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MUSCLE MEMORY AND THE LOCAL CONCENTRATION OF CAPITAL PUNISHMENT

LEE KOVARSKY[†]

ABSTRACT

The modern death penalty is not just concentrating in a handful of practicing states; it is disappearing in all but a few capitally active localities. Capital-punishment concentration, however, still surfaces more as the subject of casual observation than as the object of sophisticated academic inquiry. Normative and doctrinal analyses of the phenomenon are virtually nonexistent, in part because the current ability to measure and report concentration is so limited.

This Article is the first attempt to measure capital-punishment concentration rigorously, by combining different sources of county-level data and by borrowing quantitative tools that economists use to study market competition. The analysis yields three major findings: (1) capital sentencing is concentrating dramatically; (2) executions are concentrating more gradually; and (3) both trends persist within most capitally active states.

Certain normative and doctrinal conclusions follow from the empirical findings. The causes of concentration are likely to be more bureaucratic and path dependent than they are democratic and pragmatic, reflecting what I call the “muscle memory” of local institutional practice. If local muscle memory indeed explains

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[†] Professor of Law, University of Maryland School of Law. For their endless diligence in constructing the datasets I use in this Article, I thank Frank Baumgartner, Brandon Garrett, and Robert Smith. For their insightful comments, I thank Frank Baumgartner, Richard Boldt, Danielle Citron, David Dow, Eric Freedman, Brandon Garrett, Mark Graber, David Gray, Allison Larsen, Justin Marceau, Saira Mohamed, Raymond Paternoster, Robert Smith, and Jordan Steiker.

concentration, such concentration violates basic punishment norms requiring equal treatment of similar offenders. This problem notwithstanding, existing death penalty jurisprudence does not account for local concentration. For concentration to have any influence on the outcome of constitutional inquiry, the Supreme Court would have to revise its working definition of “arbitrariness.”

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INTRODUCTION

There is an obscure piece of gallows trivia about the death penalty in Texas. If Harris County seceded and was thereafter annexed as the fifty-first state, the story goes, then it would immediately become America's second-most capitably active state jurisdiction—trailing only what remained of Texas. The data substantiate the story. Out of the 1437 post-1976 executions carried out in American states, 126 of them ended the life of an inmate who was capitably sentenced in Harris County.¹ In that same period, Texas put to death 411 inmates sentenced elsewhere.² Oklahoma, the next state on the list, executed 112.³

With respect to local irregularities, the execution bulge in Harris County is just the tip of the iceberg. Consider Caddo Parish, a small administrative division in northeast Louisiana with a nasty history of postbellum lynching.⁴ Caddo found itself the subject of a 2015 media firestorm when its interim District Attorney (DA), Dale Cox, publicly declared that the government ought to “kill more people.”⁵ Cox had spent years prosecuting capital crimes as Caddo's first assistant DA, and his comments followed his anguished predecessor's mea culpa for securing the wrongful conviction of Glenn Ford, a black man who was exonerated after almost thirty years on Louisiana's death row.⁶ Cox's influence shows just how sensitive capital-sentencing activity can be to the preferences of a local stakeholder: between 2010 and 2015, when the Shreveport newspapers published his comments, Cox had personally secured *half* of the state's death verdicts.⁷

1. See *Searchable Execution Database*, DEATH PENALTY INFO. CTR., <http://www.deathpenaltyinfo.org/views-executions> [https://perma.cc/LY33-CNBS] (.csv file downloaded on Sept. 28, 2016).

2. See *id.*

3. See *id.*

4. See G. Ben Cohen, McCleskey's *Omission: The Racial Geography of Retribution*, 10 OHIO ST. J. CRIM. L. 65, 84–85 (2012).

5. See Campbell Robertson, *The Prosecutor Who Says Louisiana Should 'Kill More People'*, N.Y. TIMES (July 7, 2015), <http://www.nytimes.com/2015/07/08/us/louisiana-prosecutor-becomes-blunt-spokesman-for-death-penalty.html> [https://perma.cc/U7NU-GAS6].

6. See Andrew Cohen, *Freedom After 30 Years on Death Row*, ATLANTIC (Mar. 11, 2014), <http://www.theatlantic.com/national/archive/2014/03/freedom-after-30-years-on-death-row/284179> [https://perma.cc/GC2S-GRG4]; Andrew Cohen, *Glenn Ford, in the End*, BRENNAN CTR. FOR JUSTICE (Oct. 15, 2015), <https://www.brennancenter.org/analysis/glenn-ford-end> [https://perma.cc/B95X-9CAE].

7. Robert J. Smith, *America's Deadliest Prosecutors*, SLATE (May 14, 2015, 3:54 AM), http://www.slate.com/articles/news_and_politics/jurisprudence/2015/05/america_s_deadliest_prosecutors_death_penalty_sentences_in_louisiana_florida.htm [https://perma.cc/8V8E-9ZNW].

There is a widespread belief that to study capital punishment is to scrutinize the “death belt,”⁸ a term referring to the southern states responsible for imposing and carrying out most American capital sentences. Regional and state aggregation of death penalty data, however, suppresses information about the concentration of capital process in smaller political units. Evaluating modern capital punishment patterns is less about understanding the electoral complexities of statewide decisionmaking than it is about understanding the administrative and political idiosyncrasies of counties, parishes, cities, and townships. The meaningful units of study are not Texas and Louisiana; they are Harris County and Caddo Parish.

County-level data on death sentences and executions—together, what I call “capital outcomes”—are an increasingly important source of information about the death penalty.⁹ In *Glossip v. Gross*,¹⁰ the blockbuster capital case from the Supreme Court’s 2015 Term, county-level data surfaced briefly in Justice Breyer’s dissent charting a course for categorical challenges to the death penalty.¹¹ Exercising what seems like a prerogative of the Court’s longer-tenured members, Justice Breyer confessed a strong constitutional skepticism of capital punishment.¹² The timing and content of Justice Breyer’s dissent invite comparisons to similar sentiments expressed by Justice Blackmun, who declared after twenty-four years on the bench that he would “no

8. See, e.g., Louis D. Bilionis & Richard A. Rosen, *Lawyers, Arbitrariness, and the Eighth Amendment*, 75 TEX. L. REV. 1301, 1325 (1997) (noting the absence of reform in the “death belt” states); Michael Mello, *Taking Caldwell v. Mississippi Seriously: The Unconstitutionality of Capital Statutes that Divide Sentencing Responsibility Between Judge and Jury*, 30 B.C. L. REV. 283, 307 (1989) (discussing the evolution of capital sentencing law beyond the “death belt”).

9. See generally Meg Beardsley, Sam Kamin, Justin Marceau & Scott Phillips, *Disquieting Discretion: Race, Geography & the Colorado Death Penalty in the First Decade of the Twenty-First Century*, 92 DENV. U. L. REV. 431 (2015) (analyzing racial and geographic variables for the Colorado death penalty); Robert J. Smith, *The Geography of the Death Penalty and Its Ramifications*, 92 B.U. L. REV. 227 (2012) (analyzing county-level data on capital sentencing from 2004–2009); James S. Liebman, Jeffrey Fagan & Valerie West, *A Broken System: Error Rates in Capital Cases, 1973–1995*, COLUM. L. SCH. (June 12, 2000), <http://www2.law.columbia.edu/instructionalservices/liebman/> [<https://perma.cc/Y3QB-MXGY>] [hereinafter *Broken System I*] (compiling county-level data on error rates in death penalty litigation); James S. Liebman, Jeffrey Fagan, Andrew Gelman, Valerie West, Garth Davies & Alexander Kiss, *A Broken System, Part II: Why There Is So Much Error in Capital Cases, and What Can Be Done About It*, COLUM. L. SCH. (Feb. 11, 2002), <http://www2.law.columbia.edu/brokensystem2/index2.html> [<https://perma.cc/X2HY-UGWZ>] [hereinafter *Broken System II*] (analyzing data from *Broken System I*, *supra*).

10. *Glossip v. Gross*, 135 S. Ct. 2726 (2015).

11. *Id.* at 2761–62 (Breyer, J., dissenting).

12. See *id.* at 2776–77.

longer . . . tinker with the machinery of death.”¹³ Joined by Justice Ginsburg, Justice Breyer argued that the Eighth Amendment likely forbids a capital-sentencing regime that is arbitrary because, among other reasons, “*within* a death penalty State, the imposition of the death penalty heavily depends on the county in which a defendant is tried.”¹⁴ Citing data from 2004 to 2009, Justice Breyer reported that nearly half of America’s death sentences are concentrated in less than 1 percent of its counties.¹⁵

Justice Breyer’s opinion reveals both the strengths and limits of existing data on the geographic distribution of capital punishment. Scholars are increasingly reporting the general conclusion, based on publicly available data, that both death sentences and executions are concentrated in a small set of local political units that still impose capital punishment.¹⁶ Such information, however, only scratches the surface. Simply reporting the number of counties practicing capital punishment omits several important pieces of information: the geographic distribution of activity levels, the change in distribution over time, whether capital punishment practice is concentrating *within* states, and how the distribution tracks variables like population and homicides.

The need to understand concentration over time is particularly important because that phenomenon coincides with another one—the steep decline in the number of death sentences and executions. No scholarship grapples at significant length with how the combination of rising concentration and declining use implicates the normative justifications for and doctrinal administration of the death penalty. My objective here, therefore, is to frame and answer three crucial questions about the geographic distribution of capital outcomes: How much is concentration really increasing, what is the normative significance of that phenomenon, and what are its implications under existing doctrine? The precise constitutional device by which courts will incorporate information about local concentration is unclear, but *Glossip* signals rather unmistakably that a contingent of Justices thinks it should be moving in that direction.

13. *Callins v. Collins*, 510 U.S. 1141, 1145 (1994) (Blackmun, J., dissenting).

14. *Glossip*, 135 S. Ct. at 2761 (Breyer, J., dissenting) (citing Smith, *supra* note 9, at 231–32).

15. *Id.* (citing Smith, *supra* note 9, at 233).

16. *See, e.g.*, Smith, *supra* note 9, at 231–46 (breaking out capital sentence and execution data by county for the period from 2004–2009).

In Part I, I focus on the data, which disclose concentration of capital outcomes in a handful of localities. I use the term “concentration” to refer to an uneven geographic distribution of capital punishment activity within a political unit. If “intensity” refers to a given locality’s level of capital activity, then concentrated political units will have some high-intensity localities amidst many low-intensity ones. Although simple counting instruments have suggested some increased concentration, there has been virtually no development of metrics precisely quantifying the degree of concentration—metrics that would permit apples-to-apples comparisons across political units and time periods. Using new data and borrowing methodology used to flag anticompetitive conditions in economic markets, I develop three such metrics. Each metric I develop has individual shortcomings, but collectively they tell a consistent story. Over the last twenty years, there have been dramatic increases in the geographic concentration of death sentences, and moderate increases in the concentration of executions.¹⁷ These effects are evident both nationally and—perhaps more importantly—*within* the most capitally active state jurisdictions.

In Part II, I explore the normative significance of capital-outcome concentration, based on its plausible causes. High concentration levels do not correspond to population density or to the distribution of homicides, and are not substantially attributable to locally differentiated punishment norms. Instead, extreme capital-outcome concentration is likely the result of what I call “local muscle memory,” by which I mean correlated decisionmaking across multiple sites of local discretion. Correlated decisionmaking, in turn, refers to the idea that local actors influencing capital-sentencing outcomes exercise discretion in an environment that tends to produce momentum in favor of or against sustained capital activity. Local muscle memory produces a separating equilibrium for death penalties and executions: a few capitally active localities, and many more that tend towards abstention. In light of muscle memory, I evaluate the normative significance of capital-outcome concentration under consequentialist and retributivist accounts of the death penalty. If certain localities are cost-effective capital punishment “specialists,” then concentration might have a weak consequentialist justification; but such geographic distribution almost certainly violates retributivist constraints on punishment. That violation persists even under justificatory theory allowing localities to treat similar offenses differently.

17. See *infra* Part I.B

In Part III, I explain why, notwithstanding the considerable normative complications that it presents, capital-outcome concentration is unlikely to affect the constitutionality of the death penalty under existing jurisprudence. Of course, not every flaw in state criminal-justice administration corresponds with a corrective feature of positive law. Nevertheless, the doctrinal insensitivity to concentration is puzzling, as irregular punishment practice was an animating principle for modern death penalty law.¹⁸ If the Supreme Court is inclined to accommodate its death penalty doctrine to the reality of increasing capital-outcome concentration, then it needs to change its working definition of “arbitrariness.” More precisely, it would have to expand the definition to include not just capital-outcome patterns that are insufficiently sensitive to variables that should influence results, but also patterns that are too sensitive to variables that should not.

I. DATA ON CAPITAL OUTCOMES

Although the legal community is generally aware that capital outcomes cluster geographically, that awareness remains quite limited in two respects. First, there are no established metrics for measuring capital-outcome concentration. Second, and partially because there are no such metrics, variation over time and across jurisdictions remains a mystery. In order to address both issues, I treat capital outcomes like a market. Death sentences and executions are the output, and counties are the firms. Using this framework, I can compute national and state-by-state capital-outcome concentration values for any period of time.

In recognition that no single value can convey all necessary information about capital-outcome concentration, I have developed three metrics: (1) a Herfindahl-Hirschman Index (HHI), (2) an eight-county concentration ratio (CR8), and (3) a “half-of-outcome index” (HOI). The HHI is the primary index of concentration, and the CR8 and HOI are auxiliary indices that provide important pieces of information that the HHI omits. I compute these three values for each of four five-year periods between 1996 and 2015. I present detailed results in Part I.B, but there are three top-line findings: the concentration of death sentences is increasing very quickly, the concentration of executions is increasing more slowly, and both effects persist even *within* the most capitally active states.

18. See *infra* Part III.A.2.

A. *Data and Method*

The “modern” American death penalty era began on July 2, 1976, when—after having invalidated all existing death penalty laws in *Furman v. Georgia*¹⁹—the Supreme Court decided five cases specifying the constitutional parameters for capital-sentencing statutes.²⁰ For death sentences and executions, I compute separate concentration indices spanning the last twenty years of the modern era, from 1996 to 2015. To obtain and evaluate my results, I analyzed four different datasets: decennial census data for 2000 and 2010;²¹ a new set of county-level death-sentencing data from 1996 to 2015;²² publicly available county-level execution data from 1996 to 2015;²³ and county-level

19. *Furman v. Georgia*, 408 U.S. 238 (1972).

20. *Roberts v. Louisiana*, 428 U.S. 325 (1976); *Woodson v. North Carolina*, 428 U.S. 280 (1976); *Jurek v. Texas*, 428 U.S. 262 (1976); *Proffitt v. Florida*, 428 U.S. 242 (1976); *Gregg v. Georgia*, 428 U.S. 153 (1976). These cases are referred to as the “July 2 cases.”

21. This dataset comes from the United States Census Bureau. See *USA Counties Data File Downloads*, U.S. CENSUS BUREAU, <http://www.census.gov/support/USACdataDownloads.html#POP> [<https://perma.cc/NG3R-HQK4>].

22. These data were collected and compiled by Professor Brandon L. Garrett and are on file with the *Duke Law Journal*. As a starting point, Garrett used 1977–2013 data from the Bureau of Justice Statistics (BJS), computing the number of capital sentences in each state and using that number as a baseline “target” for independent corroboration. See *Publications and Products: Capital Punishment*, BUREAU OF JUSTICE STAT., <http://www.bjs.gov/index.cfm?ty=pbtp&tid=18&iid=1> [<https://perma.cc/HEA6-YDA3>] (collecting BJS reports by year). Garrett then adjusted the targets based on verification and additional research. For the purposes of verifying the targets, Garrett obtained additional county-level data from the Eighth Amendment Project. Garrett reconciled the Eighth Amendment data with BJS data for the available years. Garrett then collected 2015 data and checked it against the dataset being generated by the Eighth Amendment Project.

To determine the county-level sentencing activity to be checked against the targets, Garrett worked from lists of death row inmates from the “Death Row USA” quarterly reports (which were biannual in the 1990s) published by the NAACP Legal Defense and Education Fund (LDF). The Death Row USA reports contained the names of all death row inmates, obtained from state and federal departments of corrections. See *Death Row USA*, NAACP LEGAL DEF. & EDUC. FUND, <http://www.naacpldf.org/death-row-usa> [<https://perma.cc/DLX9-S3QA>]. New names appearing on the NAACP LDF reports were assumed to be new sentences. Garrett cross-checked the list generated from the NAACP LDF reports against those generated by capital postconviction centers in California, Illinois, North Carolina, Ohio, South Carolina, and Virginia. After obtaining the list of new death row inmates, Garrett used Westlaw, state departments of corrections records, and news reports to determine the county in which the sentence was imposed. The counts per state and per year almost always exceeded the BJS counts, indicating that the results were more complete than the published BJS data. A defendant sentenced to death more than once—because the first sentence was overturned—will show up as two observations.

23. This dataset comes from the Death Penalty Information Center. See DEATH PENALTY INFO. CTR., *supra* note 1.

homicide data from 1999 to 2014.²⁴ I focus only on state outcomes because the federal death penalty is extremely rare and considerably more centralized; it is neither conceptually nor empirically suitable for the analysis I perform here. I therefore excised forty-nine federal death sentences and three federal executions from the sentencing and execution datasets, respectively.²⁵ I ended up with 3218 sentencing observations and 1106 execution observations. When I associate an execution observation with a county, I simply mean that the executed offender was convicted and capitally sentenced there.

In order to study change over time, I assigned each entry in the sentencing and execution data to one of four periods: 1996 to 2000 (period 1), 2001 to 2005 (period 2), 2006 to 2010 (period 3), or 2011 to 2015 (period 4). Using census data, I associated a population value with each county, for each time period. I used a county's 2000 census value to estimate its population for periods 1 and 2, and the 2010 census value for periods 3 and 4. For each period, I was able to associate fractions of populations, death sentences, and executions with every county in the United States. County-level census data are a major part of the HOI computations, but I also use it periodically to evaluate the influence of population in other circumstances. Similarly, I use the county-level homicide data to explore, where necessary, the relationship between capital outcomes and culpable murders.

1. *Metric Construction.* The methodological challenge is how to construct concentration metrics for larger political units—for example, a state or a country. A useful metric should be sensitive to at least two things: (1) the “evenness” of capital-outcome distribution across counties;²⁶ and (2) the number of counties accounting for a capital sentence or an execution.²⁷ There is higher evenness when each of n

24. This dataset comes from the Center for Disease Control (CDC), which keeps homicide statistics based on information in death certificates. *See About Underlying Cause of Death, 1999–2014*, CTR. FOR DISEASE CONTROL, <http://wonder.cdc.gov/ucd-icd10.html> [<https://perma.cc/VQ4C-N9E9>] [hereinafter *CDC Data*] (in category six, first select “Injury Intent and Mechanism,” and then select “Homicide” as the option for “Injury Intent”).

25. For both sentences and executions, I took out observations associated with an Article III court or with a military tribunal.

26. By “evenness,” I simply mean the degree to which the geographic distribution of punishment within a particular political unit deviates from a distribution across n counties in which each county accounts for $1/n$ percent of the political unit's capital activity.

27. In other contexts, the number of categories is referred to as “richness.” *See, e.g.*, Jim Chen, *Webs of Life: Biodiversity Conservation as a Species of Information Policy*, 89 IOWA L. REV. 495, 553 (2004) (using this term in the biodiversity context).

counties' share of capital events approaches $1/n$. The low-concentration bound of a metric should correspond with perfectly even distribution across numerous counties; the high-concentration bound should correspond with a perfectly uneven distribution in which all capital punishment activity occurs in a single county. If values are computed for each period, then the results show the change in capital-event concentration over time.

In other disciplines, metrics called "diversity indices" are sometimes used to measure concentration in the way that I contemplate here. A diversity index is constructed from a dataset that contains a distribution of *units* across *categories*. More categories and greater evenness should push the index toward one extreme; fewer categories and less evenness should push the index toward the other. Ecologists use one such index to measure biodiversity in communities of animals distributed across different species.²⁸ Information theorists rely on a diversity index to measure information content in bits distributed across alphanumeric characters.²⁹ Economists use yet another diversity index to measure inequality in the distribution of wealth across people.³⁰

Although I construct three metrics to measure concentration, I rely most heavily on the HHI, a diversity index familiar to economists measuring industrial concentration.³¹ The HHI captures how outputs (units) are distributed across firms (categories). HHI is computed as a sum of squares of the fraction of each locality's share of a particular capital punishment outcome:

$$\text{HHI} = \sum_{j=1}^n o^2$$

where n is the number of jurisdictions in which capital outcomes occur and o is the share of capital outcomes occurring in the j th jurisdiction.

28. "Simpson's Diversity Index" is frequently used to quantify the biodiversity of a biotic community. For further explanation, see generally E.H. Simpson, *Measurement of Diversity*, 163 NATURE 688 (1949).

