cases, was conviction for second-degree murder.

4.1. Cash Costs versus In-kind Costs

When a district attorney elects to proceed capitally in a murder case, there are extra costs incurred by the state. These costs can be divided into two categories, referred to here as "cash costs" and "in-kind cost." The "cash cost" includes such items as payments by IDS for private attorneys retained to represent indigent defendants, payments by IDS for expert witnesses on behalf of the defense, and payments to jurors for cases that go to trial. For each of these cost items, there is a reasonable presumption that if the expenditures for any one case were reduced, the overall state expenditures on criminal justice would be reduced correspondingly. For example, if IDS is not required to appoint a second defense attorney for a murder defendant (because the district attorney decides to proceed noncapitally), and as a result avoids paying $50,000 in attorney's fees, that $50,000 would *not* be reallocated to another IDS case, but rather could be used for other state government programs (education, Medicaid) or returned to the taxpayers in the form of lower tax rates.[11]

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persuaded some defendants to accept plea bargains with harsher terms, but did not increase defendants' overall propensity to plead guilty (p. 116).

11. Additional savings would come from the fact that in North Carolina, appointed attorneys in capital cases are paid more than in noncapital cases. The rate for capital cases is currently $95 per hour, and was increased from $85 per hour on August 1, 2006. The rate for noncapital cases is just $75 per hour.

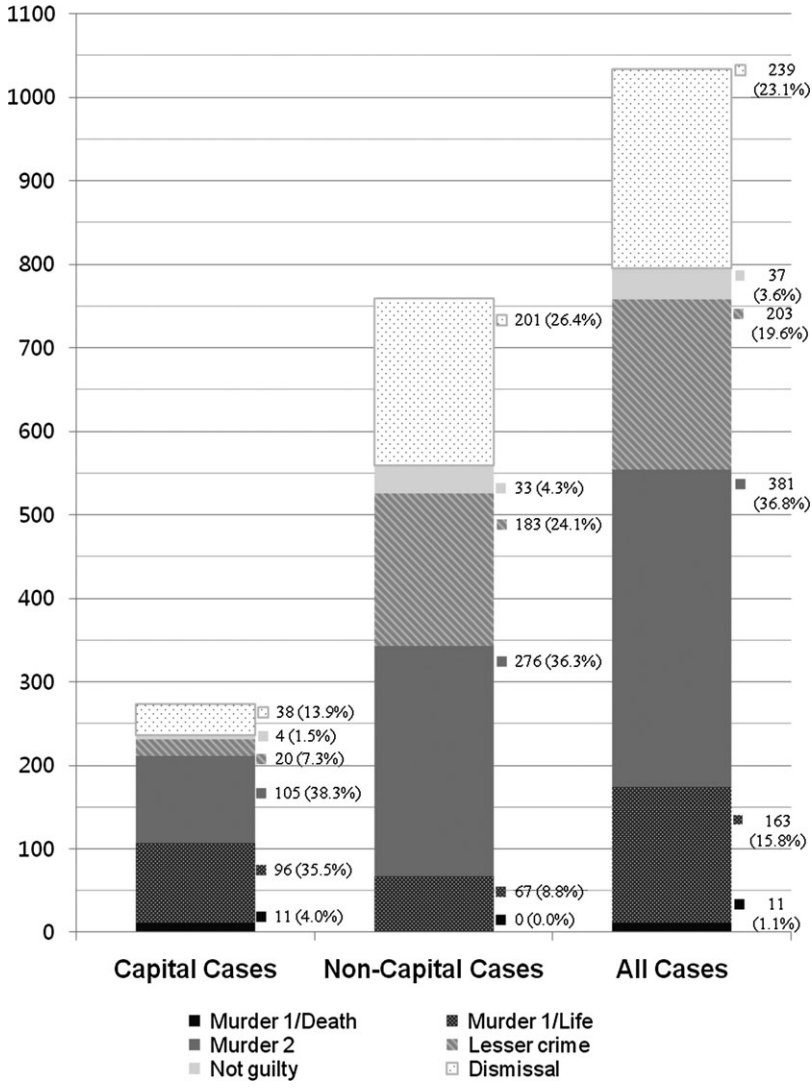

Figure 4. Outcomes of Capital versus Noncapital Cases, FY2005–2006.

