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Search and Seizure Budgets

Kiel Brennan-Marquez* & Stephen E. Henderson**

This Article proposes a new means of restraining police power: quantitative limits on the number of law enforcement intrusions—searches and seizures—that may occur over a given period of time. Like monetary constraints, search and seizure budgets would aim to curb abusive policing and improve democratic oversight. But unlike their monetary counterparts, budgets would be indexed directly to the specific police activities that most enable escalation and abuse. What is more, budgets are a tool that finds support, conceptually, in the American framing experience. The Fourth Amendment has long been understood to require procedural limits, such as probable cause, on specific police intrusions. But such requirements are only part of the story; limits on overall police capacity, we argue, are also hardwired into the Fourth Amendment via its founding era history. Search and seizure budgets would help reinvigorate that promise, offering an important tool in the ongoing effort to curb over-criminalization and the ever-expanding technologies of surveillance.

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> We meet in this case, as in many, the appeal to necessity. It is said that if such arrests and searches cannot be made, law enforcement will be more difficult and uncertain. But the forefathers, after consulting the lessons of history, designed our Constitution to place obstacles in the way of a too permeating police surveillance, which they seemed to think was a greater danger to a free people than the escape of some criminals from punishment.
>
> *United States v. Di Re*, 332 U.S. 581, 595 (1948) (Jackson, J., for the Court)

INTRODUCTION

Efforts to 'defund' police, which only a few years ago enjoyed unprecedented support, have mostly run aground.[1] If anything, the political winds have

1. *See generally* Rick Su, Anthony O'Rourke & Guyora Binder, *Defunding Police Agencies*, 71 EMORY L.J. 1197 (2022) (placing the defunding movement and its backlash in historic context). *See also* Mariame Kaba, *Yes, We Mean Literally Abolish the Police*, N.Y. TIMES (June 12, 2020), https://www.nytimes.com/2020/06/12/opinion/sunday/floyd-abolish-defund-police.html [https://perma.cc/3V3K-3WVK] (advocating for defunding); J. David Goodman, *A Year After 'Defund,' Police Departments Get Their Money Back*, N.Y. TIMES (Oct. 10, 2021), https://www.nytimes.com/2021/10/10/us/dallas-police-defund.html [https://perma.cc/Y6YU-QTR4] ("In cities across America, police departments are getting their money back."); *Refunding the Police*, ECONOMIST, Jan. 15, 2022 ("In the days after George Floyd was murdered by a Minneapolis police officer in May 2020, protesters took to the streets across America[,] . . . urg[ing] cities to 'defund the police', and politicians listened . . . . That trend has reversed."); Zusha Elinson & Christine Mai-Duc, *San Francisco District Attorney Chesa Boudin Recalled by Voters*, WALL ST. J. (June 8, 2022), https://www.wsj.com/articles/san-francisco-district-attorney-chesa-boudin-faces-recall-election-11654603200 [https://perma.cc/6DZ2-W3JU] ("Political consultants and law-enforcement officials say the recall of Mr. Boudin in this left-leaning city signals a broader voter backlash against the [progressive prosecutor] movement amid rising violent crime over the past two years.").

inverted: today there is growing support for *increased* police budgets, as violent crime surges and social unrest looms.[2]

In this Article, rather than addressing the 'defund' question head-on, we identify and explore an alternate mechanism of constraint—search and seizure budgets—that would accomplish the same basic goal of curbing police abuse by more targeted and agile means. The idea is simple: police departments should be allocated a limited 'budget' of searches and seizures they may perform over a given period of time, subject to upward adjustment upon a showing of meaningful need.

Below, we elaborate a number of constitutional and policy arguments in favor of search and seizure budgets—some connected to Fourth Amendment principles, others to democratic theory. At bottom, however, the core of our pitch is straightforward. Police intrusions are what cause police abuse. Many police intrusions, of course, are not abusive; they pass constitutional muster and serve important public safety interests. But some share of police intrusions lead to escalation, injury, and even death, and others will wrongly intrude upon fundamental liberties and dignities even without such horribly final results. Accordingly, limiting the overall volume of police intrusions can help, in the aggregate, to focus policing and deter abuse. Unlike funding decreases—which, given the fungibility of money, cannot guarantee fewer police intrusions—search and seizure budgets would attack the problem at its root. They would directly target the police practices that existing law already picks out as especially intrusive and worthy of enhanced scrutiny.

Of course, determining the proper *composition* of a particular search and seizure budget is easier said than done—and significant variation at the local level is likely warranted, given the disparate social, economic, and institutional conditions that different neighborhoods and police departments face.[3] But this simply means budgets should be finely calibrated; it is not an argument against their viability as a regulatory tool. Indeed, budgets would lend themselves to a number of design features conducive to context-sensitive tailoring, including (1) automatic (or at least presumptive) increases in budgetary allowance in step with increases in the

2. *See* Goodman, *supra* note 1; *Refunding the Police*, *supra* note 1; *see also* Natalie Andrews, *House Approves Legislation to Boost Police Funding, as Democrats Parry Campaign Criticism*, WALL ST. J. (Sept. 22, 2022), https://www.wsj.com/articles/house-approves-legislation-to-boost-police-funding-as-democrats-parry-campaign-criticism-11663882699 [https://perma.cc/N8GF-MD3B] ("'We must fund, not defund, law enforcement,' said Rep. Josh Gottheimer (D., N.J.), whose bill would authorize $60 million a year for five years for local police departments . . . .").

3. *See, e.g.*, Peter J. Boettke, Liya Palagashvili & Ennio E. Piano, *Federalism and the Police: An Applied Theory of "Fiscal Attention*,*"* 49 ARIZ. ST. L.J. 907, 933 (2017) (arguing that the 'budget federalization' of policing has led to "the breakdown of community-oriented policing"); Michael J. Zydney Mannheimer, *The Local-Control Model of the Fourth Amendment*, 108 J. CRIM. L. & CRIMINOLOGY 253, 255 (2018) (arguing "that the best way to understand the Fourth Amendment, as a historical matter, is as a reservation of local control over federal searches and seizures"); Michael J. Zydney Mannheimer, *Decentralizing Fourth Amendment Search Doctrine*, 107 KY. L.J. 169, 173 (2018) ("propos[ing] that Fourth Amendment search doctrine be decentralized" to vary by jurisdiction).

underlying crime rate; (2) mechanisms of saving and borrowing that allow departments to 'consumption smooth' in response to temporarily arbitrary crime patterns; (3) bonus systems, allowing police to earn more searches and seizures through prosocial conduct; and (4) as technology improves, 'smart' feedback loops that allow budgets to adapt dynamically and intelligently to multi-faceted changes on the ground.

Our main goal, however, is to offer an argument for search and seizure budgets in principle—and, in doing so, to offer judges, advocates, and policymakers a new category of tools that can contribute to police reform going forward. We do so in three parts. First, in Part I, we explain search and seizure budgets in somewhat more detail. Part II then demonstrates how such budgets harmonize with Fourth Amendment history and contemporary context.[4] It is constitutional boilerplate that the Amendment rebuked colonial policing by enshrining a particularization ideal.[5] But that hornbook story both over- and undersells the point. In fact, the Framers' vision here was distressingly—or, as we prefer to see it, refreshingly—idiosyncratic and *human*. Properly understood, the Fourth Amendment's founding era history supports—and may even require—a mechanism like budgets to limit the overall surveillance capacity of the State given modern, expansive crime-definition and remarkably intrusive technology. Part III then turns to democratic oversight, demonstrating why search and seizure budgets better improve democratic policing than monetary 'defund' initiatives,[6] more directly targeting the problem and proving more resilient to technological change. Finally, in Part IV, we return to budgetary design, including consumption smoothing and the other tailoring mechanisms mentioned above.

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4. The Fourth Amendment of course provides that, "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized." U.S. CONST. amend. IV.

5. *E.g.*, Riley v. California, 573 U.S. 373, 403 (2014) ("Our cases have recognized that the Fourth Amendment was the founding generation's response to the reviled 'general warrants' and 'writs of assistance' of the colonial era, which allowed British officers to rummage through homes in an unrestrained search for evidence of criminal activity."); *see infra* Section II.A.

6. The concept of "democratic policing" seeks to infuse democratic ideals, such as community input and trust, into systems of law enforcement. *See, e.g.*, Barry Friedman & Maria Ponomarenko, *Democratic Policing*, 90 N.Y.U. L. REV. 1827, 1832 (2015) ("It is both unacceptable and unwise for policing to remain aloof from the democratic processes that apply to the rest of agency government . . . . [P]olicing policies and practices should be governed through transparent democratic processes such as legislative authorization and public rulemaking."); ORG. FOR SEC. & CO-OP. IN EUR., GUIDEBOOK ON DEMOCRATIC POLICING 9–10 (2d ed. 2008) (providing guidance on how governments may successfully implement principles of democratic policing, including responsiveness to public needs, adherence to the rule of law, and police accountability and transparency).

In all of this, we do not mean to oversell the claim. Budgets are not a panacea in any context; search and seizure budgets are no different.[7] The point is merely—yet critically—that judges and policymakers have missed an opportunity to leverage budgets in this critical context, and that, going forward, budgets ought to have a role in the regulation of police power.

I. THE BASIC PROPOSAL

Limits on police power, both constitutional and statutory, have traditionally focused on suspicion.[8] Before police may interfere with private life—as a condition of performing searches and seizures—they must explain (or at least, be able to explain) why their target is likely connected to criminal activity.[9] This serves a

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7. The budgets we propose ought not be confused with 'floor quotas' that have historically caused over-policing—tragically often of communities of color—resulting in community tension and resentment. *See generally* Shaun Ossei-Owusu, *Police Quotas*, 96 N.Y.U. L. REV. 529 (2021). Though both budgets and quotas are quantitative, they are diametric. Quotas, which require police to engage in some measure of intrusion, are a source of license and escalation: they tend to expand the footprint of police. *Id.* at 537 ("Quotas are formal and informal measures that require law enforcement to have a certain number of contacts with individuals or issue a certain number of citations or arrests.") Budgets, by contrast, restrain search and seizure, a source of constraint and accountability. Yes, budgets stand to capitalize on the only redeemable aspect of quotas: the idea that policing should be more informed by empirical reality. But budgets invert quotas' normative valence. The lesson to draw from the sordid history of policing quotas should not be an aversion to numbers or statistics. It should be the determination to use those tools wisely—in the service of limited government. Such is our goal.

