

A SYSTEMATIC LOTTERY: THE TEXAS DEATH PENALTY, 1976 TO 2016

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ABSTRACT

Although the Supreme Court denied certiorari in *Hidalgo v. Arizona* (2018), Justice Breyer recognized that empirical research regarding the arbitrary administration of the death penalty could ultimately be used to strike down capital punishment. However, empirical research would only be efficacious if the data were more rigorous than those presented by *Hidalgo*. Focusing on Texas from 1976 to 2016, our research answers the call for robust data collected over a long period of time. Our findings indicate that the death penalty was rarely imposed among eligible cases—a trend that has accelerated in recent decades. However, the death penalty was considerably more likely to be imposed if the defendant killed a white female. Such patterns suggest that the modern Texas death penalty is a systematic lottery: death sentences are so rare as to be virtually random, yet death sentences are patterned by the race and gender of the victim. Defying strict logic, the Texas death penalty is indiscriminate yet discriminatory.

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INTRODUCTION

The notion of the “American death penalty” is a misnomer. The United States currently has thirty separate death penalty systems: twenty-eight state systems, the federal system, and the military system.¹ Moreover, state authority is largely devolved to counties—the local district attorney decides whether to seek the death penalty, and local jurors decide whether to impose a death sentence.² Importantly, decentralization has produced geographical concentration, with a small number of states and counties generating a vastly disproportionate share of death sentences and executions.³

Among death penalty systems, Texas stands alone. During the modern era of the death penalty,⁴ the Lone Star State accounts for 569 of the 1512 executions in the United States.⁵ The next six states—Virginia, Oklahoma, Florida, Missouri, Georgia, and Alabama—account for 554 executions.⁶ Not surprisingly, four of the five counties with the most executions are in Texas: Harris County (Houston), Dallas County (Dallas), Tarrant County (Forth Worth), and Bexar County (San Antonio).⁷ Texas is truly the epicenter of capital punishment.

Despite its singular status, key questions regarding the administration of the Texas death penalty remain unanswered.⁸

1. See *State by State*, DEATH PENALTY INFO. CTR., <https://deathpenaltyinfo.org/state-and-federal-info/state-by-state> [<https://perma.cc/N7FG-NBVJ>].

2. Frank R. Baumgartner et al., *The Geographic Distribution of U.S. Executions*, 11 DUKE J. CONST. L. & PUB. POL'Y 1, 28–29 (2016) [hereinafter Baumgartner et al., *Geographic Distribution*].

3. Lee Kovarsky, *Muscle Memory and the Local Concentration of Capital Punishment*, 66 DUKE L.J. 259 (2016); Baumgartner et al., *Geographic Distribution*, *supra* note 2.

4. The Supreme Court ruled the death penalty unconstitutional in 1972 in *Furman v. Georgia*, 408 U.S. 238 (1972). But the Court reinstated the death penalty in 1976 in *Gregg v. Georgia*, 428 U.S. 153 (1976), marking the beginning of the modern era of capital punishment.

5. *Execution Database*, DEATH PENALTY INFO. CTR., <https://deathpenaltyinfo.org/executions/execution-database> [<https://perma.cc/N7FG-NBVJ>] (covering the period from 1976 to 2019).

6. *Executions by State and Region Since 1976*, DEATH PENALTY INFO. CTR., <https://deathpenaltyinfo.org/executions/executions-overview/number-of-executions-by-state-and-region-since-1976> [<https://perma.cc/8VAZ-8L3R>] (covering the period from 1976 to 2019).

7. Kovarsky, *supra* note 3, at 280 tbl.7.

8. The current research examines two forms of arbitrariness in the administration of the Texas death penalty: numerical and social. We are aware of

Focusing on the period from 1976 to 2016, the current Article presents original quantitative research to answer two questions: Is the Texas death penalty imposed arbitrarily? If so, has the degree of arbitrariness changed over time? Before answering such questions, we consider the meaning of arbitrariness.

I. THE MEANING OF ARBITRARINESS

In *Furman v. Georgia*,⁹ the United States Supreme Court ruled in a landmark 5–4 decision that the death penalty was imposed arbitrarily and thus violated the Eighth and Fourteenth Amendments.¹⁰ Used as a term of art, arbitrariness means that death sentences are not based on the culpability of the defendant. Instead, death sentences are imposed randomly or are patterned by impermissible factors such as race and socioeconomic status.¹¹

In their *Furman* concurrences, Justices Stewart, Brennan, and White defined arbitrariness through a numerical lens: the percentage of death-eligible defendants who were actually sentenced to death was so negligible that the ultimate sanction had become random and capricious. Using a lightning metaphor, Justice Stewart noted:

These death sentences are cruel and unusual in the same way that being struck by lightning is cruel and unusual. For, of all the people convicted of rapes and murders in 1967 and 1968, many just as reprehensible as these, the petitioners are among a capriciously selected random handful upon whom the sentence of death has in fact been imposed.¹²

Justice Brennan chose the metaphor of a lottery: “When the punishment of death is inflicted in a trivial number of the cases in which it is legally available, the conclusion is virtually inescapable that it is being inflicted arbitrarily. Indeed, it smacks of little more than a

one prior research project that examined both issues in Texas. Scott Phillips & Alena Simon, *Is the Modern American Death Penalty a Fatal Lottery? Texas as a Conservative Test*, 3 LAWS 85, 100 (2014). The current research extends the work of Phillips and Simon by examining a much longer period of Texas history and investigating changes over time.

9. 408 U.S. 238 (1972).

10. Despite being a plurality opinion, *Furman* remains binding precedent. Sam Kamin & Justin Marceau, *Waking the Furman Giant*, 48 U.C. DAVIS L. REV. 981, 988 (2015).

11. See Scott Phillips & Justin Marceau, *Whom the State Kills*, 55 HARV. C.R.-C.L. L. REV. (forthcoming 2020).

12. *Furman*, 408 U.S. at 309–10 (Stewart, J., concurring).

lottery system.”¹³ Justice White explained that “there is no meaningful basis for distinguishing the few cases in which [death] is imposed from the many cases in which it is not.”¹⁴

How rare was the imposition of death among eligible cases? Steven Shatz explains: “When the Court decided in *Furman* that the death penalty, as then administered by the states, created too great a risk of arbitrariness, it was the Justices’ understanding that only 15%–20% of death-eligible murderers were sentenced to death.”¹⁵ Although the Court did not specify a death sentence rate that would pass constitutional muster, a death sentence rate of less than 20% clearly would not.¹⁶

Justices Douglas and Marshall defined arbitrariness in a different way from Justices Stewart, Brennan, and White. Viewing arbitrariness through a social lens, Douglas noted:

A law that stated that anyone making more than \$50,000 would be exempt from the death penalty would plainly fall, as would a law that in terms said that blacks, those who never went beyond the fifth grade in school, those who made less than \$3,000 a year, or those who were unpopular or unstable should be the only people executed. A law which in the overall view reaches that result in practice has no more sanctity than a law which in terms provides the same.¹⁷

Justice Marshall concurred:

Regarding discrimination, it has been said that ‘[i]t is usually the poor, the illiterate, the underprivileged, the member of the minority group—the man who, because he is without means, and is defended by a court-appointed attorney—who becomes society’s sacrificial lamb. . . .’ Indeed, a look at the bare statistics

13. *Id.* at 293 (Brennan, J., concurring).

14. *Id.* at 313 (White, J., concurring).

15. Steven F. Shatz, *The Eighth Amendment, the Death Penalty, and Ordinary Robbery-Burglary Murderers: A California Case Study*, 59 FLA. L. REV. 719, 745–46 (2007).

16. Steven F. Shatz & Nina Rivkind, *The California Death Penalty Scheme: Requiem for Furman?*, 72 N.Y.U. L. REV. 1283, 1289 (1997).