On the other hand, "in-kind costs" include the diversion of resources to a particular murder case that would otherwise be available for other criminal cases within the same criminal justice agency. Examples include the time spent by attorneys and other staff in the district attorney's office, and the use of courtrooms, judges' time, and all the associated personnel

required for hearings and trial days.[12] A reduction in the use of courtroom and prosecution resources for some cases is not likely to change the overall budgets and fixed resources available to the trial courts and district attorneys. Rather, those resources could be redeployed to other criminal cases being handled by the same office, with the result that those cases could then be prosecuted more fully.

If the death penalty were abolished, there would be cost savings of both types—cash and in-kind costs. The discussion begins with the trial phase.

4.2. Cash Costs in the Trial Phase

Murder defendants are in most cases unableto finance their own defense, and so the state must provide them with attorneys and pay the expense of any investigations or expert witnesses. In about one-fifth of murder cases a public defender has a role in the defense; unfortunately, there are no records on the public defender's use of time.[13] But most of the costs of the defense of murder defendants are expenditures for private attorneys appointed and compensated by IDS. Payments to private attorneys and expert witnesses for indigent defendants are recorded in IDS files. I also include here the costs associated with other agencies that have a role in the administration of the death penalty, and costs incurred by the prison system.

IDS expenditures on defense. As a start, all murder cases are divided into five categories according to whether they went to trial and whether they proceeded capitally at any point. Table 3 provides information on IDS expenditures in these cases. The highest expenditures by far are for cases that are disposed of by capital trial, averaging $116,400. Other cases that proceeded capitally result in expenditures averaging $67,800 (noncapital

12. Another form of in-kind cost stems from the fact that expert witnesses for the prosecution are in most cases state employees; time they spend preparing testimony and testifying would come at the cost of discharging their other responsibilities.

13. IDS records indicate some involvement by public defenders in 19.5% of the murder cases. Margaret Gressens, IDS Research Director, suggested in an e-mail dated July 15, 2009, that the relevant margin for understanding the cost of public defenders is dictated by the practice of appointing additional private defense counsel if the attorneys in the public defender's office are working at capacity. Thus, if a capital case increases the workload in a county public defender's office, the result may well be an increase in cash costs associated with the necessity of making additional appointments of attorneys to represent other defendants.

Table 3. Average Payments by IDS for Murder Cases Disposed of in FY2005 and 2006

Category of case	Number	Attorneys fees ($1,000s)	Expert fees ($1,000s)	Total fees[b] ($1,000s)
A. Capital trial[a]	32	$79.8	$35.7	$116.4
B. Noncapital trial for capital case	29	$46.9	$20.9	$67.8
C. Other noncapital trial	109	$13.2	$5.4	$18.6
D. Capital case, no trial	213	$29.5	$13.7	$43.2
E. Noncapital case, no trial	651	$5.7	$2.6	$8.3

Source: Original computations from data provided by IDS.
Notes: When there is no record of IDS payment, it is assumed that there was no invoice submitted and hence no cost to the state.
[a]The capital trials include two cases when there was a sentencing hearing following a guilty plea, and one case in which a mistrial was followed by guilty plea.
[b]Includes some other fees paid by IDS.

trial) or $43,200 (no trial). Far less expensive are cases that were never capital, whether or not they were disposed of by trial ($18,600 average) or by plea or other means ($8,300). Remarkably, noncapital cases that went to trial had lower defense expenditures by IDS than capital cases that were disposed of by pleas.

These statistics confirm the special costs associated with super due process, including the appointment of a second defense attorney, the motions practice that is part of a capital proceedings, and the extra costs of a capital trial resulting from the extra time required to select a qualified jury and to conduct the sentencing phase.[14] Recall that the goal here is to estimate the expenditures in the counterfactual case in which the death penalty was not available to prosecutors for this two-year period, during which time everything remained the same in other respects, including the number and identity of murder cases. In that counterfactual scenario, there would be no capital trials and, indeed, no capital proceedings. Any estimate of counterfactual costs requires some assumptions about how capital cases *would* have proceeded if there were no death penalty.

