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## The Texas Deterrence Muddle

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# POLICY ESSAY

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## IMPACTS OF EXECUTIONS ON HOMICIDES

### The Texas Deterrence Muddle

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The ongoing debate about capital punishment in the United States juggles several contentious questions. Innocence, cost, racial fairness, proportionality, retributivist calculus, and deterrence concerns thread a literature whose richness testifies to the endurance of capital punishment in American legal and political culture. For proponents of capital punishment, the connection between the moral and utilitarian or consequentialist positions trumps all other concerns: They suggest that if the death penalty can prevent—through the incapacitation of the offender and general deterrence of would-be killers—the loss of even one innocent life from murder, then execution is a morally justified or perhaps even morally required penal response (Sunstein and Vermeule, 2005).<sup>1</sup> This linkage raises the stakes in the death penalty beyond policy considerations (Garland, 2011; Steiker and Steiker, 2010; Zimring, 2003) and elevates the question of whether executions deter to near primacy in this debate.

The latest work on executions and murders reported by Kenneth C. Land, Raymond H. C. Teske, and Hui Zheng (2012, this issue), together with reports from previous stages of their Texas capital punishment project (Land, Teske, and Zheng, 2009), takes its place in the recurring debate surrounding the deterrence question (Nagin and Pepper, 2012). As with its predecessors, Land et al.'s work has implications for both the moralist and consequentialist

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1. Cass R. Sunstein later joined with Justin Wolfers (2008), whose work with John Donohue (Donohue and Wolfers, 2005) was critical of the Sunstein–Vermeule (2005) analysis, to clarify their respective assessment of the evidence of a deterrent effect of executions on murder. A few years later, Sunstein and Wolfers (2008) concluded that “the best reading of the accumulated data is that they do not establish a deterrent effect of the death penalty.”

positions, perhaps more so than studies done in other death penalty states. Texas is special for three reasons. First, the state has been the dominant user of executions in the decades since the U.S. Supreme Court imposed a brief moratorium in *Furman v. Georgia* (1972). Since executions resumed in Texas in 1982 after the Supreme Court decision in *Gregg v. Georgia* (1976), Texas's 472 executions through 2011 account for more than one third of all executions in the United States (Death Penalty Information Center, 2012).

The second reason to focus on Texas is that much of the deterrent effect observed in the post-*Gregg* deterrence studies is leveraged by the influence of Texas (Berk, 2005). Berk observed that any evidence of the impacts of executions on homicide rates can be dismissed for U.S. death states other than Texas. So, if executions can show a distinctive impact on death-eligible killings anywhere, then Texas should be the place. Given its high rate of executions, the case for the impact of the death penalty on homicide cannot be so easily dismissed if we observe deterrence in Texas (Fagan, Zimring, and Geller, 2006).

The third reason is that Texas offers a unique opportunity to estimate the marginal deterrent effect of execution beyond the next most serious punishment: a sentence to natural death in prison or life without the possibility of parole (commonly known as LWOP). The unique opportunity to test the marginal deterrent effects of execution compared with LWOP emerges in Texas in two ways. One way is the enactment of LWOP as a sentencing option for capital-eligible murders in September 2005, in the midst of the lengthy time series of murders and executions that Land et al. (2012) examine for evidence of deterrence. Such opportunities for natural experiments in criminal justice are rare but can offer strong evidence of the effects of new law or policy (Fagan, 1990). Second, as a result of the new LWOP statute, Texas now has high rates of both executions and LWOP sentences (Olsen, 2011).<sup>2</sup> The dual high prevalence of the two most severe sanctions available for capital-eligible murders provides fertile ground for a robust test of the deterrence hypothesis.

How to view the contributions of Land et al.'s (2012) article is the focus of this policy essay. Several longstanding parameters of this debate will help us to gauge its contributions. And a closer look at the capital punishment regime in Texas also may help to place Land et al.'s (2009, 2012) work in a broader social science and jurisprudential context on capital punishment that will shape how these inquiries might look in the future.