8. Much of the constitutional side of this is developed below. On the statutory side, see, for example, 18 U.S.C. § 2518(3)(a) (authorizing a wiretap only where "there is probable cause for belief that an individual is committing, has committed, or is about to commit a particular offense"); 18 U.S.C. § 2703(d) (authorizing a court order only where "the governmental entity offers specific and articulable facts showing that there are reasonable grounds to believe that the contents of a wire or electronic communication, or the records or other information sought, are relevant and material to an ongoing criminal investigation"). The same basic pattern is true of state-level statutes. *See, e.g.*, CONN. GEN. STAT. § 54-41c (2022) (requiring that "each application for an order authorizing the interception of a wire communication shall [include] . . . a full and complete statement of the facts and circumstances relied upon by the applicant, to justify his reasonable belief that the wire communication of a particularly described person will constitute evidence of a crime"); OKLA. STAT. tit. 13, § 13-176.9(C)(1) (2022) (mimicking the federal statute and therefore authorizing an order where "[t]here is probable cause for belief that an individual is committing, has committed or is about to commit a particular offense").

9. *See* U.S. CONST. amend. IV (protecting "[t]he right of the people to be secure in their persons, houses, papers, and effects"); United States v. Cortez, 449 U.S. 411, 417 (1981) ("An investigatory stop must be justified by some objective manifestation that the person stopped is, or is about to be, engaged in criminal activity."); United States v. Sokolow, 490 U.S. 1, 7 (1989) ("The officer, of course, must be able to articulate something more than an 'inchoate and unparticularized suspicion or "hunch."' The Fourth Amendment requires 'some minimal level of objective justification' for making the stop." (citations omitted) (first quoting *Terry*, 392 U.S. at 27; and then quoting Immigr. & Naturalization Serv. v. Delgado, 466 U.S. 210, 217 (1984))); *see also* Kiel Brennan-Marquez, *"Plausible Cause": Explanatory Standards in the Age of Powerful Machines*, 70 VAND. L. REV. 1249, 1255 (2017) [hereinafter Brennan-Marquez, *Plausible Cause*] (describing the probable cause standard as "explanatory" in the sense that "[e]xisting case law focuses on whether police have articulated—or could have articulated—a convincing theory of wrongdoing").

number of important goals. For one thing, the process can be arduous. This is obviously true when narratives of suspicion are difficult, as an epistemic matter, to generate. But it remains at least somewhat true even when they are not; even in a world where generating probable cause required nothing more than the press of a button, there would still be warrant applications to assemble and incident reports to produce.[10] For another thing, suspicion requirements vindicate fairness principles,[11] ensuring that the police treat each person as an individual and target their investigations at least roughly in the direction of likely criminality.[12]

In light of these benefits, scholars have sought for decades to bring previously unregulated police activities—such as database searches and various modern forms of location surveillance—within the ambit of particularized suspicion, recategorizing them as "searches" or "seizures."[13] Indeed, we've personally beat that drum with some regularity[14] and have been as happy as anyone with recent

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10. *See* Missouri v. McNeely, 569 U.S. 141, 154–55 (2013) (describing ways in which jurisdictions have sped up the warrant process); *id.* at 172–73 (Roberts, C.J., concurring in part and dissenting in part) (same); ELAINE BORAKOVE & REY BANKS, JUST. MGMT. INST., IMPROVING DUI SYSTEM EFFICIENCY: A GUIDE TO IMPLEMENTING ELECTRONIC WARRANTS 3 (2018) (describing how, prior to the eWarrant system, the processes for obtaining search warrants were "lengthy and time-consuming"); Jessica Miller, *New Data Show Utah Judges Are Often Spending Less than Three Minutes Viewing Warrants Before Approval*, SALT LAKE TRIB. (July 9, 2018, 7:38 AM), https://www.sltrib.com/news/2018/07/09/new-data-shows-utah/ [https://perma.cc/7AVU-YGJ7] ("It took Utah judges less than three minutes to sign off on more than half of all search warrants submitted by police in the past year."); RICHARD VAN DUIZEND, L. PAUL SUTTON & CHARLOTTE A. CARTER, THE SEARCH WARRANT PROCESS: PRECONCEPTIONS, PERCEPTIONS, PRACTICES 10–41 (1985) (describing the various "procedural milestones" that police officers—across jurisdictions—in the 1980s were required to overcome in order to successfully apply for a warrant).

11. *See* Andrew E. Taslitz & Stephen E. Henderson, *Reforming the Grand Jury to Protect Privacy in Third Party Records*, 64 AM. U. L. REV. 195, 203 (2014) ("Persons are judged based upon their individual behavior, not on their membership in a group, not on residence in a particular neighborhood, and not for generally being disliked by members of law enforcement."); *see also infra* notes 79–81 and accompanying text (expounding on this principle).

12. *See* Brennan-Marquez, *Plausible Cause*, *supra* note 9, at 1280–300 (arguing that even in the era of machine learning, where computer algorithms can accurately make predictions about human behavior, explanations matter, as "they enable consideration of . . . values beyond accuracy" that "permit judges—and ultimately, the polity—to decide whether police conduct, whatever its accuracy, meshes with recognized limitations on the exercise of power").

13. *See, e.g.*, Christopher Slobogin, *Government Data Mining and the Fourth Amendment*, 75 U. CHI. L. REV. 317, 336–41 (2008) (arguing that data mining can constitute a Fourth Amendment search); Christopher Slobogin, *Public Privacy: Camera Surveillance of Public Places and the Right to Anonymity*, 72 MISS. L.J. 213, 271–86 (2002) (arguing that CCTV surveillance can constitute a Fourth Amendment search).

14. *See, e.g.*, Stephen E. Henderson, *Nothing New Under the Sun? A Technologically Rational Doctrine of Fourth Amendment Search*, 56 MERCER L. REV. 507, 511 (2005) (arguing against the then-monolithic third party doctrine); Stephen E. Henderson, *Learning from All Fifty States: How to Apply the Fourth Amendment and Its State Analogs to Protect Third Party Information from Unreasonable Search*, 55 CATH. U. L. REV. 373, 373–76 (2006) (arguing that state constitutional developments can and should inform that change); Stephen E. Henderson, *Beyond the (Current) Fourth Amendment: Protecting Third-Party Information, Third Parties, and the Rest of Us Too*, 34 PEPP. L. REV. 975, 976–77 (2007) (developing factors to guide that change); Stephen E. Henderson,

successes.[15] What is more, the work is far from done. Broadening the scope of what counts as a search or seizure—and thereby expanding the threshold coverage of constitutional suspicion requirements—is an important goal, and its pursuit should continue.[16]

At the same time, however, two aspects of contemporary policing have begun to corrode suspicion requirements from within. The first is the diffusion of low-level criminal statutes, which multiply the legal foundations of suspicion; the more everyday conduct that qualifies as 'criminal,' the more opportunities, especially in public spaces, that police will have to justify intrusion.[17] The second is

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The Timely Demise of the Fourth Amendment Third Party Doctrine, 96 IOWA L. REV. BULL. 39, 39–40, 49–51 (2011) (improving upon the same); Kiel Brennan-Marquez, *Fourth Amendment Fiduciaries*, 84 FORDHAM L. REV. 611, 613–14 (2015) (arguing for reform of the third party doctrine, including not applying the misplaced trust doctrine to information fiduciaries); Stephen E. Henderson, Carpenter v. United States *and the Fourth Amendment: The Best Way Forward*, 26 WM. & MARY BILL RTS. J. 495, 515–19 (2017) (developing why the acquisition of historic cell-site location information constitutes a search); Kiel Brennan-Marquez, *The Constitutional Limits of Private Surveillance*, 66 U. KAN. L. REV. 485, 488–89 (2018) [hereinafter Brennan-Marquez, *The Constitutional Limits*] (arguing that privately collected data shared with law enforcement ought to be subject to Fourth Amendment scrutiny).

15. For example, at the federal level one might see Torres v. Madrid, 141 S. Ct. 989, 993–94 (2021) (holding that "a seizure occurs when an officer shoots someone who temporarily eludes capture after the shooting"); Carpenter v. United States, 138 S. Ct. 2206, 2223 (2018) (holding that police acquisition of seven days of historic cell-site location information constituted a search); Riley v. California, 573 U.S. 373, 401 (2014) (exempting cell phones and equivalent electronic devices from the permissive doctrine of search incident to arrest); Florida v. Jardines, 569 U.S. 1, 11–12 (2013) (holding that bringing a drug-sniffing dog into a home's curtilage constituted a search); United States v. Jones, 565 U.S. 400, 404 (2012) (holding that the use of a GPS tracking device on a vehicle constituted a search); United States v. Kyllo, 533 U.S. 27, 40 (2001) (holding that the use of a thermal imaging device on a home constituted a search).

16. The stringency of policing restriction of course differs for different 'types' of search and seizure: although warrants are paradigmatic restraints, some police activities demand less, others more. The point here, however, is that at every level of stringency the core logic is the same: by conditioning surveillance and detention authority on the ability of officials to build 'mini cases' against their targets, suspicion requirements curtail state power.

17. *See, e.g.*, Jamelia N. Morgan, *Rethinking Disorderly Conduct*, 109 CALIF. L. REV. 1637 (2021) (exploring the ways in which disorderly conduct has been used a catch-all mechanism for searches and seizures in public spaces); Kiel Brennan-Marquez, *Extremely Broad Laws*, 61 ARIZ. L. REV. 641 (2019) [hereinafter Brennan-Marquez, *Extremely Broad Laws*]. In the words of Justice Clarence Thomas,

> Much of the Federal Code criminalizes common activity . . . . [T]he penalty for violating th[e challenged] Act is a misdemeanor. This Act thus penalizes mine-run offenders about as harshly as federal law punishes a person who removes a single grain of sand from the National Mall; breaks a lamp in a Government building; or permits a horse to eat grass on federal land. The number of federal laws and regulations that trigger criminal penalties may be as high as several hundred thousand. Fields & Emshwiller, Many Failed Efforts To Count Nation's Federal Criminal Laws, Wall-Street Journal (July 23, 2011).