One possible assumption is that the average expenditures for the noncapital cases actually observed provide a reasonable estimate for the expenditures

14. The average length of a capital trial in our sample was 19.1 days, compared to an average of 7.4 days for noncapital trials of cases that had proceeded capitally. (The medians are 18.0 and 5.5 days, respectively.) These figures are calculated based on data extracted from paper invoices in the files of IDS.

that would have been made on the cases that in fact proceeded capitally. But that assumption would ignore the fact that the noncapital cases as a group are systematically different from the capital cases in at least one way that is relevant to cost—most of the weaker cases were noncapital, including the cases for which the judge or prosecutor ended up dismissing the charge. For that reason, a counterfactual was constructed using only those noncapital cases that were not dismissed and were convicted of murder (either first or second degree) or at least went to trial for murder (even if found not guilty). That approach should eliminate the weakest cases from both groups, thus making the two groups more comparable.

Even with this "pruning" of the noncapital cases, it is still possible that they do not provide a reliable counterfactual. It is possible, for example, that the average capital case was intrinsically more complex to prosecute than the average noncapital case. However, by one test at least that was not true in practice. There was not much difference in the duration of noncapital trials between cases in category B (cases that were initially prosecuted capitally) and category C (cases that were never capital), suggesting that on average these two groups of cases were quite similar with respect to what was required to try them before a jury.[15] This assumption receives further support from the analysis of capital-case costs in Maryland (in this issue), which finds that adjusting for the observable characteristics of capital and noncapital murder cases has little effect on the estimated difference in costs of processing (Roman et al., this issue).

Given this counterfactual, it is possible to estimate the extra expenditures on private attorneys associated with proceeding capitally in murder cases disposed of in FY2005 and 2006. There were 216 cases that were not dismissed, with an extra cost of $43,300 per case, for a total of $9,560,000 (see Table 4).

Note that the effects of the leverage that the death penalty may give the prosecutor during plea negotiations is incorporated in these calculations. While it may be true that some of the cases resulted in a plea rather than a trial

15. Noncapital trials following capital proceedings lasted one more day on average than noncapital trials following noncapital proceedings (6.6 days versus 5.5 days). These estimates are based on data obtained from invoices to IDS by defense attorneys, which usually indicated days in trial. (AOC does not keep a record of courtroom usage or the duration of trials.)

Table 4. Average Payments by IDS for Murder Cases (Excludes Cases Ending in Dismissal or Conviction for Less than Second Degree Murder)

Category of case	Number	Attorneys fees ($1,000s)	Expert fees ($1,000s)	Total fees[a] ($1,000s)
Ever-capital cases	216	$38.7	$18.0	$56.9
Noncapital cases	376	$8.6	$4.0	$12.6
Difference	592	$30.1	$14.0	$43.3

Source: Original computations from data provided by IDS.
[a]Includes some other fees paid by IDS.

as a result of this leverage, that savings, if any, is included.[16] After stripping away the weaker cases (that were dismissed or convicted of crimes other than first- or second-degree murder), the comparison is between all cases that proceeded capitally with all cases that did not, regardless of whether the cases ended with a trial or a plea.

In addition to expenditures on private attorneys who are appointed by IDS to represent defendants in capital cases, the IDS Office of the Capital Defender has a staff of full-time attorneys and investigators who assist with capital cases and other murder cases around the state. The budget for this office totaled $3,296,795 for the two years under consideration. IDS officials estimated that 23.8% of the office's budget currently goes to noncapital murder cases.[17] The remainder is treated here as a potential savings from abolition.

Finally, the Center for Death Penalty Litigation (CDPL) helps recruit and train defense attorneys for capital case representation, and consults on specific cases. While CDPL is a private nonprofit agency, it receives part of its budget from the state, amounting to $1,187,482 during the two years.

