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Police, Race, and the Production of Capital Homicides

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Racial disparities in capital punishment have been well documented for decades. Over 50 studies have shown that Black defendants are more likely than their White counterparts to be charged with capital-eligible crimes, to be convicted, and to be sentenced to death. Racial disparities in charging and sentencing in capital-eligible homicides are largest for the small number of cases where Black defendants murder White victims compared to within-race killings, or the rare instances where Whites murder Black or other ethnic minority victims. These patterns are robust to rich controls for non-racial characteristics and state sentencing guidelines. This article back up the research on racial disparities to an earlier stage of capital case processing: the production of capital-eligible cases beginning with the identification of potential defendants by the police. It seeks to trace these sentencing disparities to earlier stages in the processing of homicides. Using data from the FBI’s Supplementary Homicide Reports, we examine every homicide reported between 1976 and 2009, and find that homicides with White victims are significantly more likely to be “cleared” by the arrest of a suspect than are homicides with minority victims. We estimate a series of hierarchical regressions to show that a substantial portion of this disparity is explained by social and demographic characteristics of the county in which homicides take place. Most notably, counties with large concentrations of minority residents have lower clearance rates than do predominantly White counties; however, county characteristics do not fully explain the observed race-of-victim disparities. Our findings raise equal protection concerns, paving the way for further research into the production of capital-eligible homicides and the administration of the death penalty.
INTRODUCTION

Racial disparities have been endemic to the administration of capital punishment in the U.S. since the nation’s founding. Before the Civil War, many Southern states explicitly legislated that slaves – and sometimes free Blacks – could be sentenced to death for crimes punishable by lesser penalties when committed by Whites. Although the 14th Amendment to the U.S. Constitution prohibited the imposition of differential penalties by race for the same crime – and explicitly prohibited “the hanging of a Black man for a crime for which the White man is not to be hanged” (39th Congress, 1866), the death penalty has continued to be used predominantly upon African-American defendants and those convicted of crimes against White victims throughout the country’s history.

A robust research literature confirms that racial disparities have infected capital punishment to the present day. Between 1930, when
official statistics on capital punishment were first issued, and the moratorium on executions following Furman v. Georgia in 1972, almost half the persons executed for murder and 90% of those executed for rape were African American, despite their much lower share of the defendant population for each of those crimes and their share of the U.S. population.\(^4\) The constitutional status of racial disparities in capital punishment animated the majority concurrences of three of the justices in Furman.\(^5\)

Race as a contested jurisprudential factor in death sentencing and executions reached a watershed in McCleskey v. Kemp.\(^6\) Despite the strong evidence submitted by David Baldus and his colleagues\(^7\) of interracial and intraracial sentencing disparities in McCleskey, the Supreme Court, in a 5-4 opinion, failed to find that these racially skewed practices violated either the 8\(^{th}\) or 14\(^{th}\) Amendments. The McCleskey majority opinion, authored by Justice Powell, accepted both the methodological premise and the factual interpretation of the evidence, but rejected the constitutional claims. Powell argued that only a showing of discriminatory purpose would satisfy the evidentiary demands of an Equal Protection violation, and that the evidence was insufficient to invalidate the Georgia statute as applied under the 8\(^{th}\) Amendment.\(^8\) In a conversation with his biographer, Professor John Jeffries, shortly after leaving the bench, Justice Powell later expressed his regrets at having written the majority opinion in McCleskey.\(^9\) In the years after McCleskey, legal scholars have gloomily raised questions based on the Court’s reasoning in that opinion about the capacity of courts to redress bias in

\(^{4}\) See Amsterdam, supra note 1, at n. 11 (citing Furman v. Georgia, 408 U.S. 364); see also Dennis D. Dorin, Two Different Worlds: Criminologists, Justices, and Racial Discrimination in the Imposition of Capital Punishment in Rape Cases, 72 J. CRIM. L. & CRIMINOLOGY 1667, 1670 (1981).

\(^{5}\) See infra Section II.A. and accompanying notes.


\(^{8}\) See McCleskey, 481 U.S. at 299-319.

\(^{9}\) JOHN C. JEFFRIES, JR., JUSTICE LEWIS F. POWELL, JR.: A BIOGRAPHY 451, 530 (1994) (noting how Justice Powell said that given a second chance, he would now join the four dissenters in that case and reverse the majority of death sentences in the U.S.). Powell went further, saying that “capital punishment should be abolished” (id. at 451); see also John C. Jeffries, Jr., A Change of Mind that Came Too Late, N.Y. TIMES, June 23, 1994, at A23.
the criminal justice system. In part, the gloom results not just from the Court’s demand for a showing of discriminatory purpose, but also by making it so hard to prove it in death penalty cases.

Both before and after the *McCleskey* decision, research on racial disparities in capital punishment focused attention on charging decisions by prosecutors and sentencing decisions by judges and juries, usually contingent on prosecutors filing a death notice and following a penalty phase trial that resulted in a conviction on the capital murder charge. *McCleskey*, for example, was decided based on the absence of evidence of discriminatory intent or purpose by prosecutors. Still, the evidence of disparate racial treatment by prosecutors is robust and consistent. Over 50 studies have shown that Black defendants are more likely than their White counterparts to be charged with capital-eligible crimes, to be convicted, and to be sentenced to death. Racial disparities in charging and sentencing in capital-eligible homicides are largest for the small number of cases where Black defendants murder White victims compared to within-race killings, or where Whites murder Black or other ethnic minority victims. These patterns are robust to rich controls for non-racial characteristics and state sentencing guidelines.

In this article, we argue that the emphasis on prosecutorial decisions overlooks a critical stage in the production of death penalty cases: police investigations and arrests. Prosecutors select cases for capital prosecution from a pool of intentional homicides created predominantly through police investigations and arrests. To an extent previously unknown, disparities in charging may reflect antecedent racial biases in the production of capital-eligible homicides by the police. That production process is our focus. Accordingly, we back up the research on racial disparities to an earlier stage of capital case processing: the production of capital-eligible cases beginning with the identification of potential defendants by the police. If police investigations themselves produce racial disparities in arrests, then some residual of these disparities

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may skew the investigation and arrests, or clearance, of homicides and in particular capital-eligible homicides. Any disparity in which White-victim homicides are more likely than minority-victim homicides to result in arrests suggests inequalities in the administration of justice that may be carried forward and expanded in the production of death sentences and executions. The answers to these questions go beyond the context of capital cases. The racial disparities commonly observed in prosecutorial discretion in capital-eligible murders may, to a considerable extent, simply reproduce wider racial disparities in police arrests.\textsuperscript{12}

Accordingly, we ask two simple questions here. First, what policing processes contribute to the supply of cases that are then judged by prosecutors to be death-eligible? And second, given the racial disparities in capital punishment, we then ask if racial biases or disparities in investigations infect those processes. There are obvious policy implications in the answers to that question, and perhaps constitutional questions that raise equal protection worries based on racially selective enforcement. Racially skewed processes that create the supply of capital-eligible cases from the moment of arrest could interact with racially skewed discretionary decisions by prosecutors to seek death.\textsuperscript{13} As a matter of policy, understanding the crime, social, and policing conditions that shape those policing processes can contribute to equity in public safety for this salient subset of cases that often drive public policy and perceptions of criminal justice.

Using data from the FBI’s Supplementary Homicide Reports, we examine every homicide reported between 1976 and 2009, and find that homicides with White victims are significantly more likely to be “cleared” by the arrest of a suspect than are homicides with minority victims. We estimate a series of hierarchical regressions to show that a substantial portion of this disparity is explained by social and demographic characteristics of the county in which homicides take place. Most notably, counties with large concentrations of minority residents have lower clearance rates than do predominantly White counties; however, county characteristics do not fully explain the observed race-of-victim disparities. We suggest that the police practices that result in the White victim disparity in these cases reflect broader inequalities in the


\textsuperscript{13} See generally CAROL STEIKER & JORDAN STEIKER, \textit{COURTING DEATH: THE SUPREME COURT AND CAPITAL PUNISHMENT} (2017).
administration of justice. Inequalities in policing, such as the underpolicing of the most serious crimes in the most disadvantaged communities, coupled with overpolicing of the least serious offenses in those same places, seem to extend to the initial stages of the production of death sentences and executions. Implicit in this idea is the theory that legal processes are influenced by the local ecologies of crime and punishment, as well as local social and economic conditions. In other words, the same processes that lead to disparities in crime may also be endogenous to the policing practices that produce wider disparities in police contacts and arrests. Our findings raise equal protection concerns, paving the way for further research into the production of capital homicides and the administration of the death penalty.

The rest of the essay proceeds as follows: The next section reviews the empirical evidence on racial disparities in the charging and prosecution of capital-eligible homicides. This empirical research on racial disparities dates back to the 1930s and continues to the present day. It has identified persistent racial disparities, although these disparities take different forms based on different combinations of victim and offender race or ethnicity. Section III shows the methods and data that are the basis of these analyses and conclusions. Section IV presents the results of a series of multivariate hierarchical regressions that estimate the interactions of victim, offender and case characteristics with the social and legal contexts of the places – counties – where these cases originate. Implicit in this design is a theory that legal processes are influenced by

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the local ecologies of crime and punishment, as well as local social and economic conditions. The final section locates these results in the emerging empirical literature on tensions and distrust between citizens and police that may suppress the ability of law enforcement to effectively investigate capital-eligible homicides.

BACKGROUND

A. Race and the Furman Moratorium

The 1972 moratorium on executions following Furman v. Georgia is often cited as the beginning of the modern era of the American death penalty. The Furman court invalidated the death sentencing regimes of every state and the federal government based, in part, on what it described as an arbitrary and capricious pattern of sentencing decisions. Race was one of the factors that animated the concerns of some Justices. Concurring in the per curiam opinion in Furman, Justice Stewart wrote that “if any basis can be discerned for the selection of these few to be sentenced to die, it is the constitutionally impermissible basis of race.” Justice Douglas cited racial disparities as an example of the English proscription against selective use of the death penalty: “it is ‘cruel and unusual’ to apply the death penalty . . . selectively to minorities whose numbers are few, who are outcasts of society, and who are unpopular, but whom society is willing to see suffer though it would not countenance general application of the same penalty across the board.” Justice Powell noted in his dissent that racial disparities were still prevalent at the time of Furman, but cited Maxwell v. Bishop to stop short of claiming that racial bias infected all death sentences imposed on non-White defendants.

The justices cited research on racial disparities in death sentencing to form their claims about race. Justice Douglas cited the conclusions of

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18 408 U.S. 238, 310 (1972).

19 Id. at 245.

the 1967 President’s Commission on Law Enforcement and the Administration of Justice (“Finally, there is evidence that the imposition of the death sentence and the exercise of dispensing power by the courts and the executive follow discriminatory patterns. The death sentence is disproportionately imposed, and carried out on the poor, the Negro, and the members of unpopular groups.”) and research by Professor Hugo Bedau (“Although there may be a host of factors other than race involved in this frequency distribution, something more than chance has operated over the years to produce this racial difference.”).