29. "Shannon's H" is the most famous such index. See CLAUDE E. SHANNON & WARREN WEAVER, *THE MATHEMATICAL THEORY OF COMMUNICATION* (1949); Claude E. Shannon, *A Mathematical Theory of Communication*, 27 BELL SYS. TECH. J. 379 (1948).

30. The "Gini Coefficient" is a diversity index often used to capture income inequality numerically. See Martin J. McMahon, Jr., *The Matthew Effect and Federal Taxation*, 45 B.C. L. REV. 993, 998 n.21 (2004).

31. See ALBERT O. HIRSCHMAN, *NATIONAL POWER AND THE STRUCTURE OF FOREIGN TRADE* 159-60 (1945); Orris Clemens Herfindahl, *Concentration in the Steel Industry* 8-9 (1950) (unpublished Ph.D. dissertation, Columbia University) (on file with the Columbia University Library).

Depending on the capital outcome for which I am indexing concentration, the units of output are either capital sentences or executions. The firms are either counties or states. To phrase my approach analogically, I use a diversity index to track the concentration of capital outcomes like an antitrust regulator would use it to track market power.

The index approaches $1/(\text{number of firms})$ as the number of firms increases and as the distribution of output across firms becomes more even. Take two examples:

Example 1: ten firms with 10 percent of market share each.

Example 2: ten firms, with one firm having 91 percent market share and nine firms having 1 percent market share each.

The HHI in Example 1 is $10 \times (.1)^2 = .1$ because it is the sum of squares for ten firms, each with a 10 percent market share. The HHI in Example 2 is $(.91)^2 + 9(.01)^2 = .829$ because it is the sum of the squares for one firm with 91 percent of the market and for nine other firms having 1 percent of the market each. As the examples demonstrate, a lower HHI generally indicates lower market concentration and corresponds with a lower risk of anticompetitive activity.³²

When computing HHI values for capital outcomes, a county's "market share" is the number of capital outcomes in that county divided by the sum of such outcomes across all counties that are part of the political unit for which the HHI is being computed—in my analysis, either a state or the country. Imagine that there were one hundred executions nationally for a particular time period, spread equally across ten counties. The HHI (execution) value would be .1, following the same logic as Example 1 above. Now imagine that, over the same period, there were one hundred death sentences imposed nationally across ten counties, but that ninety-one of them were in the most active county and that there was one death sentence in each of the remaining nine counties. The HHI (sentence) value would be .829, following the same logic as Example 2 above.

I also present two auxiliary metrics to measure capital-outcome concentration. First, I compute a "CR8" concentration ratio. Before they were displaced by HHI, economists studying mergers used to rely heavily on concentration ratios to analyze the distribution of power in

32. The Department of Justice started using the HHI to analyze mergers in 1982. See U.S. DEP'T OF JUSTICE, 1982 MERGER GUIDELINES 12–15 (1982), <http://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11248.pdf> [<https://perma.cc/4G35-T2NH>].

a market.³³ A $CR(n)$ concentration ratio is computed using market shares for the largest n firms, so a CR8 concentration ratio reports a value for the eight largest industry participants. Perfectly competitive markets will have $CR(n)$ values approaching 0, and monopolistic or highly oligopolistic markets will have $CR(n)$ values approaching 1. A CR8 value for a particular capital outcome would be the fraction of capital outcomes attributable to the eight most active counties. If one hundred executions were dispersed equally across ten counties, then the CR8 (execution) value would be .8, the sum of eight counties with 10 percent shares. If there were one hundred death sentences nationally, if ninety-one of them were in one county, and if each of the remaining nine were each from a different county, then the CR8 (sentence) value would be .98—one county with 91 percent of the market and seven counties with 1 percent each.

Second, I compute what I call an HOI, which refers to the fraction of the population accounting for half of a political unit's capital outcomes. For example, assume that the country has executed 500 offenders in a given period. Starting with the most capially active county, an HOI computation requires that the number of executions from the next-most-active counties be added until the sum reaches 250—half of the country's 500 executions. The final step in the HOI computation is to determine the fraction of the U.S. population living in the counties necessary to reach the 250-outcome threshold.³⁴

When there is an increased concentration of capital outcomes in a political unit, the HHI and CR8 go up, and the HOI goes down. The HHI is the best index of concentration, because it measures *both* the evenness of a distribution and the number of counties across which capital outcomes are distributed. Notwithstanding their substantial weaknesses (detailed below), the auxiliary indices provide additional information that the HHI does not. The CR8 provides information about whether the most capially active counties are driving the change in concentration, and the HOI tracks concentration in terms of the fraction of the *population* that practices the death penalty.

33. See, e.g., *United States v. Gen. Dynamics Corp.*, 415 U.S. 486, 494 n.5 (1974) (relying on CR2, CR4, and CR10 values); *United States v. Von's Grocery Co.*, 384 U.S. 270, 281 (1966) (White, J., concurring) (relying on CR4, CR8, and CR12 values). In 1982, the Department of Justice ended the formal use of concentration ratios by excising them from its Merger Guidelines. See U.S. DEP'T OF JUSTICE, *supra* note 32.

34. If reaching the 50 percent mark requires only a fraction of a county, then I only added that fraction of the county's population to the sum that determines HOI.

2. *Methodological Objections and Explanatory Limitations.* HHI is, naturally, an imperfect metric. There are certain theoretical objections that I do not address in depth here. Some have argued, for example, that HHI might be too sensitive to changes in evenness,³⁵ and others have argued that it might be too sensitive to changes in the number of categories.³⁶ Perhaps the most established criticism of HHI is that it is insufficiently sensitive to changes at extremely high and low levels of concentration—that it is incapable of achieving precision near its maximum and minimum values.³⁷

The other concerns about HHI are less methodological objections than they are explanatory limitations. The biggest explanatory limit is that HHI discloses nothing about what is causing changes in the index value. Many different phenomena could produce similar changes to the bottom-line index, and the normative implications of those changes might differ accordingly. None of the metrics I present is capable of showing correlation in the way, for example, a multivariate regression analysis might demonstrate that homicide rates among certain subpopulations predict capital punishment activity.³⁸ By computing CR8 and HHI, however, I have made a modest effort to present the degree to which the concentration of capital outcomes is tracking population.

Another explanatory limit involves the effect of observations where $n = 0$; that is, when a state or county either has no death sentences or no executions. Conceptually, if there are five capitally active counties, that capital activity should correspond with different concentration depending on whether that state also contains five capitally inactive counties, or fifty. The HHI, however, will be the same in both circumstances. This issue would not affect longitudinal analysis within a state, but it might complicate comparisons between states. To

35. See, e.g., Michael O. Finkelstein & Richard M. Friedberg, *The Application of an Entropy Theory of Concentration to the Clayton Act*, 76 YALE L.J. 677, 706 (1967) (calling this objection the “small firm problem”).

36. See, e.g., David Scheffman, Malcolm Coate & Louis Silvia, *Twenty Years of Merger Guidelines Enforcement at the FTC: An Economic Perspective*, 71 ANTITRUST L.J. 277, 283 (2003) (“[T]he HHI probably overemphasizes the potential competitive impact of the purchase of a competitor with a very small share by a competitor with a larger share . . .”).

37. See Amber E. Boydston, Shaun Bevan & Herschel F. Thomas III, *The Importance of Attention Diversity and How to Measure It*, 42 POL’Y STUD. J. 173, 181 (2014).

38. See, e.g., Theodore Eisenberg, *Death Sentence Rates and County Demographics: An Empirical Study*, 90 CORNELL L. REV. 347, 356–57 (2005). Another example is that concentration might be desirable if the concentration is occurring in jurisdictions with the highest concentration of capital murder.

address this issue in this Article, I report the fraction of counties that are capially active within each state, and I report HOI values that are more conducive to interstate comparison.³⁹

A final explanatory concern about HHI—in fact, about any metric I could report—is that there is no objectively verifiable way to test whether capital outcomes are “too concentrated.” In a market context, economists can observe whether a change in HHI produces market structure conducive to supracompetitive pricing. In a capital punishment context, however, there is no real-world behavior that discloses whether the HHI is appropriately signaling concentration. The appropriate distribution of capital outcomes is a purely normative question. I direct considerable effort to that question in Part II, although the answer will never involve a magic number.

The auxiliary indices have some strengths, but also obvious limitations. The CR8 maps more intuitively onto things one might say about capital outcomes in the real world. If the CR8 goes from .45 to .55, the eight busiest counties are accounting for an additional ten percentage points of a capital outcome. The CR8, however, discloses nothing about capital-outcome concentration across the eight most active counties or across the remaining ones—even though the concentration of activity within each group might be extremely important. Moreover, selecting eight counties is arbitrary.⁴⁰ Eight is not inherently superior to six or to ten, but I chose that number because it is neither too big nor too small to differentiate meaningfully between the various political units that I am analyzing. The HOI provides per capita information that neither the HHI nor the CR8 contains, but it also amplifies the worst features of the CR8. It reveals nothing about the distribution of capital outcomes across the counties that account for 50 percent of events, and it reveals nothing about the distribution of capital outcomes across the rest.

HHI is just one piece of a larger diagnostic puzzle. To be too harsh on it because it fails to capture every nuance of the underlying data is

39. For very granular comparison between different state jurisdictions, there are quantitative techniques available to further eliminate the “ $n = 0$ ” problem. For instance, a “Gini Index” is a widespread metric used to compare levels of income inequality between different countries. See Richard H. McAdams, *Economic Costs of Inequality*, 2010 U. CHI. LEGAL F. 23, 24 n.6 (2010). Generally speaking, the Gini Index measures deviation from a perfectly even distribution of income. A synthetic Gini Index could be constructed for capital outcomes by assigning a fraction of each capital outcome to every person in each county, and computing the “inequality.”

40. Cf. Finkelstein & Friedberg, *supra* note 35, at 680 (leveling arbitrariness criticism at the practice of using concentration ratios for merger analysis).

to miss the point of an index. Even without the auxiliary indices, the HHI would provide meaningful information about the national concentration of death sentences and executions. Because the auxiliary indices do disclose some of the information that HHI does not, the three metrics collectively reveal information that an HHI-only analysis might have missed.

B. Results

In Tables 1 through 8, I present the most noteworthy results of my analysis. Table 1 shows national HHI values by period, for both death sentences and executions. The HHI values for death sentences increase each period, which signals growing concentration. The HHI values for executions similarly increase each period, except between periods 3 and 4, where there appears to be some corrective dispersion in response to substantially increased concentration between periods 2 and 3.⁴¹

I have also listed the number of states and counties that sentenced an offender to death in the pertinent periods. The number of counties with death sentences fell in each period (509, 330, 268, 183), as did the number of counties with executions (200, 178, 128, 106). In period 1, 16.2 percent of American counties imposed a death sentence; by period 4, that figure sat at 5.8 percent. In period 1, 6.4 percent of American counties sentenced someone who was actually executed; by period 4, only 3.4 percent of American counties did. Those numbers mirror considerable concentration in state-level capital punishment practice, both for death sentences and executions.

41. By “corrective dispersion,” I simply mean a regression to a less severely sloped trend line.

Table 1: HHI Values for Death Sentences and Executions (National)

	1996–2000	2001–2005	2006–2010	2011–2015
Death Sentences	(n = 1421)	(n = 772)	(n = 637)	(n = 388)
<i>Counties with a Death Sentence</i>	509 (16.2%)	330 (10.5%)	268 (8.5%)	183 (5.8%)
<i>States with a Death Sentence</i>	36	34	31	26
<i>HHI</i>	.0080	.0099	.0140	.0175
Executions	(n = 370)	(n = 318)	(n = 230)	(n = 188)
<i>Counties with an Execution</i>	200 (6.4%)	178 (5.7%)	128 (4.1%)	106 (3.4%)
<i>States with an Execution</i>	28	21	22	14
<i>HHI</i>	.0122	.0183	.0307	.0192

Table 2 shows national CR8 values by period. The CR8 values behave the same way that the HHI values do. For death sentences, they increase every period; for executions, they do the same, except between periods 3 and 4. As is the case with HHI, however, the CR8 value for executions in period 4 still shows more concentration than does the value in period 2. Table 2 also includes the fraction of the national population housed in the eight most capitably active counties. These values were relatively stable over time for both death sentences and executions, with a slight decrease for death sentences and slight increase for executions. (As I will explain later, that stability likely reflects the largely stable composition of capitably active counties.)

Table 2: CR8 Values for Death Sentences and Executions (National)

	1996–2000	2001–2005	2006–2010	2011–2015
Death Sentences	(n = 1421)	(n = 772)	(n = 637)	(n = 388)
<i>CR8 Values</i>	17.66%	21.24%	25.12%	29.64%
<i>Fraction of Population in CR8 Counties</i>	9.88%	8.26%	7.46%	8.47%
Executions	(n = 370)	(n = 318)	(n = 230)	(n = 188)
<i>CR8 Values</i>	22.43%	27.99%	33.91%	29.26%
<i>Fraction of Population in CR8 Counties</i>	3.77%	3.41%	3.83%	4.79%

Table 3 contains national HOI values by period. The HOI falls in every period for death sentences; for executions, it conforms to the more general pattern of concentration followed by abrupt dispersion in period 4. Worth noting, however, is that the *number of counties* generating 50 percent of the executions does in fact decrease over every period in the data. Generally speaking and over time, a shrinking fraction of the American population has become responsible for a larger fraction of both death sentences and executions.

Table 3: HOI Percent Values for Death Sentences and Executions (National)

	1996–2000	2001–2005	2006–2010	2011–2015
Death Sentences	(n = 1421)	(n = 772)	(n = 637)	(n = 388)
<i>Counties Containing 50 Percent of Death Sentences (Fractional for Final County)</i>	59.70	47.25	36.13	28.33
<i>Percentage of U.S. Population</i>	23.68%	20.75%	17.07%	13.53%
Executions	(n = 370)	(n = 318)	(n = 230)	(n = 188)
<i>Counties Containing 50 Percent of Executions (Fractional for Final County)</i>	38.50	32.50	24.00	22.00
<i>Percentage of U.S. Population</i>	7.79%	6.02%	5.00%	8.07%

Table 4 is a state-level detail of the five states with the most death sentences: California, Texas, Florida, Alabama, and North Carolina. Between periods 1 and 4, each state experienced heightened concentration. Increases in California, Alabama, and North Carolina were substantial. The increases in Texas and Florida were more moderate, with the CR8 value for Florida actually showing a bit of dispersion over the period the dataset covers. The values for the concentration metrics at the state level were considerably more volatile than they were at the national level. The state with the most substantial change was North Carolina, which went from being a heavy sentencer during period 1 to having only seven death sentences in seven different counties during period 4.

Table 4: All Values for Death Sentences (State-Level)

	1996–2000	2001–2005	2006–2010	2011–2015
California (n = 483)	(n = 187)	(n = 98)	(n = 121)	(n = 78)
<i>Counties with Death Sentences</i>	24 (41.4%)	22 (37.9%)	22 (37.9%)	14 (24.1%)
<i>HHI</i>	.1526	.1160	.1543	.2173
<i>CR8</i>	81.28%	76.53%	83.47%	91.03%
<i>HOI</i>	35.98%	40.53%	33.68%	29.68%
Texas (n = 448)	(n = 197)	(n = 138)	(n = 69)	(n = 44)
<i>Counties with Death Sentences</i>	53 (20.9%)	34 (13.4%)	28 (11.0%)	18 (7.1%)
<i>HHI</i>	.1101	.1181	.0737	.1198
<i>CR8</i>	64.97%	72.46%	62.32%	72.73%
<i>HOI</i>	36.23%	33.63%	41.26%	32.89%
Florida (n = 372)	(n = 133)	(n = 73)	(n = 89)	(n = 77)
<i>Counties with Death Sentences</i>	32 (47.8%)	26 (38.8%)	30 (44.8%)	34 (50.7%)
<i>HHI</i>	.0540	.0512	.0653	.0585
<i>CR8</i>	56.39%	53.42%	57.30%	53.25%
<i>HOI</i>	47.37%	42.82%	25.30%	33.63%
Alabama (n = 218)	(n = 83)	(n = 47)	(n = 56)	(n = 32)
<i>Counties with Death Sentences</i>	28 (41.8%)	21 (31.3%)	24 (35.8%)	17 (25.4%)
<i>HHI</i>	.0666	.0928	.0931	.1074
<i>CR8</i>	60.24%	70.21%	64.29%	71.88%
<i>HOI</i>	34.83%	20.97%	26.73%	26.31%
North Carolina (n = 169)	(n = 109)	(n = 37)	(n = 16)	(n = 7)
<i>Counties with Death Sentences</i>	39 (39.0%)	26 (26.0%)	14 (14.0%)	7 (7.0%)
<i>HHI</i>	.0437	.0533	.0859	.1429
<i>CR8</i>	47.71%	51.35%	62.50%	100.00%
<i>HOI</i>	29.57%	10.96%	22.14%	5.16%

Table 5 presents, for executions, the same state-level information as in Table 4. There is concentration evident in every state except Florida, which shows increased dispersion across every metric. As with capital sentencing, the period-to-period volatility of execution concentration is greater at the state level than it is at the national one. Texas accounts for almost 40 percent of American executions, so the substantial concentration there is particularly significant nationally. Virginia is to executions what North Carolina is to capital sentences: it went from having reasonably dispersed executions in period 1 to having only three executions in three different counties during period 4.

Table 5: All Values for Executions (State-Level)

	1996–2000	2001–2005	2006–2010	2011–2015
Texas (n = 427)	(n = 135)	(n = 116)	(n = 109)	(n = 67)
<i>Counties with Executions</i>	57 (22.4%)	43 (16.9%)	35 (13.8%)	27 (10.6%)
<i>HHI</i>	.0573	.0663	.1206	.0916
<i>CR8</i>	53.33%	56.03%	69.72%	68.65%
<i>HOI</i>	42.56%	38.98%	31.66%	35.21%
Oklahoma (n = 112)	(n = 24)	(n = 49)	(n = 15)	(n = 18)
<i>Counties with Executions</i>	14 (18.2%)	15 (19.5%)	11 (14.3%)	9 (13.0%)
<i>HHI</i>	.1528	.2886	.1111	.1852
<i>CR8</i>	75.00%	85.71%	80.00%	94.44%
<i>HOI</i>	36.47%	18.76%	36.72%	31.41%
Virginia (n = 82)	(n = 52)	(n = 13)	(n = 14)	(n = 3)
<i>Counties with Executions</i>	27 (19.9%)	13 (9.6%)	12 (8.9%)	3 (2.2%)
<i>HHI</i>	.0562	.0769	.1020	.3333
<i>CR8</i>	59.62%	61.54%	71.43%	100.00%
<i>HOI</i>	16.35%	3.79%	10.41%	0.43%

Missouri (n = 69)	(n = 29)	(n = 20)	(n = 1)	(n = 19)
<i>Counties with Executions</i>	14 (12.2%)	11 (9.6%)	1 (.9%)	10 (8.7%)
<i>HHI</i>	.1153	.1750	1.000	.1468
<i>CR8</i>	79.31%	85.00%	100.00%	89.47%
<i>HOI</i>	28.34%	18.89%	28.00%	28.33%
Florida (n = 55)	(n = 14)	(n = 10)	(n = 9)	(n = 22)
<i>Counties with Executions</i>	10 (14.9%)	10 (14.9%)	9 (13.4%)	14 (20.9%)
<i>HHI</i>	.1224	.1000	.1111	.0992
<i>CR8</i>	85.71%	80.00%	88.89%	72.73%
<i>HOI</i>	8.00%	5.70%	6.73%	25.04%

Table 6 is a county-level detail for capital sentencing. Because there are no subunits capable of generating values for HHI, CR8, or HOI, I simply provide, by period, the activity level of each of the ten counties with the most death sentences. Los Angeles County is far and away the leading producer of capital sentences, and was the leader for three of the four periods. All of the active death sentencing counties are extremely populous, with the exception of Oklahoma County, Oklahoma and Duval County, Florida. Consistent with the national trend, executions are decreasing in almost every featured county. And, consistent with the data reported in the previous tables, the outlier is in Florida—Duval County executed a nontrivially greater number of people during periods 3 and 4 than it did during periods 1 and 2.