17. *Furman*, 408 U.S. at 256–57 (Douglas, J., concurring) (internal citation omitted).

regarding executions is enough to betray much of the discrimination.¹⁸

Furman invalidated existing statutes and commuted the sentences of more than 600 death row inmates to life in prison. However, the decision did not mark the end of capital punishment. In fact, thirty-five states restored the death penalty between 1972 and 1976.¹⁹ Some states attempted to eliminate arbitrariness by making the death penalty mandatory for certain crimes.²⁰ Other states adopted guided discretion, an approach that narrowed the range of death-eligible offenses, bifurcated the guilt and punishment stages of a case (to provide jurors with more evidence regarding aggravation and mitigation during the punishment phase), and guaranteed automatic appellate review.²¹ In *Woodson v. North Carolina*²² and the companion case of *Roberts v. Louisiana*,²³ the Court struck down mandatory death statutes, concluding that the protection of human dignity required individual consideration of each case. However, the Court upheld guided discretion statutes in *Gregg v. Georgia*²⁴ and the companion cases of *Proffitt v. Florida*²⁵ and *Jurek v. Texas*.²⁶

In *Gregg*, the Court assumed that guided discretion would cure the arbitrariness identified in *Furman*. The Court's logic was straightforward: if legislatively-defined statutory aggravators were used to narrow the pool of death-eligible defendants to the "the worst of the worst" then most would be sentenced to death; if most death-eligible defendants were sentenced to death then arbitrariness—random and patterned—would disappear.²⁷ Justice White articulated the Court's prediction in *Gregg*:

18. *Id.* at 364 (Marshall, J., concurring) (quoting *Hearings on S. 1760 before the Subcommittee on Criminal Laws and Procedures of the Senate Committee on the Judiciary*, 90th Cong. 11 n.80 (1968)) (alterations in original).

19. See RAYMOND PATERNOSTER, ROBERT BRAME, & SARAH BACON, THE DEATH PENALTY: AMERICA'S EXPERIENCE WITH CAPITAL PUNISHMENT 89–108 (2008) (describing examples of post-*Furman* death penalty statutes).

20. *See id.*

21. *See id.*

22. 428 U.S. 280, 303–04 (1976).

23. 431 U.S. 633, 637–38 (1976).

24. 428 U.S. 153, 206–07 (1976).

25. 428 U.S. 242, 259–60 (1976).

26. 428 U.S. 262, 276 (1976).

27. DAVID C. BALDUS, GEORGE WOODWORTH & CHARLES A. PULASKI, JR., EQUAL JUSTICE AND THE DEATH PENALTY: A LEGAL AND EMPIRICAL ANALYSIS 31 (1990).

As the types of murders for which the death penalty may be imposed become more narrowly defined and are limited to those which are particularly serious or for which the death penalty is peculiarly appropriate as they are in Georgia by reason of the aggravating-circumstance requirement, it becomes reasonable to expect that juries—even given discretion *not* to impose the death penalty—will impose the death penalty in a substantial portion of the cases so defined. If they do, it can no longer be said that the penalty is being imposed wantonly and freakishly or so infrequently that it loses its usefulness as a sentencing device. There is, therefore, reason to expect that Georgia's current system would escape the infirmities which invalidated its previous system under *Furman*.²⁸

Empirical research suggests that guided discretion did not eliminate “lightning strikes” and “lotteries”: past studies determined the death sentence rate to be 11% in California,²⁹ 4% in Connecticut,³⁰ and less than 1% in Colorado at various points in time.³¹ Disparate treatment also persists. Numerous studies disclose that the death penalty is more likely to be imposed if the defendant killed a white victim and, especially, a white female victim.³² The Justices who

28. *Gregg*, 428 U.S. at 222.

29. Shatz & Rivkind, *supra* note 16, at 1332.

30. See JOHN J. DONOHUE III, CAPITAL PUNISHMENT IN CONNECTICUT, 1973–2007: A COMPREHENSIVE EVALUATION FROM 4686 MURDERS TO ONE EXECUTION 4 (2013).

31. See Justin Marceau, Sam Kamin & Wanda Foglia, *Death Eligibility in Colorado: Many are Called, Few are Chosen*, 84 U. COLO. L. REV. 1069, 1071–72 (2013).

32. BALDUS, WOODWORTH & PULASKI, *supra* note 27, at 185–88; U.S. GEN. ACCOUNTING OFFICE, DEATH PENALTY SENTENCING: RESEARCH INDICATES PATTERN OF RACIAL DISPARITIES 5–6 (1990), <http://archive.gao.gov/t2pbat11/140845.pdf> [<https://perma.cc/6TLC-NAPS>] [hereinafter U.S. GEN. ACCOUNTING OFFICE, DEATH PENALTY SENTENCING]; Jefferson E. Holcomb, Marian R. Williams & Stephen Demuth, *White Female Victims and Death Penalty Disparity Research*, 21 JUST. Q. 877, 883–85 (2004); Marian R. Williams, Stephen Demuth & Jefferson E. Holcomb, *Understanding the Influence of Victim Gender in Death Penalty Cases: The Importance of Victim Race, Sex-Related Victimization, and Jury Decision Making*, 45 CRIMINOLOGY 865, 872, 879 (2007); Scott Phillips, Laura Potter Haas & James E. Coverdill, *Disentangling Victim Gender and Capital Punishment: The Role of Media*, 7 FEMINIST CRIMINOLOGY 130, 131–32 (2012); Catherine M. Grosso et al., *Race Discrimination and the Death Penalty: An Empirical and Legal Overview*, in AMERICA'S EXPERIMENT WITH CAPITAL PUNISHMENT: REFLECTIONS ON THE PAST, PRESENT, AND FUTURE OF THE ULTIMATE PENAL SANCTION (James R. Acker et al. eds., 3d ed. 2014); Glenn L. Pierce, Michael

defined arbitrariness through a numerical lens and the Justices who defined arbitrariness through a social lens were both correct—death sentences are so rare as to be virtually random, yet death sentences are patterned by race and gender. The modern death penalty is a systematic lottery.

In response to continuing arbitrariness, one might argue that *Furman* is no longer relevant. Yet the decision created a binding precedent that has never been overturned. In fact, the constitutional principle at the heart of *Furman*—that the death penalty cannot be imposed arbitrarily—has been consistently affirmed.³³ Moreover, members of the Court have recently shown a renewed interest in the question of arbitrariness. In his 2015 dissent in *Glossip v. Gross*, Justice Breyer noted:

Thus, whether one looks at research indicating that irrelevant or improper factors—such as race, gender, local geography, and resources—do significantly determine who receives the death penalty, or whether one looks at research indicating that proper factors—such as “egregiousness”—do *not* determine who receives the death penalty, the legal conclusion must be the same: The research strongly suggests that the death penalty is imposed arbitrarily.³⁴

Although the Supreme Court denied certiorari in the 2018 case of *Hidalgo v. Arizona*,³⁵ Justice Breyer, in a statement joined by Justices Ginsburg, Sotomayor, and Kagan, noted that empirical research regarding arbitrariness could ultimately be used to strike down the death penalty—but only if the data were more rigorous than those presented by Hidalgo.³⁶

The current study responds to the call for rigorous data collected over a long period of time. Focusing on the modern Texas death penalty from 1976 to 2016, we reach four conclusions: (1) considering the entire time span, the overall death sentence rate falls below the threshold that the Court deemed arbitrary and therefore unconstitutional in *Furman*; (2) the annual death sentence rate has tumbled in recent decades, meaning the ultimate sanction is

L. Radelet & Susan Sharp, *Race and Death Sentencing for Oklahoma Homicides Committed Between 1990 and 2012*, 107 J. CRIM. L. & CRIMINOLOGY 733, 746–49 (2017).

33. Kamin & Marceau, *supra* note 10, at 988.

34. *Glossip v. Gross*, 135 S. Ct. 2726, 2762 (2015) (Breyer, J., dissenting).

35. 138 S. Ct. 1054, 1054 (2018).