Justice Douglas also relied on research by Professor Marvin Wolfgang and his colleagues\(^\text{21}\) that analyzed the outcomes of 439 death cases from 1914-1958. Table 3 in the Wolfgang et al. study showed that 88.4% of death cases with Black defendants resulted in execution compared to 79.8% of White defendants, a statistically significant difference. The odds ratio in these data of a death sentence for a Black defendant compared to a White was 1.93, meaning a Black defendant was nearly twice as likely to receive a death sentence as was a White defendant. Wolfgang et al. concluded that “..the existence of the relationship, although not proving differential bias by race . . . over the years since 1914, strongly suggests that such bias has existed.” Wolfgang et al. examined felony murders, which (as we describe in this chapter for the modern era) were the majority of the murder charges. Here, the disparities were most stark: 94 percent of Black felony murder defendants were executed, compared to 83 percent of White felony murder defendants, an odds ratio of 3.10. The authors added an important observation about frequentist statistics that underscores their conclusion of systematic bias:

Here, then, is a point at which the lack of statistical significance carries an important meaning when placed side by side with a relationship that is significant. The fact that Negros on death row do not comprise a significantly higher proportion of felony murderers than do Whites, combined with the fact that a significantly higher proportion of Negro felony murderers are executed than are White felony murderers focuses the direction of the differential treatment. It is the Negro felony murderer more

than any other type of offender who will suffer the death penalty. (306)

Research published during the 1972-75 Furman moratorium confirmed the racial disparities that troubled Justices Stewart, Douglas and Marshall. Professors Marvin Wolfgang and Marc Reidel showed that Black defendants who killed Whites were at significantly greater risk of death in the 1950s and 1960s. Their unadjusted data show that 49% of defendants executed for murder during that period were Black, and 89% of the 455 defendants executed for rape from 1930-1970 were Black.

B. Racial Disparities from Furman to McCleskey

Most of the death penalty states revised their statutes to respond to the Court’s critiques. The Supreme Court’s 1975 opinion in Gregg v. Georgia reinstated capital punishment and set standards for proportionality review, and procedural standards for constitutional compliance. Gregg’s hyper-proceduralization of death sentencing was designed to reduce arbitrariness and racial disparities in capital punishment. Still, those concerns remained once death sentences and executions resumed, and they increased starting in the late 1970s.

Not until McCleskey v. Kemp in 1987 did evidence of racial discrimination in charging and sentencing in capital cases reach the post-Furman Supreme Court. The evidence presented in McCleskey elaborated on the evidence cited in Furman. In the runup to McCleskey, Baldus and Woodworth showed that a Black defendant accused of killing a White victim (BD-WV) in Georgia was 3.1 times more likely to be

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24 428 US 153 (1976). Two other opinions were issued the same day as Gregg that further elaborated on constitutional standards. See Woodson v. North Carolina, 42 U.S. 153 (1976) (establishing the “death is different” doctrine that requires distinction of capital-eligible murders from ‘ordinary’ murders); Coker v. Georgia, 433 U.S. 584 (1977) (holding that the death penalty for rape of an adult woman was grossly disproportionate and excessive punishment and therefore unconstitutional under the Eighth Amendment).

25 See McCleskey, 481 U.S. at 299-319.
sentenced to death than any defendant accused of killing a Black victim (BV) in the years immediately after Gregg.\textsuperscript{26} Baldus and Woodworth also showed that the disparities were not uniform across cases of varying severity of aggravation in the murder. Disparities were greatest in the mid-range of aggravation severity, where charging discretion was greatest.

The evidence was introduced at trial in McCleskey, but was unpersuasive to the McCleskey majority at the Supreme Court. Despite the findings of the Baldus study (later confirmed in a 1990 General Accounting Office review\textsuperscript{27}), the Court affirmed McCleskey’s death sentence. The majority adopted a standard of discriminatory purpose, citing Washington v. Davis (1976).\textsuperscript{28} Warren McCleskey’s death sentence was affirmed by the Court, despite the Court’s acceptance of the evidence of discrimination in death charging and sentencing in Georgia in the years before McCleskey’s trial and sentencing.

Perhaps the McCleskey Court lacked a more detailed elaboration of the evidence. The 1990 GAO review included a study by Baldus et al. examining racial disparities in 2,400 capital-eligible cases from 1973-1980.\textsuperscript{29} That period spanned the Furman moratorium and the Gregg holding that created the basic architecture of the current death penalty jurisprudence. Together with the 1983 article, this evidence was the basis for Warren McCleskey’s claim of racial discrimination charging and death sentencing in Georgia. These studies showed that defendants accused of murdering White victims were 4.3 times more likely to receive a death sentence than a similarly situated defendant whose victims were Black.\textsuperscript{30}

But it is unlikely that the additional evidence would have

\textsuperscript{26} Baldus, Pulaski & Woodworth, supra note 7, at 709. The study showed both BD-WV disparities and BD disparities regardless of victim race in Georgia in the decade preceding the Furman moratorium. The Gregg architecture seems to have failed to curb racial discrimination in charging, notably in Georgia where Furman, Gregg and McCleskey originated.


\textsuperscript{28} 426 U.S. 229, 230 (holding that an official act is not unconstitutional solely because it has a racially discriminatory impact regardless of discriminatory intent).

\textsuperscript{29} DAVID BALDUS, GEORGE WOODWORTH, AND CHARLES A. PULASKI, EQUAL JUSTICE AND THE DEATH PENALTY: A LEGAL AND EMPirical ANALYSIS 2-4 (1990) (reporting evidence of statistical discrimination in the selection of cases for capital prosecution in the period between the Furman and Gregg decisions of the U.S. Supreme Court).

\textsuperscript{30} Id. at 4. The GAO study, citing Baldus and Woodworth (1990) and other studies, found the evidence at that time of bias based on race of defendants to be equivocal.
mattered. Explaining his position in a memo to Justice Marshall, Justice Scalia drew a distinction between purposeful discrimination toward a defendant and the “unconscious operation of irrational sympathies and antipathies” that would produce discrimination.\textsuperscript{31} Justice Powell’s majority opinion superficially accepted McCleskey’s detailed, rigorous and unrebutted evidence of racial discrimination, but “appears to have contorted the Court’s prior Eighth and Fourteenth Amendment jurisprudence, erecting all-but-insuperable future barriers against statistical proof of racial discrimination anywhere within the criminal justice system.”\textsuperscript{32} The Court at that time simply was hostile to social science and statistical evidence of discrimination in death sentencing.\textsuperscript{33} Professor Boger finds the hostility emerging a year earlier in \textit{Lockhart v. McCree},\textsuperscript{34} where Chief Justice Burger was reported to claim in conference that he was “not going to be ‘bossed around’ by social scientists.”\textsuperscript{35}

These setbacks failed to deter other researchers from adding to the empirical evidence of race discrimination in the selection of death-eligible cases for prosecution. Studies after \textit{McCleskey} through the late 1980s elaborated on the disparities cited both by the \textit{Furman} court and by Baldus et al.\textsuperscript{36} The 1990 GAO systematic review – an “evaluative synthesis” of research on racial disparities in post-\textit{Furman} death sentencing and

\begin{footnotesize}
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\item[31] Memorandum from Antonin Scalia to the Conference Re: No. 84 6811, \textit{McCleskey v. Kemp} (from Thurgood Marshall Papers) (Jan. 6, 1987).
\item[32] Boger, \textit{supra} note 10, at 1638.
\item[33] \textit{See} Siegel, \textit{supra} note 10, at 1280. Justice Powell disguised his hostility to social science as a policy argument: “Because discretion is essential to the criminal justice process, we would demand exceptionally clear proof before we would infer that the discretion has been abused False Accordingly, we hold that the Baldus study is clearly insufficient to support an inference that any of the decisionmakers in McCleskey’s case acted with discriminatory purpose.” \textit{McCleskey}, 481 U.S. at 297. But Powell’s interest went further to shut down empirical claims of discrimination in criminal justice matters: “. . . if we accepted McCleskey’s claim . . . we could soon be faced with similar claims as to other types of penalty” and he foresaw claims based on “unexplained discrepancies that correlate to membership in other minority groups, and even to gender.” \textit{McCleskey}, 481 U.S. at 315-17.
\item[34] \textit{See} Boger, \textit{supra} note 10, at 1672-73 (citing \textit{Lockhart v. McCree}, 476 U.S. 162 (1986)).
\item[35] The \textit{McCree} Court rejected a robust body of experimental evidence showing that excluding jurors opposed to the death penalty at the guilt phase biased deliberations at the penalty phase toward the state’s view. \textit{See id.} at 1671-72 (citing \textit{Edward Lazarus, Closed Chambers: The First Eyewitness Account of the Epic Struggles Inside the Supreme Court} 189 (1998)).
\item[36] \textit{See} Grosso et al., \textit{supra} note 23, at 525-77.
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executions — reported consistent evidence of a race-of-victim (RV) disparity: 82% of the studies they reviewed reported that defendants who murdered Whites were significantly more likely to be sentenced to death. The effect was observed at all stages of the criminal justice system, beginning with the charging decision and continuing through plea bargaining and sentencing. The GAO was more equivocal on race-of-defendant (RD) evidence. On average, there was a RD effect, but it varied by study features. As an aside, the studies didn’t examine disparities in arrests for death-eligible murders, the focus of this chapter, leaving open questions about the mechanisms and racial disparities in the production of capital cases.

C. Racial Disparities After McCleskey

Several post-McCleskey cases were included in the 1990 GAO “evaluative synthesis,” demonstrating that racial disparities were not uncommon beyond the 1983 Baldus and Woodworth study. Grosso et al. reviewed 36 post-1990 studies on racial disparities in charging and sentencing. They observed the same patterns that were reported by the GAO. They reported race-of-victim effects in 24 studies across 13 states and in the U.S. Armed Forces. A mandated proportionality review by the Administrative Office of the Court in New Jersey also reported no race effects, but only after excluding the influence of county factors. Studies in North Carolina and Tennessee reached the same conclusions. Four other studies showed race of defendant effects, without assessing any concurrent race of victim effects, including an earlier federal death penalty study and the Baldus et al. of the death penalty in the U.S. Armed Forces. Four studies, including a 2006 analysis of federal death penalty cases, showed no race effects. A mandated proportionality

37 See id. at Appendix A.
39 See Grosso et al., supra note 23, at 525-77.
42 See, Stephen Klein, Richard Berk, and Laura Hickman, Race and
review by the Administrative Office of the Court in New Jersey also reported no race effects. Studies in North Carolina and Tennessee reached the same conclusions.

Race of victim effects were shown in 24 studies in 13 states and in the U.S. Armed Forces.\textsuperscript{43} Not only are race effects identified in WV cases as well as BD/WV cases, but at least one study showed that BD/BV cases actually “pull strongly in the opposite direction.”\textsuperscript{44} O’Brien et al. show that clearance rates for BD/BV cases are 2.6 times lower than for all other victim race/defendant race combinations, and that juries were nearly 80% less likely to impose death sentences in the few WD/BV cases.\textsuperscript{45}

In addition to the state studies, a few studies identified race of victim (RV) effects in multi-jurisdictional (states) studies, while others identified the same effects in county-level or State sub-region studies. Others either found no race effects or challenged earlier studies showing race effects. Paternoster found the same in South Carolina\textsuperscript{46} and again (with colleagues) in Maryland.\textsuperscript{47} Professors Berk and Hickman re-analyzed Maryland data using alternate methods to conclude that race differences, whether by victim or offender race, were marginal to nonexistent, after controlling for the influence of race-correlated factors.\textsuperscript{48} However, Professor Sherrod Thaxton found race of victim (RV) effects in Georgia capital punishment data from 1994-2005 after using race-specific


\textsuperscript{45} Id.