Table 6: Activity Level of Each of the Ten Counties with the Most Death Sentences (County-Level)

Ten Counties with the Most Death Sentences	Largest City in Each County (2010)	County Rankings by U.S. Population			
		1996–2000	2001–2005	2006–2010	2011–2015
Los Angeles, CA (n = 152)	1st (L.A.)	1st (n = 62)	2nd (n = 26)	1st (n = 38)	1st (n = 26)
Harris, TX (n = 117)	3rd (Houston)	2nd (n = 56)	1st (n = 38)	t-7th (n = 11)	5th (n = 12)
Maricopa, AZ (n = 96)	4th (Phoenix)	11th (n = 15)	3rd (n = 25)	2nd (n = 38)	3rd (n = 18)
Riverside, CA (n = 80)	11th (Riverside)	4th (n = 24)	t-7th (n = 13)	3rd (n = 20)	2nd (n = 23)
Dallas, TX (n = 52)	9th (Dallas)	8th (n = 21)	t-5th (n = 16)	t-10th (n = 9)	t-5th (n = 6)
Oklahoma, OK (n = 50)	80th (Okla. City)	t-9th (n = 18)	4th (n = 18)	t-7th (n = 11)	t-20th (n = 3)
Clark, NV (n = 49)	14th (Las Vegas)	t-6th (n = 22)	t-12th (n = 9)	t-7th (n = 11)	t-5th (n = 7)
Orange, CA (n = 48)	6th (Anaheim)	t-6th (n = 19)	t-14th (n = 7)	5th (n = 14)	t-6th (n = 8)
Duval, FL (n = 48)	59th (Jacksonville)	18th (n = 13)	t-18th (n = 7)	4th (n = 15)	4th (n = 13)
Philadelphia, PA (n = 44)	21st (Phila.)	3rd (n = 27)	t-9th (n = 9)	t-19th (n = 6)	t-34th (n = 2)

Table 7 presents for executions the same information that Table 6 presented for death sentences. (Because of ties, there are actually twelve entries in the table.) More executed offenders were sentenced in Harris County, Texas than in any other local jurisdiction. Seven of the top twelve producers of executions are from Texas. Unlike capital sentences, however, executions do not cluster exclusively in populous counties. Half of the twelve aforementioned counties are not in the top forty counties nationally, by 2010 population. The national slowdown is not as universal across the capitally active localities, however, as only Harris and Tarrant Counties (both in Texas) had dropped more than

50 percent between periods 1 and 4. Oklahoma County was the most volatile, dropping from twenty-five executions in period 2 to two executions in period 3. Harris, Dallas, Oklahoma, and Maricopa are the only counties appearing in both Table 6 and Table 7.

Table 7: Activity Level of Each of the Ten Counties with the Most Executions (County-Level)

Ten Counties with the Most Executions	Largest City in Each County (2010)	County Rankings by U.S. Population			
		1996–2000	2001–2005	2006–2010	2011–2015
Harris, TX (n = 85)	3rd (Houston)	1st (n = 21)	2nd (n = 23)	1st (n = 31)	t-2nd (n = 10)
Dallas, TX (n = 47)	9th (Dallas)	3rd (n = 13)	3rd (n = 9)	2nd (n = 13)	1st (n = 12)
Oklahoma, OK (n = 40)	80th (Okla. City)	4th (n = 8)	1st (n = 25)	t-13th (n = 2)	t-4th (n = 5)
Tarrant, TX (n = 34)	15th (Fort Worth)	2nd (n = 15)	t-6th (n = 6)	4th (n = 9)	t-7th (n = 4)
Bexar, TX (n = 33)	18th (San Antonio)	t-5th (n = 7)	t-12th (n = 4)	3rd (n = 12)	t-2nd (n = 10)
St. Louis, MO (n = 16)	40th (Clayton)	t-14th (n = 4)	t-4th (n = 7)	N/A (n = 0)	t-4th (n = 5)
Tulsa, OK (n = 16)	100+ (Tulsa)	t-22nd (n = 3)	t-9th (n = 5)	t-6th (n = 3)	t-4th (n = 5)
Montgomery, TX (n = 13)	100+ (Conroe)	t-22nd (n = 3)	t-4th (n = 7)	t-36th (n = 1)	t-18th (n = 2)
Smith, TX (n = 12)	100+ (Tyler)	t-14th (n = 4)	t-14th (n = 3)	t-13th (n = 2)	t-11th (n = 3)
Nueces, TX (n = 11)	100+ (Corpus Christi)	t-32nd (n = 2)	t-6th (n = 6)	N/A (n = 0)	t-11th (n = 3)
Pima, AZ (n = 11)	42nd (Tucson)	t-5th (n = 7)	N/A (n = 0)	N/A (n = 0)	t-7th (n = 4)
Maricopa, AZ (n = 11)	4th (Phoenix)	t-9th (n = 5)	N/A (n = 0)	t-13th (n = 2)	t-7th (n = 4)

Finally, Table 8 uses Center for Disease Control (CDC) data to show, both nationally and for select state jurisdictions, a relationship between the distribution of capital sentences and homicides.⁴² Specifically, I computed each county's fraction of national and state homicides, and associated that information with capital-sentencing data. For example, during period 1, counties responsible for half of American capital sentences also accounted for 36.2 percent of its intentional homicides. By period 4, the counties responsible for half of capital sentencing covered only 18.7 percent of the country's intentional homicides. The period 4 value is smaller than the period 1 value in every jurisdiction, with the change nationally being more dramatic than what is observed in most individual states.

Table 8: Fraction of Homicides that Account for Half of the Capital Sentences, Within Select Jurisdictions (National and State-Level)

	1996–2000	2001–2005	2006–2010	2011–2016
United States	36.2%	31.1%	24.5%	18.7%
California	45.1%	49.2%	44.4%	41.8%
Texas	53.5%	51.0%	58.1%	49.2%
Florida	49.0%	27.6%	22.4%	36.4%
Alabama	50.8%	29.3%	42.4%	34.8%
North Carolina	31.4%	13.7%	15.9%	3.8%

C. Preliminary Observations

The data show that the concentration of capital sentences is increasing precipitously.⁴³ The concentration of executions is increasing unambiguously but more slowly, with different metrics showing some dispersion in periods 3 and 4.⁴⁴ There is considerable information residing in the concentration index values for individual states, too. Those values strongly suggest that increasing national concentration is not simply happening because fewer states retain capital punishment, but because such practice is concentrating even

42. See CDC Data, *supra* note 24.

43. See *supra* Tables 1–3.

44. See *supra* Tables 1–3.

within retentionist states.⁴⁵ They also show that, within individual states, execution concentration is happening more slowly than sentencing concentration. Florida, however, stands out as the major source of data that are inconsistent with the global trends, showing a considerably more jagged trendline for both capital sentences and executions.

1. *Capital Sentences.* As the number of capital sentences fell in periods 1 through 4, the practice also became considerably more concentrated. The number of counties with death sentences fell from 509 to 183, and the number of states with death sentences fell from thirty-six to twenty-six.⁴⁶ At the same time, the national HHI (counties) more than doubled, from .0080 to .0175.⁴⁷ The CR8 went from 17.66 percent to 29.64 percent,⁴⁸ which means that the fraction of death sentences in the eight most active counties went up by about 50 percent. The data are not showing just that fewer counties are responsible for the capital sentences, but fewer people; the HOI values indicate that the fraction of the population residing in capitally active counties fell from about 23 to about 13 percent.⁴⁹ Moreover, every metric showed increased concentration over every period—not just when comparing period 4 to period 1.⁵⁰

The information in the preceding paragraph shows that there is increasing concentration nationally, but it does not itself disclose how that concentration happened. One might hypothesize that concentration has increased only because fewer states are practicing the death penalty. After all, roughly four states abandoned the death penalty during each period in the data.⁵¹ A good way to test that hypothesis is to look at the most active capital-sentencing states—California, Texas, Florida, Alabama, and North Carolina—and see whether the national trend is reproduced there.

45. See *supra* Tables 4, 5.

46. See *supra* Table 1.

47. See *supra* Table 1.

48. See *supra* Table 2.

49. See *supra* Table 3.

50. See *supra* Tables 1–3.

51. Thirty-six states capitally sentenced someone in period 1, thirty-four in period 2, thirty-one in period 3, and twenty-six in period 4. See *supra* Table 1.

Table 4 contains the state-level detail, and every capitally active state except Florida experienced substantial concentration.⁵² The most dramatic concentration was in North Carolina, where HHI more than tripled. Concentration index values for states do (predictably) exhibit a little more period-to-period volatility than do national values. For example, California appeared to experience some dispersion between periods 1 and 2; both Texas and Alabama experienced the same between periods 2 and 3. The state-level detail nonetheless shows that increasing national concentration is due substantially to increased concentration *within* retentionist states.

The county-level detail in Table 6 shows that localities are indeed reproducing the national trend line, as only one of the ten most active capital-sentencing counties had more death sentences in period 4 than in period 1. In terms of its effect on HHI, that trend likely offsets some of the concentration occurring as infrequent county producers of capital sentences become abstainers in subsequent periods.

2. *Executions.* The results for executions are a little more difficult to interpret. The HHI and CR8 values show increased concentration between periods 1 and 4, but the intermediate values exhibit more volatility than they did in the capital sentencing context.⁵³ The HHI and CR8 values for executions show a substantial jump in concentration between periods 2 and 3, so there is some corrective dispersion between periods 3 and 4. (The period 4 values do, however, show more concentration than there was during period 2.) The HOI trendline looks a bit different, as HOI actually rises between periods 1 and 4. The HOI values do show the jump in concentration between periods 1 and 3, and show dispersion in period 4.

The state-level detail—which shows concentration trends in Texas, Oklahoma, Virginia, Missouri, and Florida—also paints a more complicated picture. For every state except Florida, both HHI and CR8 values show increased concentration between periods 1 and 4. The HOI values, however, showed substantially more concentration only in Texas, Oklahoma, and Virginia. HOI values were roughly the same in Missouri, and actually rose in Florida. The period-to-period volatility of all three metrics was considerably greater than it was for capital sentences.

52. Florida did show nontrivial increases in concentration according to HHI and HOI metrics; CR8 showed minimal dispersion. *See supra* Table 4.

53. *See supra* Tables 1–3.

In the end, because Texas, Oklahoma, and Virginia account for 621 of the 1106 executions in the data (56.15 percent), the considerable concentration in those three states dominates the more ambiguous effects in some of the other execution-intensive jurisdictions. The heightened concentration in these capitally active states suggests that increased national concentration of executions is not attributable simply to the number of states with an execution falling from twenty-eight to fourteen.⁵⁴ The national concentration also reflects concentration within individual states. Moreover, the county-level data in Texas and Virginia indicate that executions are concentrating in those states not so much because the capitally active counties are responsible for more executions, but because a number of infrequent producers became abstainers.⁵⁵

Unlike the counties responsible for most death sentences, and as mentioned above, the counties responsible for the most executions are not all among the country's most populous. Oklahoma County is perhaps the most visible example. Although it accounted for just .23 percent of the national population during period 2, it was responsible for 7.86 percent of the country's executions. Between 2001 and 2005, then, Oklahoma County was "overrepresented" as a producer of executions by over 3300 percent.

One might expect to observe more overlap between counties producing the most executions and those producing the most capital sentences. Some of the overlap disappears because California executed only eleven offenders⁵⁶ despite having imposed 483 capital sentences.⁵⁷ Some actual overlap might also be disguised by the lag between the moment of sentencing and the moment of execution. A comparison of the results for capital sentences and executions nevertheless invites a broader question that is largely beyond the scope of this paper: What phenomena are causing them to cluster differently *within* state jurisdictions?⁵⁸ I strongly suspect that the differences are attributable to the way states structure the process of issuing "death warrants" —

54. The surge in period 3 concentration nationally also mirrors the enormous surge in period 3 concentration for Texas. Compare period 3 in Tables 1–3 (showing a surge in national concentration), *supra*, with period 3 in Table 5, *supra* (showing that the number of counties with an execution in Texas fell from 35 to 27 between period 3 and period 4).

55. See DEATH PENALTY INFO. CTR., *supra* Table 5.

56. See *supra* note 1.

57. See *supra* Table 4.

58. Compare *supra* Table 4 (providing all values for death sentences at the state level), with *supra* Table 5 (providing all values for executions at the state level).

orders specifying the date and method of execution—but I mostly leave that question for another day.⁵⁹ For the purposes of this Article, readers should simply understand that capital sentences and executions cluster differently, rather than why.

II. JUSTIFICATION IN LIGHT OF LOCAL MUSCLE MEMORY

Capital sentences and executions are concentrating in a smaller number of localities—both nationally and, for the most part, within capitably active states. Part II considers, in light of causation that is largely bureaucratic and path dependent, how such concentration squares with the familiar normative justifications for the death penalty: deterrence (consequentialism) and retribution.⁶⁰

The geographic distribution of death sentences and executions does not reflect the concentration of population, the distribution of homicides, or locally differentiated punishment norms. Although the data in Part I are incapable of proving this proposition, I argue that the driving force behind the concentration are likely to be more bureaucratic than democratic, and more path dependent than pragmatic. It results from what I have called “local muscle memory,” which is correlated decisionmaking across local sites of discretion. The correlation produces the separating equilibrium evident in the data—a small cluster of capitably active counties that coexist with a much larger set of counties that abstain from the death penalty entirely.

In light of the role that local muscle memory likely plays, there might be a weak and empirically speculative consequentialist defense of concentration: that capitably active localities efficiently produce deterrence and impose sentences with the most nondeterrent utility.⁶¹ By contrast, there appears to be no retributivist defense capable of honoring a commitment to “comparative proportionality,” the

59. Some states have a centralized entity, such as a governor or supreme court, that determines the execution queue; other states rely heavily on the local stakeholders to determine whether to go forward with the execution. In the latter scenario, there is more likely to be concentration in light of the political and professional opportunities that proceeding with an execution presents.

60. See, e.g., *Kennedy v. Louisiana*, 554 U.S. 407, 441 (2008) (“*Gregg* instructs that capital punishment is excessive when it is grossly out of proportion to the crime or it does not fulfill the two distinct social purposes served by the death penalty: retribution and deterrence of capital crimes.”); *Atkins v. Virginia*, 536 U.S. 304, 319 (2002) (describing retribution and deterrence as “social purposes served by the death penalty”); IGOR PRIMORATZ, *JUSTIFYING LEGAL PUNISHMENT* 9–13 (1989) (introducing readers to utilitarianism and deterrence as the major “philosophical theories of punishment”).

61. See *infra* Part II.B.1.

principle that similar offenders should receive similar punishment. There is certainly debate over a pure retributivist's appropriate commitment to comparative proportionality, but I do not want to dwell too much on that point.⁶² Even if the retributivist jettisons any interest in comparative proportionality, capital-outcome concentration still violates a basic equality norm of modern punishment practice.⁶³ The philosophical harm in the practiced reality of locally differentiated capital punishment activity is the unjustified failure to treat similar cases similarly, regardless of what penological theory most readily accounts for that principle.

A. *Local Muscle Memory*

Normative discussion of capital-outcome concentration requires an exclusion of certain causes. Concentration does not reflect population or the distribution of homicides, and it does not happen because juries effectively transmit a community's punishment norms through verdicts. The cause more likely involves local muscle memory: some combination of extreme bureaucratic path dependence—such as the inherited practices of a large DA's office—and otherwise correlated decisionmaking exercised by stakeholders at multiple sites of local discretion.

1. *Excluding Basic Causes.* What if the cause of concentration is benign? Perhaps what shows up as variation simply reflects differences in population or in the distribution of sufficiently culpable homicides. Such explanations, however, are inconsistent with the data here, and with what other studies reveal about the practice of capital punishment.

a. *Population.* Justice Breyer's *Glossip* dissent focuses on the number of counties that impose death sentences,⁶⁴ which invites the objection that those counties nonetheless house a considerable fraction of the population. HOI, however, exposes the limits of that objection. Nationally, the fraction of the population in counties accounting for half of the country's death sentences has fallen from 24 percent to 14

62. See *infra* note 155 and accompanying text.

63. The Western proposition that like phenomena should be treated the same way dates back at least to Aristotle. See ARISTOTLE, *NICOMACHEAN ETHICS* bk. V, at 267–69 (H. Rackham trans., Harvard Univ. Press rev. ed. 2014) (c. 350 B.C.E.); ARISTOTLE, *MAGNA MORALIA*, in *METAPHYSICS X–XIV, OECONOMICA, AND MAGNA MORALIA* bk. I, at 533–43 (G. Cyril Armstrong ed., Hugh Tredennick trans., Harvard Univ. Press 1935) (c. 350 B.C.E.).

64. See *Glossip v. Gross*, 135 S. Ct. 2726, 2761 (2015) (Breyer, J., dissenting).

percent.⁶⁵ For executions, the number has increased from 7 to 8 percent.⁶⁶ Moreover, HOI has dropped sharply within each of the five states with the most capital sentences.⁶⁷ The only reported HOI results in which the relationship to population is ambiguous are for executions in Oklahoma, Missouri, and Florida.⁶⁸ In short, the data corroborate the intuition—capital punishment is practiced by a diminishing minority of Americans, both nationally and (generally) within capitally active states.

b. Homicides. Another benign explanation for capital-outcome concentration is that the data disclose comparatively proportional punishment because they track the distribution of culpable homicides. Notwithstanding that some empirical studies of death penalty states report modest county-level correlation between homicide rates and the number of inmates actually sitting on death row,⁶⁹ the idea that concentration is tracking culpability remains farfetched.

First, as a purely logical matter, that homicides correlate positively with death sentences does not mean that a geographic distribution of capital events looks anything like a geographic distribution of similar offense–offender combinations.⁷⁰ Time after time, studies have shown that the ratio of death sentences to homicides can vary substantially between materially similar counties in the same state jurisdiction.⁷¹

65. See *supra* Table 3.

66. See *supra* Table 3.

67. See *supra* Table 4.

68. See *supra* Table 5.

69. See, e.g., John J. Donohue & Justin Wolfers, *Uses and Abuses of Empirical Evidence in the Death Penalty Debate*, 58 STAN. L. REV. 791, 822 (2005) (noting that “causation may run from homicides to executions”); Eisenberg, *supra* note 38, at 354–55 (“In short, consistent with state-level findings, the number of murders in a geographical unit (the county) is likely the single most influential factor determining the number of persons on death row due to murders in the unit.”).

70. A homicide, death sentence, and execution would almost always happen in different years. See, e.g., *Offenders on Death Row*, TEX. DEP’T CRIMINAL JUSTICE, https://www.tdcj.state.tx.us/death_row/dr_offenders_on_dr.html [<https://perma.cc/N97W-YDP4>] (displaying pertinent homicide and death sentence data for offenders on Texas’s death row).

71. See DAVID C. BALDUS, CHARLES A. PULASKI & GEORGE G. WOODWORTH, EQUAL JUSTICE AND THE DEATH PENALTY 121, 128 (1990); SAMUEL L. GROSS & ROBERT MAURO, DEATH AND DISCRIMINATION: RACIAL DISPARITIES IN CAPITAL SENTENCING 64–65 (1984); RAYMOND PATERNOSTER & ROBERT BRAME, AN EMPIRICAL ANALYSIS OF MARYLAND’S DEATH SENTENCING SYSTEM WITH RESPECT TO THE INFLUENCE OF RACE AND LEGAL JURISDICTION 26 (2003), http://www.aclu-md.org/uploaded_files/0000/0377/md_death_penalty_race_study.pdf [<https://perma.cc/YYQ7-274Q>]; William J. Bowers, *The Pervasiveness of Arbitrariness and Discrimination Under Post-Furman Capital Statutes*, 74 J. CRIM. L. & CRIMINOLOGY 1067, 1067–1100 (1983); William J. Bowers & Glenn L. Pierce, *Arbitrariness and*

Second, the distribution of capital sentences lacks substantial geographic correspondence with homicides. I performed a simple analysis of the relationship between capital sentences and homicides, which I reported in Table 8. I looked at the counties that were responsible for half of a jurisdiction's capital sentences and, using homicide data from the CDC,⁷² computed the fraction of the jurisdiction's homicides occurring in those same counties. Ideally, half of a jurisdiction's death sentences should correspond with half of its homicides.⁷³ Nationally, however, the fraction of homicides associated with half of American death sentences fell from 36 percent during period 1 to 18 percent during period 4. Within capitally active states, the same trend line is usually downward sloping, although it is more gradual and there are some outliers.⁷⁴ Those outliers notwithstanding, the basic insight is obvious enough: the concentration of capital punishment does not correspond to the distribution of homicides. These results confirm more rigorous regression analysis of data across local jurisdictions within individual states, which show that capital-sentencing patterns do not reflect the types of homicides committed in the different localities.⁷⁵

Discrimination Under Post-Furman Capital Statutes, 26 CRIME AND DELINQUENCY 563, 604 tbl.5 (1980); John J. Donohue III, *An Empirical Evaluation of the Connecticut Death Penalty System Since 1973: Are There Unlawful Racial, Gender, and Geographic Disparities?*, 4 J. EMPIRICAL LEGAL STUD. 637, 650 (2014); Carol S. Steiker & Jordan M. Steiker, *Part II: Report to the ALI Concerning Capital Punishment*, 89 TEX. L. REV. 367, 390 (2010).

72. See *supra* note 24.

73. I computed this value for death sentences rather than executions because, as between the two, the evidence that there is *some* correlation between homicides and death sentences is much stronger. See *infra* note 79.

74. The figure fell over three percentage points in California, over four points in Texas, almost thirteen points in Florida, sixteen points in Alabama, and almost twenty-eight points in North Carolina. See *supra* Table 8.

