University of Denver Criminal Law Review

Volume 3 | Issue 1 Article 5

January 2013

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Keywords

Economics, Interest, Law, Society, Race, Sentencing, State and Local Government Law

THE COST OF COLORADO'S DEATH PENALTY

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This paper analyzes cost of Colorado's death penalty in court days. We compare the number of days in court and the actual length of time from charges until sentencing in death prosecutions and first-degree murder cases with similarly egregious facts. We found that death prosecutions require substantially more days in court, and take substantially longer to resolve than non-death-prosecuted first degree murder cases that result in a sentence of life imprisonment without parole. Moreover, the costs of these prosecutions are not offset by any tangible benefit. Our study shows that not only are death penalty prosecutions costly compared to non-death cases, but the threat of the death penalty at the charging stage does not save costs by resulting in speedier pleas when the defendant wants to avoid the death penalty. In addition, the substantial cost of the death penalty cannot be justified by the possibility of future deterrence insofar as social scientists increasingly agree that the deterrence benefits of the death penalty are entirely speculative. In short, by compiling and analyzing original data, we show that Colorado's death penalty imposes a major cost without yielding any measurable benefits.

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‡ The authors would like to acknowledge the assistance of Meg Beardsley, Washington and Lee University, School of Law (J.D. 2007), and Matthew Potter, University of Virginia (J.D. 2011) in compiling and analyzing the study data.

INTRODUCTION

There is something unseemly about putting a price tag on justice. It seems that questions of morality and fairness ought to be one area of law where the "narcotic effect" of a cost/benefit analysis is deemed unsuitable.[1] But in the realm of constitutional rights it has long been recognized that the costs of absolute rights are prohibitive, and thus that there is necessarily a need to balance the costs of the right against its benefit in a particular situation – that is, there is a disconnect between the 'ideal' and the 'real' of constitutional rights.[2] Indeed, the Supreme Court routinely considers the cost of applying a right to a particular circumstance when addressing whether there is a remedy: if the cost of a remedy, in real terms, is too high, then the ideal of the right is not recognized.[3] Cost/benefit analysis is no less necessary in the context of evaluating the appropriateness of various forms of punishment. The cost of any particular punishment, both in dollars and in terms of governmental credibility, should be weighed against its benefits.

Accordingly, although philosophical, religious or moral debates about the death penalty may seem more urbane, a mature society that is mindful of economic realities should take seriously the costs of seeking the ultimate punishment.[4] Just as there are no absolute rights, there ought to be no absolute punishments – cost is always relevant. The Supreme Court has held that a constitutional right is generally undeserving of a remedy if that remedy "cannot pay its way"[5] – that is to say the benefits of the remedy must be balanced against its costs. The same should be true of the death penalty; we should not blithely accept absolutes without considering the relevant costs.[6]

This essay serves as a first reasoned effort to compare the relative costs and benefits of capital punishment in the state of Colorado. The essay proceeds in four parts. In Part I, we provide a brief overview of cost studies in other states, discussing their proliferation as well as their findings. In Part II, we set out the methodology for our original study of the trial costs of Colorado's death penalty, and in Part III we set forth and analyze the results of our study. Finally, in Part IV we examine two claimed benefits of the death penalty and provide a brief overview of the recent studies on the deterrent effect

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[1] Justice Brennan decried over-reliance on such principles in a famous dissent, explaining that cost/benefit analysis "can have a narcotic effect" and "creates an illusion of technical precision and ineluctability." United States v. Leon, 468 U.S. 897, 929 (1984) (Brennan, J., dissenting).

[2] *See* J. Harvie Wilkinson III, *The Dual Lives of Rights: The Rhetoric and Practice of Rights in America*, 98 CALIF. L. REV. 277 (2010) (describing the balance between rhetorical attachment to absolute rights with the actual practice of these rights); *see also* Paul Gewirtz, *Remedies and Resistance*, 92 YALE L.J. 585, 591 (1983) (describing "Interest Balancing," a theory of constitutional adjudication in which "remedial effectiveness for victims is only one of the factors in choosing a remedy; other social interests are also relevant and may justify some sacrifice of achievable remedial effectiveness."). Professor Gewirtz explains that in an interest balancing approach when "evaluating a remedy, courts in some sense 'balance' its net remedial benefits to victims against the net costs it imposes on a broader range of social interests. Thus, even if a particular remedy would be the most effective in curing the violation, its costs may be sufficiently high that an Interest Balancing court would choose a less effective remedy."

[3] *See, e.g.*, Herring v. United States, 55 U.S. 135 (2009); Stone v. Powell, 428 U.S. 465 (1976).

[4] Carol S. Steiker & Jordan M. Steiker, *Cost and Capital Punishment: A New Consideration Transforms an Old Debate*, 2010 U. CHI. LEGAL F. 117, 118 (2010) ("Moral and political debates about the death penalty have a certain timeless quality. Many of the same arguments and even examples (God's sparing of Cain!) reappear from generation to generation. It can truly seem that there is nothing new under the sun. Nonetheless, though its novelty has largely escaped notice, the argument for abolition based on the expense of administering a system of capital punishment is a new phenomenon—one that is extraordinarily powerful in current public policy debates, while being virtually nonexistent in the debates of prior generations.").

[5] *Herring*, 555 U.S. at 147–48 (citing *Leon*, 468 U.S. at 907 n.6).

[6] To be sure, the costs of many rights, for example, the right to Free Speech, may not be purely economic in the way that this paper frames the costs of capital punishment. Instead, pure conceptions of rights often impose costs on other rights or on the social contract more generally.

of capital punishment, which is one of the most commonly identified tangible benefits of the death penalty. In short, this essay provides a platform for weighing the costs of the death penalty, as measured in our study, against the deterrence benefits of capital punishment more generally. Although it is difficult to find reliable estimates about the costs of capital punishment in any given jurisdiction, this essay fills that void for the state of Colorado by providing concrete, easy to understand estimates about the relative costs of a death penalty prosecution in Colorado. We compare the time required by the trials and pleas of death penalty cases to the time required for the prosecution of the most serious of the first-degree murders during the same timeframe.

I. TOWARD AN OBJECTIVE MEASUREMENT OF COST

In recent years, it has become commonplace for policymakers and academics to consider the costs of the death penalty. Substantial public attention has been paid to the realization that a single death penalty prosecution can "drain a county's resources" or leave the state with fewer police officers, fewer drug rehabilitation programs and less training for prosecutors.[7] And with unsolved violent crimes on the rise,[8] the cost of capital punishment for many ailing state budgets has gained considerable prominence. Few studies have received more attention than the California study, which found, among other things, that the death penalty adds at least $137 million dollars of cost to the California budget each year, an additional $308 million per execution.[9] Figures like this have led some to conclude that the death penalty is a "luxury item" -- an unnecessary add-on to a justice system, and one that adds significant cost.[10] Indeed, the cost figures have become so staggering that even conservative pundit Bill O'Reilly recently came out in support of a proposition to abolish the death penalty in California.[11]

The notion that the cost problem can be solved by simply curtailing the opportunities for appeal misses the mark. Many of the procedures provided, such as a review of the adequacy of trial counsel's representation, are constitutionally required. Moreover, a significant portion of the costs of the death penalty occur at the trial level.[12] This fact has not been missed by Colorado's policy-makers. In a recent op-ed, one district attorney, Stan Garnett, wrote that "[p]rosecuting a death penalty case through a verdict in the trial court can cost the prosecution well over $1 million dollars (not to mention the

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[7] *See, e.g.*, Richard C. Dieter, *Millions Misspent: What Politicians Don't Say About the High Costs of the Death Penalty*, *in* THE DEATH PENALTY IN AMERICA: CURRENT CONTROVERSIES 401, 401-03 (Hugo Adam Bedau ed., 1997) (examining budget cuts in some states requiring massive police layoffs while funding for the death penalty persists).