\textsuperscript{46} Raymond Paternoster, Race of Victim and Location of Crime: The Decision to Seek the Death Penalty in South Carolina, 74 J. CRIM. L. & CRIMINOLOGY 754 (1983).


models in response to the analytic concerns cited by Berk and Hickman.\textsuperscript{49} The 2017 Pennsylvania capital punishment commission study found neither race of victim nor race of defendant effects across the state, but reported large disparities in both race of victim and race of defendant effects in charging and sentencing when disaggregated by county.\textsuperscript{50}

The most recent study, by Professor Glenn Pierce and colleagues, showed significant race of victim (RV) effects in Oklahoma in capital-eligible cases but no race of defendant effects in cases from 1990-2012.\textsuperscript{51} This study also showed strong interactions between victim race and victim gender, with female and White victim homicides resulting in death sentences anywhere from 3.22 times to 8.68 times more likely than for male or non-White victims. Defendant’s race (RD) by itself did not correlate with the likelihood of a death sentence, the probability of a death sentence for a non-White defendant charged with killing a White victim (5.8\%) was more than triple the probability of a death sentence for a White defendant charged with killing a non-White victim (1.8\%).\textsuperscript{52}

\textbf{D. The Production of Capital Homicides}

None of the past studies on disparities in capital murder cases questioned whether there was bias at the source: the production of capital homicides through police investigations and arrests. Nearly all the studies of racial disparities in capital punishment begin their analysis at the point of prosecutorial charging decisions. These analyses begin with a docket of cases presented to prosecutors or courts to determine whether to charge them as first or second degree murder, and then, to determine death eligibility. Some studies use data on murder rates by race of defendant or victim as external benchmarks to assess racial disparities in charging and sentencing, but those are exceptions.\textsuperscript{53} Others simply look at the pool of


\textsuperscript{51} \textit{See Glenn L. Pierce, Michael L. Radelet & Susan Sharp, Race and Death Sentencing for Oklahoma Homicides Committed Between 1990 and 2012, 107 J. CRIM. L. & CRIMINOLOGY 733, 746-50 (2017).}

\textsuperscript{52} \textit{Id.}

\textsuperscript{53} \textit{Id.}
cases and use internal benchmarks to identify differences by race or ethnicity during the selection process. None begin with the entire pool of murders to identify selection processes at the source of the pool of potential eligibles: police arrest decisions.  

Accordingly, we ask a simple question here: what policing processes create the supply of cases that are judged by prosecutors to be death-eligible? Given the racial disparities in capital punishment, we next ask if racial biases or disparities in investigations infect those processes. There are obvious policy implications in the answers to that question, and perhaps equal protection concerns based on racially selective enforcement. If the processes by which a supply of capital cases is produced via arrest from the overall supply of murders are racially skewed, this could suggest mechanisms that would influence the racial makeup of the subset of cases eligible for capital prosecution, and could interact with discretionary decisions of prosecutors to seek death. As a matter of policy, understanding the crime, social and policing conditions that shape those processes can contribute to equity in public safety for the subset of cases that often drive public policy and perceptions of criminal justice.

1. Homicide Clearance Rates

Police clearance rates – the percentage of known crimes that result in an arrest of a suspected offender – are central to this question. The

54 See, e.g., U.S. v. Davis, 793 F.3d 712, 723 (7th Cir. 2015) (redefining a selective prosecution case as a selective enforcement case based on the role of law enforcement in assembling the pool of potentially eligible suspects: “If the initial inquiry gives the judge reason to think that suspects of another race, and otherwise similarly situated, would not have been offered the opportunity for a [fake robbery opportunity], it might be appropriate to require [law enforcement] to disclose, in confidence, their criteria for [the fake conspiracies.] Analysis of the targeting criteria (and whether agents followed those rules in practice) could shed light on whether an initial suspicion of race discrimination in this case is justified. . . If after that inquiry the judge continues to think that racial discrimination may have led to this prosecution, more information could be gathered”).

police produce a supply of capital-eligible and other murder cases by “clearing” homicides via arrest. However, the ability of police officers to clear a given homicide case is multiply determined, not only by the complexity of the homicide itself, but by institutional and political factors that may enhance or undermine police department efficiency.

While clearance rates provide an objective measure of police performance, empirical studies of clearance rates across police agencies and within them over time suggest that clearance rates may be picking up noise about the police organization in addition to the skills of investigators. For example, some researchers challenge the value of using police clearance rates as a measure of police effectiveness, claiming invariance in homicide rates despite changes in workload or personnel.56 Factors such as the policing model, resource allocation, personnel assignments, management mechanisms such as merit systems, investigative tactics, information systems, and inter-agency cooperation can all influence clearance rates.57 In Ghettoside, for example, Jill Leovy describes the difficulties in completing homicide investigations in the poorer areas of Los Angeles with higher homicide rates, where investigations are complicated by lower staffing and the self-selection of more experienced detectives to work in more visible and politically glamorous divisions that investigate higher profile cases.58 Other researchers challenge the claim that workload and staffing levels impact police clearance rates, claiming invariance in homicide clearance rates despite changes in workload or personnel allocations.59 However, all these studies leave open the question of how officer skillsets and experience, or perhaps institutional or agency preferences, may affect clearance rates.

Much of what we know about police clearance rates is based on arrests for violent crimes in large cities.60 That may not help us theorize

59 See Ousey & Lee, supra note 57, at 150.
60 See, e.g., Borg & Parker, supra note 14, at 435, 458; Jeffrey J. Roth, Property Crime Clearance in Small Jurisdictions: Police and Community Factors, 43 CRIM. JUST. REV.
what policing factors matter for capital-eligible homicides. Although homicides are concentrated in urban areas, there is no reason to suspect that capital-eligible homicides are clustered disproportionately in those areas. In fact, these cases appear well beyond cities as well as within them. For example, the Atlanta Journal Constitution reported in its series on capital punishment in Georgia that death sentences were sought in all 49 of Georgia’s judicial districts between 1995 and 2004, resulting in 29 death sentences that also were spread out across the state. And as discussed earlier, Professor Raymond Paternoster found the same in South Carolina and (with colleagues) in Maryland.

The few studies of error rates in death penalty convictions show much the same spread, with cases spread across counties both urban and rural in both densely and sparsely populated states. Despite the spatial spread in homicides, extralegal factors in both large and small places influence error rates. These extralegal factors include: homicide rates, poor clearance rates, racial composition of both murders and the local area, and overloaded and inefficient criminal justice systems. This spatial spread in capital-eligible prosecutions, and the patterns of clearance rates for homicides, suggests the need for extensions of the theories of social disorganization in urban settings that have been dominant in studies of homicides and their clearance rates.

Three lessons thread through the studies of homicide clearance rates with implications for explaining clearance rates of capital-eligible homicides. First, extralegal factors that explain homicide clearance rates generally – especially victim race or ethnicity – may differ from the

66 See id.
extralegal factors that explain clearance rates in other types of cases – specifically, offender race.\textsuperscript{67} This leads us to focus on victim race as well as defendant race, consistent with the evidence on racial disparities in death penalty prosecutions and sentences. Second, clearance rates are subject to extralegal contextual influences: the racial composition of homicides and of the place where homicides take place, rates of poverty and inequality, segregation and stratification, and other correlates of homicide and other violent crimes.\textsuperscript{68} Again, whether these factors apply to capital-eligible cases, a distinct subset of homicides, is the question for this project. Third, the heterogeneity of homicide, from gang conflicts to felony murders to intimate partner homicides to drug transactions gone awry, suggests that police will be challenged to achieve consistent and equitable clearance rates across these categories. Victim cooperation is likely to vary.

2. Variation in Homicide Clearance Rates

Long-term trends show that police have had increasing difficulty in clearing homicides. Homicide clearance rates have declined from 95\% in 1951, a lower crime era, to 60\% in 2012,\textsuperscript{69} two decades after the peak homicide rate in the U.S. in 1991.\textsuperscript{70} From 1961, three decades of cascading homicide rates ensued, with spikes in 1972, 1981, and 1991 that each suggested a pattern of a disease epidemic.\textsuperscript{71} The surge in homicides,

\textsuperscript{67} See generally Catherine Y. Lee, The Value of Life: Multiple Regression and Event History Analyses of Homicide Clearance in Los Angeles County, 33 J. CRIM. JUST. 527 (2005).


\textsuperscript{69} See Paul A. Cassell & Richard Fowles, Still Handcuffing the Cops? A Review of Fifty Years of Empirical Evidence of Miranda’s Harmful Effects on Law Enforcement, 97 B.U.L. REV. 687, 709 (at Fig. 2).

\textsuperscript{70} See RANDOLPH ROTH, AMERICAN HOMICIDE 466 (2012).

especially in urban areas, may be one of several factors that influenced the decline, with strains on police resources simply exceeding the investigatory bandwidth of many agencies. Aki Roberts reports that firearm homicides have the lowest clearance rates compared to other homicide types, and that police workload also suppresses clearance rates.\textsuperscript{72} These trends suggest that the cascading epidemics of gun homicides have in fact reduced clearance rates.

Still, even within this declining rate, we suggest that other factors may also contribute to the difficulty in homicide clearance. Two competing theories posit how police investigation of homicides might vary by victim characteristics.\textsuperscript{73} Professor Black notes unequal application of the law by “vertical location,” suggesting that offenses against upper-status individuals receive more legal attention (either criminal or civil) than offenses against lower-status individuals.\textsuperscript{74} Historically this stratification has operated across a variety of dimensions – wealth, social class, gender, and perhaps most notably, race. Professor Nick Peterson shows that homicides in predominantly Black and Latino neighborhoods are less likely to be cleared.\textsuperscript{75} He goes on to suggest that these area demographics may exert larger effects than victim race in explaining the neighborhood context of homicide clearance. At the least, victim race, a critical factor in capital-eligible homicide charging disparities, seems to interact with neighborhood structure to shape clearance rates and in turn, the supply of capital-eligible cases.

Others posit instead that the law is applied based solely on the extent of harm suffered by the victim at the hands of the offender, and that demographic or socioeconomic disparities in clearance or other legal responses are driven primarily by systematic differences in crimes against different social groups whose variable social organization poses uneven

\textsuperscript{72} See generally Aki Roberts, Adjusting Rates of Homicide Clearance by Arrest for Investigation Difficulty: Modeling Incident- and Jurisdiction-Level Obstacles, 19 HOMICIDE STUD. 273, 275, 284 (2015); see also Litwin & Xu, supra note 69; Janice L. Puckett & Richard J. Lundman, Factors Affecting Homicide Clearances: Multivariate Analysis of a Complete Conceptual Framework, 40 J. RES. CRIME & DELINQ. 171, 171-93.

\textsuperscript{73} See Roberts, supra note 69; Litwin & Xu, supra note 69; Puckett & Lundman, supra note 69.

\textsuperscript{74} BLACK, supra note 16, at 16-21; see also Borg & Parker, supra note 14.

challenges in clearing homicide cases. For example, Regoeczi et al. posit that female-victim homicides are likely to be cleared more quickly than male-victim homicides, primarily because women are more likely to be killed by an intimate partner. Felony murders, in contrast, are less likely to be cleared since there is no victim-offender relationship on which investigators can build a case. Similarly, they suggest that homicides of children may have higher clearance rates because children are more likely than other homicide victims to be killed by somebody they know. Professor Roberts shows that homicides of a family member or friend are far more likely to be cleared by arrest than homicides of strangers or murders where the victim-offender relationship is unknown. Relatedly, she demonstrates that gun killings are less likely to be cleared by arrest.

