



Systemic Facts: Toward Institutional Awareness in Criminal Courts

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ARTICLE

SYSTEMIC FACTS: TOWARD INSTITUTIONAL AWARENESS IN CRIMINAL COURTS

Andrew Manuel Crespo

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SYSTEMIC FACTS: TOWARD INSTITUTIONAL AWARENESS IN CRIMINAL COURTS

*Andrew Manuel Crespo**

Criminal courts are often required, in the course of implementing existing doctrines of constitutional criminal law, to regulate other institutional actors within the criminal justice system — most notably, prosecutors and police officers. The one-off nature of constitutional criminal adjudication, however, often impedes such regulation, in part by denying courts an opportunity to “see” the systemic features of law enforcement behavior. This mismatch between criminal courts’ institutional task and their institutional capacity has inspired efforts to identify other means of addressing systemic failings of American criminal justice — including calls for a pivot to law enforcement self-regulation as a primary means of constraining state power in the criminal justice arena. The true capacity of criminal courts, however, has thus far been significantly underappreciated. For at an institutional level, criminal courts are not only deeply and serially engaged with the very governmental entities that constitutional criminal law seeks to regulate, but are also constantly collecting — often in a digital format readily amenable to organization, search, and analysis — valuable and detailed systemic facts about how other criminal justice actors operate. This information extends far beyond the truncated transactional horizon of a given case, and thus could allow courts to access a deep internal well of institutional knowledge about their local criminal justice systems. Uncovering the hidden potential of this latent institutional knowledge raises important questions about the opportunities for — and the responsibilities of — criminal courts to collect systemic facts, to analyze them, to make them transparent to litigants and to the public, and to integrate them into the process of constitutional criminal adjudication.

INTRODUCTION

A troubling tension has come to define constitutional criminal law, that large and ever-growing body of jurisprudence that serves as the principal mechanism for regulating American law enforcement.¹ Substantively grounded in judicial precedent and enforced through the

* Assistant Professor of Law, Harvard Law School. I am indebted and deeply grateful to Rachel Barkow, Christopher Bavitz, Todd Edelman, Barry Friedman, John Goldberg, Jonathan Gould, Michael Klarman, John Manning, Maria Ponomarenko, Eve Primus, Daphna Renan, Abby Shafroth, David Sklansky, Christopher Slobogin, Carol Steiker, and participants in the Federal Judicial Center’s Law and Society Program for insightful and helpful comments on earlier drafts, and to Benjamin Levin for early, continuing, and illuminating engagement with this project, as reflected in many conversations as well as in his response to this Article, Benjamin Levin, *Values and Assumptions in Criminal Adjudication*, 129 HARV. L. REV. F. 378 (2016). A biography describing prior and outside activities that may be relevant to this Article is available at: <https://hls.harvard.edu/faculty/directory/11435/Crespo> [<http://perma.cc/2MNL-P53C>].

¹ In this Article, the phrase “constitutional criminal law” serves as a rough synonym for what is often termed “criminal procedure,” an imprecise phrase for a jurisprudence that functions as “a species of substantive criminal law” for law enforcement and other criminal justice actors. Carol S. Steiker, *Counter-Revolution in Constitutional Criminal Procedure? Two Audiences, Two Answers*, 94 MICH. L. REV. 2466, 2470 (1996) (describing the constitutional “‘conduct’ rules” that determine the “legitimacy” of law enforcement practices and behavior).

adjudicative process, this regulatory regime is fundamentally court-centric: it requires criminal courts to serve as the systemic regulators of first — and, in practice, often last — resort when it comes to channeling or constraining law enforcement authority and behavior. The process through which courts undertake that responsibility, however, is hardly designed to facilitate systemic judicial review.² On the contrary, case-by-case adjudication naturally focuses judicial attention on the case-specific details of individual claims, presented by individual litigants, one case at a time. The very process of constitutional criminal adjudication, in other words, inculcates in criminal courts a transactional myopia that frustrates their capacity to recognize, understand, and engage the broader institutional dynamics of the criminal justice system — and thus to implement the “deterrent remedies” that constitutional criminal law expressly requires courts to utilize as tools for shaping and altering state action at the systemic level.³

This Article is hardly the first to recognize this core tension. Indeed, an emerging scholarly view has come to see criminal courts’ transactional myopia not only as a serious impediment to meaningfully systemic judicial review, but also as an essentially intractable feature of the criminal courts that renders them *incapable* of appreciating the broader institutional activities of the law enforcement entities they are called upon to regulate and oversee.⁴ This diagnosis, in turn, has prompted calls to move away from criminal courts and toward a markedly different regulatory regime, a regime in which constitutionally grounded judicial review is largely replaced by an administrative framework built around law enforcement self-regulation. Rather than judging the lawfulness of law enforcement actions directly, courts in this new regime would instead judge the processes by which law enforcement actors judge themselves, ensuring that those processes adhere to basic norms of transparency and democratic accountability, but otherwise deferring to law enforcement actors when it comes to the substantive validity of the decisions, policies, and actions that those actors pursue.

This Article joins in the growing body of scholarship examining the vexing challenges presented by criminal courts’ transactional myopia, a real and important institutional problem that arises from the narrow

² As used in this Article, the phrase “systemic regulation” refers to efforts to constrain, guide, oversee, or alter the behavior of criminal justice actors at the institutional rather than the individual level. “Systemic judicial review” refers to efforts to perform systemic regulation through the adjudicative process, including through the serial deployment of deterrent remedies such as suppression or dismissal, as discussed *infra* section I.A, pp. 2054–56.

³ See *infra* section I.A, pp. 2054–56; see also Daniel J. Meltzer, *Deterring Constitutional Violations by Law Enforcement Officials: Plaintiffs and Defendants as Private Attorneys General*, 88 COLUM. L. REV. 247, 249 (1988) (discussing “deterrent remedies”).

⁴ See *infra* sections I.B–C, 2057–65.

manner in which constitutional criminal adjudication is currently practiced. Contrary to the emerging scholarly view, however, I do not see the current state of affairs as inevitable or intractable. Criminal courts do not lack the capacity for broader institutional awareness of the criminal justice systems over which they preside. Rather, they have simply failed to realize a latent capacity for such awareness that already exists. If that capacity were to be actualized, it could facilitate a regime in which criminal courts actively and meaningfully participate in systemic criminal justice regulation — a regime preferable to one in which they are relegated to the sidelines.

The key question is how criminal courts might actually go about attaining such greater institutional awareness. That is the question this Article explores. And in an effort to answer it, the Article identifies a potentially powerful catalyst of criminal courts' institutional awareness, lying within what I call the courts' own *systemic facts*.

As a conceptual device, systemic facts occupy a space beyond the familiar and canonical concepts of adjudicative facts and legislative facts first introduced by Professor Kenneth Culp Davis over half a century ago.⁵ Unlike adjudicative facts, systemic facts are not case specific; they concern phenomena broader than the who, what, when, where, or why of a specific factual incident. But unlike legislative facts, systemic facts do not relate to social phenomena detached or removed from the judiciary itself. Rather, systemic facts look inward: they are facts about the criminal justice system itself, and about the institutional behavior of its key actors. Because criminal courts and their judges are themselves key institutional actors within that system, and because they are constantly and serially engaged with the other institutional actors composing the system, they often have both privileged access to and an imbued sense of familiarity with this special body of information. Indeed, systemic facts frequently reside within the considerable amounts of information *already within criminal courts' custody and control*.

Scholars to date have failed to appreciate just how much of this information exists — or how valuable it can be. This oversight is in large part a function of the academic tendency to discount the role of trial courts in studies of judicial administration, adjudication, and institutional design.⁶ That oversight, however, obscures an important

⁵ See Kenneth Culp Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364, 402 (1942) [hereinafter Davis, *Administrative Process*]; *infra* Part II, pp. 2065–69.

⁶ See, e.g., Sheri Lynn Johnson, Batson *Ethics for Prosecutors and Trial Court Judges*, 73 CHI.-KENT L. REV. 475, 477 (1998) (“As has been observed many times, academics tend to focus on appellate courts and cases, perhaps because appellate opinions are so much more accessible

reality: the institutions responsible for resolving constitutional claims in the first instance — criminal trial courts — have over the past decade and a half become great warehouses of criminal justice data, information that reveals impressive details about the performance of the criminal justice system on matters centrally relevant to constitutional criminal adjudication. These internal facts exist, moreover, in a digital format that can be readily aggregated, organized, searched, and analyzed.

If criminal courts continue to allow this specialized institutional knowledge to lie dormant, they will merit the critique that they have failed to live up to their institutional responsibility as proponents of systemic criminal justice. If, however, criminal courts are able to acquire, collect, and organize their systemic facts; to report them to litigants, other vested institutional actors, and the public; to enlist expert assistance where necessary to access and understand them; and to proactively encourage the integration of such understanding into the judicial process, then criminal courts could well gain the capacity to participate, at a systemic level, in budding efforts to reform the failed criminal justice state over which they now preside.

Identifying such a pathway toward criminal courts' enhanced institutional capacity is this Article's primary aim. The project is self-consciously a first step: improving criminal courts' capacity for institutional awareness will not alone transform them into fully competent systemic actors. Other important issues — including the scope and effectiveness of criminal court remedies, as well as questions about the substantive contours of underlying doctrinal frameworks — will necessarily remain open.⁷ Engaging criminal courts' basic capacity for institutional awareness, however, is a necessary first step. For an institution cannot hope to promote systemic justice within a system that it fundamentally fails to comprehend.

The discussion that follows proceeds in four Parts: Part I explores the central tension between the regulatory role that contemporary constitutional criminal law assigns to criminal courts and the inadequately transactional mode of adjudication through which criminal courts undertake that task. It then partially critiques emerging proposals to turn away from courts and toward law enforcement self-regulation as the primary solution to this problem. Part II conceptually introduces systemic facts as catalysts of criminal courts' institutional awareness. Part III is the Article's core. Through a series of detailed examples grounded in a case study of the criminal courts in the nation's capital,

than the doings of trial courts, and perhaps because, increasingly, tenure-track academics have little or no personal experience in the trial courts.”)

⁷ See *infra* note 62.

it demonstrates just how valuable systemic facts can be when it comes to improving constitutional criminal adjudication as a tool of systemic criminal justice regulation. Finally, Part IV steps back to examine the limitations, obstacles, and potential objections to systemic factfinding's emergence as a new mode of constitutional criminal adjudication — making clear what systemic facts can and cannot do, highlighting practical challenges to systemic factfinding in criminal courts, and ultimately arguing that a transition to a regime in which systemic factfinding plays a greater role is both achievable and desirable.

I. SYSTEMIC CRIMINAL JUSTICE, TRANSACTIONAL CRIMINAL COURTS

How can criminal courts better fulfill their jurisprudentially assigned role as systemic regulators of law enforcement behavior? This Part frames that central question, which animates the broader project. The Part begins by examining the troublesome disjunction between the regulatory mandate assigned to criminal courts by constitutional criminal law and the transactional process through which courts adjudicate constitutional claims.⁸ It then introduces — and partially critiques — an emerging scholarly response to this institutional mismatch: the proposed turn away from courts and toward administrative self-regulation as a primary constraint on law enforcement authority.

A. *The Regulatory Jurisprudence of Constitutional Criminal Law*

Constitutional criminal law, scholars often observe, has long been marked by “a distinction between two basic perspectives.”⁹ The first of these perspectives is primarily rights based, envisioning the protection of individual “interests of personhood, property, and privacy”

⁸ In this Article, “constitutional criminal adjudication” refers to the process by which criminal courts resolve questions of constitutional criminal law, as that latter phrase is defined above. *See supra* note 1. As for “criminal courts,” this phrase refers to courts that adjudicate criminal prosecutions. In many judicial systems, a trial judge will preside over an undifferentiated docket spanning the court’s subject matter jurisdiction. In other systems, however, adjudication is topically subdivided, with criminal cases assigned either to specially designated courts or, within courts, to judges assigned exclusively to criminal dockets. *See, e.g., District of Columbia Superior Court Judges*, D.C. COURTS, <http://www.dccourts.gov/internet/superior/judges/main.jsf> (last updated Feb. 1, 2016) [<http://perma.cc/5JLZ-J3K6>]. A criminal court judge thus may, but also often may not, entertain noncriminal cases as well. In either event, however, it is primarily through its criminal docket that a court will most frequently engage with the broader criminal justice system. *See generally* Nancy Leong, *Making Rights*, 92 B.U. L. REV. 405, 421–29 (2012) (mapping fora in which constitutional criminal law is most frequently litigated). Finally, as further discussion will elaborate, references to a “criminal court” are to the court as an institution, and thus generally encompass both the judges who adjudicate cases and the administrative personnel who assist the court in carrying out its judicial function. *See infra* text accompanying notes 79–81.

⁹ Donald Dripps, *Living with Leon*, 95 YALE L.J. 906, 922 (1986); *see also* Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 367–72 (1974).

against governmental transgressions as constitutional criminal law's central function.¹⁰ The second perspective, by contrast, presents a more instrumental view, in which the relevant constitutional doctrines function as "components of a regulatory system" designed to constrain law enforcement authority writ large.¹¹ On the former account, criminal courts are fora for adjudicating individual claims and for redressing "the harm suffered by the litigant" when a violation of rights occurs.¹² On the latter account, they are primarily institutions responsible for promoting systemic justice and for regulating state power at an institutional level.¹³

While the Supreme Court's early cases evince some support for the rights-based account,¹⁴ the Court's strong tendency over the past forty years has been to emphasize the regulatory model. Nowhere is this more apparent than in the Court's discussion of the central implementing device of constitutional criminal law — the exclusionary rule — which the Court described decades ago not as a means of vindicating "a personal constitutional right of the party aggrieved" but rather as a regulatory device "designed to safeguard" constitutional values systemically, "through its deterrent effect" on future law enforcement misconduct.¹⁵ More recently, the Court has described this deterrent effect as the "sole purpose" of the exclusionary rule,¹⁶ underscoring a regulatory conception of constitutional criminal law that undergirds constitutional remedies beyond just the suppression of evidence.¹⁷ Indeed, in view of

¹⁰ Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 785 (1994).

¹¹ Amsterdam, *supra* note 9, at 372; *see also* Meltzer, *supra* note 3, at 287, 249 (arguing "that regulation of government officials is one of the important tasks of constitutional criminal procedure" and that courts accomplish such regulation through "remedies that extend beyond redressing or protecting a right of the litigant himself, in order more generally to prevent government misconduct in the future").

¹² Meltzer, *supra* note 3, at 249.

¹³ The role of courts under the regulatory model is similar to their role when engaging in what Professor Abram Chayes earlier called "public law adjudication." *See* Abram Chayes, *The Supreme Court, 1981 Term — Foreword: Public Law Litigation and the Burger Court*, 96 HARV. L. REV. 4, 59 (1982); *see also* Owen M. Fiss, *The Supreme Court, 1978 Term — Foreword: The Forms of Justice*, 93 HARV. L. REV. 1, 2 (1979) (describing a "type of adjudication, distinguished by the constitutional character of the public values" at stake and, "even more importantly, by the fact that it involves an encounter between the judiciary and the state bureaucracies," in which the "judge tries to give meaning to our constitutional values in the operation of these organizations").

¹⁴ *See, e.g.*, *Mapp v. Ohio*, 367 U.S. 643, 656 (1961) (describing Fourth Amendment remedies as "an essential part of the right to privacy" and as necessary to secure both an "important constitutional privilege" and the "enforcement of [a] basic constitutional right"); *see also* Meltzer, *supra* note 3, at 250.

¹⁵ *United States v. Calandra*, 414 U.S. 338, 347 (1974).

¹⁶ *Davis v. United States*, 131 S. Ct. 2419, 2426 (2011).

¹⁷ Most constitutional criminal adjudication occurs in criminal proceedings, where suppression motions are the dominant litigation device. *See* Leong, *supra* note 8, at 422; *see also* Barry Friedman & Maria Ponomarenko, *Democratic Policing*, 90 N.Y.U. L. REV. 1827, 1832 (2015) (explaining that courts govern police "mostly in the context of suppression motions"); *cf.* RONALD

the Court's many pronouncements in this vein, contemporary scholars often observe that the Supreme Court has largely abandoned the individual-rights framework of constitutional criminal adjudication in favor of the more instrumental, regulatory approach.¹⁸

Without intending to detract from or undermine the rights-based account, or to suggest that the two models are mutually exclusive, this Article takes at face value the Supreme Court's assertion that deterrent regulation is constitutional criminal law's "sole purpose."¹⁹ It thus proceeds from a backdrop understanding of criminal courts as systemic actors, called upon to implement existing doctrinal frameworks in a manner designed to regulate law enforcement behavior at an institutional level. Framed as such, the discussion that follows is concerned not so much with the substantive content of various doctrinal rules that the Supreme Court has adopted over the years.²⁰ Rather, the focus here is on criminal courts' institutional structure, design, and capacity: Are criminal courts — tasked by contemporary constitutional criminal law with an unmistakably regulatory mandate — capable of living up to that responsibility?

JAY ALLEN ET AL., CRIMINAL PROCEDURE 340 (2d ed. 2011) (estimating 175,000 suppression motions are filed per year, in contrast to, "at most, a few thousand" civil lawsuits). Deterrent remedies, however, can and do take other forms as well. See *infra* section III.B, pp. 2086–2101 (discussing deterrent remedies, such as dismissal of charges or vacatur of convictions, that underlie doctrines governing prosecutorial behavior, including *Brady v. Maryland*, 373 U.S. 83 (1963), and *Batson v. Kentucky*, 476 U.S. 79 (1986)); see also Meltzer, *supra* note 3, at 250 (examining deterrent remedies beyond the exclusionary rule).

¹⁸ See, e.g., David Gray, Meagan Cooper & David McAloon, *The Supreme Court's Contemporary Silver Platter Doctrine*, 91 TEX. L. REV. 7, 9 (2012); Meltzer, *supra* note 3, at 250 ("Though some view exclusion as a personal right of the defendant . . . recent Supreme Court decisions have clearly rejected this position, indicating instead that exclusion's sole purpose is to deter unconstitutional police practices that might otherwise take place.").

¹⁹ *Davis*, 131 S. Ct. at 2426.

²⁰ The Supreme Court's shift to a regulatory conceptualization of constitutional criminal law coincides with what is often termed the conservative "counter-revolution" to earlier Warren Court precedents. See Meltzer, *supra* note 3, at 272–73. See generally Steiker, *supra* note 1. Perhaps as a result, the contrasting (though not necessarily inconsistent or incompatible) rights-based account tends to be promoted by ideological liberals. See Dripps, *supra* note 9, at 922; Christopher Slobogin, *Why Liberals Should Chuck the Exclusionary Rule*, 1999 U. ILL. L. REV. 363, 365; see also *Calandra*, 414 U.S. at 355–57 (Brennan, J., dissenting); cf. Meltzer, *supra* note 3, at 272–73 (observing that "many commentators reject the deterrent theory" because they doubt it "is anything more than a weapon of retrenchment"); *id.* at 273 ("[I]t is all too easy — indeed, it now verges on the formulaic — for the Court to assert that the marginal deterrence obtained by application of the [exclusionary] rule in a particular setting is minimal, and is outweighed by the costs of exclusion."). A regulatory view of constitutional criminal law, however, "does not inevitably generate restrictive views of the scope" of the underlying substantive rules governing law enforcement behavior. *Id.* On the contrary, regulatory reasoning has been leveraged at times to yield rules of decision more protective of civil liberties than the rights-based account might otherwise provide. See *id.*; cf. Amsterdam, *supra* note 9, at 367–72 (arguing for the regulatory account from an ideologically liberal perspective).

B. *The Challenge of Transactional Myopia*

One emergent scholarly response to that question takes a decidedly negative view of criminal courts' basic institutional capacity, describing constitutionally grounded judicial review as a "completely inadequate" means of regulating law enforcement behavior carried out programmatically at a systemic level, as so much law enforcement behavior today is.²¹ The germ of this critique lies in the wholly fair observation that while constitutional criminal *law* may frame criminal courts' responsibilities in broad systemic terms, constitutional criminal *adjudication*, at least as it is currently practiced, is largely transactional in nature, focusing "on the one-off interaction typified by the singular" search, seizure, or prosecution of "a particular suspect for a specific crime."²² As Professor Daphna Renan explains, transactional adjudication hinders criminal courts largely because it denies them the basic "tools to put" the "pieces together, to see a whole greater than the sum of its parts" when "overlapping and interconnected" law enforcement practices operate "in combination" to create systemic risks to constitutionally protected interests.²³ Lacking a holistic picture of how the criminal justice system operates, criminal courts ultimately end up deferring to law enforcement activity — not out of some normative sense that deference to executive action is appropriate, but rather because the courts lack the basic institutional capacity to comprehend the institutional subjects of constitutional criminal law's intended regulation.

Given this criticism, scholars writing in this emerging literature often seek to identify alternative institutional structures that might better provide the systemic oversight of law enforcement that criminal courts, hindered by their transactional myopia, have thus far failed to deliver. Among the various candidates to provide that alternative regulation, one common nominee attracts increasing scholarly attention:

²¹ Friedman & Ponomarenko, *supra* note 17, at 1865 (acknowledging that the current system "largely leaves the regulation of policing to the courts" but contending that constitutional judicial review is "completely inadequate for this task"); *see also infra* text accompanying notes 92–94 (discussing programmatic policing); *cf.* David Alan Sklansky, *Two More Ways Not to Think About Privacy and the Fourth Amendment*, 82 U. CHI. L. REV. 223, 223–24 (2015) (describing the idea that "protections . . . against government infringements on privacy . . . are best developed outside the courts and outside constitutional law" as an "increasingly common" idea among scholars, while also arguing against that emerging view).

²² Daphna Renan, *The Fourth Amendment as Administrative Governance*, 68 STAN. L. REV. (forthcoming 2016) (manuscript at 1) (on file with the Harvard Law School Library) (arguing that vindication of "Fourth Amendment values today requires more than what the conventional transactional approach has to offer").

²³ *Id.* (manuscript at 16, 68); *see also* Tracey L. Meares, *Programming Errors: Understanding the Constitutionality of Stop-and-Frisk as a Program, Not an Incident*, 82 U. CHI. L. REV. 159, 164 (2015) (arguing that "individual-level analysis" is simply "unsuitable for assessing the nature of violations" that emerge from a law enforcement regime "carried out systematically").

administrative agencies — including, most especially, the same “agencies of executive government” that constitute law enforcement itself.²⁴

The driving rationale of this proposal, to quote Professor Christopher Slobogin, is the contention that “law enforcement agencies possess expertise about the various ways the criminal law” can and should “be enforced,” including expertise about how crime is committed, targeted, and prevented, that courts simply “do not have.”²⁵ Agencies possessing such knowledge, “including the police themselves,”²⁶ are viewed within this line of scholarship as “much better positioned to make decisions about . . . the relative efficacy of enforcement methods than other institutions,” like courts.²⁷ So long as law enforcement agencies arrive at their policy decisions “through transparent democratic processes such as legislative authorization and public rulemaking,”²⁸ two core ingredients of legitimate administration, these scholars contend that an agency-driven approach to regulating the criminal justice system offers a viable means of “filling the regulatory void” left behind by criminal courts’ perceived inability to regulate policing directly.²⁹

As the foregoing should make clear, this proposed alternative regime entails a fundamentally “New Role for Courts.”³⁰ Specifically, to quote Professors Barry Friedman and Maria Ponomarenko, two scholars leading this burgeoning movement, the shift to agency-centric administration would “eliminate the need for courts to uphold or strike down policing decisions on the merits,” and thus largely relieve courts of the responsibility “to rule ‘aye’ or ‘nay’ on the constitutionality of policing practices.”³¹ Instead, the model would shift courts from serving as sources of substantive judicial oversight into a role familiar in the administrative law context: courts would oversee the *procedural* validity of law enforcement behavior by determining whether the decisionmaking and conduct of such actors comply with basic standards of transparency and democratic accountability.³² So long as those procedural requirements are satisfied, however, courts would re-

²⁴ Friedman & Ponomarenko, *supra* note 17, at 1843.

²⁵ Christopher Slobogin, *Policing as Administration*, 165 U. PA. L. REV. (forthcoming) (manuscript at 20) (on file with the Harvard Law School Library).

²⁶ Friedman & Ponomarenko, *supra* note 17, at 1891.

²⁷ Slobogin, *supra* note 25 (manuscript at 20).

²⁸ Friedman & Ponomarenko, *supra* note 17, at 1832; *see also* Slobogin, *supra* note 25 (manuscript at 20) (“[A]s in other administrative contexts, exercise of [law enforcement] expertise should be mediated through administrative law.”).

²⁹ Friedman & Ponomarenko, *supra* note 17, at 1891.

³⁰ *Id.*

³¹ *Id.* at 1892, 1836.

³² *Id.* at 1891; *see also* Renan, *supra* note 22 (manuscript at 33) (“Rather than designing every legal rule in the first instance, courts can supervise surveillance program design and implementation by agencies.”).

treat from passing judgment on the merits of law enforcement activity that adheres to the substantive policies that the law enforcement agencies have authored to govern their own behavior.³³ Judicial deference to law enforcement activity, in other words, would become “structured,” “channeled,” and intentional,³⁴ as opposed to being a de facto byproduct of courts’ functional incapacity to regulate systemically. “Courts need not judge the police” under this model; they need judge only the processes by which the police and other law enforcement actors judge themselves.³⁵

C. *A Partial Critique of the New Administrativist Turn*

The contemporary scholars advocating this pivot toward agency-centric regulation of law enforcement authority are admirably rejuvenating and expanding upon an earlier academic effort,³⁶ leveraging valuable insights from administrative law in the hopes of righting a criminal justice system accurately perceived as having gone “seriously awry.”³⁷ It is surely a project with great promise: given the transfor-

³³ Under Friedman and Ponomarenko’s proposal, “democratically authorized rules” would “still [be] subject to constitutional review” in some reduced fashion in the courts. Friedman & Ponomarenko, *supra* note 17, at 1901. The authors are not specific, however, as to the nature or extent of this diminished form of review, beyond stressing that it would be substantially more deferential than the status quo when it comes to reviewing the substance of law enforcement behavior. *See id.* (“It would be a major advance if courts would *only* refuse to accord deference to policing rules that lack a democratic pedigree.”) (emphasis added); *id.* at 1891 (arguing that “instead of saying ‘aye’ or ‘nay’ to specific policing tactics, courts could simply prod governmental actors — including the police themselves — to adopt their own rules regulating policing in a democratically accountable way”).