[8] Some states have unsolved rape and murder rates of roughly 50%. *See, e.g.*, Editorial, *End the Death Penalty in California*, N.Y. TIMES, Nov. 6, 2012, at A28; *see also* ALEXIA COOPER & ERICA L. SMITH, BUREAU OF JUSTICE STATISTICS, HOMICIDE TRENDS IN THE UNITED STATES, 1980–2008 31 (2011) (discussing rising rates in unsolved homicides).

[9] CAL. COMM'N ON THE FAIR ADMIN. OF JUSTICE, REPORT AND RECOMMENDATIONS ON THE ADMINISTRATION OF THE DEATH PENALTY IN CALIFORNIA, at 10 (2008); *End the Death Penalty in California*, *supra* note 8.

[10] Dieter, *supra* note 7, at 404.

[11] Ron Briggs, *Why Conservatives Like Bill O'Reilly and Me Support Proposition 34*, FOX AND HOUNDS DAILY (Oct. 25, 2012), http://www.foxandhoundsdaily.com ("Opponents of Proposition 34 like to say 'let's fix the system.' Truth is, Republicans have had their hand on California's judicial death penalty rudder for 25 years. Voters ousted three liberal justices for failing to affirm death sentences and after nearly 20 years on the court, conservative, Republican-appointed Chief Justice Ronald George concluded that the death penalty system is 'dysfunctional.' Current Republican appointed Chief Justice Tani Cantil-Sakauye has echoed these remarks, saying the system is 'not effective.' Recently retired Justice Carlos Moreno, who believes in the death penalty, supports Proposition 34 because he knows the system can't and won't be fixed.").

[12] Dieter, *supra* note 7, at 405.

expense incurred by the judiciary and the cost of defense counsel, which is almost always funded with taxpayer funds in a death penalty case)."[13] The same district attorney estimated that the death penalty prosecution of a single case, including the trial and appeals to date, has cost some $18 million.[14] On March 19, 2013, Alternate Defense Counsel Lindy Frolich testified before the Colorado House Judicary Committee that, while a regular first degree murder case costs her agency about $16,000 per year, per case for the defense attorneys and costs, a death penalty case costs about $400,000 per year, per case.[15]

Anyone familiar with the process knows that death penalty prosecutions cost every agency more – a lot more. Every day in court entails higher level attorney, clerical, judicial, and investigative personnel, more lawyers per side, more courtroom security, and many more jurors.[16] These proceedings require the best and the brightest, from the attorneys to the scientists and experts, all the way down to the judicial law clerks employed for these complex cases. Everyone looking at a typical courtroom day in a death prosecution case can see that a vast amount of taxpayer money is being spent above and beyond what would have been spent on a prosecution for first degree murder where the maximum penalty is life imprisonment without parole ("LWOP").

The problem, however, is that these dollar figures are somewhat imprecise and anecdotal because of the complexity of figuring out how exactly to assign systemic costs of the death penalty across individual cases. Unlike the costs to the State of building a road or purchasing a new computer system for an agency – in which case the costs are known well in advance – the costs of any particular death penalty case (or the system as a whole) are not only not known in advance, but are not reported to or documented by any one agency or actor in the system.

Recognizing that the costs of the death penalty are spread among many different agencies and across a long period of time, the Board of Governors of the Washington State Bar Association recently explained:

> The costs of pursuing the death penalty are significant, but cannot be calculated with precision. Murder cases are generally among the most complex and challenging cases for lawyers to try and for courts to handle. When the death penalty is sought additional layers of complexity enter the case, both in terms of presentation of evidence and procedural requirements. Because of the ultimate and irrevocable nature of the penalty, numerous extra steps are required by statute, case law, court rules and the standard of practice in death penalty cases. In a capital case, extraordinary responsibility is placed upon the attorneys defending the accused, and also upon the prosecutors and the courts.[17]

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[13] Stan Garnett, *DA: Death Penalty Not Practical for Colorado*, BOULDER DAILY CAMERA (Dec. 16, 2012), http://www.dailycamera.com/guest-opinions/ci_22194910/da-death-penalty-not-practical-colorado.

[14] *Id.* (discussing the Nathan Dunlap case).

[15] Transcript of Proceedings, Colorado General Assembly, House Judiciary Committee, House Bill 13-1264 (March 19, 2013), p. 78 (testimony of Lindy Frolich).

[16] In a death prosecution, typically six to eight alternate jurors present rather than the typical two alternates, and the pool of jurors required to appear for voir dire numbers in the hundreds (approximately 1400-1800 per case), rather than the two or three dozen potential jurors called up for voir dire in a first degree murder prosecution where death is not sought. By statute, jurors and prospective jurors are paid fifty dollars per day. COLO. REV. STAT. ANN. § 13-71-126 (West).

[17] *Final Report of the Death Penalty Subcommittee of the Committee on Public Defense*, WASH. STATE BAR ASS'N (Wash. State Bar Ass'n, Wash.), Dec. 2006, at 14.

All of these same considerations are present in Colorado. The costs of the death penalty are substantial, but because they are spread across numerous steps and procedures, and can vary widely from case-to-case, it is difficult, perhaps unrealistic, to generate a single demonstrably correct price tag for the death penalty relative to other first degree murder prosecutions. But the question – "How much more does it cost to prosecute a death penalty case?" – can be answered with some precision if we focus on a comparison of the time costs of an aggravated murder case in which the prosecution sought the death penalty ("death prosecution") and a similarly-aggravated first degree murder case in which they sought a sentence of life imprisonment without parole ("LWOP prosecution").[18]

Thanks to the work of those involved in the data collection for a recent empirical study of the constitutionality of Colorado's death penalty, the Colorado Death Penalty Eligibility Study (CDPES), we have access to public court documents regarding every murder case filed in Colorado for the twelve-year period from 1999 through 2010.[19] By relying on this dataset we are able to quantify the amount of time involved in a Colorado death penalty prosecution as compared to a Colorado life-without-parole prosecution.[20] We do not make estimates about how much a day in court costs; however, we are able to provide objective information on exactly how much more, as measured by days in court, a death penalty prosecution costs the State.[21] Thus, although we do not have a set dollar figure, the cost figures measured in days in this study are objectively verifiable, not subject to any contradiction, and provide similarly forceful support for the conclusion that the death penalty is a comparatively very expensive system, even relative to prosecutions resulting in a sentence of life without the possibility of parole.

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[18] Of course, even these comparisons understate the cost of capital cases. Death penalty cases require more experienced lawyers, more experts, and likely cost considerably more per day than non-death cases.