Homicide clearance rates are also influenced by the presence of and cooperation from witnesses and others who know the neighborhood and circumstances of a murder. Witness and neighborhood cooperation generally covaries with pre-existing relationships between the police and local residents or merchants. In neighborhoods that are saturated with police and where policing is aggressive, cooperation with police tends to be constrained because neighborhood residents see the police as unfair, disrespectful, and illegal.

78 Roberts, supra note 69, at 284.
That style of policing tends to take place in neighborhoods with higher crime rates, yet there also is evidence that race effects in police cooperation extend beyond race-crime correlations.\textsuperscript{81} For example, clearance rates are lower in neighborhoods with high concentrations of economic disadvantage, residential instability, Black and Hispanic concentrations, and high unemployment rates - homicide rates notwithstanding.\textsuperscript{82} In contrast, cohesion among neighbors seems to improve homicide clearance rates net of the homicide rate.\textsuperscript{83} In other words, homicide clearance seems to covary with both structural and social organizational features of neighborhoods, as well as with the ties between residents and police.

Aki Roberts concluded that “homicide arrest clearance is greatly affected by factors beyond police control, such as situational characteristics of homicide incidents, jurisdictional characteristics that affect citizen cooperation, and police agency workload.”\textsuperscript{84} But clearance rates may also be affected by factors within the control of police departments. Regoezci and Jarvis’ study of Cleveland police data found that witness cooperation interacted with community characteristics in predicting clearance, so that the presence of a witness increased clearance likelihood only in communities with low levels of social disorganization.\textsuperscript{85} But if cooperation is withheld in heavily policed neighborhoods, then clearance rates in the most disadvantaged and highest crime areas are likely to be lower.\textsuperscript{86}

Peterson points out that race is implicated in lower cooperation rates in homicide investigations.\textsuperscript{87} But the question for us is how. Lower cooperation rates reflect alienation from the police, often in response to


\textsuperscript{82} See \textsc{Peterson}, \textit{supra} note 76.

\textsuperscript{83} See \textsc{Mancik et al.}, \textit{supra} note 14.

\textsuperscript{84} See \textsc{Roberts, supra} note 69, at 292.

\textsuperscript{85} See \textsc{Regoeczi & Jarvis, supra} note 78.


\textsuperscript{87} \textsc{Peterson, supra} note 76.
incidents of police violence. Professor Desmond and his colleagues showed sharp declines in 911 reports in Milwaukee following a police shooting of an unarmed Black citizen.\textsuperscript{88} Those events seem to churn what is a reservoir of discontent that distances citizens from police, and it happens particularly when they are most needed. It is worrisome that the same neighborhood conditions that elevate murder and other violent crime rates seem to also reduce citizen cooperation with police, a problematic intersection that compounds each of these processes.\textsuperscript{89} When homicides remain unsolved, the killer is free to kill again, compounding the alienation from police and skewing the racial distribution of homicide clearance rates.

Several processes, then, combine to create and shape the supply of capital cases. These dynamics churn both in institutions and communities, and provide a new perspective on the robust racial disparity in death penalty charging and sentencing. The effectiveness of police in clearing homicides creates the front-end of a supply of cases eligible for prosecution, which instantiates the racial distribution that is presented to prosecutors, who then exercise their own discretion that carries forward (if not expands) racial disparities.\textsuperscript{90} Quite simply, police receive less help from citizens in neighborhoods with high Black homicide victimization rates. The clearance rate – the gate in this process – is shaped in part by differences in the relationships of police with communities of color, which impacts those communities' willingness to cooperate in criminal investigations.\textsuperscript{91} These relationships also effect the estrangement many communities of color have generally from the agents of formal (legal) social control over their lives.\textsuperscript{92} While these tensions have been observed

\textsuperscript{92} See Bell, supra note 81, at 315; Charis Kubrin & Ronald Weitzer, \textit{New Directions in Social Disorganization Theory}, 40 J. RES. CRIME & DELINQ. 374, 382-84 (2003).
broadly in cities such as Los Angeles, Chicago, and New York, their effects on the supply of capital cases are not well understood. We address that question in this analysis.

E. This Article

This article provides a first glimpse at the flow of cases and examines the factors that may explain the persistence of racial lopsidedness in capital charging. We combine and analyze data on capital-eligible homicides from 1976-2009 to address three issues. First, we estimate the extent of racial disparities in clearance rates for capital-eligible homicides. This requires, as a predicate step, that we identify the subset of homicides that are capital-eligible. While there are numerous studies on racial disparity in charging and sentencing, there are almost none that identify the universe of capital-eligible cases from which prosecutor select cases for capital prosecution. It is this supply function that is the focus of this paper. In keeping with the limited prior work on this question, we examine disparities by both victim and offender race.

Second, we identify state and county factors that predict and explain these differentials. There is a long tradition in both law and criminology of looking to social structural factors, especially racial composition of communities and local crime conditions, to explain racial disparity in sentencing. However, only a few studies have asked whether

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93 See generally Leovy, supra note 59.
these factors specifically influence rates of capital sentencing. In this study, we examine these factors as they interact with the earliest stage in this process: police investigation and arrest of homicide suspects. This is a particularly sensitive step in creating the supply of capital-eligible defendants, since we are now aware—compared, for example, to the era of the McCleskey opinion—of the fault lines in police investigations that can lead to error rates and wrongful convictions.

Third, we estimate the effect of the presence of a valid death statute on the clearance rates of capital-eligible homicides. The presence of a death statute could incentivize police to clear capital-eligible cases more so than ordinary homicides. Community pressures, even if variable from one community to the next, provide a political incentive to call offenders in high-visibility crimes to account. Where police and other political actors express a preference for harsher punishment, creating a flow of capital-eligible cases satisfies important constituencies. In instances where the justice system may be weak or inefficient, the production of a salient capital-eligible case can shift the community and political perspective of the police from their inadequacies to their heroism. In studying mistakes or reversal in capital cases, Professor Gelman and colleagues observed that such inefficiencies can lead to high error rates. Here, we estimate whether the robust racial disparities in eligibility and death sentencing can be explained in part by the incentives to the police of the presence of a death capital-eligible cases.

https://dx.doi.org/10.2139/ssrn.2866696.


The remainder of this essay proceeds in four sections. First, we describe the methods to assemble the database. This includes the creation of a classification model to identify which homicides are potentially capital-eligible in a universe of cases where many of the statutory aggravators that make a case capital-eligible are only partially measured. Next, we describe the data sources and measures from which we address the three issues for this chapter. The results are discussed next. We conclude with a discussion of the implications and importance of bringing police into our understanding of capital punishment, and of what this may mean for its jurisprudence.

**METHODS**

**A. Data**

1. **Homicides**

We analyze homicide data from the Supplementary Homicide Reports (SHR), part of the Uniform Crime Reports produced annually by the U.S. Department of Justice, from 1976-2009. Case reports are submitted by law enforcement agencies using a standardized coding format. The SHR includes files organized at the incident level, the victim level, and the offender level. We focus on incident-level data in order to provide a more precise estimate of incident clearance rates. Homicides are reported in the SHR along with the state and county in which they take place, along with their reporting agency (also known as ORI). We use a recent update of the SHR dataset that expands in two ways on the archived data. First, data is included for states such as Florida that previously had not participated in the SHR reporting program. Second, multiple imputation methods are used to adjust for missing data from the archived files.

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101 ORIs, in turn, match states and counties to their Federal Information Processing Standard (FIPS) codes using the Law Enforcement Agency Identifiers Crosswalk (National Archive of Criminal Justice Data, 2005), which permit states and counties to be associated with Census data and data from other Federal datasets. Homicides are, accordingly, matched to Census population and socioeconomic data on the counties in which they take place, interpolated for intra-census years.


103 See, e.g., Jonathan A.C. Sterne et al., Multiple Imputation for Missing Data in
From 1976-2016, the SHR file include 613,602 homicides. We report on the rate of capital eligibility for that period, by type of homicide. However, we report detailed information on clearance rates for a shorter period from 1976-2009. We use the shorter period due to the availability of census data on county characteristics for that period. In the 1976-2009 period, there were 585,368 murders and non-negligent homicides reported in the 50 states between 1976 and 2009. Of those, only 21 (<.01%) could not be matched to counties; these were excluded from the analysis.\textsuperscript{104} After the exclusions of the non-matched cases, our resulting analysis sample includes 584,189 homicides between 1976 and 2009.

2. Case Characteristics

The SHR includes information on the race, gender and age of both offenders and victims, including multiple victims and offenders in such incidents. However, this dataset did not include information on victim or offender ethnicity, although there was information on victim and offender race. Accordingly, our estimates of race-specific clearance rates are based on comparisons of Black, White, and Other Race victims. Hispanic victims are included in all three categories, based on the identification by the agencies reporting the data.

The county and state where the homicide occurred in included, as well as the police agency submitting the report. The SHR also specifies the means of killing (firearm, other). The data also includes information on the “situation” and “circumstances” of each case, from which we determine capital-eligibility.

3. Capital Eligibility

We use data from the Death Penalty Information Center to note whether each homicide took place in a state-year combination with a valid death penalty statute. Within the states, the definition of a capital-eligible homicide is determined from an integration of narrow and expansive capital-eligibility statutes. Death eligibility varies extensively by state, particularly in the range of factors that satisfy the requirement of specificity of aggravators.\textsuperscript{105} Accordingly, we identify homicides as


\textsuperscript{104} We also exclude 5,967 homicides in the District of Columbia. We exclude an additional 1,171 homicides in Alaska, which lacks a county structure like that of the other 49 states.

\textsuperscript{105} See Jonathan Simon & Christine Spaulding, \textit{Token of Our Esteem: Aggravating
eligible for the death penalty using the procedures developed by Professors Fagan, Zimring, and Geller, based on the recurrent language of capital-eligible homicides across states.\textsuperscript{106}

We combine the statutes from three states to compose a definition of capital-eligible homicides: Maryland (before abolition of capital punishment in 2008),\textsuperscript{107} Texas,\textsuperscript{108} and California.\textsuperscript{109} The California statute is similar to the Maryland statute in the configuration of aggravators. What makes the California statute unique and quite expansive is its extensive array of granularly defined “special circumstances” that qualify a murder as death-eligible.\textsuperscript{110} For this study, we focus on one of California’s special circumstances: murder by a street gang member.


\textsuperscript{107} 1978 Md. Laws 3 (amended by 1979 Md. Laws 521). A person is death-eligible if he commits murder in the first degree, and (a) the victim of the murder was a law enforcement officer, (b) the defendant committed the murder when confined in a correctional institution, (c) the defendant committed the murder while trying to escape from custody, (d) the victim was taken in the course of a kidnapping or abduction, (e) the victim was a child abducted in violation of §3-503 (a) (1) MD. CODE ANN. (2002), (f) the defendant murdered pursuant to an agreement for remuneration, (g) the defendant employed another who killed for remuneration, (h) the defendant committed murder when under sentence of death or life imprisonment, (i) the same incident produced multiple murder victims, (j) the defendant committed the murder while committing, or attempting to commit, a carjacking, an attempted carjacking, armed carjacking, robbery, arson in the first degree, or sexual offense in the first degree (MD. CODE. ANN., CRIM. LAW § 2-303(g)(1) (2002)).

