

GAO

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Report to Senate and House Committees  
on the Judiciary

February 1990

DEATH PENALTY  
SENTENCING

Research Indicates  
Pattern of Racial  
Disparities



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General Government Division

B-236876

February 26, 1990

The Honorable Joseph R. Biden, Jr.  
Chairman, Committee on the Judiciary  
United States Senate

The Honorable Strom Thurmond  
Ranking Minority Member, Committee  
on the Judiciary  
United States Senate

The Honorable Edward M. Kennedy  
Chairman, Subcommittee on Immigration  
and Refugee Affairs  
Committee on the Judiciary  
United States Senate

The Honorable Jack Brooks  
Chairman, Committee on the Judiciary  
House of Representatives

The Honorable Hamilton Fish, Jr.  
Ranking Minority Member, Committee  
on the Judiciary  
House of Representatives

The Anti-Drug Abuse Act of 1988 (Public Law 100-690) requires us to study capital sentencing procedures to determine if the race of either the victim or the defendant influences the likelihood that defendants will be sentenced to death. We did an evaluation synthesis—a review and critique of existing research—on this subject to fulfill the mandate. This report provides a summary of our findings and a discussion of our approach and data limitations.

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## Approach

An evaluation synthesis is a critical integration of findings from existing empirical research on a given topic—in this case death penalty sentencing after the Furman decision.<sup>1</sup> First, we identified and collected all potentially relevant studies done at national, state, and local levels from

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<sup>1</sup>In Furman v. Georgia, 408 U.S. 238 (1972), the Supreme Court found unconstitutional death sentences imposed under state statutes which allowed juries to impose these sentences in an arbitrary or capricious manner. In response to this decision, states adopted new statutes that addressed the concerns raised by the Court.

both published and unpublished sources. Computer-generated bibliographic searches and manual reviews of the bibliographies of studies that we obtained contributed to our list of potentially relevant material. We also surveyed 21 criminal justice researchers and directors of relevant organizations whose work relates to death penalty sentencing to identify additional research. We screened more than 200 annotated citations and references to determine relevance to our review. We excluded studies that (1) were based primarily on data collected prior to the Furman decision and (2) did not examine race as a factor that might influence death penalty sentencing. From this initial screening we obtained 53 studies that we determined to be relevant.

We then reviewed each of the 53 studies to determine both appropriateness and overall quality of the research. We excluded studies that did not contain empirical data or were duplicative (a few researchers published several articles, with the most current including data and findings cited in earlier versions). Twenty-eight studies remained after this assessment. The information included in these studies forms the basis for our findings.

Next, we rated the 28 studies according to research quality. Two social science analysts independently rated each study in five dimensions: (1) study design, (2) sampling, (3) measurement, (4) data collection, and (5) analysis techniques. A rating for overall quality was also given. A third analyst reviewed the raters' assessments to ensure consistency. In addition, a statistician reviewed the studies that used specialized analytic techniques to assess whether the techniques were applied correctly and whether the analyses fully supported the researchers' conclusions.

Finally, we extracted all relevant information on the relationship of race to death penalty sentencing from each of the studies. This information was compared and contrasted across studies to identify similarities and differences in the findings.

Evaluation synthesis has benefits and limitations. The major benefit is that evidence from multiple studies can provide greater support for a finding than evidence from an individual study. The major limitation is that this approach depends on the quantity and quality of the design and methodology of available studies and the comprehensiveness of their reporting. In this case, the body of research concerning discrimination in death penalty sentencing is both of sufficient quality and quantity to warrant the evaluation synthesis approach.

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## Description of the Studies

We evaluated 28 studies which were done by 21 sets of researchers.<sup>2</sup> The studies covered homicide cases for different time periods through 1988, many states that have the death penalty, and different geographic regions of the country. In three instances, two or more articles were generated from a single database, with each article focusing on a different aspect of the sentencing process. A few researchers used data from other studies in their analyses. Overall, the 28 studies constitute 23 different data sets.

We rated almost half of the studies as high or medium quality; the remainder were rated as low. It is important to evaluate research quality for two reasons: (1) the results of the synthesis should be based on a sufficient number of medium or high quality studies; and (2) it is important to note differences in studies' findings, if any, by the quality of the studies. By quality we mean the strength of the design and the rigor of the analytic technique that leads to a level of confidence we have in the study findings. We judged a study to be high quality if it

- was characterized by a sound design that analyzed homicide cases throughout the sentencing process;
- included legally relevant variables (aggravating and mitigating circumstances); and
- used statistical analysis techniques to control for variables that correlate with race and/or capital sentencing.

We judged a study as medium quality if we found it to be lacking in one or more of the above characteristics. However, the medium quality studies generally were more similar to high quality studies than to low quality studies. Low quality studies typically had weak or flawed designs, relied on less reliable statistical analysis, and were simplistic in interpretation of the data. Studies published before 1985 comprised a larger proportion of lower quality studies than those published subsequently. This coincides with the relatively recent development and use of a more sophisticated statistical technique appropriate for use with data such as those in death penalty studies.

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## Limitations of the Studies

We critiqued all of the studies to identify methodological limitations in the design and analysis of the research. We identified three major limitations among these studies: (1) the threat of sample selection bias, (2) the problem of omitted variables, and (3) the small sample sizes.

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<sup>2</sup>Appendix I includes a list of the studies we used in the synthesis.

Sample selection bias implies that the cases under consideration are not representative of all the cases of interest. The criminal justice system is characterized by discretionary processes of selection at different points in the system. Racial factors may influence decisions at different stages of the process. A study that considered only whether persons convicted were sentenced to death was especially prone to the biasing effect of sample selection. Racial factors may have influenced decisions earlier in the process, such as whether the prosecutor requested that an offender be charged with capital murder. This discretion exercised early in the process may have the effect of concealing (masking) race effects if analysis is limited only to the later stages.