## Deterrence

Land et al.'s (2012) research is located in a streamlined framework of deterrence that departs significantly from contemporary renderings of deterrence, whether applied to murder or

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2. The Texas LWOP statute also provided opportunity for age-specific experimentation on the effects of LWOP on young murder offenders. From September 2005 to September 2009, Texas allowed life without parole prison sentences for juvenile offenders under the age of 18 years at the time of their offense who had been certified to stand trial as adults. SB 839 changed Texas law to bar such punishment in September 2009. By then, 21 people in Texas had been sentenced for crimes they committed before 18 years of age.

other crimes. The basic Becker–Ehrlich logic of the economic approach to crime (Becker, 1968, 2006; Ehrlich, 1975) is nowhere to be found in the Land et al. (2012) work. The key feature of the economic approach is the assumption that (a) criminal acts are purposeful choices that are subject to individual utility functions, (b) actions are bounded by social influences including rational or irrational views about the consequences of actions, and (c) those costs are created through cascades of legal interventions, from detection to prosecution, sentencing, and punishment.

Dozens of studies on executions and murder have followed this design (see Donohue, 2009; Fagan, 2006; Nagin and Pepper, 2012, for reviews), including the recent efforts by Kovandzic, Vieraitis, and Boots (2009) and Donohue and Wolfers (2009). All are rooted in choice theory, consistent with Becker, and all, regardless of discipline, seek to identify a causal link between executions (or death sentences) and offender choices to commit homicides.

Theoretical work on crime and deterrence has moved beyond those early cost-centric formulations to broaden the notion of choice and incentives. New work on deterrence focuses on perceptions of both risks and rewards of crime, the rationality calculus of criminal offenders, dose-response effects of various sanctions, and several individual-level factors that may either moderate or mediate the sanction–crime relationship (Apel, 2012; Loughran, Piquero, Fagan, and Mulvey, 2012; Nagin, 1998; Nagin and Paternoster, 1994; Piquero, Paternoster, Pogarsky, and Loughran, 2011; Robinson and Darley, 2004; Williams and Hawkins, 1986; Zimring and Hawkins, 1973).

But neither of these versions of deterrence is the focus of Land et al.'s (2012) project. Instead, this article and the previous publication join many studies of deterrence that examine the joint stochastic processes that link homicides (however measured) and executions across time, without specifying the intervening processes. Land et al.'s project foregoes a detailed specification of the sanctioning regime for capital-eligible murders where execution is the end of the line that starts with detection risks and ends with execution or another form of incapacitative punishment. It is agnostic on the substantive influences on the choices that offenders make given execution risks. Apart from individual differences, Land et al.'s approach also assumes that the characteristics of the choice are independent of local contexts—the work is silent on local crime or social conditions in neighborhoods, the efficiency of the local police and courts to detect and punish crimes, the signals of risk that emanate from those authorities, the availability or likelihood of alternative harsh punishments, and the social networks of offenders and would-be offenders that communicate risk. Each of these matters is detailed in the next section.

### **Which Homicides?**

One comparative advantage of Land et al.'s (2012) work is the disaggregation of homicides into components. This strategy is done for several good reasons. Not all homicides are eligible for a death sentence, nor are all equally deterrable (see, e.g., Shepherd, 2004, 2005).

Since *Gregg*, the cherished idea that “death is different” has guided states to craft death penalty statutes that reserve execution for offenders who meet statutorily defined capital eligibility requirements (Abramson, 2004; Steiker and Steiker, 2010). State statutes base capital eligibility in part on grades of heinousness or premeditation; they also include “felony murders” where killings take place in the course of commission of a nonhomicide felony crime. But even that threshold does not capture the totality and complexity of killings that are capital eligible. Other homicides—such as killings of police or children, or multiple victim shootings—evoke normative outrage that motivates legislatures to create eligibility for the death penalty for such crimes (Sharon, 2011; Simon and Spaulding, 1999). An effective death penalty would produce changes in the heterogeneous categories of homicides that are death eligible and that face the threat of execution.