36. *Id.* at 1057 (statement of Breyer, J., respecting denial of certiorari).

being imposed in an increasingly arbitrary manner; (3) because the legislature expanded death eligibility over time, thousands of defendants who would not have been eligible under the original post-*Furman* statute became eligible; and (4) a death sentence is considerably more likely to be imposed if the defendant killed a white female. Below, we describe the research methods and data used to arrive at such conclusions.

II. DATA AND FINDINGS

A. The Overall Death Sentence Rate in Texas, 1976 to 2016

We estimate the overall death sentence rate in Texas from January 1, 1976 to December 31, 2016.³⁷ To do so, we draw on three databases: the Texas Department of Criminal Justice website (“TDCJ”),³⁸ the FBI’s Supplementary Homicide Reports (“SHR”),³⁹ and the Officer Down Memorial Page website (“ODMP”).⁴⁰

The overall death sentence rate has two components. The numerator is the number of defendants who were sentenced to death for murders committed during the period in question. The denominator is the number of defendants who could have been sentenced to death for murders committed during the period in question—the pool of

37. Our research includes homicides committed from January 1, 1976 to December 31, 2016. Although Texas reinstated the death penalty in 1974, we started our investigation in 1976 because the SHR data for 1974 and 1975 are problematic. Specifically, the earlier SHR data do not include the age of the defendant. Consequently, we could not determine if a defendant was old enough to be sentenced to death. Additionally, the earlier SHR data only include one defendant and one victim for each case. Thus, we could not determine if a case had multiple defendants and/or multiple victims. Without such information we could not ascertain the number of defendants who were death-eligible in a case or whether any victim was a white female. We ended our investigation in 2016 to allow three years for death sentences to come to fruition (we monitored Texas death sentences through the end of 2019). As calculated by Phillips and Simon, almost 90% of death row inmates in Texas were sentenced to death within three years of the crime. Phillips & Simon, *supra* note 8, at 101.

38. *Death Row Information*, TEX. DEP’T OF CRIM. JUST., https://www.tdcj.texas.gov/death_row/ [<https://perma.cc/7TLA-RKQG>].

39. We did not use the SHR files that are publicly available from the Inter-University Consortium for Political and Social Research. Instead, we received the SHR files directly from the FBI. The FBI files are much more user-friendly, as the variable names and column order are the same for all years.

40. *Officer Down Memorial Page*, OFFICER DOWN MEMORIAL PAGE, INC., <https://www.odmp.org/> [<https://perma.cc/4CTD-XP5>].

death-eligible defendants. Determining the numerator is straightforward, but determining the denominator is knottier.

$$\frac{\# \text{ of Defendants Sentenced to Death}}{\# \text{ of Defendants Eligible for Death Sentence}} \\ = \text{Overall Death Sentence Rate}$$

Data for the numerator were drawn from TDCJ. The website includes three categories of condemned defendants: defendants who have been executed, defendants on death row, and defendants who have been removed from death row.⁴¹ Combining the categories reveals that 1046 defendants were sentenced to death for murders that occurred between 1976 and 2016.

Data for the denominator were drawn from SHR and ODMP. Collected as part of the FBI's annual Uniform Crime Report, SHR data include all homicide incidents reported to police (which are then reported to the FBI in a standardized fashion). Because a homicide incident can include multiple death-eligible defendants, we reshaped the file from 69,448 homicide incidents to 81,817 homicide defendants.⁴²

Of the 81,817 defendants in Texas, how many were death-eligible? The SHR/ODMP approach can be used to examine the following components of death eligibility in Texas:

41. *Death Row Information*, *supra* note 38. Technically, TDCJ has a fourth category: defendants scheduled for execution. We treat such defendants as "on death row." *Id.*

42. Under *Tison v. Arizona*, a non-triggerman can be sentenced to death if he or she was a major participant in the crime and demonstrated a "reckless indifference to human life." 481 U.S. 137, 158 (1987). Omar Randi Ebeid argues that Texas's law of parties expands death eligibility beyond *Tison*, as a defendant can be sentenced to death if he or she should have anticipated the murder committed by the triggerman. Omar Randi Ebeid, Comment, *Death by Association: Conspiracy Liability and Capital Punishment in Texas*, 45 HOUSTON L. REV. 1831, 1833–34, 1849–50 (2009). Even if the law of parties does not expand eligibility beyond *Tison*, it is indisputable that Texas has sought and secured death sentences against defendants who did not play a major role in the crime. Jeffrey Wood, for example, was sentenced to death for his role as a getaway driver. See Jolie McCullough, *Execution Halted for Jeff Wood, Who Never Killed Anyone*, TEX. TRIB. (Aug. 19, 2016), <https://www.texastribune.org/2016/08/19/execution-halted-jeff-wood-who-never-killed-anyone/> [<https://perma.cc/CD98-UFUR>]. Given the breadth of the Texas statute and the scope of its application, we treat codefendants as death-eligible (assuming the codefendant meets the remaining criteria for eligibility).

1. Components of Death Eligibility

The defendant committed a murder that included at least one statutory aggravator.

The SHR indicates whether the murder included any of the following aggravators in the Texas statute: child victim;⁴³ multiple victims;⁴⁴ murder during the commission of a robbery, burglary, or rape; and murder by arson.⁴⁵ Because the SHR does not specify whether the victim was a peace officer or corrections officer, we used the ODMP to identify such cases.⁴⁶ Importantly, the Texas legislature has amended and expanded the list of aggravators over time, as detailed in Appendix A. We coded death eligibility based on the aggravators in effect at the time of each murder.⁴⁷ Put simply, our coding strategy accommodates temporal changes in the Texas capital murder statute.

The defendant was old enough to be sentenced to death.

The minimum age was seventeen from January 1, 1976 to February 28, 2005. On March 1, 2005, the minimum age changed to eighteen⁴⁸ following the Supreme Court's decision in *Roper v.*

43. TEX. PENAL CODE ANN. § 19.03(a)(8)–(9) (West 2019).

44. *Id.* § 19.03(a)(7).

45. *Id.* § 19.03(a)(2).

46. We identified 197 defendants who were death-eligible based on the killing of a peace officer or corrections officer. To code death eligibility, we relied on the description of the crime included on the ODMP website (if necessary, we also consulted media stories). Focusing on peace officers, a defendant was death-eligible if he or she intentionally murdered a peace officer who was acting in the lawful discharge of an official duty and the defendant knew the person was a peace officer. Focusing on corrections officers, a defendant was death-eligible if he or she intentionally murdered an employee of a penal institution while he or she was incarcerated. Of the 197 defendants who were death-eligible due to the murder of a law enforcement officer, we matched 139 to the correct row in the SHR (using county, year/month of crime, weapon, victim age, victim race/sex/ethnicity, and the relationship between the parties). In the remaining 58 cases that we could not match to the SHR, we added rows to the data file and filled in the key variables (such as the year of the homicide and whether the victim was a white female).

47. For example, killing a child might be a death-eligible offense depending on the age of the child and the year of the murder. In 1993, the Texas legislature revised the death penalty statute to specify that killing a child under the age of 6 was a capital offense. TEX. PENAL CODE ANN. § 19.03(a)(7) (West 1993). In 2011, the legislature revised the statute to change the age threshold from under 6 to under 10. TEX. PENAL CODE ANN. § 19.03(a)(8) (West 2011). Our coding accommodates such temporal variation. For changes to the statute over time, *see* Appendix A.

48. TEX. PENAL CODE ANN. § 8.07(c) (West 2005).

Simmons.⁴⁹ If the defendant's age was missing in the SHR, then we coded the defendant as ineligible for the death penalty.

The defendant was arrested.

Unfortunately, the SHR does not include information about whether the defendant was arrested. We followed the lead of Baldus and colleagues, who recommend using a proxy to fill the gap.⁵⁰ Specifically, if the SHR included the race and sex of the defendant, then we assumed the defendant had been arrested. Such an assumption is reasonable because police departments report known information to the SHR; the inclusion of the defendant's race and sex in the SHR implies that the person has been apprehended, whereas the exclusion of such information implies that the person has not been apprehended.