16. Again, it should be noted that the likelihood of a plea may not be affected by the death penalty. Kuziemko (2006) found that the introduction of the death penalty in New York State did not affect the likelihood of a murder case going to trial, although the threat of the death penalty engendered more pleas to first-degree murder in particular.

17. Margaret A. Gressens (IDS Research Director) and Robert M. Hurley (Capital Defender) provided the estimate of the savings in the Office of the Capital Defender Budget if the death penalty did not exist. They believe that the office would be disbanded, and administrative positions within the office eliminated. The estimate includes the cost of experts as well as investigators and attorneys (e-mail from Margaret Gressens, dated July 17, 2009).

In sum, the state's extra expenditures on defense in trial phase of capital cases amounted to the following:

$9,560,181	"Extra" payments to private attorneys and other fees
2,432,722	IDS Office of the Capital Defender
1,187,482	Center for Death Penalty Litigation
$**13,180,385**	Total, two years

An additional savings from abolishing the death penalty would be a reduction in jury costs. The thirty-two capital cases concluding in the two-year window (FY 2005 and 2006) lasted an average of 11.7 days longer than noncapital trials of cases that had once proceeded capitally. Given that North Carolina pays jurors $40 per day after the first five days, I estimate $224,640 of extra juror payments.[18] That figure does not include the extra payments for the jury pool during *voir dire*, or the reimbursement for parking and meals.

4.3. In-kind Costs during the Trial Phase

If the death penalty had been abolished on July 1, 2004, it is likely that the $13 million in extra expenditures on defense in capital cases would have been available to fund other activities of state government or to be returned to taxpayers over the subsequent two years. That is not likely to be true for costs incurred by the district attorneys' offices and courts. The extra resources used in processing capital cases would be freed up and could be used to prosecute other criminal cases more fully.[19] Rather than estimate a dollar value of these resources, I report some statistics on the extra resources absorbed by capital cases.

A rough estimate of the number of extra hours required from prosecution attorneys for capital cases may be generated on the assumption that the prosecution effort tends to be proportional to that of the defense. Table 5

18. This figure assumes twelve jurors and three alternatives for each trial.

19. Some of the opportunity costs are to agencies outside the courts. To the extent that a capital trial requires greater use of expert witnesses by the prosecution as well as by the defense, that practice contributes to the cost. Since ordinarily expert witnesses for the State are salaried professionals working for state government (in mental health, the crime lab, or another agency) their involvement comes at the cost of their other responsibilities. No central record is kept on the use of such experts.

Table 5. Average Time for Murder Cases during Trial Phase (Excludes Those Ending in Dismissal or Conviction for Less Than Second Degree Murder)

Category of case	Number	Private defense attorneys (hours)	Courtroom use (days)
Ever-capital cases	216	451.5	6.3
Noncapital cases	376	157.4	3.1
Difference	592	294.1	3.2

Source: Original computations from data provided by IDS and AOC.
Note: Some cases have no data because the defense attorney was not paid by IDS. In these calculations those cases are treated as missing rather than as zeros.

indicates that private defense attorneys spent nearly three times as many hours if a murder case proceeded capitally (in part due to the appointment of a second defense attorney). (As before, this comparison excludes murder cases that were ultimately dismissed or resulted in conviction for a relatively minor crime.) The extra time utilized in the capital cases amounts to 63,526 hours. In the previous study of the costs of processing murder cases in North Carolina, I found that the prosecution devoted somewhat less than half as many hours to murder cases as did the attorneys for the defense. Assuming based on these older data that the ratio of prosecution to defense time is 42%, the implication is that extra time associated with capital proceedings amounted to 26,680 hours over the two years, which is about nine FTEs each year.[20] The support staff assigned to assistant district attorneys should also be included in this calculation. A second in-kind cost is the extra time in the courtroom required for capital cases. Each extra day in the courtroom, for the trial or for a hearing, requires the presence of a judge and other court officers and staff. The extra 3.2 days per case multiplies up to 691 days over the two years—time that could have otherwise been spent on other cases.