Van Buren v. United States, 141 S. Ct. 1648, 1668–69 (2021) (Thomas, J., dissenting) (citations omitted). And, of course, state and municipal crimes pile on top. Justice Neil Gorsuch has chimed in to similar effect: "In our own time and place, criminal laws have grown so exuberantly and come to cover so much previously innocent conduct that almost anyone can be arrested for something." Nieves v. Bartlett, 139 S. Ct. 1715, 1730 (2019) (Gorsuch, J., concurring in part and dissenting in part). We develop this further *infra* Section II.C.

the rise of data analysis techniques, like machine learning, that multiply the factual predicates of suspicion.[18] The burdensomeness—and efficacy—of suspicion requirements depends, in the end, on the difficulty of information processing. When police have vast reservoirs of data at their disposal, readily minable for patterns, narratives of suspicion become ever-easier to produce.[19] At the limit, their production becomes trivial.[20] Put these dynamics together, and the reality—for officers operating against the backdrop of high-level criminalization, equipped with databases and predictive analytics at the touch of a button—is that virtually any target could be tied to *some* crime through *some* plausible chain of inference, leaving police with enormous discretion on the ground. So, as important as they are, suspicion requirements—as case-specific constraints on police power—are not *sufficient* to vindicate the promise of limited government.

Enter our proposal: department-wide 'search and seizure budgets,' meaning numerical caps on the number of searches or seizures that may be performed, in aggregate, over a given period of time. Budgets are, of course, far from the only possible means of limiting aggregate police power. But, as we argue below, they offer certain advantages over other mechanisms under consideration today,[21] and they at least deserve a place in the policy-arsenal of states and municipalities when they decide how best to regulate police.[22] And 'regulate' is the operative word. The point of budgets would not be to hamstring officials or to preclude legitimate police activity; they would be calibrated—through local governance structures—with police needs in mind. What budgets would seek to counteract is *excessive or gratuitous* policing, a goal that requires attention to local variation in crime patterns, community preferences, and the like. Furthermore, budgets could be designed in ways that enable pro-social policing, or at least confer departments enough

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18. In a phrase, this might be considered the contemporary Fourth Amendment's "time machine" problem. Stephen E. Henderson, *Fourth Amendment Time Machines (And What They Might Say About Police Body Cameras)*, 18 U. PA. J. CONST. L. 933, 937–40 (2016); *see infra* Section II.C.

19. *See, e.g.*, Paul Ohm, *Probably Probable Cause: The Diminishing Importance of Justification Standards*, 94 MINN. L. REV. 1514, 1515 (2010) (arguing that, in the internet context, most any suspicion amounts to "probable cause"); Paul Ohm, *The Fourth Amendment in a World Without Privacy*, 81 MISS. L.J. 1309, 1320 (2012) (worrying that "the great bulwark of the Fourth Amendment, probable cause and a warrant, will become much less important as pervasive monitoring and record collection will give the police probable cause most of the time"); Jeffrey Bellin, *Crime-Severity Distinctions and the Fourth Amendment: Reassessing Reasonableness in a Changing World*, 97 IOWA L. REV. 1 (2011) (proposing that the Court abandon the current Fourth Amendment doctrine—premised on informational standards—and incorporate the severity of the crime being investigated into determinations of "reasonableness," particularly because modern technologies challenge existing conceptions of which searches are and are not reasonable).

20. *See, e.g.*, Andrew Guthrie Ferguson, *Big Data and Predictive Reasonable Suspicion*, 163 U. PA. L. REV. 327, 329–32 (2015) (positing that reasonable suspicion may become ever-present in a 'big data' world).

21. *See infra* Part III.

22. For a somewhat analogous argument in favor of capital punishment caps, see generally Adam M. Gershowitz, *Imposing a Cap on Capital Punishment*, 72 MO. L. REV. 73 (2007).

discretion to make pro-social policing possible, while still tending to counteract its over-zealous counterpart.

Later—after defending our proposal on constitutional and democratic grounds—we will return to the particulars of budgetary design.[23] For the moment, suffice it to note two general principles that, under all circumstances, ought to guide the composition of search and seizure budgets.

The first principle is flexibility. Policing is inherently local, and so are its pathologies. Given this, not only should budgets be responsive to context-specific conditions on the ground; they should also be capable of incorporating various 'consumption smoothing' tools in response to dynamic—often unforeseeable—changes to those conditions. Such tools might include, for example, (1) saving-and-borrowing systems, allowing departments to leverage or roll-over searches and seizures across time periods; (2) replenishment mechanisms, such as fast-track review of applications for supplementary allotments by a city council or equivalent body; and (3) delayed budgets (or 'sunset budgets'), in which a police commissioner must appear before such a decision-maker to justify levels of policing.

The second principle is that budgets should encourage good policing, not just deter bad policing—much as the two goals run together in practice. At a minimum, this would mean automatically expanding budgets in response to genuine emergencies, particularly of a larger-scale variety. But emergency measures are just the beginning. One can also imagine more proactive mechanisms of encouragement—for example, 'bonus' systems that allow police to earn more searches and seizures through prosocial conduct, or economic incentives for departments (or individual officers) that come in 'under budget' without sacrificing socially desirable outcomes. We are not saying budgets should necessarily incorporate features like this, just that they could do so—that budgets can be 'carrots' as much as they are 'sticks.'

We develop many of these ideas in more detail below. The bottom line is that budgets are meant to inform and discipline conduct on the margins, not to straitjacket legitimate policing. Often enough, the mere *existence* of a budget may be enough to curb police excess. This is not to imply that budgets are any sort of panacea. But the change from a world without quantity-based restrictions to one in which officers and departments operate against the backdrop of such scarcity would, we believe, be a change of category, not merely degree—and salutarily so.

II. THE CONSTITUTIONAL JUSTIFICATION

Having sketched the beginnings of how search and seizure budgets might operate in practice, we turn now to consider both Fourth Amendment history and contemporary reality—or at least what will soon be our technologically-enhanced near-future. Together, these suggest that, *plus ça change*, the argument for budgets

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23. *See infra* Part IV.

turns out to be both rooted in the framing experience and supremely relevant to our day.

A. Writs of Assistance, Reconceived

Although every provision of an eighteenth-century Constitution comes to us on "faded parchment,"[24] the Fourth Amendment has at least one relative advantage: we can pinpoint its motivation. "The Founding generation crafted the Fourth Amendment as a response to the reviled 'general warrants' and 'writs of assistance' of the colonial era, which allowed British officers to rummage through homes in an unrestrained search for evidence of criminal activity."[25] What is more, according to the Supreme Court, we can pinpoint the very instant at which that anger boiled over: "In fact, as John Adams recalled, the patriot James Otis' 1761 speech condemning writs of assistance was 'the first act of opposition to the arbitrary claims of Great Britain' and helped spark the Revolution itself."[26]

Thus, when the 1886 Court in *Boyd v. United States* struck down a revenue law authorizing the effective search and seizure of private documents,[27] it broadly

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24. Coy v. Iowa, 487 U.S. 1012, 1015 (1988) (quoting California v. Green, 399 U.S. 149, 174 (1970) (Harlan, J., concurring)) (particularly referencing the enigma that is the Confrontation Clause).

25. Carpenter v. United States, 138 S. Ct. 2206, 2213 (2018) (quotation marks and citation omitted). "The writ of assistance was a type of general warrant deriving its name from the fact that a crown official possessed the legal authority to command the assistance of a peace officer and the assistance, if necessary, of all nearby subjects in his execution of the writ." Leonard W. Levy, *Origins of the Fourth Amendment*, 114 POL. SCI. Q. 79, 84 (1999).

26. *Carpenter*, 138 S. Ct. at 2213 (citation omitted). That certainly captures the claim of Adams: "Otis demonstrated the illegality, the unconstitutionality, the iniquity and inhumanity of that writ in so clear a manner, that every man appeared to me to go away ready to take arms against it." Letter from John Adams to William Tudor (Dec. 18, 1816), *in* 10 THE WORKS OF JOHN ADAMS 233 (Charles Francis Adams ed., 1856), https://oll.libertyfund.org/title/adams-the-works-of-john-adams-10-vols [https://perma.cc/5LHB-ADFT]. In a later letter, Adams described it like this:

> Otis was a flame of fire!—with a promptitude of classical allusions, a depth of research, a rapid summary of historical events and dates, a profusion of legal authorities, a prophetic glance of his eye into futurity, and a torrent of impetuous eloquence, he hurried away everything before him. American independence was then and there born.

Letter from John Adams to William Tudor (March 29, 1817), *in* THE WORKS OF JOHN ADAMS, *supra*, at 247.

More generally, one could hardly overstate the praise Adams and others have heaped upon Otis and his words. For Adams, "No harangue of Demosthenes or Cicero ever had such effects upon this globe as that speech." Letter of from John Adams to William Tudor (Dec. 18, 1816), *in* THE WORKS OF JOHN ADAMS, *supra*. "James Otis was Isaiah and Ezekiel united." Letter from John Adams to William Wirt (Jan. 5, 1818), *in* THE WORKS OF JOHN ADAMS, *supra*, at 272. For some of the similarly lofty praises of others, see James M. Farrell, *The Writs of Assistance and Public Memory: John Adams and the Legacy of James Otis*, 79 NEW. ENG. Q. 533, 533–34 (2006).

27. *See* Boyd v. United States, 116 U.S. 616, 622 (1886) (combining the Fourth and Fifth Amendment protections to forbid "a compulsory production of a [person's] private papers, to be used in evidence against him in a proceeding to forfeit his property for alleged fraud against the revenue laws"). The *Boyd* Court considered the challenged law even worse than that authorizing the colonial writs:

ordained that the Fourth Amendment protection be interpreted beginning with Otis' revolutionary spark:

> In order to ascertain the nature of the proceedings intended by the Fourth Amendment to the Constitution under the terms "unreasonable searches and seizures," it is only necessary to recall the contemporary or then recent history of the controversies on the subject . . . . The practice had obtained in the colonies of issuing writs of assistance to the revenue officers, empowering them, in their discretion, to search suspected places for smuggled goods, which James Otis pronounced "the worst instrument of arbitrary power, the most destructive of English liberty and the fundamental principles of law, that ever was found in an English law book;" since they placed "the liberty of every man in the hands of every petty officer." This was in February, 1761, in Boston, and the famous debate in which it occurred was perhaps the most prominent event which inaugurated the resistance of the colonies to the oppressions of the mother country. "Then and there," said John Adams, "then and there was the first scene of the first act of opposition to the arbitrary claims of Great Britain. Then and there the child Independence was born." These things . . . were fresh in the memories of those who achieved our independence and established our form of government.[28]

While the Court would later untie the Fourth-Fifth Amendment knot forged in *Boyd*—and therefore significantly diminish the federal constitutional privacy

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> Even the act under which the obnoxious writs of assistance were issued did not go as far as this, but only authorized the examination of ships and vessels, and persons found therein, for the purpose of finding goods prohibited to be imported or exported, or on which the duties were not paid, and to enter into and search any suspected vaults, cellars, or warehouses for such goods. The search for and seizure of stolen or forfeited goods, or goods liable to duties and concealed to avoid the payment thereof, are totally different things from a search for and seizure of a man's private books and papers for the purpose of obtaining information therein contained, or of using them as evidence against him. The two things differ *toto coelo*. In the one case, the government is entitled to the possession of the property; in the other it is not.