³⁴ *Id.* at 1892.

³⁵ *Id.* at 1891; *see also* Renan, *supra* note 22 (manuscript at 40) (arguing that judicial review should occupy a diminished role, moving to “the boundaries” and “the margins” of many criminal justice questions, where the need to rely on “such judicially-imposed boundaries” is “likely to [be] relatively infrequent”). Renan’s primary focus, it should be noted, is on national security, mass surveillance, and similar law enforcement programs carried out at the federal level. My focus, by contrast, is primarily on state and local policing in domestic (typically urban) settings. Suffice to say, the parameters of the underlying sociological and policy concerns implicated by these two substantially different settings are significant, such that the optimal balance between “a court-centric or an administration-centric model” of regulation could easily be different as well. *Id.* at (manuscript at 9 n.28).

³⁶ *See* Friedman & Ponomarenko, *supra* note 17, at 1833 & n.28 (“This drum has been beat, periodically, for at least the last fifty years. . . . [W]e stand on the shoulders of giants” (citing KENNETH CULP DAVIS, *POLICE DISCRETION* 98–120 (1975); Amsterdam, *supra* note 9, at 416–28; Carl McGowan, *Rule-Making and the Police*, 70 MICH. L. REV. 659, 676–86 (1972))). Notably, not all of these intellectual forebears would so dramatically downsize the role of the courts. *See, e.g.*, Amsterdam, *supra* note 9, at 429 (“Judicial review both of the substance of the rules [governing police conduct] and of police compliance with them in particular cases remains essential.”).

³⁷ Friedman & Ponomarenko, *supra* note 17, at 1829. In referring in this section to a “new administrativist turn,” I aim to engage primarily with recent work by Friedman and Ponomarenko, *supra* note 17, and, to a lesser extent, with recent work by Renan, *supra* note 22, and forthcoming work by Slobogin, *supra* note 25. I note, however, that these authors write with-

mation of American government accomplished by the administrative revolution of the last century, efforts in this century to promote a similarly successful revolution in the administration of American law enforcement seem undeniably worthwhile.

And yet, there is a risk of going too far. For while agencies surely have comparative institutional advantages over courts, so too courts have comparative institutional advantages of their own — particularly in the criminal justice arena, where judicial engagement is unavoidable and where the executive power of the state is exercised in its most concentrated form, often against a sociopolitical backdrop rife with longstanding structural inequalities. The question, as always, is one of tradeoffs: In a potential transition from one institutional paradigm to another, what will be gained — and what will be lost?

It is in this respect that there is reason to worry that some recent proposals have moved perhaps too quickly to reduce — or indeed, in the strongest version of the argument, to “eliminate” — “the need for courts to uphold or strike down” potentially illegitimate governmental actions in the criminal justice arena “on the merits” through direct judicial review,³⁸ as criminal courts have done for the past half century and more. Before one enthusiastically embraces so sweeping a reform agenda, it seems important at least to examine closely what might be lost in the bathwater of institutional redesign.³⁹ In particular, at least

in a broad and diverse vein of scholarship that has mined many valuable insights over the past decade from the intersection of criminal and administrative law. See, e.g., Rachel E. Barkow, *Institutional Design and the Policing of Prosecutors: Lessons from Administrative Law*, 61 STAN. L. REV. 869, 871, 921 (2009); Dan M. Kahan, *Is Chevron Relevant to Federal Criminal Law?*, 110 HARV. L. REV. 469 (1996); Gerard E. Lynch, *Our Administrative System of Criminal Justice*, 66 FORDHAM L. REV. 2117 (1998); John Rappaport, *Second-Order Regulation of Law Enforcement*, 103 CALIF. L. REV. 205 (2015); Daniel Richman, *Prosecutors and Their Agents, Agents and Their Prosecutors*, 103 COLUM. L. REV. 749, 752 (2003). This Article aims to complement that broader academic project by joining in its effort to identify ways in which extant criminal justice institutions — including criminal courts — can better regulate the process of criminal justice administration.

³⁸ Friedman & Ponomarenko, *supra* note 17, at 1892. Individual scholars within the broader New Administrativist project push toward agency-centric control to varying degrees and train their sights on different systemic problems within the broader field of criminal justice administration. See *supra* note 35 (discussing Renan’s focus on national security and surveillance); see also Slobogin, *supra* note 25 (focusing on suspicionless searches). I associate the “strong form” of the New Administrativist program with Friedman and Ponomarenko, the scholars who have provided the most comprehensive and committed articulation of the argument and who do so primarily in the same setting of domestic, urban law enforcement that motivates this Article.

³⁹ In raising a cautionary flag in this regard, I join David Alan Sklansky, *supra* note 21, at 224, 227 (“[I]t is a healthy correction to draw attention to the ways that legislatures and regulatory agencies guard against invasions of privacy. But the correction can go too far. . . . Legislatures have advantages over courts, but it works the other way too.”), and, from an earlier era, Daniel Meltzer, *supra* note 3, at 287 (exploring “why judges — rather than legislators or administrators — should have a role in deterring official misconduct” in the criminal justice system). For a discussion of the judiciary’s comparative institutional competencies with respect to public law

three significant institutional advantages of the judiciary deserve careful consideration.

First, as compared to law enforcement actors themselves, one might expect criminal courts to take a relatively more balanced approach to the hard normative question that so often lies at the heart of criminal justice law, policy, and administration: how to balance competing societal values of liberty and security.⁴⁰ As I have observed elsewhere, in the “debate over how to strike the always difficult balance between robust law enforcement authority and a solicitude for civil liberties that constrains such authority,” it is “entirely understandable” that the executive agencies of the state will “champion law enforcement power,”⁴¹ for it is uniquely their responsibility to keep society safe.⁴² Courts, however, operate within a different “professional tradition,” a tradition that at least aspires to “reflective and dispassionate analysis”⁴³ insulated from the political and institutional forces that often drive law enforcement actors to favor only one half of the liberty-security equation.⁴⁴ This is not to say that courts have always struck

adjudication more generally, see Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281, 1307 (1976) (“[D]espite its well rehearsed inadequacies, the judiciary may have some important institutional advantages for the tasks it is assuming[.]”).

⁴⁰ See, e.g., HERBERT L. PACKER, *THE LIMITS OF THE CRIMINAL SANCTION* 153 (1968) (describing the “Crime Control Model” and the “Due Process Model” as “two separate value systems that compete for priority in the operation of the criminal process”).

⁴¹ Andrew Manuel Crespo, *Regaining Perspective: Constitutional Criminal Adjudication in the U.S. Supreme Court*, 100 MINN. L. REV. 1985, 2036–37 (2016); cf. Anthony O’Rourke, *Structural Overdelegation in Criminal Procedure*, 103 J. CRIM. L. & CRIMINOLOGY 407, 451–52 (2013) (observing that the “principal occupational duties” of “most municipal police and prosecutors are . . . to make arrests and obtain convictions,” not to “prioritize the Court’s constitutional pronouncements”); Amsterdam, *supra* note 9, at 354 (arguing that “the history of the destruction of liberty” has seen its most serious violations occur “in the face of plausible-sounding governmental claims of a need to deal with widely frightening and emotion-freighted threats to the good order of society”); Renan, *supra* note 22 (manuscript at 34) (acknowledging the “grave” and “enduring problem[s]” of “run-away agencies distorting legal authorities” in pursuit of institutional interests, capitulating to “political pressures,” and struggling “to exercise independent judgment . . . on high stakes security questions,” all risks that are “especially acute in the context of the Fourth Amendment”).

⁴² As Professor Bill Stuntz has famously explained, the political economy of the criminal justice system all but ensures that legislatures and law enforcement actors will reinforce each other’s inclinations to preference security over civil liberty in the criminal arena, given that maximal law enforcement authority allows each of these institutional actors to achieve shared security-enhancing ends at the lowest costs and greatest efficiency. See William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 510 (2001) (“[T]he story of American criminal law is a story of tacit cooperation between [law enforcement] and legislators, each of whom benefits from more and broader [criminal enforcement authority] . . .”).

⁴³ Chayes, *supra* note 39, at 1307–08; see also Meltzer, *supra* note 3, at 288 (describing ingrained neutrality as one of the “special attributes of the judiciary” that stands among the “deep traditions in our legal culture”).

⁴⁴ See Stuntz, *supra* note 42, at 510 (explaining why “judges . . . alone are likely to opt for narrower . . . rules rather than broader ones” when it comes to law enforcement authority).

the balance between these competing value systems perfectly, or that they are immune to public sentiments, particularly in moments of heightened alarm or when the courts themselves are staffed by elected officials.⁴⁵ The claim, rather, is the more modest contention that — as compared to the security apparatus of the state *itself* — courts are relatively more likely to approach the hard normative task of weighing liberty and security with a balanced regard for each, an institutional feature of the judiciary that ought to give criminal courts a “distinctive claim to participate” in the broader project of promoting and ensuring systemic criminal justice.⁴⁶

Second, criminal courts are uniquely structured to afford a voice and, ideally, a fair forum to constituencies that are often marginalized by the criminal justice system, and indeed by the political process more broadly. The very existence of such marginalization is significant when comparing the institutional advantages of courts and agencies, given that scholarly appeals to law enforcement self-regulation often respond to concerns regarding executive overreach by appealing to the constraining and legitimating force of “democratic authorization,” which they assert will be promoted and achieved through the administrative law framework.⁴⁷ Genuine democratic authorization, however, is often hard to attain in the poor, urban, minority communities that live on the criminal justice system’s front lines.⁴⁸ Indeed, even proponents of law enforcement self-regulation acknowledge that “[t]he costs of policing fall disproportionately on communities of color and on the poor,” constituencies that “are either underrepresented in the political process or are too diffuse to generate much political pull.”⁴⁹ These

⁴⁵ See *infra* section IV.A.4, pp. 2112–14 (discussing judicial elections in greater detail).

⁴⁶ Meltzer, *supra* note 3, at 287.

⁴⁷ Cf. Friedman & Ponomarenko, *supra* note 17, at 1834 (“The claim here is that policing agencies may only act pursuant to sufficient democratic authorization. Such authorization can come through specific legislation. It can be the product of administrative notice-and-comment rulemaking, in which public participation is welcomed. Or, . . . new means of soliciting democratic engagement may be required. But, in one form or another, democratic authorization is vital.”).

⁴⁸ For a thorough scholarly account of the political disempowerment of communities most affected by criminal justice policy, see William J. Stuntz, *Unequal Justice*, 121 HARV. L. REV. 1969 (2008). For a striking and salient recent example of a democracy deficit in American criminal justice administration, see CIVIL RIGHTS DIV., U.S. DEP’T OF JUSTICE, INVESTIGATION OF THE FERGUSON POLICE DEPARTMENT (2015), https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson_police_department_report.pdf [http://perma.cc/Y2PY-PH4J]. It should be noted that some law enforcement agencies, in recognition of these problems, have undertaken efforts to address them directly by working to improve relationships with marginalized communities. See generally DAVID A. HARRIS, GOOD COPS: THE CASE FOR PREVENTIVE POLICING (2005) (discussing community policing).

⁴⁹ Friedman & Ponomarenko, *supra* note 17, at 1863. The literature on structural racial inequality in the criminal justice system is massive. For some recent examples, see MICHELLE ALEXANDER, THE NEW JIM CROW (rev. ed. 2012); NAOMI MURAKAWA, THE FIRST CIVIL

very failures of the democratic process, however, call into serious question whether “public participation” and “engagement” will in fact be meaningfully “solicit[ed]” and “welcomed” under an agency-centric regime, as proponents of the administrative model contend.⁵⁰ Criminal courts, by contrast, not only have the unique capacity to safeguard minority interests that may be ignored or abused in the political process,⁵¹ but are also the only governmental forum that guarantees an advocate — and thus a voice — to members of the very marginalized communities whose participation is vital to any truly democratic law enforcement regime.⁵² The courts, to be sure, have not always been stalwart protectors of underrepresented groups. And the shortcomings of appointed counsel in the criminal justice system are undeniable and often severe.⁵³ Still, insofar as *comparative* institutional assessments go, a reform agenda that would marginalize the judicial fora in which already marginalized groups are currently most able to be heard should cause some concern.

Finally, criminal courts enjoy an institutional advantage simply by virtue of the fact that criminal sanctions cannot be imposed without them, a reality that puts criminal courts in a position to see and adjudicate “a large stream of cases.”⁵⁴ This inescapable intertwinement between criminal courts and the administration of the criminal process is potentially advantageous in at least two respects: First, the fact that criminal courts have an “obligation to address claims for relief presented by the parties”⁵⁵ means that they cannot dodge potentially pressing systemic issues that may well require attention — unlike administra-

RIGHT (2014); WILLIAM J. STUNTZ, *THE COLLAPSE OF AMERICAN CRIMINAL JUSTICE* (2011).

⁵⁰ Friedman & Ponomarenko, *supra* note 17, at 1834.

⁵¹ See generally JOHN HART ELY, *DEMOCRACY AND DISTRUST* (1980).

⁵² Cf. Sklansky, *supra* note 21, at 227 (“Judicial hearings are by their nature adversarial . . . , which assures at least some representation for both sides, whereas legislative hearings on privacy issues in criminal investigations can easily be dominated by law enforcement interests.”); *id.* (arguing that “law enforcement . . . plays a critical role in shaping’ statutory protections of privacy through its ‘clear and constant voice in the political process’” (quoting Erin Murphy, *The Politics of Privacy in the Criminal Justice System: Information Disclosure, the Fourth Amendment, and Statutory Law Enforcement*, 111 MICH. L. REV. 485, 503, 535 (2013))). Criminal defendants are guaranteed an attorney by the Sixth Amendment. See *Gideon v. Wainwright*, 372 U.S. 335 (1963). Crime victims, who (like defendants) are disproportionately poor and marginalized, are also often guaranteed an opportunity to be heard during criminal proceedings, see Douglas E. Beloof, *Constitutional Implications of Crime Victims as Participants*, 88 CORNELL L. REV. 282, 292 (2003), although they are generally not guaranteed counsel, see Paul G. Cassell, *Treating Crime Victims Fairly: Integrating Victims into the Federal Rules of Criminal Procedure*, 2007 UTAH L. REV. 861, 879 (“[C]rime victims have no right to appointed counsel and are often indigent . . .”).

⁵³ See Crespo, *supra* note 41, at 2018–20 (describing national crisis with respect to the underfunding and general inadequacy of indigent defense representation); cf. *id.* at 2035–36 (discussing incentive alignment problem in relying on criminal defendants to safeguard societal liberties).

⁵⁴ Meltzer, *supra* note 3, at 286.

⁵⁵ *Id.* at 287.

tive agencies, which are free to avoid such issues at their discretion, even if their ultimate motives for doing so derive from narrow or distorted institutional self-interests, bureaucratic politics and inertia, or interest-group capture.⁵⁶ Second, the fact that criminal courts serially engage with systemic criminal justice issues in the context of real-world disputes allows them to observe the gritty lived reality of criminal justice administration in the close and often stark relief sometimes necessary to expose the nuances that reside at the myriad points of contact where criminal justice policy meets its implementation.

Indeed, the very fact that criminal courts are inextricably intertwined with the criminal justice systems over which they preside simply underscores the need to focus on *their* institutional capacity to regulate law enforcement authority. For when criminal courts are called upon to adjudicate criminal cases, they are frequently and inevitably also required to implement a now quite comprehensive constitutional “code of criminal procedure,”⁵⁷ which the judiciary has promulgated, curated, and implemented as a tool of law enforcement oversight and regulation for the past five decades. Notably, the idea of agency-centric administration as an alternative to this court-centric regime did not go undiscovered all those many years.⁵⁸ Rather, criminal courts have assumed their current role as the sole institutional regulators of American criminal justice in the face of a “longtime wholesale ‘legislative [and administrative] default’” when it comes to “regulating police practices.”⁵⁹

Contemporary scholars promoting a pivot away from courts and toward administrative self-regulation aim to end that longstanding default. But even the leading proponents of that nascent project acknowledge that it faces a long, uphill march through winter, with no signs yet of spring.⁶⁰ In the meantime, the criminal courts — with all

⁵⁶ Cf. Chayes, *supra* note 39, at 1308–09 (describing the judiciary’s capacity for more “flexibly administered” remedies relative to the administrative state’s “rigid, multilayered hierarchy of numerous officials”); Sklansky, *supra* note 21, at 227 (observing that the “case-by-case method of decisionmaking” allows for “reconsideration of rules that legislatures” may “never get around to amending”).

⁵⁷ Henry J. Friendly, *The Bill of Rights as a Code of Criminal Procedure*, 53 CALIF. L. REV. 929 (1965).

⁵⁸ See *supra* note 36 (citing early efforts by Anthony Amsterdam, Kenneth Culp Davis, and Carl McGowan to promote greater administrative regulation of law enforcement behavior).

⁵⁹ Amsterdam, *supra* note 9, at 378 (quoting PRESIDENT’S COMM’N ON LAW ENFORCEMENT AND ADMIN. OF JUSTICE, TASK FORCE REPORT: THE POLICE 19 (1967), <https://www.ncjrs.gov/pdffiles1/147374NCJRS.pdf> [<http://perma.cc/6ST6-EEPD>]); see also Slobogin, *supra* note 25 (manuscript at 21) (observing that law enforcement has been “immune from the formal strictures of administrative statutes” for decades, notwithstanding “extensive efforts” on the part of scholars “going back to the early 1970s” to change that reality).

⁶⁰ See Friedman & Ponomarenko, *supra* note 17, at 1863 (“[P]ublic choice theory predicts, and . . . decades of legislative inaction largely confirm, [that nonjudicial actors] rarely have an incentive to regulate policing.”).

of their transactional flaws and institutional shortcomings — are likely to remain the only institutions even remotely positioned to serve as meaningful proponents of systemic criminal justice regulation for the foreseeable future. An essential question thus necessarily comes to the fore: Is there a way for criminal courts to pursue their institutional task of systemic criminal justice regulation *better*?

II. SYSTEMIC FACTS: CATALYSTS OF INSTITUTIONAL AWARENESS

Any effort to answer that question must begin by engaging the central issue at the heart of the critique of criminal courts' institutional capacity: the "transactional methodology underlying constitutional criminal procedure" and its adjudication.⁶¹ Transactional myopia is not the only impediment to realizing criminal courts' greater systemic potential.⁶² It is, however, the fundamental first-order problem: An institution cannot hope to regulate a system that it lacks the basic capacity to comprehend. Thus, finding a way to enhance criminal courts' institutional awareness of the criminal justice systems over which they preside is a necessary first step — the trailhead of a pathway toward a more systemically effective criminal judiciary.

As the emergent scholarly critique explains, the problem of transactional myopia is fundamentally a problem concerning how courts obtain, access, and digest information about the institutional behavior of other criminal justice actors: "judges lack the knowledge" and "lack the data" to regulate law enforcement effectively.⁶³ Or that, at least, is the prevailing perception. What this account fails to appreciate, how-

⁶¹ Renan, *supra* note 22 (manuscript at 27).

⁶² Among other important issues are questions regarding the effectiveness *vel non* of judicial remedies, *cf.* Friedman & Ponomarenko, *supra* note 17, at 1903 ("When it comes to regulating policing, by far the thorniest question may have to do with remedies."), and also questions concerning the substantive contours of existing doctrinal frameworks, which may not strike the right systemic balance between liberty and security (or equality, for that matter). There is a sizable literature exploring these important questions and the ways in which courts might act more effectively in their regard. *See, e.g.*, Oren Bar-Gill & Barry Friedman, *Taking Warrants Seriously*, 106 NW. U. L. REV. 1609 (2012); Steiker, *supra* note 1; William J. Stuntz, *Warrants and Fourth Amendment Remedies*, 77 VA. L. REV. 881 (1991). However, as stated in the text, such questions are necessarily secondary to the question presented and examined here: How can courts begin to better comprehend the systemic dimension of the problems that such remedial efforts would seek to cure? I thus leave these other questions, for the moment, to existing scholarship, and to future inquiry.

⁶³ Friedman & Ponomarenko, *supra* note 17, at 1891; *see also* Renan, *supra* note 22 (manuscript at 6) (arguing that "an administrative overseer" would be able to "engage in a more holistic, granular, and data-driven Fourth Amendment interest-balancing than courts have shown a willingness to undertake"); *id.* at (manuscript at 33) (suggesting that if courts were able to access "information generated by [law enforcement] agencies" about the agencies' own systemic behavior, then courts might well be able to undertake "a more programmatic review of constitutional reasonableness under the Fourth Amendment").

ever, is that this prevailing perception is fundamentally misguided. While contemporary criminal courts do engage almost exclusively in transactional modes of constitutional adjudication, they do not lack access to systemic information or the capacity to comprehend it. On the contrary, contemporary criminal courts have at their disposal far more information about the systemic and institutional workings of their local justice systems than we — or they — have thus far come close to realizing. This information, moreover, holds considerable potential to catalyze criminal courts' latent capacity for greater institutional awareness of the systemic dimensions of criminal justice administration.

I refer to this body of potentially catalyzing information as *systemic facts*. The term is intended to evoke Kenneth Culp Davis's canonical treatment of the various ways in which courts engage with the factual world around them.⁶⁴ Davis famously divided the universe of empirical information relevant to the judicial process into two categories: adjudicative facts and legislative facts. Adjudicative facts, on his account, are facts that concern the "immediate parties" or participants in a particular dispute and focus on what those actors "did, what the circumstances were, what the background conditions were," and other case-specific details.⁶⁵ Legislative facts, by contrast, "are ordinarily general,"⁶⁶ are usually concerned with "social and economic data" about the broader world,⁶⁷ and typically arise when "a tribunal is engaged in the" common law "creation of law or of policy"⁶⁸ (which Davis calls "judicial legislation,"⁶⁹ hence the legislative moniker). Legislative facts, in other words, concern the myriad social phenomena that occur in the world beyond the courthouse walls: ranging from the psychological effects of racial segregation on minorities,⁷⁰ to the relative safety of different surgical procedures,⁷¹ to the sociological consequences of same-sex parenting,⁷² to countless other questions of sociological empiricism,⁷³ they inform the generation of broader legal rules, principles, and doctrines.

⁶⁴ See Davis, *Administrative Process*, *supra* note 5; see also Kenneth Culp Davis, *Judicial Notice*, 55 COLUM. L. REV. 945, 952 (1955) [hereinafter Davis, *Judicial Notice*].

⁶⁵ Davis, *Administrative Process*, *supra* note 5, at 402.

⁶⁶ Davis, *Judicial Notice*, *supra* note 64, at 952.

⁶⁷ Davis, *Administrative Process*, *supra* note 5, at 403.

⁶⁸ Davis, *Judicial Notice*, *supra* note 64, at 952.

⁶⁹ Davis, *Administrative Process*, *supra* note 5, at 402.

⁷⁰ See, e.g., *Brown v. Bd. of Educ.*, 347 U.S. 483, 494 & n.11 (1954).

⁷¹ See, e.g., *Gonzales v. Carhart*, 550 U.S. 124, 177–79, 179 n.5 (2007) (Ginsburg, J., dissenting).

⁷² See, e.g., *Perry v. Schwarzenegger*, 704 F. Supp. 2d 921, 980 (N.D. Cal. 2010).

⁷³ See A. Christopher Bryant, *The Empirical Judiciary*, 25 CONST. COMMENT. 467, 467–68 (2009) (reviewing DAVID L. FAIGMAN, *CONSTITUTIONAL FICTIONS: A UNIFIED THEORY OF CONSTITUTIONAL FACTS* (2008)) (discussing "numerous cases . . . from the Supreme Court's last

Davis's dichotomy has unquestionably become "the established vocabulary for describing the kinds of facts that are relevant to legal discourse."⁷⁴ The dichotomy, however, is also substantially incomplete — at least insofar as it relates to constitutional criminal adjudication — for it fails to appreciate the significance of a unique and distinct form of information: facts that are neither narrowly transactional, like adjudicative facts, nor foreign and external to the decisionmaker, like the archetypal legislative fact. It neglects, in other words, to account for information with respect to which a given decisionmaking institution enjoys deep institutional familiarity, privileged (or perhaps even exclusive) access, or both. It is this distinct class of information that is captured by the conceptual device I introduce here — systemic facts.

Scholarship exploring Davis's dichotomy has not focused on systemic facts thus far because it has been concerned almost exclusively with the relationship between *appellate* courts and social empiricism,⁷⁵ and thus has focused largely on facts wholly foreign and external to

decade" "in which the result turned on disputed questions of legislative fact," on issues implicating "nearly every substantive area of constitutional law").

⁷⁴ FAIGMAN, *supra* note 73, at 46. Davis's original interest was in how administrative agencies accessed and processed factual information, *see* Davis, *Administrative Process*, *supra* note 5, and indeed his framework is acknowledged as "a cornerstone of modern administrative law theory," *Broz v. Schweiker*, 677 F.2d 1351, 1357 (11th Cir. 1982). However, "[i]n the dozen years following its coinage," the dichotomy "received approval from commentators who recognized that the distinction had application well beyond the boundaries of administrative law." John Monahan & Laurens Walker, *Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law*, 134 U. PA. L. REV. 477, 484 (1986). Indeed, Davis himself helped to usher the framework into the scholarship of judicial epistemology, *see* Davis, *Judicial Notice*, *supra* note 64, where it has since flourished, *see, e.g.*, FAIGMAN, *supra* note 73; THOMAS B. MARVELL, *APPELLATE COURTS AND LAWYERS* 139 (1978); Bryant, *supra* note 73, at 469 & n.4; Brianne J. Gorod, *The Adversarial Myth: Appellate Court Extra-Record Factfinding*, 61 DUKE L.J. 1, 38 (2011); Allison Orr Larsen, *Confronting Supreme Court Fact Finding*, 98 VA. L. REV. 1255, 1256 & n.5 (2012); John O. McGinnis & Charles W. Mulaney, *Judging Facts Like Law*, 25 CONST. COMMENT. 69, 71 (2008); Monahan & Walker, *supra*, at 482–83.