75. See, e.g., Donohue, *supra* note 71, at 673 (“Indeed, the most consistent and undisputed finding in all the regression analyses of Connecticut data by both experts is that the single most important influence from 1973–2007 explaining whether a death-eligible defendant would be sentenced to death was whether the crime occurred in Waterbury.”); PATERNOSTER & BRAME, *supra* note 71, at 31 (“In other words, differences in how different [Maryland] jurisdictions handle death eligible cases cannot be attributed to the kinds of homicides committed in those jurisdictions.”); Glenn L. Pierce & Michael L. Radelet, *The Impact of Legally Inappropriate Factors on Death Sentencing for California Homicides, 1990–1999*, 46 SANTA CLARA L. REV. 1, 38 (2005) (“The data also show geographic variations in rates of death sentencing [in California]. Excluding counties with smaller populations, death sentencing rates vary from roughly .005% of all homicides to rates five times higher.”); Glenn L. Pierce & Michael L. Radelet, *Race, Region, and Death Sentencing in Illinois, 1988–1997*, 81 OR. L. REV. 39, 67 (2002) (“Indicators of two extra-legal factors, the race of first-degree murder victims and geographic region, were found

Third, the distribution of executions also maps poorly onto the distribution of homicides.⁷⁶ Almost 40 percent of American homicides are in counties that have not executed anyone since *Furman*.⁷⁷ The twenty most capitally active counties account for 35 percent of American executions, but just 12 percent of its homicides.⁷⁸

Fourth, showing that capital outcomes track the distribution of homicides requires proof of more than correspondence between static maps of each. Unless the *change* in capital-outcome distribution corresponds to a *change* in homicide distribution—which even a superficial view of the data excludes⁷⁹—the latter cannot explain the former.

2. *Excluding Differentiated Punishment Norms.* In some ways, every county has its own story, and I generalize at my own peril. Political units experiencing concentration nonetheless have certain attributes in common, including the sets of local stakeholders that influence outcomes. The accumulated decisionmaking of each stakeholder set both reflects and produces what I call local muscle memory: the correlated exercise of local discretion. If concentration is indeed the result of the bureaucratic inertia and path dependence that mark muscle memory, then outcome irregularity cannot, as some might argue, be justified as a reflection of locally differentiated punishment norms.

Understanding muscle memory requires familiarity with the local stakeholders themselves—and, more importantly, why their decisionmaking outcomes might correlate. Any modern capital event is the result of a local crime. The response to local crime is meted out largely through the discretionary practice of local police, prosecutors, defense attorneys, juries, and judges. Stakeholders have discretion that substantially affects capital outcomes, and certain discretionary

statistically related to the imposition of the death sentence in Illinois controlling on the other variables in this study.”).

76. See Frank R. Baumgartner, Woody Gram, Kaneesha R. Johnson, Arvind Krishnamurthy & Colin P. Wilson, *The Geographic Distribution of US Executions*, 11 DUKE J. CONST. L. & PUB. POL’Y 1, 10–15 (2016).

77. See *id.* at 10.

78. See *id.*

79. However, because I do not formally analyze the longitudinal effect of local changes in homicide volume on local changes in capital process, my data does not itself disprove the correspondence. I can claim only that such a correspondence is extraordinarily unlikely. It is worth noting that, even at the national level, there seems to be no longitudinal correlation between homicides and executions. See Donohue & Wolfers, *supra* note 69, at 836.

decisions tend to correlate with others. That correlation, in turn, produces sustained capital activity in some large localities and abstention in many others.

The first coercive exercise of state power in the capital-punishment sequence is an arrest executed by local law enforcement, usually following an investigation. The idea that policing involves considerable discretion needs little discussion,⁸⁰ and such discretion can suppress the relationship between culpability and punishment. For example, local policing practice certainly plays a role in the well-documented phenomenon that the death penalty is used disproportionately to punish offenders who kill white victims.⁸¹ Police tend to more strongly support the death penalty,⁸² and police unions can have considerable political clout—influence that is most visibly reflected in the especially harsh punishment for killing a law enforcement officer.⁸³ Influential police unions are disproportionately present in large localities,⁸⁴ and such presence correlates with that of larger prosecutors' offices that most aggressively and efficaciously seek capital sentences.⁸⁵

Indeed, perhaps the greatest (if not most visible) source of local variation is the discretion of the local prosecutor, which is more appropriately described as the correlated discretion exercised within the local prosecutor's *office*. (A locally elected DA usually leads that office.⁸⁶) The prosecutor investigates the crime, decides whether to capitally indict the defendant, negotiates any plea, performs jury selection, tries both the guilt and sentencing phases of a case for the state, conducts much of the state's postconviction litigation, and—in some jurisdictions—seeks the death warrant that formally initiates the countdown to an execution.⁸⁷

80. See David M. Jaros, *Preempting the Police*, 55 B.C. L. REV. 1149, 1149 (2014).

81. See *McCleskey v. Kemp*, 481 U.S. 279, 287 (1987) (citing the famous “Baldus study”).

82. See DAVID GARLAND, *PECULIAR INSTITUTION: AMERICA'S DEATH PENALTY IN AN AGE OF ABOLITION* 289 (2010) (“In American death penalty politics, among the most reliable and active supporters of capital punishment are police officers, prison guards, and local district attorneys.”).

83. See *id.* at 289 (“Police union officials demand death sentences for ‘cop killers’ and regard the issue as a test of any politician’s support.”).

84. See JOHN S. DEMPSEY & LINDA S. FORST, *AN INTRODUCTION TO POLICING* 91 (2013).

85. See *infra* notes 86–93 and accompanying text.

86. See William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 533 (2001) (“The large majority of local district attorneys are elected.”).

87. See generally ANGELA J. DAVIS, *ARBITRARY JUSTICE: THE POWER OF THE AMERICAN PROSECUTOR* (2007) (exploring the discretion vested in prosecutors' offices).

Multiple studies confirm that prosecutorial discretion has an extremely substantial effect on the pattern of capital charging within a state.⁸⁸ For example, larger prosecutor's offices benefit from economies of scale in selecting juries—that is, the cost of “death qualifying” a jury (defined below) goes down as the office accumulates experience. Effective capital prosecution necessitates overhead and experience available only in larger localities with better-funded offices,⁸⁹ which is one reason why capital outcomes tend to cluster there.⁹⁰ Judges and prosecutors face similar electorates,⁹¹ and capitally inclined prosecutors dominate in those same large localities that house strong police unions. The discretion lodged in a DA's office combines with the political economy of crime control to account for the phenomenon that, when there are more elections in certain localities, there is more capital punishment.⁹² When local prosecutors make all of these decisions in different bureaucratic ecosystems, the result is an irregular distribution of capital outcomes.⁹³

The prosecutors, however, are only half of the adversarial equation. An underappreciated (but less correlated) source of local variation is the bureaucratic configuration of capital defense. Some localities use underfunded county public defenders⁹⁴ or panels of

88. See BARRY NAKELL & KENNETH A. HARDY, *THE ARBITRARINESS OF THE DEATH PENALTY* 125–30 (1987) (North Carolina); PATERNOSTER & BRAME, *supra* note 71, at 26–31, 37–39 (Maryland); Leigh B. Bienan, Neil Alan Weiner, Deborah W. Denno, Paul D. Allison & Douglas Lane Mills, *The Reimposition of Capital Punishment in New Jersey: The Role of Prosecutorial Discretion*, 41 RUTGERS L. REV. 27, 178–84 (1988) (New Jersey); Bowers, *supra* note 71, at 1079 (Florida); Donohue, *supra* note 71, at 673 (Connecticut); 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, 779–80 (1979) (South Carolina).

89. See Roger A. Fairfax Jr., *Outsourcing Criminal Prosecution?: The Limits of Criminal Justice Privatization*, 2010 U. CHI. LEGAL F. 265, 282 (“Jurisdictions with relatively small populations may not have the tax base to support a public prosecutor.”).

90. See *supra* Table 6.

91. Markus Dirk Dubber, *The Victim in American Penal Law: A Systematic Overview*, 3 BUFF. CRIM. L. REV. 3, 20 (1999).

92. For sources discussing correlation between elections and judicial discretion in favor of death sentences, see Jeffrey D. Kubik & John R. Moran, *Lethal Elections: Gubernatorial Politics and the Timing of Executions*, 46 J.L. & ECON. 1, 3 (2003); Stephen F. Smith, *The Supreme Court and the Politics of Death*, 94 VA. L. REV. 283, 307–08 (2008); sources cited *infra* note 106.

93. See, e.g., John G. Douglass, *Death as a Bargaining Chip: Plea Bargaining and the Future of Virginia's Death Penalty*, 49 U. RICH. L. REV. 873, 874 (2015) (explaining the phenomenon in Virginia).

94. See Smith, *supra* note 92, at 304 (“The fees for court-appointed cases are usually capped [by the legislature], often at unrealistically low levels that cannot be waived by trial judges. Low fees can have adverse selection effects, leading the best-qualified defense attorneys to opt out of the system in favor of more remunerative cases.”).

private counsel,⁹⁵ but regional capital defender offices dramatically improve outcomes.⁹⁶ Many states do not even have a public defender's office accountable for state postconviction litigation,⁹⁷ and the inmate representation at that phase of capital litigation is frequently quite poor.⁹⁸ Some localities will pull lawyers from a rotating panel of nonspecialists, although luckier inmates might be represented by a government-funded postconviction office, such as a capital habeas unit (CHU).⁹⁹ Gaps in representation are filled by nonprofit organizations or by firms doing pro bono work.¹⁰⁰ In short, the geographic distribution of capital outcomes is influenced heavily by bureaucratic decisions about how to staff capital litigation on behalf of the condemned.¹⁰¹

In addition to the police and the lawyers, judges fulfill a crucial role in the local administration of capital process. The local judge obviously presides over all pretrial motions and the trial itself. For decades, some judges exercised state power to “override” a life sentence and impose what that judge viewed as a more appropriate death penalty.¹⁰² (After *Hurst v. Florida*,¹⁰³ however, state power to vest judges with such authority is in doubt.¹⁰⁴) The local judge is also the trial-level judge in the state postconviction proceeding and, in many

95. Robert E. Stein, *Public Defenders*, 39 HUM. RTS. 25, 26 (2013).

96. See Jennifer E. Laurin, *Gideon by the Numbers: The Emergence of Evidence-Based Practice in Indigent Defense*, 12 OHIO ST. J. CRIM. L. 325, 346–48 (2015) (noting that a study of the Wichita Public Defender demonstrated that “public defenders provided more services to clients and obtained more dismissals at lower per-case cost than private assigned counsel in comparable cases”).

97. Nancy J. King, *Enforcing Effective Assistance After Martinez*, 122 YALE L.J. 2428, 2442–43 (2013).

98. See Jordan M. Steiker, *Improving Representation in Capital Cases: Establishing the Right Baselines in Federal Habeas to Promote Structural Reform Within States*, 34 AM. J. CRIM. L. 293, 294 (2007) (“[D]efficient trial representation is often followed and compounded by equally poor representation in state-post-conviction.”).

99. See generally *Lugo v. Sec’y, Fla. Dep’t of Corr.*, 750 F.3d 1198, 1215 (11th Cir. 2014) (discussing the effect of CHUs on the quality of capital litigation).

100. See Carol S. Steiker, *Raising the Bar: Maples v. Thomas and the Sixth Amendment Right to Counsel*, 127 HARV. L. REV. 468, 470 (2013).

101. Unlike some of the other correlated features of muscle memory, there appears to be little data confirming or disproving how the presence of a public or quasi-public defense entity correlates with behavior of other local stakeholders.

102. See, e.g., ALA. CODE § 13A-5-47(e) (2015); FLA. STAT. ANN. § 921.141(3) (West 2015).

103. *Hurst v. Florida*, 136 S. Ct. 616 (2016).

104. See *id.* at 621 (holding that Florida’s capital-sentencing system, in which juries provided “advisory” verdicts and judges actually decided on the sentence, was unconstitutional).

jurisdictions, decides whether to issue the death warrant.¹⁰⁵ As is the case with elected prosecutors, political cycles distort the ways in which elected judges exercise their considerable discretion.¹⁰⁶ Moreover, because local judges frequently face the same electorates as prosecutors, the two sets of officials can be subject to a correlated political distortion.

The local institutional practice that is most superficially inconsistent with the idea of muscle memory is jury deliberation. The jury is generally considered the most legitimate source of local variation, regarded as a normatively acceptable proxy for community preference.¹⁰⁷ Under the Sixth Amendment, juries must be drawn from the community in which the crime was committed and the offender is tried.¹⁰⁸ The jury formally considers the offense at the guilt phase and offender culpability at the punishment phase. The Constitution requires that juries be able to consider and give effect to any evidence that mitigates the defendant's culpability,¹⁰⁹ so the punishment phase frequently becomes a forum for the local jury to hear about the circumstances of the defendant's upbringing, as well as any mental health issues or trauma. Particularly at the sentencing phase, the jury becomes an important surrogate for the locality's punishment norms. Indeed, the jury is usually presented as a singular legitimizing force in the administration of capital punishment, a black box of twelve into which any number of institutional biases disappear or otherwise gain immunity from more exacting legal scrutiny.

There are a number of reasons to be skeptical of the claim that juries disrupt—rather than aggravate—the correlated decisionmaking of local muscle memory. The first reason is that such a function is inconsistent with the data. Local variation in capital-outcome intensity

105. See, e.g., MO. ANN. STAT. § 546.710 (West 2002); TEX. CODE CRIM. PROC. ANN. art. 43.141 (West 2006). But see KY. REV. STAT. ANN. § 431.218 (West 2016) (vesting power in the state supreme court and governor).

106. See Paul Brace & Brent D. Boyea, *State Public Opinion, the Death Penalty, and the Practice of Electing Judges*, 52 AM. J. POL. SCI. 360, 370–71 (2008) (“[E]lections and strong public opinion exert a notable and significant direct influence on judge decision making in [capital] cases.”); Dan Levine & Kristina Cooke, *Uneven Justice: In States with Elected High Court Judges, a Harder Line on Capital Punishment*, REUTERS (Sept. 22, 2015, 2:00 PM), <http://www.reuters.com/investigates/special-report/usa-deathpenalty-judges> [<https://perma.cc/FKK4-5KEY>].

107. See Jenny Carroll, *The Jury as Democracy*, 66 ALA. L. REV. 825, 830–35 (2015) (“In the process, and in the context of the case before it, the jury offers an opportunity for the people to ensure that the law reflects their own values and expectations.”).

108. U.S. CONST. amend. VI.

109. See *infra* note 220 and accompanying text.

is *simply enormous*, and the jury pools would have to have implausibly divergent assessments of culpability to justify the pattern. More importantly, the data disclose not just substantial variation, but substantial variation among counties that are similar and close together.¹¹⁰ The idea that juries in Houston and San Francisco might represent a dramatically different set of preferences is one thing; the idea that the same can be said of juries in Houston and Dallas is another.¹¹¹ The jury-based explanation is also difficult to reconcile with the execution-concentration data. Juries have no role in securing a death warrant. If capital-outcome concentration reflects differentiated community views about punishment, then the sentencing and execution distributions should resemble one another.

There are also structural reasons to reject the idea that the local jury constrains local muscle memory. The capital jury is a poor institutional mechanism for translating a community's punishment preferences because of the idiosyncratic way that petit jurors are selected. Specifically, prosecutors may have the court dismiss members of the venire (the jury pool) who have philosophical reservations about imposing the death penalty—a practice known as “death qualifying” the jury.¹¹² Larger prosecutor's offices benefit substantially from prior experience with death qualification, which involves skillful questioning of the venire and judicious use of “strikes” against individual jurors. A death-qualified jury excludes precisely the people who are most likely to vote in favor of an acquittal or against a capital sentence.¹¹³ By definition, those juries fail to transmit the punishment norms that are most inconsistent with capital sentencing. Death qualification results in a not-terribly-representative petit jury uniquely disposed to convict and capitally sentence inmates,¹¹⁴ a circumstance making the

110. See Steiker & Steiker, *supra* note 71, at 390–91 (“[The] simple facts of institutional organization generate enormous geographic disparities within most death penalty jurisdictions.”).

111. See *id.* at 391 (“[G]eographic disparities are troubling . . . because they suggest that state death penalty legislation is unable to standardize the considerations that are brought to bear in capital prosecutions so as to limit major fluctuations in its application across the state.”).

112. See *Lockhart v. McCree*, 476 U.S. 162, 165 (1986).

113. See James R.P. Ogloff & Sonia R. Chopra, *Stuck in the Dark Ages: Supreme Court Decisionmaking and Legal Developments*, 10 PSYCHOL. PUB. POL'Y & L. 379, 391 (2004) (“[D]eath-qualified juries may be more disposed toward guilty verdicts than juries that include [death penalty opponents] because jurors who are not opposed to the death penalty may be more generally conviction prone than [death penalty opponents].” (citing Claudia L. Cowan, William C. Thompson & Phoebe C. Ellsworth, *The Effects of Death Qualification on Jurors' Predisposition to Convict and on the Quality of Deliberation*, 8 LAW & HUM. BEHAV. 53 (1984))).

114. See *id.*

prosecutor's discretionary charging decision even *more* influential. Consistent with the idea of local correlation, the larger communities containing more jurors with disqualifying scruples are precisely those communities in which prosecutors with the most resources are best equipped to disqualify them.¹¹⁵

Local muscle memory is transmitted through established electoral strategies in local primaries and general elections,¹¹⁶ through the informal practices of individual prosecutors and local DA's offices,¹¹⁷ and through local norms of judicial process touching all phases of capital litigation. In certain localities, capital litigation can represent a source of political and professional opportunity for the police, prosecutors, judges, and executives that collectively perform the law enforcement function.¹¹⁸ In those localities, the bureaucracy is simply *good at* capital process.¹¹⁹ To phrase my explanation in the cold economic terms necessary for maximum clarity—if a capital outcome is an asset, localities that produce many death sentences and executions do so because of heavy political demand and cheap bureaucratic supply.

There are other data that support a muscle-memory hypothesis. Political scientist Frank Baumgartner has observed that the extreme distribution of executions across U.S. counties corresponds to what statisticians call a “power law.”¹²⁰ A power law is an irregular frequency distribution for which, when measuring on the y-axis for the frequency of observations having some x-axis value *c*, very large values of *c* are

115. One reason why cities might house a higher fraction of disqualified jurors is the substantial difference in attitudes about the death penalty between white and nonwhite communities. See J. Thomas Sullivan, *The Demographic Dilemma in Death Qualification of Capital Jurors*, 49 WAKE FOREST L. REV. 1107, 1134 (2014).

116. See Owen G. Abbe & Paul S. Herrnson, *How Judicial Election Campaigns Have Changed*, 85 JUDICATURE 286, 295 (2002).

117. See Leonard R. Mellon, Joan E. Jacoby & Marion A. Brewer, *The Prosecutor Constrained by His Environment: A New Look at Discretionary Justice in the United States*, 72 J. CRIM. L. & CRIMINOLOGY 52, 53, 59–80 (1981); Marc L. Miller & Ronald F. Wright, *The Black Box*, 94 IOWA L. REV. 125, 178 (2008); William T. Pizzi, *Understanding Prosecutorial Discretion in the United States: The Limits of Comparative Criminal Procedure as an Instrument of Reform*, 54 OHIO ST. L.J. 1325, 1345 (1993).

118. See GARLAND, *supra* note 82, at 287–93.

119. See David R. Dow, *Why Texas Is So Good at the Death Penalty*, POLITICO (May 15, 2014), <http://www.politico.com/magazine/story/2014/05/texas-death-penalty-106736> [https://perma.cc/J4WX-C4QU]; *infra* notes 120–24 and accompanying text.

120. See Frank R. Baumgartner, *A Power-Law of Death*, GEORGETOWN PUB. POL'Y INST. (Mar. 26, 2012), <https://www.unc.edu/~fbaum/Innocence/Baumgartner-Power-Law-of-Death-town.pdf> [https://perma.cc/Z663-6FNH].

unusually likely to occur.¹²¹ A bit more simply, if a power law describes a distribution, then the odds of observing freakishly large c values are high.¹²² Normal distributions dominate the natural sciences, but power laws appear often in contexts in which the frequency of measured phenomena reflect correlated decisionmaking.¹²³ Specifically, power-law distributions have thick tails due to self-reinforcing feedback effects.

The execution data likely fit Baumgartner's power law because the execution data are showing precisely the behavior that is producing the concentration evident in my metrics.¹²⁴ Local variation in retributive norms cannot explain the local variation in capital activity.¹²⁵ The self-reinforcing quality of the feedback explains not just why capital outcomes are *concentrated*, but why they are *concentrating*. Counties that have not practiced capital punishment in the past tend not to practice it in the future, and capitally active localities exhibit precisely the opposite tendency. Capital activity breeds more capital activity, and abstention breeds abstention. Self-reinforcement accounts for the extreme and accelerating concentration documented in Part I, and it is the local muscle memory to which I allude in this Article.

B. *The Weak Consequentialist Justification*

A comprehensive normative analysis of death sentencing and execution patterns is difficult without a granular understanding of why activity is rising or falling in each locality. My ambition is more modest. My inquiry is focused on excluding broad explanations for a set of observations, however, so extreme granularity is unnecessary. I am comfortable analyzing generally the consequentialist and retributivist justifications for the death penalty, in light of the basic assumptions about local path dependence and bureaucratic inertia articulated above.