Land et al.’s (2012) project is not the first to have tried this. In 2006, Fagan, Zimring, and Geller published a study that disaggregated Texas homicides into two groups—those potentially eligible for a death penalty (approximately 25% of all kills) and non-death-eligible killings (the other 75%) (Fagan et al., 2006). The study investigated whether death-eligible killings responded to Texas execution rates and found that they did not. We showed that almost the entire decline in homicides that happened in Texas involved killings that did not risk a death sentence. We concluded that the variation in execution rates would not be a plausible influence on the variation in non-death-eligible killings under the conventional theories of deterrence.

This latest version of Land et al.’s (2012) Texas analysis addresses only a subset of this group of capital-eligible murders: “felony homicides.” Accordingly, the unique contribution of Land et al.’s (2012) project is unclear because felony murders are only a part of the story of capital punishment in Texas. The Texas capital punishment statute (Texas Penal Code §19.03) lists a set of other aggravators that render first-degree murder eligible for capital punishment: killings of children younger than 6 years of age, killings of police officers or staff in correctional institutions, mass shootings, murder for hire, and murder during a prison escape. There is no doubt that felony murders are an important piece of the “market share” of capital-eligible homicides, but they are only approximately half of all capital-eligible homicides (Fagan et al., 2006).

Our 2006 study applied the criteria and definition from §19.03 to the Supplemental Homicide Report data to estimate that 21.1% of all homicides in Texas 1977–2003 were capital eligible. Table 1, which is adapted from Fagan et al. (2006), shows that 54.6% of all capital-eligible homicides were felony murders. Among felony murders, nearly 80% of those were murders committed during the course of robberies. The rest fell into several other categories of capital eligibility in the Texas statute, in which multiple victim shootings is the second largest category.

The challenge remaining in Land et al.’s (2012) study is to estimate the effects of executions on the rest of the pool of capital-eligible homicides: the 45.5% that were non-felony murder, capital-eligible homicides. Readers are left to wonder whether these other

TABLE 1

**Capital-Eligible Homicides, Texas, 1977–2003**

Category	N	% of All Homicides	% of Capital-Eligible Homicides
Homicides during crimes	5,723	11.6	54.6
Institution killings	117	0.2	1.1
Gangland killings	259	0.5	2.5
Youth gang killings	155	0.3	1.5
Sniper killings	18	0.0	0.2
Murders of children 6 and younger	1,520	3.1	14.5
Killings of police officers	148	0.3	1.4
Multiple victims	3,725	7.5	35.6
Total capital eligible	10,476	21.1	100.0
Total non-capital eligible	39,060	78.9	
Total	49,536	100.0	

Source: Adapted from Fagan, Zimring, and Geller (2006).

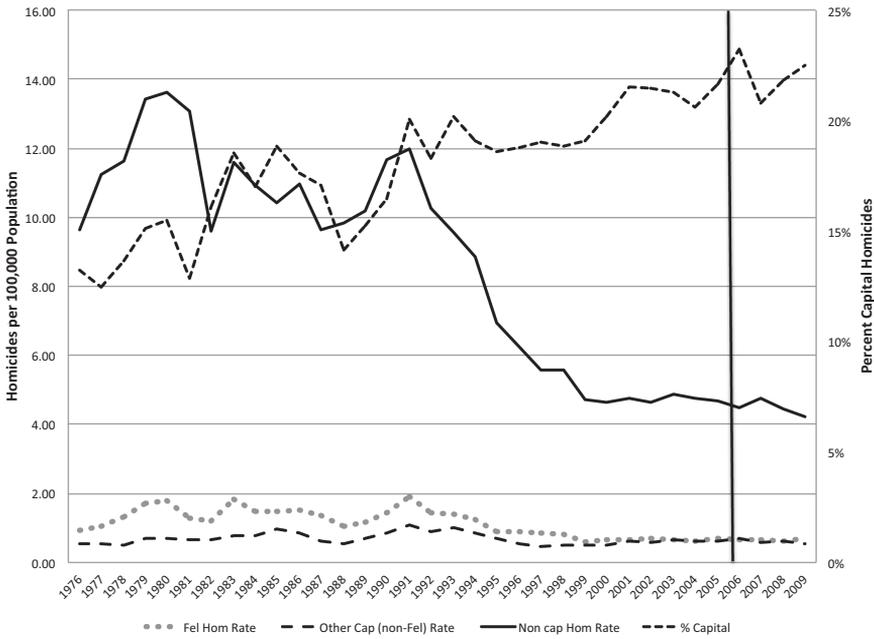
capital-eligible homicides were included in the non-felony category and treated in one group with other non-capital-eligible homicides. If so, the value of segregating felony homicides is diminished in the search for deterrence. Multiple-victim shootings, for example, which in Table 1 comprise more than a third of capital-eligible homicides in Texas, are different in motivation and most likely in offender attributes from second-degree murders that ensue from bar fights or road rage incidents. We are left to wonder which side of the ledger in Land et al.'s study accounts for these killings.