⁷⁵ *See, e.g.*, Bryant, *supra* note 73; Gorod, *supra* note 74; Larsen, *supra* note 74; Tracey L. Meares, *Three Objections to the Use of Empiricism in Criminal Law and Procedure — and Three Answers*, 2002 U. ILL. L. REV. 851; Tracey L. Meares & Bernard E. Harcourt, *Foreword: Transparent Adjudication and Social Science Research in Constitutional Criminal Procedure*, 90 J. CRIM. L. & CRIMINOLOGY 733 (2000); Arthur Selwyn Miller & Jerome A. Barron, *The Supreme Court, the Adversary System, and the Flow of Information to the Justices: A Preliminary Inquiry*, 61 VA. L. REV. 1187 (1975); Richard A. Posner, *Against Constitutional Theory*, 73 N.Y.U. L. REV. 1 (1998); Peter J. Smith, *New Legal Fictions*, 95 GEO. L.J. 1435 (2007); Seth W. Stoughton, *Policing Facts*, 88 TUL. L. REV. 847 (2014); Timothy Zick, *Constitutional Empiricism: Quasi-Neutral Principles and Constitutional Truths*, 82 N.C. L. REV. 115 (2003).

This focus on appellate courts may reflect broader trends in legal scholarship, which disproportionately examines appellate tribunals when studying adjudication, *see* Johnson, *supra* note 6, at 477, although it may also be a function of Davis's initial framing, which defines legislative facts as the empirical grist for "the creation of law or of policy," Davis, *Judicial Notice*, *supra* note 64, at 952 (emphasis added), a function not often associated with trial courts.

the judiciary as an institution.⁷⁶ Criminal *trial* courts, however, are idiosyncratic adjudicative institutions in this respect. Like all trial courts, they are inherently concerned with factfinding and record keeping. But, as we have seen, they are also institutions deeply intertwined with and embedded within the local criminal justice systems in which they reside.⁷⁷ As tribunals uniquely “positioned to see a large stream of cases,”⁷⁸ they have the potential to gain a broader understanding of the very criminal justice systems that, under the regulatory model of constitutional criminal law, they are called upon to oversee.

The key question posed by the transactional-myopia critique is whether criminal courts can in fact appreciate the systemic dynamics of that stream of cases, or whether they are destined instead to see only transactional, case-specific bits of flotsam within it — data points that may appear misleadingly static, distorted, or incomplete in isolation. It is in answering this question, however, that systemic facts most helpfully illuminate an alternative framework. The transactional account’s conception of what criminal court judges do is decidedly individualistic: they approach discrete cases or controversies as neutral blank slates, decide those cases on the basis of the information presented by the parties, and then wipe the slate clean so as not to pre-judge the next matter on the docket. This notion of judging certainly resonates with many of our cultural touchstones, including the aphorism that “justice is blind.” Systemic facts, however, show that this account is incomplete. Criminal courts are not simply collections of individual judges. They are also *institutions*, capable of generating and accessing a body of knowledge that they have obtained through their own serial set of interactions with the world.⁷⁹

⁷⁶ See, e.g., Stoughton, *supra* note 75, at 849, 854 (defining legislative facts by reference to their “use of external support” to capture “facts about the world” (quoting Larsen, *supra* note 74, at 1255)); see also Davis, *Administrative Process*, *supra* note 5, at 403–04 (discussing the “extra-record” sources for obtaining legislative facts); Davis, *Judicial Notice*, *supra* note 64, at 953 (same).

⁷⁷ See *supra* section I.C., pp. 2059–65.

⁷⁸ Meltzer, *supra* note 3, at 286.

⁷⁹ See DANIEL A. FARBER & SUZANNA SHERRY, JUDGMENT CALLS 69 (2009) (describing a court as “an institution” that is more than “an ever-changing collection of individual judges”); Michael L. Buenger, *Do We Have 18th Century Courts for the 21st Century?*, 100 KY. L.J. 833, 854–55 (2012) (arguing for a conception of “state courts as an institution of government” comprising “a group of people dedicated to a common mission,” not “an assortment of independent actors”); cf. U.S. CONST. art. III, § I (vesting “[t]he judicial Power” in the “Courts”); 28 U.S.C. § 132(c) (2012) (delegating “the judicial power of a district court” to “a single judge, who may preside alone” on the court’s behalf); *Fogade v. ENB Revocable Tr.*, 263 F.3d 1274, 1284–85 (11th Cir. 2001) (“Judicial power and authority is not personal. Rather,] every district judge . . . exercise[s] . . . the authority and power of the court on which the judge sits . . .”). Notably, criminal courts are not alone in their ability to generate or draw upon systemic facts. Rather, like adjudicative and legislative facts, systemic facts can exist in relation to any decisionmaking body, “whether the actor is a judge, a legislator, or an administrator.” Kenneth

Indeed, there is little reason to think that a criminal court as an institution is different from any other corporate body in this respect: it possesses collective knowledge that consists of the aggregate knowledge obtained by its officers and employees in the course of carrying out their duties. And crucially, it is this capacity to *aggregate* dispersed information that is the key to unlocking criminal courts' capacity for greater institutional awareness. For much like an administrative agency, a criminal court operates "on a wider and fuller scale than a single adversary litigation," and is thus able to draw upon its "[c]umulative experience" and "understanding" when deciding contested issues.⁸⁰ As such, it is able to gain "visibility into how overlapping and interconnected" policies and practices operate among other institutions within the criminal justice system "in combination."⁸¹ In other words, a criminal court has the capacity as an institution to attain — at least in theory — the very informational breadth of knowledge and expertise that contemporary scholars crave in the administrative form — *without* sacrificing the unique institutional advantages of the judicial process.

Systemic facts thus pave the way to a broader understanding of criminal courts themselves: by focusing on courts' ability to aggregate isolated transactional information into a core corpus of institutional knowledge, systemic facts expose the judiciary's latent capacity to "see" beyond the truncated transactional horizon of a given case. They thereby allow for a conceptualization of criminal courts that is broad enough to blend the epistemic virtues of agency-style expertise with the institutional virtues of constitutional judicial review — including the important advantages of neutrality, sensitivity to the interests of marginalized groups, and a balanced regard for civil rights and liberties. If criminal courts could only uncover and leverage these systemic facts and the enhanced institutional awareness they unlock, they could overcome a significant barrier to meaningfully systemic judicial review.

III. SYSTEMIC FACTS IN OPERATION

Systemic facts are more, however, than just an abstract idea. They are, in prosaic terms, caches of actual data — collected every day by criminal courts across the country. They reside within the official records, internal case files, transcripts, audio recordings, and administra-

Culp Davis, *Judicial, Legislative, and Administrative Lawmaking: A Proposed Research Service for the Supreme Court*, 71 MINN. L. REV. 1, 7 (1986).

⁸⁰ NLRB v. Seven-Up Bottling Co., 344 U.S. 344, 349 (1953); see also Davis, *Judicial Notice*, *supra* note 64, at 950 (observing that while NLRB's insight "was focused upon the administrative process, it is not without validity as applied to the judicial process").

⁸¹ Renan, *supra* note 22 (manuscript at 68).

tive metadata routinely generated by the broad network of local trial courts that constitute the American criminal judiciary at the ground floor. They are, in short, very much *real* facts, which real courts and real litigants can use to litigate and decide real cases — with a broader systemic understanding of the issues at stake than contemporary criminal courts currently exhibit or possess.

In an earlier era, efforts to catalog and organize these massive stockpiles of information would surely have required extensive work in court archives, a task overwhelming to the point of defeat. But in an increasingly paperless world, technology opens up powerful new opportunities, transforming systemic facts from heaps of inaccessible administrative information into a digital library of latent institutional knowledge, a library that is increasingly amenable to technological tools that render it organizable, searchable, and accessible.⁸²

To appreciate the full potential this library holds, it is necessary to observe systemic facts in operation. That is what this Part sets out to do. Relying on examples drawn primarily from criminal courts in the nation's capital (where I previously practiced as a criminal defense attorney),⁸³ the discussion that follows explores various categories of systemic facts that are generated by criminal courts in the ordinary course of running their local judicial systems. In so doing, it highlights how such information, if integrated into the regular process of constitutional criminal adjudication, could substantially increase criminal courts' institutional awareness and, in turn, their potential for systemic judicial review of law enforcement behavior. Taking the two central institutions of law enforcement in turn, the Part begins with a discussion of systemic facts' capacity to help criminal courts better understand institutionalized policing, before discussing their capacity to enhance judicial oversight of prosecutorial offices.⁸⁴

A. *Understanding the Police*

Constitutional criminal law regulates the police primarily through the implementing doctrines of the Fourth Amendment.⁸⁵ Infamously

⁸² See *infra* section IV.A.3, pp. 2108–11.

⁸³ From 2011 to 2014, I served as a staff attorney in the trial division of the Public Defender Service for the District of Columbia, representing indigent defendants in the local Superior Court, which is the District's equivalent of a state-level criminal trial court.

⁸⁴ As discussed in more detail *infra* note 227, systemic factfinding can also helpfully illuminate institutional behavior of criminal justice actors beyond law enforcement, including behavior on the part of defense counsel and of the courts themselves.

⁸⁵ See ALLEN ET AL., *supra* note 17, at 337–38 (“[L]egal regulation of police searches and arrests consists mostly of Fourth Amendment regulation . . . [which governs] ordinary, run-of-the-mill interactions between officers and suspects.”).

complex,⁸⁶ this body of law is nonetheless ripe for systemic factfinding because, at bottom, many of the issues it implicates turn on questions of systemic probabilities — a point underscored by the amendment’s text, which gives us the familiar phrase “probable cause.”⁸⁷ Under existing Fourth Amendment doctrine, if the police wish to intrude upon someone’s constitutionally protected liberty or privacy interests they generally must first make “a showing of probable cause” that the target of such an intrusion either has committed a crime or is in possession of evidence of a crime.⁸⁸ And while the exact threshold of information necessary to make such a showing has never been precisely defined,⁸⁹ this much is clear: the inquiry is “explicitly probabilistic,”⁹⁰ such that when a judge is asked to determine whether probable cause justifies a search or seizure — to sign a warrant or to suppress evidence, for example — she is being asked whether the police have presented *enough information* to support the intrusion at issue.⁹¹

⁸⁶ Some might even say “illogical, inconsistent, unprincipled, ad hoc, and theoretically incoherent.” Morgan Cloud, *Pragmatism, Positivism, and Principles in Fourth Amendment Theory*, 41 UCLA L. REV. 199, 204 (1993).

⁸⁷ U.S. CONST. amend. IV. The precise relationship between the Warrant Clause’s “probable cause” requirement and the amendment’s ban on “unreasonable searches and seizures” is the source of academic and jurisprudential dispute, *see, e.g.*, Amar, *supra* note 10, but suffice to say that, as a general matter, probable-cause analyses (and their reasonable-suspicion cousins, *see infra* note 88) feature centrally in many Fourth Amendment adjudications.

⁸⁸ *E.g.*, Bd. of Educ. v. Earls, 536 U.S. 822, 828 (2002). The statement in the text is an oversimplification, as those familiar with the amendment and its implementing doctrines will quickly realize: in light of *Terry v. Ohio*, 392 U.S. 1 (1968), a great many police-civilian interactions are governed by the lower standard of “reasonable suspicion,” not probable cause. Both standards, however, are equally probabilistic in nature, the difference being only the threshold probability required. *See Ornelas v. United States*, 517 U.S. 690, 695–96 (1996) (discussing the commonalities between the two standards). As such, the discussion in the text generally uses “probable cause” as an admittedly imprecise shorthand for the degree of information that is doctrinally required to justify a search or seizure under the circumstances.

⁸⁹ *See infra* notes 232–33 and accompanying text; *see also* Florida v. Harris, 133 S. Ct. 1050, 1055 (2013) (“The test for probable cause is not reducible to ‘precise definition or quantification.’” (quoting Maryland v. Pringle, 540 U.S. 366, 371 (2003))); C.M.A. McCauliff, *Burdens of Proof: Degrees of Belief, Quanta of Evidence, or Constitutional Guarantees?*, 35 VAND. L. REV. 1293, 1327 (1982) (reporting that judges when surveyed pegged probable cause at between a 10% and a 90% likelihood that a given allegation is true, with most answers clustered between 30% and 60%); Christopher Slobogin, *Let’s Not Bury Terry: A Call for Rejuvenation of the Proportionality Principle*, 72 ST. JOHN’S L. REV. 1053, 1082 (1998) (“[P]robable cause . . . is the standard with which we are most familiar — except that we don’t really know what it means.”); *cf.* Dripps, *supra* note 9, at 907 (“[P]robable cause within bounds of plain error is whatever a magistrate says it is.”).

⁹⁰ Max Minzner, *Putting Probability Back into Probable Cause*, 87 TEX. L. REV. 913, 952 (2009); *see also* Brinegar v. United States, 338 U.S. 160, 175 (1949) (“In dealing with probable cause, . . . as the very name implies, we deal with probabilities.”).

⁹¹ Because the threshold for probable cause has never been specified, *see supra* note 89, the word “enough” in the text is of necessity a loose concept. It is not unusual, however, for courts to determine that a set of facts satisfies a given threshold (or not) without first defining precisely where that threshold lies. *E.g.*, Smith v. United States, 508 U.S. 223, 238 (1993); Church of the

At first blush, this may appear to be a question uniquely confined to plain old adjudicative facts. After all, what could be more case specific than deciding whether a particular officer, at a particular time and place, observed specific facts constituting probable cause? But to imagine Fourth Amendment interactions in this exclusively transactional manner is to miss a fundamental reality of modern, urban policing: it is “carried out,” as Professor Tracey Meares has explained, “systematically, deliberately, and with great frequency,” as part of “a program” in which the police are “proactively policing people that they suspect could be offenders.”⁹² The searches and seizures “that flow from these programs are” thus “not individual incidents that grow organically” or randomly “out of a collection of individual investigations,” but rather are “programmatically” events “imposed from the top down.”⁹³ Unsurprisingly, such searches and seizures fall into readily identifiable patterns,⁹⁴ which practitioners in the field can easily sort into the colloquial vernacular of archetypal cases.⁹⁵

Crucially, the police not only recognize these patterns, but also structure their conceptions and articulations of probable cause around them. That is to say, in the words of Professors Jeffrey Fagan and Amanda Geller, police officers develop and deploy “scripts” to describe the facts that they believe justify whichever particular species of programmatic policing is at issue.⁹⁶ “[T]hese ideas and scripts” eventually

Lukumi Babalu Aye, Inc. v. City of Hialeah, 508 U.S. 520, 543 (1993). This is the mode of the thousands of probable-cause analyses that take place in criminal courts across the country each year.

⁹² Meares, *supra* note 23, at 164–65 (emphasis omitted); see also Renan, *supra* note 22 (manuscript at 1–2) (discussing “programs of surveillance, grounded in underspecified legal mandates and implemented through an ecosystem of interacting agency protocols”).

⁹³ Meares, *supra* note 23, at 162.

⁹⁴ See David A. Super, *Against Flexibility*, 96 CORNELL L. REV. 1375, 1397 (2011) (observing that “[w]ithin the criminal justice system, . . . bureaucracy” does not “readily produce truly random decisions,” as “those interested in a particular type of exercise of discretion are likely to seek patterns in [its] exercise”); see also Edward L. Rubin, *Discretion and Its Discontents*, 72 CHI-KENT L. REV. 1299, 1323 (1997) (observing that “behavior, even when [bureaucratic] controls are weakened, is likely to reveal a pattern,” and rejecting as “unrealistic” the “image of the courageous cop who slams his badge down on the lieutenant’s desk and says, ‘I’m sick of all your rules. I’m following my own rules now!’”).

⁹⁵ Practitioners, for example, are likely to recognize at least some of the following colloquial shorthands for archetypal cases: “dropsies” (where a suspect allegedly tosses or drops contraband while fleeing from the police), “CI or UC buys” (where a suspect allegedly purchases contraband from someone allied with law enforcement), “metro stings” (where a suspect allegedly steals from a law enforcement officer who is pretending to have fallen asleep on public transportation), and “jump-out-pat-downs” (where officers in a high-crime area recover contraband while frisking a suspect who allegedly exhibited certain nervous, evasive, or suspicious behavior, such as a “furtive gesture”).

⁹⁶ Jeffrey Fagan & Amanda Geller, *Following the Script: Narratives of Suspicion in Terry Stops in Street Policing*, 82 U. CHI. L. REV. 51, 55 (2015) (“[O]fficers have developed recurring narratives or scripts of suspicion to satisfy administrative review of their actions and the rare in-

“become socially contagious,” spreading within a police department “from person to person and across nodes of people” until they become commonplace.⁹⁷ The end result is that the probable-cause articulations offered up within a given jurisdiction begin to resemble “pre-packaged boilerplate”⁹⁸ corresponding to one of a finite number of archetypal Fourth Amendment events.

Boilerplate probable cause can be problematic when it deprives judges of the context and texture necessary to assess an individual officer’s claim,⁹⁹ or when it masks duplicitous or inaccurate assertions.¹⁰⁰ In the *aggregate* however, the script-like nature of programmatic probable-cause assertions carries with it a silver lining: information that exists in identifiable patterns can be catalogued, organized, and systematically studied. Take, for example, the Superior Court of the District of Columbia. Like virtually every local court in the country, the Superior Court has a system in place for reviewing and approving search and arrest warrant applications submitted by police officers.¹⁰¹ Under that system, such applications are invariably presented in the form of written affidavits, which are then digitally stored in the court’s electronic case-management system, along with a record detailing the results of the warrant’s execution — including, for search warrants, an itemized inventory of what the police recovered. Similarly, when a person is arrested without a warrant, a nearly identical probable-cause recitation is generated, digitized, and filed with the court after the fact — this time to demonstrate that the arrest was constitutionally authorized in the first place.¹⁰² Finally, any search or arrest may eventually be challenged in a suppression hearing, at which point the police officers’ probable-cause narrative will be memorialized in a digital transcript, usually prepared by the court itself in real time.¹⁰³

stances of constitutional challenges to contemporary practices.”). These scripts are in part an effort to capture economies of scale by officers under internal pressure to produce large numbers of stops, frisks, and arrests. *Id.* at 54–55, 63.

⁹⁷ *Id.* at 64.

⁹⁸ Laurence A. Benner & Charles T. Samarkos, *Searching for Narcotics in San Diego: Preliminary Findings from the San Diego Search Warrant Project*, 36 CAL. W. L. REV. 221, 243 (2000).

⁹⁹ *Cf. id.* at 266 (“Judges . . . seldom have cause to question these standard boilerplate statements. For example, when we asked one judge how it was possible to know from the boilerplate language whether a proper [investigation] had actually been conducted, the candid reply was: ‘You don’t. You have to trust the officer.’”).

¹⁰⁰ See *infra* note 121 (discussing problems related to officer credibility).

¹⁰¹ See D.C. SUP. CT. R. CRIM. P. 41. For a somewhat dated but nonetheless comprehensive account of the search warrant process more generally, see RICHARD VAN DUIZEND ET AL., *THE SEARCH WARRANT PROCESS* (1985).

¹⁰² *Cf. Gerstein v. Pugh*, 420 U.S. 103, 114 (1975) (holding that “the Fourth Amendment requires a judicial determination of probable cause as a prerequisite to extended restraint of liberty following arrest”).

¹⁰³ See D.C. COURTS, ANNUAL REPORT 15 (2014) (describing digital transcription system).

Taken together, these three categories of information — warrant affidavits and returns, post-arrest affidavits, and suppression hearing transcripts — constitute many thousands of probable-cause scripts, each corresponding to its own Fourth Amendment event. All of this information, moreover, sits within the court’s own internal digital repository, in a format that makes it uniquely amenable to a number of powerful and illuminating tools: For starters, readily available software can facilitate high-speed, full-text searches of each digital probable-cause script filed by the police department, court-wide.¹⁰⁴ From there, existing and increasingly sophisticated algorithms can “recognize certain text patterns” or even “more subtle language patterns” such as “reason-giving” within each individual document.¹⁰⁵ And once these language patterns — that is to say, the probable-cause scripts — are flagged by such software, they can then be organized and catalogued, once again automatically, by software that embeds within each document codes tagging the relevant features of the digital script identified by the text-analysis program.¹⁰⁶ The upshot is that a contemporary court can “automate the processing of incoming electronic documents”¹⁰⁷ and can thereby essentially transform its existing caches of digitized information into searchable databases akin to LexisNexis or SSRN — with responses to queries yielding not precedents or law review articles, but rather text-searchable registries of relevant court records.

Under a transactional mode of constitutional criminal adjudication, a judge asked “to determine whether a police officer complied with the Fourth Amendment” will typically “listen to the officer tell the story of an individual incident and then” decide “whether that officer” has or “had enough information to disturb the target’s privacy and auton-

¹⁰⁴ See, e.g., *Benefits*, AISMARTBENCH, <http://www.aismartbench.com/products/benefits.html> [<http://perma.cc/6S78-ZDFU>]; cf. Eric J. Magnuson & Samuel A. Thumma, *Prospects and Problems Associated with Technological Change in Appellate Courts: Envisioning the Appeal of the Future*, 15 J. APP. PRAC. & PROCESS 111, 136 (2014) (predicting that technology capable of “turn[ing] the entire record . . . into a database in which various searches can be performed” will soon “be automatic and pervasive”).

¹⁰⁵ Cynthia R. Farina et al., *Rulemaking 2.0*, 65 U. MIAMI L. REV. 395, 445 (2011); see also Ville Hinkkanen & Tapio Lappi-Seppälä, *Sentencing Theory, Policy, and Research in the Nordic Countries*, 40 CRIME & JUST. 349, 380 (2011) (using a text-pattern algorithm to catalog criminal-court data); cf. Yochai Benkler et al., *Social Mobilization and the Networked Public Sphere: Mapping the SOPA-PIPA Debate*, 32 POL. COMM. 594, 600 (2015) (describing “a database and Web scraping tool” built around a “computer program” capable of searching the Internet, “extracting . . . text from . . . Web pages, and seeking text that match[es]” a predetermined “pattern”).

¹⁰⁶ See Bradley J. Hillis, *A Review of Electronic Court Filing in the United States*, 2 J. APP. PRAC. & PROCESS 319, 323 (2000).

¹⁰⁷ See *id.*; cf. Kenneth J. Withers, *Public Access and New Attorney Responsibilities*, FOR DEF., June 2004, at 49, 50 (“Electronic case files . . . can be copied or transmitted at the touch of a button [and] can be indexed and searched easily and quickly. Specific information can be easily extracted, organized and analyzed.”).

my.”¹⁰⁸ A judge armed with the searchable database of systemic facts just described, however, can do much more than that. Specifically, she can assess the *consistency*, the *descriptive accuracy*, and even the *predictive accuracy* of the probable-cause scripts that are routinely presented to her as justifications for the programmatic Fourth Amendment events carried out by police officers within her jurisdiction.

Let us consider each of these potential uses of systemic facts in greater detail:

1. *Assessing Consistency.* — As noted above, a criminal court evaluating a Fourth Amendment event often must determine whether the description of criminality proffered by law enforcement crosses the threshold necessary to justify the privacy or autonomy intrusion at issue. While this analysis can depend on many considerations, one that will often arise is whether the proffered justification — the probable-cause script — is consistent with previous recitations made by the same police department when similar scripts have been invoked to justify similar Fourth Amendment events in the past. The reason for probing such inconsistencies is fairly obvious: If a judge lacks the capacity to independently assess the veracity of a given script, she can at least draw inferences as to its reliability by comparing it to the prior assertions of fact put forward by the same institution. If that institution’s serial script recitations are not even internally consistent, the judge may draw an adverse inference of unreliability from that fact.¹⁰⁹

To appreciate the value of systemic factfinding in this context, take as an example a set of programmatic searches routinely carried out in the District of Columbia: searches of the apartments of suspected drug dealers.¹¹⁰ The doctrinal framework in this jurisdiction generally holds that if “there [is] probable cause to believe” that a suspect is “involved in drug trafficking” then that automatically “leads to the further conclusion that there [is] probable cause to search [his] apartment.”¹¹¹ This is a controversial rule of constitutional law that is hardly universally accepted.¹¹² In the District of Columbia, however, the rule is expressly grounded in the probable-cause scripts that are serially presented to the local criminal courts by law enforcement officers

¹⁰⁸ Meares, *supra* note 23, at 174.

¹⁰⁹ Cf. FED. R. EVID. 801(a)(1)(A) advisory committee’s note (“Prior inconsistent statements traditionally have been admissible to impeach [the credibility of a declarant].”). Conversely, if certain probable-cause scripts are eerily or curiously *consistent* with one another, that too may raise doubts as to the reliability of the underlying assertions. See *supra* note 99 (discussing boilerplate affidavits); *infra* note 121 (discussing credibility issues raised by curiously consistent scripts).

¹¹⁰ See generally John Sullivan, *When the Innocent Are Treated Like Criminals*, WASH. POST, Mar. 6, 2016, at A1 (describing search warrants issued to officers “investigating the drug trade” in the District of Columbia).

¹¹¹ *United States v. Cardoza*, 713 F.3d 656, 661 (D.C. Cir. 2013).