The first of the two major penological theories invoked to support capital punishment is consequentialism, under which justification

121. DAVID EASLEY & JON KLEINBERG, NETWORKS, CROWDS, AND MARKETS: REASONING ABOUT A HIGHLY CONNECTED WORLD 479–81 (2010).

122. See Daniel A. Farber, *Probabilities Behaving Badly: Complexity Theory and Environmental Uncertainty*, 37 U.C. DAVIS L. REV. 145, 147 (2003).

123. See EASLEY & KLEINBERG, *supra* note 121, at 479, 482.

124. In fact, the power law was first observed in an attempt to understand income concentration. See Thomas Bak, *Power-Law Distributions and the Federal Judiciary*, 46 JURIMETRICS J. 139, 140 n.3 (2006).

125. See RAYMOND PATERNOSTER, CAPITAL PUNISHMENT IN AMERICA 169–78 (1991).

follows from costs and benefits materializing in the real world.¹²⁶ Consequentialism does not prioritize equal punishment per se; equality has only instrumental importance.¹²⁷ The major consequentialist accounts of capital punishment focus on deterrent effects,¹²⁸ and so I begin there.

The idea that capital-outcome concentration increases deterrence is either empirically untested or untestable. There is some meaningful empirical work on the deterrent effect of capital outcomes generally, although both the existence and intensity of that effect remain in serious doubt.¹²⁹ There is no empirical work *whatsoever* on the effect

126. See David O. Brink, *Utilitarian Morality and the Personal Point of View*, 83 J. PHIL. 417, 420 (1986).

127. See JOHN RAWLS, *A THEORY OF JUSTICE* 23 (rev. ed. 1999) (noting that distributive considerations are of instrumental importance to utilitarians).

128. See *infra* notes 129, 131 and accompanying text.

129. The empirical dispute is well known. Before 1975, the deterrent studies employed one of three matching techniques: comparing contemporaneous homicide rates of nearby states, comparing homicide rates during periods of capital activity and inactivity, and comparing homicide trends before and after high-profile capital events. See ROBERT M. BOHM, *DEATHQUEST: AN INTRODUCTION TO THE THEORY AND PRACTICE OF CAPITAL PUNISHMENT IN THE UNITED STATES* 85–88 (1999) (collecting studies). The most prominent were performed by sociologist Thorsten Sellin, who compared homicide rates in contiguous states between 1920 and 1963. See Thorsten Sellin, *Homicides in Retentionist and Abolitionist States*, in *CAPITAL PUNISHMENT* 135, 135–38 (1967). No study using such methods disclosed a deterrent effect. See *id.* at 88. In 1975, economist Isaac Ehrlich published the first study finding a deterrent effect, using multivariate regression analysis of data from 1933 to 1969 to report that each execution deterred somewhere between seven to eight homicides. See generally Isaac Ehrlich, *The Deterrent Effect of Capital Punishment: A Question of Life and Death*, 65 AM. ECON. REV. 397 (1975). Ehrlich argued that prior methods had used proxies for statistical controls that were incapable of allowing anyone to isolate a deterrent effect. See *id.* at 398. Ehrlich's analysis subsequently came under fire for, among other things: having insufficiently controlled for important variables, having insufficiently recognized the need to compare the deterrent effect of the death penalty with the next-most severe punishment (life without parole), and having failed to disclose that the effect disappeared without the last five years of data in the sample. See BOHM, *supra*, at 89 (discussing failure to compare to life-without-parole); David C. Baldus & James W.L. Cole, *A Comparison of the Work of Thorsten Sellin and Isaac Ehrlich on the Deterrent Effect of Capital Punishment*, 85 YALE L.J. 170, 180 (1975) (discussing insufficient controls); Peter Passell & John B. Taylor, *The Deterrent Effect of Capital Punishment: Another View*, 67 AM. ECON. REV. 445, 445 (1977) (concluding that the final five years of Ehrlich's dataset distorted his general conclusions). In 1978, the National Academy of Sciences issued a report fiercely criticizing Ehrlich's methods and conclusions. NAT'L ACAD. OF SCI., *DETERRENCE AND INCAPACITATION: ESTIMATING THE EFFECTS OF CRIMINAL SANCTIONS ON CRIME RATES* (Alfred Blumstein, Jacqueline Cohen & Daniel Nagin eds., 1978). There has been a recent surge in empirical work that is less critical of Ehrlich's conclusions, although that work has failed to convince many observers that the death penalty's effect on the homicide rate can be reliably isolated. See Donohue & Wolfers, *supra* note 69, at 793 n.11 (collecting newer studies); *id.* at 794 ("Our estimates suggest not just 'reasonable doubt' about whether there is any deterrent effect of the death penalty, but profound uncertainty.").

of geographic irregularities on deterrence, and the ability to measure deterrent effect with such granularity seems far beyond the existing capacity of anybody in the field.

One could nonetheless hazard a guess as to how a consequentialist might support capital-outcome concentration. First, concentration might produce nondeterrence benefits. Second, the production of geographically concentrated capital outcomes may simply be less expensive than the dispersed alternative.

1. *Non-Deterrence Rationales.* For reasons that may already be apparent, I prefer the term “consequentialism” to “deterrence.” Although death penalty discourse frequently positions “deterrence” as the normative foil for the deontological concept of “retribution,”¹³⁰ deterrence is merely a central benefit in the consequentialist justification of capital punishment.¹³¹ Moreover, and contrary to popular usage, consequentialism is not synonymous with a utilitarian preference for maximizing the hedonic surplus of pleasure over pain;¹³² utilitarianism is simply a type of consequentialism.¹³³ Consequentialist paradigms require a comparison of benefits and costs, however those are measured.¹³⁴

On the benefit side, the emphasis on deterrence is underinclusive. A capital sanction achieves the maximum conceivable incapacitation, and incapacitation—along with deterrence and reformation—is a broadly recognized means of crime prevention.¹³⁵ More importantly, however, the death penalty might conceivably have two aspects of what I call a “satisfaction benefit,” which do not involve crime prevention at all.¹³⁶ First, capital outcomes are a source of vindictive utility for a

130. See Claire Finkelstein, *A Contractarian Argument Against the Death Penalty*, 81 N.Y.U. L. REV. 1283, 1307 (2006).

131. See Russell L. Christopher, *Death Delayed Is Retribution Denied*, 99 MINN. L. REV. 421, 435 (2014).

132. See Eric R. Claeys, *Virtue and Rights in American Property Law*, 94 CORNELL L. REV. 889, 896 (2009).

133. See Eyal Zamir & Barak Medina, *Law, Morality, and Economics: Integrating Moral Constraints with Economic Analysis of Law*, 96 CALIF. L. REV. 323, 329 (2008).

134. See *id.* at 371.

135. See Aaron J. Rappaport, *Rationalizing the Commission: The Philosophical Premises of the U.S. Sentencing Guidelines*, 52 EMORY L.J. 557, 568 (2003).

136. Cf. PRIMORATZ, *supra* note 60, at 21–22 (using the term “vindictive satisfaction” to describe the first of the two phenomena I specify).

victim's community—including the victim's family.¹³⁷ Second, the death penalty might be loss-aversive insofar as it avoids the social costs associated with extralegal means of securing community satisfaction, such as private revenge, vigilantism, or lynching.¹³⁸

The concept of a satisfaction benefit is central to at least one consequentialist theory that concentrated capital outcomes perform a meaningful function. Capital outcomes could be concentrating in communities for which both aspects of the satisfaction benefit are highest. All other things being equal, if states impose and carry out death sentences in the local communities that derive the greatest vindictive utility from such practices, then concentration is less consequentially problematic.¹³⁹ Moreover, if the communities in which capital outcomes concentrate are especially prone to extralegal means of satisfaction, then those outcomes displace something else quite costly. Indeed, there is some reason to believe that the most capably active localities are those in which (1) communities derive the most vindictive utility from that activity, and (2) the death penalty displaces a more harmful community response.¹⁴⁰ The muscle-memory phenomenon complicates the vindictive satisfaction story considerably, however, because capital activity levels may not correspond strongly with community punishment preferences.

137. See Marie Gottschalk, *Dismantling the Carceral State: The Future of Penal Policy Reform*, 84 TEX. L. REV. 1693, 1734 (2006) (citing Michael L. Radelet & Marian J. Borg, *The Changing Nature of Death Penalty Debates*, 26 ANN. REV. SOC. 43, 52 (2000)); Jack Greenberg, *Against the American System of Capital Punishment*, 99 HARV. L. REV. 1670, 1677 n.39 (1986).

138. Justice Stewart alluded to this idea in his *Furman* concurrence. See *Furman v. Georgia*, 408 U.S. 238, 308 (1972) (Stewart, J., concurring).

139. This is a big “if.” Victims may not feel closure either because a death sentence is frequently imposed without a corresponding execution, or because, even when an execution happens, the feeling of relief may be less than anticipated. See generally Marilyn Peterson Armour & Mark S. Umbreit, *Assessing the Impact of the Ultimate Penal Sanction on Homicide Survivors: A Two State Comparison*, 96 MARQ. L. REV. 1 (2012) (reporting empirical work on survivor experience).

140. There is some reason to believe that capably active jurisdictions are disproportionately vulnerable to vigilantism and lynching. See FRANKLIN E. ZIMRING, *THE CONTRADICTIONS OF AMERICAN CAPITAL PUNISHMENT* 89–90, 93, 96–98 (2003); see also Steven F. Messner, Eric P. Baumer & Richard Rosenfeld, *Distrust of Government, the Vigilante Tradition, and Support for Capital Punishment*, 40 LAW & SOC'Y REV. 559, 579 (2006) (“In addition, the main effect of the vigilante tradition is significant . . . [W]hites who reside in states where lynching was more prevalent . . . are significantly more likely than others to support the death penalty.”); Steven F. Messner, Robert D. Baller & Matthew P. Zevenbergen, *The Legacy of Lynching and Southern Homicide*, 70 AM. SOC. REV. 633, 634 (2005) (“[T]he legacy of lynching during this dark era of America's past may help explain variation in the level of homicides within the South in more contemporary times.”).

A second consequentialist justification for capital-outcome concentration centers on cost.¹⁴¹ Concentration might be providing some sort of deterrence benefit by shifting outcomes from localities that produce capital events at high cost to localities that produce them less expensively. Local muscle memory provides less of a reason to be skeptical here, because the activity in high-volume jurisdictions probably does bespeak a morbid proficiency. I discussed the myriad local institutions that collectively produce capital outcomes in Part II.A.2, and suffice it to say that capital prosecutions, appeals, postconviction litigation, and incarceration are very expensive.¹⁴² There are economies of scale in training prosecutors, educating judges, and preparing expert witnesses.¹⁴³ If capital-outcome concentration can produce the same benefits at a lesser cost, then the migration of outcomes from costlier to less expensive localities represents a consequentialist benefit.

2. *Problems with Pure Consequentialist Rationales.* Aside from general skepticism about the premises of vindictive satisfaction,¹⁴⁴ there are at least two other serious problems with the pure consequentialist rationales. The first is a problem common to all pure consequentialist theories, and the second is unique to capital-outcome concentration.

First, the sort of pure consequentialist account necessary to sustain extreme capital concentration runs into objections that have dogged the theory for years. The most famous is the Rawlsian “scapegoating objection” that consequentialism permits welfare-promoting punishment of innocent offenders.¹⁴⁵ Capital-outcome concentration

141. See PRIMORATZ, *supra* note 60, at 37 (“Utilitarians would want punishments to be effective, but at a reasonable price.”).

142. See *Public Policy Choices and Deterrence and the Death Penalty: A Critical Review of New Evidence: Hearing on H.B. 3834 Before the Joint Comm. on Judiciary of Mass. Leg.*, 2005 Leg., 184th Gen. Ct., Reg. Sess. (Mass. 2005) (statement of Jeffrey Fagan, Columbia Law School).

143. Cf. Dow, *supra* note 119 (explaining that Texas is proficient at executing people because it is experienced).

144. See *supra* note 139.

145. See Guyora Binder & Nicholas J. Smith, *Framed: Utilitarianism and Punishment of the Innocent*, 32 RUTGERS L.J. 115, 123–27 (2000) (collecting canonical authority); Kyron Huigens, *Dignity and Desert in Punishment Theory*, 27 HARV. J.L. & PUB. POL’Y 33, 33–34 (2003) (“The scapegoating objection points out that if punishment is justified by deterrence, or by any other beneficial consequences, then a net gain in good consequences should be pursued regardless of traditional notions of guilt and desert.”); John Rawls, *Two Concepts of Rules*, 64 PHIL. REV. 3, 11 (1955) (discussing the problems inherent in punishing an innocent offender for the best interests of society). Consequentialist theorists have long argued (with only limited success) that certain

does not necessarily entail punishment of innocent people and is therefore not formally vulnerable to the objection, but scapegoating is the extreme example of consequentialist insensitivity to blameworthiness. Capital-outcome concentration does trigger concerns about consequentialism's tolerance for the related problem of exemplary punishment, in which the state imposes extreme penalties on a subset of offenders.¹⁴⁶ Accepting a pure consequentialist justification for capital-outcome concentration means swallowing the proposition that the state may permissibly increase social welfare through a blame-insensitive distribution of punishment. Whatever feature of pure consequentialism that would justify concentration is likely the same feature that justifies tolerance for welfare-enhancing risk of wrongful executions.

Second, a pure consequentialist case for capital-outcome concentration would necessitate a number of logical propositions that are empirically untested or untestable. For example, and as mentioned above, there are no data to support the proposition that concentrated capital outcomes produce meaningful increments of net general deterrence. Nested inside the marginal-deterrence premise is another assumption—that the death penalty has a deterrent effect as a general matter—and even that assumption is heavily disputed.¹⁴⁷

* * *

There is some empirical evidence that capital events are concentrating in jurisdictions with greater indicia of vindictive satisfaction, so there may be something to a consequentialist justification.¹⁴⁸ Although there are no data reporting the costs of producing capital events in different jurisdictions, the idea that experience increases proficiency and reduces cost is sufficiently

versions of the paradigm preclude scapegoating. See, e.g., H.L.A. HART, PUNISHMENT AND RESPONSIBILITY 5 (1968) (describing as “definitional stop” the semantic practice of defining punishment of the innocent out of existence); T.L.S. Sprigge, *A Utilitarian Reply to Dr. McCloskey*, 8 INQUIRY 254, 275 (1965) (arguing that implausibility of scapegoating counsels against a prominent role in normative theory).

146. See PRIMORATZ, *supra* note 60, at 41; Andrew von Hirsch, *Hybrid Principles in Allocating Sanctions: A Response to Professor Robinson*, 82 NW. U. L. REV. 64, 65 (1987).

147. For a discussion of the history of the empirical dispute, see *supra* note 129.

148. See *supra* note 140; see also James S. Liebman & Peter Clarke, *Minority Practice, Majority's Burden: The Death Penalty Today*, 9 OHIO ST. J. CRIM. L. 255, 273 (2011) (positing a statistical relationship between capital sentencing and receptivity to the vigilante streak more prevalent among libertarian communities).

intuitive to resist out-of-hand dismissal. When combined with the vindictive utility benefit, the efficiency rationale could theoretically form a weak consequentialist case for capital-outcome concentration—albeit one vulnerable to some of the most trenchant critiques of that penal theory.

C. *Retributivist Constraints*

History's most famous retributivist is whoever declared that the punishment must fit the crime. Widely associated with Kant and Hegel,¹⁴⁹ retributivism embodies the principle that punishment requites “desert.”¹⁵⁰ Desert, in turn, is a function of a crime (offense) and a criminal's culpability (offender).¹⁵¹ To the extent one rejects pure consequentialism—which virtually every modern penal practice does¹⁵²—punishment must satisfy some retributive constraint on the state's authority to penalize wrongdoing.¹⁵³ Retributivist punishment theory mutes many of the normative objections hounding pure utilitarian models. A retributivist constraint, for example, bars a state from promoting social welfare by punishing innocent people or by imposing exemplary penalties.¹⁵⁴

Most strains of retributivism, in contrast to consequentialism, involve a thicker commitment to the idea that the state must impose comparable punishment on equally culpable offenders (comparative proportionality).¹⁵⁵ Unless a theory either recognizes local punishment

149. See G.W.F. HEGEL, *ELEMENTS OF THE PHILOSOPHY OF RIGHT* § 101 at 129 (Allen W. Wood ed., H.B. Nisbet trans., 1991) (1821); IMMANUEL KANT, *THE PHILOSOPHY OF LAW: AN EXPOSITION OF THE FUNDAMENTAL PRINCIPLES OF JURISPRUDENCE AS THE SCIENCE OF RIGHT* 195 (W. Hastie trans., 2002) (1797); cf. PRIMORATZ, *supra* note 60, at 13 (“The most important and influential among classical retributivists are Kant and Hegel.”).

150. See ROBERT NOZICK, *PHILOSOPHICAL EXPLANATIONS* 363–65 (1983); Russell L. Christopher, *Deterring Retributivism: The Injustice of “Just” Punishment*, 96 NW. U. L. REV. 843, 860 (2002); Michael Moore, *The Moral Worth of Retribution*, in *PRINCIPLED SENTENCING* 188, 188 (Andrew von Hirsch & Andrew Ashworth eds., 1998).

151. See *supra* note 150.

152. See *infra* note 161; cf. Christopher, *supra* note 131, at 476 (explaining that the “constitutionality of capital punishment relies primarily on retributivism”).

153. See Samuel W. Buell, *Culpability and Modern Crime*, 103 GEO. L.J. 547, 584 (2015); Youngjae Lee, *The Constitutional Right Against Excessive Punishment*, 91 VA. L. REV. 677, 683–84 (2005).

154. See Kenneth W. Simons, *On Equality, Bias Crimes, and Just Deserts*, 91 J. CRIM. L. & CRIMINOLOGY 237, 237 (2000).

155. See R.A. DUFF, *PUNISHMENT, COMMUNICATION, AND COMMUNITY* 156 (2001); C.L. TEN, *CRIME, GUILT, AND PUNISHMENT: A PHILOSOPHICAL INTRODUCTION* 51 (1987); Dan Markel & Chad Flanders, *Bentham on Stilts: The Bare Relevance of Subjectivity to Retributive Justice*, 98 CALIF. L. REV. 907, 975 (2010); Michael S. Moore, *The Independent Moral Significance*

practice as constitutive of desert or permits localities to punish similar desert differently, irregular capital-outcome distribution will violate comparative-proportionality norms.¹⁵⁶ Even such niche theories of local variation come up short, however, because local muscle memory is inconsistent with some key empirical assumptions they make to justify concentration. Faced with local variation that has little to do with differences in punishment norms, the only retributivist recourse is to sever any commitment to comparative proportionality, in which case the objection to capital-outcome concentration could simply be restated as a violation of a freestanding norm of penal equality.¹⁵⁷

1. *The Negative Retributivist Constraint.* Pure retributivism has substantial problems. First, if penal theory exists as both an abstract justification for the institution of punishment and as a particularized set of rules for distributing it, retributivism is considerably better at the second job. Most would believe that societies have penal institutions to prevent wrongdoing, not to fulfill moral obligations.¹⁵⁸ Second, the purest retributivist theories involve rules not just about when a state *may* punish, but when it *must*. For that reason, retributive theory is

of Wrongdoing, 1994 J. CONTEMP. LEGAL ISSUES 237, 251; *see also* Russell L. Christopher, *The Prosecutor's Dilemma: Bargains and Punishments*, 72 FORDHAM L. REV. 93, 131–32 (2003) (“Though not always articulated as an express tenet of retributivism, treating equally situated culpable wrongdoers equally is implicit in, or presupposed by, retributivism.”); George P. Fletcher, *The Place of Victims in the Theory of Retribution*, 3 BUFF. CRIM. L. REV. 51, 59 (1999) (“In view of the fact that all theories of justice are primarily concerned with equality, it makes sense to ground retributive justice as well in a commitment to bring about equality . . . among offenders.”); David Gray, *Punishment as Suffering*, 63 VAND. L. REV. 1619, 1620 n.3 (2010) (describing comparative proportionality as being “usually credited to retributivist theories of punishment”). Professor Ernest van den Haag, however, was a retributivist who spent his career disputing that justice had a distributive element. *See* William S. Laufer & Nien-hê Hsieh, *Choosing Equal Injustice*, 30 AM. J. CRIM. L. 343, 343–44 (2003) (summarizing van den Haag’s position and collecting sources).

156. I assume the retributivist theory also reaches the magnitude of the penalty, as the correlation between desert and the magnitude of punishment is a mainline premise of most retributivism. *See* Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 1234–35 n.669 (2001) (collecting sources).

157. *See* Erik Luna & Paul G. Cassell, *Mandatory Minimalism*, 32 CARDOZO L. REV. 1, 49–50 (2010) (discussing the concept of equality and its fundamental importance in a just society).