\textsuperscript{108} 5 Tex. Penal Code § 19.03, “Capital Murder.” A person commits criminal homicide if he intentionally, knowingly, recklessly, or with criminal negligence causes the death of an individual, and (a) the victim is a peace officer or fireman killed while on duty, (b) the murder occurred while the defendant was committing (or attempting to commit) a kidnapping, burglary, robbery, aggravated sexual assault, or arson; (c) murder “for hire” (both the hirer and the hired); (d) the murder occurred during the course of an actual or attempted prison break; (e) multiple murders occurred as a result of the defendant’s acts; and (f) the victim was younger than ten years old.

\textsuperscript{109} Cal. Penal Code § 190.2(a)(22), “Special Circumstance Murder.” The defendant intentionally killed the victim and (a) At the time of the killing, the defendant was an active participant in a criminal street gang (but s/he does not need to have actually been a member); (b) the defendant knew that members of the gang had engaged in a pattern of criminal gang activity; and (c) the defendant killed the victim to further the activities of the gang.

\textsuperscript{110} See Simon & Spaulding, \textit{supra} note 106.
California’s gang sentencing enhancement provision imposes a harsher sentence on a defendant who commits a felony to benefit a street gang.\textsuperscript{111} In the case of a murder, it makes the crime death-eligible.\textsuperscript{112} The inclusion of gang killings in this definition reflects the concerns about overbreadth in the statute that are the focus of ongoing litigation in federal court.\textsuperscript{113} This overbreadth in the California statute is one of the drivers of the high population on death row in California.\textsuperscript{114} Accordingly, the definition of capital-eligible homicide includes elements from each of these three statutes.

We developed and applied classification rules in an earlier study\textsuperscript{115} and apply them again here to distinguish capital-eligible from non-capital-eligible homicides. The categories that define capital eligibility include: felony murders (killings during the course of other enumerated crimes), killings of children six years of age or younger, multiple-victim killings, “gangland” killings, “institution” killings, sniper killings, killings during drug transactions, and contract killings.\textsuperscript{116} Applying this definition, figure 1 shows the distribution of capital-eligible and other homicides from 1976-2016.

\textsuperscript{111} CAL. PENAL CODE § 186.22. (a) Any person who actively participates in any criminal street gang with knowledge that the members of the gang or active participants engage in or have engaged in a pattern of criminal gang activity, and who (1) commits, alone or in concert, a felony that is one of the gang’s primary activities and is set forth in subdivision (e), (2) aids or abets any felony committed by a member of, or an active participant in, that gang, or (3) willfully promotes, furthers, or assists in any felonious criminal conduct by members of, or an active participant in, that gang, shall be punished by imprisonment in a county jail for a period not to exceed one year, or by imprisonment in the state prison for 16 months, or two or three years. False (C). If the felony is a violent felony, as defined in subdivision (c) of Section 667.5, the person shall be punished by an additional term of 10 years.

\textsuperscript{112} CAL. PENAL CODE § 190.2(a)(22). See also CAL. PENAL CODE § 186.22(f).

\textsuperscript{113} Ashmus v. Wong, No. 93-CV-00594 (N.D. Cal. 2010).

\textsuperscript{114} Id. (Declaration of David C. Baldus).

\textsuperscript{115} See Fagan et al., \textit{supra} note 107, at 1814-16.

\textsuperscript{116} See id.
The rate of capital-eligibility over time was quite stable over time. Figure 1 shows little fluctuation in the number of capital-eligible homicides over the three-decade period. Nearly all the year-to-year changes in homicides were due to changes in the rate of homicides ineligible for capital punishment. These distinct spikes in homicides reflected several factors, including the emergence of street-level drug markets and the violence associated with them. This increase in homicides may also reflect the shift in homicide methods from non-gun to gun homicides in the 1970s that continued through drug epidemics which, when combined with increasingly lethal weaponry, resulted in increases in the peaks of the successive drug epidemics.

4. County Factors

We include several measures that provide a social context for explaining county homicide and clearance rates. We develop these indicia

119 See, e.g., Fagan et al., supra note 72.
based on an extension of Donald Black’s theory of the behavior of the law.\textsuperscript{120} Professor Black characterizes law and its agents as the fabric of social control.\textsuperscript{121} Black suggests that the law will mobilize to investigate crimes, particularly salient crimes including murder, but the extent of this legal mobilization will vary according to characteristics of the case. In later writing, he expands his theory to include features of the social context in which the case and the investigation take place, with an emphasis on social structural factors including racial composition, aggregate criminal activity, and social organization.\textsuperscript{122} We include racial composition to account for the potential for conflict theories and the concentrated disadvantage to influence legal mobilization of law enforcement and the courts.\textsuperscript{123}

We adapt his theory to the diverse contexts of counties across the U.S. Accordingly, we include county racial composition, poverty rates, and population density. Crime rates in the county included homicide and robbery rates. For homicides, we used the rates of murder and manslaughter from the Uniform Crime Reports for each calendar quarter. We also link a range of social structural and demographic data about the states and counties with U.S. Census data and data from other federal datasets. We account for the criminal justice context of the county and local policing capacity based on Criminal Justice Employment and Expenditure (CJEE) data,\textsuperscript{124} supplemented with data from the Law Enforcement Officers Killed in Action (LEOKA) database.\textsuperscript{125} Because

\begin{itemize}
  \item \textsuperscript{120} See Black, The Behavior of the Law, supra note 14, at 2; see also Borg & Parker, supra note 14, at 437.
  \item \textsuperscript{122} See Donald Black, The Epistemology of Pure Sociology, 20 LAW & SOC. INQUIRY 829 (1995); Borg and Parker, supra note 14, at 446-48.
  \item \textsuperscript{123} Robert J. Sampson & William Julius Wilson, Toward a Theory of Race, Crime, and Urban Inequality, in Race, Crime, and Justice: A Reader 37 (1995); Sean L. Gabbidon, Criminological Perspectives on Race and Crime (2015); Darnell F. Hawkins, Beyond Anomalies: Rethinking the Conflict Perspective on Race and Criminal Punishment, 65 SOC. FORCES 719 (1987); David Jacobs, Inequality and Police Strength: Conflict Theory and Coercive Control in Metropolitan Areas, 44 AM. SOC. REV. 913 (1979).
  \item \textsuperscript{124} National Archive of Criminal Justice Data, Expenditure and Employment Data for the Criminal Justice System (various years), available at https://www.icpsr.umich.edu/icpsrweb/content/NACJD/guides/eecjs.html.
  \item \textsuperscript{125} U.S. Dept. Just., Fed. Bureau of Investigation, Law Enforcement Officers
census data is decennial, we use only data through 2009 for analyses that control for county characteristics and criminal justice expenditures and personnel.

Finally, to estimate whether the presence of a valid death statute incentivizes police investigations of potentially capital-eligible homicides, we use data from the Death Penalty Information Center to measure whether each homicide takes place in a county, state and year with a valid death penalty statute.\textsuperscript{126}

5. Clearance Rates

We use clearance rates to estimate the production of a supply of capital-eligible homicides eligible for prosecution. From the SHR, any homicide where there was offender information was considered “cleared” and included in the supply of cases that could become death cases.\textsuperscript{127} We did the same for robberies. Robberies were included since (a) felony murders were the majority of capital-eligible homicides, and (b) robberies were the majority of predicate crimes in the broader category of felony murders.\textsuperscript{128}

B. Analysis

We used hierarchical logit models to identify the factors that explained the differences in the supply of capital-eligible cases as measured by clearance rates. This class of multivariate models is particularly sensitive to the processes where the effects of variables at one level of explanation—here, case characteristics—are moderated by the context in which they operate—here, counties or states.\textsuperscript{129}

\begin{itemize}
\item \textsuperscript{127} We could not estimate the clearance rate for Black Offender–White Victim (BO/WV), or Other Race Offender – White Victim (OO/WV) homicides. Our definition of clearance required the identification of an offender in the SHR data. At the police stage, offender race is usually unknown until a suspect has been identified and arrested. According, all BO/WV and OO/WV cases were by definition cleared, and were identified only by victim race in the analyses.
\item \textsuperscript{128} Fagan, Zimring & Geller, \textit{supra} note 107, at 1819.
\item \textsuperscript{129} See generally STEPHEN W. RAUDENBUSH & ANTHONY S. BRYK, HIERARCHICAL LINEAR MODELS: APPLICATIONS AND DATA ANALYSIS METHODS (2d ed.) (2002); ANDREW GELMAN & JENNIFER HILL, DATA ANALYSIS USING REGRESSION AND MULTILEVEL/HIERARCHICAL MODELS (2006); Sophia Rabe-Hesketh, Anders Skrondal & Andrew Pickles, \textit{Generalized Multilevel Structural Equation Modeling}, 69
\end{itemize}
The model takes the general form of:

$$\text{Logit}^{-1}(\text{Clear}_{ij}) = \beta_{0,j} + \beta_{1,j} \cdot \text{VicRace}_{ij} + \beta_{2,j} \cdot \text{Case}_{ij} + \epsilon_{ij}$$

...where $\beta_{0,j} = \delta_{0} + \delta_{1,j} \cdot \text{County}_{j} + \delta_{2,j} \cdot \text{State} + \eta_{j}$ identifies county parameter estimates for country $j$ in each year, and $\beta_{1,j} = \delta_{0} + \delta_{1,j} \cdot \text{County}_{j} + \delta_{2,j} \cdot \text{State} + \eta_{j}$ identifies the effects of county parameter estimates on whether a case was cleared by victim race and the effects of the presence of a death statute, and is a vector of state covariates, including whether the state was death state in each period. Each regression includes a linear function for time (calendar quarter) and time. The second term accounts for the curvilinear shape of the curves on total homicides.

Coefficients from the logit estimations therefore represent the odds ratio of clearance rates for each construct of interest, beginning with race and then iteratively adding additional potential explanatory factors. We begin with a model that measures the unadjusted difference in clearance rates between homicides by victim race. From these models, we can determine the odds of a homicide being “cleared” via arrest in each year. The analyses proceed in stages, additional variables are included at each iteration to examine the influence of various categories of case, victim, or county characteristics on the likelihood that a capital-eligible homicide will be cleared. We estimate several iterations of each model with different combinations of predictors.