[19] The CDPES was based upon data provided by the State Judicial Department regarding murder prosecutions commenced in Colorado between January 1, 1999 and December 31, 2010. Elected prosecutors have shamelessly claimed that the date range for the study was manipulated or contrived. *See, e.g.*, Michael Booth & Kevin Simpson, *If Colorado is to have this death penalty "conversation," start here*, DENV. POST, May 26, 2013, http://www.denverpost.com/news/ci_23325438/if-colorado-is-have-this-death-penalty-conversation (quoting District Attorney George Brauchler as stating, "The 12-year DU study started with 1999, conveniently leaving out a previous flurry of death-sentence cases . . . ."). In reality, the date range was determined by the limited capacity of the State Judicial Department to perform comprehensive electronic searches of its computerized databases before 1999. The Department reported that data prior to 1999 was not electronically searchable, thus limiting the date range of the CDPES. *See* Justin Marceau, Sam Kamin & Wanda Foglia, *Death Eligibility in Colorado: Many are Called, Few are Chosen*, 84 U. COLO. L. REV. ___ (forthcoming 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2210040. *See id.* at 140, notes 148-149 and accompanying text. There are a handful of non-death-prosecuted murder cases in which the district court has sealed the file from public view, but there is no reason to believe that those few cases would change the results of either the CDPES or this cost analysis.

[20] This approach has been taken by other studies that seek to estimate the costs of a death penalty prosecution. For example, the Washington State Bar Association Report suggested analysis of the number of additional days required for a death penalty case: "Some information is available on the cost of operation of the trial court. The Administrative Office of the Courts (AOC) analyzed the personnel costs for a superior court judge and courtroom staff and concluded that the staff cost to the counties for operating one trial court is $2,332 per day. (This cost analysis does not include the general costs of operating the court facilities, such as utilities, maintenance and security.) If an aggravated murder case takes 20 to 30 days longer to try as a capital case than as a non-capital case, then the extra cost in terms of trial court operation would be $46,640 to $69,960." WASH. STATE BAR ASS'N, *supra* note 17, at 18.

[21] It is beyond the scope of this analysis to say what a day in court "costs" the State of Colorado, or the individual jurors, family members, and others who attend and/or participate in the proceeding.

II. METHODOLOGY

The first step was to identify a data set of death penalty jury trial cases that would provide the best means to make a relevant comparison to the present and future costs of death penalty prosecutions. We began with the docket sheets and court information gathered for the CDPES, which included cases initiated between January 1, 1999 and December 31, 2010.[22] This set included thirteen death prosecutions that resulted in jury trials and nine death cases that resulted in a plea bargain rather than a completed trial (including one plea bargain entered during the guilt-innocence trial).

Next, we isolated those death prosecution/jury trial cases that occurred after the United States Supreme Court's landmark 2002 decision, *Ring v. Arizona*. In *Ring*, the Court ruled unconstitutional death penalty schemes like Colorado's, in which judges – not juries – were exclusively responsible for assessing who was eligible for the ultimate punishment.[23] Of the thirteen death prosecutions that resulted in either a completed guilt phase or sentencing phase trial,[24] eight occurred prior to *Ring*.[25] Because these eight pre-*Ring* cases arose prior to the constitutionally-mandated role of jury involvement in capital sentencing, they are less instructive as to the present cost and projected future cost of capital prosecutions under Colorado's post-*Ring* jury sentencing scheme. We thus used the post-*Ring* death penalty trials. These included the five cases found in the CDPES data.[26] In addition to this set, we added one additional case that fell outside the CDPES study range, but for which a capital sentencing jury trial was held in late 2003.[27] These six cases we

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[22] During the twelve-year period of time covered by the CDPES data, there were twenty-two death penalty prosecutions. Marceau et al., *supra* note 19. Information regarding the death prosecutions is contained in Appendix I, *infra*.

[23] Ring v. Arizona, 536 U.S. 584 (2002); Woldt v. People, 64 P.3d 256 (Colo. 2003). *See* People v. Montour, 157 P.3d 489 (Colo. 2007) (declaring a right to jury sentencing even when a defendant enters a guilty plea rather than going to trial). The General Assembly responded to *Ring v. Arizona* with passage of Laws 2002, 3rd Ex. Sess., Ch. 1, § 2, eff. July 12, 2002, which restored jury capital sentencing proceedings to Colorado. *See Woldt*, 64 P.3d at 259.

[24] In one of the thirteen, the death penalty was barred because, prior to the trial, the defendant was found to have mental retardation and was thus ineligible for the death penalty. People v. Vasquez, 84 P.3d 1019, 1020 (Colo. 2004). In another, the death penalty was barred after the trial, but before the judge-sentencing proceeding was scheduled to begin. In the interim, the United States Supreme Court decided *Ring v. Arizona*, 536 U.S. 584, 609 (2002), which declared judge-sentencing proceedings unconstitutional. In *Hagos*, the General Assembly passed a law designed to subject Hagos to a death penalty jury sentencing proceeding, but that law was held to violate the Colorado Constitution's prohibition on special legislation. *See* People v. Hagos, 110 P.3d 1290, 1291 (Colo. 2005). In addition to these thirteen completed or scheduled trials, there was one case that resulted in a mid-trial guilty plea. *See infra* Appendix 1 (*Than*). We treat this case as a guilty plea case.

[25] *See Woldt*, 64 P.3d 256 (declaring Colorado's three-judge capital sentencing statute unconstitutional in light of *Ring*).

[26] These included People v. Bueno (Lincoln County No. 2005CR73), People v. Perez (Lincoln County No. 2005CR74), People v. (Sir Mario) Owens (Arapahoe County No. 2006CR705), People v. Robert Ray (Arapahoe County No. 2006CR697), and People v. Montour (Douglas County No. 2002CR782). In Montour, a 2003 death sentence was imposed by a single-judge sentencing proceeding that followed entry of Montour's pro se guilty plea. The death sentence was reversed on appeal because the procedure violated *Ring v. Arizona*. People v. Montour, 157 P.3d 489 (Colo. 2007). In 2013, finding that "justice will be subverted if Mr. Montour is not allowed to withdraw his guilty plea," the trial judge permitted Mr. Montour to withdraw the plea. People v. Montour, Douglas County (Colorado) No. 02CR982, Order [2013-04-09] D-325, at 14. As of this writing, the jury trial is scheduled for 2014. For *Montour* case data, we have used actual pretrial proceedings as of June 1, 2013, and used future scheduled dates to calculate the projected trial date and the projected court days required for trial (which have been added to the time spent in the 2002-2003proceedings).

[27] People v. (Dante) Owens (Arapahoe County No. 1998CR2729). An LWOP sentence was imposed in 2004 following a jury sentencing trial. Because prosecution commenced in 1998, this case was outside the time parameters of the CDPES and thus was not included in that study. While the State Judicial Department indicated that large sets of data prior to 1999 was not searchable, individual case data is retrievable. Therefore, to be as thorough as possible, we have included this case, because it is a post-*Ring* death prosecution/jury trial and cost data (as measured in court days and length of time from charge to sentence) is available. A few other death

refer to herein as "death prosecution/trial" cases.[28] We believe this dataset includes every post-*Ring* death prosecution jury/trial case.

To form our comparison dataset for LWOP prosecutions, we identified more recent post-*Ring* cases. Using the CDPES dataset, and going back to 2005,[29] we identified 148 first degree murder cases that resulted in a trial, a conviction, a sentence of LWOP, and a finding by the CDPES that there were one or more aggravators in the case.[30] The 148 LWOP trial cases represent seventeen (17) counties throughout the State of Colorado and include the vast majority of such cases in the state between January 1, 2005 and December 31, 2010. In this analysis, we refer to these 148 aggravated first-degree murder cases as the "LWOP prosecution/trial" cases.