158. “Rule utilitarianism” describes the cluster of theories under which utilitarianism provides the abstract justification for punishment, but leaves questions of distribution for another moral principle. *See* ROBERT CUNNINGHAM, SITUATIONISM AND THE NEW MORALITY 37 (1970) (defining rule utilitarianism); Rawls, *supra* note 145, at 10–13; *see also* Richard Brandt, *Toward a Credible Form of Utilitarianism in Morality and the Language of Conduct*, in ETHICS: THEORY AND PRACTICE 118, 121 (Manuel Velasquez & Cynthia Rostankowski eds., 1985) (specifying a set of rule utilitarian criteria).

vulnerable to criticism that it calls for excessive punishment even when it serves no broader social purpose.¹⁵⁹ Finally, although most agree that desert turns on the gravity of the offense and the culpability of the offender, retributive theory lacks a satisfying normative account of how the state should schedule deserved punishment.¹⁶⁰ Viewing retributivism as a mixed bag, many theorists favor synthetic models combining consequentialist and retributivist features—usually combinations in which consequentialism animates the purpose of punishment generally and retributivism limits its application in individual cases.¹⁶¹ The variation in synthetic theory is substantial,¹⁶² and exploring it is largely (but not entirely) beyond the scope of this Article.

The role of synthetic theory differs somewhat depending on whether the pertinent inquiry involves “positive” or “negative” retributivism. There exists an important theoretical distinction between the retributivist ideas that desert creates a state *duty* to impose punishment (positive retributivism) and that it creates a state *right* to do so (negative retributivism). The positive retributivist believes that desert morally obligates state punishment, and the negative retributivist believes that desert permits it.¹⁶³ Under positive

159. See A.C. EWING, *THE MORALITY OF PUNISHMENT WITH SOME SUGGESTIONS FOR A GENERAL THEORY OF ETHICS* 18 (1929).

160. “Empirical desert” is a term generally associated with Professor Paul Robinson, and is an attempt to identify a community’s deserved-punishment schedule based on that community’s intuitions about wrongdoing and culpability. See generally PAUL H. ROBINSON & JOHN M. DARLEY, *JUSTICE, LIABILITY, AND BLAME: COMMUNITY VIEWS AND THE CRIMINAL LAW* (1995) (originating work on empirical desert). A true schedule of deontological desert may be unknowable, so Professor Robinson has argued that “empirical desert offers the best practical approximation of deontological desert.” See Paul H. Robinson, *The Ongoing Revolution in Punishment Theory: Doing Justice as Controlling Crime*, 42 ARIZ. ST. L.J. 1089, 1110 (2011).

161. Three canonical synthetic theories have been advanced by A.M. Quinton, John Rawls, and H.L.A. Hart. See, e.g., HART, *supra* note 145, at 4–5 (arguing that deterrence sets the floor of the punishment range and that retribution sets the ceiling); PRIMORATZ, *supra* note 60, at 113–14 (citing Quinton’s argument that consequentialism justifies punishment but that retributivism defines it); Rawls, *supra* note 145, at 7–12 (advocating that rule utilitarianism justifies punishing institutions, but that the institutions use retributivist rules).

162. For example, synthetic theories might differ on the underlying justification for using retributivism as the punishment distribution rule, or on what rule provides the lower punishment bound of a range. See Russell L. Christopher, *Time and Punishment*, 66 OHIO ST. L.J. 269, 308 (2005) (contrasting the justification for the lower punishment bound under different synthetic theories).

163. See MICHAEL T. CAHILL, *Punishment Pluralism*, in *RETRIBUTIVISM: ESSAYS ON THEORY AND POLICY* 25, 36 (Mark D. White ed., 2011) (discussing negative retributivism); Kenneth W. Simons, *Retributivism Refined—or Run Amok?*, 77 U. CHI. L. REV. 551, 556–57 (2010) (book review) (discussing arguments raised in LARRY ALEXANDER, KIMBERLY KESSLER

retributivism, desert sets not only the maximum bound for punishment, but also its minimum.¹⁶⁴

Capital-outcome concentration is maximally offensive to positive retributivism because positive retributivism corresponds with the most inflexible comparative-proportionality rules. The positive retributivist believes that punishment must be proportional to desert in any given case, and that the same scale of desert applies across offenders.¹⁶⁵ These two premises combine to produce the comparative-proportionality principle: that similar offense-culpability combinations should trigger similar punishment. Similarly culpable offenses trigger similar punishment because society grades punishment on a shared scale of desert.¹⁶⁶ It is precisely the positive retributivist's enhanced commitment to comparative proportionality that makes capital-outcome concentration so problematic. If two localities treat similar offenders differently, the asymmetry means either that the capially active locality is punishing in excess of desert or that the capially sluggish locality is ignoring it. Unless local variation in fact tracks desert or unless a synthetic theory permits different communities to punish different offense-culpability combinations differently—possibilities I explore in Part II.C.2—capital-outcome concentration blatantly violates the central comparative-proportionality norm of positive retributivism.

In part because positive retributivism represents an extraordinary resource commitment and because it requires punishment that promotes no social purpose, many prefer negative retributivism, in which desert dictates upper *limits* on punishment.¹⁶⁷ Negative

FERZAN, AND STEPHEN MORSE, *CRIME AND CULPABILITY: A THEORY OF CRIMINAL LAW* 7–9 (2009)).

164. See Donald A. Dripps, *Fundamental Retribution Error: Criminal Justice and the Social Psychology of Blame*, 56 VAND. L. REV. 1383, 1422–23 n.156 (2003) (reviewing positive retributivism and its proponents).

165. See *id.*

166. The notion that just application of rules should render an independent equality rule redundant has been the subject of debate in the equality literature. See, e.g., Peter Westen, *The Empty Idea of Equality*, 95 HARV. L. REV. 537, 551 (1982) (“It is true that rules should be applied equally, consistently, and impartially, if by ‘equally,’ ‘consistently,’ and ‘impartially’ one means the tautological proposition that the rule should be applied in all cases to which the terms of the rule dictate that it be applied.”).

167. See Adam J. Kolber, *Against Proportional Punishment*, 66 VAND. L. REV. 1141, 1173 (2013); Jeffrie G. Murphy, *Does Kant Have a Theory of Punishment?*, 87 COLUM. L. REV. 509, 523 (1987); cf. Lawrence Crocker, *The Upper Limit of Just Punishment*, 41 EMORY L.J. 1059, 1060–61 (1992) (developing a well-known negative retributivist position).

retributivism appears as a feature of synthetic theory,¹⁶⁸ and constrains punishment with rules about when the state *may* punish, rather than rules about when it *must*. Negative retributivist constraints might be justified differently depending on the type of synthetic theory,¹⁶⁹ but they all impose an upper bound on punishment that corresponds to desert.¹⁷⁰ Theories about which offenders the state ought to select for punishment—how the state imposes punishment within the negatively bounded range—may be resolved by reference to some other theory, perhaps utilitarianism.¹⁷¹ (The need to incorporate a non-retributive justification accounts for the label “synthetic.”) The strongest normative objection to capital-outcome concentration would show that it violates a negative retributivist constraint, and I orient the balance of Part II accordingly.

2. *Retributivism and Local Muscle Memory.* The question at the heart of Part II is whether capital-outcome concentration might be consistent with a morally legitimate source of local variation. For capital-outcome concentration to satisfy a retributive constraint, two conditions must obtain. First, normative theory must produce some morally acceptable reason for locally differentiated treatment of similar offense–offender combinations. Second, the empirical conditions producing the local variation must approximate those that the theory assumes.

There are at least three scenarios under which the geographic pattern in the capital-outcome data satisfies the first condition—a normatively acceptable source of local variation in the treatment of similar offense–offender combinations. First, the distribution of capital outcomes might track the distribution of desert because it reflects the distribution of culpable homicides (the “basic desert-correspondence” account). Second, it might track desert because local preferences can be constitutive of desert (“modified desert correspondence”). Third, the distribution might reflect the fact that different localities simply

168. See Christopher, *supra* note 162, at 292; Anthony M. Dillof, *Modal Retributivism: A Theory of Sanctions for Attempts and Other Criminal Wrongs*, 45 U. RICH. L. REV. 647, 672 (2011).

169. See PRIMORATZ, *supra* note 60, at 140–41 (comparing retributive-constraint justifications for theories by A.M. Quinton, A.C. Ewing, R.M. Hare, and H.L.A. Hart).

170. See Kolber, *supra* note 167, at 1147.

171. See, e.g., NORVAL MORRIS, MADNESS AND THE CRIMINAL LAW 167 (1982) (“In the fine-tuning of punishment between the upper and lower limits of retributively deserved punishment . . . utilitarian values should apply.”).

punish the same levels of desert differently (“noncorrespondence”).¹⁷² Each of these accounts, however, fails to satisfy the second condition insofar as they are excluded by the role of muscle memory. Whatever legitimate local variation one can squeeze out of retributive theory, the considerable influence of muscle memory means that the circumstances that might justify such variation are not plausible accounts of what is actually happening.

With respect to the basic desert-correspondence account and as explained in Part II.A.1, whatever drives the geographic distribution of death sentences and executions, it is not the distribution of sufficiently blameworthy homicides. The geographic distribution of capital outcomes may nonetheless be retributively unobjectionable under a modified desert-correspondence or a noncorrespondence account. Those two “local variation” accounts fare better than does basic desert-correspondence. I discuss the two local variation accounts together because each is potentially consistent with negative retributivism—if local practice unfolds in a way that permissibly translates retributive norms into punishment practice.

Local variation is not a phenomenon that retributivists embrace comfortably,¹⁷³ and its moral acceptability depends on the provenance of the retributive constraint. If retributivist constraints are essentially political principles derived from the relationship between the individual and the state, then those constraints should not be geographically differentiated.¹⁷⁴ If, on the other hand, retributive norms flow from the accumulated practice of private blaming—when one person blames another for harm or wrongdoing—then some local variation might be normatively acceptable.¹⁷⁵

Local variation accounts, however, are not entirely foreign to retributive theory. For example, local variation could fit neatly within theories that retribution has communicative and expressive functions that must vary with respect to the entities doing the communicating and expressing. Under this strain of retributivist theory, punishment is a “retributive moment” during which the state communicates

172. The noncorrespondence account still has a commitment to comparative proportionality, but that commitment is only *within* the local jurisdiction. But the persistence of the intrajurisdictional commitment is what distinguishes noncorrespondence from retributivist accounts that sever comparative-proportionality norms entirely.

173. See Kenneth W. Simons, *The Relevance of Community Values to Just Deserts: Criminal Law, Punishment Rationales, and Democracy*, 28 HOFSTRA L. REV. 635, 637 (2000).

174. See *id.* at 639.

175. See *id.*

condemnation to an offender and expresses it to the public.¹⁷⁶ If retribution has communicative and expressive functions that are rooted in the localities imposing the punishment, then perhaps retribution justifies geographic variation after all. Indeed, there are a number of retributivist subtheories that similarly provide for local variation in sentencing practice.¹⁷⁷

Under the modified desert–correspondence account, variation in the exchange rate between offense-offender combinations and desert sustains comparative proportionality across localities by keeping the ratio of punishment to desert largely constant. Local preference is constitutive of desert, and capitally active localities simply treat a given offense–offender combination as more deserving of punishment. The noncorrespondence account differs in that it does not necessitate a constant ratio of punishment to desert. Instead, local institutional practice need simply be consistent with some normative or democratic theory that justifies movement within the negatively bounded retributive limit on punishment. Equally deserving offenders may in fact be treated differently, under certain conditions.

Whether the role of local practice is to constitute desert (modified desert correspondence) or to legitimize differential treatment of equal desert across localities (noncorrespondence), determining whether it performs the hypothesized function requires scrutiny of the same institutions. Superficially, some of the institutions that I have discussed might seem well suited to these constituting and legitimizing functions. The problem is that the dominance of local muscle memory excludes the possibility that the institutions actually perform those functions. County-level punishment activity exhibits correlated decisionmaking and bureaucratic path dependence that frustrates the degree to which local institutions may effectively transmit a community’s punishment norms. Muscle memory is, in effect, the refutation of the local variation accounts.

There is an objection to my retributivist position that treats my muscle-memory hypothesis as largely irrelevant. The argument is that communities express their preferences about the relationship between desert and punishment the same way that they express preferences

176. See Markel & Flanders, *supra* note 155, at 910.

177. See Simons, *supra* note 173, at 640, 657–59. For example, alternative accounts become necessary when dealing with international tribunals that do not speak on behalf of a dominant community. See Andrew K. Woods, *Moral Judgments & International Crimes: The Disutility of Desert*, 52 VA. J. INT’L L. 633, 653 (2012).

about many matters resolved through state action: by casting votes and electing officials. On this view, local institutions undertake activity that *is* the expression of a community's preferences about the form and content of any retributive event. A community's retributive norms are, in effect, unknowable except insofar as they are expressed through official action.

To argue that local capital-outcome variation reflects different community preferences because any official act is necessarily a reflection of those same preferences, however, is to collapse penal and democratic theory.¹⁷⁸ A well-established retributivist tenet is that a punishment is not appropriate simply because the state has defined conduct as an offense.¹⁷⁹ Retributivists obviously need an analytic device to avoid legitimizing immoral laws, such as slavery. Retributivism presents *just* punishment as something distinct from *legal* punishment.¹⁸⁰ Similarly, local deviation may be justified by reference to community preference, but the measure of community preference is not reducible to the decisions that its elected officials or their appointees make.¹⁸¹ Whether a geographic distribution satisfies a retributivist constraint turns on how well the punishing institutions translate a community's retributive norms, not on whether the punishment practice is consistent with political theory.

If capital punishment practice is in large part local muscle memory, the only way that outcome concentration might evade a retributivist objection is to sever the retributivist commitment to comparative proportionality. Such severance, however, is semantic avoidance. Punishment within a negatively bounded sentencing range would still have to satisfy other features of a synthetic theory. Under such a theory, outcome concentration would likely run into a similar comparative-proportionality constraint—except one not traceable to retributivism so much as it is imposed pursuant to a freestanding equality norm.¹⁸² The norm need not flow perfectly from classic penal theory to be deeply embedded in the contemporary practice of American punishment.

178. See Simons, *supra* note 173, at 643, 665.

179. See *id.* at 643–46.

180. This distinction traces back to the most important figures in the retributivist tradition. For Kant, just punishment requires that punishment be both retributively and democratically sound. See Guyora Binder, *Punishment Theory: Moral or Political?*, 5 *BUFF. CRIM. L. REV.* 321, 350 (2002).

181. See Simons, *supra* note 173, at 643, 665.

182. See *supra* note 157, and accompanying text.

* * *

There are plenty of regional and national institutions that are involved in capital punishment,¹⁸³ but capital punishment is a substantially local phenomenon. Different localities practice the death penalty in very different ways, depending on the muscle memory of local bureaucracies and other stakeholders. The influence of such muscle memory on the sentencing pattern is normatively problematic because it signals that localities are violating the basic premise that equally blameworthy offenders should be treated in the same way.

III. DOCTRINAL IMPLICATIONS

Notwithstanding the sizable normative problems that it presents, the local concentration of capital outcomes activates no existing constitutional tripwire. The Supreme Court evaluates the constitutionality of the death penalty through various frameworks—either wholesale or retail (in individual cases)—that are largely insensitive to the geographic distribution of death sentences and executions. Not every normative problem has a remedy in positive law, so the failure to address concentration by way of federal constitutional rule is not in and of itself noteworthy.

What is unique about capital-outcome concentration, however, is that it goes to the core concern *animating* the Supreme Court's modern approach to the death penalty jurisprudence but to virtually none of the technical rules *implementing* it. The Court has constructed a baroque lattice of death penalty procedure to avoid undesirable patterns, but has reserved very little room under that procedure to consider data about the patterns themselves.

For local variation in punishment practice to have any influence on the judicial administration of the death penalty, the Supreme Court would have to reconsider the way it conceptualizes the meaning of “arbitrariness,” and its relationship to other values embedded in its

183. State appellate judges are usually elected in state-wide races, as are the governors who consider clemency petitions. See Patrick A. Langan, *Crime and Punishment in the United States, 1981–1999*, 33 CRIME & JUST. 123, 127 (2006). Federal judges who entertain habeas petitions are not elected at all, but are appointed by the President, with the Senate's advice and consent. See U.S. CONST. art. II, § 2, cl. 2. Sometimes the state's postconviction representative will report to the state attorney general, who is also elected in a state-wide race. See Note, *Appointing State Attorneys General: Evaluating the Unbundled State Executive*, 127 HARV. L. REV. 973, 989 (2014). At every stage of the process, federal law constrains outcomes, and the Supreme Court has appellate power over federal issues. See U.S. CONST. art. III, § 2.

jurisprudence. Even though Justice Breyer’s *Glossip* dissent invokes capital-outcome concentration in its discussion of the constitutionality of *any* death penalty,¹⁸⁴ county-level concentration metrics might ultimately be equally or better suited for quasi-retail analysis of individual state death penalty regimes. To the extent that the constitutional law of capital punishment reflects a fundamental acceptance of state-to-state variation, data showing national concentration may be less doctrinally significant than data disclosing concentration—and therefore arbitrariness—*within* a particular state jurisdiction.

In Part III, I explore the doctrinal implications of local concentration. I devote Part III.A to explaining why the current configuration of federal constitutional rules excludes consideration of concentrating punishment practice. In Part III.B, I consider the doctrinal modifications necessary to make constitutional law nontrivially sensitive to the phenomenon.

A. *Doctrinal Limitations*

Capital-outcome concentration describes a geographic pattern of death sentences and executions. Historically, pattern-based challenges to the death penalty have shown up in three places. First, there have been *wholesale* challenges to the death penalty’s constitutionality under Eighth Amendment “proportionality” jurisprudence applicable to all forms of punishment.¹⁸⁵ Second, there have been *retail* Eighth Amendment challenges to individual sentences based on whether the sentence is consistent with the way a state typically punishes similarly situated offenders.¹⁸⁶ Third, there have been retail equal protection challenges based on sentencing patterns that correlate with racial variables.¹⁸⁷ In each context, however, the existing doctrine is almost completely insensitive to local concentration.

1. *Eighth Amendment: Wholesale Consideration.* Theoretically, capital-outcome concentration could be a salient part of the wholesale question of whether the Eighth Amendment permits the death penalty at all. The Supreme Court conducts such macroscopic inquiry under its

184. See *Glossip v. Gross*, 135 S. Ct. 2726, 2755–56 (2015) (Breyer, J., dissenting).

185. See *infra* Part III.A.1.

186. See *infra* Part III.A.2.

187. See *infra* Part III.A.3.

Eighth Amendment “proportionality” jurisprudence.¹⁸⁸ Proportionality jurisprudence specifies categorical exclusions from punishments, based on characteristics of the offender or the offense. Indeed, Justice Breyer’s reference to county-level sentencing activity in *Glossip* indicates that at least he and Justice Ginsburg view such information as part of a proportionality analysis.¹⁸⁹

Proportionality jurisprudence traces most consistently to *Weems v. United States*,¹⁹⁰ a decision establishing the Cruel and Unusual Punishments Clause as a rule against excessive criminal penalties: “It is a precept of justice that punishment for crime should be graduated and proportioned to offense.”¹⁹¹ Proportionality cases were sparse between 1910, when the Court decided *Weems*,¹⁹² and 1962, when it incorporated the Eighth Amendment against the states.¹⁹³

An Eighth Amendment proportionality inquiry assesses a sentence in light of desert’s two familiar components: offense and offender. The most developed proportionality rules involve either a sentence of death or of life without possibility of parole (LWOP). So, for example, certain offenses may not be capitally punished, including rape¹⁹⁴ and felony murder with insufficient scienter.¹⁹⁵ Nor may certain categories of offenders receive the death penalty, including minors¹⁹⁶ and those who are either intellectually disabled¹⁹⁷ or insane.¹⁹⁸ Proportionality cases involving LWOP subdivide into similar categories, although the Court has ultimately declared very few

188. See generally John F. Stinneford, *Rethinking Proportionality Under the Cruel and Unusual Punishments Clause*, 97 VA. L. REV. 899 (2011) (arguing from original meaning that proportionality should be understood as a retributivist constraint).

189. See *Glossip*, 135 S. Ct. at 2761 (Breyer, J., dissenting).

190. *Weems v. United States*, 217 U.S. 349 (1910).

191. *Id.* at 367.

192. *Weems* involved a sentence by a territorial court in the Philippines. See *id.* at 360.

193. See *Robinson v. California*, 370 U.S. 660, 677 (1962).

194. *Coker v. Georgia*, 433 U.S. 584, 592 (1977). *Coker* formally announced a rule only for the rape of an adult woman. The Supreme Court barred the death penalty as punishment for the rape of a child in 2008. See *Kennedy v. Louisiana*, 554 U.S. 407, 421 (2008).

195. *Enmund v. Florida*, 458 U.S. 782, 801 (1982).

196. *Roper v. Simmons*, 543 U.S. 551, 578 (2005).