Id. at 623.

28. *Id.* at 624–25. The *Boyd* Court naturally went on to discuss the famous trio of opinions arising out of the 1763 arrest of John Wilkes and company, in which the British courts thrice condemned search by general warrant and richly compensated persons therefore. *See id.* at 625–30 (chronicling these cases and considering them "the true and ultimate expression of [our resulting] constitutional law"); *see also* Stanford v. Texas, 379 U.S. 476, 480–86 (1965) (chronicling the same history and articulating special concern for the search of First Amendment content). *But cf.* William Cuddihy & B. Carmon Hardy, *A Man's House Was Not His Castle: Origins of the Fourth Amendment to the United States Constitution*, 37 WM. & MARY Q. 371, 385–87 (1980), http://www.jstor.com/stable/1923809 [https://perma.cc/P2X6-N6ZU] (arguing that, on the ground in England, "the gains were chiefly rhetorical" and did not apply to cases involving writs of assistance).

protections in papers[29]—that diminishment did not happen without objection. In dissent, Justice William Douglas argued for a zone of privacy immune even to the judicial warrant, his words echoing the broad themes of this Article.[30] What is more, the general Fourth Amendment rhetoric (but not the Fourth-Fifth Amendment tie) of *Boyd* has recently enjoyed a Supreme Court renaissance. The Court quoted *Boyd* in 2012's *United States v. Jones*, in which the Court unanimously (through different theories) rejected the government's warrantless, contact-based, longer-term GPS tracking of vehicles.[31] So too in 2013, when the Court rejected the warrantless home approach of police dogs in *Florida v. Jardines*.[32] Even more resounding was the Court's 2014 decision in *Riley v. California*, in which the Court exempted cell phones (and presumably other modern digital devices) from the permissive rule of search incident to arrest; and here we quote liberally because the ties to *Boyd* and Otis are key:

> Our cases have recognized that the Fourth Amendment was the founding generation's response to the reviled "general warrants" and "writs of assistance" of the colonial era, which allowed British officers to rummage through homes in an unrestrained search for evidence of criminal activity. Opposition to such searches was in fact one of the driving forces behind the Revolution itself. In 1761, the patriot James Otis delivered a speech in Boston denouncing the use of writs of assistance. A young John Adams was there, and he would later write that "(e)very man of a crowded audience appeared to me to go away, as I did, ready to take arms against writs of assistance." . . .
>
> Modern cell phones are not just another technological convenience. With all they contain and all they may reveal, they hold for many Americans "the privacies of life," *Boyd*. The fact that technology now allows an individual to carry such information in his hand does not make the information any less worthy of the protection for which the Founders fought. Our answer to the question of what police must do before searching a

29. *See* Warden, Md. Penitentiary v. Hayden, 387 U.S. 294, 301 (1967) (permitting seizure of "mere evidence"); Wayne R. LaFave, Jerold H. Israel, Nancy J. King & Orin S. Kerr, 3 CRIM. PROC. § 8.12(a), (g) (4th ed. 2021) (generally discussing *Boyd* and what of it remains good law).

30. *Warden, Md. Penitentiary*, 387 U.S. at 325 (Douglas, J., dissenting) ("I would . . . leave with the individual the choice of opening his private effects (apart from contraband and the like) to the police or keeping their contents a secret and their integrity inviolate. The existence of that choice is the very essence of the right to privacy. Without it the Fourth Amendment and the Fifth are ready instruments for the police state that the Framers sought to avoid.").

31. United States v. Jones, 565 U.S. 400, 404–05 (2012).

32. Florida v. Jardines, 569 U.S. 1, 7–8 (2013).

> cell phone seized incident to an arrest is accordingly simple—get a warrant.[33]

Finally, in 2018's *Carpenter v. United States*, in lines partially already shared above, the Court returned to both *Boyd* and Otis in rejecting warrantless access to seven days or more of cell-site location information.[34]

In short, the Fourth Amendment core was to prohibit general warrants like the colonial writs of assistance, and James Otis lit that fuse.[35] What was 'general' about those writs, and why did it so upset Otis? First, the writs.

A colonial writ of assistance, just like its English counterpart, was a judicial warrant, issued pursuant to an authorizing decree that remained effective during the reign of the issuing monarch.[36] It authorized a search—often for stolen, untaxed,

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33. Riley v. California, 573 U.S. 373, 403 (2014) (some citations omitted).

34. Carpenter v. United States, 138 S. Ct. 2206, 2213–14, 2217 (2018).

35. Otis' speech is also invoked in many Fourth Amendment dissents. *See, e.g.*, Arizona v. Evans, 514 U.S. 1, 23 (1995) (O'Connor, J., dissenting); United States v. Verdugo-Urquidez, 494 U.S. 259, 286 n. 8 (1990) (Brennan, J., dissenting); Illinois v. Krull, 480 U.S. 340, 362 (1987) (Marshall, J., dissenting); Payton v. New York, 445 U.S. 573, 608 (1980) (White, J., dissenting); United States v. Matlock, 415 U.S. 164, 181 n.1 (1974) (Douglas, J., dissenting); Terry v. Ohio, 392 U.S. 1, 37 (1968) (Douglas, J., dissenting); Draper v. United States, 358 U.S. 307, 317 (1959) (Douglas, J., dissenting); On Lee v. United States, 343 U.S. 747, 764 (1952) (Douglas, J., dissenting); and Olmstead v. United States, 277 U.S. 438, 474 (1928) (Brandeis, J., dissenting), *overruled in part by* Berger v. New York, 388 U.S. 41 (1967), and *overruled in part by* Katz v. United States, 389 U.S. 347 (1967).

36. *Writ of Assistance*, ENCYCLOPEDIA BRITANNICA, https://www.britannica.com/topic/writ-of-assistance [https://perma.cc/B852-EQDD] (last visited Jan. 30, 2023); George C. Thomas III, *Stumbling Toward History: The Framers' Search and Seizure World*, 43 TEX. TECH L. REV. 199, 206 (2010); George G. Wolkins, *Writs of Assistance in England*, 66 PROC. MASS. HIST. SOC'Y 357, 357 (1942), http://www.jstor.com/stable/25080334 [https://perma.cc/DV3H-UYSC]. Representative is this English statute from 1662:

> And it shall be lawful to or for any Person or Persons, authorized by Writ of Assistance under the Seal of his Majesty's Court of Exchequer, to take a Constable, Headborough or other publick Officer inhabiting near unto the Place, and in the Day-time to enter, and go into any House, Shop, Cellar, Warehouse or Room, or other Place, and in Case of Resistance, to break open Doors, Chests, Trunks and other Package, there to seize, and from thence to bring, any Kind of Goods or Merchandize whatsoever, prohibited and uncustomed, and to put and secure the same in his Majesty's Store-house, in the Port next to the Place where such Seizure shall be made.

Wolkins, *supra*, at 357. An authorizing statute of 1876 reads much the same. *See id.* at 362.

or uncustomed goods[37]—anywhere such goods might be found.[38] Thus, a 1749 warrant instructed the local constable to "diligently search every suspected House and Place within your Parish, which you and the . . . [owner of stolen sheep] shall think convenient to search."[39] When one John Bellamy was suspected of counterfeiting, a warrant issued in 1739 New Haven (home to Yale University and later to Yale Law School) instructed the sheriff to "make Dilligent and thorow Search after the said Counterfeit bills[,] or the plate or plates whereon they are Ingraven[,] or any of the Utensels by which they are made in the hous where the sd. Bellamy dwells and in all the other Neighboring houses[,] buildings[,] and places or any other places that you shall have reason to Suspect . . . . "[40]

So, the warrant might be reasonably particular in *what* officers were seeking: stolen sheep (assuming such can be identified from among their fellows), or the instrumentalities and fruits of counterfeiting. But others were much more general in subject, like a 1910 English writ (yes, as late as 1910!) authorizing customs officials "from time to time as they shall think proper" to search "houses, shops, cellars, warehouses, rooms, and other places" for "any goods, wares, or Merchandises . . . which are prohibited, or for which the Duties of Customs . . . are not or shall not be duly paid."[41] That's not quite as generic as authorizing a search for "any other evidence relating to the commission of a crime,"[42] but it's quite generic. Critically, either way, such warrants were terribly general in authorizing *where* officials might look, leaving that matter entirely to executive discretion.[43] And

37. In an important line of cases, the Court has stressed the historic use of the general warrant to suppress free expression. *See* Stanford v. Texas, 379 U.S. 476, 482–86 (1965); Marcus v. Search Warrants of Prop. at 104 E. Tenth St., 367 U.S. 717, 724–29 (1961). For example,

> [t]he Stationers' Company was incorporated in 1557 to help implement that system and was empowered "to make search whenever it shall please them in any place, shop, house, chamber, or building or any printer, binder or bookseller . . . for any books or things printed, or to be printed, and to seize, take hold, burn, or turn to the proper use of the foresaid community, all and several those books and things which are or shall be printed contrary to the form of any statute, act, or proclamation, made or to be made . . . ."

Marcus, 367 U.S. at 725 (quoting 1 EDWARD ARBER, A TRANSCRIPT OF THE REGISTERS OF THE COMPANY OF STATIONERS OF LONDON, 1554-1640 A.D. xxxi (1875), https://archive.org/details/transcriptofregi01statuoft/mode/2up [https://perma.cc/B66W-YSD2]).