Using the court docket entries gathered for the CDPES, we quantified the time cost of prosecutions by calculating the number of court days spent in the four categories: (1) pretrial proceedings; (2) voir dire; (3) trial; and, if applicable, (4) sentencing. We averaged the court days required for the six death prosecutions and the court days required for the 148 LWOP prosecutions. By comparing the average number of court days required for a death prosecution to the average required for an LWOP prosecution, we are able to get a relative sense of the cost of Colorado's death penalty. We used the following basic procedures for calculating the number of days for each of the four categories: First, for purposes of simplicity, if any proceedings were conducted in court on a particular day, that day was counted as a court day even if the proceeding did not take the entire day. If, however, two proceedings occurred on the same day, for example, the final day of a trial and the first day of sentencing), we did not double count. Instead, when the sentence was imposed on the last day of trial, it was treated as a trial day (and not a sentencing day). By contrast, if the sentence was imposed on a separate day, that was counted as a full day even if the sentencing did not take a full day.[31] In addition, if a case was re-tried following a mistrial, the second round of pretrial hearings, voir dire, and trial was added to the first round for a total figure in each category for the case.

In addition to calculating average number of court days required, we also calculated the average total length of time required for the trial-level proceedings in the

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prosecutions were commenced prior to January 1, 1999 and continued with proceedings after that date; however, they were not included here because none of them involved a jury sentencing trial (as did the Dante Owens case). Therefore, none of the others could provide relevant information for the calculation of the costs of a death prosecution/jury trial.

[28] Four of the six death prosecution/jury trial cases involved a jury trial of guilt and of sentencing (Bueno, D.Owens, Ray, and S. Owens), one resulted in an acquittal at trial (Perez), and one is currently pending a guilt-innocence jury trial following a guilty plea that was later withdrawn following a successful appeal of the judge-imposed death sentence (Montour).

[29] Again, we use the more recent cases because only these cases fairly represent the likely costs imposed by a trial, insofar as prior to this date jury sentencing was not required in capital cases and the length of the sentencing trials and total number of court days was likely lower than it would be had that same trial been held today.

[30] The existence of an aggravating factor makes the defendant who is guilty of first-degree murder death eligible. *See* Marceau et al., *supra* note 19 (manuscript at 11). We used the most serious first-degree murders because we assumed that these cases, in general, would consume more time than second degree or less serious first degree murder cases and would therefore enable us to most closely isolate the additional costs associated with pursuit of the death penalty. We used first degree murder convictions to build in additional assurance that we were matching as closely as possible the egregiousness of the two sets.

[31] Because an automatic LWOP sentence is required for a first degree murder conviction, counting a sentencing as a full day of court tends to exaggerate the costs of an LWOP murder conviction and thus understate the relative amount of time costs imposed by a death penalty sentencing proceeding.

case, *infra* Figure 3. For this calculation, the charge date and final sentence date were used, but any appeals or post-conviction proceedings were not considered.[32]

III. RESULTS: COSTS OF THE DEATH PENALTY

A. Cost of Death Penalty Prosecutions that Go to Trial

On average, a death prosecution/jury trial case consumes approximately 148 days in court, not including any post-conviction proceedings or appeals. This consists of approximately 85 court days of pretrial hearings, 26 days of voir dire, 19 days of presentation of evidence at the trial to determine guilt or innocence, and an additional 21 days in court for the jury sentencing proceeding. These findings appear in Figure 1:

Defendant	Year Sentenced	Pretrial	Voir Dire	Guilt Phase	Sentencing	Total	Result
Bueno	2008	49	30	13	6	98	Jury LWOP verdict
Montour	2014 (scheduled)	120	29	23	23	195	Pending trial now
Owens, D.	2004	98	14	18	14	144	Jury LWOP verdict
Owens, S.	2008	74	25	27	27	153	Jury DP verdict
Perez	2011	62	6	10	n/a	78	Acquittal
Ray	2010	108	52	23	35	218	Jury DP verdict
Average Court Days:		**85.2**	**26**	**19**	**21**	**147.6**	

Figure 1. Days of Court Required for Post-Ring Colorado Death Penalty Jury Trials, by Stage of Proceeding[33]

As illustrated below in Figure 2, the comparison between the number of days spent prosecuting a death penalty case and the number of days spent prosecuting an LWOP case, even though the defendant is in fact death eligible,[34] is stark. There is a marked savings in time and resources when the State opts to pursue LWOP instead of a sentence of death. The LWOP cases required only an average of 24½ total days in court, as follows: 14 court days of pretrial hearings, 1.5 court days of voir dire, 8 court days of trial, and less than a day of court sentencing proceedings.

[32] Given that there is a statutory right to counsel in Colorado state court for post-conviction proceedings when a death sentence has been imposed, and on federal habeas review for death penalty defendants, the amount of time and cost for post-conviction litigation would also be considerably higher for death penalty cases as compared to other murder convictions.

[33] As noted, Montour's case is included because court scheduling orders permit projection of the number of days set aside for trial and any jury sentencing proceeding.

[34] See *supra* note 30.

Type of Case	Pretrial Hearings	Voir Dire	Guilt Phase	Sentencing	Total
Death Prosecution/jury trials (n=6)	85.20	26	19	21	147.60
LWOP Prosecutions/jury trials (n=148)	14	1.50	8.20	0.78	24.48

Figure 2. Comparison of Average Number of Days in Court for Death Prosecution/jury trials and LWOP Prosecutions/jury trials[35]

On average, a death prosecution that goes to trial requires over six times more court days than a comparable LWOP prosecution. The differences at each stage of the case are striking. Voir dire in an average LWOP case takes about a day and a half, but for an average death prosecution the jury selection takes an average of 26 court days. Similarly striking is the cost of a capital sentencing hearing as opposed to an LWOP sentencing proceeding. A capital sentencing proceeding takes an average of 21 days in court), but because a first-degree murder conviction carries a mandatory sentence of LWOP, the LWOP sentencings are almost always simultaneous with the jury's rendering of a verdict of guilty and usually take a matter of minutes..

B. Total Length of Time Between Charge and Imposition of Sentence

Another way that some studies have expressed "cost" of death penalty prosecutions is by reporting the length of time that it takes to resolve a death prosecution as compared with an LWOP prosecution.[36] Victims' families, attorneys, jurors, judges and others experience financial and other hardships when cases take a very long time to resolve. One national organization composed of relatives of murder victims who stand opposed to the death penalty, Murder Victims' Families for Reconciliation, has explained that "[t]he death penalty delays justice and it delays the healing process. Capital cases often take 25 years or more to reach completion, all the while keeping victims' families stuck in the system much longer than is the case with non-capital trials."[37]

Because our study of costs is focused on data relating to the days required to complete a trial and sentencing only – not appeals – we cannot draw firm conclusions about the total length of time needed to bring a death penalty case to "completion." However, our trial level data confirm the fact that a Colorado death prosecution takes longer to resolve than an LWOP prosecution. In fact, as Figure 3 demonstrates, a death prosecution case takes dramatically longer to resolve – even in the trial court, and even if a death sentence does not result.

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[35] As noted above, this is based upon all six of the Colorado post-*Ring* death penalty jury trials that either have occurred (Bueno, D. Owens, S. Owens, Perez, Ray) or are scheduled (Montour), and the set of 148 LWOP prosecutions (1) in which death was not sought, (2) that were commenced on or after January 1, 2005, and (3) that resulted in a conviction for first-degree murder and an LWOP sentence.