It is also true that public defenders were involved in many of these murder cases. While there is no record of how much time they spent, it is possible to infer the extent of their role by comparing murder cases in districts that have public defenders and those that do not. Twenty-six of the one hundred counties in North Carolina employ public defenders. Average IDS payments to private defense attorneys were about the same in public defender and

20. The estimate of 42% is based on the figures in Cook and Slawson (1993, Table 6.2). The FTE calculation assumes that an assistant district attorney has 1500 hours per year available for case processing after deducting vacation time, sick days, training and continuing education, and administration.

non-PD counties for both capital and noncapital cases, suggesting that PDs had a relatively minor role.[21]

4.4. Cash Cost Savings on Appeals and Resentencing

During the two-year window (FY 2005 and 2006), prisoners sentenced to death pursued a variety of appeals, including direct appeal to the NC Supreme Court following sentencing and subsequent appeals in state and federal courts. IDS reimbursed private attorneys who represented these death-row clients in state courts.

If these cases had been sentenced to LWOP rather than death, the opportunities to pursue post-conviction appeals would have been sharply curtailed. IDS does pay for defense attorneys who represent convicted murderers sentenced to LWOP, who if they are convicted by a jury (rather than pleading guilty) have the right of direct appeal to the NC Court of Appeals.[22] These appeals are typically less time consuming than capital appeals. The total expenditure on defense representation for LWOP appeals during the two-year window was $648,309.[23] Comparing that flow of expenditures with the flow of LWOP sentences during the same period (163 cases), and assuming steady state, the average payment for direct appeal per LWOP works out to $3,977. The eleven death-sentenced cases during that window, if they had been sentenced to LWOP instead, would then have cost about $43,750 in defense charges on direct appeal.[24]

In sum, here are the relevant payments for defense representation of defendants during post-conviction proceedings:

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21. Using the same breakdown as in Table 5, I find that for ever-capital cases, the average payment for appointed attorneys was $38,000 in PD counties compared to $43,000 in non-PD counties. For noncapital cases, the average payments are essentially the same, just $100 higher in the PD counties.

22. While an automatic appeal is only available to defendants sentenced after trial, in some cases where the defendant pled guilty to first-degree murder and was sentenced to LWOP, there may be grounds for appeal as well.

23. This figure was computed by IDS research director Margaret Gressens and conveyed by e-mail on August 25, 2009.

24. Another potential savings from the abolition of the death penalty would result from the fact that currently many of the LWOP sentences are the result of capital trials, and hence produce a longer transcript and more bases for appeal than would be true if the sentence had resulted from a noncapital trial. This additional savings are not estimated here.

Capital appeal	249,166
Estimated cost of appeal if noncapital	(43,750)
Capital post-conviction	4,087,448
Total	**4,292,864**

During the same time frame, successful appeals resulted in new trial-court proceedings for three defendants who had been on death row. These three resentencing hearings resulted in total expenditures for the defense by IDS of $594,216. These hearings would not have occurred if the death penalty had been abolished.

Representing the state during capital post-conviction proceedings are the lawyers on salary with the NC Department of Justice, Capital Litigation Section. Based on the annual budget for this office, and the estimate by Barry McNeill (head of the office) that 90% of attorney time in the office is spent on state and federal capital post-conviction litigation, I estimate that $3,180,692 can be attributed to the death penalty during the two-year window.[25]

Here is the summary for expenditures on appeals and resentencing associated with capital cases, which total $8.1 million:

IDS payments to private defense attorneys for appeals and post-conviction proceedings	$4,292,864
Net payments by the Capital Litigation Section	$3,180,692
IDS payments for resentencing of capital case following successful appeal	$594,216
Total	**$8,067,772**

4.5. Cash Costs in Prison

On July 1, 2004, there were 151 people on death row in North Carolina, Since reinstatement of the death penalty in 1977, thirty-one others had been executed. During the subsequent two years there were four more people sentenced to death and eleven executions. The expenditure implications for

25. Mr. McNeill estimated that the other 10% was devoted to direct appeal of non-capital cases. While budget information was not available for 2005 and 2006, I was advised by Nels Roseland, a budget officer in DOJ, to discount the 2008 budget by 4% for 2006 and 8% for 2005. The expenditure figure includes operating expenses of 12.5% of salaries.

a repeal of the death penalty are of several sorts when compared with the counterfactual.