38. *See* Cuddihy & Hardy, *supra* note 28, at 379–84 (chronicling numerous examples).

39. WILLIAM J. CUDDIHY, THE FOURTH AMENDMENT: ORIGINS AND ORIGINAL MEANING 602–1791, at 233 (2009) [hereinafter CUDDIHY, THE FOURTH AMENDMENT].

40. Cuddihy & Hardy, *supra* note 28, at 387.

41. Wolkin, *supra* note 36 (canceled writ of assistance issued by George the Fifth). According to the British official then in charge, "The exact regulations governing the use of this extremely powerful document are strictly confidential but I may say that occasions when its use is necessary are comparatively rare"; in most instances, officers instead would seek a specific warrant. *Id.* at 362.

42. United States v. George, 975 F.2d 72, 75 (2d Cir. 1992) (striking down such a warrant provision); *see also* United States v. Suggs, 998 F.3d 1125, 1133 (10th Cir. 2021) (striking down a warrant seeking "[a]ny item identified as being involved in crime").

43. An earlier writ in 1661 New Haven commanded the marshal "to make diligent search . . . throughout the whole town of Milford and the precincts thereof . . . ; and this to be in all

notice that the 1910 writ—and some colonial provisions were similar—authorized searches without *any* judicial authorization.[44]

Such general authorizations sound abhorrent to modern American ears;[45] the Fourth Amendment would very intentionally require that all warrants "particularly describ[e]" both the "place to be searched" (ideally singular) and the "persons or things to be seized."[46] But why did they so upset James Otis and the other American colonists when they had been employed in England for centuries,[47] when they remained the norm in American colonies until Massachusetts uniquely began to change course in the mid-eighteenth century,[48] and when they continued in England for customs violations at least well into the twentieth century?[49] Why did American

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dwelling houses, barnes or other buildings whatsoever, and vessels in the harbour . . . ." CUDDIHY, THE FOURTH AMENDMENT, *supra* note 39, at 234.

44. *See* Cuddihy & Hardy, *supra* note 28, at 389–90; Farrell, *supra* note 26, at 535. Cuddihy and Hardy explain:

> Until well past the mid-eighteenth century, customs legislation in at least eight colonies authorized general searches on land. Only Virginia and the Carolinas consistently required warrants resembling England's writs of assistance as a prerequisite for such searches . . . . The Connecticut impost of I735, for example, empowered local officers acting without warrants "to make diligent Search after all Rhum Imported into this colony or distilled within the same, the duty whereof is not paid. And to that end to break open any house or vessel or other suspected place to Enter and Seize all such Rhum." In adapting the laws of England to New World conditions, the colonists seem actually to have moved along more discretionary lines.

Cuddihy & Hardy, *supra* note 28, at 389–90. Cuddihy and Hardy also explain that *in particular instances* American colonists certainly took umbrage at such searches; they recount one such incident occurring as early as 1663. *Id.* at 391. Certain commentators, including Sir Edward Coke and Sir Matthew Hale, likewise had harsh words. *Id.* at 376. The point is not that every search was popular nor that conflicting statements of scholarship did not exist, but rather that the general authority to conduct such searches was—day-to-day, 'on the ground'—treated as unremarkable.

45. At least they sound abhorrent apart from the unique context of an international border, where the Fourth Amendment is interpreted to be very forgiving. *See* United States v. Flores-Montano, 541 U.S. 149 (2004) (permitting suspicionless disassembly of a vehicle gas tank at the international border); United States v. Montoya de Hernandez, 473 U.S. 531 (1985) (permitting a twenty-hour detention supported by reasonable suspicion at the functional equivalent of an international border).

46. U.S. CONST. amend IV.

47. *See* CUDDIHY, THE FOURTH AMENDMENT, *supra* note 39, at xiv. The earliest example Cuddihy tracks down is from "1335, when 'good men' were commanded to search for counterfeit bullion." Cuddihy & Hardy, *supra* note 28, at 373.

48. *See* CUDDIHY, THE FOURTH AMENDMENT, *supra* note 39, at 236 ("The general warrant, or something resembling it, was the usual protocol of search and arrest everywhere in colonial America, excepting Massachusetts after 1756."); *id.* at 337 ("Between 1752 and 1764, Massachusetts became the first jurisdiction to emplace the specific warrant as the conventional method of search and seizure."); Farrell, *supra* note 26, at 535 ("Such writs had been part of the legal culture in Massachusetts since at least 1696 . . . ."); *see also* Cuddihy & Hardy, *supra* note 28, at 392–98 (chronicling the Massachusetts deviation). In short, "The Fourth Amendment would not emerge from colonial precedents; rather, it would repudiate them." Levy, *supra* note 25, at 82.

49. *See generally* Wolkins, *supra* note 36. Wolkins tellingly begins his article with this: "Writs of assistance are famous chiefly because James Otis argued against them." *Id.* at 357.

colonists transform a centuries-long notion of one's home as castle as against *private persons*, to a theretofore unknown notion against State entry?[50]

Perhaps because the colonists were perfectly situated in history to enact a better notion of liberty. In the words of George Washington, "The foundation of our empire was not laid in the gloomy age of ignorance and superstition; but at an epoch[ ] when the rights of mankind were better understood and more clearly defined, than at any former period."[51] In short, all the best Enlightenment thinking was simply 'there for the taking.'[52] So, while the English were not ready to stop *using* general warrants, both prominent cases[53] and treatises had "invented a rhetorical tradition against general searches"[54] that was ready for American implementation.

Yet there was also this: prominent colonists were prominently smugglers, and of course warrants issued pursuant to the writs would cut into those illegal gains.[55] In the telling words of Emily Hickman, "The [Boston] merchants did not fear special writs, which required the publication of the informer's name in each case, for the business of informing was exceedingly unhealthful in Boston at that period."[56] Not so admirable. Still, for good and ill, such "hustle" might be the very ethos of America.[57] The founding dislike for general warrants—or at least its most

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50. *See* CUDDIHY, THE FOURTH AMENDMENT, *supra* note 39; *see also* Cuddihy & Hardy, *supra* note 28, at 375 (according to a 1604 precedent, "[t]he representative of the king could enter whenever necessary after announcing 'the cause of his coming, and (making) request to open doors'"); Levy, *supra* note 25, at 81 (making the same historic point).

51. Letter from George Washington to the Governors of All the States (June 8, 1783), *in* 10 THE WRITINGS OF GEORGE WASHINGTON 1782–1785, at 254, 256 (Worthington Chauncey Ford ed., 1890), https://oll.libertyfund.org/title/ford-the-writings-of-george-washington-vol-x-1782-1785 [https://perma.cc/39N6-CCPM].

52. *See* JOSEPH J. ELLIS, AMERICAN CREATION: TRIUMPHS AND TRAGEDIES AT THE FOUNDING OF THE REPUBLIC 4, 14–15, 16 (2007) (developing the point, including the benefits to America of "not [being] weighed down by encrusted traditions, embedded institutions, and socially sanctioned inhibitions").

53. See *supra* note 28, where we previously noted the famous trio of British opinions arising out of the 1763 arrest of John Wilkes.

54. Levy, *supra* note 25, at 81.

55. *See* Emily Hickman, *Colonial Writs of Assistance*, 5 NEW ENG. Q. 83, 86–90 (1932) (chronicling how the writs interfered with illegal trade and the lengths to which colonists would go to continue smuggling).

56. *Id.* at 91. Cuddihy and Hardy include a similarly telling anecdote:

> [I]n December 1755, Hayward Smith, a deputy impost officer, petitioned the lower [Massachusetts] house on the difficulties of enforcing his office. Belligerent residents in Taunton and Bristol had openly boasted to Smith and his aides of large quantities of uncustomed rum in their cellars and threatened to "shoot (the officers) if they should pretend to break open their Doors." Enraged neighbors refused Smith's offers of treble wages to assist him. They then retrieved the goods he had seized, formed mobs, disabled his horse, and threatened his life. After collecting only fourteen shillings of revenue in two days, a discouraged Smith departed on foot.

Cuddihy & Hardy, *supra* note 28, at 396.

57. *See* Jason Willick, Opinion, *The 'Hustlers' Who Started America*, WALL ST. J. (July 2, 2021, 2:18 PM), https://www.wsj.com/articles/the-hustlers-who-started-america-11625249906 [https://

famous manifestations—certainly arose for interestingly personal reasons. Consider again that famous speech of James Otis, delivered in a losing cause before the Superior Court in Massachusetts in 1761 (*Paxton's Case*),[58] to which the Supreme Court has directed our Fourth Amendment attention.[59] While we only have bits of Otis' five-hour oratory, his language is remarkably self-centered for the work of a legal advocate; in the first span of twelve sentences, he uses the personal pronoun "I" twenty-two times,[60] and this 'paean to self' follows:

> The only principles of public conduct, that are worthy of a gentleman or a man, are to sacrifice estate, ease, health, and applause, and even life, to the sacred calls of his country. These manly sentiments, in private life, make the good citizen; in public life, the patriot and the hero. I do not say, that when brought to the test, I shall be invincible. I pray God I may never be brought to the melancholy trial; but if ever I should, it will be then known how far I can reduce to practice principles, which I know to be founded in truth. In the mean time I will proceed to the subject of this writ.[61]

One can readily imagine a contemporary judge quickly shutting down such self-aggrandizing puffery and throat-clearing.

And why do we have record of Otis' words, when no official transcript of that proceeding was made?[62] Because a young John Adams was in attendance, and he dutifully took notes.[63] That alone would of course be unremarkable—so it was with colonial proceedings.[64] But it becomes quite remarkable when one considers that Adams would later engage in a sustained campaign to have Otis' remarks accepted as the spark of rebellion. Why? Because (1) 'hey, I took the only good notes!'

perma.cc/P8X4-HA7S] (describing the work of historian Walter McDougall, including that "the American colonists were 'scofflaws' and . . . 'the genius of the American people is that so often their corruption is creative'"). According to McDougall, "one of the kind of clever tricks that Americans play on themselves is to want to feel good about doing well, but not telling yourself that's what you're doing." *Id.* If you are a lawbreaker, then, you might seek out a rather glorified reason to be breaking the law.

58. *See* Cuddihy & Hardy, *supra* note 28, at 394; COLLECTED POLITICAL WRITINGS OF JAMES OTIS 3 (Richard Samuelson, ed., 2015), https://oll.libertyfund.org/title/collected-political-writings [https://perma.cc/7TU6-DQ98].