197. *Atkins v. Virginia*, 536 U.S. 304, 321 (2002). *Atkins* referred to these inmates as “mentally retarded,” but the preferred terminology is now “intellectually disabled.” *Hall v. Florida*, 134 S. Ct. 1986, 1990 (2014).

198. *Ford v. Wainwright*, 477 U.S. 399 (1986).

offenses off limits¹⁹⁹ and has strongly indicated an exemption for only one group of offenders: juveniles.²⁰⁰

Starting with *Trop v. Dulles*,²⁰¹ the Supreme Court has measured proportionality by reference to the “evolving standards of decency that mark the progress of a maturing society.”²⁰² The evolving-standards test entails a two-step inquiry. First, the Court considers “objective indicia” of penal consensus, as expressed through state legislation and jury sentencing.²⁰³ Second, the Court considers whether, in its own judgment, the punishment is acceptable.²⁰⁴ For lack of better terminology, the inquiry has objective and subjective prongs—whether each finding is necessary or sufficient to a proportionality violation is not altogether clear.²⁰⁵ What does seem clear is that, if the Court were to consider the wholesale constitutionality of the death penalty under the existing proportionality inquiry, neither prong leaves room to consider the distorted geographic distribution of death sentences and executions.

199. See, e.g., *Ewing v. California*, 538 U.S. 11, 30 (2003) (rejecting proportionality challenge to a three-strikes sentence of twenty-five years to life in prison for felony grand theft); *Harmelin v. Michigan*, 501 U.S. 957, 996 (1991) (rejecting proportionality challenge to mandatory LWOP sentence for possessing more than 650 grams of cocaine); *Solem v. Helm*, 463 U.S. 277, 279 (1983) (declaring unconstitutional an LWOP sentence for the defendant’s seventh nonviolent felony); *Rummel v. Estelle*, 445 U.S. 263, 265 (1980) (rejecting proportionality challenge to application of Texas three-strikes law in which the defendant received a life sentence with the possibility of parole after twelve years).

200. *Miller v. Alabama*, 132 S. Ct. 2455, 2460, 2475 (2012). As a formal matter, *Miller* only held that mandatory LWOP sentences violated its proportionality rules. See *id.* at 2460.

201. *Trop v. Dulles*, 356 U.S. 86 (1958).

202. *Id.* at 101 (plurality opinion); see also *Kennedy v. Louisiana*, 554 U.S. 407, 419 (2008) (quoting *Trop*, 356 U.S. at 101); *Roper v. Simmons*, 543 U.S. 551, 561 (2005) (same); *Atkins*, 536 U.S. at 312 (same); *Thompson v. Oklahoma*, 487 U.S. 815, 821 (1988) (same); *Ford*, 477 U.S. at 406 (same).

203. See, e.g., *Kennedy*, 554 U.S. at 422–34 (determining objective prong by reference to prevalence of and trends in state legislation, and by reference to the frequency of executions imposed for the crime); *Roper*, 543 U.S. at 567 (same); *Atkins*, 536 U.S. at 313–17 (same); *Enmund v. Florida*, 458 U.S. 782, 789–96 (1982) (analyzing state legislative commitment and jury sentencing decisions); *Coker v. Georgia*, 433 U.S. 584, 592–97 (1977) (plurality opinion) (looking to prevalence of state legislation and “sentencing decisions that juries have made”).

204. See, e.g., *Kennedy*, 554 U.S. at 421 (describing subjective inquiry as “the Court’s own understanding and interpretation”); *Roper*, 543 U.S. at 564 (“We then must determine, in the exercise of our own independent judgment, whether the death penalty is a disproportionate punishment for juveniles.”); *Atkins*, 536 U.S. at 321 (conducting “independent evaluation of the issue”); *Enmund*, 458 U.S. at 797 (“[I]t is for us ultimately to judge whether the Eighth Amendment permits imposition of the death penalty.”).

205. See Ian P. Farrell, *Abandoning Objective Indicia*, 122 YALE L.J. ONLINE 303, 306 (2013).

The objective portion of the existing proportionality inquiry does not capture capital-outcome concentration. The prevalence of state legislation, the trends in legislative activity, and state sentencing intensity are the major “objective indicia” of a punishment’s acceptability.²⁰⁶ Two of the three objective indicia are defined dichotomously by state legislative status, which inherently omits information about locally differentiated activity levels. When the Supreme Court considers the prevalence of death penalty legislation and constructs the trend line, it necessarily assigns a yes–no value to each state; counties do not enact sentencing statutes.

The jury-sentencing inquiry—the third of the “objective indicia”—has suppressed information about intrastate variation not out of necessity, but in practice. When the Supreme Court considers sentencing intensity under its proportionality jurisprudence, it excludes state-level sentencing distribution. Consider the two ways the Court usually formulates the changes it reports in a sentencing pattern:

- (1) In the last X years, the number of comparable sentences has fallen to Y ;²⁰⁷ and
- (2) In the last X years, the number of comparable sentences has fallen to Y across Z states.²⁰⁸

In formulation (1), there is no consideration of distribution whatsoever. In formulation (2), there is some nod to distribution, but not much. There is no indication of how evenly the Y sentences are distributed across the Z states,²⁰⁹ or how evenly the sentences are distributed within any particular state. Perhaps more importantly, any analysis limited to state capital-sentencing patterns ignores one half of

206. See *supra* note 203 (collecting cases deciding objective-standards inquiry by reference to state legislative status).

207. See, e.g., *Stanford v. Kentucky*, 492 U.S. 361, 373–74 (1989), *overruled by* *Roper v. Simmons*, 543 U.S. 551 (2005) (conducting jury-sentencing analysis by reference to nationwide data); *Thompson v. Oklahoma*, 487 U.S. 815, 832 (1988) (analyzing nationwide jury-sentencing data for offenders who committed a crime before they turned sixteen).

208. See, e.g., *Roper*, 543 U.S. at 564–65 (“Since *Stanford*, six States have executed prisoners for crimes committed as juveniles. In the past 10 years, only three have done so”); *Atkins*, 536 U.S. at 316 (identifying the states that have executed offenders with IQ scores below seventy).

209. *But see* *Graham v. Florida*, 560 U.S. 48, 63–64 (2010) (noting state-by-state distribution and Florida’s disproportionate share of LWOP sentences for non-homicide offenses); *Kennedy*, 554 U.S. at 434 (noting that Louisiana is the only state to have sentenced an offender to death for raping a child).

the penal equation: the executions.²¹⁰ Unless one believes that a state with an enormous sentencing concentration is identical to a state with intuitively dispersed capital outcomes, then aggregating sentencing activity at the state level suppresses what seems to be important information about contemporary acceptance of a particular penal practice.

At least theoretically, the Supreme Court could incorporate sentencing distribution as part of the inquiry under the proportionality inquiry's subjective prong, but it has never signaled any interest in doing so. Nor does the distribution of sentences resemble the sort of content the Court considers when it performs the subjective inquiry—which is instead more normative and less data-driven. Under the existing proportionality jurisprudence, capital-outcome concentration is likely to be irrelevant to the constitutional status of the death penalty writ large.

2. *Eighth Amendment: Retail Consideration.* If not *writ large*, then what about *writ small*? Although capital-outcome distribution is doctrinally insignificant under the Supreme Court's existing wholesale inquiry, perhaps the distribution matters at the retail level—when considering the constitutionality of the death penalty in individual cases. Indeed, some of the rhetoric from the opinions in the July 2 Cases—the five 1976 decisions establishing the modern constitutional parameters for capital punishment²¹¹—suggests that the pattern of death sentences might make such an Eighth Amendment difference.²¹²

States have to bifurcate capital trials into guilt and punishment phases.²¹³ Two doctrinal priorities dominate the post-1976 Eighth Amendment landscape: (1) the requirement that states meaningfully narrow the group of first-degree murderers to a smaller subcategory of death-eligible offenders, and (2) the requirement that punishment-phase juries be given the opportunity to hear and give effect to

210. *But see Kennedy*, 554 U.S. at 433 (noting in passing the absence of executions for rapes); *Atkins*, 536 U.S. at 316 (noting that the “practice [of executing intellectually disabled offenders] is uncommon”).

211. For examples of relevant cases, see sources cited *supra* note 20.

212. *See, e.g., Gregg v. Georgia*, 428 U.S. 153, 195 n.46 (1976) (plurality opinion) (“A system could have standards so vague that they would fail adequately to channel the sentencing decision patterns of juries with the result that a pattern of arbitrary and capricious sentencing like that found unconstitutional in *Furman* could occur.”).

213. *See Lenhard v. Wolff*, 444 U.S. 807, 813 (1979).

mitigating circumstances that might call for a life sentence.²¹⁴ For ease of discussion, I refer to these as the “narrowing” and “individualization” requirements.²¹⁵ Narrowing and individualization neatly correspond to the components of desert: offense and offender. Narrowing ensures that the offense is sufficiently grave, and individualization ensures that the offender is sufficiently culpable.

Narrowing cannot give doctrinal form to concerns about capital-outcome concentration. The narrowing inquiry focuses on whether state limits on death eligibility are sufficiently *substantial* and sufficiently *clear*.²¹⁶ The outcome of a narrowing inquiry is generally insensitive to the distribution of punishment within a jurisdiction. For this reason, I focus more on the Supreme Court’s individualization jurisprudence, because it has more potential as a doctrinal vehicle for considering capital-outcome concentration.

In *Woodson v. North Carolina*²¹⁷ and *Roberts v. Louisiana*²¹⁸—two of the July 2 Cases—the Supreme Court rejected mandatory capital sentencing.²¹⁹ In subsequent decisions, it has held that states must permit a sentencer to give full consideration and effect to any mitigating evidence.²²⁰ The rules about admitting and processing mitigating evidence constitute the individualization requirement’s familiar form under the Rehnquist and Roberts Courts.

The individualized-sentencing requirement, however, looked like it might assume a more robust, pattern-oriented form after the July 2

214. See *Kansas v. Marsh*, 548 U.S. 163, 173–74 (2006).

215. Many prominent scholars use the “narrowing/individualization” nomenclature. See, e.g., Sam Kamin & Justin Marceau, *Waking the Furman Giant*, 48 U.C. DAVIS L. REV. 981, 1005 (2015); James S. Liebman, *Slow Dancing with Death: The Supreme Court and Capital Punishment, 1963–2006*, 107 COLUM. L. REV. 1, 5 (2007).

216. See, e.g., *Maynard v. Cartwright*, 486 U.S. 356, 361–62 (1988) (“Claims of vagueness directed at aggravating circumstances . . . characteristically assert that the challenged provision . . . leaves [juries] and appellate courts with the kind of open-ended discretion which was held invalid in [*Furman*].”); *Zant v. Stephens*, 462 U.S. 862, 877 (1983) (“To avoid this constitutional flaw, an aggravating circumstance must genuinely narrow the class of persons eligible for the death penalty and must reasonably justify the imposition of a more severe sentence on the defendant compared to others found guilty of murder.”).

217. *Woodson v. North Carolina*, 428 U.S. 280 (1976).

218. *Roberts v. Louisiana*, 428 U.S. 325 (1976).

219. See *id.* at 332–34; *Woodson*, 428 U.S. at 288–301 (plurality opinion).

220. See *Abdul-Kabir v. Quarterman*, 550 U.S. 233, 262–64 (2007). Until *Abdul-Kabir*, the Court had not been entirely clear as to whether the jury needed to be able to hear *anything* mitigating and to give *full* mitigating effect to all of the evidence. See *Penry v. Johnson*, 532 U.S. 782, 797 (2001); *Graham v. Collins*, 506 U.S. 461, 476 (1993); *Penry v. Lynaugh*, 492 U.S. 302, 328 (1989), *abrogated in part on other grounds by Atkins v. Virginia*, 536 U.S. 304 (2002); *Franklin v. Lynaugh*, 487 U.S. 164, 183 (1988).

Cases. In *Gregg v. Georgia*²²¹—the lead July 2 decision—the Supreme Court sustained a nonmandatory capital-sentencing statute that, among other things, required the Georgia Supreme Court to review every capital sentence for consistency with “similar cases,”²²² to determine whether the penalty was “excessive or disproportionate.”²²³ In other words, in ending the capital punishment moratorium, the Court seemed to anticipate that states would routinely review each capital sentence to ensure that similarly culpable offenses were being treated the same way.²²⁴ Such a retail inquiry is known as “comparative proportionality” doctrine, not to be confused with either the plain-old “proportionality” doctrine that governs the wholesale inquiry or with the concept of “comparative proportionality” from retributivist literature on desert.

For a period of time after the July 2 Cases, the Court flirted with the comparative-proportionality doctrine.²²⁵ That inquiry focuses on familiar concepts from the retributivism literature: the gravity of the offense and culpability of the offender.²²⁶ In the language of desert, then, comparative proportionality seeks to ensure that equally deserving offenses are requited with equal punishment. To the extent that the major normative harm of capital-outcome concentration is that it violates the normative principle of comparative proportionality, the doctrinal concept of that same name might capture those harms quite well. Punishment of the undeserving would be flagged everywhere, including in capitably active localities.

Even if the Supreme Court announced full-throated support of the comparative-proportionality rules, however, there would still be several reasons why it flounders as a doctrinal vehicle for considering capital-outcome concentration. The first involves the distortion associated with the procedural posture in which pattern-based challenges are presented. A pattern-based question is necessarily litigated in cases where a death verdict is obtained. The court can reverse the death verdict, but it cannot impose death in other cases

221. *Gregg v. Georgia*, 428 U.S. 153 (1976).

222. *See id.* at 161, 167, 198, 204–06 (plurality opinion).

223. *Id.* at 167.

224. States initially complied with that expectation. *See* Leigh B. Bienen, *The Proportionality Review of Capital Cases by State High Courts After Gregg: Only “The Appearance of Justice”?*, 87 J. CRIM. L. & CRIMINOLOGY 130, 154 (1996).

225. *See* Liebman, *supra* note 215, at 56–57.

226. *See supra* Part II.C.

where there is a life sentence,²²⁷ where the defendant is acquitted of capital murder, where there is no capital charge, or where the offender is not apprehended. A court cannot guarantee that a deserving offender in a capitably active county is actually treated the same way as equally deserving offenders in capitably inactive ones—unless a state supreme court is prepared to “level down” punishments by invalidating every death sentence.²²⁸ Comparative-proportionality inquiry is actually an ineffective vehicle for correcting under-punishment.

Second, because an idealized comparative proportionality approach would hold desert constant and compare outcomes, meaningful application requires an extraordinary universe of information. The comparison requires the court to know not just the offense and offender characteristics for cases triggering death sentences, but those inputs for all crimes generating comparable desert. The most judicially accessible information about desert is necessarily in prosecuted cases that reach advanced stages of litigation—that is, those where a death sentence is actually imposed. There is therefore a pronounced preservation bias in favor of information about offenses that actually trigger the death penalty, and against offenses that do not. Such preservation bias will systematically overemphasize the correspondence between desert and capital sentences because it suppresses the availability of information about offending that is not punished capitally.

The third problem is a product of the first two. In practice and as explained above, a comparative-proportionality inquiry simply requires that a capital sentence be in the ballpark. The inquiry tends toward a comparison of offenders actually selected for a capital sentence rather than a comparison of all equally culpable offenders. To the extent that retail proportionality review does a better job of comparing the desert of criminals subject to the same punishment than it does comparing the punishment of criminals having the same desert,

227. I am making a general point, although it is worth noting that some states permit a trial court to override a jury's life sentence in a capital case. *See supra* text accompanying note 102.

228. The concept of needing to level down subsequent penalties to achieve equality with prior instances of under-punishment is a particularized version of a leveling-down problem flagged in literature on equality. *See, e.g.*, Kenneth W. Simons, *The Logic of Egalitarian Norms*, 80 B.U. L. REV. 693, 696 (2000) (“Second, sometimes equality seems to demand ‘leveling down,’ to no one’s benefit. If the resources of two groups or classes are to be equalized, then apparently we satisfy equality if we take resources away from the more fortunate group, even if this does not benefit the less fortunate.”).

there is certainly no mechanism to account for the additional layer of geographic variation in the latter.

Fourth, comparative-proportionality inquiry is incapable of capturing capital-outcome concentration because it involves only half of a capital-outcome pattern: the death sentence. Even though the geographic distribution of *executions* poses substantial problems for a retributively constrained death penalty, irregular patterns are not picked up by the comparative-proportionality inquiry, which involves death sentences and is performed by a court in the direct-review chain. By definition, that review happens before a state officer signs a death warrant, and it is therefore incapable of facilitating an apples-to-apples comparison involving the distribution of executions.

Those four problems, however, are secondary to a much more immediate one: the Supreme Court has eliminated any ongoing commitment to serious comparative-proportionality inquiry. The Court has never been interested in conducting comparative-proportionality inquiry itself,²²⁹ but it did briefly entertain the idea that it would require state appellate courts to perform that function. As mentioned above, *Gregg* was the lead July 2 Case, and it placed considerable emphasis on the fact that the Georgia appellate process would be facilitating comparative-proportionality review.²³⁰ In other words, one of the reasons the Court seemed to suggest for ending the moratorium on the death penalty was that it anticipated states would be reviewing each capital sentence to ensure that similar offenders were being treated the same way.

The Supreme Court, however, has extinguished the idea that the Constitution might require even that watered-down version of comparative-proportionality review. In *Pulley v. Harris*,²³¹ the Court conceded the emphasis on comparative-proportionality review in the July 2 Cases, but held that the emphasis did not mean that states had to provide for it.²³² Having excluded comparative proportionality from the core of the July 2 regime, the Court effectively eliminated perhaps the most obvious mechanism for considering the effect of local

229. See Liebman, *supra* note 215, at 103.

230. See *supra* notes 221–24 and accompanying text.

231. *Pulley v. Harris*, 465 U.S. 37 (1984).

232. See *id.* at 44–45.

sentencing variation. After *Pulley*, most states abandoned comparative-proportionality review entirely.²³³

Having allowed the comparative-proportionality experiment to run its course, the Supreme Court settled on a very process-oriented mechanism for retail inquiry; courts must simply ensure that juries hear and be capable of acting on mitigating evidence.²³⁴ The result is that, like wholesale inquiry, retail Eighth Amendment determinations are insensitive to capital-outcome concentration. If the Eighth Amendment is to be a vehicle for pattern-based challenges to the death penalty, then the Court will have to fundamentally transform either its wholesale or retail jurisprudence.

3. *Equal Protection.* The Equal Protection Clause of the Fourteenth Amendment is theoretically capable of supporting a pattern-based challenge to capital punishment. To the extent that the capital-outcome intensity of different jurisdictions—and therefore the overall distribution—correlates with racial variables, then a rule rooted in the Equal Protection Clause could capture some of the normative concerns that the distribution presents. As it did with comparative-proportionality doctrine, however, the Supreme Court has shut down any pattern-based attempt to prove an equal protection violation in a particular case.²³⁵

The Equal Protection Clause protects persons from differentiated treatment,²³⁶ and the scrutiny is based on the differentiating attribute. If the attribute relates to race or national origin, for example, the action must withstand strict scrutiny.²³⁷ If it relates to sex, it must withstand intermediate scrutiny.²³⁸ If it relates to a “non-suspect” classification, then it must simply withstand rational basis review.²³⁹ The Supreme Court has recognized equal protection challenges to death sentences. A capital sentence, for example, violates *Batson v. Kentucky*²⁴⁰ if the prosecution uses race to determine peremptory strikes on jurors.²⁴¹

233. See Timothy V. Kaufman-Osborn, *Capital Punishment, Proportionality Review, and Claims of Fairness (with Lessons from Washington State)*, 79 WASH. L. REV. 775, 791–92 (2004).

234. See *supra* note 220.

235. See *infra* notes 242–51 and accompanying text.

236. See U.S. CONST. amend. XIV, § 1.

237. See *Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 720 (2007).

238. See *United States v. Virginia*, 518 U.S. 515, 533 (1996).

239. See *Heller v. Doe*, 509 U.S. 312, 319–20 (1993).

240. *Batson v. Kentucky*, 476 U.S. 79 (1986).

241. See *id.* at 82, 100.

In *McCleskey v. Kemp*,²⁴² however, the Supreme Court categorically foreclosed the use of pattern-based evidence to prove an equal protection violation.²⁴³ In *McCleskey*, a Georgia inmate presented a sprawling study of the connection between race and capital sentencing in that state. McCleskey was a young black man from Fulton County, Georgia who had killed a white police officer during a robbery. McCleskey offered the “Baldus Study”—named after Professor David Baldus, the study’s lead author—as evidence of the equal protection violation.²⁴⁴ The Baldus Study used then-cutting-edge regression analysis to establish that killing white victims was 4.3 times as likely to result in a death sentence as was killing black victims, and that black defendants were capitally punished 1.1 times as frequently as white ones.²⁴⁵

Justice Powell was the swing vote in *McCleskey*, and became convinced, as the litigation progressed, both that the Baldus Study was methodologically sound and that he did not want to go down the slippery slope of permitting statistical evidence alone to sustain litigation under the Equal Protection Clause.²⁴⁶ The result of Justice Powell’s conclusions was the controlling opinion in *McCleskey*, in which he conceded the statistical correlations presented in the Baldus Study, but argued that they were insufficient to prove a constitutional violation because “[a]pparent disparities in sentencing are an inevitable part of our criminal justice system.”²⁴⁷

McCleskey is more than a touch controversial, with its detractors lumping it with anticanon decisions like *Korematsu v. United States*,²⁴⁸ *Plessy v. Ferguson*,²⁴⁹ and *Dred Scott v. Sandford*.²⁵⁰ There is a

242. *McCleskey v. Kemp*, 481 U.S. 279 (1987).