If the death penalty had been abolished before July 1, 2004, then the 151 inmates would have been moved off the death row and there would have been no executions during the next two years (or thereafter). The prisoners moved off the death row would have been resentenced to LWOP, and most of them placed in close security, for which the daily cost of maintenance is similar to death row. However, some would have been eligible for transfer to medium security, which is less costly. For example, thirty-seven death row inmates had served more than 10 years, and if they were transferred to medium security the savings would have been $196,000 for the next two years. On the other hand, the eleven inmates who were in reality executed would have remained in prison in the counterfactual circumstance, for a total cost (if they remained in close security) of $206,400.[26] The executions themselves were costly, and that expenditure would have been avoided: based on a study of execution costs in a fiscal note for the General Assembly, the cost per execution is $16,369, which for eleven executions totals to $180,059.

In summary, the net savings in expenditures in prison if the death penalty had been abolished at the beginning of our window is as follows:

Move death-row inmates to medium security after 10 years	$195,958
House an additional 11 inmates who were executed	($206,400)
Cost of 11 executions	$180,059
Total	**$169,617**

4.6. In-kind Costs for Appeals

Death sentences are appealed as a matter of right to the North Carolina Supreme Court, where they occupy about 10% of the courts' time and

26. According to the NC Department of Corrections annual reports, the cost of a day in close security was $74.52 in 2005 and $79.72 in 2006. The cost of a day in medium security was $68.90 in 2005 and $70.83 in 2006. The savings from the eleven executions is based on the days remaining during the two-year window following the exact dates of those executions. Incidentally, the *total* cost savings resulting from executions in the modern era (since the first in 1984) during any one year is rather small compared to the costs of the death penalty. During the two-year window, that savings was about $2 million after a small adjustment for the likelihood that, based on life expectancy, several of those who were executed would have died of natural causes by 2004. Thus the annual savings from all prior executions is on the order of $1 million per year.

resources.[27] It is also true that the Office of the Appellate Defender has some role in capital cases, including coordinating capital defense after the end of the trial phase, assigning attorneys (in some cases providing direct representation), and consultation. Appellate Defender Staples S. Hughes conducted a survey and estimated that 10% of staff attorneys' time is spent on these functions on average, although it is variable year to year.

4.7. Summing Up

Bringing together the expenditures for the two-year window, FY 2005 and 2006, yields the following sum of extra expenditures that a repeal of the death penalty would have avoided:

Extra defense costs for capital cases in trial phase	$13,180,385
Extra payments to jurors	$224,640
Capital post-conviction costs	$7,473,556
Resentencing hearings	$594,216
Prison system	$169,617
Total	**$21,642,414**

Thus abolition of the death penalty would have reduced state expenditures on murder cases by about $10.8 million per year.

Abolition would also have freed up resources in the courts and district attorneys' offices, as well as the Office of the Appellate Defender and the North Carolina Supreme Court. These in-kind costs include freeing up the equivalent of nine assistant prosecutors each year, as well as a 345 days of trial court time and something like 10% of the resources of the Supreme Court and the Office of the Appellate Defender.

As discussed above, there is a possibility that repeal of the death penalty would have influenced the outcomes of plea bargains for some of the cases on which the prosecutor proceeded capitally. The result would likely have been that some of the pleas to first-degree murder would have been replaced by a trial or a plea to second-degree murder. Over the long run (*not* in the two-year window) that shift would begin to be reflected in the prison population, causing some additional savings to the state. On the other hand,

27. An informal survey by Christie Cameron found that NC Supreme Court justices spend 10–15% of their time on capital cases. Capital cases take longer to dispose of on average than the typical case coming before the Court.

additional resources freed up and applied to some of the weaker murder cases might have increased the murder-conviction rate and thereby added to the prison population.