59. *See supra* notes 26, 28.

60. *See* COLLECTED POLITICAL WRITINGS OF JAMES OTIS, *supra* note 58, at 11–12. To be clear, this relies upon the attempted reconstruction of the speech by John Adams some years after it was delivered, because Adams' contemporary notes contained little detail. *See id.* at 4 (explaining Adams' role); *id.* at 5–7 (Adams' contemporary notes).

61. *Id.* at 12.

62. *See* Farrell, *supra* note 26, at 534.

63. *Id.*; COLLECTED POLITICAL WRITINGS OF JAMES OTIS, *supra* note 58, at 4.

64. In Adams' own words, "There were no stenographers in those days. Speeches were not printed; and all that was not remembered . . . was lost in air." Letter from John Adams to H. Niles (Jan. 14, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 276. Adams expanded upon his contemporary notes in much later letters. *See id.* at 314–62.

(placing himself in that center stage)[65] and because (2) Otis was a fellow citizen of Massachusetts, arguing before a Massachusetts court, and credit was instead popularly being given to Patrick Henry . . . of *Virginia*![66] It didn't just happen that we—critically including Justices of the Supreme Court—think of John Adams' words praising Otis' argument; Adams worked tirelessly for years to make that our history.[67] And it becomes yet more remarkable when one considers that Otis—who was generally a hothead by any measure[68] and who at least later battled mental illness[69]—was personally vested in the case: it would tie the judge (Thomas

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65. *See* Farrell, *supra* note 26, at 537 ("To be sure, Adams was mainly concerned with how he himself would appear to [Mercy Otis] Warren's readers 'both in present and future times.' He was determined to remind her that he had been present at the birth of the Revolution.").

66. *See id.* at 543–52. In Adams' words, "I envy none of the well-merited glories of Virginia, or any of her sages or heroes. But, Sir, I am jealous, very jealous, of the honor of Massachusetts." Letter from John Adams to William Wirt (Jan. 5, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 272. Such state rivalries were only all too real, as any fan of Broadway phenomenon *Hamilton* might attest. *See* LIN-MANUEL MIRANDA, *The Room Where It Happens*, *on* HAMILTON ORIGINAL BROADWAY CAST RECORDING (Atl. Records 2015) (describing how Virginians Thomas Jefferson and James Madison grudgingly agreed to support New Yorker Alexander Hamilton's plan for a national bank in return for his—and therefore President Washington's—support for a southern national capital). Adams' own words are quite plain:

> As "the accurate Jefferson" has made the Revolution a game of billiards, I will make it a game of shuttle-cock. Henry might give the first impulse to the ball in Virginia, but Otis' battledore [the small racket used in the forerunner of badminton] had struck the shuttle-cock up in air in Massachusetts, and continued to keep it up for several years before Henry's ball was touched. Jefferson was but a boy at college, of fifteen or sixteen years of age at most, and too intent on his classics and sciences to know, think, or care about anything in Boston. When Otis first fulminated against British usurpation, I was but twenty-five years and three months old. Jefferson is, at least, nine, I believe ten years younger than I, and, consequently, could not be more than fifteen or sixteen. He knew more of the eclipses of Jupiter's satellites than he did of what was passing in Boston.

Letter from John Adams to Benjamin Waterhouse (Jan. 30, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 279–80. *But a boy at college*. Ouch. *See also* Letter from John Adams to William Tudor (April 5, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 310 (bemoaning that "the Virginia patriot has had many trumpeters, and very loud ones; but the Massachusetts patriot none, though false accusers and vile calumniators in abundance"). On the merits of revolution, Adams and Paine tended to agree, though Paine was the more democratically aggressive. *See* Ellis, *supra* note 52, at 41–44. As for Jefferson, Adams forever resented the place history gave his Declaration of Independence. *See id.* at 52–53.

67. *See* Farrell, *supra* note 26, at 555 ("Relying on Adams' letters and his abstract, [William Tudor Jr.'s] . . . biography helped secure the lasting reputation of James Otis as a patriot hero and conferred canonical status on Otis' speech in the scripture of our civic religion.").

68. *See* John J. Waters & John A. Schutz, *Patterns of Massachusetts Colonial Politics: The Writs of Assistance and the Rivalry Between the Otis and Hutchinson Families*, 24 WM & MARY Q. 543, 543 (1967) ("Otis was a turbulent person who could easily fly into rage, give fighting language, and leave a lasting impression of his actions . . . .").

69. *See* Erick Trickey, *Why the Colonies' Most Galvanizing Patriot Never Became a Founding Father*, SMITHSONIAN MAG. (May 5, 2017), https://www.smithsonianmag.com/history/transformative-patriot-who-didnt-become-founding-father-180963166/ [https://perma.cc/RA52-W9BR] ("'He rambles,' Adams wrote in his diary in January 1770, 'like a ship without a helm . . . . I fear, I

Hutchison) to the increasingly unpopular monarchy, and the Otises and Hutchisons had a long-running family feud.[70] Indeed, Otis believed his father had been promised the very judicial seat from which Hutchison presided; after the latter's appointment, the younger Otis—our orator Otis—had allegedly "'swor[n] revenge,' and vowed to 'set the province in flames.'"[71]

And perhaps the more things change . . . When our Supreme Court instructed in *Boyd* that we look to Otis and this context, no Justice had quite the Otis-measure of personal interest at stake, yet there is this in the Court's footnote 1: "An elaborate history of the writs of assistance is given in the Appendix to Quincy's Reports, above referred to, written by Horace Gray, Jr., Esq., now a member of this court."[72] One of the Justices had published on the matter, and the Court was citing to that work. There's nothing wrong with taking advantage of known good work, of course. (We law professors are certainly known to cite our own work!) It's just that there's also no interest like self-interest.

In short, why Otis spoke and how we have come to treasure his remarks is, like most history, fascinating and more than a bit idiosyncratic. But regardless of those historic twists, Otis' remarks have become a critical part of our Fourth Amendment story, and therefore of our very Fourth Amendment, because they have resonated with the American people and with its courts for over two hundred

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tremble, I mourn for the man, and for his country.' By February, Adams wrote, his friend was 'raving mad, raving against father, wife, brother, sister, friend.'").

70. *See* Waters & Schutz, *supra* note 68, at 544 ("These [newly available] documents suggest the need for a long-range approach to the Hutchinson-Otis family dispute. They argue for shifting the historical focus from the traditional explanation of a fight over trade regulation to a broader consideration of the social and political fortunes of these two families."). Water and Schutz conclude:

> The Otis-Hutchinson rivalry presents a fascinating pattern of Massachusetts politics. The Otises, a provincial outport family, ever after a Boston foothold, struggled with the Hutchinsons, an urban, mercantile, and metropolitan family. Influence, patronage, position, and family, not ideological abstractions, were the propellants of their politics. At this juncture younger James [Otis] was no torchbearer of revolution but a zealous seeker of those prizes and rewards of colonial life. Thomas Hutchinson, irritated over the pretensions of these country folk, was blocked at the same time from the governorship . . . . Inconsiderate of Otis feeling, he raised a storm when he accepted the appointment of chief justice of the Superior Court in order to safeguard family prestige and stop the Otises. The storm that broke over the Writs of Assistance in 1761 ruined his friends and separated him from the society he wanted to dominate.

Id. at 567.

71. Trickey, *supra* note 69; *see also* Waters & Schutz, *supra* note 68, at 559–64 (describing the events in more detail). John Adams referred to the controversy in several of his letters, naturally coming to Otis' defense. *See* Letter from John Adams to Benjamin Waterhouse (Feb. 6, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 281; Letter from John Adams to H. Niles (Feb. 13, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 287; Letter from John Adams to William Tudor (Feb. 25, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 289–92; Letter from John Adams to William Tudor (March 11, 1818), *in* THE WORKS OF JOHN ADAMS, *supra* note 26, at 297–98. Otis himself would deny the charge. *See* COLLECTED POLITICAL WRITINGS OF JAMES OTIS, *supra* note 58.

72. Boyd v. United States, 116 U.S. 616, 625 n.1 (1886).

years. In the words of historian Leonard Levy, "That Otis distorted history is pedantic; he was making history."[73] And thus it is that general warrants like the colonial writs are today considered, to use Otis' words, "instruments of . . . villainy."[74] By contrast, "special warrants to search such and such houses specially named, in which the complainant has before sworn that he suspects his goods are concealed . . . are legal."[75]

Why this ought to be the case is the matter to which we next turn.

B. Theories of the General Warrant

If the Framers' waking to the problems of general warrants was "making history,"[76] we ought to consider *why* they came to despise the general warrant. Or, put differently (and perhaps more importantly), why might it be right for a free people to resist the general warrant as a tool of governance? We can imagine several related reasons.

One theory, which might be considered an *anti-dragnet* principle, is that government investigation ought never invade the privacy or liberty of too many, because that collective cost will necessarily outweigh the corresponding investigatory gain. In other words, both privacy and safety are autonomy- and dignity-promoting values, and while it can certainly be possible to make pareto-superior moves that further *both*, at other times an increase in one will mean a decrease in the other, and so we ought never to sacrifice too much of either one. General warrants, by permitting a State official to invade the privacy of essentially any citizen at any time, definitionally push over that acceptable privacy minimum.

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73. Levy, *supra* note 25, at 85. "By an old British technique . . . Otis sought the creation of new rights while asserting strenuously that they had existed nearly from time immemorial." *Id.* Levy has similarly telling words for what the Americans made of the British Wilkes affair:

> [T]he Wilkes case and the parliamentary debates unleased a lot of rhetoric that went far beyond the reality of actual judicial holdings and legislative resolves. Americans were practiced in making a highly selective use of authorities and other sources that suited their needs . . . . In Britain, Englishmen often spoke thunderously but thrashed about with a frail stick; in America they threw the stick away, contenting themselves with the thunder.

Id. at 89.

74. COLLECTED POLITICAL WRITINGS OF JAMES OTIS, *supra* note 58, at 11. They are surely not, however, "the worst instrument of arbitrary power, the most destructive of English liberty and the fundamental principles of law, that ever was found in an English law-book." *Id.* Otis thrilled to exaggeration.

75. *Id.* at 12.