¹¹² See 2 WAYNE R. LAFAVE, SEARCH AND SEIZURE § 3.7(d), at 521–31 (5th ed. 2012).

seeking search warrants, who routinely proclaim in their applications for such warrants that “drug dealers . . . keep business records, narcotics, proceeds from sales, and firearms *in their houses*.”¹¹³ The courts, lacking any basis from which to challenge such assertions, have taken them to be reliably “expert” statements of sociological fact, and have thus built upon them the rule of law described above: if there are sufficient grounds to believe someone is selling drugs, then there are also sufficient grounds to search his home for the various accoutrements of drug trafficking listed above.¹¹⁴

The factual premise underlying this rule would necessarily be undermined, however, if the court were to discover that the same police department making this key factual representation — that drug dealers consistently keep accoutrements of drug trafficking in their homes — was simultaneously making quite different representations to the same court in other warrant affidavits invoking the same general probable-cause script. Notably, a currently pending civil rights suit alleges precisely this discrepancy, asserting that “dozens of similar affidavits sworn to Superior Court judges throughout 2012, 2013, and 2014” reveal that “numerous” police officers “from every police district in the city” have in fact sworn — contrary to the assertion underlying the existing rule of law — that the police departments’ investigators “*do not know* whether” the items of evidence and contraband typically associated with drug dealing “will be stored in” a drug trafficker’s “actual residence.”¹¹⁵ More strikingly, according to this same source, when the police department has sought authority to search a location that is not the target’s home, it has regularly “opined that [such] items are typically stored in a variety of *other* places,” separate from the target’s house, “including safe houses, stash houses, homes of friends, homes of associates, homes of relatives, and business locations.”¹¹⁶

The existence of these alternative probable-cause scripts is potentially significant to the ultimate constitutional analysis. For as leading commentators observe, a search of a home is arguably unjustified if it is premised on an assertion that the target home is simply one location

¹¹³ *E.g.*, *United States v. Thomas*, 989 F.2d 1252, 1254 (D.C. Cir. 1993) (per curiam) (emphasis added); *see also* *United States v. Johnson*, 437 F.3d 69, 71 (D.C. Cir. 2006).

¹¹⁴ *See Johnson*, 437 F.3d at 71–72 (citing “expert” affidavits both in the case at hand and in *Thomas*, 989 F.2d 1252); *cf.* Sullivan, *supra* note 110 (reporting that a “review of 2,000 warrants served by D.C. police between January 2013 and January 2015 found that . . . about 14 percent” involved “an affidavit to a judge” in which police relied “on their ‘training and experience’ investigating the drug trade . . . to justify a search of a residence without [actually] observing criminal activity” take place at the target location).

¹¹⁵ Plaintiffs’ Response in Opposition to Motion to Dismiss at 16, *S.H. v. District of Columbia*, No. 1:14-cv-1317 (D.D.C. Oct. 13, 2014) (emphasis added).

¹¹⁶ *Id.* at 16–17 (emphasis added).

out of many in which evidence of criminality might be found.¹¹⁷ Operating within such a doctrinal framework, surely a judge presented with a warrant application that asserts — without qualification or elaboration — that drug dealers typically keep the accoutrements of their trade “in their houses”¹¹⁸ would have reason to pause before signing the warrant, if in fact she knew that the same police department making this factual assertion routinely makes seemingly contradictory factual claims in other warrant applications.¹¹⁹ Indeed, in some jurisdictions, the mere fact that an affidavit contradicts prior sworn testimony is grounds to disregard the affidavit altogether.¹²⁰ One need not endorse so absolute a rule, however, to appreciate the basic point: a police department’s consistency with respect to its routine factual representations to its local criminal court can be a fundamentally relevant factor in a judge’s constitutional analysis.¹²¹ And as the example above shows, criminal courts — as institutions — may well already have within their own internal repositories of systemic facts much of the information necessary to determine whether their local police de-

¹¹⁷ See 2 LAFAVE, *supra* note 112, §3.7(d), at 546 (observing that a warrant affidavit may be constitutionally defective if it “describe[s] the place[s] to be searched in broader terms than is justified by the probable cause showing in the affidavit,” a defect “most likely to occur when a single warrant identifies two [or more] discrete but related places, such as a dwelling and a vehicle located there”); *id.* at 527 n.190 (citing *Ex parte Perry*, 814 So.2d 840, 842–43 (Ala. 2001) (rejecting warrant affidavit that identified “two possible locations in which officers might find illegal drugs, without providing any cause to search one location over the other”).

¹¹⁸ *Thomas*, 989 F.2d at 1254.

¹¹⁹ In the District of Columbia, like in many other jurisdictions, statements made by a police officer in a warrant application are considered representations of the State and are admissible as such in separate proceedings. See *Harris v. United States*, 834 A.2d 106, 119 (D.C. 2003). Thus, contradictory representations in separate probable-cause scripts are relevant to a judicial analysis, even if not made by the same officer.

¹²⁰ *Cf. Clark v. Takata Corp.*, 192 F.3d 750, 760–61 (7th Cir. 1999) (upholding decision to strike from the record an affidavit that differed from prior testimony).

¹²¹ The question of consistency is largely one of officer credibility — a concern at the heart of Fourth Amendment jurisprudence. See Stuntz, *supra* note 62, at 884 (“The debate about warrants . . . resolves, in large part, into a debate about police dishonesty and how to combat it.”); see also Bar-Gill & Friedman, *supra* note 62, at 1624 (discussing “the documented problem of false police testimony” and observing that while “[n]o one is sure how much of it goes on . . . evidence and anecdote suggest a fair amount”); *cf.* Carol S. Steiker, Response, *Second Thoughts About First Principles*, 107 HARV. L. REV. 820, 853–54 (1994) (“Police culture no doubt . . . plays a large role in creating incentives for perjury. The more the police see themselves as separate from the community — as an ‘us’ to be deployed against the ‘them’ of the policed population — the more the police may see perjury as an acceptable means to achieve the greater good.”).

Notably, while the discussion in the text has focused on probable-cause scripts that contradict one another, systemic factfinding can also expose the converse problem: scripts that raise credibility concerns because they are curiously consistent. See, e.g., Nicole Gonzalez Van Cleve, *Chicago’s Racist Courts*, N.Y. TIMES, Apr. 15, 2016, at A27 (describing a judge who remarked upon the obvious “fabrication” at issue in “a string of cases where officers would reproduce the same police report detailing how drugs would ‘fall out’ of defendants’ pockets as they ‘fled on foot’ — common phrases used by police officers [in] a ‘certain’ neighborhood” that seemingly — and unbelievably — had “an epidemic of ‘holey’ pockets”).

partments are in fact being consistent in this fashion. Simply by accessing this information, a court can substantially improve its overarching method of assessing the many probable-cause scripts presented to it for review, and thus its systemic oversight of law enforcement behavior.

2. *Assessing Descriptive Accuracy.* — Beyond merely aiding in the assessment of probable-cause scripts' consistency, systemic facts can also empower courts to evaluate such scripts' descriptive accuracy. Consider in this context one noteworthy example that is a staple of probable-cause scripts across a wide array of Fourth Amendment events: the assertion that a given incident occurred in a "high crime area."¹²²

Under existing doctrine, the fact that a search or seizure occurred in a high-crime area can often be dispositive in determining the legitimacy of the law enforcement action at issue — even if similar conduct by a suspect might not otherwise be sufficient to justify the same law enforcement action in a different part of town.¹²³ This raises a fairly obvious question: what makes an area a high-crime area? Unfortunately, as with probable cause more generally, the Supreme Court has not yet defined the phrase,¹²⁴ such that the answer in practice is often that an area is "a high crime area" if police "officers say it's a high crime area," an assertion that criminal courts burdened by transactional myopia lack much basis to challenge.¹²⁵

Understandably dissatisfied with this approach, commentators have called for the high-crime-area analysis to be grounded in "objec-

¹²² See Lewis R. Katz, *Terry v. Ohio at Thirty-Five: A Revisionist View*, 74 MISS. L.J. 423, 493 (2004) (describing invocations of a "high crime area" as "a talismanic signal" offered to "justify[] investigative stops"); Abbe Smith, *They Dream of Growing Older: On Kids and Crime*, 36 B.C. L. REV. 953, 968 n.49 (1995) (observing that "police testimony in support of a warrantless search or seizure inevitably includes an assertion that the neighborhood in which the police conduct occurred — usually a poor, minority neighborhood — is a 'high crime area'").

¹²³ See *Illinois v. Wardlow*, 528 U.S. 119, 124 (2000). For criticisms of this line of precedent as racially and socioeconomically problematic, see Katz, *supra* note 122, at 493–94; Amy D. Ronner, *Fleeing While Black: The Fourth Amendment Apartheid*, 32 COLUM. HUM. RTS. L. REV. 383, 385 (2001); Christopher Slobogin, *The Poverty Exception to the Fourth Amendment*, 55 FLA. L. REV. 391, 405 (2003).

¹²⁴ See Meares, *supra* note 23, at 173 n.75.

¹²⁵ *United States v. Montero-Camargo*, 208 F.3d 1122, 1143 (9th Cir. 2000) (en banc) (Kozinski, J., concurring). Courts have long urged trial judges to "examine with care the specific data underlying" police officers' assertions about high-crime areas, *id.* at 1139 n.32 (majority opinion), but as prosecutors and defense attorneys alike agree, this never happens in practice, see Andrew Guthrie Ferguson & Damien Bernache, *The "High-Crime Area" Question: Requiring Verifiable and Quantifiable Evidence for Fourth Amendment Reasonable Suspicion Analysis*, 57 AM. U. L. REV. 1587, 1591 (2008) ("The high-crime area designation is hardly ever empirically supported with factual evidentiary proof."); Lenese C. Herbert, *Can't You See What I'm Saying? Making Expressive Conduct a Crime in High-Crime Areas*, 9 GEO. J. ON POVERTY L. & POL'Y 135, 135 (2002) (recalling that "judges rarely challenged the proffered label or required its definition," and "never asked officers for data to support assertions that an area was high-crime").

tive data” that can “determine if a specifically delineated geographical area is, in fact, ‘higher crime’ than another area.”¹²⁶ More specifically, the proposal urges criminal courts to incorporate empirical data into the analysis by finding some way of “requiring the government to” provide criminal courts “with existing data regularly collected by law enforcement organizations” via the internal “crime mapping and data collection” software that those organizations employ.¹²⁷ What this suggestion overlooks, however, is that simply by accessing their *own* internal systemic facts, criminal courts can often compile such statistics — and thus map high-crime areas — independent of police departments’ assertions or willingness to divulge internal statistical data.

To see this capacity realized in practice, take once again the Superior Court of the District of Columbia. As in most jurisdictions, every person arrested or cited for a criminal offense in the nation’s capital is brought before a judicial officer. In the District, this occurs even if the local prosecutor ultimately declines to pursue any charges. Thus, the court as an institution is aware not only of every prosecution but also of every arrest within the jurisdiction. And its knowledge is impressively detailed: To facilitate the presentment process, the Superior Court has implemented a computerized protocol that collects “adult criminal case information (both data and documents) from arrest through prosecutorial action,” drawing such data in from the local police department and prosecuting offices and thus creating “a one-stop-shop for . . . criminal justice related information” in the jurisdiction.¹²⁸ Through this centralized digital database, the court’s internal docketing software auto-populates itself on a daily basis with detailed information about every arrest and citation in the city — including information capturing the age, gender, and race or ethnicity of the suspect; the date and time of the arrest or citation; the offense alleged by the police; and the location where that offense took place.

Consider the potential these systemic facts have to offer. Basic (and free) online programs can easily translate each arrest location into coordinates that can be automatically plotted onto a digital map of the city, which can just as easily then be superimposed with neighborhood or census block boundaries freely downloaded from the U.S. Census

¹²⁶ Ferguson & Bernache, *supra* note 125, at 1593.

¹²⁷ *Id.* at 1595.

¹²⁸ Criminal Justice Coordinating Council, *CJCC Justice Information System (JUSTIS)*, DC.GOV, <http://cjcc.dc.gov/page/cjcc-justice-information-system-justis> [<http://perma.cc/R23M-5LF2>]. For a discussion of similar systems in place in New York City and Los Angeles as far back as 1999, see BUREAU OF JUSTICE ASSISTANCE, U.S. DEP’T OF JUSTICE, REPORT OF THE NATIONAL TASK FORCE ON COURT AUTOMATION AND INTEGRATION 3 n.1 (1999) [hereinafter NATIONAL TASK FORCE REPORT].

Bureau.¹²⁹ Armed with these resources, a laptop, and some basic technical proficiency, it is possible to create a detailed and comprehensive arrest map of an entire city — exclusively from the criminal court’s own systemic facts. To highlight the general ease of this process, I have used it to produce the map below, which plots the location of every search warrant executed at a physical address in the District of Columbia in 2013.¹³⁰

FIGURE 1



This map is of course only a crude approximation of what one could generate from the Superior Court’s own internal data, as it does not depict suspect-specific demographic data, alleged offenses, or the time or date of the suspected events. Still, even this rough proxy

¹²⁹ See *TIGER Products*, U.S. CENSUS BUREAU, <https://www.census.gov/geo/maps-data/data/tiger.html> [<http://perma.cc/LP25-8TRL>] (describing the Census Bureau’s system for “Topologically Integrated Geographic Encoding and Referencing”).

¹³⁰ This map uses search warrant executions as opposed to arrests because the Superior Court makes the former more readily available in a conveniently accessible digital format. Specifically, the court has an online portal that provides access to its docket system, see *Court Cases Online*, D.C. COURTS, <https://www.dccourts.gov/cco/maincase.jsf> [<http://perma.cc/32ES-AF25>], and that provides the target address for each search warrant recorded in the system. This configuration allows for web-scraping software to compile a list of all addresses that were the subject of search warrants in a given year — a tool used to produce the map in Figure 1. The public docket system, however, unlike the court’s internal database, does not list the location of arrests in a format similarly amenable to automated assessment. For a discussion of the need to improve the transparency and accessibility of systemic facts vis-à-vis researchers and the public, see *infra* text accompanying note 246. For a discussion of the concomitant need to safeguard individual privacy that could be jeopardized by such transparency, see *infra* text accompanying note 248.

demonstrates systemic facts' powerful potential: any individual in the District of Columbia — including any judge or litigant — with access to digitized information *already in the court's custody* could examine criminal activity in the jurisdiction down to the city block, with granular precision capable of categorizing each incident by offense type, season of the year, day of the week, and time of the day.

Such information could be powerfully illuminating. Indeed, analyzing similar crime-location data obtained from the New York City Police Department, Fagan and Geller were able to determine that police officers in that jurisdiction are just as likely to say that they stopped someone in a so-called “high-crime area” when the stop was “made in the *lowest-crime* quintile” of the City as when it occurred “in the *highest-crime* quintile.”¹³¹ These researchers thus demonstrated with hard data what others have previously suspected: “Just as a man with a hammer sees every problem as a nail, so a man with a badge may see every corner of his beat as a high crime area.”¹³² Crucially, however, a local criminal court with access to internal systemic facts similar to those collected by the D.C. Superior Court need not wait for such crime-location data to be disclosed by its local police department to pursue a similar analysis. Rather, the court's systemic facts alone already capture all of the information necessary to allow for an assessment of high-crime-area assertions by law enforcement.¹³³

Indeed, systemic facts hold the potential not just to illuminate the descriptive accuracy of police officers' claims, but also to provide a window onto law enforcement's systemic *behavior* as well. Consider in this context the thorny problem of racially disparate policing. For years, scholars have expressed concern that law enforcement tactics (including search warrant applications and executions¹³⁴) are racially discriminatory. Given that concern, the following juxtaposition of the District of Columbia's Census demographics alongside the map generated above seems perhaps relevant:

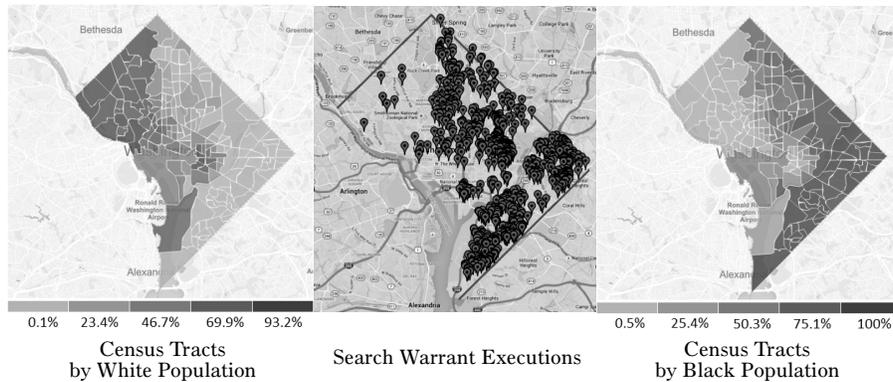
¹³¹ Fagan & Geller, *supra* note 96, at 79 (emphasis added); *see also id.* at 79–80 (“Similar results were found in tract-level analyses, suggesting that the propensity to identify an area as ‘high crime’ is not driven by small hot spots in large precincts.”).

¹³² *United States v. Montero-Camargo*, 208 F.3d 1122, 1143 (9th Cir. 2000) (en banc) (Kozinski, J., concurring).

¹³³ Whether the court has the empirical sophistication to conduct such an analysis *by itself* is a separate question, taken up *infra* section IV.A.1, pp. 2104–06.

¹³⁴ *See Benner & Samarkos, supra* note 98, at 232–35.

FIGURE 2



As this side-by-side comparison reveals, search warrant executions almost perfectly track the city's sharply segregated racial demographics, with almost no search warrant executions in the predominantly white areas of Upper Northwest, Eastern Market, and Capitol Hill.¹³⁵

These maps of course do not alone prove that racial discrimination is afoot.¹³⁶ The data used to generate them would, however, allow the courts — with expert assistance — to determine whether any such racial disparities exist, and whether they can be explained by identifiably race-neutral factors. And indeed, when Fagan analyzed data along these lines provided by the New York City Police Department, he discovered that “the racial composition of a neighborhood is a statistically significant predictor of the number of police stops” and frisks in a given area, “even when controlling for police-reported measures of crime, police-patrol allocations, and other social conditions.”¹³⁷ In Washington, D.C., however, as in many other jurisdictions using similar case-management software,¹³⁸ the criminal courts themselves have for years already been in possession of systemic facts that would allow for similar analyses of police practices in their own jurisdictions.

3. *Assessing Predictive Accuracy.* — Finally, by accessing its systemic facts, a criminal court can assess not only the consistency and

¹³⁵ The demographic maps in Figure 2 are derived from Aaron Blake, *The Remarkable Racial Segregation of Washington, D.C.*, in *1 Map*, WASH. POST (June 19, 2015), <https://www.washingtonpost.com/news/the-fix/wp/2015/06/19/the-remarkable-racial-segregation-of-washington-d-c-in-1-map> [http://perma.cc/4LCN-S9JM].

¹³⁶ See, e.g., Alexander Tabarrok, Paul Heaton & Eric Helland, *The Measure of Vice and Sin: A Review of the Uses, Limitations and Implications of Crime Data*, in HANDBOOK ON THE ECONOMICS OF CRIME 53, 71–78 (Bruce L. Benson & Paul R. Zimmerman eds., 2010).

¹³⁷ Meares, *supra* note 23, at 173–74 (describing Fagan's expert report in *Floyd v. City of New York*, 959 F. Supp. 2d 540 (S.D.N.Y. 2014)).

¹³⁸ See *infra* section IV.A.3, pp. 2108–12.

descriptive accuracy of probable-cause scripts but their *predictive accuracy* as well. The predictive accuracy of a given script is perhaps its most important feature, as it directly engages the core question of probable-cause analysis: How often *is it true* that people observed doing x turn out to be engaged in criminal activity y or in possession of criminal evidence z ? As Professor Max Minzner argues, this question is fundamentally a question of success rates, which, if capable of assessment, ought to replace intuitional “assumptions about the value of different” law enforcement observations.¹³⁹ For if a judge can analyze concrete information about the types of observations that “actually predict whether contraband is likely to be found” or whether criminal activity is likely afoot, her “probable-cause decision can become far more accurate.”¹⁴⁰

Minzner proposes a now familiar intervention to facilitate such data-driven judicial review: “law enforcement should be forced to present success-rate data to judges when making probable-cause claims,” in order to afford criminal courts access to “private information in the possession of law enforcement that is not currently presented to judges.”¹⁴¹ But once again, systemic facts reframe our understanding of criminal courts’ capabilities here: the information necessary to perform a more systematic probable-cause analysis may not need to be pried loose from law enforcement departments, because criminal courts already have much of it sitting readily at hand, within their own internal libraries of systemic facts.

The data story here is straightforward. As is true in most states, police officers in the District of Columbia are required by statute to file a formal return itemizing the results of any search warrant they execute — or to indicate that nothing was seized. And as with the probable-cause affidavits supporting the warrant in the first place, digitized copies of these returns are filed in the court’s electronic docketing system. Thus, the same technological tools that allow the initial probable-cause scripts to be categorized based on their substantive claims and text patterns further allow those categories of probable-cause scripts to be matched with the *results* of the searches that they produce.

This internal digital knowledge base makes it possible to enrich judicial probable-cause assessments even more powerfully than Minzner had hoped. For in his proposal, success rates would be tagged to the officer or police squad conducting the search, on the theory that by knowing which officers are more accurate at locating contraband

¹³⁹ Minzner, *supra* note 90, at 941.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 913 (emphasis omitted).

judges could better determine whose requests to authorize.¹⁴² But if text-pattern software is utilized to organize probable-cause scripts by script *type*,¹⁴³ then a substantially more fine-grained level of analysis is possible: judges can assess the accuracy not just of individual officers, but also of specific factual *observations*.¹⁴⁴

And indeed, cutting-edge research by scholars at Stanford and New York University demonstrates the power of such analysis. Using a dataset that contains not only hundreds of thousands of probable-cause scripts offered to justify street-level frisks but also the results of the ensuing searches, these researchers have been able “to compute the likelihood that any particular stop-and-frisk will result . . . in the discovery of particular kinds of evidence, given the information available to the officer before the encounter.”¹⁴⁵ Notably, because this analysis can calculate the “probability of discovering” contraband or evidence “based on all the factors that were known to the officer before the” encounter begins, it offers a tool that can either be applied prospectively — to evaluate warrant applications — or as a “retrospective test” that can assist a judge evaluating testimony offered at a suppression hearing.¹⁴⁶ In either instance, a comparison of an officer’s proffered observations to data revealing the correlation between such observations and the presence of contraband could substantially inform the decision whether a subsequent search passes constitutional muster.¹⁴⁷

In a similar vein, at least one civil rights organization has already undertaken early efforts to incorporate analysis along these lines into litigation — using as its raw data the very same systemic facts described earlier: search warrant returns in the District of Columbia. Based on its analysis, the group reports, for example, that in cases where “officers seek a home search warrant based only on the seizure

¹⁴² *Id.* at 920–21.

¹⁴³ *See supra* text accompanying notes 104–07.

¹⁴⁴ In order for an aggregate analysis of probable-cause scripts to illuminate the scripts’ predictive power, police officers must accurately and faithfully report the facts upon which the scripts are based. For reasons previously discussed, this may not always happen. *See supra* section III.A.1, pp. 2075–78 and note 121. Still, even if the scripts themselves may not be perfectly reliable, studying them in the aggregate should at minimum reveal the extent to which a police department’s own reported assertions support its proffered conclusion that probable cause justifies a given search or seizure.

¹⁴⁵ Sharad Goel, Maya Perelman, Ravi Shroff & David Alan Sklansky, *Combating Police Discrimination in the Age of Big Data* 5 (Feb. 12, 2016) (unpublished manuscript) (on file with the Harvard Law School Library) (using statistical analysis of “close to half a million *Terry* stops in New York City” to calculate a “stop-level hit rate” that describes “the *ex ante* probability of discovering a weapon, based on all the factors that were known to the officer before the *Terry* stop”).

¹⁴⁶ *Id.* at 5, 29.

¹⁴⁷ *See id.* at 27 (reporting that the vast majority of stops and frisks — more than eighty percent — occurred in situations where the *ex ante* probability of finding a weapon was less than five percent); *id.* at 28 (reporting that “even after controlling for location, the . . . model still indicates that the NYPD was stopping minorities based on less evidence than whites”).

of a firearm in a street stop . . . 91% of such warrants searching for guns in the District *fail[]* to find any guns in the home.”¹⁴⁸ Similarly, the group reports that when “District officers sought to search a home based solely on assertions that a drug criminal would keep drugs at home, police officers failed to find any drugs, let alone the drugs they were looking for, in almost 66% of the cases.”¹⁴⁹ These claims are not atypical of other jurisdictions, though particular success rates vary considerably.¹⁵⁰

Of course, it is entirely possible that any given set of reported success or failure rates have been miscalculated, or skewed by advocacy accounting. And there remains the more fundamental question of defining the success rate that will be sufficient to justify a search or seizure.¹⁵¹ But the broader and more critical point is this: If you were a judge reviewing a request to search someone’s home, wouldn’t you want to know if the predictive claims presented by the police to support the request were accurate? Wouldn’t it be deeply — indeed, conclusively — relevant to you that prior police searches based on the same basic set of observations yielded no relevant evidence *ninety-one percent* of the time?¹⁵² In many cases, the judges who sign warrant applications never see the actual returns and thus lack even a rough sense of the success rates for the searches that they authorize.¹⁵³ But the virtue of systemic facts is that a judge need not personally keep track of the results of every warrant she signs. Her institution — the criminal court — is already doing that. All the judge needs to do is recognize the systemic facts that are already at her disposal.

¹⁴⁸ First Amended Complaint at 9, *Lane v. District of Columbia*, No. 1:14-cv-1316 (D.D.C. Sept. 25, 2015) (emphasis added).

¹⁴⁹ First Amended Complaint at 10, *S.H. v. District of Columbia*, No. 1:14-cv-1317 (D.D.C. Sept. 25, 2015).

¹⁵⁰ See, e.g., Laurence A. Benner, *Racial Disparity in Narcotics Search Warrants*, 6 J. GENDER RACE & JUST. 183, 219 (2002) (“58% of all narcotics warrants issued were successful in recovering the drug that was the target of the warrant.”). As Minzner observes, “success rates vary widely.” Minzner, *supra* note 90, at 913; see *id.* at 914–15 (reporting individual officers’ success rates varying between 5.6% and 86.7%).

¹⁵¹ See *infra* note 232.