5. Sensitivity Analysis, Caveats, and Conclusions

If the death penalty had been abolished on July 1, 2004, state government expenditures for processing murder cases would have fallen by $10.8 million per year. Beyond that budgetary savings, resources within the trial courts, NC Supreme Court, and Attorney General's Office would have been been freed up for redeployment to other cases. The ultimate effect on the crime rates could well depend on just how state officials chose to reallocate those resources.

Currently most murder cases do not proceed capitally and are generally disposed of at relatively low cost. Three of four murder cases were prosecuted noncapitally during FY 2005 and 2006, and together they accounted for only one-third of the expenditures on defense. Over half of all murder cases were dismissed, found innocent, or convicted of a relatively minor crime.[28] If the effect of eliminating the death penalty were to increase the prosecutorial effort allocated to routine murder cases, the net result may be to enhance the deterrent effect of the law and reduce the murder rate. That outcome is every bit as plausible as the reverse.

This analysis has focused on budgetary and resource savings for state government. The conclusion that abolition would save the state money indicates that the various changes in capital procedure and practice that have occurred over the last 15 years have not changed that basic conclusion (Cook and Slawson, 1993).

Note that the bottom line of this analysis rests on certain assumptions about how the relevant actors would respond to the abolition of the death penalty. The true cost consequences of abolition would depend on such factors as how district attorneys responded to the loss of leverage in plea

28. In a study of homicide cases in Philadelphia, Franklin Zimring and his colleagues observed that most were disposed of "wholesale" with lenient sentences or dismissals, while a relative few were given "retail" treatment (Zimring, Eigen, and O'Malley, 1976): "An important minority of killings—the "retail" cases—receive more attention, more complete due process, and penalties close to an order of magnitude higher than the low-visibility wholesale cases (p. 237)."

bargaining, how they chose to utilize the resources freed up if no more cases were prosecuted capitally, and how potential killers would respond to the new regime—whatever shape that it took. One of the key assumptions in the analysis above is that the murder rate would be unaffected by the abolition of the death penalty. The conclusion that abolition would save the state money and resources is sensitive to that assumption. If in fact the murder rate increased by as much as 10% as a result of abolition, that cash savings would eventually be eliminated and even reversed.[29] But as explained above, it is as likely that abolition would reduce the murder rate as increaseit—and a 10% change in either direction is highly unlikely.

5.1. Social Cost

It is important to recall that this analysis does not provide a complete accounting of social costs, but rather is narrowly focused on the costs to the state of processing cases. A complete accounting would consider a broader set of concerns. How murder cases are processed through the courts and corrections may have considerable impact on the well-being of victims' families and loved ones. Other citizens have a stake in how cases are processed to the extent that they are concerned about justice and fairness. There is little consensus. Some strongly believe that justice requires that especially heinous crimes be punished with death, while for others, the deliberate taking of life is immoral even if it is the life of a convicted murderer.

There is probably more of a consensus that murder cases deserve high priority in the courts, if for no other reason so as to incapacitate dangerous offenders and deter others from choosing to kill. The social costs of murder have been estimated as amounting to millions of dollars per death (Cook and Ludwig, 2000; Ludwig and Cook, 2001; Cohen et al., 2004). As a result, the impact of the criminal law and procedure on murder rates is of paramount

29. Here is a back-of-the-envelope calculation. An increase of 10% would result in fifty additional murder indictments per year at current rates. Based on the analysis above, about half of these would end up with a life sentence, either for first- or second-degree murder, and one-quarter a short sentence, while the rest would be dismissed or found innocent. The result would be a gradual increase in the prison population. By the 12th year, if nothing else changed, there would be 320 prisoners more than there would have been otherwise (not counting executions), and that number would continue to grow. The extra costs of imprisonment, together with the extra costs of processing these cases, would exhaust the annual savings at about that point.

concern. That fact was not ignored in this analysis; rather, it was set aside on the grounds that there is no basis for predicting whether abolition of the death penalty would increase or reduce the murder rate, and good reason to believe that the effect in either direction would be small.

The bottom line is that the death penalty is a financial burden on the state and a resource-absorbing burden on the trial courts. That conclusion is relevant to the debate over whether preserving the death penalty is in the public interest but surely not among the most important considerations.

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