RESULTS

Table 1 shows the breakdown of cases during the study period by type of homicide. Of the 613,602 homicides during the study period, 25.2% were classified as capital-eligible. This parameter is consistent with the rate reported by Fagan et al. (2006) using the same definition for the 1974-2003 period. The point estimate is similar to the estimate reported in studies where researchers systematically reviewed the details of each case to determine death-eligibility. For example, based on the construction of a definition based on statutes and a case-level file review, Paternoster et al. found that 25.7% of cases in Maryland from 1978-1999 were capital-eligible, including 21.8% of the cases of intra-race killings. In Georgia, the Atlanta Journal Constitution used a similar

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130 Raymond Paternoster & Robert Brame, Reassessing Race Disparities in Maryland
method of case review to determine the rate of capital-eligible cases from 1994-2005. Their analysis showed a rate of 27.4% of all first and second degree murders, a rate higher than that reported in Georgia for a period a decade earlier despite using the same coding and classification procedure.
### Table 1. Capital Eligible Homicides, All States, 1976-2016

#### Capital-Eligible Homicides by Category

<table>
<thead>
<tr>
<th>Category*</th>
<th>N</th>
<th>Homicides</th>
<th>% of All</th>
<th>% of Capital-Eligible Homicides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homicides during Crimes</td>
<td>67,972</td>
<td>11.1</td>
<td>51.4</td>
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<tr>
<td>Institution Killings</td>
<td>929</td>
<td>0.2</td>
<td>0.7</td>
<td></td>
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<tr>
<td>Gangland Killings</td>
<td>3,123</td>
<td>0.5</td>
<td>2.2</td>
<td></td>
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<tr>
<td>Youth Gang Killings</td>
<td>20,177</td>
<td>3.3</td>
<td>15.5</td>
<td></td>
</tr>
<tr>
<td>Sniper Killings</td>
<td>519</td>
<td>0.1</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Murders of Children 6 and younger</td>
<td>27,557</td>
<td>4.5</td>
<td>13.8</td>
<td></td>
</tr>
<tr>
<td>Killings of Police Officers</td>
<td>2,753</td>
<td>0.4</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>Multiple Victims</td>
<td>50,286</td>
<td>8.2</td>
<td>17.9</td>
<td></td>
</tr>
<tr>
<td><strong>Total Capital Eligible</strong></td>
<td><strong>154,321</strong></td>
<td><strong>25.2</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Non-Capital Eligible</strong></td>
<td><strong>359,281</strong></td>
<td><strong>74.8</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>613,602</strong></td>
<td></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Capital-Eligible Homicides during Crimes by Crime Type

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Homicides</th>
<th>% of All</th>
<th>% of Capital-Eligible Homicides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robbery</td>
<td>54,012</td>
<td>8.8</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td>Rape</td>
<td>3,994</td>
<td>0.7</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Burglary</td>
<td>5,661</td>
<td>0.9</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Arson</td>
<td>4,305</td>
<td>0.7</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67,972</strong></td>
<td><strong>11.1</strong></td>
<td><strong>51.4</strong></td>
<td></td>
</tr>
</tbody>
</table>


* Homicides are limited to those committed by offenders aged 16 or above from 1976-2005. After 2005, minors were no longer eligible for capital punishment (*Roper v Simmons*, 543 U.S. 551 (2005)). Homicides by offenders of unknown ages also are excluded. Homicides committed by offenders younger than 16 are not considered capital-eligible, and homicides by offenders under the age of 16 were not eligible for execution following (*Thompson v, Oklahoma*, 487 U.S. 815, 1988).

** Total Capital Eligible Homicides is less than the sum of the individual categories, due to overlaps in the categories. For example, 6,007 homicides committed during the course of other crimes had multiple victims, and 697 homicides committed in the course of other crimes had multiple offenders. The 2,753 killings of police officers are included in other capital-eligible crimes. Killings of police officers exclude the
deaths of 92 police officers resulting from the events of September 11, 2001.

Table 1 shows that over half (51.1%) of the capital-eligible homicides in this period were felony murders, or murders that were committed in the course of another felony offense. Of these, over four in five (44.0% of the 51.4%) were killings committed during robberies. Regardless of whether the offender intended to kill the victim, felony murders remain eligible crimes for the most serious available punishment in 49 of the 50 states and in federal criminal law.132 Other common categories of capital-eligible murders include gang killings (15.5%) and murders of young children (13.8%).

Figure 2 shows the total number of homicides and the number of homicides by victim race for each year. Accordingly, Latino homicide victims are included with the White victim counts. Figure 2 shows a higher number of White victims than Black or Other Race victims until 1988. Homicide victimization rates declined for all groups starting in 1993, and declined slowly from 2000-2009, the end of the time period for the analysis period. The pattern of increase and decline for Black homicide victims mirrored the national trend over time. The number of White homicide victims was slightly higher prior to 1986. Beginning in 1987, the pattern of increase and decline for both Black and White victims followed the aggregate nationwide pattern. This temporal phase is consistent with the onset of the “crack era” in the late 1980s.133

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Despite common trajectories in homicide victimization, clearance rates varied by victim race over time. Figures 3a and 3b show clearance rates by victim race, for Black and White victims for capital-eligible homicides. While the trends in the total number of capital-eligible homicides show slight differences for Black and White victim events, the clearance rates are dramatically different. Figure 3a shows that White victim homicides declined slowly over time from a 1991 peak, with the total number in 2009 nearly half the count from 1996. Clearance rates rose by nearly 20 percentage points during the same time, from a low of 62% in 1980 to nearly 80% by 2010.
We next completed two regressions to determine factors within cases as well as in the county contexts that might explain these different patterns. Table 2 shows results for a series of iterative models, beginning with a baseline model with only victim race and continuing through a final
model with all predictors, including whether the homicide took place in a county in a state with a valid death statute.\textsuperscript{134} The regression estimates (coefficients) are reported as odds ratios: the odds that the police will clear a capital-eligible homicide compared to a non-capital-eligible. An odds ratio greater than 1.0 indicates that clearance is more likely, and an odds ratio of less than 1.0 indicates that clearance of a homicide for that factor is less likely.

Table 2. Random Effects Logistic Regression of Capital-Eligible Homicide Clearance Rates, 1976-2009 (Odds Ratio, SE, p)

<table>
<thead>
<tr>
<th>Case Factors</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim - Black</td>
<td>0.768 ***</td>
<td>0.762 ***</td>
<td>0.867 ***</td>
<td>0.905 ***</td>
<td>0.929 ***</td>
<td>0.927 ***</td>
</tr>
<tr>
<td></td>
<td>[0.009]</td>
<td>[0.009]</td>
<td>[0.016]</td>
<td>[0.017]</td>
<td>[0.020]</td>
<td>[0.020]</td>
</tr>
<tr>
<td>Victim - Other Race</td>
<td>0.831 ***</td>
<td>0.827 ***</td>
<td>0.967</td>
<td>0.959</td>
<td>0.93</td>
<td>0.929 ***</td>
</tr>
<tr>
<td></td>
<td>[0.022]</td>
<td>[0.022]</td>
<td>[0.039]</td>
<td>[0.040]</td>
<td>[0.004]</td>
<td>[0.043]</td>
</tr>
<tr>
<td>Female Victim</td>
<td>1.386 ***</td>
<td>1.176 ***</td>
<td>1.140 ***</td>
<td>1.098 **</td>
<td>1.094 ***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.018]</td>
<td>[0.023]</td>
<td>[0.023]</td>
<td>[0.025]</td>
<td>[0.025]</td>
<td></td>
</tr>
<tr>
<td>Elderly Victim</td>
<td>.835 ***</td>
<td>.801 ***</td>
<td>0.799 ***</td>
<td>0.810 ***</td>
<td>0.814 **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.032]</td>
<td>[0.452]</td>
<td>[0.046]</td>
<td>[0.051]</td>
<td>[0.019]</td>
<td></td>
</tr>
<tr>
<td>Child Victim</td>
<td>4.240 ***</td>
<td>3.751 ***</td>
<td>3.734 ***</td>
<td>3.597 ***</td>
<td>3.564 ***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.101]</td>
<td>[0.130]</td>
<td>[0.137]</td>
<td>[0.145]</td>
<td>[0.145]</td>
<td></td>
</tr>
<tr>
<td>Gun Homicide</td>
<td>0.974 *</td>
<td>1.021</td>
<td>1.080 ***</td>
<td>1.121 ***</td>
<td>1.120 ***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.013]</td>
<td>[0.020]</td>
<td>[0.022]</td>
<td>[0.025]</td>
<td>[0.025]</td>
<td></td>
</tr>
<tr>
<td>Felony Murder</td>
<td>1.098 ***</td>
<td>1.001</td>
<td>0.959 *</td>
<td>0.917 ***</td>
<td>0.916 ***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.013]</td>
<td>[0.018]</td>
<td>[0.018]</td>
<td>[0.019]</td>
<td>[0.019]</td>
<td></td>
</tr>
<tr>
<td>% Black Population</td>
<td>.951</td>
<td>1.582 **</td>
<td>1.700 *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.144]</td>
<td>[.028]</td>
<td>[.035]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Other Race Population</td>
<td>.143***</td>
<td>0.183 ***</td>
<td>0.185 ***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.052]</td>
<td>[.072]</td>
<td>[.064]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total County Population</td>
<td>1.000***</td>
<td>.999 ***</td>
<td>.999 ***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[.001]</td>
<td>[.0001]</td>
<td>[.0001]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{134} The panel was adjusted for death penalty eligibility based on the year of passage of a valid post-Gregg statute and also for the abolition of capital punishment in New York (2005) and New Jersey (2007).
Model 1 in Table 2 shows only the odds of clearance by victim race. Compared to White victims, a murder of a Black victim is 23.2% less likely to be cleared (1-.768). For murders of Other Race victims, mostly Hispanics, the odds of clearance by arrest are 16.9% lower (1-.831) than the odds for White victim cases. Model 2 adds characteristics of the case, including victim status (elderly, child), gender, and the type of murder. The odds by victim race are only slightly changed, and the clearance rates for murders with Black or Other Race victims remain significantly lower compared to White victim cases. Females and child victim cases are significantly more likely to be cleared, and by substantial odds: 38.6% more likely for female victims, and 324% more likely for child victims. Elderly homicide victim cases are significantly less likely (16.5%) compared to younger victim cases. Felony murders are about 10% more likely to be cleared by arrest, but gun homicide cases are slightly less likely (2.6%) to be cleared.

Model 3 in Table 2 repeats Model 2 but includes a parameter (random effect) for the county. The random effect captures unique but unmeasured characteristics of the county where the murder took place that
might affect the probability of being cleared by arrest.\textsuperscript{135} The odds of clearance by arrest change for some victim or offense characteristics, once we account for the possibility of county effects. For Black victim cases, the odds remain significantly lower for clearance compared to White victim cases, but the odds ratio is higher, 13.3\%, nearly half the odds compared to Model 2 with no county controls. The odds ratio of clearance of an Other Race victim homicide cases are no longer significant. The same is true for felony murders and gun homicides. Child victim cases and female victim cases again are significantly more likely to be cleared compared to adult or male victim cases, but the odds ratios are lower. The pattern of results in Model 2 suggest that county context does influence the likelihood of clearance of a capital-eligible crime.

Models 4-6 explore some of the specific features of counties that may account for the reduced clearance odds. Model 4 includes the racial composition of the county and the total population. It also includes the number of non-capital-eligible homicides to account for the total burden on police departments of homicide investigations. Model 4 includes covariates for race-specific and total population, and the additional non-capital-eligible homicide investigation caseload. The odds ratio for clearance of Black victim homicides decreases compared to the previous models in Table 2 with the inclusion of these additional covariates, and remains significant and below 1.0. The difference in this odds ratio in Model 4 is about .038, of 3.8\% less chance of clearance. The results for Other Race victim capital-eligible homicides remains essentially unchanged.

Model 4, then, suggests that there are race-specific population dynamics that slightly increase the odds of clearance for a Black victim homicide, but the gap in the likelihood of clearance compared to similarly-situated White victim homicides remains nearly 10\%.

Model 5 adds parameters of the criminal justice environment of the counties, including police resources, crime rates and incarceration rates per crime (punishment index). The odds ratio for clearance of a

Black victim capital-eligible homicide remains significant but increases by about .024 (2.4%) with the addition of covariates reflecting the criminal justice context. In addition, the percent Black population was not significant in Model 4 but becomes significant in Model 5, and is relatively large. Among the variables added in Model 5, several are significant and the odds ratios are below 1.0. These additional variables suggest that a stronger criminal justice context decreases the odds of clearance overall of a capital eligible homicide. Together, the context variables have little influence on changes in the odds of clearance of either a Black victim or an Other Race capital-eligible homicide.