The defendant's homicide was non-negligent and non-justifiable, as indicated in the SHR.

Of the 81,817 defendants, 9213 met the above criteria for death eligibility: the defendant committed a non-negligent and non-justifiable murder with one or more aggravators, the defendant was arrested, and the defendant was old enough to be sentenced to death.

2. Potential Sources of Undercounting Death-Eligible Defendants

Unfortunately, the SHR/ODMP approach does not allow us to consider a few complicating factors regarding death eligibility. Indeed, our estimate of 9213 death-eligible defendants might be an undercount. If we undercounted the number of death-eligible defendants, then we overestimated the death sentence rate (a smaller denominator produces a higher rate). Consider three potential sources of error:

The SHR/ODMP approach cannot be used to identify murders with the following aggravators in the Texas statute: the murder of a firefighter; committing murder in the course of kidnapping, obstruction or retaliation, or terroristic threat; committing murder for remuneration (or employing another to commit murder for remuneration); committing murder during an escape from a penal

49. 543 U.S. 551, 574 (2005).

50. See David C. Baldus et al., *Empirical Studies of Race and Geographic Discrimination in the Administration of the Death Penalty: A Primer on the Key Methodological Issues*, in THE FUTURE OF AMERICA'S DEATH PENALTY: AN AGENDA FOR THE NEXT GENERATION OF CAPITAL PUNISHMENT RESEARCH 153, 159 n.14 (Charles S. Lanier et al. eds., 2009).

institution; murder committed by a prison gang member; murder committed by an inmate incarcerated for murder or capital murder; and murder committed by an inmate serving a sentence of life imprisonment or ninety-nine years.⁵¹ How many death-eligible defendants did we miss in the denominator? To estimate, we turned to the defendants in the numerator who were sentenced to death. Among the condemned defendants, 92% committed a murder that included an aggravator in the SHR/ODMP.⁵² Assuming the chance of being sentenced to death is about the same for aggravators included/excluded in the SHR/ODMP approach, we captured 92% of the pool of death-eligible defendants. Thus, the number of death-eligible defendants climbs from 9213 to 10,014.

Turning to the next source of potential error, 2435 defendants in the SHR data met the criteria for death eligibility with one exception: the person's age was missing. How many were probably adults? Among the defendants in the SHR for whom age is known, 94% were adults. Thus, we interpolate that 2289 of the defendants in question were adults. That brings the pool of death-eligible defendants from 10,014 to 12,303.

Finally, we assessed SHR coverage of murder in Texas from 1976 to 2016. To do so, we compared the annual number of victims reported by the SHR to the annual number of victims reported by the Centers for Disease Control and Protection ("CDC"). With the exception of 1982, the SHR reported more victims each year and is more complete than the CDC. Further exploration of the 1982 SHR data revealed that the Houston Police Department ("HPD") did not report any murders. Because HPD reported 54 and 76 death-eligible defendants in 1981 and 1983, respectively, we assumed that 65 defendants were death-eligible in 1982 (the average). That brings the pool of death-eligible defendants from 12,303 to 12,368.

3. Potential Sources of Overcounting Death-Eligible Defendants

Nonetheless, our estimate of 12,368 death-eligible defendants might be an overcount. If we overcounted the number of death-eligible defendants, then we underestimated the death sentence rate (a larger

51. TEX. PENAL CODE ANN. § 19.03(a)(1)–(6) (West 2019).

52. We were able to examine statutory aggravators for 766 of the 1046 cases, as the information is not available for defendants who have been removed from death row.

denominator produces a lower rate). Consider two potential sources of error:

To begin, a defendant must be convicted to be sentenced to death. The Bureau of Justice Statistics (BJS) reports that 70% of the defendants who are arrested for murder in the United States are convicted, so we assume that the same holds true in Texas.⁵³ If so, the number of death-eligible defendants declines from 12,368 to 8658.

Given the normal distribution of IQ, we also assume that 2.5% of the defendants are mentally disabled and thus ineligible for death under the Supreme Court's 2002 decision in *Atkins v. Virginia*.⁵⁴ Because we estimate that 3183 defendants were death-eligible from 2003 to 2016 (see Appendix A), we drop 80 additional defendants. Therefore, the tally of death-eligible defendants drops from 8658 to 8578.⁵⁵

53. Between 1990 and 2009, BJS reported 10 estimates for the percentage in question. The estimates ranged from 61% to 81%. We use the average: 70%. See *Publications & Products: Felony Defendants in Large Urban Counties*, BUREAU JUST. STAT., <https://www.bjs.gov/index.cfm?ty=pbse&sid=27> [https://perma.cc/XF3Y-AEMN].

54. 536 U.S. 304, 321 (2002).

55. During the penalty phase of a capital case, Texas jurors must decide whether the defendant is a future danger. Following the Texas Practice Series, we treat future danger as a question of selection. 43A GEORGE E. DIX & JOHN M. SCHMOLESKY, *Capital Murder in Texas: Legislative Narrowing at the First Stage of Trial*, in TEXAS PRACTICE SERIES: CRIMINAL PRACTICE AND PROCEDURE, § 49:10 (3d ed. 2019). However, we acknowledge that others view future danger as a question of eligibility. Sam Kamin & Justin Marceau, *The Facts About Ring v. Arizona and the Jury's Role in Capital Sentencing*, 13 U. PA. J. CONST. L. 529, 565 (2011) (“[T]he only finding that can make a defendant *eligible* for the death penalty is his future dangerousness.”) (emphasis added). Whether future danger is a component of eligibility or selection is an interesting legal question, but the question has no material impact on our estimation of the death sentence rate. Specifically, we contend that prosecutors could convince jurors that almost any capital murder defendant is a future danger. We reach that conclusion based on the language of the special issue, the death qualification process, quantitative data, and qualitative data. To begin, jurors must only decide “whether there is a probability that the defendant would commit criminal acts of violence that would constitute a continuing threat to society.” TEX. CODE CRIM. PROC. ANN. art. 37.071 § 2(b)(1) (West 2019). Note that the law does not require jurors to conclude that the probability reaches a certain threshold such as a “substantial probability”—just “a probability.” Such phrasing seems to imply that the threshold probability is “not zero.” The process of death qualification further loads the dice for a finding of future danger. As Sandys explains, “death-qualified jurors, regardless of the standard, are more conviction-prone, less concerned with due process, and they are more inclined to believe the prosecution than are excludable jurors.” See Marla Sandys, *Stacking the Deck for Guilt and Death: The Failure of Death Qualification to Ensure*

4. Calculating the Overall Death Sentence Rate

If we use the basic SHR/ODMP approach without any adjustment for complicating factors regarding death eligibility then the overall death sentence rate is 11.4%. That figure is derived from dividing 1046 condemned defendants by 9213 death-eligible defendants. To be as precise as possible, we also considered how much the overall death sentence rate would change if we adjusted for the following complicating factors: aggravators that are not captured in the SHR/ODMP approach, missing data regarding the defendant's age, missing data for HPD in 1982, the conviction rate, and mental disability. Doing so slightly attenuated the pool of death-eligible defendants, thus increasing the overall death sentence rate to 12.2%. Specifically, 1046 defendants were sentenced to death from a pool of 8578 death-eligible defendants. Thus, the "simple" approach and the "complicated" approach produce an overall death sentence rate within a single percentage point—11.4% versus 12.2%.⁵⁶

Impartiality, in AMERICA'S EXPERIMENT WITH CAPITAL PUNISHMENT: REFLECTIONS ON THE PAST, PRESENT, AND FUTURE OF THE ULTIMATE PENAL SANCTION 285, 305 (James R. Acker et al. eds., 1998). Texas data specifically support the supposition that the special issue sets a low bar for a finding of future dangerousness. Phillips examined the cases of 504 defendants who were indicted for capital murder in Houston from 1992 to 1999. The District Attorney sought death in 129 cases and 117 cases advanced to a penalty trial. Phillips had data on whether the jury concluded that the defendant was a future danger in 115 of the 117 cases in question. The jury decided the defendant was indeed a future danger in 96% of the cases (110/115) (Phillips's data are available upon request). Colomy and Phillips's qualitative research helps explain why prosecutors are so successful in convincing jurors that the defendant is a future danger. If the defendant has a prior criminal record, then prosecutors simply argue that the past is the best predictor of the future. If the defendant does not have a prior criminal record, then prosecutors argue that committing capital murder permanently and irrevocably defines the defendant as a future threat who must be neutralized by death. Paul Colomy & Scott Phillips, *Irremedial Work and Act-Person Merger: Constructing Irredeemable Selves in Death Penalty Trials*, 33 SOC. F. 783, 798–99 (2018). Indeed, 50% of the condemned defendants in the current data were sentenced to death despite not having a prior record (we were able to examine whether the defendant had a prior record for 766 of the 1046 condemned defendants in the current data, as TDCJ provides such information unless a defendant has been removed from death row). In short, future danger is a virtual constant. Consequently, whether we treat future danger as a question of eligibility or selection does not change our substantive conclusions about the overall death sentence rate or the dramatic decline in the death sentence rate over time.