[36] *See, e.g.*, Terance D. Miethe, *Estimates of Time Spent in Capital and Non-Capital Murder Cases: A Statistical Analysis of Survey Data from Clark County Defense Attorneys*, Department of Criminal Justice, University of Nevada, Las Vegas (Feb. 21, 2012), *available at* http://aclunv.org/files/clarkcostreport.pdf.

[37] *How it Causes Harm*, MURDER VICTIMS' FAMILIES FOR RECONCILIATION, http://www.mvfr.org/how-it-causes-harm/ (last visited Feb. 7, 2013).

Type of case	Average length of time from charge to sentence	Additional time from charge to sentence required for death prosecution/jury trial
LWOP prosecution/ Jury trial (n=148)	526 days	--
Death prosecution/ Jury trial (n=6)	1902 days	1376 days for death prosecution (1902 – 526 = 1376)

Figure 3. Comparison of delay in jury trial cases for death and LWOP prosecutions, as measured by average days from filing of charge to imposition of sentence

Figure 3 illustrates that a death penalty trial prosecution takes much longer from charge to sentence than does an LWOP prosecution that goes to trial. Assuming both cases go to a jury trial, the death prosecution takes, on average, 1,902 days, or almost four calendar years longer in district court than an LWOP prosecution.[38]

C. Total Cost of Maintaining the Death Penalty System

As illustrated above, the per-case cost (as measured in number of court days required and length of time from charge to sentence) of a death penalty trial and sentencing compared to an LWOP trial and sentencing is staggering. The total amount of delay and the number of court days required for an LWOP prosecution are a fraction of those required for a death prosecution. Moving beyond the per-case costs, we wanted to know the aggregate cost (as measured in court days required and length of proceedings) of Colorado's death penalty prosecutions. In other words, we wanted to know how many total death prosecutions have been funded by the criminal justice system, with what results.

One methodology might have been to go back to Colorado's reinstatement of the death penalty in 1979,[39] determine the aggregate costs of all of the death penalty prosecutions, and compare this against the "benefit" of the 1997 execution of Gary Davis, who is the only person executed in Colorado since *Gregg v. Georgia* re-authorized the use of capital punishment.[40] However, given the unavailability of electronically-searchable data going back that far, and the fact that capital litigation has grown exponentially in

[38] Even though our focus of this study is on delay in trial court proceedings, we can offer some general observations about the added delay to appeals caused by a death prosecution. Two relatively recent developments in Colorado law have had a dramatic impact on the number of years it takes to resolve a death prosecution. The first was in 1997, when Colorado adopted a unique system for death penalty appeals, which requires defendants to file their post-conviction claims before the appeal can even begin. COLO. REV. STAT. ANN. § 16-12-201 (West 1997). The practical effect of this reform has been to delay the filing of a direct appeal for several years. Second, in 2002, for the first time, Colorado amended its statute to provide for a remand for resentencing in the event that a death sentence is reversed on appeal. COLO. REV. STAT. ANN. § 18-1.3-1201(7) (West 2002). Previously, when a death sentence was reversed, the automatic penalty was life imprisonment without parole ("LWOP"). While only one case has been through this new process so far (Montour), the impact on delay of the case can already be seen. Montour's case was reversed on appeal in 2007, but instead of the automatic imposition of a sentence of life imprisonment without parole, the case was remanded for resentencing. Later, citing unreliability of the pro se guilty plea Montour entered in 2003, the trial court permitted him to withdraw it and set the case for a guilt-innocence trial in 2014 – more than eleven years since the killing that spurred the death penalty prosecution. *See supra* note 26 and citations therein.

[39] Laws 1979, H.B.1269, § 1. This was the first post-*Furman v. Georgia* legislation that was held to be constitutional. See *People v. Dist. Ct.*, 196 Colo. 401, 586 P.2d 31 (Colo. 1978). *See Furman v. Georgia*, 408 U.S. 238 (1972).

[40] *See* Gregg v. Georgia, 428 U.S. 153 (1976).

complexity over the past three decades, such research might have little present-day utility in projecting the present and future costs of Colorado death penalty prosecutions. Thus, we return to the CDPES data as it is a comprehensive, recent, and reliable dataset.

Colorado paid for twenty-two new death prosecutions between January 1, 1999 and December 31, 2010,[41] but (as of this writing in June 2013), has to show for it only five death penalty sentencing proceedings,[42] two possible future executions (Ray and Owens), and the right to continue to seek the death penalty against Montour. The cost of death prosecutions in Colorado is high, and the execution yield is extraordinarily low.

Colorado appears to have a long history of spending resources on many death prosecutions, but coming up with almost no death sentences and even fewer executions.[43] Since 1980, Colorado has paid for well over 110 death prosecutions, but executed only one man, Gary Davis.[44] Perhaps because of the complex procedures involved in attempting to ensure that only the guilty and the deathworthy are executed, most death sentences in Colorado have contained legal, procedural, or constitutional errors such that they had to be reversed on appeal or by later trial court proceedings. Out of a dozen death sentences imposed since 1976, only three case were not reversed on appeal: that of Gary Davis (who was executed in 1997), Frank Rodriguez (who died of natural causes on death row), and Nathan Dunlap (who was just granted an indefinite "temporary reprieve" by the Governor of Colorado).[45] Thus, the fact that a Colorado case may initially result in a death sentence is not a reliable predictor of whether the defendant will, in fact, ever be executed.

It may be a matter of subjective judgment whether the execution rate (less than one execution out of over 110 prosecutions), or the reversal rate (9/12, or 75%) should be regarded as a failure. Even if the death penalty machinery does not produce any executions, it is possible that there is some societal value or good generated by the system (other than executions). But if the point of paying for and maintaining a death penalty system is to produce executions, it can hardly be disputed that Colorado has failed miserably in that regard. Whatever else Colorado's death-prosecution money is buying, it is not buying executions.

Given the undisputable fact that Colorado's death penalty money is not buying executions, it is reasonable to query whether there is some other "commodity" that can be attributed to maintenance of Colorado's death penalty system, and that makes the enormous expenditures worthwhile. There are only two possible arguments that have been offered to justify maintenance of a death penalty system that results in almost no

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[41] The 22 cases are listed in Appendix 1. There was litigation after January 1, 1999 in death prosecutions that were commenced prior to January 1, 1999 and therefore were not included in the CDPES. None resulted in a final death sentence or execution. *See* Stephanie Hindson, Hillary Potter & Michael L. Radelet, *Race, Gender, Region and Death Sentencing in Colorado, 1980–1999*, 77 U. COLO. L. REV. 549, 592 (2006). No death sentences resulted from any of the prosecutions. Since December 31, 2010, two additional death penalty prosecutions have been commenced and are noted on Appendix 1; one resulted in a guilty plea and sentence to LWOP for a double homicide, while the other is still pending as of this writing.

[42] *See infra* Appendix 1 (*Montour*, *Paige*, *Bueno*, *Ray* and *Owens*).

[43] *See, e.g.*, Hindson et al., *supra* note 42, at 580-82. As noted above, there were a few death prosecutions immediately preceding the study period, and another shortly after; however, none resulted in an execution or even a final death sentence.

[44] *Id.* at 580, 587 (identifying 110 death prosecutions between 1980 and 1999. There have been an additional thirteen death prosecutions since the conclusion of their investigation). *See infra* Appendix 1.