We found sample selection bias in more than half of the low quality studies; these studies typically analyzed only those cases in which the defendant was convicted of capital murder or received the death penalty. Studies that included all reported homicides and followed the disposition of these defendants from initial charge through subsequent stages of the judicial process are not likely to have been affected by this bias. More than two-thirds of the studies we rated high or medium quality picked up cases prior to conviction and followed these cases through the judicial process.

Another limitation is the problem of omitted variables. This limitation is especially important in studies examining racial discrimination. This is because the effect of race is considered the residual—after all relevant and important variables have been controlled, the effect that remains, the residual, is interpreted to be racial disparity. Omitting relevant variables can affect results by failing to reduce the residual appropriately, thus enhancing the perceived racial disparity. Omitted variables in death penalty research are potentially of two types: (1) variables that were known and were believed to be correlated with race or the death penalty and (2) variables that were not known and may be correlated with race or the death penalty outcome.

Several of the higher quality studies controlled for many variables. For example, one high quality study controlled for more than 200 variables. Only a few variables are shown to be highly explanatory. Most of these are controlled for in the better quality studies. However, there are variables such as strength of evidence or socioeconomic status of the victim and defendant which are difficult to measure or obtain. If there are important omitted variables (either because they are difficult to measure or because they are unknown), other explanations for the differences in death penalty outcomes cannot be excluded. But for another

variable to influence the existing disparity it would have to (1) be jointly correlated with both race and the death penalty outcome and (2) operate independently of the factors already included in the analysis.

A third limitation relates to the consequences of the small sample sizes in the analyses of death penalty imposition. The imposition of the death penalty is a relatively rare event. As such, in most studies there were very few cases at the end of the process—the sentencing and imposition stages. The small sample size places limits on the usefulness of statistical techniques for analysis at these final stages and thus limits the rigor of analyses at these stages.

While the severity of the limitations varied, as reflected in the studies' ratings, these limitations do not preclude a meaningful analysis of the studies. We have considered quality in evaluating the studies and arriving at our findings.

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## Findings

Our synthesis of the 28 studies shows a pattern of evidence indicating racial disparities in the charging, sentencing, and imposition of the death penalty after the Furman decision.

In 82 percent of the studies, race of victim was found to influence the likelihood of being charged with capital murder or receiving the death penalty, i.e., those who murdered whites were found to be more likely to be sentenced to death than those who murdered blacks.<sup>3</sup> This finding was remarkably consistent across data sets, states, data collection methods, and analytic techniques. The finding held for high, medium, and low quality studies.

The race of victim influence was found at all stages of the criminal justice system process, although there were variations among studies as to whether there was a race of victim influence at specific stages. The evidence for the race of victim influence was stronger for the earlier stages of the judicial process (e.g., prosecutorial decision to charge defendant with a capital offense, decision to proceed to trial rather than plea bargain) than in later stages. This was because the earlier stages were comprised of larger samples allowing for more rigorous analyses. However,

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<sup>3</sup>When we refer to a finding of racial disparities at the sentencing and imposition stages we are, in fact, including disparities that occurred in earlier stages of the judicial process, e.g., charging and decision to proceed to trial.

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decisions made at every stage of the process necessarily affect an individual's likelihood of being sentenced to death.

Legally relevant variables, such as aggravating circumstances, were influential but did not explain fully the racial disparities researchers found. In the high or medium quality studies, researchers used appropriate statistical techniques to control for legally relevant factors, e.g., prior criminal record, culpability level, heinousness of the crime, and number of victims. The analyses show that after controlling statistically for legally relevant variables and other factors thought to influence death penalty sentencing (e.g., region, jurisdiction), differences remain in the likelihood of receiving the death penalty based on race of victim.

The evidence for the influence of the race of defendant on death penalty outcomes was equivocal. Although more than half of the studies found that race of defendant influenced the likelihood of being charged with a capital crime or receiving the death penalty,<sup>4</sup> the relationship between race of defendant and outcome varied across studies. For example, sometimes the race of defendant interacted with another factor. In one study researchers found that in rural areas black defendants were more likely to receive death sentences, and in urban areas white defendants were more likely to receive death sentences. In a few studies, analyses revealed that the black defendant/white victim combination was the most likely to receive the death penalty. However, the extent to which the finding was influenced by race of victim rather than race of defendant was unclear.

Finally, more than three-fourths of the studies that identified a race of defendant effect found that black defendants were more likely to receive the death penalty. However, the remaining studies found that white defendants were more likely to be sentenced to death.

To summarize, the synthesis supports a strong race of victim influence. The race of offender influence is not as clear cut and varies across a number of dimensions. Although there are limitations to the studies' methodologies, they are of sufficient quality to support the synthesis findings.

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<sup>4</sup>About two-thirds of these studies were of high or medium quality.

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We are sending copies of this report to cognizant congressional committees, the Attorney General, and other interested parties.

Major contributors to this report are listed in appendix II. Please call me at 275-8389 if you have any questions.

A handwritten signature in cursive script that reads "Lowell Dodge".

Lowell Dodge  
Director, Administration  
of Justice Issues



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# List of Studies

Arkin, Stephen. "Discrimination and Arbitrariness in Capital Punishment: An Analysis of Post-Furman Murder Cases in Dade County, Florida, 1973-1976." Stanford Law Review, Vol. 33 (November 1980) 75-101.

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**Appendix I**  
**List of Studies**

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