56. Describing the universe of narrowing studies, Kamin and Marceau report that the death sentence rate ranges from less than 1% in Colorado to 23% in

The death sentence rates calculated from the simple approach and the complicated approach are not materially different. Such a finding is important for future researchers, as it suggests that the SHR/ODMP approach can be used to derive a reasonable estimate of the number of death-eligible defendants in Texas without complicated adjustments. Because simplicity and parsimony are preferable in science,⁵⁷ we use the simple approach throughout the remainder of the paper.⁵⁸

Although we contend that our approach provides a reasonable estimate of the death sentence rate in Texas, it is imperfect. To approach perfection would require a detailed analysis of the facts of each case.⁵⁹ That is simply not possible in Texas over a long period of time—40 years, 254 counties, and more than 80,000 homicide defendants. But it also might not be necessary. Close arguably counts in horseshoes, hand grenades, and the death sentence rate. Our data demonstrate that the overall death sentence rate in Texas falls below the threshold deemed unconstitutional in *Furman* *even if* the estimate is necessarily approximate. If, hypothetically, a critic were to argue that the overall death sentence rate in Texas is substantially greater than our estimate, then the burden of proof would shift to the critic to demonstrate that thousands upon thousands of defendants were mistakenly coded as death-eligible.

Even more importantly, we focus primarily on temporal trends. Assuming errors are randomly distributed over time, the upward and downward trends are correct even if the exact death sentence rate is slightly off the mark.

Georgia, with a median of 11.4% in California. Thus, the Texas death sentence rate appears to be roughly average. Kamin & Marceau, *supra* note 10, at 1015.

57. See Donald Black, *The Epistemology of Pure Sociology*, 20 LAW & SOC. INQUIRY 829, 838–41 (1995).

58. Although we ultimately opted for the simple approach, the method we used is still more sophisticated than prior research. Focusing on the period from 1977 to 1999, Blume and colleagues report that the death sentence rate in Texas is 2% (776 death sentences from a pool of 37,879 death-eligible defendants). However, the authors treat all murders in the SHR as death-eligible. Because the authors did not code death eligibility, our findings cannot be compared. John H. Blume, Theodore Eisenberg & Martin T. Wells, *Explaining Death Row's Population and Racial Composition*, 1 J. EMPIRICAL LEGAL STUD. 165, 172 (2004).

59. For an example of such an approach, see Marceau, Kamin & Foglia, *supra* note 31, at 1098–1107.

B. Temporal Trend: Increasing Arbitrariness

Estimating the overall death sentence rate serves as the point of departure for our main inquiry. Has the death sentence rate in Texas changed over time? To answer the question, we estimated the annual death sentence rate from 1976 to 2016. Specifically, we applied the same formula to each year.

Beginning with the numerator in the annual death sentence rate, Figure 1 indicates the number of death sentences that were imposed for murders committed during the year in question (exact numbers are provided in Appendix B). Consider an example: among the defendants who committed a death-eligible murder in 1986, forty-nine were ultimately sentenced to death between 1986 and 2019 (the close of data collection).

As Figure 1 demonstrates, Texas death sentences fell from a peak of fifty-one in 1998 to an unprecedented low of one in 2016. It might be tempting to interpret the nosedive as an artifact of pending cases; many recent murders will eventually result in a death sentence. However, the facts do not support such an interpretation. Almost 90% of condemned defendants arrive on Texas's death row within three years of the murder, and that window has closed for all the cases in our data.⁶⁰ Unless a flood of pending death sentences lies beyond the horizon, the decline is real and substantial. Explaining the decline falls beyond the scope of the current research, but two factors seem pivotal. Starting in 1999, the plunge is probably the product of fears about executing the innocent.⁶¹ Texas also passed a true life without parole ("LWOP") statute in 2005⁶² that appears to have solidified or even accelerated the decline (before the passage of Senate Bill 60, jurors had to choose between death and life with the possibility of parole after forty years;⁶³ some jurors surely voted for death to avoid the remote possibility of parole).⁶⁴

60. See *supra* note 37.

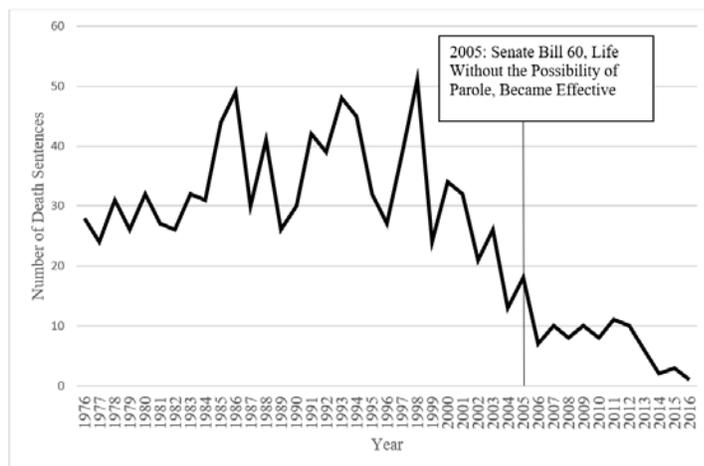
61. See FRANK R. BAUMGARTNER, SUZANNA L. DE BOEF & AMBER E. BOYDSTUN, *THE DECLINE OF THE DEATH PENALTY AND THE DISCOVERY OF INNOCENCE 200–15* (2008) (describing how growing concerns about the possibility of executing the innocent led to a decline in death sentences).

62. See 2005 Tex. Gen. Laws 2706.

63. See *id.*

64. See John H. Blume, Theodore Eisenberg & Stephen P. Garvey, *Lessons from the Capital Jury Project*, in *BEYOND REPAIR? AMERICA'S DEATH PENALTY* 144, 176 (Stephen P. Garvey ed., 2003).

Figure 1. Numerator for Annual Death Sentence Rate: Death Sentences in Texas, 1976 to 2016



Turning to the denominator in the death sentence rate, Figure 2 displays the number of death-eligible defendants by year (exact numbers are provided in Appendix B). We divide the defendants into two groups: “hypotheticals” and “actuals.” “Hypotheticals” refers to the number of defendants who would have been death-eligible under the original 1974 statute. “Actuals” refers to the number of defendants who were truly death-eligible because the statute expanded over time.