76. Levy, *supra* note 25, at 85. Continuing from Levy:

> The [Fourth] amendment resulted from embellishments on the insistence, which was rhetorically compelling, though historically without foundation, that government cannot encroach on the private premises of the individual subject. What mattered was not what Magna Carta actually said but what people thought it said, or rather, what it had come to mean. What also mattered was the inspiring imagery that swelled the sense of freedom in the ordinary subject.

Id. at 79–80.

Another theory might be one of *self-rule*: Having agents of the State always threatening to barge into homes (or elsewhere) threatens the ability of "the people" to politically organize. This is a 'Sword of Damocles' problem; as recognized in the wonderful trio of a Marshall/Douglas/Brennan dissent, "[T]he value of a sword of Damocles is that it hangs—not that it drops."[77] General warrants are thus valued by a State on this theory not primarily for what they find when issued/executed, but for the chilling effect of merely their *potential* issuance.[78]

Yet another theory would be one of *individuality*. The focus here is that principles of human dignity require that each person be treated as an individual, and this requires not merely that a State agent be prohibited from barging into a citizen's home or other private spaces on mere whim, but further that such action be permitted only upon suspicion keyed to what this person has done, *not* keyed to 'whom' she happens to be (merely on account of membership in some class(es)), nor even merely on account of statistics.[79] It's about respecting each person as a particular individual, not as an aggregate of numbers.[80] The Fourth Amendment cannot stop with probabilities, then, but must account for individualized plausibilities,[81] and general warrants act strongly to the contrary.

What is most germane is that, under any of these theories—or at least so we shall argue—the modern trend of overcriminalization, potentially on its own but very much enhanced by technology, provokes concern similar to that of the founding-era general warrant.[82]

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77. Arnett v. Kennedy, 416 U.S. 134, 231 (1974) (Marshall, J., dissenting).

78. Just as police possession of contemporary data-rich evidence can cause reasonable anxiety, *see generally* Kiel Brennan-Marquez & Stephen E. Henderson, *Fourth Amendment Anxiety*, 55 AM. CRIM. L. REV. 1 (2018) [hereinafter Brennan-Marquez & Henderson, *Fourth Amendment Anxiety*], here one is anxious regarding what police *could acquire* at any time without meaningful restraint.

79. This theory seems best attributed to Andy Taslitz, an argument summarized in his final publication:

> Probable cause and reasonable suspicion, the traditional standards of justification used as prerequisites to police searches and seizures, serve several important purposes. Notably, they require proof of individualized suspicion. Such proof prevents police from invading privacy on fishing expeditions that are based upon unsupported hunches, stereotypes, or simple biases. Instead, police must have evidence that this individual engaged in criminal activity. This requirement is part and parcel of respect for persons. Persons are judged based upon their individual behavior, not on their membership in a group, not on residence in a particular neighborhood, and not for generally being disliked by members of law enforcement.

Taslitz & Henderson, *supra* note 11, at 203.

80. In the words of the Fourth Circuit, "We have often emphasized that the Fourth Amendment requires particularity—a *particularized* and objective basis for suspecting *the particular person stopped* of criminal activity." Wingate v. Fulford, 987 F.3d 299, 305 (4th Cir. 2021) (quotation marks removed).

81. *See generally* Brennan-Marquez, *Plausible Cause*, *supra* note 9.

82. We suspect the same would follow from other anti-general-warrant theories. For example, in Akhil Reed Amar's *Fourth Amendment First Principles*, 107 HARV. L. REV. 757 (1994), Amar famously argued that the Fourth Amendment was designed to limit the issuance of warrants because

C. Neo-General Warrants

Our claim is that modern technology and extremely broad notions of criminality threaten a one-two punch, effectively returning us to the general warrant regime the Fourth Amendment was specifically drafted to forbid. More particularly, overcriminalization multiplies the 'sites' of individualized suspicion—whether probable cause or a 'junior,' such as reasonable suspicion—with more and more activities relating to potentially criminal behavior.[83] Technology minimizes the burden of generating the required suspicion at any site, with 'time machine'-like technologies threatening to asymptotically push it towards zero.[84] In conjunction, then, these two developments threaten (1) probable cause in connection with almost all human activity and (2) probable cause that's trivially easy to generate, a liberty-decimating 'perfect storm' in which the classic Fourth Amendment limitation places no meaningful restraint on government intrusion. What we face—or at least will face if we continue doing as we are—is the 'neo-general warrant.'

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those warrants shielded government actors from ex-post civil liability, and that liability could otherwise be rather extraordinary. *See id.* at 767, 771–74; *see also* Thomas, *supra* note 36, at 210, 214, 225 (explaining the founding-era strict-liability regime). Amar further argued that founding-era warrants were limited to certain types of criminal activity, Amar, *supra*, at 762–70, and that "[o]utside this narrow situation—particular description, probable cause, and items akin to contraband or stolen goods—the ex parte search warrant had the potential to become an engine of great oppression." *Id.* at 774. That is of course our concern as well.

83. *See* Joshua Kleinfeld, *Manifesto of Democratic Criminal Justice*, 111 NW. U. L. REV. 1367, 1372 (2017) (providing a sort of taxonomy of overcriminalization); Ed. Bd., *America's Ever-Expanding Criminal Code*, WALL ST. J. (Jan. 21, 2022, 6:43 PM), https://www.wsj.com/articles/americas-ever-expanding-criminal-code-federal-crimes-heritage-foundation-george-mason-report-11642428982 [https://perma.cc/4YQU-AB5E] ("How many federal crimes has Congress created? . . . The answer is in the many thousands, but despite decades of counting, no one knows for sure.").

84. The Supreme Court recognized this shift in refusing to apply an 'analog' automobile-search rule to the digital cell phone:

> The United States first proposes that the *Gant* standard be imported from the vehicle context, allowing a warrantless search of an arrestee's cell phone whenever it is reasonable to believe that the phone contains evidence of the crime of arrest . . . . [A] *Gant* standard would prove no practical limit at all when it comes to cell phone searches. In the vehicle context, *Gant* generally protects against searches for evidence of past crimes. In the cell phone context, however, it is reasonable to expect that incriminating information will be found on a phone regardless of when the crime occurred. Similarly, in the vehicle context *Gant* restricts broad searches resulting from minor crimes such as traffic violations. That would not necessarily be true for cell phones. It would be a particularly inexperienced or unimaginative law enforcement officer who could not come up with several reasons to suppose evidence of just about any crime could be found on a cell phone. Even an individual pulled over for something as basic as speeding might well have locational data dispositive of guilt on his phone. An individual pulled over for reckless driving might have evidence on the phone that shows whether he was texting while driving. The sources of potential pertinent information are virtually unlimited, so applying the *Gant* standard to cell phones would in effect give police officers unbridled discretion to rummage at will among a person's private effects.

Riley v. California, 573 U.S. 373, 398–99 (2014) (citations and quotation marks omitted).

Consider the extremely limited policing of the Founding era. (The extremely limited technology speaks for itself,[85] though we'll consider how technology generates data in just a moment.) Not only were crimes relatively few,[86] but, in the sense that we think of them today, "[t]here were no police."[87] While colonial sheriffs and constables held persons awaiting trial and sometimes served legal process including search warrants, they did not generally investigate crime:

> They reacted to events that unfolded before them or to complaints related to them, and they served legal process issued by courts. Unlike modern police, constables had no incentive to search for evidence of crime unless ordered to do so, usually in the nature of a warrant to search for stolen goods. But in the absence of a warrant, constables reacted to events rather than seeking to solve crime.[88]

In colonial times, then, policing was primarily reactive. The primary—if not exclusive—sort of 'proactive policing' was in the customs arena, which was of course the home of the hated general writ which led to James Otis' outrage and, ultimately, the Fourth Amendment.[89] Today, by contrast, proactive policing in myriad forms is all the rage, goaded on by the analytics of big data.[90]

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85. For a chronology of United States invention, see *Timeline of United States Inventions (before 1890)* (Dec. 17, 2022, 6:53 AM), https://en.wikipedia.org/wiki/Timeline_of_United_States_inventions_(before_1890) [https://perma.cc/V34G-9898].

86. In the words of Justice Clarence Thomas, "The number of federal laws and regulations that trigger criminal penalties may be as high as several hundred thousand." Van Buren v. United States, 141 S. Ct. 1648, 1669 (2021) (Thomas, J., dissenting) (citing Gary Fields & John R. Emshwiller, *Many Failed Efforts to Count Nation's Federal Criminal Laws*, WALL ST. J., July 23, 2011, https://www.wsj.com/articles/SB10001424052702304319804576389601079728920) [https://perma.cc/V7LJ-E97F]. And, of course, state and municipal crimes pile on top. Today, it seems commonplace for Supreme Court Justices to notice in passing just how many crimes are on the books. *See, e.g.*, Transcript of Oral Argument at 24, *Van Buren*, 141 S. Ct. 1648 (No. 19–783), https://www.supremecourt.gov/oral_arguments/argument_transcripts/2020/19-783_2d8f.pdf [https://perma.cc/6QGT-5DX3] ("And then, on the reverse parade of horribles we've heard from the [government], I guess I'm struggling to imagine how—how long that parade would be given the abundance of criminal laws available." (Statement of Justice Gorsuch)). *But see* Darryl K. Brown, *Democracy and Decriminalization*, 86 TEX. L. REV. 223 (2007) (arguing that we often overlook contrary tendencies of decriminalization).

87. Thomas, *supra* note 36, at 200.

88. *Id.* at 201.

89. *See supra* Part II.A.