¹⁵² Cf. McCauliff, *supra* note 89, at 1327 tbl.3 (reporting that, notwithstanding disagreement among judges as to the quantification of probable cause, no judge surveyed would find probable cause at a success rate less than ten percent and that fewer than five percent of judges surveyed would find probable cause at a success rate below twenty percent). At some point, the discrepancy between an officer’s assertion that, in his professional experience, something “usually” happens and the reality that, in fact, it happens only nine percent of the time raises serious credibility questions. Cf. Minzner, *supra* note 90, at 915 (“[H]it rates provide a means to detect police perjury.”); *supra* note 121.

¹⁵³ See Benner & Samarkos, *supra* note 98, at 257 (observing that “over a third (37%) of [returns] were signed by a judge other than the issuing magistrate,” which “deprives judges of feedback on the outcome of search warrants they issue”). Moreover, individual judges often do not have equal exposure to the warrant process, given the existence of magistrate shopping in some jurisdictions. See Bar-Gill & Friedman, *supra* note 62, at 1614, 1640–41.

B. *Monitoring the Prosecution*

Let us turn now to the other half of the law enforcement team — the prosecution. It bears emphasis at the outset that a great deal of prosecutorial power is exercised through the plea bargaining process,¹⁵⁴ which, as scholars frequently lament, is not only troublingly coercive,¹⁵⁵ but is also largely insulated from judicial review,¹⁵⁶ despite mounting evidence that the process contributes significantly to massive and racially disproportionate incarceration rates.¹⁵⁷ Still, notwithstanding prosecutors' broad, discretionary plea bargaining authority, it would overstate matters to suggest that criminal courts are *powerless* when it comes to monitoring or constraining prosecutorial activity. On the contrary, many core examples of prosecutorial misconduct — ranging from the failure to disclose exculpatory evidence, to the improper consideration of race when selecting jurors, to racially discriminatory

¹⁵⁴ With plea bargain rates generally exceeding ninety-five percent across the country, the Supreme Court has recently observed that “plea bargaining . . . is not some adjunct to the criminal justice system; it *is* the criminal justice system.” *Missouri v. Frye*, 132 S. Ct. 1399, 1407 (2012) (quoting Robert E. Scott & William J. Stuntz, *Plea Bargaining as Contract*, 101 YALE L.J. 1909, 1912 (1992)).

¹⁵⁵ The substantive breadth and punitive depth of the criminal code combine to afford prosecutors tremendous plea bargaining leverage and power. See Stuntz, *supra* note 42; see also PRESIDENT'S COMM'N ON LAW ENF'T & ADMIN. OF JUSTICE, THE CHALLENGE OF CRIME IN A FREE SOCIETY 43 (1967), <https://www.ncjrs.gov/pdffiles1/nij/42.pdf> [<http://perma.cc/3YM3-EBCY>] (“[M]ost people, when they are asked, remember having committed offenses for which they might have been sentenced if they had been apprehended,” notwithstanding the “common belief that the general population consists of a large group of law-abiding people and a small body of criminals.”); Robert H. Jackson, *The Federal Prosecutor*, 24 J. AM. JUDICATURE SOC'Y 18, 19 (1940) (“With the law books filled with a great assortment of crimes,” there is “a fair chance of finding at least a technical violation of some act on the part of almost anyone.”); William J. Stuntz, *The Political Constitution of Criminal Justice*, 119 HARV. L. REV. 780, 841 (2006) (“For prosecutors, the message is: threaten everything in your arsenal in order to get the plea bargain you want. For defendants, the message is simpler: take the deal, or else.”). Indeed, the coercive effect of plea bargaining is substantial enough that, in a number of instances, it has been used to extract guilty pleas from defendants who were actually innocent of the crime at issue. See Jed S. Rakoff, *Why Innocent People Plead Guilty*, N.Y. REV. BOOKS, Nov. 20, 2014, at 16. For further discussion of plea bargaining's defects, see generally Albert W. Alschuler, *Implementing the Criminal Defendant's Right to Trial: Alternatives to the Plea Bargaining System*, 50 U. CHI. L. REV. 931, 932 (1983) (recounting “the defects of plea bargaining”); and Crespo, *supra* note 41, at 2030–42 (describing the negative systemic effects of plea bargaining on the broader process of constitutional criminal adjudication).

¹⁵⁶ See *Bordenkircher v. Hayes*, 434 U.S. 357 (1978); see also Alschuler, *supra* note 155, at 933 (arguing that plea bargaining “tends to make figureheads of judges, whose power over the administration of criminal justice has largely been transferred” to prosecutors); Barkow, *supra* note 37, at 871 (describing prosecutors as “the final adjudicators in the vast majority of cases,” given that they “control the terms of confinement in this vast penal system” through “charging decisions” and plea bargaining).

¹⁵⁷ See Sonja B. Starr & M. Marit Rehavi, *Mandatory Sentencing and Racial Disparity: Assessing the Role of Prosecutors and the Effects of Booker*, 123 YALE L.J. 2 (2013); Stuntz, *supra* note 42, at 509, 569–72; Crystal S. Yang, *Free at Last? Judicial Discretion and Racial Disparities in Federal Sentencing*, 44 J. LEGAL STUD. 75 (2015).

charging practices — have for decades been subject to constitutional constraints crafted and enforceable by the courts.

Indeed, it remains something of a mystery why judges often do not exert greater control over prosecutors within the domains where such oversight is doctrinally possible.¹⁵⁸ One theory, however, is that the lack of robust oversight stems in part from an “information gap” between courts and prosecutors, the argument here being that “only the prosecutor knows” if he “has withheld exculpatory evidence” or “suborned perjury” or “used race as a consideration in making charges or striking jurors,” and that judges therefore face substantial practical “problems of detection and proof.”¹⁵⁹ Information gaps, however, are precisely where systemic facts can be most useful — in part because they can reveal that such gaps are not actually as wide as they may appear. Indeed, by engaging with their own systemic facts, criminal courts may come to recognize that they know quite a bit more about prosecutorial behavior in their jurisdictions than they think.

To demonstrate this point, let us consider the three examples of prosecutorial misconduct just noted: failure to disclose exculpatory information, race-based jury selection, and racially discriminatory charging.

1. *Disclosing Exculpatory Information.* — A longstanding principle of constitutional criminal law, first set out in *Brady v. Maryland*,¹⁶⁰ requires criminal prosecutors to disclose to defendants any information known to the government that might be helpful to the defendant’s case, a rule designed to safeguard both the fairness and the accuracy of the criminal process.¹⁶¹ Unfortunately, as practicing attorneys know all too well, the rule is followed less frequently than it should be. Indeed, the former Chief Judge of the country’s largest federal appellate

¹⁵⁸ See, e.g., Albert W. Alschuler, *Courtroom Misconduct by Prosecutors and Trial Judges*, 50 TEX. L. REV. 629, 673 (1972) (observing “a strange hesitancy” on the part of judges “to subject prosecutors to the rules that are applicable to other lawyers”); Adam M. Gershowitz, *Prosecutorial Shaming: Naming Attorneys to Reduce Prosecutorial Misconduct*, 42 U.C. DAVIS L. REV. 1059, 1062 (2009) (describing as “surprising . . . the tepid reaction from many judges when cases of serious misconduct come to light”). Judicial elections, discussed *infra* section IV.A.4, pp. 2112–14, may contribute to the problem.

¹⁵⁹ George A. Weiss, *Prosecutorial Accountability After Connick v. Thompson*, 60 DRAKE L. REV. 199, 227 (2011); cf. Rachel E. Barkow, *Organizational Guidelines for the Prosecutor’s Office*, 31 CARDOZO L. REV. 2089, 2096 (2010) (observing that judges may “not have enough information” to fully assess prosecutorial misconduct).

¹⁶⁰ 373 U.S. 83 (1963).

¹⁶¹ With respect to accuracy, it bears noting that *Brady* violations are a common occurrence in cases of false conviction. See, e.g., BRANDON L. GARRETT, CONVICTING THE INNOCENT 168–70 (2011); EMILY M. WEST, INNOCENCE PROJECT, COURT FINDINGS OF PROSECUTORIAL MISCONDUCT CLAIMS IN POST-CONVICTION APPEALS AND CIVIL SUITS AMONG THE FIRST 255 DNA EXONERATION CASES (2010); *Voices from the Field: An Inter-Professional Approach to Managing Critical Information*, 31 CARDOZO L. REV. 2037, 2071 (2010) (presentation by Terri Moore, First Assistant, Dallas County District Attorney’s Office).

court has decried “an epidemic of *Brady* violations abroad in the land,”¹⁶² notwithstanding the fact that prosecutors describe compliance with the rule as one of the “most important” responsibilities of the job.¹⁶³

A major recurring theme when it comes to these violations is the role that information gaps play at multiple stages of the process. For starters, information gaps within the prosecution team can generate *Brady* violations in the first instance, because the prosecutor primarily responsible for one case might not know about information that ought to be disclosed to the defense but that was obtained by other law enforcement colleagues, either while working on the same investigation or another.¹⁶⁴ Second, information gaps contribute to judges’ and defense attorneys’ inability to detect *Brady* problems, because they will often not know about exculpatory or impeaching information relevant to the case at hand even when such information has been disclosed or revealed in some other setting.¹⁶⁵ And finally, while the recurring or systemic nature of *Brady* violations within a given office can significantly impact the deterrent remedies a court might wish to impose,¹⁶⁶ judges are often unaware of the extent to which systemic problems exist. For even if a given prosecutorial office is a *Brady* violation “hot spot,”¹⁶⁷ individual judges often adjudicate only a small slice of their

¹⁶² United States v. Olsen, 737 F.3d 625, 626 (9th Cir. 2013) (Kozinski, C.J., dissenting from denial of rehearing en banc).

¹⁶³ Memorandum from David W. Ogden, Deputy Att’y Gen., to Dep’t of Justice Prosecutors (Jan. 4, 2010), <http://www.justice.gov/dag/memorandum-department-prosecutors> [<http://perma.cc/B2WZ-KDNX>].

¹⁶⁴ See Barkow, *supra* note 159, at 2092–93 (“Prosecutors’ offices have large caseloads,” which “can lead to overlooked evidence or insufficient documentation,” such that trial “prosecutors may simply not know that exculpatory evidence exists.”); Adam M. Gershowitz & Laura R. Killinger, Essay, *The State (Never) Rests: How Excessive Prosecutorial Caseloads Harm Criminal Defendants*, 105 NW. U. L. REV. 261, 282–84 (2011); cf. Youngblood v. West Virginia, 547 U.S. 867, 869–70 (2006) (per curiam) (“*Brady* suppression occurs when the government fails to turn over even evidence that is ‘known only to police investigators and not to the prosecutor.’” (quoting *Kyles v. Whitley*, 514 U.S. 419, 438 (1995))).

¹⁶⁵ See Alex Kozinski, Preface, *Criminal Law 2.0*, 44 GEO. L.J. ANN. REV. CRIM. PROC. iii, xxvii (2015) (“[P]olicing this conduct is exceedingly difficult for the simple reason that ‘*Brady* violations . . . almost always defy detection.” (alteration in original) (quoting Scott H. Greenfield, *The Flood Gates Myth*, SIMPLE JUSTICE (Feb. 16, 2015), <http://blog.simplejustice.us/2015/02/16/t-he-flood-gates-myth> [<http://perma.cc/F73M-XZTG>])); Kevin C. McMunigal, *Disclosure and Accuracy in the Guilty Plea Process*, 40 HASTINGS L.J. 957, 962 n.22 (1989) (“Unless the defendant somehow fortuitously learns of the exculpatory information and the prosecution’s possession of it, a *Brady* violation will never come to light.”).

¹⁶⁶ Cf. United States v. Kojayan, 8 F.3d 1315, 1324 (9th Cir. 1993) (taking into account “considerations beyond th[e] case” at bar when crafting a sanction, in order to ensure “that the circumstances that gave rise to the misconduct won’t be repeated in other cases”); *infra* text accompanying notes 175–78 and note 178.

¹⁶⁷ Cf. Connick v. Thompson, 131 S. Ct. 1350, 1370 (2011) (Ginsburg, J., dissenting) (“From the top down, the evidence showed, members of the District Attorney’s Office, including the District Attorney himself, misperceived *Brady*’s compass and therefore inadequately attended to their dis-

court's docket, and thus might not know of problems concerning the same office — or even the same prosecutor — that have arisen in neighboring courtrooms. In short, when it comes to *Brady* compliance, systemic information gaps abound.

Systemic facts, however, can help fill those gaps, in at least two important ways. First, systemic facts can produce an organized, digitized knowledge base of previously disclosed information. Much *Brady* information is, to be sure, case specific. A surprising amount of it, however, crosses from one case to another. A disclosure, for example, that a stationhouse breathalyzer has been malfunctioning or that a local crime lab has been using defective procedures can have wide-ranging effects.¹⁶⁸ So too can a disclosure that might undermine the credibility of a witness who is involved in multiple different cases, such as a police officer or an informant.¹⁶⁹ In a world of disaggregated information, however, the odds that all of the potentially affected parties will become aware of such disclosures often turns on pure “dumb luck.”¹⁷⁰

But crucially, such disclosures need not *remain* wholly disaggregated, for in a great many instances they will have been internalized into the criminal court's own systemic facts — because prosecutors have a strong incentive to make a record of any disclosures that they provide.¹⁷¹ In the Superior Court of the District of Columbia, for exam-

closure obligations.”); Miriam H. Baer, *Timing Brady*, 115 COLUM. L. REV. 1, 20 (2015) (summarizing scholarly critique of prosecutorial offices as “dysfunctional bureaucrac[ies] that encourage[] and preside[] over . . . repeated and systematic failures to identify and disclose exculpatory evidence”).

¹⁶⁸ See, e.g., Mary Pat Flaherty, *400 Drunken-Driving Convictions in D.C. Based on Flawed Test, Official Says*, WASH. POST (June 10, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/06/09/AR2010060906257.html> [<http://perma.cc/FE2W-NKMH>]; Milton J. Valencia, *Crime Lab Scandal May Reach State Officials*, BOSTON GLOBE, Mar. 14, 2016, at B1 (describing “the worst criminal justice scandal in Massachusetts history,” arising from “the wrongdoing of [a] corrupt crime lab chemist”).

¹⁶⁹ See, e.g., Matt Zaposky & Peter Hermann, *Probe of FBI Agent Has Devastating Effect on D.C. Drug Cases*, WASH. POST (Nov. 7, 2014), https://www.washingtonpost.com/local/crime/2014/11/07/2fcb8ce8-65df-11e4-bb14-4cfea1e742d5_story.html [<http://perma.cc/972X-LY97>]; cf. Jonathan Abel, *Brady's Blind Spot: Impeachment Evidence in Police Personnel Files and the Battle Splitting the Prosecution Team*, 67 STAN. L. REV. 743, 746 (2015) (arguing that “*Brady's* application to police personnel files has grave implications for defendants”).

¹⁷⁰ Andrew D. Leipold, *How the Pretrial Process Contributes to Wrongful Convictions*, 42 AM. CRIM. L. REV. 1123, 1150 (2005); see also Don J. DeGabielle & Eliot F. Turner, *Ethics, Justice, and Prosecution*, 32 REV. LITIG. 279, 286 (2013) (noting that *Brady* violations are “likely to be discovered only by happenstance”); cf., e.g., *United States v. Price*, 566 F.3d 900, 905 (9th Cir. 2009) (describing *Brady* information that “came to light only after” a witness in an earlier prosecution testified again “in a second case”).

¹⁷¹ Cf. Ogden, *supra* note 163 (“One of the most important steps in the discovery process is keeping good records regarding disclosures.”). Of course, *Brady* information that is never disclosed *at all* will remain exclusively internal to prosecutorial or police offices. Cf. Kozinski, *supra*

ple, digitized *Brady* disclosures are routinely provided not just to the defense attorney on the case but also to the presiding judge, either through formal electronic docket entries, informal emailed submissions to the “chambers file,” or through digitally transcribed colloquies in open court. Alternatively, the information may come to light in the course of testimony offered at trial or during an evidentiary hearing, in which case the court’s digital transcript of the proceeding could reveal — or constitute — important exculpatory information.¹⁷² Criminal courts thus often wind up in possession of considerable caches of digitized disclosures that, taken together, form a broad knowledge base of potential *Brady* information, which prosecutors or defense attorneys could easily search to check the accuracy of the representations (or silences) made in subsequent cases.

Indeed, a good signal of the inherent value of such a database is the fact that law enforcement and criminal defense agencies alike have already made some efforts to construct them on their own initiative — using their own internal systemic facts. The FBI, for example, is currently developing “a case management system that allows investigators to search for unique pieces of data, like crime details . . . across multiple investigations.”¹⁷³ Similarly, in our case-study jurisdiction, the Public Defender Service for the District of Columbia makes some effort to piece together a database of witness testimony, composed of digital transcripts flagged by its attorneys as potentially useful in future cases. That archiving system, for various reasons, is a poor shadow of the knowledge base that the Superior Court could create from its own systemic facts.¹⁷⁴ But the fact that the local defense bar and investiga-

note 165, at xxvii (“The cops know it. The prosecutors know it. [But t]he defense and the defendant have no idea whether *Brady* material exists.” (quoting Greenfield, *supra* note 165)).

¹⁷² Cf. *supra* text accompanying notes 115–21 and note 121 (describing the potential that systemic factfinding holds to uncover both clear inconsistencies and curious consistencies in a witness’s prior testimony, both of which can undermine credibility).

¹⁷³ Douglas Page, *Crime Fighting’s Next Big Deal: Police Predict Future Crime by Mining ‘Big Data,’* LAW ENFORCEMENT TECH., Sept. 2012, at 12, 14. The FBI is motivated primarily by the potential such aggregation holds for solving crimes, but the knowledge base could presumably aid in *Brady* compliance as well.

¹⁷⁴ There are at least four limiting factors constraining the utility of the Public Defender Service’s database: First, the Service is statutorily limited to representing a minority of defendants in the jurisdiction, and thus cannot collect comprehensive source data. See D.C. CODE § 2-1602(a) (2001). Second, whereas the Superior Court has free access to its own real-time digital transcripts and digital recordings of proceedings, it charges the Service between \$3.65 and \$10.30 per page for formal transcription services, which makes comprehensive collection wildly cost prohibitive. See *Court Reporting and Records Division*, D.C. CTS., <http://www.dccourts.gov/internet/system/recording/main.jsf> [<http://perma.cc/B25W-LQJC>] (reporting fees). Third, public defenders face complicated ethical issues when pooling case-related information or otherwise coordinating collective action, given the need to avoid breaches of client confidentiality or conflicts of interest. Cf. Oren Bar-Gill & Omri Ben-Shahar, *The Prisoners’ (Plea Bargain) Dilemma*, 1 J. LEGAL ANALYSIS 737, 760–65 (2009); Margareth Etienne, *The Ethics of Cause Lawyering: An Empirical Exami-*

tive agencies both attempt to create such knowledge bases highlights their inherent value.

Second, beyond facilitating knowledge aggregation and dissemination, systemic facts can also enable criminal courts to better understand how their local prosecutors actually *behave* when it comes to *Brady* compliance — an understanding that is necessary if judges are to craft “appropriate remedial sanctions”¹⁷⁵ that aim “to deter blatant Government misconduct”¹⁷⁶ and address “systemic problem[s]”¹⁷⁷ that may be afoot.¹⁷⁸ The underlying challenge here, once again, is that *Brady* violations are often seen as “a hidden problem.”¹⁷⁹ Indeed, some academics have attempted to address this perceived information gap by calling on outside actors, including law schools, to serve an “information-forcing function” by keeping track of opinions that reveal prosecutorial misconduct and then distributing “a list to defense lawyers, prosecutors, judges, and bar disciplinary committees” that identi-

nation of Criminal Defense Lawyers as Cause Lawyers, 95 J. CRIM. L. & CRIMINOLOGY 1195, 1253–56 (2005). And finally, ethical, practical, or tactical limitations may also prevent the Service from granting access to even its fledgling knowledge base to the broader defense bar — let alone to courts or adversaries.

¹⁷⁵ *Odom v. United States*, 930 A.2d 157, 158–59 (D.C. 2007) (“[A] trial court has discretion to fashion . . . appropriate remedial sanctions for the government’s failure to make timely disclosure of . . . exculpatory evidence . . .”).

¹⁷⁶ *Dixon v. District of Columbia*, 394 F.2d 966, 970 (D.C. Cir. 1968) (opinion of Bazelon, C.J.).

¹⁷⁷ *United States v. Olsen*, 737 F.3d 625, 631 (9th Cir. 2013) (Kozinski, C.J., dissenting from denial of rehearing en banc).

¹⁷⁸ Two recent examples from our case-study jurisdiction illustrate the systemic deterrence rationale of *Brady* litigation at work, in that each involves the court dismissing a prosecution with prejudice after finding systemic *Brady* problems within the U.S. Attorney’s Office for the District of Columbia and the Attorney General’s Office for the District of Columbia, the two local prosecutorial offices. See Transcript of Oral Order at 34, *United States v. Minor*, 2014 CMD 4284, (D.C. Super. Ct. June 4, 2014) (“[W]hile I believe that the [trial] prosecutor who is here[] is as diligent as any, and more diligent than most in [the U.S. Attorney’s] office, I don’t believe that *the office* is proceeding in these cases in a manner consistent with the constitutional rights of the defendants who appear in this courthouse . . .”) (emphasis added) (on file with author); *District of Columbia v. Barbusin*, No. 2012 CDC 000913, at 2 (D.C. Super. Ct. Aug. 8, 2013) (“The most troubling thing at this point is . . . for it to go all the way up the chain of command within the [D.C. Attorney General’s Office] and for me to get a pleading signed by the [Deputy Attorney General] that persists in calling this evidence non-exculpatory — [that] suggests to me that the Attorney General’s Office has a different view of *Brady* tha[n] the rest of us do . . .”) (second, third, and fourth alterations in original) (order denying motion to reconsider prior order of dismissal), <https://s3.amazonaws.com/s3.documentcloud.org/documents/758687/barbusin.pdf> [<http://perma.cc/L4Y3-ZGXN>]. In the first case cited above, *United States v. Minor*, 2014 CMD 4284, I was counsel of record for the defendant.

¹⁷⁹ Ellen Yaroshesky, *Foreword: New Perspectives on Brady and Other Disclosure Obligations: What Really Works?*, 31 CARDOZO L. REV. 1943, 1945 (2010) (suggesting that “it is impossible to gather accurate data” regarding violations). But see David Keenan et al., *The Myth of Prosecutorial Accountability After Connick v. Thompson: Why Existing Professional Responsibility Measures Cannot Protect Against Prosecutorial Misconduct*, 121 YALE L.J. ONLINE 203, 211 (2011) (citing empirical studies suggesting that the “evidence we do have indicates that” the problem is “serious”).

fies the prosecutors involved.¹⁸⁰ Similarly, some defense agencies have made analogous efforts, with the Public Defender Service for the District of Columbia, for example, calling on local trial attorneys to help identify cases in which “judges make findings of *Brady* violations or other prosecutorial misconduct,” given that such rulings “are often not published in reported opinions.”¹⁸¹ “Only by recording, compiling, aggregating, and analyzing these cases,” the Service writes, “can any real change come to the system.”¹⁸²

Criminal courts, however, need not rely on such second-best efforts to create *Brady* compliance registries within their jurisdictions, for the courts already know every case in which a *Brady* issue is raised and how that issue was resolved. The court, after all, is the institution that is adjudicating the claims. Moreover, because the records of such proceedings are all digitized, text searchable, and catalogued within an existing electronic docket system, they are ripe for translation into precisely the digital knowledge base that academics and practitioners have sought. Thus, while Judge Kozinski may have overstated matters when he claimed that “[o]nly judges can put a stop to” the current “epidemic of *Brady* violations,”¹⁸³ he was surely correct in suggesting that judges can take steps to provide substantially better systemic oversight in this arena than they currently do, including by engaging more directly with their existing stores of systemic facts.

2. *Race-Based Jury Selection.* — Consider next another regularly cited form of prosecutorial misconduct, one that “strikes at the fundamental values of our judicial system and our society as a whole”: race-based jury selection.¹⁸⁴ Contemporary accounts describe a “continuing legacy” of “illegal racial discrimination” in the jury-selection process,¹⁸⁵

¹⁸⁰ Gershowitz, *supra* note 158, at 1064–65.

¹⁸¹ SPECIAL LITIG. DIV., PUB. DEF. SERV. FOR THE DIST. OF COLUMBIA, *BRADY V. MARYLAND* OUTLINE 61–62 (2013).

¹⁸² *Id.* at 62.

¹⁸³ *United States v. Olsen*, 737 F.3d 625, 626 (9th Cir. 2013) (Kozinski, C.J., dissenting from denial of rehearing en banc) (emphasis added). I say “may overstate” because, in addition to judges, prosecutors themselves can also train, monitor, and attempt to correct misbehavior in their own ranks.

¹⁸⁴ *Rose v. Mitchell*, 443 U.S. 545, 556 (1979).

¹⁸⁵ EQUAL JUSTICE INITIATIVE, *ILLEGAL RACIAL DISCRIMINATION IN JURY SELECTION* 14 (2010), <http://www.eji.org/files/EJI%20Race%20and%20Jury%20Report.pdf> [<http://perma.cc/P85P-LEAY>]; see Mary R. Rose, Shari Seidman Diamond & Marc A. Musick, *Selected to Serve: An Analysis of Lifetime Jury Participation*, 9 J. EMP. LEGAL STUD. 33, 38 (2012) (describing “common . . . finding from experiments, court observation, and attorney interviews that attorneys rely strongly on racial stereotypes to exercise peremptory challenges” (citations omitted)); Sonja B. Starr, *Sentence Reduction as a Remedy for Prosecutorial Misconduct*, 97 GEO. L.J. 1509, 1513–14 (2009) (describing “race and sex discrimination in jury selection” as an instantiation of “widespread” prosecutorial misconduct); Weiss, *supra* note 159, at 219 (“Prosecutorial misconduct is prevalent in race-based jury exclusions.”); see also Adam Liptak, *New Questions on Racial Gap in Filling Juries*, N.Y. TIMES, Aug. 17, 2015, at A1.

despite longstanding judicial efforts dating back well before *Batson v. Kentucky*¹⁸⁶ to end the practice. Systemic facts alone won't end that legacy. But given the nature of the doctrinal framework that the Supreme Court has devised to address the problem, they can assuredly help.