243. *See id.* at 291–99.

244. *See id.* at 286–87.

245. *See id.* at 287.

246. *See id.* at 314–19.

247. *Id.* at 312. This portion of *McCleskey* was actually discussing an Eighth Amendment violation.

248. *Korematsu v. United States*, 323 U.S. 214 (1944); *see also* Randall L. Kennedy, *McCleskey v. Kemp: Race, Capital Punishment, and the Supreme Court*, 101 HARV. L. REV. 1388, 1389 (1988) (comparing *McCleskey* with *Korematsu*).

249. *Plessy v. Ferguson*, 163 U.S. 537 (1896); *see also* Kennedy, *supra* note 248, at 1389 (comparing *McCleskey* with *Plessy*).

250. *Dred Scott v. Sandford*, 60 U.S. (19 How.) 393 (1857), *superseded by constitutional amendment*, U.S. CONST. amend. XIV; *see also* Paul Butler, *By Any Means Necessary: Using Violence and Subversion to Change Unjust Law*, 50 UCLA L. REV. 721, 733 (2003) (comparing *McCleskey* with *Dred Scott*).

mountainous literature attacking what many perceived as the casual acceptance of differentiated racial impact.²⁵¹ Without wading into that literature's thicket, suffice it to say that *McCleskey* eliminated the possibility that pattern-based evidence could be used to show an equal protection violation.

The insufficiency of pattern-based evidence short-circuits the use of the Equal Protection Clause to litigate the consequences of capital-outcome concentration in two ways. First, to the extent that local variation in capital practice correlates with race—and there are considerable data that it does—*McCleskey* eliminates a means for attacking that variation indirectly. Second, *McCleskey* also signals the impossibility of a direct attack on a classification based on geographic variables. Race is a protected status; geography is not. If a court will not permit pattern-based evidence to sustain a racial classification subject to strict scrutiny, then pattern-based evidence is useless as a means of challenging a geographic classification subject to rational basis review.

B. Arbitrariness and Doctrinal Modification

There is a touch of irony in the existing doctrinal status of capital-outcome distribution. Impermissible patterns are the source of concern inspiring equal protection doctrine generally and modern Eighth Amendment restrictions on capital punishment specifically. Although pattern-oriented injustice might be an animating legal purpose, it is not part of the existing doctrinal math in death penalty cases. If the Supreme Court were to refine its death penalty jurisprudence in light of capital-outcome concentration, then what might it change? The answer, I submit, has to do with the way the Court defines “arbitrariness” and how it specifies that concept’s relationship to other Eighth Amendment values. A definitional revision might substantially

251. See, e.g., Anthony G. Amsterdam, *Race and the Death Penalty Before and After McCleskey*, 39 COLUM. HUM. RTS. L. REV. 34, 46–47 (2007); David C. Baldus, George Woodworth & Charles A. Pulaski, Jr., *Reflections on the “Inevitability” of Racial Discrimination in Capital Sentencing and the “Impossibility” of Its Prevention, Detection, and Correction*, 51 WASH. & LEE L. REV. 359, 364–76 (1994); Stephen L. Carter, *When Victims Happen to Be Black*, 97 YALE L.J. 420, 443 (1988); Sheri Lynn Johnson, *Unconscious Racism and the Criminal Law*, 73 CORNELL L. REV. 1016, 1016–17 (1988).

affect quasi-retail inquiry into the constitutionality of death penalty practice *within a particular state*.²⁵²

1. *Defining Arbitrariness.* American death penalty decisions are replete with references to the evils of “arbitrariness.”²⁵³ *Furman*, the July 2 Cases, and decades of subsequent Supreme Court opinions have generally defined a nonarbitrary pattern as one in which there is some correlation between desert and capital events.²⁵⁴ That correlation negates arbitrariness, without respect to the influence of other variables. Equating arbitrariness only with randomness is restrictive in that such a definition excludes patterns that are too sensitive to normatively irrelevant attributes of the offense, offender, or proceedings. In other words, an arbitrary capital pattern might actually arise in two ways: (1) when a sentencing pattern is insufficiently sensitive to a variable that should differentiate outcomes (“randomness”), or (2) when it is too sensitive to a variable that should not (“irrelevant sensitivity”).²⁵⁵ The Court operates with a definition of arbitrariness that embraces the first attribute, but not the second; a refined arbitrariness rule would nudge the definition from the core to the frontier.

252. For example, in *McCleskey*, the Supreme Court noted that the statistical proof offered as evidence of discrimination “would extend to all capital cases in Georgia, at least where the victim was white and the defendant is black.” *McCleskey*, 481 U.S. at 293.

253. See, e.g., *Sawyer v. Whitley*, 505 U.S. 333, 341 (1992) (“[O]ur Eighth Amendment jurisprudence . . . protect[s] against arbitrary and capricious impositions of the death sentence.”); *Godfrey v. Georgia*, 446 U.S. 420, 428 (1980) (“[I]f a State wishes to authorize capital punishment it [must try to avoid] the arbitrary and capricious infliction of the death penalty.”); *Gregg v. Georgia*, 428 U.S. 153, 189 (1976) (plurality opinion) (“[D]iscretion must be suitably directed and limited so as to minimize the risk of wholly arbitrary and capricious action.”); *Furman v. Georgia*, 408 U.S. 238, 242 (1972) (Douglas, J., concurring) (“There is evidence that the provision of the English Bill of Rights of 1689 [was aimed] to forbid arbitrary and discriminatory penalties of a severe nature”); *id.* at 305 (Brennan, J., concurring) (“Rather than kill an arbitrary handful of criminals each year, the States will confine them in prison.”).

254. See, e.g., *McCleskey*, 481 U.S. at 308 (“Because *McCleskey*’s sentence was imposed under Georgia sentencing procedures that focus [on offense and offender attributes], we lawfully may presume that *McCleskey*’s death sentence was not wantonly and freakishly imposed” (citations omitted)); *Furman*, 408 U.S. at 294 (Brennan, J., concurring) (“When the rate of infliction is at this low level, it is highly implausible that only the worst criminals or the criminals who commit the worst crimes are selected for this punishment.”).

255. This view of arbitrariness is consistent with the way some theorists have defined “equality.” See, e.g., Christopher J. Peters, *Equality Revisited*, 110 HARV. L. REV. 1210, 1229 (1997) (“By this definition, unjust treatment always occurs when a person is not treated in accordance with the net effect of all the relevant criteria—for instance, when an irrelevant criterion is used to determine that person’s treatment.”).

When courts say that capital-sentencing patterns are “arbitrary” in the restrictive sense, they mean that the condemned are selected randomly from a qualified group. This type of arbitrariness was, for example, what troubled Justice White in his extraordinarily influential *Furman* concurrence—the idea that states capitally sentenced and executed death-qualified offenders too *infrequently*.²⁵⁶ The idea of arbitrariness as infrequency is the reason why sentencing patterns punctuated with only occasional executions were so often described as “freakish.”²⁵⁷ Laboring under a randomness-only definition, the Supreme Court has birthed a jurisprudence occupied with devices necessary to ensure that, *ceteris paribus*, more deserving offenders are more likely to be capitally sentenced and executed.²⁵⁸

As explained above, the frontier definition of arbitrariness also covers irrelevant sensitivity. Irrelevant sensitivity describes a sentencing pattern that is not arbitrary in the sense that it is random or otherwise unpredictable. Instead, the pattern is influenced by variables that should be inconsequential insofar as they are unrelated to desert or some other legitimate sentencing objective.²⁵⁹ For example, if a sentencing pattern is a function of a defendant’s race or national origin and if arbitrary means random, then describing the pattern as “arbitrary” is misleading. There is nothing random about the pattern—offenders selected for capital sentences and executions are simply selected on the basis of an irrelevant variable.

For both wholesale and retail inquiries under the Eighth Amendment, the law’s ability to capture the normative issues embedded in capital-outcome concentration turns on the willingness of the Court to travel from the definitional core to the frontier. The concern that locality impermissibly influences the punishment pattern is fundamentally an objection rooted in irrelevant sensitivity.²⁶⁰

256. See *Furman*, 408 U.S. at 313 (White, J., concurring). See generally Liebman, *supra* note 215, at 10 (describing modern death penalty doctrine as vacillating between the views of Justices Stewart and White).

257. See, e.g., *Lewis v. Jeffers*, 497 U.S. 764, 774 (1990) (“Our capital punishment doctrine is rooted in the principle that “[t]he Eighth and Fourteenth Amendments cannot tolerate the infliction of a sentence of death under legal systems that permit this unique penalty to be . . . wantonly and . . . freakishly imposed.” (citations omitted) (alterations in original)). An infrequently imposed punishment is not *necessarily* arbitrary, but the pattern of executions in the United States is not entirely explained by selectivity. See PATERNOSTER, *supra* note 125, at 169–75 (explaining that infrequency of death sentencing is not due to selectivity).

258. See *supra* Part III.A.2.

259. See PATERNOSTER, *supra* note 125, at 175–82.

260. See *id.* at 175.

2. *Arbitrariness in Wholesale Inquiry.* As of now, there is little room for data about capital-outcome concentration in wholesale inquiry. The evolving-standards-of-decency approach to Eighth Amendment questions centers on objective indicia of penal acceptance, but those indicia are merely indicators of infrequency—not of distribution. When the Supreme Court looks at the objective indicia, it separates the universe into retention states and abolition states,²⁶¹ it counts the number in each category,²⁶² and it sometimes notes the direction of change.²⁶³ So as not to elevate form over function, it may consider how frequently the pertinent sentence is actually imposed, and occasionally it will mention how many states are responsible for those sentences.²⁶⁴ That information does not capture the degree to which punishment is concentrated in particular localities *within* states. The overarching question is whether the omitted information should be constitutionally significant—that is, whether different punishment concentration actually corresponds to different Eighth Amendment “standards of decency.”

There are two reasons why it might. First, assuming that “consensus” is the concept that the data approximate, there is probably less consensus around an equally frequent punishment that is concentrated in fewer localities. In the most extreme conceivable distribution, where all sentencing activity is concentrated in a single locality (“perfect concentration”), it seems fair to say that punishment enjoys less consensus than if it were more evenly distributed across localities. Assuming that a consensus value falls as it approaches perfect concentration, the doctrinal significance of the metrics developed in Part I becomes clearer. To the extent that those metrics show that the distribution of capital punishment is moving toward the extreme end of the concentration spectrum, wholesale inquiry reporting state-wide data overstates consensus.

261. See, e.g., *Roper v. Simmons*, 543 U.S. 551, 564 (2005) (engaging in classification); *Atkins v. Virginia*, 536 U.S. 304, 314–15 (2002) (same); *Enmund v. Florida*, 458 U.S. 782, 790–91 (1982) (same). See generally Robert J. Smith, Bidish J. Sarma & Sophie Cull, *The Way the Court Gauges Consensus (and How to Do It Better)*, 35 *CARDOZO L. REV.* 2397, 2407–09 (2014) (discussing categorization and counting of retentionist and abolitionist states).

262. For examples of cases following categorization with counting, see *supra* note 261.

263. See, e.g., *Atkins*, 536 U.S. at 315 (“It is not so much the number of these States that is significant, but the consistency of the direction of change.”); see also Smith et al., *supra* note 261, at 2410–11 (discussing “the Direction of Legislative Change”).

264. See *supra* notes 207–09 and accompanying text. See generally Smith et al., *supra* note 261, at 2411–14 (discussing number of sentences imposed and executions).

Second, one might relax the assumption that the data are supposed to be measuring national consensus at all, because such consensus may be only one facet of a standards-of-decency inquiry. Objective indicia measure frequency—but why? On the one hand, frequency might matter because it strongly indicates consensus.²⁶⁵ On the other hand, low frequency also corresponds to another punishment attribute: arbitrariness.²⁶⁶ Put differently, the Supreme Court looks to objective indicia of sentence frequency because low frequency suggests that, when the sentence is imposed, it is still being imposed arbitrarily. If infrequency is merely a proxy for arbitrariness, then it is perfectly reasonable to consider other evidence of the underlying phenomenon—such as the local concentration of capital punishment.

Moreover, if the Supreme Court were unwilling to consider punishment concentration as an objective index of evolving decency, there remains room for concentration values in the subjective part of the doctrinal calculus. The Court, however, has been wary of having the subjective prong do any independent work, instead resolving it in whatever way reinforces the objective inquiry.²⁶⁷ Increasing the bite of the subjective prong has consequences for the Court's credibility and legitimacy,²⁶⁸ and it would likely feel compelled to articulate a persuasive rationale limiting that bite to the death penalty context.

Taking a step back, however, capital-outcome concentration metrics have nontrivial appeal as a means of breaking a logjam in wholesale Eighth Amendment jurisprudence. All sorts of public-choice phenomena account for the legislative status of capital punishment,²⁶⁹ and sentencing data grouped by state obscure substantial information about how the punishment is practiced within each statewide political unit.²⁷⁰ If the Supreme Court's preference is for objective information that speaks to a normatively significant phenomenon, then there is no reason why that universe of data need indicate only the frequency and state-level distribution of punishment. The Court might care about the local concentration of capital outcomes either because such information actually measures consensus or because it goes to the conceptually distinct question of arbitrariness.

265. See Smith et al., *supra* note 261, at 2411–14.

266. See *supra* notes 256–57 and accompanying text.

267. See Farrell, *supra* note 205, at 306.

268. See Timothy Zick, *Constitutional Empiricism: Quasi-Neutral Principles and Constitutional Truths*, 82 N.C. L. REV. 115, 170 (2003).

269. See Smith et al., *supra* note 261, at 2419–23.

270. See *id.* at 2432.

3. *Arbitrariness in Retail Inquiry.* The restrictive definition of arbitrariness also limits retail Eighth Amendment inquiry. Trial procedures are subject to challenge only to the extent that they tend to produce arbitrary sentencing patterns,²⁷¹ and a sentencing pattern is currently designated as arbitrary only if desert does not correlate with death sentences.²⁷² As with arbitrariness and wholesale inquiry, moving to the definitional frontier would make doctrinal room for capital-outcome concentration. Local concentration would be particularly valuable information for a quasi-retail inquiry into the constitutionality of a state's capital punishment system.

For anyone critical of how retail Eighth Amendment jurisprudence defines arbitrariness, there is a familiar culprit: *McCleskey*.²⁷³ Although most focus on *McCleskey's* equal protection holding, it also walled the definition of Eighth Amendment arbitrariness inside the frontier. In much the same way that it rejected a correlation between outcomes and race as insufficient to prove an equal protection violation, *McCleskey* also considered that correlation insufficient to show Eighth Amendment arbitrariness.²⁷⁴ The Court explained that an arbitrary pattern was something other than one where similarly situated defendants were treated differently: "Absent a showing that the Georgia capital punishment system operates in an arbitrary and capricious manner, *McCleskey* cannot prove a constitutional violation by demonstrating that other defendants who may be similarly situated did *not* receive the death penalty."²⁷⁵ The Court then held that, as long as capital sentences had some correlation with desert, a pattern could not be arbitrary: "Because . . . sentencing procedures . . . focus discretion 'on the particularized nature of the crime and the particularized characteristics of the individual defendant,' we lawfully may presume that *McCleskey's* death sentence was not 'wantonly and freakishly imposed' . . . under the Eighth Amendment."²⁷⁶

McCleskey, however, is equal parts impediment and opportunity. Because the opinion took as a premise that the discretion yielding the sentencing pattern was *uncorrelated*, it leaves the Eighth Amendment

271. See *supra* notes 231–34 and accompanying text.

272. See *supra* Part III.B.1.

273. *McCleskey v. Kemp*, 481 U.S. 279 (1987).

274. See *id.* at 306–13.

275. *Id.* at 306–07.

276. *Id.* at 308 (citations omitted) (quoting *Gregg v. Georgia*, 428 U.S. 153, at 206–07 (1976)).

door to the definitional frontier cracked. A pattern of jury decisions was not, *McCleskey* explained, state “policy”; instead, it was the combined effect of “the decisions of hundreds of juries that are unique in their composition.”²⁷⁷ For similar reasons, *McCleskey* rejected a pattern-based argument rooted in prosecutorial discretion: “Since decisions whether to prosecute and what to charge necessarily are individualized . . . , coordination *among* district attorney offices across a State would be relatively meaningless. Thus, any inference from statewide statistics to a prosecutorial ‘policy’ is of doubtful relevance.”²⁷⁸

Capital-process concentration undermines this assumption in at least two respects. First, the data suggest that decisions by prosecutors *within* an office and by local juries *are not* “individualized”; they actually correlate with the same underlying phenomena, and with each other.²⁷⁹ Second, the data do not show the arbitrariness of *statewide policy*, but the arbitrariness that results from localities having very difficult muscle memory.²⁸⁰ *McCleskey*, therefore, may not entirely foreclose the use of pattern-based evidence to show irrelevant sensitivity.

One reason why a retail solution might be appealing to the Supreme Court is that the slope between capital and noncapital doctrine is not all that slippery. The retail rule against arbitrary sentencing is a rule against arbitrary *capital* sentencing extracted from *Furman* and the July 2 Cases. Because the rule derives from the death penalty-specific features of Eighth Amendment doctrine, there is less risk that adjusting the definition of arbitrariness under these rules would necessitate a similar adjustment for noncapital cases.²⁸¹

Of course, there are some challenges if the Supreme Court wants to operate on the definitional frontier. Recognizing irrelevant-sensitivity challenges would require some threshold of nontriviality; otherwise, the nonarbitrariness rule would simply end capital punishment. Setting the threshold higher would permit the states that

277. *Id.* at 295 n.15.

278. *Id.* at 295–96, 295 n.15. (emphasis added).

279. *See supra* Part II.C.2.

280. The *McCleskey* Court was stating its assumptions under its equal protection analysis, even though those assumptions were logically applicable to its Eighth Amendment analysis. *See McCleskey*, 481 U.S. at 295 n.15.

281. The Supreme Court has begun to venture gingerly into noncapital territory with its juvenile LWOP cases. *See, e.g., Miller v. Alabama*, 132 S. Ct. 2455, 2460 (2012) (imposing individualization requirement for LWOP sentences).

have sufficient geographic dispersion to continue to impose death sentences and execute offenders without disruption. In those states where capital outcomes are extraordinarily concentrated, by contrast, defendants from capitally active localities would have a stronger claim that their capital sentence was “arbitrary and freakish.”

Moreover, the inquiry that would naturally result from irrelevant-sensitivity challenges is best described as quasi-retail. If the problematic variable is location, there is a strong chance that desert correlates heavily with capital sentences in some localities and not others. In fact, there will almost certainly be localities where deserving offenders are simply not capitally punished. Recognition of an arbitrary pattern, then, will necessarily affect a broad category of cases. The result for many localities may be a leveling down of capital outcomes so as to conform the state jurisdiction to the desert parameters of the less active counties. In some state jurisdictions, however, the only logical result might be to discontinue capital sentencing and executions entirely. The unavailability of such quasi-wholesale effects might be one reason why the Supreme Court disfavored an irrelevant-sensitivity rule to begin with.²⁸²

* * *

Broadening the definition of arbitrariness to include irrelevant sensitivity is a doctrinal move that would obviously invite line-drawing problems about how much influence is too much, as well as war-of-expert-style debates about the soundness of statistical technique. At the same time, the broader definition fits common intuitions about how death sentencing ought to work. Expected punishment should not be substantially affected because someone is tall, or fat, or rich, or black, or blonde, or gay, or wealthy—or residing in the wrong county. Expanding the definition of arbitrariness to include the impermissible influence of irrelevant variables is the key doctrinal move in creating space for capital-outcome concentration data in Eighth Amendment inquiry.

CONCLUSION

The data on capital outcomes disclose substantial concentration—local pockets of sustained capital activity dotting a much larger map of

282. See *supra* note 252 and accompanying text.

abstention—both nationally and within capitably active states. There is no benign cause for the concentration of capital outcomes in Harris County, Caddo Parish, Los Angeles, or Oklahoma City. The best way to explain concentration is by reference to the tendency of certain discretionary decisions to correlate with one another.

In light of such correlated and path-dependent decisionmaking, capital-outcome concentration reflects severe violations of the basic punishment norm that similarly blameworthy offenders be treated equally. Whether that normative problem ultimately represents something constitutionally significant may turn on the Supreme Court's post-*Glossip* appetite for reworking its Eighth Amendment definition of arbitrariness.