[45] *Id.* at 586-88. Two additional death sentences were untested by an appeal, but did not result in a Colorado death sentence, because in one the defendant committed suicide (Johnnie Arguello), and in the other the defendant waived his Colorado appeals and was executed by another State (Steven Morin). Hindson et al., *supra* note 42.

executions: leverage in negotiations for swift plea bargains, and general deterrence. In the next sections, we offer a cost-benefit assessment of both of those claims.

IV. BENEFITS OF THE DEATH PENALTY: GUILTY PLEAS AND DETERRENCE

In order to properly appreciate the value of death penalty prosecutions, it is necessary to compare the costs of such prosecutions, as identified in this study, with the benefits of the death penalty prosecutions. On one end of the scale, as our study shows, the costs of the death penalty in Colorado are strikingly high. The benefits, however, appear to be illusory.

Although there exists a wide range of moral arguments that one might level in favor of capital punishment,[46] just as we limit our discussion of costs to quantifiable costs, so too do we limit our examination of benefits. We consider the potential savings associated with the death penalty because of the rise in number and efficiency of plea bargains in cases where death is charged, and we consider the deterrence benefits of the death penalty.

A. Does the Death Penalty Save Money by Resulting in Swift Guilty Pleas?

To test the hypothesis that the threat of the death penalty prompts swift guilty pleas and thus reduces the costs of prosecution while still ensuring an LWOP sentence, we examined death prosecutions that resulted in guilty pleas to first degree murder and resulted in an LWOP sentence. In short, we wanted to see whether existence of Colorado's death penalty system provides a speedy path to an LWOP sentence such that the savings in the guilty plea cases could offset the expenses of maintaining the death penalty system in the non-plea cases.[47]

Approaching this inquiry requires two steps: (1) comparing the costs involved in the death prosecution/LWOP plea cases to the costs of successful LWOP jury trial prosecutions, and (2) comparing the costs involved in "failed" death penalty jury trial prosecutions – i.e., those in which death is pursued all the way through trial, but no death sentence results – with any savings in the death prosecution/LWOP plea cases to determine whether the savings in the plea cases offset the expenses in the failed death prosecutions. Each of these inquiries yields information about whether maintenance of a death penalty system can be justified by its value in producing guilty pleas to LWOP sentences.

1. Costs in Death Prosecution/LWOP Plea Cases[48]

Prosecution for the death penalty rarely results in a plea of guilty to first degree murder.[49] It happened in Colorado only five times during the CDPES study period.

[46] Of course, moral arguments for and against the death penalty all presume a system that results in executions, not a system like Colorado's, which primarily results in process, not executions.

[47] Even though there are many reasons a defendant might enter a guilty plea, and in any given case the plea may not be the result of a defendant's fear of receiving a sentence of death, we examined all guilty pleas without regard for the motivation behind them; in other words, we essentially "credit" the death penalty prosecution with having produced the guilty plea, even if the plea was entered for completely independent reasons.

[48] There were four guilty pleas to a lesser offense. *See* Appendix 1. We did not analyze guilty pleas to lesser offenses for either death prosecutions or LWOP prosecutions, because we wanted the most precise comparison possible between the post-*Ring* dataset of LWOP prosecution/jury trial cases, and, presumably, a plea to a lesser offense can be induced by the threat of an LWOP sentence anyway, making it difficult to isolate the coercive effect of the death prosecution. Thus, assessing or comparing the costs of the non-LWOP guilty plea cases is beyond the scope of this article.

Because there was such a small sample size for the death prosecution/LWOP plea cases (n=5), we expanded the set to include the Sher case, which is the only case that arose after the conclusion of the dataset for the CDPES. We call these six cases the "death prosecution/LWOP plea cases." They are shown in Figure 4.

County	Year Prosecuted	Defendant	Result	Court Days	Length of Time
Denver	1999	Ramirez	LWOP (2 counts)	17	1216
Denver	1999	Than	LWOP (2 counts)	30	736
El Paso	1999	Albert	LWOP	12	499
El Paso	2006	Lee	LWOP	24	746
Douglas	2006	Rubi-Nava	LWOP	41	882
Douglas	2011	Sher	LWOP (2 counts)	17	389
Total spent on death prosecutions/LWOP plea cases (n=6)				**141**	**3798**
Average per case for death prosecution/LWOP plea cases (n=6)				**23.5**	**633**

Figure 4. Colorado death penalty prosecutions that resulted in a guilty plea to first degree murder and an LWOP sentence, cases commenced after January 1, 1999

The next step is to compare the death prosecution/LWOP plea cases with the set of LWOP cases examined above, *i.e.*, the 148aggravated first degree murder cases that resulted in a conviction and LWOP sentence following a jury trial and that could have been, but were not, prosecuted as death penalty cases ("LWOP prosecution/trial cases"). Figure 5 reports the results.

Type of Case	Average court days	Average length (in days)	Comparison to LWOP/jury trial case	
			Average Court Days	Average Length from Charge to Sentence
LWOP prosecution/jury trial cases (n=148)	24.48	526	--	--
Death prosecution/LWOP plea cases (n=6)	23.50	744.66	1 less day	218.66 more days

Figure 5. Comparison of average number of days in court and average length of time required for prosecutions that resulted in convictions for first degree murder, by type of prosecution

[49] *See infra* Appendix 1. To be sure, the prosecution may have threatened a sentence of death in other cases even though they did not explicitly notice the case as a death penalty case. However, there is no way to measure exactly how common such threats are. Nor is there a way of knowing how plausible a death prosecution was in such cases when the prosecution did not even identify one or more aggravating factors in the required charging instrument.The aggravating factors and the decision to seek death must be made within 63 days of the preliminary hearing. COLO. CRIM. P. § 32.1(b) (West 2012).

As a per-case average, it takes more court days to prosecute a death penalty case, even if it results in a guilty plea to LWOP, than it takes to simply prosecute the case as an LWOP jury trial. Figure 5 shows that a death prosecution that results in a *guilty plea* to first degree murder takes an average of about 23 ½ court days, while only about 24 ½ court days are required if the case *goes to trial* and results in a conviction for first degree murder and an LWOP sentence. That is to say, a death prosecution guilty plea costs about the same as an LWOP trial, as measured in court days required.

As measured by our other "cost" factor – length of time from the date of charge to the date of sentencing, the facts also belie the claim that death prosecutions result in speedier justice. The average length of time from filing of charge to imposition of sentence in the death prosecution/LWOP plea cases is 744.66 days, or over 218 days longer for the death prosecution/LWOP plea cases than for the LWOP prosecution/jury trial cases.

These findings substantially undermine the claim that death prosecutions are more efficient because the threat of a death sentence induces a swift or less expensive guilty plea to a first degree murder charge.

As shown in Figure 5, the death prosecution/LWOP plea cases took about a day less in number of court days over the LWOP prosecutions that went to jury trial, but took, on average, a year-and-a-half longer to get from charge to imposition of sentence. These results reveal no empirical support for the claim that the death penalty is cost-effective based on its ability to induce guilty pleas to first degree murder.

As will be seen next, however, a complete cost analysis must take into account that, in order to induce the occasional guilty plea to first degree murder (and to obtain the even more rare death sentences), Colorado must maintain a death penalty system that exacts costs even when it fails to produce executions or guilty pleas to first degree murder.

