

## Introduction

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This special issue of the *Journal of Quantitative Criminology* is committed to the publication of papers commissioned by the National Research Council's Committee on Deterrence and the Death Penalty.

In 1976, the Supreme Court decision *Gregg v. Georgia*, 428 US 153 ended the four-year moratorium on executions that resulted from its 1972 decision in *Furman v. Georgia*, 408 US 238. In the immediate aftermath of *Gregg*, an earlier report of the National Research Council by Blumstein, Cohen, and Nagin (1978) reviewed the evidence relating to the deterrent effect of the death penalty that had been gathered through the mid-1970s. That review was highly critical of the earlier research and concluded (1978:9) that “available studies provide no useful evidence on the deterrent effect of capital punishment.”

During the thirty-five years since *Gregg*, and particularly in the past decade, many additional studies have renewed the attempt to estimate the effect of capital punishment on homicide rates. Most researchers have used post-*Gregg* data from the US to examine the statistical association between homicide rates and the legal status and/or the actual implementation of the death penalty. The studies have reached widely varying, even contradictory, conclusions. Some studies conclude that executions save large numbers of lives whereas others conclude that executions actually increase homicides and still others conclude that executions have no effect on homicide. Commentary on the scientific validity of the findings has sometimes been acrimonious.

The Committee on Deterrence and the Death Penalty was convened against this backdrop of conflicting claims about the effect of capital punishment on homicide rates. The Committee report which is a publication of the National Academy Press (NRC, forthcoming), addressed three main questions laid out in its charge:

1. Does the available evidence provide a reasonable basis for drawing conclusions about the magnitude of capital punishment's effect on homicide rates?
2. Are there differences among the extant analyses that provide a basis for resolving the differences in findings? Are the differences in findings due to inherent limitations in the data? Are there existing statistical methods and/or theoretical perspectives that

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- have yet to be applied that can better address the deterrence question? Are the limitations of existing evidence reflective of a lack of information about the social, economic, and political underpinnings of homicide rates and/or the administration of capital punishment that first must be resolved before the deterrent effect of capital punishment can be determined?
3. Do potential remedies to shortcomings in the evidence on the deterrent effect of capital punishment have broader applicability for research on the deterrent effect of non-capital sanctions?

The post-*Gregg* studies are usefully divided into two categories based on the type of data analyzed. One category which call *panel data studies* analyze sets of states or counties measured over time usually circa 1970–2000. These studies relate homicide rates to variations over time and across states or counties in the legal status of capital punishment and/or the frequency of executions. The second category, which we call *time series studies*, generally study only a single geographic unit. The geographic unit may be as large as a nation or as small as a city. These studies usually examine whether there are short term changes in homicide rates in that geographic unit in the aftermath of an execution.

Due to the important differences between the panel and time series studies, the Committee commissioned separate papers to reviews these literatures. The review titled “What do panel studies tell us about a deterrent effect of the death penalty? A critique of the literature” was co-authored by Aaron Chafin, Amelia Haviland (Committee member), and Steven Raphael. The companion review titled “Pitfalls in the use of time series methods to study deterrence and capital punishment” was coauthored by Committee members Kerwin Charles and Steven Durlauf. Both of these reviews are highly critical of the respective literatures that they reviewed and were very influential in the Committee’s deliberations.

Three additional papers were also commissioned that were likewise influential in the Committee’s deliberations particularly as they related to future research. One concerned sanction risk perceptions and the two others addressed methodological issues.

Much of the panel research assumes that potential murderers respond to the objective risk of execution. There are significant complexities in computing this risk even for a well-informed researcher, let alone a potential murderer. Among these complexities are that only 15% of individuals sentenced to death have actually been executed and that a large fraction of death sentences are subsequently reversed. The time series literature implicitly makes comparably strong assumptions about sanction risk perceptions and their influence on behavior. The Committee, thus, desired to know more about what is known about sanction risk perceptions and commissioned a paper on this topic by Robert Apel which is titled “Sanctions, perceptions, and crime: Implications for criminal deterrence.”

The standard procedure in capital punishment research has been to impose sufficiently strong assumptions, whether credible or not, to yield definitive findings on deterrence. For example, a common assumption is that sanctions are random across states or years, as they would be if sanctions had been randomly assigned in an experiment. Another is that the response of criminality to sanctions is homogeneous across states and years.

The two other commissioned papers demonstrate methods that make less strong assumptions to identify or bound the effect of capital punishment on murder. One titled “Capital punishment and deterrence: understanding disparate results” by Steven Durlauf (Committee member), Chao Fu, and Salvador Navaro demonstrates a method called Bayesian averaging. The other titled “Deterrence and the death penalty: partial identification analysis using repeated cross sections” by Charles Manski (Committee member)

and John Pepper demonstrates a method for bounding deterrent effect estimates based on weaker and thereby more credible assumptions.

The Committee held a public workshop on April 28–29, 2011. At that workshop the commissioned papers commissioned were presented and discussed. Discussants were Jeffrey Grogger, University of Chicago; Guido Imbens, Harvard University; Kenneth Land, Duke University; Christopher Sims, Princeton University; and Justin Wolfers, University of Pennsylvania. The Committee thanks each for their useful comments.