Model 6 includes the presence of a death statute in the county where the homicide took place, a proxy for the possibility that the prospect of a death sentence may incentivize police to more aggressively pursue capital-eligible homicide investigations. The presence of a death statute in the county where the homicide took place has almost no effect on the clearance rates: the odds of clearance in a county in a state with a valid death statute are 2.8% lower than other counties, but the effect is not significant. The odds ratio of clearance of an Other Race victim capital-eligible homicide changes little but becomes significant in Model 6 with the addition of the death statute variable to the regression.

The regressions in Table 3 examine the effects of capital-eligible homicides by disaggregating the results from Model 6 in Table 2 into separate estimates for death and non-death states. Model 1 in Table 3 repeats the results of Model 6 in Table 2, and provides a basis to compare the results of the disaggregated models. For Black victim homicides, the clearance rate is 8.2% lower compared to White victim homicides in death states. In non-death states, the odds ratio is not significant. Neither state model shows a significant odds ratio for clearance of Other Race capital-eligible homicides. The difference between the two estimates hints at incentives for clearing White victim that may reflect the presence of a death statute in the county. The effects for non-capital eligible homicides are significant in both models, but the odds ratios barely differ from 1.0. This is a result without practical significance.136

### Table 3. Random Effects Logistic Regression of Capital-Eligible Homicide Clearance Rates in Counties in Death and Non-Death States, 1976-2009 (OR, SE, p)

<table>
<thead>
<tr>
<th>Case Factors</th>
<th>Counties in All States</th>
<th>Counties in Death States</th>
<th>Counties in Non-Death State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim - Black</td>
<td>0.929***</td>
<td>0.918***</td>
<td>.963</td>
</tr>
<tr>
<td></td>
<td>[.020]</td>
<td>[.021]</td>
<td>[.047]</td>
</tr>
<tr>
<td>Victim - Other Race</td>
<td>0.93</td>
<td>0.927</td>
<td>.979</td>
</tr>
<tr>
<td></td>
<td>[.004]</td>
<td>[.047]</td>
<td>[.112]</td>
</tr>
<tr>
<td>Female Victim</td>
<td>1.098**</td>
<td>1.103***</td>
<td>.1.073</td>
</tr>
<tr>
<td></td>
<td>[.025]</td>
<td>[.028]</td>
<td>[.055]</td>
</tr>
<tr>
<td>Elderly Victim</td>
<td>0.810***</td>
<td>0.886</td>
<td>.590***</td>
</tr>
<tr>
<td></td>
<td>[.051]</td>
<td>[.063]</td>
<td>[.075]</td>
</tr>
<tr>
<td>Child Victim</td>
<td>3.597***</td>
<td>3.823***</td>
<td>2.913***</td>
</tr>
<tr>
<td></td>
<td>[.145]</td>
<td>[.176]</td>
<td>[.244]</td>
</tr>
<tr>
<td>Gun Homicide</td>
<td>1.121***</td>
<td>1.139***</td>
<td>1.051</td>
</tr>
<tr>
<td></td>
<td>[.025]</td>
<td>[.029]</td>
<td>[.052]</td>
</tr>
<tr>
<td>Felony Murder</td>
<td>0.917***</td>
<td>0.878***</td>
<td>1.113***</td>
</tr>
<tr>
<td></td>
<td>[.019]</td>
<td>[.021]</td>
<td>[.054]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>County Factors</th>
<th>Counties in All States</th>
<th>Counties in Death States</th>
<th>Counties in Non-Death State</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Black Population</td>
<td>1.582**</td>
<td>2.053***</td>
<td>1.022</td>
</tr>
<tr>
<td></td>
<td>[.028]</td>
<td>[.382]</td>
<td>[.673]</td>
</tr>
<tr>
<td>% Other Race Population</td>
<td>0.183***</td>
<td>0.141***</td>
<td>0.198*</td>
</tr>
<tr>
<td></td>
<td>[.072]</td>
<td>[.071]</td>
<td>[.137]</td>
</tr>
<tr>
<td>Total County Population</td>
<td>.999***</td>
<td>1.000***</td>
<td>1.000***</td>
</tr>
<tr>
<td></td>
<td>[.0001]</td>
<td>[.00001]</td>
<td>[.0001]</td>
</tr>
<tr>
<td>Non-Capital Eligible Homicides</td>
<td>1.000***</td>
<td>1.000***</td>
<td>1.000*</td>
</tr>
<tr>
<td></td>
<td>[.0006]</td>
<td>[.0001]</td>
<td>[.001]</td>
</tr>
<tr>
<td>Police Officers per Capita</td>
<td>0.984*</td>
<td>0.972*</td>
<td>0.993</td>
</tr>
<tr>
<td></td>
<td>[.008]</td>
<td>[.012]</td>
<td>[.011]</td>
</tr>
<tr>
<td>Punishment Index</td>
<td>0.969***</td>
<td>0.960***</td>
<td>0.969</td>
</tr>
<tr>
<td></td>
<td>[.005]</td>
<td>[.006]</td>
<td>[.025]</td>
</tr>
</tbody>
</table>
The comparison of odds ratios for the county context variables suggest other social processes at work in producing cleared capital-eligible homicides. First, and most importantly, the odds of clearance in counties in death penalty states is significantly higher as the proportion of Black residents in the county increases. In non-death states, the result is not significant. The contrast between the case-level effect (lower clearance rates for Black victim homicides) and higher clearance rates in predominantly Black counties suggests stronger efforts to clear capital-eligible murders that are not proportional to the county’s racial demography. The same is true in counties with higher incarceration rates (punishment index). Perhaps this reflects that racial threat or conflict\textsuperscript{137} are motivating variables in death states to clear the most serious homicides, and to have a more punitive criminal justice system, but the justice benefits of policing do not extend to Black victims’ families.

Second, clearance rates of capital-eligible homicides are slightly lower (2.8\%) in counties where there is a stronger police presence. But this effect is present only in death states; there is no effect in non-death states. The same is true for incarceration rates: the clearance rates of capital-eligible homicides also are slightly lower (4.0\%) in counties where the punishment index (incarceration rate) is higher. Among crime conditions, there functionally no difference in death and non-death states in the influence of non-capital-eligible homicides, nor for robbery rates.

Third, there are differences in death and non-death states for certain case characteristics. Clearance rates are significantly higher for female victims in death states; the odds ratio is not significant in non-

death states. The clearance rates are higher for child victims in both death and non-death states, but the odds ratio is nearly 25% higher in death states. Gun homicide clearance rates are significant and higher in death states, but there is no effect in non-death state. Felony murders have the opposite effects in death and non-death states: felony murders are less likely (12.2%) in death states, but more likely to be cleared in non-death states (11.3% higher).

To illustrate the sensitivity of clearance rates to variation in county contextual effects, we estimated the marginal effects of clearance rates by county racial composition. Figure 4 shows LOESS estimates of the effects of the county Black population on clearance rates for capital-eligible homicides. Donald Black suggested that the percent of minority population would affect the behavior of legal institutions with respect to minority and disadvantaged populations. The political and social priorities of legal agencies would vary with the status of the affected population. Figure 4 confirms Black’s prediction. Clearance rates for capital-eligible homicides decline as the Black share of the county population increases beyond 20%. About 75% of capital eligible homicides are cleared when the Black population is below 20%. At the other end of the distribution, the clearance rate drops below 60% when the Black population is about 75% of the county population. These estimates are controlled for the total homicide rate, the total population and the overall homicide rate.

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138 LOESS (LOcally WEighted Scatter-plot Smoother) estimates a boosted regression model that shows the relationship of two variables across levels of the predictor variable, with the option to include other variables in the LOESS estimates. This is a nonparametric method because the linearity assumptions of conventional regression methods have been relaxed. Instead of estimating parameters in a standard regression model, a LOESS nonparametric regression focuses on the fitted curve. The fitted points and their standard errors represent are estimated with respect to the whole curve rather than a particular estimate of one predictor. See generally Matthias Schonlau, *Boosted Regression (Boosting): An Introductory Tutorial and a Stata Plugin*, 5 *STATA J.* 330 (2005).

Figure 5 shows the importance of police presence in improving the clearance rate for capital eligible homicides.140 These also are LOESS estimates that control for police strength per capita, the number of capital-eligible homicides, and the total population. At low per capita police strength (15 or fewer officers per 1,000 persons), clearance rates hover around 60%. When police strength increases above 15 officers per 1,000 persons, the clearance rate for capital eligible homicides increases to nearly 80%. Counties with more police officers have obvious advantages in investigations of homicides overall. But even with these advantages, Figure 4 shows that disparities remain in clearance rates that privilege White victim homicides in the search for justice.

Figure 6 shows that clearance rates are higher when the robbery rate is lower, but clearance rates for capital-eligible homicides decline as the robbery rate increases. Robbery is a salient crime, and often

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140 To illustrate the meaning of police strength in terms of county or city size, the city of Cincinnati has a population of approximately 298,800 in 2016. See U.S. CENSUS BUREAU, QUICKFACTS, available at https://www.census.gov/quickfacts/fact/table/cincinnaticityohio/PST045216. There are approximately 1,000 sworn officers in the Cincinnati Police Department. See also CINCINNATI POLICE, https://www.cincinnati-oh.gov/police/ (last visited Jan. 13, 2018). This translates into a rate of 3.35 officers per 1,000 population.
politics of local criminal justice are influenced by robbery, one of the salient fear-inducing crimes.\textsuperscript{141} Robbery rates also are significantly higher in cities with higher concentrations of Black populations.\textsuperscript{142} Accordingly, the lower clearance rates for Black victim capital-eligible homicides overall means that these cases may compete with robberies for scarce investigations resources in smaller police agencies.\textsuperscript{143} In these models, the Black victim homicide odds ratio estimates the clearance odds of Black victim cases relative to White victim cases. If there is a competition for investigative resources, the results in Table 3 suggest that they are allocated differently in death and non-death states, and that there is more attention to the politically salient robbery cases at the expense of Black victim capital-eligible homicides.

Figure 7 shows that the incarceration rate has a small negative effect on capital-eligible clearance rates. There are no simple explanations for the connection between incarceration rates and homicide clearance rates, other than local priorities. Higher rates of incarceration consume police resources, diverting police in these places from homicide investigations, which may be difficult to clear for Black victims, to investigation of other felonies that translate into prison sentences in court. If this is a resource allocation question, then the priorities set by police executives seem to slightly devalue the agency’s performance in investigation of capital-eligible cases when the victim is Black. Perhaps it’s easier to obtain convictions for drug crimes or other priority crimes in a police agency, compared to Black victim capital-eligible homicides. If that is the case, police executives are simply maximizing their returns for higher rate crimes (robberies, drug crimes) and devaluing the pursuit of the more difficult homicide cases. That this choice is conflated with race suggests either neglect or indifference to Black homicide victims.

These results suggest that the race-of-victim disparities in capital sentencing observed by Baldus et al. in \textit{McCleskey} and others throughout

\textsuperscript{141} See, \textit{e.g.}, DAN A. LEWIS & GRETA W. SALEM, \textsc{Fear of Crime: Incivility and the Production of a Social Problem} (2017); GARY LAFREE, \textsc{Losing Legitimacy: Street Crime and the Decline of Social Institutions in America} (1999); RALPH B. TAYLOR, \textsc{Breaking Away from Broken Windows: Baltimore Neighborhoods and the Nationwide Fight Against Crime, Grime, Fear, and Decline} (2000).

\textsuperscript{142} Sampson, \textit{supra} note 122.