2. Marginal Costs of Failed Death Penalty Prosecutions

A 2012 analysis of empirical data from Georgia, analyzed by Sherod Thaxton, the Dickerson Fellow at the University of Chicago Law School, suggests that the benefit of induced plea bargains resulting from the threat of execution is illusory at best:

> The empirical findings in this article suggest that the threat of the death penalty has a substantial *causal* effect on the likelihood that a defendant accepts a plea agreement. Nevertheless, the magnitude of the effect is clearly insufficient to offset the substantial administrative and financial costs arising from the occasional capital defendant taking her chances at trial (or, in some instances, even the capital case that incurs significant pre-trial or pre-penalty phase cost prior to a plea agreement). The government's use of the death penalty to obtain convictions quickly and cheaply appears to fail on both of these dimensions—and this may be particularly true in marginal cases because the likelihood of trial, a non-death sentence, or a reversal on appeal is particularly high.[50]

In other words, there is a distinct probability that the death prosecutions that result in guilty pleas would have cost the State the least to try. In contrast, the death prosecutions that actually go to trial may be the marginal ones in which, as Thaxton notes, the chance is lower that a death sentence will result and survive an appeal.

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[50] Sherod Thaxton, *Leveraging Death*, 103 J. CRIM. L. & CRIMINOLOGY (forthcoming 2013), *available at* http://ssrn.com/abstract=2138627.

As Thaxton notes, the marginal costs or savings in the death prosecution/LWOP plea cases must include the cost of not merely those cases themselves, but also the cost of maintaining the entire death penalty machinery, without which there is no credible threat of execution which, as the theory goes, is a prerequisite to inducing the guilty plea.[51] Thus, the costs of the entire system must be placed into the mix, including the cost of the "failed" death penalty trial prosecutions – *i.e.*, the cases that are pursued right up to or through trial, and sometimes even through a capital sentencing proceeding, but without a death sentence or execution resulting.

Using our dataset, we first identify Colorado's "failed" death penalty prosecutions and calculate an average per case cost (measured in court days). These are shown in Figure 6.

County	Case No.	Defendant	Result	Court Days
Denver	1999CR2029	Donta Paige	LWOP (judge sentencing)	51
Denver	1999CR2738	Abraham Hagos	DP barred after trial because of Ring v. Arizona; LWOP	56
Teller	2000CR178	Anthony Jimenez	convicted of lesser charge	167
Adams	2000CR1675	Manuel Melina	convicted of lesser charge	42
Adams	2000CR634	John Sweeney	convicted of lesser charge	38
Adams	2000CR638	Jesse Wilkinson	convicted of lesser charge	32
Weld	2002CR457	Allen Bergerud	Hung jury; death penalty dropped before retrial. Convicted in 2nd trial, LWOP.	92
Adams	2002CR2231	Jimmy Vasquez	DP barred before trial because of mental retardation; LWOP	48
Lincoln	2005CR73	David Bueno	Jury LWOP verdict	98
Lincoln	2005CR74	Alejandro Perez	Acquitted of all charges	78
Total days spent on failed death prosecutions			1 Acquittal 4 Convicted lesser charge	**702**
Average court days per case			5 LWOP sentences 0 death sentences	**70.2**

Figure 6. Colorado death penalty trial prosecutions that did not produce a final death sentence, cases commenced after January 1, 1999

In Colorado, including all death prosecutions commenced since January 1, 1999, there were ten "failed" death penalty cases that went through trial (and in two cases, through a capital sentencing proceeding), even though no death sentences resulted. (In five of the ten, the trial did not even result in a first degree murder conviction). In total, 702

[51] *Id.* at 52-53.

court days were spent on these death prosecutions. On average, each case required approximately 70 days in court.

Figure 7 shows the comparison between the average number of court days required to litigate an LWOP prosecution/trial case to conclusion, as compared to a "failed" death penalty prosecution – *i.e.*, one that does not result in a death sentence.

Type of Case	**Average Total court days**
LWOP prosecution/jury trial cases (n=148)	24.48
Failed Death prosecution/jury trial cases (n=10)	70.2
Total Additional Average Court Days for Failed Death Prosecution/Trial Cases	+45.72

Figure 7. Comparison of Average Number of Days Required for "Failed" Death Prosecution/Trial Cases and LWOP Prosecution/Trial Cases

The failed death penalty prosecutions require substantially more court days than do the LWOP trial prosecutions: on average, 45.72 *more* days in court are required for the failed death penalty prosecutions as compared to an LWOP trial. This is in marked contrast to the mere savings of approximately one *less* court day required on average when a death penalty prosecution results in an LWOP plea instead of trial.

The next step is to calculate what Colorado would have spent on ten average LWOP prosecution/trial cases. We take the average 24.48 days (as shown in Figure 2) for the average LWOP prosecution/trial case and multiply it by ten (the number of failed death penalty prosecutions) for a total of 244.8 days that would have been required to simply litigate the failed death prosecutions as LWOP trial prosecutions. Instead, as shown above in Figure 6, Colorado spent 702 court days on those ten death prosecutions.

Thus, using actual data from the cases, it is possible to answer the question whether, for cases commenced since January 1, 1999, Colorado "saved" more court days by prosecuting cases for the death penalty but then accepting a guilty plea to first degree murder and an LWOP sentence. Colorado "saved" approximately six court days by inducing the six guilty pleas to first degree murder, but, above and beyond the cost of those six cases, "spent" 702 additional court days on ten failed death penalty prosecutions, for a net "cost" of 696 days.

In conclusion, in order to make the death penalty system available to "save" about a day in court on each death prosecution/LWOP plea cases, Colorado has to maintain massive expenditures of court days on death prosecution cases that fail to produce death sentences or executions. It is apparent that the marginal savings of the death prosecution/LWOP plea cases are overwhelmed by the marginal costs of the failed death penalty trial cases. A final question remains, however: in spite of the fact that the Colorado death penalty scheme does not result in executions and is vastly more expensive (even accounting for induced LWOP guilty pleas), is there some clear benefit that overwhelms the enormous cost of the system? Proponents of the death penalty sometimes argue that it deters other people from preventing murder. That potential benefit is explored next.

B. Does the Death Penalty Deter Future Murders?

Although it is commonplace to assert that the death penalty is an effective deterrent, recent independent studies undermine this conclusion. Stated differently, although the costs of the death penalty in Colorado are high, the deterrence benefits appear to be entirely speculative.

For decades, scholars have produced conflicting empirical research regarding the effect of capital punishment as a deterrent for homicide; for each article finding a deterrent effect at least one paper finding no such effect was published. In the face of such conflicting empirical conclusions, the National Research Council convened an independent committee to study whether the available data supports the conclusion that the death penalty has a deterrent effect.[52] The findings of this committee, published by the National Academy of Sciences in 2012, are that it is impossible to conclude that the death penalty serves as a meaningful deterrent.[53] Specifically, the committee summarized its findings and conclusions by saying:

> The committee concludes that research to date on the effect of capital punishment on homicide is not informative about whether capital punishment decreases, increases, or has no effect on homicide rates. Therefore, the committee recommends that these studies not be used to inform deliberations requiring judgments about the effect of the death penalty on homicide. Consequently, claims that research demonstrates that capital punishment decreases or increases the homicide rate by a specified amount or has no effect on the homicide rate should not influence policy judgments about capital punishment.[54]

The most current, comprehensive, and neutral study of the deterrent effect of capital punishment, therefore, concludes that there is no evidence that the death penalty provides even a marginal deterrent benefit above a long prison sentence.[55]

Notably, other recent academic studies have gone even further in suggesting that there is no connection between the death penalty and deterrence. For example, a recent study reported that 88% of the country's top criminologists surveyed do not believe the death penalty acts as a deterrent to homicide.[56] It is safe to say that there is a consensus among leading researchers that the death penalty either does not deter, or that there is no evidence that it deters.