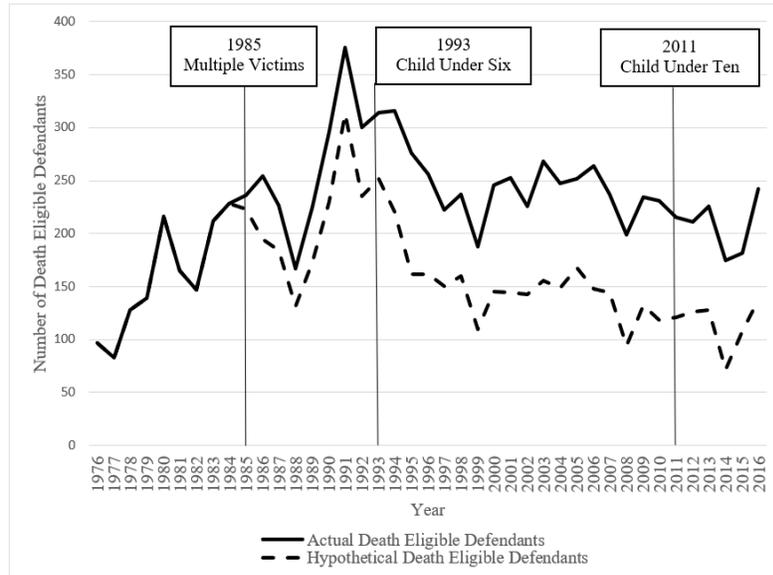
Figure 2 discloses a material gap between hypotheticals and actuals. Indeed, a total of 2664 additional defendants became death-eligible as the statute broadened (the sum of the difference between actuals and hypotheticals across all years). Appendix A details the expansion of the Texas capital murder statute, noting the legislative session and effective date of each change. The gap between hypotheticals and actuals opens in 1985 after the Texas legislature made the killing of multiple victims a capital offense,⁶⁵ the gap widens in 1993 after the legislature made the murder of a child under six a capital offense,⁶⁶ and the gap expands even further in 2011 after the age of the child was changed from under six to under ten.⁶⁷

65. TEX. PENAL CODE ANN. § 19.03(a)(6) (West 1985).

66. TEX. PENAL CODE ANN. § 19.03(a)(7) (West 1993).

67. TEX. PENAL CODE ANN. § 19.03(a)(8) (West 2011). As Kirchmeier documents, states have been unable to resist the temptation to expand death eligibility over time. Jeffrey L. Kirchmeier, *Aggravating and Mitigating Factors: The Paradox of Today's Arbitrary and Mandatory Capital Punishment Scheme*,

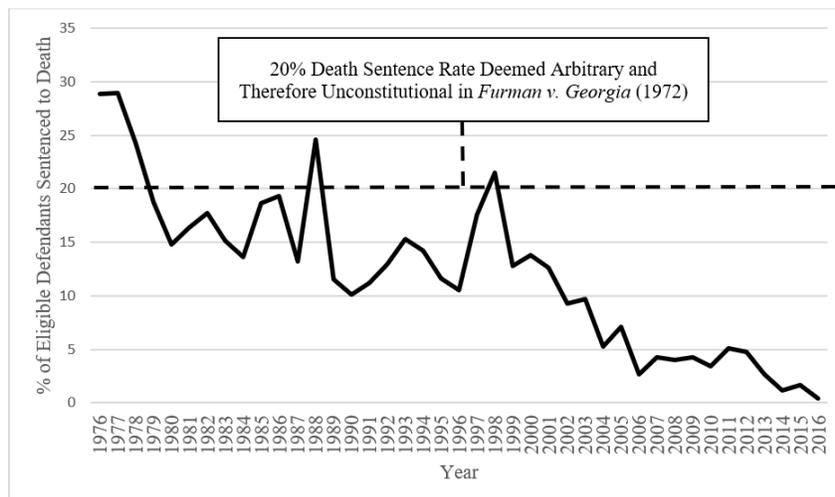
Figure 2. Denominator for Annual Death Sentence Rate: Death-Eligible Defendants in Texas, 1976 to 2016



Over the past forty years, the Texas legislature expanded death eligibility. But death sentences eventually plunged. Consequently, the death sentence rate must have declined precipitously over time. Indeed, it did. As Figure 3 reveals, the death sentence rate peaked at 29% in 1976 before falling to less than 1% in 2016. The year 2016 is not an aberration. Between 2006 and 2016, Texas sentenced 76 defendants to death among 2416 death-eligible defendants—a death sentence rate of 3.1%. Not only does the overall death sentence rate fall below the threshold deemed arbitrary and therefore unconstitutional in *Furman*, the Texas death penalty has become increasingly arbitrary over time. Beyond arbitrariness, a minuscule death sentence rate undermines deterrence, incapacitation, and retribution. As the death sentence rate plummets, death becomes an unconstitutional punishment with no valid penological purpose.⁶⁸

6 WM. & MARY BILL RTS. J. 345, 397–99 (1998) [hereinafter Kirchmeier, *Aggravating and Mitigating Factors*]; Jeffrey L. Kirchmeier, *Casting a Wider Net: Another Decade of Legislative Expansion of the Death Penalty in the United States*, 34 PEPPERDINE L. REV. 1, 4, 11–14 (2006).

68. Sam Kamin, *Infrequency as Constitutional Infirmary*, 51 TEX. TECH L. REV. 95, 96 (2018).

Figure 3. Annual Death Sentence Rate in Texas, 1976 to 2016

C. The Nexus Between Discretion and Discrimination

In *Furman*, Justice Douglas recognized the potential relationship between discretion and discrimination. He warned that procedures that give too much latitude to prosecutors and jurors “are pregnant with discrimination and discrimination is an ingredient not compatible with the idea of equal protection of the laws that is implicit in the ban on ‘cruel and unusual’ punishments.”⁶⁹

Although Justice Douglas focused on the race of the defendant, post-*Furman* research suggests that the race of the victim is pivotal. In the seminal study on the topic, Baldus and colleagues found that defendants who killed a white victim were more likely to be sentenced to death in Georgia.⁷⁰ Updating and extending Baldus’s Georgia data, Phillips and Marceau found that the defendants who were sentenced to death for killing a white victim were also more likely to be executed.⁷¹ The race of victim disparities that Baldus discovered in the penultimate stage of the case—death sentences—were exacerbated in

69. *Furman v. Georgia*, 408 U.S. 238, 256–57 (1972) (Douglas, J., concurring).

70. BALDUS, WOODWORTH & PULASKI, *supra* note 27.

71. Phillips & Marceau, *supra* note 11 (citing BALDUS, WOODWORTH & PULASKI, *supra* note 27).

the ultimate stage of the case—executions.⁷² Put simply, the situation went from bad to worse. Unfortunately, the racial disparities discovered in Georgia are not the exception, but rather the rule: numerous studies in different places⁷³ and time periods demonstrate that defendants who kill a white victim are more likely to be sentenced to death.⁷⁴

Moving beyond the race of the victim, researchers have also begun to explore the intersection of victim race and gender. Baumgartner and colleagues, for instance, report that 13.8% of homicide victims in the United States between 1975 and 2005 were white females. But 38.3% of the defendants who were executed between 1976 and 2015 killed a white female.⁷⁵ Thus, an execution was 2.8 (38.3/13.8) times more likely in cases with a white female victim than one would expect in a system that is blind to race and gender.⁷⁶

Though not unfettered, the Texas death penalty puts substantial discretion in the hands of prosecutors and jurors. Did selective application mean disparate application, as Justice Douglas feared? To answer the question, we examined whether defendants who killed a white female were more likely to be sentenced to death. Specifically, the data were used to answer two questions: Among death-eligible defendants, what percent killed a white female?⁷⁷

72. See *id.*

73. For a summary of previous research regarding the relationship between race and capital punishment in Texas, see Scott Phillips, *Racial Disparities in the Capital of Capital Punishment*, 45 HOUSTON L. REV. 807, 817 n.31 (2008). For updated findings, see Scott Phillips, *Continued Racial Disparities in the Capital of Capital Punishment: The Rosenthal Era*, 50 HOUSTON L. REV. 131, 147–50 (2012); Phillips & Simon, *supra* note 8, at 99.

74. For reviews of the research literature, see U.S. GEN. ACCOUNTING OFFICE, DEATH PENALTY SENTENCING, *supra* note 32, at 3, 5–6; Grosso et al., *supra* note 32, at 525.