It is important to observe in this context that the Supreme Court's governing doctrinal approach affirmatively encourages trial courts to take a broad, institutional view of the problem. For not only has the Court recognized the inherent difficulty of spotting or correcting race-based selection in isolated cases;¹⁸⁷ it has also expressly urged lower courts to look to "historical evidence of racial discrimination by [a] District Attorney's office" when evaluating a specific claim of alleged misconduct.¹⁸⁸ Indeed, the Court has said that "sometimes a court may not be sure" whether a prosecutor's conduct in a given case is constitutional "unless it looks beyond the case at hand."¹⁸⁹ This encouragement to examine the institutional history of the prosecutor's office is in essence a call from the Supreme Court for trial courts to engage their own systemic facts when adjudicating *Batson* claims.

And those systemic facts could be quite powerful. To appreciate systemic factfinding's potential in this context, consider first the range and nature of the information available to criminal courts when it comes to the jury selection process, taking once again the Superior Court of the District of Columbia as an illustrative example. In that jurisdiction, when the court summons prospective jurors for service, it includes with the summons a survey that records the jurors' sex, age, race, address, and occupation.¹⁹⁰ The court then compiles that information into an electronic database, which is later used to generate a report describing each prospective juror in a given case to the relevant attorneys and the presiding judge.

¹⁸⁶ 476 U.S. 79 (1986); *see id.* at 85 (describing "the Court's unceasing efforts," stretching back to *Strauder v. West Virginia*, 100 U.S. 303 (1880), "to eradicate racial discrimination in the procedures used to select the venire from which individual jurors are drawn").

¹⁸⁷ *See Miller-El v. Dretke*, 545 U.S. 231, 238 (2005) (observing that "[t]he rub has been the practical difficulty of ferreting out discrimination" through such a limited inquiry); *see also* Andrew Guthrie Ferguson, *The Big Data Jury*, 91 NOTRE DAME L. REV. 935, 952–53 (2016) ("[T]he only limitation to striking a potential juror is a failure of imagination Courts have acknowledged this [problem], but have not designed a solution." (citation omitted)); Nancy S. Marder, *Batson Revisited*, 97 IOWA L. REV. 1585, 1589 (2012) ("One reason *Batson* was so ineffectual was that lawyers quickly learned which reasons to give and which ones to avoid.>").

¹⁸⁸ *Miller-El v. Cockrell*, 537 U.S. 322, 346 (2003) (emphasis added); *see also id.* at 347 (explaining that such evidence is "of course . . . relevant to the extent it casts doubt on the legitimacy of the motives underlying the State's actions in [the] case [at hand]").

¹⁸⁹ *Dretke*, 545 U.S. at 240.

¹⁹⁰ SUPERIOR COURT FOR THE DIST. OF COLUMBIA, JURY PLAN § 9 (Nov. 9, 2013), http://www.dccourts.gov/internet/documents/Jury-Plan-effective_11-9-2013.pdf [<http://perma.cc/X8TH-262Z>].

Notably, consistent with national trends toward a more streamlined voir dire process, the demographic information just described is often virtually the *only* information the attorneys will receive about the potential jurors during the selection process.¹⁹¹ Academics have criticized this “information-poor”¹⁹² approach to voir dire on the ground “that it encourages attorneys to rely on stereotypes based on a juror’s demographic characteristics” when making their selection decisions, given that such characteristics are “often the primary information that [the attorneys] have about each individual juror.”¹⁹³ And that may well be true. But, perhaps ironically, the anemic voir dire process also makes it substantially easier to *identify* potentially unconstitutional race-based strikes. For not only is the criminal court collecting, in digitized form, virtually all of the information known to the attorneys about each potential juror, but that information is also “uniform for all potential jurors,” as well as “limited and, to a great degree[,] objectively verifiable.”¹⁹⁴ Moreover, the court also uses a standardized form to record the race, gender, and identification number of each juror strick-

¹⁹¹ See Marder, *supra* note 187, at 1595 (observing that questions to potential jurors “tend to be quite cursory and to produce limited information”); see also Thaddeus Hoffmeister, *Investigating Jurors in the Digital Age: One Click at a Time*, 60 U. KAN. L. REV. 611, 635 (2012) (“Numerous courts across the country, citing time constraints, have either reduced the time allocated for voir dire or switched from attorney- to judge-conducted voir dire.”); Antony Page, *Batson’s Blind-Spot: Unconscious Stereotyping and the Peremptory Challenge*, 85 B.U. L. REV. 155, 254 (2005) (describing “[v]oir dire [that] may be as limited as brief ‘yes’ or ‘no’ group questioning by the judge”). In the District of Columbia, beyond the summons survey described above, prospective jurors who are brought to a courtroom for jury selection are asked as a group to answer a series of yes or no questions revealing whether, for example, they have been victims of crime or are related to any law enforcement officers. The responses to these questions are then read into the real-time digital transcript of the court record, thus complementing and augmenting the electronic record previously generated by the demographic survey. In rare instances, the attorneys may ask a clarifying question or two, but the time spent with each juror is often less than a minute.

¹⁹² Ferguson, *supra* note 187, at 954.

¹⁹³ Valerie P. Hans & Alayna Jehle, *Avoid Bald Men and People with Green Socks? Other Ways to Improve the Voir Dire Process in Jury Selection*, 78 CHI.-KENT L. REV. 1179, 1190 (2003).

¹⁹⁴ *McCleskey v. Kemp*, 481 U.S. 279, 295 n.14 (1987). As noted *supra* note 191, any information revealed by the Superior Court’s voir dire process that goes beyond the demographic data contained in the court’s jury database consists almost exclusively of binary (yes or no) responses to questions that are uniformly posed to the entire venire. Those responses, moreover, are entered into the record for each prospective juror via the court’s digital transcription system. Notably, were the responses recorded through some automated electronic querying tool, or simply recorded by the courtroom clerk into a spreadsheet, in addition to being transcribed by the court reporter, they would be even more amenable to aggregation and analysis, as such collection methods would eliminate the need to distill the jurors’ codable responses from the transcript of the proceeding. Cf. *supra* text accompanying notes 104–07 (describing text recognition and coding software); *infra* section IV.A.3, pp. 2108–11 (discussing the potential for criminal courts to reorient existing case-management processes in a manner that would facilitate greater collection and use of systemic facts).

en during the process, in order to generate a *Batson* record.¹⁹⁵ Thus, the criminal court, within its own repository of systemic facts, possesses a catalog containing all of the (limited) information an attorney is likely to consider when selecting jurors, as well as a comprehensive and demographically coded record of the selection decisions that the attorney makes.

Under conditions similar to these, the Supreme Court has recognized that it is appropriate for courts seeking to suss out constitutionally impermissible discrimination to apply “an inference drawn from general statistics.”¹⁹⁶ Indeed, the Court’s jury-selection precedents often employ inherently statistical formulations, observing that jury strikes are problematic when they “correlate with no fact as well as they correlate with race,”¹⁹⁷ or when “[h]appenstance is unlikely to produce” an observed “disparity.”¹⁹⁸ This is language that empiricists will recognize as familiar to multivariate regression analysis, a standard statistical tool that has long been used “to determine the likelihood that a criterion,” such as race, “has influenced the decisionmaking process” of a given actor.¹⁹⁹ Indeed, it is a tool that the Supreme Court has accepted as a valuable means of identifying illegal discrimination in related contexts.²⁰⁰

In the jury-selection context, regression analyses could be applied to individual prosecutors or to prosecutorial offices as a whole,²⁰¹ and could thus allow courts to identify potentially problematic practices with far greater precision than the case-specific, largely anecdotal procedure that *Batson* doctrine otherwise employs within the confines of

¹⁹⁵ This supplements the summons form described above. Cf. Henri E. Cauvin, *Judges Respond to Concerns About D.C. Jury Pool Diversity*, WASH. POST, July 15, 2007, at C1 (reporting that “most people . . . do not answer the optional race question on the summons”). As of 2014, when I last practiced in the jurisdiction, the juror-selection recording form existed in paper format and was filled out by hand, prior to being scanned into the record. Once again, were this information simply coded electronically at the outset (via the courtroom clerk’s computer) that would substantially enhance the accessibility and utility of the data. Cf. *infra* section IV.A.3, pp. 2108–11 (discussing the need to improve criminal courts’ data collection protocols).

¹⁹⁶ *McCleskey*, 481 U.S. at 294; see *id.* at 295 n.14 (explaining that inferential statistics are an appropriate and useful tool “[i]n venire-selection” challenges, where “the factors that may be considered” when deciding which jurors to include or exclude “are limited” and “uniform for all potential jurors”).

¹⁹⁷ *Miller-El v. Dretke*, 545 U.S. 231, 266 (2005).

¹⁹⁸ *Miller-El v. Cockrell*, 537 U.S. 322, 342 (2003); cf. Michael O. Finkelstein, *The Application of Statistical Decision Theory to the Jury Discrimination Cases*, 80 HARV. L. REV. 338 (1966).

¹⁹⁹ Sheila Foster, *Intent and Incoherence*, 72 TUL. L. REV. 1065, 1149 (1998). See generally Franklin M. Fisher, *Multiple Regression in Legal Proceedings*, 80 COLUM. L. REV. 702 (1980).

²⁰⁰ *McCleskey*, 481 U.S. at 294 (observing that the “Court has accepted statistics in the form of multiple-regression analysis to prove statutory violations under Title VII of the Civil Rights Act of 1964”).

²⁰¹ See RAMONA L. PAETZOLD & STEVEN L. WILLBORN, *THE STATISTICS OF DISCRIMINATION* 11-25 to -27 (1994).

individual cases — a process regularly criticized as a “charade”²⁰² given the ease with which seemingly race-neutral explanations for strikes can be generated.²⁰³ Notably, litigants have, on rare occasion, attempted to incorporate precisely such multivariate analyses into *Batson* litigation.²⁰⁴ Such efforts, however, have been exceptionally rare — because litigants almost never have access to the requisite data.²⁰⁵ But as the foregoing discussion demonstrates, criminal courts themselves often do have access to such information, as it is frequently sitting within their own internal systemic facts. If such institutional knowledge were to be organized and analyzed by an appropriately qualified expert, it would offer perhaps the greatest potential yet for the courts truly to “eradicate racial prejudice” from the jury-selection process.²⁰⁶ At a minimum, greater judicial engagement with criminal courts’ systemic facts in this arena could expose such prejudice where it exists, with enough rigor and nuance to allow for more informed study — and more systemically effective judicial intervention.

3. *Selective Prosecution.* — Finally, let us consider the thorny problem of racially disparate prosecutorial charging decisions, an issue frequently described as both serious in scope and as fundamentally corrosive to the criminal justice system’s legitimacy.²⁰⁷ The power of systemic facts in this context echoes the jury-selection discussion above, given that in both instances statistical analyses can be used to identify the impact of discrete factors — including race — on official decisionmaking. Indeed, the Supreme Court’s precedents confirm the relationship, holding that “selective prosecution claims” should be judged “according to ordinary equal protection standards,”²⁰⁸ which in this context requires the proponent of a selective prosecution claim to

²⁰² E.g., *People v. Randall*, 671 N.E.2d 60, 65 (Ill. App. Ct. 1996).

²⁰³ Cf. *Hernandez v. New York*, 500 U.S. 352, 361 (1991) (plurality opinion) (permitting strikes of some Latinos on the purportedly “race-neutral basis” that they speak Spanish as well as English).

²⁰⁴ See David C. Baldus et al., *Statistical Proof of Racial Discrimination in the Use of Peremptory Challenges: The Impact and Promise of the Miller-El Line of Cases as Reflected in the Experience of One Philadelphia Capital Case*, 97 IOWA L. REV. 1425, 1459–60 (2012); see also *id.* at 1459 (describing a litigant’s successful use of “a logistic multiple regression analysis that controls simultaneously for the most important race-neutral venire-member characteristics”); cf. JON M. VAN DYKE, *JURY SELECTION PROCEDURES* 154–56 (1977) (describing empirical studies conducted by litigants and newspapers to demonstrate systemic use of race-based peremptories).

²⁰⁵ Cf. David C. Baldus et al., *The Use of Peremptory Challenges in Capital Murder Trials: A Legal and Empirical Analysis*, 3 U. PA. J. CONST. L. 3, 22–23 (2001) (“[W]e are aware of only five [academic] empirical studies of the use of peremptory challenges in actual cases.”).

²⁰⁶ *McCleskey v. Kemp*, 481 U.S. 279, 309 (1987).

²⁰⁷ Cf. James C. McKinley Jr., *Study Finds Racial Disparity in Criminal Prosecutions*, N.Y. TIMES, July 9, 2014, at A20 (discussing *BESIKI LUKA KUTATELADZE & NANCY R. ANDILORO, VERA INST. OF JUSTICE, PROSECUTION AND RACIAL JUSTICE IN NEW YORK COUNTY* (2014)).

²⁰⁸ *Wayte v. United States*, 470 U.S. 598, 608 (1985).

“demonstrate that the” challenged “prosecutorial policy ‘had a discriminatory effect and that it was motivated by a discriminatory purpose.’”²⁰⁹ Both of these showings can, at least in theory, be substantially bolstered, if not proven outright, by compelling statistical evidence.²¹⁰

In practice, however, selective prosecution claims are virtually “impossible” to litigate, because criminal defendants rarely have access to the data necessary to prevail.²¹¹ Indeed, here the informational shortfall is attributable largely to the Supreme Court itself, and specifically

²⁰⁹ United States v. Armstrong, 517 U.S. 456, 465 (1996) (quoting *Wayte*, 470 U.S. at 608).

²¹⁰ See *McCleskey*, 481 U.S. at 293 (recognizing that “[t]he Court has accepted statistics [alone] as proof of intent to discriminate in certain limited contexts”). There is a debate among scholars as to whether *McCleskey* actually bars courts from using statistical analysis to satisfy the “intent” prong of the equal protection analysis. The Court’s opinion receives “near universal condemnation” for its failure to take account of the specific statistics at issue in that case. G. Ben Cohen, *McCleskey’s Omission: The Racial Geography of Retribution*, 10 OHIO ST. J. CRIM. L. 65, 67 (2012). On close reading, however, *McCleskey* stressed that it eschewed reliance on those statistics for a set of reasons that could well be limited to the specific circumstances at issue. For example, the evidence presented, which was advanced to challenge race disparities following capital jury trials, was criticized by the Court for failing to isolate causal effect among the large number of entities involved in the process (including not only discrete district attorneys, but also a countless and constantly changing array of independent and uncoordinated jury panels). See *McCleskey*, 481 U.S. at 294–95, 295 n.15. The Court further rejected the specific statistics before it because it believed the “inference from statewide statistics” was “of doubtful relevance” when evaluating a practice implemented at the local level, *id.* at 295 n.15 (emphasis added), and because it additionally believed that the statistics at the individual county level “represent[ed] the disposition of far fewer cases than the statewide statistics” and were thus insufficiently reliable, *id.* at 296 n.15. Notably, the Court did *not* say that such county-level data, if robust, would lack constitutional weight. On the contrary, it reaffirmed that “an unexplained statistical discrepancy *can* be said to indicate a consistent policy of the decisionmaker,” if the statistics are robust and if a single decisionmaker or institution is indeed responsible for the decision. *Id.* at 295 n.15 (emphasis added).

For a thorough discussion of what *McCleskey* did — and did not — say about statistics in this context, and of how courts and scholars have often overread the decision, see John H. Blume, Theodore Eisenberg & Sheri Lynn Johnson, *Post-McCleskey Racial Discrimination Claims in Capital Cases*, 83 CORNELL L. REV. 1771, 1773–74 (1998) (explaining that, contrary to what “some scholars have concluded,” “statistically based attacks involving racial bias” that are “prosecutor-specific” are “consistent with *McCleskey*”); and Marc Price Wolf, Note, *Proving Race Discrimination in Criminal Cases Using Statistical Evidence*, 4 HASTINGS RACE & POVERTY L.J. 395, 395 (2007) (discussing “ways in which criminal defendants might attempt to prove racial discrimination in their case by using statistical studies to support their claim even after *McCleskey*”). See also Goel et al., *supra* note 145, at 5 (“As statistical proof of racial bias becomes more and more convincing, courts will — and should — be more comfortable relying on it.”); Erica J. Hashimoto, *Class Matters*, 101 J. CRIM. L. & CRIMINOLOGY 31, 49 (2011) (“[A]s the Supreme Court’s selective prosecution cases make clear, without data, a defendant cannot prevail on a selective prosecution claim. Thus, while such claims continue to be very difficult to prove even with data, it is possible that more sophisticated data collection may ultimately make the claims more readily provable.”).

²¹¹ William J. Stuntz, *Bordenkircher v. Hayes: Plea Bargaining and the Decline of the Rule of Law*, in CRIMINAL PROCEDURE STORIES 351, 369 (Carol S. Steiker ed., 2006) (describing a claim of selective prosecution as “more than difficult — it’s impossible”).

to its much-maligned decision, *United States v. Armstrong*,²¹² which academics routinely cite as having created a “classic legal Catch-22.”²¹³ For in *Armstrong*, the Court held that in order to obtain basic discovery from a prosecutor’s office about its charging practices, a proponent of a selective prosecution claim must first make a “threshold showing . . . that the Government declined to prosecute similarly situated suspects of other races.”²¹⁴ That is to say, in order to obtain statistics showing whom prosecutors are prosecuting, a challenger must first point to statistics demonstrating a disparity in who is being prosecuted — a discovery regime that leaves academics and litigants alike wondering how any defendant could make such a showing without access to the very discovery that the Court’s rule denies.²¹⁵

Armstrong is fairly criticized for impeding efforts to discover, and thus to counteract, racially biased charging decisions. And yet, the barrier that *Armstrong* erects may increasingly become a vestige of a bygone technological age, given that contemporary criminal courts’ own systemic facts often reveal precisely the information that *Armstrong* permits prosecutorial offices to withhold. In the District of Columbia, for example, case-processing software previously described generates within the court’s own records a digital catalog of virtually every charging decision local prosecutors make — including the decision not to prosecute.²¹⁶ And for each such decision, it also collects important data on the dependent and independent variables that would be necessary to construct a rich statistical analysis of the office’s charging practices. On the dependent variable side, this includes records of the initial charging or declination decision, as well as records of subsequent charge amendments, plea offers,²¹⁷ diversion offers, safety-valve or cooperation reductions, and sentences sought at allocution — in short, a record of virtually every enforcement decision made by the office in every case. As for independent variables, the court records key data concerning factors that ought *not* to be influencing the charging decision — such as the race, gender, and income of the defendant — as well as factors that *should* be taken into account, such as

²¹² 517 U.S. 456 (1996).

²¹³ *E.g.*, STUNTZ, *supra* note 49, at 120.

²¹⁴ *Armstrong*, 517 U.S. at 458.

²¹⁵ See STUNTZ, *supra* note 49, at 120 (“*Armstrong*’s claim couldn’t win without more information, yet *Armstrong* could get that information only if he had a winning claim without it.”).

²¹⁶ See *supra* text accompanying note 128 (describing digital clearinghouse that collects information regarding every arrest in the city, even in cases where no charge is filed).

²¹⁷ *Cf., e.g., In re Making a Record to Comply with Missouri v. Frye*, 132 S. Ct. 1399 (2012) in Cases Assigned to Judge Kopf, General Order No. 2013-03 at 1 (D. Neb. June 13, 2013), http://www.ned.uscourts.gov/internetDocs/pom/orders/GO_2013-03.pdf [<http://perma.cc/WD5L-FNDW>] (establishing procedures “for the purpose of making a [judicial] record” of all plea offers communicated by the prosecution to the defense).

the defendant's criminal history, the alleged offense, any acceptance by the defendant of responsibility, any cooperation on his part with law enforcement, and any positive or negative experience he may have had with prior judicial supervision.²¹⁸

The foregoing, to be sure, is not an exhaustive list of legitimate factors a prosecutor might consider when filing charges or seeking a particular plea or sentence. The criminal court is unlikely, for example, to have within its systemic facts a clear sense of just how strong the prosecution's evidence is against the accused, which will almost always be an important factor in subsequent charging or plea bargaining decisions.²¹⁹ But the failure of systemic facts to capture *all* of the variables of interest does not render systemic factfinding useless in this setting. To the contrary, "omitted-variable bias" is an "inherent" limitation of inferential statistics.²²⁰ The important question is not whether the courts' systemic facts capture the full universe of potential decisional variables, but rather whether there is a plausible theory by which the potentially omitted variables are mixed up with the variable of interest — for example, race.²²¹ By leveraging its systemic facts, the court can engage that central inquiry with a clear and informed understanding of the key moving parts, and can thus come substantially closer to understanding whether race is influencing prosecutorial charging decisions in a constitutionally suspect manner.²²²

²¹⁸ As noted earlier, race and gender, along with age, are collected by the Superior Court's automated Case Initiation Project. See *supra* text accompanying note 217. Income is digitally docketed as part of the process for determining eligibility for appointed counsel. See D.C. CODE § 2-1602(d) (2001). The court's case-management software will record any allegations or findings of noncompliance with conditions of pretrial release or probation. The other variables in the text will typically be reported in a presentence report and, in many jurisdictions using sentencing guidelines, translated into numerical scores. See U.S. SENTENCING COMM'N, GUIDELINES MANUAL (2013).

²¹⁹ See *Wayte v. United States*, 470 U.S. 598, 607–08 (1985).

²²⁰ E.g., Jonathan Klick & Alexander Tabarrok, *Using Terror Alert Levels to Estimate the Effect of Police on Crime*, 48 J. L. & ECON. 267, 268–69 (2005).

²²¹ Cf. Dan M. Kahan & Donald Braman, *The Self-Defensive Cognition of Self-Defense*, 45 AM. CRIM. L. REV. 1, 43–44 (2008) ("Absent a plausible conjecture as to how any omitted variables might correlate to the observed ones, . . . there is no reason to doubt that the [statistical] model accurately captures the influence of, and relationship between, the variables deemed to influence [the outcome variable]."). Although theories accounting for such a relationship in the selective prosecution context are not impossible to imagine, it is not intuitively apparent why considerations related to, say, the strength of the evidence against the defendant would vary in the mine run of cases in a manner that correlates with the defendant's race. *But cf.* Katherine Beckett et al., *Race, Drugs, and Policing: Understanding Disparities in Drug Delivery Arrests*, 44 CRIMINOLOGY 105, 105 (2006) (finding that racial disparities in drug arrests were driven, in part, by a law enforcement "priority placed on outdoor drug venues," while also noting that this policy itself may not have been selected based on "race-neutral factors").

²²² If systemic facts create "a credible showing of different treatment of similarly situated persons" sufficient to establish a *prima facie* case, *United States v. Armstrong*, 517 U.S. 456, 470 (1996), the burden shifts to the prosecution to provide a race-neutral explanation, perhaps by

And indeed, academics have begun to engage in precisely such analyses. Professor Crystal Yang, for example, has constructed a massive dataset comprising over 400,000 federal prosecutions, and, through multivariate analysis, has demonstrated that “[b]lack offenders are generally more likely to be charged with mandatory minimum sentences than are similar white offenders” after controlling for other variables of interest, a reality that she reports ultimately contributes to racially disparate incarceration rates.²²³ Yang expended substantial effort to create this dataset, which she did by cross-referencing three different sources — one of which was itself the product of a decades-long effort to obtain raw data from within the criminal justice system.²²⁴ Not surprisingly, the difficulty in obtaining this type of data has prompted frequent and by now familiar calls for rules that would require “mandatory disclosure” by prosecutors of the internal “government documents material to a claim of selective prosecution.”²²⁵ But here again, systemic facts highlight a crucial alternative approach: all of the data that Yang relied upon in her robust and powerful analysis was data that came from *within the judiciary itself*.²²⁶

And this observation simply underscores the central point: Contemporary criminal courts are major custodians of systemic facts. If those facts are leveraged properly, they can enhance not only judges’ institutional awareness and comprehension of institutional law en-

identifying omitted variables or other endogeneity problems that explain the apparent statistical disparity. Of course, here too systemic facts can aid in evaluating whether the proffered justification fits the data, or instead (in the Supreme Court’s colorful language) “reeks of afterthought” and post hoc rationalization, *Miller-El v. Dretke*, 545 U.S. 231, 246 (2005).

²²³ Yang, *supra* note 157, at 78; see also Starr & Rehavi, *supra* note 157, at 7 (“[A]fter controlling for the arrest offense, criminal history, and other prior characteristics, there remains a black-white sentence-length gap of about 10%[,] . . . between half and [all of which] can be explained by the prosecutor’s initial charging decision After controlling for pre-charge case characteristics, prosecutors in our sample were nearly *twice* as likely to bring [a mandatory minimum] charge against black defendants.”). As Yang notes, “prosecutorial charging . . . is unlikely able to fully explain recent increases in racial disparities” in sentencing, some of which she attributes to judges. Yang, *supra* note 157, at 105–07.

²²⁴ See Yang, *supra* note 157, at 82–85. See generally TRANSACTIONAL RECORDS ACCESS CLEARINGHOUSE, THE DEVELOPMENT OF JUDGE-SPECIFIC FEDERAL SENTENCING DATA AT TRAC (2012), <http://trac.syr.edu/judges/aboutData.html> [<http://perma.cc/RD35-B8ZR>].

²²⁵ Tobin Romero, Note, *Liberal Discovery on Selective Prosecution Claims: Fulfilling the Promise of Equal Justice*, 84 GEO. L.J. 2043, 2044 (1996); see also Justin Murray, *Reimagining Criminal Prosecution: Toward a Color-Conscious Professional Ethic for Prosecutors*, 49 AM. CRIM. L. REV. 1541, 1594 (2012) (lamenting that “jurisdiction-specific information about the racial impacts of prosecutorial decision-making is generally not available” and urging “prosecution offices [to] establish methods for gathering data regarding the racial impact of discretionary charging decisions”).