Figure 1 provides a picture of the trends over time in these two forms of capital-eligible killings. In our study, we hypothesized that the marginal deterrent effect of execution would be concentrated in the death-eligible homicide group. The differential impact we found suggests that the variations in execution were not the feature that is driving reductions in homicide in Texas over time. Extending our time series from 2003 to 2009, in an era of declining executions, suggests that nothing has changed. In fact, from 2001 to 2009, the numbers of felony murders and other non-felony murder, capital-eligible killings in Texas have been just about equal.

Deterrence may or may not exist in Texas, but if the goal of separating homicides into those that are capital eligible and those that are not is to better identify the deterrent effects of executions, then limiting the analysis only to felony murders pulls the rug out from under the enterprise. Let's assume, however, that the basic finding of transient deterrent effects of executions on non-felony murders is right. But which of this heterogeneous category of non-felony murders seems deterrable, even for a short moment? Is it the rest of the capital eligible pool, or is it the barroom brawls or the jealous domestic rages? Both statutory and policy considerations would benefit from an answer to that question. So, too, would the moral argument that Sunstein and Vermeule (2005) brought into the debate.

FIGURE 1

Capital-Eligible and Non-Capital-Eligible Homicides in Texas, 1976–2009



The Supply of Capital Cases

Although Land et al.'s (2012) approach examines the deterrent effects of executions, those cases represent the end of a winnowing process that reduces a larger pool of capital-eligible offenders to a far smaller number of those who, in effect, have lost a detection and punishment lottery. The process relies on the skills (and perhaps luck) of the police to catch offenders and launch a process that leads to prosecution as a capital-case, conviction, sentencing, and punishment. The detection process has implications both for creating the supply of cases eligible for execution as well as for the mechanics of deterrence. If a choice-theoretic model of rational deterrence is right, then offenders who perceive low risks of detection are unlikely to internalize these risks into the decision to commit a murder.

Consider how this sorting process worked out during the period of Land et al.'s (2012) study. From 1994 to 2007, 19,951 killings were classified in the FBI's Uniform Crime Reports as murder or manslaughter. Applying the Texas capital murder statute, we estimate that 21.1% of all murders were capital eligible. The pool is then narrowed by apprehension risk. The Texas Department of Public Safety reports that about 75% of all murders in 2009 were cleared by arrest of an identified suspect, a rate that is fairly stable over time in Texas

(Fagan et al., 2006). The rate was approximately the same for capital-eligible and other homicides.

These arrests produced a total of 450 death sentences in Texas in the 1994–2007 window of Land et al.'s (2012) study (Death Penalty Information Center, 2012). At the end of the punishment regime for capital-eligible crimes, 423 executions occurred during this period (Texas Department of Corrections, 2012). The estimates of death sentences and executions obviously include murders that took place before 2004 and exclude those who were sentenced after 2007. Still, these events establish the basic parameters of deterrence contingencies to would-be killers and are essential parts of the signal of both punishment risk and cost that comprise a deterrence regime (Fagan, 2006). Using simple if not crude math, a person committing any murder in Texas might think that he has about a 2.1% chance of execution, and a person committing a capital-eligible murder—if he knew the rules of aggravating circumstances—might think that he has a 10% chance of execution during that period of time. This estimate does not take into consideration the exonerations that took place during this time in Texas, nor the number of death sentences that are reversed and resentenced to a term in prison (Liebman, Fagan, West, and Lloyd, 2000).