75. FRANK R. BAUMGARTNER ET AL., DEADLY JUSTICE: A STATISTICAL PORTRAIT OF THE DEATH PENALTY 72 tbl.4.2 (2018) [hereinafter BAUMGARTNER ET AL., DEADLY JUSTICE]. The time frame for homicides (1975 to 2005) is slightly different than the time frame for executions (1976 to 2015) to allow 10 years for an execution to occur.

76. For additional research on the intersection of victim race and gender, see Williams, Demuth & Holcomb, *supra* note 32, at 884–87; Phillips, Potter & Coverdill, *supra* note 32, at 138–42; Pierce, Radelet & Sharp, *supra* note 32, at 749–50.

77. Using SHR data regarding race/ethnicity/gender, we coded the presence (1) or absence (0) of a white non-Hispanic female victim. Cases with multiple victims were coded 1 if any victim was a white non-Hispanic female. The SHR did not report ethnicity in 1976, 1977, 1978, 1979, and 1987. During those years, we coded the presence (1) or absence (0) of a white female victim. Missing data were

Among condemned defendants, what percent killed a white female?⁷⁸ The numbers would be comparable in an unbiased system.

However, the system appears to place a higher value on the life of a white female. Focusing on death-eligible defendants in Texas, 12.9% killed a white female.⁷⁹ But among defendants who were sentenced to death in the Lone Star state, 35.8% killed a white female.⁸⁰ Thus, a death sentence was 2.8 (35.8/12.9) times more likely in cases with a white female victim than one would expect under a

not necessarily an impediment to coding the presence/absence of a white female victim. Assume, for example, that a case had a male victim whose race and ethnicity were not reported. Despite missing data, the victim could not possibly be a white female (white female coded 0). We used the same approach in cases with multiple victims. Assume, for example, that a case had three victims: a male whose race and ethnicity were not reported, a white male whose ethnicity was not reported, and a black non-Hispanic female. Again, no victim could possibly be a white female (white female coded 0). But we could not determine the presence/absence of a white female victim if: (a) a case had a female victim whose race/ethnicity was not reported; or (b) a case had a non-Hispanic white victim whose gender was not reported. We could not determine the presence/absence of a white female victim in 246 of the 9213 cases. Thus, we have complete data in 97.3% of the cases (8967/9213).

78. The TDCJ website indicates the race/ethnicity and gender of the victim if the defendant has been executed or remains on death row, but not if the defendant has been removed from death row. For the removals (and a few additional cases with missing data), we identified the name of the victim using appellate opinions/media stories and then consulted a name-identified version of the Texas Vital Statistics Mortality File ("VSMF") to determine if the victim was a white female. The authors' version of the VSMF includes victims from 1974 to 2002. In rare cases, a victim was not listed in the VSMF or the crime occurred after 2002. In such cases, we turned to the library edition of Ancestry.com to unearth birth records, marriage records, death records, and obituary photos. In a handful of cases, Ancestry.com did not provide the answer so we turned to online media stories and Facebook pages that included a picture of the victim. If that failed, we turned to another researcher in the field, Michelle Petrie, who collected the same information. See Michelle A. Petrie & James E. Coverdill, *Who Lives and Dies on Death Row? Race, Ethnicity, and Post-Sentence Outcomes in Texas*, 57 SOC. PROBS. 630, 639–42 (2010). We could not determine the presence/absence of a white female victim in four of the 1046 cases. Thus, we have complete data in 99.6% of the cases (1042/1046). Cases with multiple victims were coded 1 if any victim was a white female. As described in footnote 77, missing data were not necessarily an impediment to coding the presence/absence of a white female victim (if no victim could have possibly been a white female then the case is code 0).

79. We calculated the percentage as follows: 1158 death-eligible defendants killed a white female; 7809 death-eligible defendants did not kill a white female; and the presence/absence of a white female victim could not be determined in 246 cases (1158/8967 = .1291).

80. To be specific: 373 condemned defendants killed a white female; 669 condemned defendants did not kill a white female; and the presence/absence of a white female victim could not be determined in 4 cases (373/1042 = .358).

process that is blind to race and gender.⁸¹ Not only is the similarity between the nationwide data and the Texas data uncanny, the empirical patterns support Justice Douglas's intuition: discretion raises the specter of discrimination because death sentences are "imposed under a procedure that gives room for the play of such prejudices."⁸² Describing intersectionality and capital punishment, Baumgartner and colleagues note:

The data clearly allow us to see the emergence of a racialized and gendered victim hierarchy in determining who receives the death penalty and who does not. The hierarchy places a premium on white lives over black, and female victims over males.⁸³

CONCLUSION

For decades, the Court has attempted to regulate capital punishment. In *Gregg*, the Court assumed that guided discretion statutes would rectify the arbitrariness exposed in *Furman*. Yet arbitrariness remains. Summarizing the failure of regulation, Professors Carol Steiker and Jordan Steiker note:

The Supreme Court's death penalty law, by creating an impression of enormous regulatory effort while achieving negligible regulatory effects, effectively obscures the true nature of our capital sentencing system, in which the pre-*Furman* world of unreviewable sentencer discretion lives on, with much

81. We note for the interested reader that the difference is statistically significant at $p < .001$ (chi-square calculation available upon request). Normally, we would also examine whether killing a white female increased the odds of being sentenced to death after controlling for potentially confounding variables. But doing so requires matching the condemned defendants to the same defendants (rows) in the SHR. Because the SHR does not include the name of the defendant, matches must be made using clues (such as county, year/month of crime, weapon, victim age, victim race/sex/ethnicity, and the relationship between the parties). In our experience, most defendants can be matched with confidence. But other matches are debatable, and some matches cannot be made. Given our focus on numerical arbitrariness, we did not attempt to match. Nonetheless, existing research in Houston suggests that the white female effect persists after controlling for the heinousness of the murder and the defendant's prior criminal record. See Phillips, Potter & Coverdill, *supra* note 32, at 141. The findings for the entire state of Texas in the current paper, coupled with the findings for Houston, strongly suggest that social arbitrariness has not been eliminated.

82. *Furman v. Georgia*, 408 U.S. 238, 242 (1972) (Douglas, J., concurring).

83. BAUMGARTNER ET AL., DEADLY JUSTICE, *supra* note 75, at 71–72.

the same consequences in terms of arbitrary and discriminatory sentencing patterns.⁸⁴

Texas is no exception. Consider our key findings: (1) despite guided discretion, the overall death sentence rate in Texas falls below the threshold deemed arbitrary and therefore unconstitutional in *Furman*; (2) the Texas death sentence rate is in freefall, rendering the ultimate punishment increasingly arbitrary;⁸⁵ (3) thousands of defendants who would not have been death-eligible in Texas under the original 1974 statute became eligible as aggravators were added or expanded; and (4) in Texas, a death sentence was considerably more likely to be imposed if the defendant killed a white female.⁸⁶

Recall how guided discretion was supposed to work. If legislative criteria were used to narrow the pool of death-eligible defendants to the “worst of the worst,” then most eligible defendants would be sentenced to death. And if most eligible defendants were sentenced to death, then the ultimate sanction would no longer be imposed randomly or patterned by impermissible factors such as race.

84. Carol S. Steiker & Jordan M. Steiker, *Sober Second Thoughts: Reflections on Two Decades of Constitutional Regulation of Capital Punishment*, 109 HARV. L. REV. 355, 436 (1995).