²²⁶ See Yang, *supra* note 157, at 82–85.

forcement practices, but also their ability to regulate and oversee such practices at a systemic level.²²⁷

IV. TOWARD SYSTEMIC FACTFINDING

As the foregoing discussion demonstrates, a deep dive into the practical operation of local criminal courts reveals the powerful potential systemic facts hold to reshape constitutional criminal adjudication as a tool of systemic judicial review. With this new understanding of systemic facts in hand, this Part closes with a return to the Article's animating question, now with a somewhat more refined focus: How can *systemic factfinding* most appropriately and successfully be employed to help criminal courts better fulfill their jurisprudentially assigned role as systemic regulators of law enforcement behavior?²²⁸

It is important in addressing this question first to be clear as to just what it is that systemic facts can and cannot do. With respect to their limitations, it bears emphasis that systemic facts are subject to many of the same critiques that scholars have long leveled against legal empiricism more generally.²²⁹ Like empiricism, systemic factfinding is neither inherently inert with respect to underlying normative assump-

²²⁷ The initial exploration of systemic factfinding offered in this Article has focused on law enforcement actors — police departments and prosecutorial offices — as the two primary institutions in the criminal justice system. Systemic factfinding, however, could illuminate important institutional attributes of the criminal defense bar as well as of the criminal courts themselves. With respect to defense attorneys, systemic facts could help criminal courts to better manage jurisdiction-wide plans to provide effective counsel to indigent defendants, a task often assigned to the judiciary in the first instance. See Crespo, *supra* note 41, at 2028–29. Moreover, given the acknowledged crisis in indigent defense representation, *id.* at 2018–20, systemic factfinding could also allow courts to compare alternative methods of providing counsel to indigent defendants and perhaps even to identify particularly effective — or ineffective — attorneys within a pool of court-sponsored advocates. See, e.g., Thomas H. Cohen, *Who Is Better at Defending Criminals? Does Type of Defense Attorney Matter in Terms of Producing Favorable Case Outcomes*, 25 CRIM. JUST. POL'Y REV. 29 (2014); see also Andrew Lucas Blaize Davies, *How Do We "Do Data" in Public Defense?*, 78 ALB. L. REV. 1179, 1181 (2015); cf. Appointment of Attorneys to the Criminal Justice Act Panel, Administrative Order 15-06 (D.C. Super. Ct. Mar. 26, 2015), <http://www.dccourts.gov/interetnet/documents/15-06-Appointment-of-Attorneys-to-CJA-Panel-March-26-2015.pdf> [<http://perma.cc/KPT8-FBUD>] (tasking court with certifying a panel of attorneys authorized to receive court-funded appointments).

As for the courts themselves, systemic factfinding could permit criminal courts to turn their attention inward to examine, for example, racial disparities related to the protocols they use to compose jury venire pools, see, e.g., Mary R. Rose & Jeffrey B. Abramson, *Data, Race, and the Courts: Some Lessons on Empiricism from Jury Representation Cases*, 2011 MICH. ST. L. REV. 911, 912 (noting importance of "supporting empirical data" to jury-composition claims), or disparities in their own sentencing decisions, see Yang, *supra* note 157 (reporting evidence of race disparities in judicial sentencing), or their compliance with statutory or constitutional speedy trial guarantees, cf. Speedy Trial Act of 1974, 18 U.S.C. § 3161–3174 (2012); *Barker v. Wingo*, 407 U.S. 514 (1972).

²²⁸ Cf. *supra* text accompanying note 8.

²²⁹ See generally Meares, *supra* note 75 (describing and responding to such critiques); Meares & Harcourt, *supra* note 75 (same).

tions,²³⁰ nor is it immune to misunderstanding, misrepresentation, or misuse. As such, it is important not to put conclusions supported (or purportedly supported) by empirical findings on a pedestal, removed from close scrutiny by an “aura of ‘science’ and ‘objectivity.’”²³¹ More fundamentally, it is important to recognize that systemic factfinding alone simply cannot answer or resolve the many hard normative questions that often lie at the heart of criminal justice adjudication and administration.²³²

Systemic factfinding can, however, excavate, illuminate, and crystallize those normative questions, allowing courts to engage them more directly and with greater nuance and precision.²³³ This is no small feat, given that, at present, constitutional criminal law often muddles its way through many important issues, leaving sometimes foundational questions (what *is* probable cause?)²³⁴ unanswered for decades — perhaps because the appellate courts responsible for elucidating these

²³⁰ See Levin, *supra* note *, see also FAIGMAN, *supra* note 73, at 27 (describing both “[t]he probabilistic character of applied science” and the “socially dependent knowledge” underlying it as “inherent limitation[s] of the discipline”).

²³¹ Meares & Harcourt, *supra* note 75, at 797 (acknowledging the “risk” that empiricism might allow “the real decision-making process [to] be hidden in technical and purportedly ‘neutral’ discussions of the social science data,” which could “mask or minimize the [underlying] normativity [involved] and insulate it from attack”).

²³² See *supra* text accompanying notes 40–46; see also Meares & Harcourt, *supra* note 75, at 735 (“We are not so naïve or idealistic as to think that increased attention to empirical evidence will guarantee *right* answers in criminal procedure cases.”). Examples of unavoidable normative questions abound even in the discussions undertaken in this Article. For example, when it comes to examining probable cause, systemic factfinding can help a court discover that a given probable-cause script tends to be accurate only one-third or one-tenth of the time, see *supra* text accompanying notes 149–50, and could perhaps further illuminate the costs incurred when given scripts produce false positives, see, e.g., Kara Dansky, *Local Democratic Oversight of Police Militarization*, 10 HARV. L. & POL’Y REV. 59, 65 (2016) (citing study finding that “the data” show “that the unnecessary deployment of a SWAT team tends to *increase* the use of violence and the threat of danger”). Systemic factfinding cannot, however, resolve the ultimate question: Is a sixty-six or ninety percent failure rate *too high*, given the harms associated with mistaken police raids on the one hand and the perils of unchecked drug trafficking or other forms of criminality on the other? Similarly, with respect to the high-crime-area analysis, systemic factfinding can provide a detailed account of when, where, and how crime occurs within a jurisdiction, see *supra* section III.A.2, pp. 2078–82, but it cannot resolve whether a high-crime area ought to be defined in absolute or relative terms; at the block, neighborhood, or precinct level; or with respect to all crime or just specific forms of crime. Finally, in the context of racialized decisionmaking, systemic factfinding can facilitate powerful statistical analyses of the likely impact of race at various stages of the criminal process, see *supra* sections III.B.2–3, pp. 2092–2101, but it cannot alone determine what threshold of statistical inference is sufficient to imply actual *intent* to discriminate — nor can it resolve the more fundamental question of whether intent ought to be doctrinally required in the first instance.

²³³ See Meares & Harcourt, *supra* note 75, at 735 (arguing that greater judicial “use of empirical evidence will produce a *clearer* picture of the existing constitutional landscape and spotlight the normative judgments at the heart of criminal procedure cases” by forcing judges to “expressly articulate the grounds for factual assertions” underlying their analyses and “interpretive choices”).

²³⁴ See *supra* note 89.

issues lack a firm empirical understanding of the criminal justice system operating beneath them.²³⁵ By enabling criminal trial courts to generate appellate records that capture the operation of that system in richer detail, systemic factfinding could help break this impasse, ideally prompting a virtuous cycle in which appellate courts are not only better able to engage these elusive questions but — recognizing the value that systemic facts have to offer — are also able to signal to lower courts areas in which further development of systemic facts might be most useful, while also articulating for trial courts the best practices for implementing systemic factfinding as a practice.

But perhaps even more important than their capacity to illuminate future questions, systemic facts can help enforce the normative commitments that constitutional criminal law has already made. For as we have seen, systemic factfinding can significantly enhance criminal courts' basic ability to enforce existing constitutional doctrines that are designed to safeguard individual liberty and autonomy,²³⁶ to protect the fundamental fairness and integrity of the judicial process,²³⁷ and to seek the noble ideal of equal justice under the law.²³⁸ Helping criminal courts make these principles real and meaningful in the actual operation of the criminal process is likely systemic factfinding's greatest potential contribution — a contribution it seeks to achieve by catalyzing criminal courts' capacity for institutional awareness and thus for genuinely systemic judicial review of law enforcement authority.

Given these potential benefits, a transition to a regime in which systemic factfinding constitutes a more regular mode of constitutional criminal adjudication seems fundamentally worthwhile. Such a transition is not, however, foreordained. To the contrary, a number of practical obstacles — and at least one looming potential objection — remain, and require close attention. It is to these issues that the remainder of this Part turns, in an effort to explore how a pivot to systemic factfinding might actually be accomplished, and to defend the proposition that it should be.

²³⁵ See Anthony G. Amsterdam, *The Supreme Court and the Rights of Suspects in Criminal Cases*, 45 N.Y.U. L. REV. 785, 786 (1970) ("Neither the records nor the issues presented by [routine criminal litigation] give the [Supreme] Court a comprehensive view — or even a reliably representative view — of the doings in the dark pit in which criminal suspects, police and the functionaries of the criminal courts wrestle with each other in the sightless ooze. It is not surprising, then, that in these cases the Court should be incapable of announcing judgments which respond coherently to the real problems of the pit."); cf. FAIGMAN, *supra* note 73, at 8 (arguing that the Supreme Court's "power and legitimacy decrease in direct proportion to its self-imposed separation from reality"); Stoughton, *supra* note 75, at 883 (arguing that enhanced empirical sophistication can shrink gaps that might otherwise "separate a constitutional rule from the world that it regulates").

²³⁶ See *supra* section III.A, pp. 2070–85.

²³⁷ See *supra* section III.B.1, 2087–92.

²³⁸ See *supra* sections III.B.2–3, pp. 2092–2101.

A. Overcoming Practical Obstacles

Any effort to promote greater systemic factfinding in constitutional criminal adjudication must confront a series of practical obstacles that, while not insurmountable, merit serious consideration. This section addresses four such obstacles: criminal courts' potentially inadequate competency to engage in systemic factfinding; the costs and capacity constraints implicated by such a mode of adjudication; the challenges of acquiring systemic facts in the first instance; and the potential for ideological opposition on the part of some criminal court judges to stymie the effort. The next section will then engage a separate potential normative objection, grounded in the concern that systemic factfinding poses a threat to judicial neutrality in an adversarial system.

1. *Competency.* — Appeals to greater empiricism in the judicial process often encounter a common initial hurdle: the potentially limited competency on the part of judges and litigants to compile, organize, and digest sometimes complex empirical information.²³⁹ Ironically, the factual premise of this concern is itself somewhat uncertain, given that the emergence of empirical legal studies as a robust academic discipline has improved the sophistication of lawyers and judges alike in this regard.²⁴⁰ Still, improvements in empirical training and

²³⁹ See Minzner, *supra* note 90, at 952 (describing a lack of judicial competency as “perhaps the oldest challenge to the use of overtly probabilistic evidence”); see also FAIGMAN, *supra* note 73, at 160–61; cf. *Basic Inc. v. Levinson*, 485 U.S. 224, 253 (1988) (White, J., concurring in part and dissenting in part) (“[W]ith no staff economists [and thus] . . . no ability to test the validity of empirical market studies, we are not well equipped to embrace novel constructions of a statute based on contemporary microeconomic theory.”).

²⁴⁰ See Elaine McArdle, *The New Empiricists: In Law's New Frontiers, Data May Be as Important as Precedent*, HARV. L. BULL., Spring 2015, at 28, 30 (describing empirical legal studies as “arguably the hottest area of legal thought today”); see also Meares, *supra* note 75, at 855 (reporting appetite among judges for “empirical work that is relevant to the issues presented to them — especially in the criminal procedure area”); Monahan & Walker, *supra* note 74, at 511 n.118 (describing “[t]he increasing number of . . . judicial education programs offering courses in law and social science, and the burgeoning literature on social science tailored to a legal audience” as indicative of “a gradual, but nonetheless discernible, increase in judicial sophistication in this area”); *Mason Judicial Education Program*, GEO. MASON U. SCH. OF L.: LAW & ECON. CTR., <http://www.masonlec.org/programs/mason-judicial-education-program> [<http://perma.cc/9SJR-6EYU>] (describing empirical studies program that has been in place for thirty-eight years and has taught approximately “4,000 federal and state court judges representing all 50 states”); Michael R. Baye & Joshua D. Wright, *Is Antitrust Too Complicated for Generalist Judges? The Impact of Economic Complexity and Judicial Training on Appeals*, 54 J. LAW & ECON. 1, 4 (2011) (reporting that “[j]udges . . . perceive economic training to be beneficial,” that “hundreds of judges have already sought out basic economic training,” and “that the decisions of judges with basic economic training are appealed in simple [economics] cases at significantly lower rates than those of their untrained counterparts”). *But see id.* at 4–5 (reporting empirical training to be less successful as empirical questions grow more complex). Notably, for every concern raised over judges' lack of empirical competency, there seems to be a countervailing sentiment that judicial engagement with empiricism “is not rocket science” and that “an elementary understanding of

education notwithstanding, it remains the case that at least some manifestations of systemic factfinding may call for a level of sophistication beyond the ken of many criminal court judges, given the challenges inherent in identifying data of interest, converting them into a usable format from databases designed primarily for other purposes,²⁴¹ and comprehending the sometimes nuanced statistical analyses that systemic factfinding can entail. The very fact that a number of the examples in Part III reference the work of world-class legal empiricists only underscores this point.²⁴²

Criminal court judges need not become expert empiricists in their own right, however, in order to become more adept practitioners of systemic factfinding. Rather, their courts, as institutions, can undertake at least two relatively more modest steps toward overcoming this potential challenge. First, criminal courts, particularly those in large urban settings, can capitalize on the growing prominence of empirical legal studies — and on the judiciary’s longstanding inherent authority to seek expert assistance with complex issues — to pursue formal partnerships with institutions more expert in data manipulation and analysis than the courts themselves.²⁴³ Such partnerships could draw in law schools or universities as well as state or federal research bureaus,²⁴⁴ or could even go so far as to bring trained empiricists from

basic statistics and research methods will suffice in many cases.” FAIGMAN, *supra* note 73, at 33; *see also* HEARINGS BEFORE THE COMM’N ON REVISION OF THE FED. COURT APPELLATE SYS.: SECOND PHASE 830 (1975) (statement of Judge Robert Robb (“[A] lawyer who is worth his salt and sits on a circuit court of appeals, if he puts his mind to it . . . can master . . . and get at least an understanding of the most technical problems.”); Monahan & Walker, *supra* note 74, at 511 n.119 (“Anyone who can comprehend the Federal Tort Claims Act can learn what standard deviation and statistical significance mean.”); Peter W. Sperlich, *Social Science Evidence and the Courts: Reading Beyond the Adversary Process*, 63 JUDICATURE 280, 283 (1980) (“Statistical methods of analysis . . . surely are not beyond the comprehension of persons who have mastered the law of evidence.”).

²⁴¹ *See infra* section IV.A.3, pp. 2108–11.

²⁴² *See, e.g., supra* text accompanying notes 131–37 (citing Fagan & Geller, *supra* note 96), 145–47 (citing Goel et al., *supra* note 145), 223–26 (citing Yang, *supra* note 157).

²⁴³ *Cf.* FAIGMAN, *supra* note 73, at 33 (observing that “all courts have the inherent authority to appoint experts to assist them with complex technical subjects,” and that there is “no shortage of amici when it comes to answering empirical questions”); Monahan & Walker, *supra* note 74, at 509 n.116 (“The recommendation that courts have science advisors has a long history.” (citing sources)).

²⁴⁴ Organizations like the Bureau of Justice Statistics and the Minnesota Department of Corrections already endeavor to make information useful to systemic factfinding broadly available, exhibiting an approach to information gathering and sharing that could form the basis for increased future cooperation with judicial partners. *See, e.g., Criminal Justice Data Improvement Program*, BUREAU OF JUSTICE STATISTICS, <http://www.bjs.gov/index.cfm?ty=tp&tid=4> [<http://perma.cc/U5UY-MQEM>]; *Data Practices*, MINN. DEP’T OF CORRECTIONS, <http://www.doc.state.mn.us/PAGES/index.php/data-practices> [<http://perma.cc/U46G-GWYA>].

such institutions in-house, creating resident research fellowships or clinics within the court system itself.²⁴⁵

Second, courts unable to form such partnerships ought not underestimate the simple power of transparency. In a digital age, opening a court's internal systemic facts to litigants, researchers, other institutional actors, and even to the public could invite crowdsourced solutions to some of systemic factfinding's inherent practical challenges — drawing in expertise and resources from outside the court system and perhaps even from farther afield than a given criminal court's immediate surrounds. Indeed, multiple recent efforts to incorporate more sophisticated empirical analysis into questions of criminal justice reform highlight the promise and the potential of such an approach.²⁴⁶

As these efforts grow, it seems hard to argue against a default presumption of transparency for systemic facts that are generated and maintained by the judiciary. The “courts of this country,” after all, have long recognized “a general right” of the public “to inspect and copy . . . judicial records and documents.”²⁴⁷ Courts must of course take care to protect individual privacy interests implicated by sensitive information.²⁴⁸ But with appropriate safeguards in place, criminal courts can promote and achieve greater internal understanding of their own systemic facts simply by sharing those facts with others and by welcoming efforts from knowledgeable outsiders as a complement to the popular judicial education programs already underway.²⁴⁹

2. *Cost & Capacity.* — Beyond competency there is a separate question of cost and institutional capacity. Contemporary criminal courts often operate under significant docket pressure, struggling to

²⁴⁵ Cf. Sperllich, *supra* note 240, at 288–89 (proposing, inter alia, “experts . . . organized as [a] research office of the Court, the scientist-members being regular employees” who “collect and evaluate findings” and “undertake research on [their] own”).

²⁴⁶ For examples of recent initiatives along these lines, see Edmund L. Andrews, *Stanford Engineers' "Law, Order & Algorithms" Data Project Aims to Identify Bias in the Criminal Justice System*, STAN. NEWS (Feb. 10, 2016), <http://news.stanford.edu/news/2016/february/law-order-algorithm-021016.html> [<http://perma.cc/L7L7-NBT6>]; Ev Boyle, *Data Justice: Opening Up Criminal Justice Data for a More Fair and Efficient System*, KNIGHT NEWS CHALLENGE (Nov. 5, 2015, 3:44 PM), <https://www.newschallenge.org/challenge/data/entries/data-justice> [<http://perma.cc/QD4Q-AKU9>]; *Creating a National Infrastructure for Performance Measurement*, MEASURES FOR JUST., <http://measuresforjustice.org> [<http://perma.cc/W79H-HQ5S>].

²⁴⁷ *Nixon v. Warner Commc'ns, Inc.*, 435 U.S. 589, 597 (1978).

²⁴⁸ Cf. *U.S. Dep't of Justice v. Reporters Comm. for Freedom of the Press*, 489 U.S. 749, 767 (1989) (observing that state and federal governments, as well as “the law enforcement profession,” recognize “that individual subjects have a significant privacy interest in their criminal histories,” and noting “concern over centralized data bases” that might give “the general public access” to such information).

²⁴⁹ See sources cited *supra* note 240; see also Meares, *supra* note 75, at 857 (arguing that the “competence objection is not against empiricism per se,” but is rather an expression of “pessimism about the likelihood of creating optimum conditions for the use of this evidence,” pessimism that will inevitably recede “as courts become more receptive” to such practices going forward).

fulfill their core task of separating the guilty from the innocent and of meting out appropriate punishment to the former against a backdrop of diminishing institutional resources.²⁵⁰ A reform agenda that asks these overburdened institutions to do more within existing constraints will face the familiar challenges of an unfunded mandate. Indeed, in a criminal justice system as overburdened as ours, resource constraints pose a challenge to any criminal justice reform effort, whatever the proposed intervention may be.²⁵¹

And yet, with respect to this particular intervention, there is reason for cautious optimism that systemic factfinding is achievable even within criminal courts' currently limited means. For one thing, systemic factfinding does not impose a wholly new task on criminal courts, which already expend substantial effort resolving constitutional claims.²⁵² Rather, it offers a tool for courts to engage that core task more effectively, enhancing their oversight of institutions that they are already required to regulate through the inescapable process of constitutional criminal adjudication.²⁵³ In an ideal world, more effective regulation could in time even amount to *less* regulation, if it succeeds in reducing the amount of law enforcement behavior in need of correction, and thus the aggregate demand for judicial intervention.²⁵⁴

Systemic factfinding, however, holds potential not just to make judicial oversight more effective, but more *efficient* as well, given the opportunities it creates for courts to capitalize on economies of scale. By their nature, systemic facts are generally stable pieces of information. A prosecutorial office's record of racial jury strikes, for example, does not change significantly from case to case. Nor do the characteristics of high-crime areas or the predictive power of probable-

²⁵⁰ See Buenger, *supra* note 79, at 833–34 (describing the “present . . . funding crisis” facing many state courts as “the deepest, longest, and most threatening in generations”).

²⁵¹ For recent examples of budgetary constraints impacting these issues, see Associated Press, *Councilman Says Plan Could Bankrupt Ferguson*, WASH. POST, Aug. 7, 2015, at A3 (reporting claim by “a Ferguson city councilman [that] the Justice Department’s proposal to overhaul policing and municipal courts in Ferguson could bankrupt the St. Louis suburb”); and Campbell Robertson, *In Louisiana, the Poor Lack Legal Defense*, N.Y. TIMES, Mar. 20, 2016, at 1 (describing a “financial collapse” in Louisiana’s statewide indigent defense system).

²⁵² See Bar-Gill & Friedman, *supra* note 62, at 1669 (“[I]t does not take much imagination to recognize that suppression motions [alone] consume a great deal [of] time of the bench and bar . . .”).

²⁵³ See *supra* text accompanying notes 54–60.; *cf.* Minzner, *supra* note 90, at 955 (“Judges already make the complicated calculation of evaluating the weight to be given to a law enforcement officer’s [assertions and conclusions in the probable-cause analysis] Analyzing a base [success] rate is easier — not harder — than that decision.”).

²⁵⁴ See Bar-Gill & Friedman, *supra* note 62, at 1614 (observing that procedures that “force some police officials to stop and think, and to articulate their reasons for intruding into someone’s liberty, [can] thereby avoid[] unreasonable intrusions in the first place”); Minzner, *supra* note 90, at 939 (arguing that “[a]dding a success-rate requirement” to the probable-cause analysis “will begin to shift law enforcement incentives in positive ways”).

cause scripts. Given this stability, a judge who resolves a question of systemic fact creates, through her ruling, a public good that other judges on her court and other litigants in her jurisdiction can utilize in future cases, without having to reinvent the wheel. Indeed, one could imagine an informal practice of “factual stare decisis” emerging under conditions such as these, with subsequent judges deferring to the persuasive authority of prior systemic factfinding.²⁵⁵ A court might even go so far as to institutionalize the process, creating a “systemic factfinding division,” staffed by judges trained to conduct empirical litigation and authorized to issue presumptively binding rulings for all subsequent related litigation.²⁵⁶ These economies of scale, moreover, will inevitably increase with the forward march of technology, which will make systemic factfinding cheaper and easier as time goes on.²⁵⁷ Especially if combined with partnerships between criminal courts and outside expert institutions as described above,²⁵⁸ these potentially powerful efficiencies could help bring systemic factfinding to fruition even within a criminal justice system struggling to fulfill its core responsibilities under existing constraints.

3. *Access to Systemic Information.* — Beyond questions of competency and capacity, a third issue concerns criminal courts’ access to systemic facts in the first place. As the examples in Part III demonstrate, criminal courts already possess substantial caches of systemic data that are capable of illuminating important constitutional issues. But not all questions that arise in the course of constitutional criminal

²⁵⁵ Cf. Gorod, *supra* note 74, at 63–65.

²⁵⁶ See *id.* at 74 (suggesting that courts “bifurcate cases” and assign relevant components of litigation to judges trained in legislative factfinding in order to “facilitate the concentration of investigative resources, . . . [and] avoid the awkwardness of different courts resolving factual disputes in different ways”). It is not uncommon for a trial court to establish a specialized motions division to rule on pretrial motions. *E.g.*, Carol Sanger & Eleanor Willemssen, *Minor Changes: Emancipating Children in Modern Times*, 25 U. MICH. J.L. REFORM 239, 266 (1992). Moreover, institutionally vested actors or repeat players who are not already parties to the litigation — such as local public defenders or neighboring district attorneys — might be invited to participate as amici on factual questions of first impression. Cf. Crespo, *supra* note 41, at 2023–30 (discussing the potentially positive role of amici curiae in constitutional criminal adjudication and highlighting examples of courts affirmatively inviting such participation in appropriate cases).

²⁵⁷ Cf. Jonathan Zittrain, *Privacy 2.0*, 2008 U. CHI. LEGAL F. 65, 73 (describing “Moore’s Law,” which holds “that processing power doubles every two years or so” and its corollary “that existing processing power gets cheaper” as a result); M. Lee Taft, Comment, *Out of Sight, Out of Mind? Why the Lanham Act Needs to be Brought Into the Digital Millennium*, 34 CAMPBELL L. REV. 755, 770 (2012) (“Moore’s Law has consistently continued to play out in technological advances in the first decade of the 21st Century, making increasingly complex technological devices cheaper and cheaper, and therefore more readily available to a broader spectrum of the population.”); NATIONAL TASK FORCE REPORT, *supra* note 128, at 23 (describing “powerful database applications” in existence in 1999 that already afforded courts the ability to accomplish “information systems automation and integration . . . faster, cheaper, easier — and with more robust applications — than ever before”).