A rational decision maker would view these as long odds, if that person were concerned only with execution as the cost to be avoided. But from what we know about murderers, even that calculus is strained by cognitive distortions and the fact that a set of powerful and complex rewards might lead to a decision that execution is a price worth risking (see, e.g., Fagan and Wilkinson, 1998; Katz, 1998).

### **Signaling Risk**

How well does this lottery get the message across to deter homicides in general, and especially that subset that are eligible for execution? Whether and how well offenders gain knowledge of punishment risks is central to a deterrence argument. Although deterrence studies vary in terms of their observational units (counties, states) over time, Land et al. (2012) chose to aggregate responses across Texas's 254 counties, assuming that risks not only are uniform across the state but also are communicated with equal strength across those units. It is a big assumption in a big state, and it bears on how we conceptualize the communication component of deterrence.

Almost nothing is known about the awareness of sanction risks—arrest, sentencing, or execution—among those who go on to commit homicides, and certainly none is known about those who commit capital-eligible homicides. Still, it seems unlikely that most killers are reading about execution risks in the newspapers or hearing about recent executions on television or radio. Even when those announcements are available, they seem to have no effect on deterrence in the days and weeks after an execution. Hjalmarsson (2009) studied homicides in the days and weeks after newspaper announcements of executions in three

**T A B L E 2**

**Capital-Eligible and Non-Capital-Eligible Homicides, Largest Texas Counties, 1977–2009 (N,%)**

County	Capital Eligible	Felony Homicides (Subset of Capital Eligible)	Other Homicides	Total
Harris, Dallas, Bexar	6,029 (56.3)	4,359 (64.2)	25,923 (53.0)	31,952 (53.6)
Other counties	4,676 (43.7)	2,429 (35.8)	22,947 (47.0)	27,623 (46.4)
Total	10,705	6,788	48,870	59,575

Source: Adapted from Supplemental Homicide Reports, 1977–2009, ICPSR, NACJD.

large Texas cities from 1999 to 2004: Dallas, Houston, and San Antonio. She found no evidence of deterrent effect when local executions received local media coverage.

This finding is important not just for its implications for the signaling question but also for the overall Texas effect: Table 2 shows that these three counties (Harris, where Houston is located; Dallas County; and Bexar County, where San Antonio is located) account for more than half of the capital-eligible murders in Texas from 1977 to 2009 and a similar share of total homicides. These counties account for nearly two thirds of the felony murders, a major share of the capital-eligible homicides. If there are no media effects in these counties, with their large media markets and high-population density, then it may be unreasonable to expect announcement effects—if there are such announcements at all—in the sparser counties across the states.

It might also be unrealistic to assume that news of executions travels efficiently across the vast areas between Texas cities and their media markets. Consider that the state’s execution facility is in the state prison in Huntsville, approximately 67 miles north of Houston in the southeastern corner of the state. Execution announcements elsewhere would have to be publicized to state population centers in north Texas (Amarillo, 575 miles from Huntsville) or west Texas (El Paso, 750 miles from Huntsville) to amplify the signal of execution risk. Moreover, executions come from only a handful of counties in the state, as do capital-eligible murders. Again, the demands of deterrence for efficiency in information markets suggest that these assumptions are strained if not unrealistic.

**Alternative Punishments**

Estimates of deterrence typically focus on the marginal deterrent effects of alternative punishments as part of the punishment regime. In other words, at the end of this process of production of sanctions, we should be able to observe the marginal effects of executions compared with other punishment contingencies and realities. In the case of capital-eligible punishments, the marginal effects might be estimated by comparing executions to lengthy

prison sentences, including sentences of LWOP. Another way of considering marginal deterrence for capital-eligible homicides is to consider the efficacy of sentencing for the predicates of felony homicide: prison sentences for robberies. If robberies are the modal category of felony murder, then a marginal deterrent effect might be discerned from comparisons of executions for felony murder for robbery with prison sentences for robberies (Fagan et al., 2006).