\textsuperscript{143} See, \textit{e.g.}, LEOVY, \textit{supra} note 59, at 20-26 (describing the tensions between the LAPD homicide divisions in poorer, predominantly Black and Latino areas of South Los Angeles and the robbery-homicide divisions that investigate these crimes in wealthy areas of that city).
the post-*Furman* era can be traced to procedural disparities that long
precede charging and sentencing decisions, and are observed as early as
the clearance of capital-eligible homicides. Much of this observed
disparity can be explained by the varying social contexts in which White-
victim and minority-victim homicides occur, and also by the geography
of capital punishment law. Most notably, in large counties, and counties
with large concentrations of minority residents, capital-eligible homicides
are significantly more likely to be cleared, but Black victim capital
eligible homicides are less likely to be cleared. Especially for White
victim homicides, the lower clearance rates in death states for non-White
victim homicides suggests a premium on White lives for justice and
retribution for capital crimes that may not be present in the absence of an
option to impose the most severe punishment available. This may tell us
as much about the legal institutions and their preferences and tastes for
punishment as it does about the features of the homicides that begin the
supply process that can lead to execution.

**DISCUSSION**

The race-of-victim disparities in capital sentencing observed by
Baldus et al. (1987), the General Accounting Office (1990), and others
summarized by Professor Grosso et al.\(^{144}\) can be traced to procedural
disparities that precede prosecutorial charging decisions and jurors’
sentencing decisions. These disparities can be observed as early as the
police investigations and clearance of capital-eligible homicides. A
substantial portion of this observed disparity can be explained by the
varying social contexts in which White-victim and minority-victim
homicides occur. The importance of context can be seen initially and
perhaps most starkly in the third column of Table 2, in which the addition
of county-level intercepts substantially reduces the marginal difference
between White-victim and minority-victim clearance rates, and these gaps
are further narrowed as additional county-level characteristics are
controlled for. But it’s also important to remember that there is robust
evidence of a Black victim homicide clearance disparity, net of a host of
case and context factors, that seems to initiate a process that carries
forward to prosecutorial decisions.

Still, much remains to be learned about the contextual factors that
influence homicide clearance, or explain the differences between White

\(^{144}\) Grosso et al., *supra* note 23.
and Black victim capital-eligible homicide clearance rates. Clearance rates are significantly lower in counties that contain greater proportions of Black residents; however, we know little about the socioeconomic or criminal justice factors in those places that explain these differences. Moreover, controlling both crime conditions and criminal justice contexts explains virtually none of the relationship between county Black population and case clearance. And there is little in these data to explain the extremely low clearance odds in counties with higher proportions of “Other Race” populations.145

Our findings suggest that the equal protection concerns raised by Baldus et al. (1987) about capital punishment continue to resonate in the modern legal system. To the extent that race-of-victim disparities can be traced to procedural differences, or resource limitations in places where minority-victim homicides take place, they may potentially be mitigated by equalizing the distribution of police resources across regions. However, racial disparities that exceed those predicted by the unequal distribution of resources raise serious doubts as to whether the death penalty can be equitably applied.

If racism is relevant in the charging and prosecution of capital-eligible defendants,146 is there a different form of racism that explains the inability of police to achieve parity in police investigations of capital-eligible homicides? Why the difficulty in clearing Black victim capital-eligible homicides, if not all homicides? Certainly, some of the clearance gap can be traced to differences in the variety of homicides, and in the differences in communities of different racial and ethnic makeups to cooperate with police.

For example, we find that felony murders are less likely to be cleared via arrest. These account for nearly half of all capital-eligible homicides, and are more likely to involve stranger crimes including robbery and burglary. Recent research has shown that residents of neighborhoods with high rates of violent crime tend to be places where there is less willingness of communities of different racial and ethnic

145 Here, it may be important to remember that due to coding decisions in the construction of the SHR imputed files, Hispanics are included in the “Other Race” population, together with East and South Asians, Native Americans, and Pacific Islanders.
makeups to cooperate with police. In these same places, racial preferences among police administrators may also dilute both the skills and experiences of police assigned to investigate homicides in those areas. In general, there likely is a cooperation gap that may stifle police investigations of homicides, whether capital-eligible or not, in non-White communities that suffer from higher rates of both crime and aggressive policing.

But then, why the cooperation gap? Even as crime rates declined for two decades, tensions between citizens and police rose, especially among African Americans and, to a lesser extent, among Latinos. In the 1990s, at the outset of the homicide and general crime decline, much of the distrust was focused on racial profiling by police. Over time, the distrust of police by minority citizens expanded to include police use of force, and later, everyday policing of disorder. When there is a White homicide victim, police may sense more urgency and scrutiny of their efforts, leading to higher clearance rates compared to Black or Latino victim killings. In her NPR series, Martin

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147 See, e.g., Kirk & Matsuda, supra note 15; LEOVY, supra note 59; Desmond et. al., supra note 89.
148 See generally LEOVY, supra note 59.
149 Tom R. Tyler, Jeffrey Fagan & Amanda Geller, Street Stops and Police Legitimacy: Teachable Moments in Young Urban Men’s Legal Socialization, 11 J. EMPIRICAL LEGAL STUD. 751, 775 (2014); Mark T. Berg et al., supra note 81; Bell, supra note 81.
151 See MARK HUGO LOPEZ & GRETCHEN LIVINGSTON, PEW HISPANIC CENTER, Hispanics and the Criminal Justice System: Low Confidence, High Exposure (2009).
152 See Anthony C. Thompson, Stopping the Usual Suspects: Race and the Fourth Amendment, 74 N.Y.U. L. REV. 956 (1999); R. Richard Banks, Beyond Profiling: Race, Policing and the Drug War, 56 STAN. L. REV. 571 (2003); Harris, supra note 151.
153 Steven A. Tuch & Ronald Weitzer, Racial Differences in Attitudes Toward Police, 61 PUB. OPINION Q. 642, 643-647 (1997) (showing a stronger negative response by African Americans compared to Whites in responses to highly publicized incidents of police use of force).
quotes crime reporter Rocco Parascondola’s reports that clearance rates of murders in New York City in 2013 were nearly twice as high for White victims (86%) compared to Black victim homicides (45%) or Latino victim homicides (56%). ¹⁵⁶ He cited a growing “no snitch” culture that militates against cooperation with police, a sign of the weak police legitimacy in non-White neighborhoods. Witness intimidation may also be a factor in low cooperation. ¹⁵⁷

Distrust today is a two-way street. Fagan and Richman briefly touched on signs of a police pullback or withdrawal in the face of citizen and political criticism, extensive video surveillance and publicity of contested police actions, and recent killings of police. ¹⁵⁸ Recent claims of a police pullback in the face of criticism from communities affected by aggressive policing and visible acts of police violence deepen the distrust. Police in these circumstances reflects loosely coupled systems of distrust and resentment between citizens and police that entwines violence, cynicism and public safety into a complex and tangled ecology. Our sense is that the language of a “chill wind” adopted by FBI Director Comey ¹⁵⁹ is meant to capture the connections in these mechanisms, and their consequences for policing homicide, particularly in urban areas.

The sources of the cooperation gap may also be traceable to the common use of aggressive and proactive policing models in practice for over two decades in many American cities. ¹⁶⁰ Even as crime rates declined for two decades, tensions between citizens and police rose, especially among African Americans ¹⁶¹ and also among Latinos. ¹⁶² In the 1990s, at the outset of the homicide and general crime decline, much of the distrust was focused on racial profiling by police. ¹⁶³ Over time, the distrust of police by minority citizens expanded to include police use of

¹⁵⁶ Id.
¹⁵⁸ Fagan & Richman, supra note 92.
¹⁵⁹ Id. at 1278.
¹⁶⁰ Id.; DAVID WEISBURD & MALAY K. MAJMUDAR, COMMITTEE ON PROACTIVE POLICING: EFFECTS ON CRIME, COMMUNITIES, AND CIVIL LIBERTIES (NAT’L ACADEMIES PRESS, 2018).
¹⁶¹ WEITZER & TUCH, supra note 151; Bobo & Johnson, supra note 138; Harris, supra note 151.
¹⁶² HUGO LOPEZ, supra note 152.
¹⁶³ Thompson, supra note 153; Banks, supra note 153.
force,\textsuperscript{164} and later, everyday policing of disorder.\textsuperscript{165} In some instances, these norms of withdrawal, distrust and resistance become norms that are shared across generations and neighborhoods.\textsuperscript{166}

In several cities, people living in neighborhoods where homicide is a recurring reality share a narrative about policing, community, and murder that is strikingly similar. The stories they tell portrait a social context where murders are not uncommon but remain unsolved, where citizens experience policing as detached from serious crime and aimed at the wrong behaviors and the wrong people, where policing is seen as indifferent or disrespectful if not abusive, where citizens are unwilling to cooperate in murder investigations by the police whom they view as an “occupation force,” and where these interlocking forces create a reinforcing dynamic that deepens the social and economic isolation of places that already have the features of a “poverty trap.” Beyond the inability to provide security, citizens’ direct and vicarious experiences are often internalized as perceived injustices. Under these circumstances, withdrawal from cooperation with police in homicide investigations isn’t surprising.

In a web of recurring social interactions, these perceptions—a variety of police insults and recurring episodes of murder and other violence—engender frustration and anger and in turn, withdrawal from cooperation with the police.\textsuperscript{167} Perceived injustices can disincentivize citizens from cooperating with the police, including both “petty indignities” and egregious acts of police violence.\textsuperscript{168}

\textsuperscript{164} Weitzer & Tuch, supra note 151, at 74-75 (showing a stronger negative response by African Americans compared to Whites in responses to highly publicized incidents of police use of force); see also Ben Bradford et. al., Identity, Legitimacy and “Making Sense” of Police Use of Force, 40 Policing: Int’l. J. 614 (2017).

\textsuperscript{165} See Jeffrey Fagan, Tom R. Tyler & Tracey L. Meares, Street Stops and Police Legitimacy in New York, in COMPARING THE DEMOCRATIC GOVERNANCE OF POLICE INTELLIGENCE 203 (Jacqueline E. Ross & Thierry Delpeuch eds., 2006)....


\textsuperscript{168} Berg et. al., supra note 81, at 527-28; Bell, supra note 168, at 2142; Desmond et al., supra note 89, at 872; Eric A. Stewart et. al., Neighborhood Racial Context and Perceptions of Police-Based Racial Discrimination Among Black Youth, 47
CONCLUSION

In a 2015 speech, as homicide rates were spiking in several cities and protests against police killings of Black citizens roiled several states, former FBI Director Comey spoke of “two lines: one line is law enforcement and the other line is the folks we serve and protect, especially in communities of color.” And he worried that “those two lines are arcing away from each other, at an increasing rate.” This extends to trust for homicide investigations, including capital-eligible homicides. Clearance rates matter in reassuring people that police are dedicated to their safety, and that they can deliver on promises of security. As these three case studies show, the trust and cooperation of citizens is essential to reducing murder by leveraging their cooperation in homicide investigations. Plunket and Lundman, for example, suggested nearly 15 years ago as homicide rates were plunging in most cities, that “the significantly lower clearance rates in Black census tracts and integrated census tracts are a function of less trust and less cooperation and information from citizens.” They noted, “[w]hen people are reluctant to talk to homicide detectives, when they are uneasy about telling homicide detectives what they saw, what they know, and what they suspect, the necessary result is lower clearance rates.” We find much the same today.


169 See Fagan & Richman, supra note 92.


171 See, e.g., Leovy, supra note 59.