Moreover, it is worth pointing out that any conclusion about the limited deterrence value of the death penalty in general is particularly salient in Colorado where the rate of executions is staggeringly low. Since the reinstatement of the death penalty in

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[52] NAT'L RESEARCH COUNCIL, DETERRENCE AND THE DEATH PENALTY 33 (Daniel S. Nagin & John V. Pepper eds., 2012), *available at* http://www.heinz.cmu.edu/download.aspx?id=3271.

[53] *Id.* at 2.

[54] *Id.*

[55] Notably, the committee also notes that it is unable to conclude that the death penalty has no deterrent effect. Simply put, the findings are that there is no evidence in support of a deterrence thesis; the studies to date have failed to show that the death penalty deters or does not deter crime. *Id.* at 3 ("A lack of evidence is not evidence for or against the hypothesis.").

[56] Michael L. Radelet and Traci L. Lacock, *Do Executions Lower Homicide Rates?: The Views Of Leading Criminologists*, 99 J. CRIM. L. & CRIMINOLOGY 489, 505-506 (2009) (eighty-seven percent concluded that the abolition of the death penalty would not have a significant effect on murder rates and 75% believe that "debates about the death penalty distract Congress and state legislatures from focusing on real solutions to crime problems.")

Gregg v. Georgia,[57] Colorado has only executed one person.[58] If one accepts that actual executions are required in order to generate a meaningful deterrent, then even assuming capital punishment is capable of deterring homicides elsewhere, in Colorado the non-existence of actual executions may have stripped the death penalty of any deterrent value.[59] We do not suggest that the absence of executions in Colorado proves that the state's death penalty is without any deterrent benefit, but it is worth pointing out that the as-yet unsubstantiated deterrence theory is probably even more attenuated in Colorado.[60] With the lack of demonstrable deterrent effect in *any* state, it would be implausible that the death penalty could have any deterrent effect in a state where only one person has been executed since 1967. And given that the most current research does not find any deterrent effect for the death penalty across the United States, the prospect of a deterrent benefit in Colorado seems particularly illusory.

V. CONCLUSION

This essay summarizes the quantifiable costs of the death penalty. We do not address the argument that these sentences impose a moral injury on society. Likewise, in summarizing the benefits of the death penalty, we have focused exclusively on quantifiable benefits and avoided arguments about the moral imperative of the death penalty. Our findings are unequivocal: Colorado's death penalty imposes tremendous costs on taxpayers and its benefits are, at best, speculative, and more likely, illusory.

Specifically, we found that death prosecutions require substantially more days in court, and take substantially longer to resolve, than non-death-prosecuted first degree murder cases that result in a sentence of LWOP. The costs of these prosecutions are not offset by any tangible benefit. Our study shows that not only are death penalty prosecutions costly compared to non-death cases, but the threat of the death penalty at the charging stage does not save costs by resulting in speedier pleas to first degree murder. The difference in court days between guilty pleas in death prosecution cases and complete trials in LWOP prosecution cases is negligible and overwhelmed by the exponentially-increased number of days required for failed death penalty prosecutions that result in neither a plea bargain nor a death sentence.

The substantial cost of the death penalty cannot be justified by the possibility of future deterrence insofar as social scientists increasingly agree that the deterrence benefits of the death penalty are largely non-existent in general, and the deterrent value is likely even less in Colorado where there has been only one execution in three decades. In short, the death penalty imposes a major cost without yielding any measurable benefits.

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[57] 428 U.S. 153 (1976).

[58] *See* Hindson et al., *supra* note 42, at 587 (describing case of Gary Davis).

[59] *See* NAT'L RESEARCH COUNCIL, *supra* note 53, at 33 ("Among states that provide authority for the use of the death penalty, the frequency with which that authority is used varies greatly. . . . [S]ince 1976 three states—Florida, Texas, and Virginia—have accounted for more than one-half of all executions carried out in the United States, even though 40 states and the federal government provided the legal authority for the death penalty for at least part of this period. Constructing measures of the intensity with which capital punishment is used in states with that authority is a particularly daunting problem.").

[60] *Id.* at 29 ("The theory of deterrence is predicated on the idea that if state-imposed sanction costs are sufficiently severe, certain, and swift, criminal activity will be discouraged."); *but see id.* at 33 ("[A]ctual frequency of executions may not alter would-be murderers perceptions of the risk of execution and therefore not alter behavior even if there is a deterrent effect.").

APPENDIX 1

Cost Study Death Prosecutions in Colorado, by year of prosecution[61]

Year	County	Defendant	Procedure	Days in Court	Length from Charge to Sentence	Result
1998	Arapahoe	D.Owens	Trial + jury sentencing trial	144	1964	LWOP (3)
1999	Denver	Ramirez	Plea LWOP (2 counts)	17	1216	LWOP (2)
1999	Denver	Than	Plea LWOP (2 counts)	30	736	LWOP (2)
1999	El Paso	Albert	Plea LWOP	12	499	LWOP
2000	Morgan	Palomo	Plea lesser	26	602	Lesser
2000	Adams	Lopez	Plea lesser	26	465	Lesser
2001	Arapahoe	Brown	Plea lesser	22	644	Lesser
2006	El Paso	Lee	Plea LWOP	24	746	LWOP
2005	Rio Grande	Medina	Plea lesser	14	372	48 years
2006	Douglas	Rubi-Nava	Plea LWOP	41	882	LWOP
1999	Denver	Paige	Trial + judge sentencing trial	51	652	LWOP
1999	Denver	Hagos	Trial	56	2246	LWOP
2000	Teller	Jimenez	Trial	167	1345	Lesser
2002	Adams	Vasquez	Trial	48	740	LWOP
2000	Adams	Melina	Trial	42	738	Lesser
2000	Adams	Sweeney	Trial	38	408	Lesser
2000	Adams	Wilkinson	Trial	32	513	Lesser
2002	Weld	Bergerud	Trial	92	1315	LWOP
2002	Lincoln	Montour	Pending trial	195	4201	pending
2005	Lincoln	Perez	Trial	78	1866	Acquitted
2005	Lincoln	Bueno	Trial + jury sentencing trial	98	854	LWOP
2006	Arapahoe	S.Owens	Trial + jury sentencing trial	153	1007	Death Sentence; pending appeals
2006	Araphaoe	Ray	Trial + jury sentencing trial	218	1520	Death Sentence; pending appeals
2011	Douglas	Sher	Plea LWOP (2 counts)	17	389	LWOP (2)

[61] This is primarily the CDPES dataset of death prosecutions commenced between January 1, 1999 and December 31, 2010, with two additions: The 1998 D. Owens case, which commenced prior to January 1, 1999, is included because there was a post-*Ring* (2003) jury capital sentencing proceeding, providing relevant information for present and future costs of death prosecutions/jury trial cases. The 2011 Sher case, which was commenced after December 31, 2010, is included because it provides relevant information about the present and future costs of death prosecution/LWOP plea cases. *See* Marceau et al., *supra* note 19 (manuscript at 23–26) (describing how the CDPES was performed).