Land et al.'s (2009, 2012) projects do not consider either approach. Texas, however, provides an important opportunity for a natural experiment on the effects of LWOP sentences for capital-eligible murders. The state had no provision for LWOP sentences until September 2005. Prior to the new law, defendants in Texas convicted of a capital-eligible murder received either a death sentence or a minimum of 40 years in prison. Since the state introduced the option of a life-without-parole (LWOP) sentence for capital murder in September 2005—simultaneously eliminating the possibility of parole for capital crimes—the number of capital cases filed has escalated, whereas the number of new death sentences in Texas has decreased sharply from 48 in 1999 to 8 this year. According to the *Houston Chronicle* (Olsen, 2011), 398 Texas offenders convicted of capital-eligible murder were sentenced to life without parole since the 2005 passage of the LWOP law, compared with 66 people who were sentenced to death. The LWOP law has been used in approximately one third of all Texas counties at least once.

Once again, not only does the volume of executions in Texas present unique opportunities to study deterrence, but the state also presents unique opportunities to study the effects of LWOP on plea bargaining (Kuziemko, 2006) and ultimately on sentences using the types of stochastic models favored by Land et al. (2009, 2012). By way of preview of what might forecast the results, Figure 1 shows the trends in capital-eligible and other homicides before and after the passage of the LWOP law in 2005. Since 2000, murder rates have decreased from 5.9 per 100,000 to 5.0 per 100,000 in 2010 (Federal Bureau of Investigation, 2012). Executions in Texas have declined from 37 in 1999 to 17 in 2011 (Texas Department of Corrections, 2012). It seems that other than increasing the state's population of persons serving sentences of death in prison, there has been little effect thus far either of the state's new LWOP law or its sharp decline in executions on either capital-eligible or other murders.

## Conclusion

No matter which side of the debate they take, nearly all researchers agree that if we could observe a deterrent effect from executions in the United States, it would be in Texas, the nation's leader in executions since the resumption of capital punishment in the United States in 1977 (Berk, 2005; Fagan et al., 2006; Zimring, Fagan and Johnson, 2010). Yet the results from the Land et al. (2009, 2012) projects suggest that the question of deterrence, based on Texas data, remains a muddle. The most sensitive test of the marginal deterrent effect of

executions in Texas is shown by the separation of capital-eligible and non-capital-eligible cases in Figure 1. It provides no evidence that death-eligible cases are execution-sensitive. The Land et al. (2012) study offers a partial though weaker confirmation of what we concluded in our 2006 article, and what we have shown here.

The Land et al. (2012) study does little to resolve the muddle of why executions evidently fail to deter. In our 2006 study, we use the standard “cost” or “risk of unpleasantness” theory of deterrence to frame our hypothesis. In the Land et al. (2012) study, no explicit theory is provided of what aspects of execution are supposed to influence potential homicide offenders. If it is the risk of the potential killer to himself be executed, then the results they obtain are the reverse of what deterrence theory would predict: The group with the highest risk of death sentence shows a tiny, transient, and reversible effect compared with the group (non-felony killings) with far lower death sentence risks. Even momentary, transient, and entropic fluctuations in felony murders, the backbone of Land et al.’s (2012) analysis, cannot conceal the overall pattern of nonresponsiveness of capital-eligible homicides to the threat of execution. This nonresponsiveness is even more stark in the years of the past decade when execution threats were diminishing and when the use of other harsh sanctions including LWOP sentences were increasing.

The uncertainty that infects the evidence on the deterrent effects of executions should weigh heavily on the minds of legislators who use such evidence to inform judgments and policy decisions. This uncertainty translates into risks that, in the interest of life-life trade-offs, we may in fact end lives with no reliable evidence of any savings of lives. This uncertainty creates heavy ethical demands. What is the appropriate response of the ethical legislator to the uncertainty that plagues the question of whether executions deter? Evidence from Texas seems to show that the world is not an orderly place organized around the harmony of market equilibrium. Legislators should take notice.

Even with these uncertainties, researchers hoping to clarify or resolve the deterrence question continue to search for the right set of econometric tools. But the question itself, as well as those who stick with it, is hopelessly burdened by their search for the rational murderer who, having decided to commit a murder that may be eligible for the death penalty, stops before killing, looks around at the prospects of detection, listens to the announcements of punishment risks and costs, and gladly risks a death in prison sentence but is transfixed and transformed by the very long odds of being executed before dying of natural causes. This is indeed a muddle if not an impossibility.

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