85. In response to such findings, some might call for more death sentences. It is true that enlarging the numerator—death sentences—buoys the death sentence rate (assuming the denominator remains unchanged). However, such a strategy is problematic for legal and practical reasons. From a legal perspective, the guided discretion statutes approved in *Gregg* sought to eliminate arbitrariness by narrowing the pool of death-eligible defendants—not by drastically increasing the number of death sentences. From a practical perspective, eliminating arbitrariness through sentencing is not feasible. Assume, hypothetically, that a 50% death sentence rate would pass constitutional muster. Assume, too, that the number of death-eligible defendants in Texas from 2020 to 2030 is the same as the number from 2006 to 2016. If the total of 2416 death-eligible defendants were repeated, then Texas would need to sentence 1208 defendants to death over the next decade in order to achieve that rate—more than the prior four decades. Beyond being implausible, such a strategy would do nothing to address racial disparities. Moreover, such a strategy increases the risk of executing innocent defendants. According to the Death Penalty Information Center, 13 defendants have been exonerated from Texas’s death row and 10 defendants have been executed by Texas despite strong claims of innocence. See *Innocence Database*, DEATH PENALTY INFO. CTR., <https://deathpenaltyinfo.org/policy-issues/innocence-database> [<https://perma.cc/Q534-FUDJ>]; *Executed but Possibly Innocent*, DEATH PENALTY INFO. CTR., <https://deathpenaltyinfo.org/policy-issues/innocence/executed-but-possibly-innocent> [<https://perma.cc/9L3P-TQAB>].

86. Because we encourage others to replicate and evaluate our findings, we have provided access to the data and syntax. Trent Steidley, *Data*, UNIV. DENVER, <http://portfolio.du.edu/Trent.Steidley/page/81867> [<https://perma.cc/TV5D-8Y4T>].

Although the Texas legislature narrowed death eligibility by specifying statutory aggravators, more than 9000 defendants remained death-eligible during the modern era. Indeed, legislative narrowing eroded as subsequent lawmakers added and expanded statutory aggravators. Although we have focused on empirical patterns—the death sentence rate and the elevated probability of being sentenced to death for killing a white female—both are symptoms, not root causes. The crux of the problem is the Texas legislature’s failure to genuinely and permanently circumscribe the class of death-eligible defendants as required by *Furman*.

Does the death sentence rate in Texas provide any insights about the rest of the nation? Technically, the answer is no. Each death penalty system is unique with different criteria for death eligibility, different numbers of death-eligible defendants, and different numbers of death sentences. But Texas arguably provides a conservative test of whether the American death penalty is a fatal lottery. Texas narrowed death eligibility more than many states by not adopting the broadest possible statutory aggravators. In some states, a defendant is eligible for death if: the murder was heinous, atrocious, or cruel; the murder created a grave risk of death to someone other than the victim; the defendant committed a prior violent felony; the defendant was under correctional supervision at the time of the murder, including probation or parole; the defendant committed the murder after lying in wait; or the murder was premeditated.⁸⁷ Yet the death sentence rate in Texas remains conspicuously low despite the absence of such broad aggravators. If death is imposed randomly in Texas, then the prognosis for the remaining death penalty states is particularly disquieting.

In *Furman*, Justice Stewart noted that “death sentences are cruel and unusual in the same way that being struck by lightning is cruel and unusual.”⁸⁸ Stewart’s metaphor rings true in Texas, but requires a slight modification: killing a white woman is akin to standing in an open field with a lightning rod. Defying strict logic, the modern death penalty is a systematic lottery—so rare as to be virtually random, yet patterned by race and gender. Indiscriminate yet discriminatory.

87. See Kirchmeier, *Aggravating and Mitigating Factors*, *supra* note 67, at 400–01, 405–06, 408, 415–20.

88. *Furman v. Georgia*, 408 U.S. 238, 309 (1972) (Stewart, J., concurring).

APPENDICES

Appendix A. Expanding Death Eligibility in Texas, 1974 to Present	
Session, Citation, Effective Date	Capital Murder (19.03) and Age Affecting Criminal Responsibility (8.07)
63rd Legislative Session Chapter 426, Article 2, Section 1; Chapter 399, Section 1 January 1, 1974	<p>the person murders a peace officer or fireman who is acting in the lawful discharge of an official duty and who the person knows is a peace officer or fireman;</p> <p>the person intentionally commits the murder in the course of committing or attempting to commit kidnapping, burglary, robbery, aggravated rape, or arson;</p> <p>the person commits the murder for remuneration or the promise of remuneration or employs another to commit the murder for remuneration or the promise of remuneration;</p> <p>the person commits the murder while escaping or attempting to escape from a penal institution; or</p> <p>the person, while incarcerated in a penal institution, murders another who is employed in the operation of the penal institution.</p> <p>no person may, in any case, be punished by death for an offense committed while he was younger than 17 years</p>
68th Legislative Session Chapter 977, Section 6 September 1, 1983	Revision: aggravated rape changed to aggravated sexual assault
69th Legislative Session Chapter 44, Section 1	Addition: the person murders more than one person: (A) during the same criminal transaction; or (B) during different criminal transactions but the murders are committed pursuant to the same scheme or course of conduct

September 1, 1985	
73rd Legislative Session Chapter 715, Section 1; Chapter 887, Section 1 September 1, 1993	<p>Addition: the person, while incarcerated in a penal institution, murders another: (A) who is employed in the operation of the penal institution; <i>or (B) with the intent to establish, maintain, or participate in a combination or in the profits of a combination</i></p> <p>Addition: the person, while serving a sentence of life imprisonment or a term of 99 years for the commission of any offense listed in Section 3g(a)(1), Article 42.12, Code of Criminal Procedure, murders another</p> <p>Addition: the person murders an individual under six years of age</p>
78th Legislative Session Chapter 388, Section 1 September 1, 2003	<p>Addition: the person intentionally commits the murder in the course of committing or attempting to commit kidnapping, burglary, robbery, aggravated sexual assault, arson, <i>obstruction or retaliation, or terroristic threat</i> under Section 22.07(a)(1), (3), (4), (5), or (6)</p>
79th legislative session Chapter 428, Section 1 September 1, 2005	<p>Addition: the person murders another person in retaliation for or on account of the service or status of the other person as a judge or justice of the supreme court, the court of criminal appeals, a court of appeals, a district court, a criminal district court, a constitutional county court, a statutory county court, a justice court, or a municipal court</p>
Supreme Court decision in <i>Roper v. Simmons</i> (March 1, 2005)	<p>Unconstitutional to execute a defendant who was under age 18 at the time of the crime</p> <p>Texas revised its statute accordingly in the 79th legislature (2005), Chapter 787, Section 2</p>
82nd legislative session Chapter 1209, Section 1	<p>Revision: <i>under six years of age changed to under 10 years of age</i></p>

September 1, 2011	
Note: Italics are used to denote additions/revisions to existing provisions.	

Appendix B. Data for Figures: Death Sentences, Death-Eligible Defendants, and the Death Sentence Rate					
Year	Death Sentences ¹	Hypothetical DE Defs.	Actual DE Defs.	Difference	Death Sentence Rate
1976	28	97	97	0	29%
1977	24	83	83	0	29%
1978	31	128	128	0	24%
1979	26	139	139	0	18%
1980	32	216	216	0	15%
1981	27	165	165	0	16%
1982	26	147	147	0	18%
1983	32	212	212	0	15%
1984	31	228	228	0	14%
1985	44	223	236	13	19%
1986	49	195	254	59	19%
1987	30	184	227	43	13%
1988	41	131	167	36	24%
1989	26	173	225	52	11%
1990	30	230	296	66	10%
1991	42	313	376	63	11%
1992	39	235	300	65	13%
1993	48	252	314	62	15%
1994	45	221	316	95	14%

1995	32	162	276	114	12%
1996	27	162	256	94	11%
1997	39	150	222	72	18%
1998	51	160	237	77	22%
1999	24	110	188	78	13%
2000	34	145	246	101	14%
2001	32	144	253	109	13%
2002	21	143	226	83	9%
2003	26	156	268	112	10%
2004	13	149	247	98	5%
2005	18	168	252	84	7%
2006	7	148	264	116	3%
2007	10	144	237	93	4%
2008	8	94	199	105	4%
2009	10	132	234	102	4%
2010	8	118	231	113	3%
2011	11	121	215	94	5%
2012	10	126	211	85	5%
2013	6	128	226	98	3%
2014	2	72	175	103	1%
2015	3	108	182	74	2%
2016	1	137	242	105	<1%
Note: Rather than summing to 1046, the death sentence column totals to 1044 because the year of the crime was missing in two cases.					