²⁵⁸ See *supra* section IV.A.1, pp. 2104–06.

adjudication correspond so readily to systemic facts that the courts themselves control.²⁵⁹ Moreover, there are surely court systems across the country that collect fewer systemic facts than the courts of the District of Columbia. Absent access to useful systemic data, criminal courts could be left to search for the keys to more effective judicial oversight beneath the potentially dim lamppost of their own internal data.

It is important to recognize, however, that criminal courts are not powerless when it comes to determining the scope of systemic facts at their disposal. On the contrary, they and their judges can take at least two steps to increase the quantity and the quality of systemic facts available to the judiciary — and, through the judiciary, to litigants and the broader public.

First, criminal courts can and should pay far greater attention to their own internal information management systems, reorienting those systems wherever possible so as to facilitate the collection of systemic facts in an organized, digital format that is amenable to aggregation, search, and analysis.²⁶⁰ With the digital revolution now in full swing, paper-based docketing systems are increasingly a thing of the past, as courts across the country have automated and digitized their docket management processes.²⁶¹ Unfortunately, however, such automation efforts have tended to focus on improving criminal courts' internal administrative efficiency, with systemic facts being generated or collected only as incidental and haphazard "by-products" of that primary function.²⁶² Yet, with modest effort and some targeted adjustments,

²⁵⁹ Warrantless searches and seizures, for example, generally produce litigation only when contraband is recovered, thus omitting from the judiciary's internal library of systemic facts an important set of false positives. Similarly, police interrogation practices have long eluded systemic judicial understanding. *Cf.* *Miranda v. Arizona*, 384 U.S. 436, 445 (1966) ("The difficulty in depicting what transpires at such interrogations stems from the fact that in this country they have largely taken place incommunicado."); *Ashcraft v. Tennessee*, 322 U.S. 143, 149–50 (1944) (describing "hopeless conflict" as the "usual pattern" of "testimony" concerning "what happen[s] in . . . secret examination[s]"); ALLEN ET AL., *supra* note 17, at 790 (reporting that only a handful of states require police interrogations to be recorded); Stephen Schulhofer, *Miranda v. Arizona: A Modest but Important Legacy*, in *CRIMINAL PROCEDURE STORIES*, *supra* note 211, at 155, 174 (observing that *Miranda* does not resolve the fundamental challenge in determining what actually happens during interrogations).

²⁶⁰ *Cf.* *Rose & Abramson*, *supra* note 227, at 956 ("A commitment to an empirically informed legal system requires a commitment to keeping and maintaining necessary pieces of information.").

²⁶¹ See NATIONAL TASK FORCE REPORT, *supra* note 128, at 23 (describing "[r]apid advances" in judicial "information systems" occurring as far back as 1999); GREGORY J. LINHARES & NIAL RAAEN, CONFERENCE OF STATE COURT ADM'RS, TO PROTECT AND PRESERVE: STANDARDS FOR MAINTAINING AND MANAGING 21ST CENTURY COURT RECORDS 1–2 (2013) (reporting that the past decade has "seen vast technological leaps in the transmission and synthesis of data elements," including a transition to electronic files described as "inevitable" and occurring "at a rapid pace").

²⁶² NATIONAL TASK FORCE REPORT, *supra* note 128, at xiv; see also *id.* at 39.

existing case-processing systems could be recalibrated to capture useful systemic data in an organized and accessible format.²⁶³ And notably, a wide array of software companies stand ready to craft the necessary tools.²⁶⁴ The primary challenge here is thus neither technological nor logistical, but rather a lack of expressed demand from the criminal courts themselves — something that the courts clearly have the power to change. Fortunately, existing organizations, including the Conferences of State Court Administrators and Chief Justices, already provide guidance to state and local courts with respect to information technology management,²⁶⁵ suggesting that these larger institutions are well positioned to help move industry standards in a direction that facilitates greater acquisition, organization, and dissemination of the judiciary's systemic facts.

Second, beyond improving their own information management systems, criminal courts can also take greater advantage of existing opportunities to gain access to systemic facts maintained by *nonjudicial* actors — including law enforcement institutions, which currently generate substantial amounts of systemic data in their own right.²⁶⁶ Indeed, courts often enjoy both “soft” and “hard” power to access such data. With respect to soft power, judges can usually learn a great deal simply by asking prosecutors or police officers for information. Such requests might be raised in the course of litigation, where the adversarial instinct to prevail on a contested issue could prompt prosecutors to disclose more systemic data in response to a presiding judge's request than existing doctrinal or discovery rules strictly require. Alternatively, courts might raise such requests for information at an institutional level, in the course of ongoing efforts to collaborate with local law enforcement institutions regarding the routine administration of the justice system. Indeed, the District of Columbia's digital clearinghouse of case-processing statistics — born of a collaboration between the court and multiple local law enforcement stakeholders — is a prime example

²⁶³ Cf. Mary Nicol Bowman, *Full Disclosure: Cognitive Science, Informants, and Search Warrant Scrutiny*, 47 AKRON L. REV. 431, 436 (2014) (proposing police use “a checklist to help ensure that they provide magistrates with the necessary information to review [a] search warrant application”); Hashimoto, *supra* note 210, at 49 (describing court where “clerks ask criminal defendants to complete a [demographic] questionnaire . . . [and] then forward those forms to statisticians for analysis” (footnote omitted)); *supra* notes 194–95.

²⁶⁴ See *Technology Vendors*, NAT'L CTR. FOR ST. CTS., <http://www.ncsc.org/Services-and-Experts/Technology-tools/Technology-vendors.aspx> [<http://perma.cc/7MNH-R6NF>].

²⁶⁵ See LINHARES & RAAEN, *supra* note 261, at 2 (drafting “general records management standards”).

²⁶⁶ As noted *supra* Part III, pp. 2069–2101, law enforcement entities often collect and analyze large troves of systemic facts. See also James J. Willis, Stephen D. Mastroski & David Weisburd, *Making Sense of COMPSTAT: A Theory-Based Analysis of Organizational Change in Three Police Departments*, 41 LAW & SOC'Y REV. 147, 148 (2007) (describing “cutting-edge crime analysis and geographic information systems” available to law enforcement).

of how such collaboration can facilitate not only administrative efficiency but also enhanced institutional understanding of the local criminal justice system itself.²⁶⁷

As for hard power, courts often enjoy targeted but infrequently used mechanisms to force information disclosures more directly. Existing legal frameworks, for example, often empower a judge considering a constitutional claim to summon her own witnesses — including law enforcement officials — *sua sponte*, including to in camera hearings.²⁶⁸ And whether a witness is called by the judge or by a party, the judge is empowered to question the witness about the subject matter of the litigation, and to pose follow-up questions exploring the premises and context of the witness’s answers.²⁶⁹ Indeed, the judge can even appoint experts to help assess any complicated factual claims that such inquiries might raise.²⁷⁰ Moreover, beyond the context of criminal cases, mechanisms exist in other settings that courts might use to encourage or require law enforcement to collect important systemic information and to disclose it to vested institutional actors and to the public — including, for example, judicial implementation of state open-records laws,²⁷¹ as well as judicial oversight or approval of consent decrees or class action settlements that might contain information gathering and disclosure provisions.²⁷²

²⁶⁷ See *supra* text accompanying notes 141–44.

²⁶⁸ See, e.g., Bowman, *supra* note 263, at 446–47 (describing precedent that “explicitly grants discretion to . . . trial courts to order an in-camera hearing to test the credibility of the officer-affiant, and even [of a confidential] informant” (citing *United States v. Manning*, 79 F.3d 212, 220 (1st Cir. 1996)); see also FED. R. EVID. 614(a) (“The court may call a witness on its own or at a party’s request.”)).

²⁶⁹ See FED. R. EVID. 614(b) (“The court may examine a witness regardless of who calls the witness.”).

²⁷⁰ See, e.g., FED. R. EVID. 706.

²⁷¹ Cf. REPORTERS COMM. FOR FREEDOM OF THE PRESS, POLICE RECORDS: A REPORTER’S STATE-BY-STATE ACCESS GUIDE TO LAW ENFORCEMENT RECORDS 4–23 (2008) (summarizing application of state open-records laws to law enforcement records).

²⁷² Cf. Goel et al., *supra* note 145, at 19–20 (observing that “the past fifteen years have seen a steady shift toward greater data collection” by police departments, often in response to “consent decrees [and] class action settlements,” as well as pursuant to “state statutes, and police department agreements with local city councils”). See generally NEWBERG ON CLASS ACTIONS § 13:40 (William B. Rubenstein ed., 5th ed. 2014) (describing the unique “fiduciary duty” of courts when called upon to approve or reject class action settlements); *id.* § 13:46 (“[A] court can . . . suggest modifications to the settling parties, and the implication of such suggestions will be clear.”). For an argument that law enforcement interests will be better served by greater disclosure of police departments’ systemic facts, see David A. Harris, *Across the Hudson: Taking the Stop and Frisk Debate Beyond New York City*, 16 N.Y.U. J. LEGIS & PUB. POL’Y 853, 878–79 (2014) (“[W]ith a small number of the largest police departments making the[ir] data public, other agencies may see that this kind of transparency can benefit them. Allowing the public to know the real nature of police activity, represented in empirical findings, may help create and build trust between police and those they serve. When the public knows the real facts concerning what their police officers do, this may help to dispel the distrust of police methods.”).

These judicial prompts alone may not suffice to amass all of the data necessary to bring systemic factfinding fully into flower. However, as institutional leaders in their local criminal justice systems, criminal courts clearly have an opportunity to promote greater collection and dissemination of systemic information, both within their own courthouses and on the part of other institutional criminal justice actors.

4. *Ideological Opposition.* — Finally, even in courts with the requisite competency, capacity, and raw materials, systemic factfinding may still encounter resistance from judges who are simply opposed to taking on a more active role as systemic regulators of law enforcement behavior. Indeed, liberal proponents of criminal justice reform might frame this concern in starker terms: perhaps some criminal court judges — including most especially *elected* criminal court judges — will employ systemic factfinding in a manner that undermines beneficial efforts at reform, or, worse, that exacerbates existing criminal justice pathologies.²⁷³ This is no idle or paranoid concern, given the risk that ideologically motivated reasoning could drive some judges to cull from systemic facts only the conclusions that they wish to see,²⁷⁴ as well as the additional risk that empiricism will cloak such conclusions in an air of irrefutable scientific fact.²⁷⁵

And yet, while this concern is not wholly imagined, nor should it be overstated. For while head prosecutors are elected in almost every state in the country, and are thus uniformly subject to the political forces driving the fear of elected courts,²⁷⁶ trial judges in many states are not elected,²⁷⁷ which suggests that for the millions of people residing in these jurisdictions political forces are unlikely to render criminal courts ideologically indistinguishable from the law enforcement agencies they are supposed to oversee.²⁷⁸ Moreover, some literature sug-

²⁷³ For a discussion of the potentially corrosive impact of judicial elections on the criminal justice system, see, for example, Stephen B. Bright, *Political Attacks on the Judiciary: Can Justice Be Done amid Efforts to Intimidate and Remove Judges from Office for Unpopular Decisions?*, 72 N.Y.U. L. REV. 308 (1997).

²⁷⁴ See Larsen, *supra* note 74, at 1260.

²⁷⁵ See Meares & Harcourt, *supra* note 75, at 797 (acknowledging “risk” that judicial “reliance” on empiricism “will mask or minimize the normativity” behind an “aura of ‘science’ and ‘objectivity’” and thus “insulate it from attack”).

²⁷⁶ See Ronald F. Wright, *How Prosecutor Elections Fail Us*, 6 OHIO ST. J. CRIM. L. 581, 589 (2009). The exceptions are Alaska, Connecticut, and New Jersey. *Id.*

²⁷⁷ Twenty-one states as well as the District of Columbia and Puerto Rico use an appointment process as opposed to judicial elections to select the judges of their trial courts of general jurisdiction. See COUNCIL OF STATE GOV'TS, *THE BOOK OF THE STATES* 256–60 tbl.5.7 (2015) (reporting an even split in the remaining states between partisan and nonpartisan election processes). In ten of these jurisdictions, the appointed judges stand for at least one retention election during their tenure; in the remaining thirteen, the judges never face elections. *Id.*

²⁷⁸ Moreover, even in states with judicial elections, judges are not always elected at each level of the judicial hierarchy, leaving open the possibility that unelected judges will be in a position to

gests that even elected judges internalize norms of neutrality and independence that can lead them to provide at least some check on law enforcement authority,²⁷⁹ a check systemic factfinding can make more effective.²⁸⁰

More fundamentally, concerns grounded in fear of criminal courts' perceived ideological opposition to reform must take into account potential changes in the underlying political reality, which at present is in a state of genuine flux.²⁸¹ Today, for the first time in a generation, leaders across the political spectrum, including presidential candidates from both parties, decry an American criminal justice system widely acknowledged as operating in a state of deep crisis, if not abject failure.²⁸² When a justice system suffers from this level of dysfunction, empiricism that exposes the systemic nature of its problems is likely to further efforts at reform, not hinder them. Put another way, when a system is fundamentally broken, systemic facts seem more likely to spur beneficial judicial intervention rather than judicial opposition, even with respect to jurists who may not reside at the vanguard of reform.²⁸³

Ultimately, however, if skeptics are right in their denial of criminal court judges' good faith or intentions even in circumstances such as these, that suggests a problem that is concededly larger than systemic facts' capacity to resolve.²⁸⁴ Indeed, it suggests a problem that threat-

utilize systemic factfinding as a tool of systemic judicial review. *See id.* at 253–60 tbls.5,6 & 5.7. And of course, while collateral review in federal courts is much diminished in the wake of the Anti-Terrorism and Effective Death Penalty Act of 1996, Pub. L. No. 104-132, 110 Stat. 1214 (codified as amended in scattered sections of the U.S. Code), federal habeas review remains a backstop and constitutes a forum in which insights from systemic factfinding might take root. *But cf.* 28 U.S.C. § 2554(e)(1) (2012) (creating statutory presumption in favor of state court findings of fact).

²⁷⁹ *See, e.g.,* CHRIS W. BONNEAU, FEDERALIST SOC'Y, A SURVEY OF EMPIRICAL EVIDENCE CONCERNING JUDICIAL ELECTIONS (2012); Shirley S. Abrahamson, *The Ballot and the Bench*, 76 N.Y.U. L. REV. 973 (2001).

²⁸⁰ Of course, if systemic factfinding reveals information that undermines the substantive merits of a constitutional claim, then that claim *ought* to have a lower likelihood of success. Strategic objections to systemic factfinding cannot credibly seek to avoid the practice on the grounds that it may, in some instances, expose the weakness of criminal defendants' positions.

²⁸¹ *See, e.g.,* Richard Pérez-Peña, *Angered by Cities' Handling of Police Shootings, Voters Oust 2 Prosecutors*, N.Y. TIMES, Mar. 17, 2016, at A11.

²⁸² *See* Crespo, *supra* note 41, at 1997 n.31 (citing sources).

²⁸³ *See* Chayes, *supra* note 13, at 56 (asking “whether public law litigation, seemingly an expression of a liberal and reformist ideology in the legal system, [can] withstand prolonged confrontation with a Supreme Court whose dominant tenor [i]s neither liberal nor reformist,” and suggesting that, in fact, “the attributes of public law litigation are strongly resistant to conscious efforts at reversal”); Meares & Harcourt, *supra* note 75, at 743 (“[C]onstitutional criminal procedure decision-making informed by . . . empirical research is better than lawmaking uninformed by such research.”). For a discussion of the relationship between judges' perspectives on criminal justice issues and their professional experience prior to ascending the bench, see Crespo, *supra* note 41, at 1990–2001 (discussing a threefold increase in the number of former prosecutors on the Supreme Court).

²⁸⁴ Notably, skepticism of locally elected criminal justice actors would also suggest a problem larger than administrative self-regulation's capacity to resolve, given that the latter intervention,

ens criminal courts' fundamental legitimacy and that could well require efforts to change the manner in which such judges are selected, or the judges selected through that process. As stated previously, systemic factfinding cannot replace the exercise of careful judgment when it comes to the core normative questions at the heart of the criminal justice system, nor will it necessarily force judges to abandon any preexisting views they might hold.²⁸⁵ Rather, systemic facts are simply a tool that can facilitate systemic judicial review — for those courts interested in fulfilling that responsibility.

B. Situating Systemic Factfinding Within the Adversarial Process

Even if practical obstacles to systemic factfinding are overcome, there remains a final, more fundamental question to address: Assuming a pivot to systemic factfinding can be accomplished, should it be? Or would such an alteration to the basic process of constitutional criminal adjudication represent a departure from the American tradition of adversarial, party-driven adjudication and the important accompanying norm of judicial neutrality?²⁸⁶

Understanding the relationship between systemic factfinding and the adversarial process requires an appreciation of the multifaceted nature of the proposal advanced here, which speaks both to courts as institutions and to individual judges as adjudicators, and which calls for a mode of adjudication that would unfold in different contextual settings. Understood in these terms, systemic factfinding should be seen as a complement — not a threat — to the adversarial system.

As an initial matter, it bears emphasis that, at an institutional level, many of the things criminal courts can do to facilitate systemic factfinding pertain to functions a step removed from the immediate task of adjudicating individual cases. Indeed, an important takeaway from the discussion in the preceding section is that criminal courts can and should do more to be responsible institutional stewards of their systemic facts. To be sure, fulfilling that responsibility would require criminal courts to take some affirmative steps, such as collecting internal data in a manner more amenable to search and analysis, seeking out institutional partnerships as necessary toward that end, and disclosing their specialized knowledge to other vested actors — including litigants in the adversarial system. But such efforts at enhanced institutional custodianship of systemic data are not in tension with norms of neutrality or the adversarial process. On the contrary, courts can be

even more so than systemic factfinding, is dependent on “democratic authorization” for its legitimacy. *See supra* section I.C, pp. 2059–65 and note 47.

²⁸⁵ *See supra* text accompanying notes 229–32.

²⁸⁶ *See generally* David Alan Sklansky, *Anti-Inquisitorialism*, 122 HARV. L. REV. 1634 (2009).

responsible and fair adjudicative bodies while also being civically engaged institutions of government that aim to promote a broader and more complete social understanding of how the criminal justice system operates, and falters.

As for judicial engagement with systemic facts within the adjudicative process itself, the role of adversarialism will necessarily vary according to context. A number of the Fourth Amendment issues discussed in Part III of this Article, for example, concerned the search warrant process, which, as an *ex parte* proceeding, is simply not an adversarial setting to begin with. Indeed, the entire purpose of judicial review in this context is “to insure that the deliberate, impartial judgment of a judicial officer will be *interposed between* the citizen and the police,”²⁸⁷ a conception of judicial review that places criminal courts at least partially in opposition to executive authority. In such a setting, where the judge is called to check government authority without the benefit of argument from defense counsel, she may need to take some initiative if she is to rely on systemic factfinding to become more institutionally aware of the context surrounding law enforcement claims, and thus more systemically effective when issuing warrants. But within the context of an already nonadversarial setting, such initiative seems entirely consistent with the judicial role.

As for systemic factfinding within the more traditional setting of adversarial litigation, there is no reason to expect that systemic factfinding would require a departure from the status quo when it comes to judicial engagement or neutrality. Indeed, systemic factfinding can function in this context much like ordinary factfinding. At the outset, criminal courts engaged in systemic factfinding would make whatever systemic facts they have amassed within their own institutions available to the public, and thus to the litigants, as is typical for judicial records.²⁸⁸ Such litigants could then incorporate such information into their claims and arguments, with judges hopefully expressing genuine interest in the illumination that systemic facts might offer to the issues.²⁸⁹ Where the parties have not incorporated systemic facts into their analysis, judges might on occasion invite them to do so, either during oral arguments or in supplemental briefing, as interested and engaged jurists routinely do. And in appropriate cases, a

²⁸⁷ *Wong Sun v. United States*, 371 U.S. 471, 481–82 (1963) (emphasis added).

²⁸⁸ See *supra* section IV.A.1, pp. 2104–06.

²⁸⁹ See Meares, *supra* note 75, at 856 (arguing that once courts “indicate an interest” in empirical argument “litigating parties will be quick to make arguments” grounded in “empirical research”); Monahan & Walker, *supra* note 74, at 512 (same); cf. David Colarusso, *Bureaucrats and Mathmagicians: Data Science and the Public Defenders*, LAW TECH. TODAY (July 29, 2015), <http://www.lawtechnologytoday.org/2015/07/data-science-public-defenders> [<http://perma.cc/M5FW-7L2L>] (describing efforts underway to integrate data science into indigent defense representation).

judge might take judicial notice of her court's own systemic facts, after she has afforded the parties an opportunity to weigh in on the matter, which again would hardly be an unusual practice.²⁹⁰

Of course, against this backdrop, judges may often encounter questions of just how much they ought to insert themselves into the litigation process. To the extent this poses a dilemma, however, it is not a dilemma unique to systemic factfinding. On the contrary, multiple times a day in courtrooms across the country trial judges have to decide whether to inject an issue into the case by posing a line of questioning to attorneys during argument; whether to call *sua sponte* for briefing on a question that one or both parties may have ignored or framed differently than how the judge sees the issue; whether to instruct a perhaps stumbling attorney on how to state a question to a witness so as to avoid an ongoing string of objections; or whether to lean over and pose a few questions from the bench to a witness, which will inevitably alter the record in a manner that may favor one party over the other. In each of these instances, the judge must consider how far to insert herself into the adversarial process, a question colored by many shades of grey in the lived reality of trial-level adjudication.²⁹¹ Where a judge should draw that line — when engaging in ordinary factfinding, systemic factfinding, or adjudication writ large — is a matter of judgment, perhaps only more complicated in the context of constitutional criminal adjudication, where judges serve “as guardians of the Bill of Rights”²⁹² in a system suffering from an indigent defense crisis that calls into serious question just how adversarial the process truly is.²⁹³

²⁹⁰ See, e.g., *Aspen Mining & Smelting Co. v. Billings*, 150 U.S. 31, 38 (1893); *Fletcher v. United States*, 174 F.2d 373, 376 (4th Cir. 1949) (per curiam) (“Certainly the judge may take cognizance of the records of his own court.”); see also 2 GEORGE E. DIX ET AL., *MCCORMICK ON EVIDENCE*, § 330, at 607–08 (Kenneth S. Broun ed., 7th ed. 2013) (“[J]udges take notice of . . . all of the records of the institution”); Sperlich, *supra* note 240, at 289 (discussing procedural protections to be afforded parties when using judicial notice); cf. Davis, *Administrative Process*, *supra* note 5, at 411–14 (arguing for similar protections in the context of agency adjudication).

²⁹¹ This question, it bears noting, echoes a longstanding and unresolved debate regarding the proper judicial role with respect to legislative factfinding. For some illustrative examples in that debate, see FAIGMAN, *supra* note 73, at 97–101; Edward K. Cheng, *Independent Judicial Research in the Daubert Age*, 56 DUKE L.J. 1263 (2007); Gorod, *supra* note 74, at 9; Larsen, *supra* note 74, at 1291; Monahan & Walker, *supra* note 74, at 495–97; Elizabeth G. Thornburg, *The Curious Appellate Judge: Ethical Limits on Independent Research*, 28 REV. LITIG. 131, 137, 142 (2008); and Roger J. Traynor, *Some Open Questions on the Work of State Appellate Courts*, 24 U. CHI. L. REV. 211, 219 (1957). And for a contemporary iteration of the debate's unfolding within the judiciary itself compare, for example, *Rowe v. Gibson*, 798 F.3d 622, 623 (7th Cir. 2015) (Posner, J.), with *id.* at 635–36 (Hamilton, J., concurring in part and dissenting in part).

²⁹² *United States v. Calandra*, 414 U.S. 338, 356 (1974) (Brennan, J., dissenting).

²⁹³ See Eric Holder, U.S. Att'y Gen., Speech at the Department of Justice's 50th Anniversary Celebration of the U.S. Supreme Court Decision in *Gideon v. Wainwright* (Mar. 15, 2013) (describing national indigent defense crisis); Crespo, *supra* note 41, at 2020 (describing “a situation in

Systemic factfinding, however, both in its conceptual design and in its intended implementation, seeks neither to replace adversarial litigation nor to reinvent the fundamental role of the judge as a neutral arbiter. On the contrary, systemic factfinding's highest and ultimate purpose is to assist criminal courts in *fulfilling* the institutional role that the Supreme Court has assigned them: implementing existing doctrines of constitutional criminal law in order "to deter misconduct by law enforcement."²⁹⁴

CONCLUSION

Criminal courts have the capacity to become more effective proponents of systemic criminal justice than we or they have previously realized. To do so, however, they must first attain greater institutional awareness of both the justice systems that they oversee and of their own potential to help make those systems operate more fairly and effectively. The key to unlocking that institutional awareness lies in greater judicial engagement with criminal courts' own systemic facts, the valuable caches of information that criminal courts collect on a daily basis — information that if properly accessed and understood can reveal essential aspects of the institutional behavior of key criminal justice actors. To date, criminal courts have been little more than passive custodians of this valuable information. They have the capability, however, to be much more. Such a transition will require work. To accomplish it, criminal courts must endeavor to collect and organize their systemic facts responsibly and transparently. They must seek out institutional partnerships, or at a minimum make their internal data transparent, in order to foster better understanding of the courts' newfound institutional knowledge. And they must encourage efforts to incorporate that knowledge into the process of constitutional criminal adjudication. If criminal courts are able to accomplish this, they will have overcome a substantial barrier currently preventing them from serving as proponents of meaningful and genuine systemic criminal justice. Their success in these efforts is not preordained. But neither is their failure.

which zealous, effective, client-centered advocacy is far from the norm, and all too often not even the aspiration for many attorneys assigned to represent criminal defendants"); *see also* Fiss, *supra* note 13, at 24 (arguing that "inequalities in the distribution of resources" between litigants militate against courts taking a "passive pose" with respect to "the presentation of facts"); Marc Galanter, *Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change*, 9 LAW & SOC'Y REV. 95, 140 (1974) ("Greater institutional 'activism' might be expected to reduce advantages of party expertise and of differences in the quality and quantity of legal services.").

²⁹⁴ Davis v. United States, 131 S. Ct. 2419, 2432 (2011).