90. *See* Andrew Guthrie Ferguson, *Big Data Distortions: Exploring the Limits of the ABA LEATPR Standards*, 66 OKLA. L. REV. 831, 842 (2014) ("Predictive analytics have already been used to determine areas where crime may occur, but new predictive technologies will soon look to predict who will be committing those crimes."). And while the adjudicative endgame is not our focus, it too has undergone a dramatic change from the deterministic sentencing of the common law, and one that builds upon the criminal law's massively increased substantive scope. In the words of Bill Stuntz,

> As legislatures [have] added ever more felonies to their criminal codes with ever more severe sentences attached, . . . [c]riminal liability rules ceased to define the conduct that leads to a prison term. Too much conduct is prohibited; no prosecutor could possibly enforce her state's criminal code, and no federal prosecutor can pursue more than a tiny fraction of the crimes to which the

Thus, we can similarly consider the extremely limited data of the founding era, as compared to our current, information-panoptic society.[91] In our internet-connected, 'smart everything' society, we generate about as much information every day as was produced over the entire course of civilization up to 2003.[92] And while it is not yet all formatted so that Target can readily pluck out pregnant women based upon seemingly innocuous purchases[93] or so that Ford can readily pluck out speeders among those driving its cars,[94] it will be.[95] And much of that information can freely swim into police hands through one mechanism or another, whether it be through the "private search doctrine" that refuses to

> federal code applies. Likewise, criminal sentencing rules ceased to define the consequences of particular crimes. Those rules sweep too broadly; they cannot possibly be enforced in all cases to which they apply. Instead, the laws that define crimes and sentences have become a menu—a list of charging and sentencing options that prosecutors may use in order to extract the plea bargains they want . . . .
>
> The *real* law, the "rules" that determine who goes to prison and for how long, is not written in code books or case reports. Prosecutors . . . define it by the decisions they make when ordering off the menus their states' legislatures have given them . . . . Law does not govern criminal justice. The menu has grown too large; prosecutors have too many options.

William J. Stuntz, Bordenkircher v. Hayes*: Plea Bargaining and the Decline of the Rule of Law*, *in* CRIMINAL PROCEDURE STORIES 351, 378 (Carol S. Steiker ed., 2006).

91. *See* Stephen E. Henderson, *Our Records Panopticon and the American Bar Association Standards for Criminal Justice*, 66 OKLA. L. REV. 699, 699–709 (2014) [hereinafter Henderson, *Our Records Panopticon*] (chronicling the massive amounts of data we now generate and store, including by comparing our traditional, 'analog' traditions to our contemporary, 'digital' equivalents).

92. *See id.* at 703 (crediting the particular claim to Eric Schmidt of Google and gathering similar claims); Bernard Marr, *How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read*, FORBES (May 21, 2018, 12:42 AM), https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/?sh=5c7e85b660ba [https://perma.cc/B8MA-WM2Q] ("There are 2.5 quintillion bytes of data created each day at our current pace, but that pace is only accelerating with the growth of the Internet of Things (IoT). Over the last two years alone 90 percent of the data in the world was generated.").

93. *See* Charles Duhigg, *How Companies Learn Your Secrets*, N.Y. TIMES (Feb. 19, 2012), https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html [https://perma.cc/7Z44-3KGE] (chronicling how Target's analytics department managed to suss out a teenager's pregnancy more ably than her dad).

94. *See* Jaclyn Trop, *The Next Data Privacy Battle May Be Waged Inside Your Car*, N.Y. TIMES (Jan. 10, 2014), https://www.nytimes.com/2014/01/11/business/the-next-privacy-battle-may-be-waged-inside-your-car.html [https://perma.cc/S862-9UQ4] ("We know everyone who breaks the law. We know when you're doing it. We have GPS in your car, so we know what you're doing." (quoting Jim Farley, Ford Motor Company's top sales executive)).

95. *See* JAMES MANYIKA, MICHAEL CHUI, BRAD BROWN, JACQUES BUGHIN, RICHARD DOBBS, CHARLES ROXBURGH & ANGELA HUNG BYERS, MCKINSEY GLOB. INST., BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY 11–13 (2011) (describing innovations companies require to most efficiently utilize large data sets); NICOLAUS HENKE, JACQUES BUGHIN, MICHAEL CHIU, JAMES MANYIKA, TAMIM SALEH, BILL WISEMAN & GURU SETHUPATHY, MCKINSEY GLOB. INST., THE AGE OF ANALYTICS: COMPETING IN A DATA-DRIVEN WORLD 1–20 (2016) (revisiting that 2011 report and finding that while companies have made great strides in effectively capturing and using data, only a small fraction of the potential had been utilized as of 2016).

constitutionally regulate non-state actors,[96] whether it be through the Supreme Court's infamous "third party doctrine" that traditionally considers government access to third-party databases as not constituting a Fourth Amendment search,[97] or by variants of the government's own data collection that receive lesser Fourth Amendment restraint.[98]

Two examples should help make the point, one a statute recently before the Supreme Court for the first time, and one a technology that has been before the

96. *See, e.g.*, United States v. Jarrett, 338 F.3d 339, 341 (4th Cir. 2003) (holding that the government was not constitutionally restrained in using information from a hacker, despite prior communications from a special agent "thanking [the hacker] for his assistance and stating that 'If you want to bring other information forward, I am available'"). The later-in-time (and thus not controlling) communications of that FBI special agent are remarkable; here's what she said to the hacker, who was believed to reside in Turkey:

> In the initial email . . . Agent Faulkner explicitly thanked [hacker] Unknownuser for providing the information to law enforcement officials. She then engaged in what can only be characterized as the proverbial 'wink and a nod':
>
> > I can not ask you to search out cases such as the ones you have sent to us. That would make you an agent of the Federal Government and make how you obtain your information illegal and we could not use it against the men in the pictures you send. But if you should happen across such pictures as the ones you have sent to us and wish us to look into the matter, please feel free to send them to us . . . . [A]s long as you are not 'hacking' at our request, we can take the pictures and identify the men and take them to court. We also have no desire to charge you with hacking. You are not a U.S. citizen and are not bound by our laws.
>
> Over the course of the next two months, Agent Faulkner sent at least four additional email messages, which constituted, in the words of the district court, a "'pen-pal' type correspondence" with Unknownuser. In addition to expressing gratitude and admiration for Unknownuser, Faulkner repeatedly sought to reassure Unknownuser that he was not a target of law enforcement for his hacking activities . . . .
>
> In his responses to Agent Faulkner, Unknownuser spoke freely of his "hacking adventures" and suggested in no uncertain terms that he would continue to search for child pornographers using the same methods . . . . As found by the district court, Agent Faulkner, despite her knowledge of Unknownuser's illegal hacking, "never instruct(ed) Unknownuser that he should cease hacking."

Id. at 343; *see also* Brennan-Marquez, *The Constitutional Limits*, *supra* note 14, at 499–502 (providing further background and cases on the private search doctrine).

97. *See* sources cited *supra* note 14 (gathering some of our writing inveighing against the doctrine); Carpenter v. United States, 138 S. Ct. 2206, 2223 (2018) (providing a most welcome development by carving an exception for seven days of historic cell-site location information).

98. *See, e.g.*, Mich. Dep't of State Police v. Sitz, 496 U.S. 444, 447–51 (1990) (holding that evidence collected during a sobriety checkpoint, which is justified by the special need of highway safety, may later be utilized in a criminal proceeding against a defendant); Michael Gentithes & Harold J. Krent, *Pandemic Surveillance—the New Predictive Policing*, 12 CONLAWNOW 57, 67 (2020) (cautioning that data collected to combat the coronavirus pandemic may later be utilized against individuals, without a warrant or probable cause); Ric Simmons, *The Mirage of Use Restrictions*, 96 N.C. L. REV. 133, 155–62 (2017) (discussing instances where law enforcement may use the "special need" doctrine to conduct a search and how courts have held this information can or cannot later be used against the individual); Henderson, *Our Records Panopticon*, *supra* note 91, at 707 (summarizing the national security surveillance revealed by Edward Snowden).

Court again and again. First, the federal Computer Fraud and Abuse Act,[99] which came before the Court in *Van Buren v. United States*.[100] According to that law, anyone is a criminal who "intentionally accesses a computer without authorization or [who] exceeds authorized access, and thereby obtains . . . information."[101] It thus becomes critical what constitutes authorization, and because the statutory text is essentially no help,[102] that matter has been left to prosecutors and the courts.[103] If those terms encompass anyone who inputs false information into a Web form or violates an employer's or website operator's terms of service, then most everyone is a federal criminal.[104] And because such usage data is today routinely stored and retained, and because it can then be compared against what resides in contemporary

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99. Computer Fraud and Abuse Act of 1986, Pub. L. 99-474, 100 Stat. 1213 (codified as 18 U.S.C. § 1030).

100. 141 S. Ct. 1648 (2021).

101. 18 U.S.C. § 1030(a)(2)(C). Said information must come from a "protected computer," but since "computer" is defined to exclude all but the "automated typewriter or . . . [outmoded] portable hand held calculator," and since "protected" is defined to the extent of the modern Commerce Clause, the limitation does no meaningful work. *See id.* § 1030(e)(1) (defining computer); *id.* § 1030(e)(2)(B) (defining protected computer to include "a computer . . . which is used in or affecting interstate . . . commerce or communication"); *see also Van Buren*, 141 S. Ct. at 1652 ("[T]he prohibition now applies—at a minimum—to all information from all computers that are connected to the Internet.").

102. Section 1030(e)(6) provides only that "the term 'exceeds authorized access' means to access a computer with authorization and to use such access to obtain or alter information in the computer that the accesser is not entitled so to obtain or alter." *Id.* § 1030(e)(6). "Access" and "without authorization" are undefined. We of course acknowledge that six members of the *Van Buren* Court think the word "so" in the CFAA definition does quite a lot of work, *see Van Buren*, 141 S. Ct. at 1654–55, but we respectfully submit that is the worst sort of textualism, pretending a deterministic linguistic science rather than admitting the hard, multi-faceted work of meaningful statutory interpretation.

103. *See* Petitioner for a Writ of Certiorari at 2, 7–11, *Van Buren*, 141 S. Ct. 1648 (No. 19-783), https://www.supremecourt.gov/DocketPDF/19/19-783/125972/20191218121814446_No.%2019-__%20Van%20Buren%20Cert%20Petition-2.pdf [https://perma.cc/J6Z3-V5J5] (gathering existing, conflicting authority); *see also Van Buren*, 141 S. Ct. at 1653 n.2 (same).

104. In the words of the Supreme Court,

> If the "exceeds authorized access" clause criminalizes every violation of a computer-use policy, then millions of otherwise law-abiding citizens are criminals. Take the workplace. Employers commonly state that computers and electronic devices can be used only for business purposes. So on the Government's [broad] reading of the statute, an employee who sends a personal e-mail or reads the news using her work computer has violated the CFAA. Or consider the Internet. Many websites, services, and databases . . . authorize a user's access only upon his agreement to follow specified terms of service. If the "exceeds authorized access" clause encompasses violations of circumstance-based access restrictions . . . subsection (a)(2) would . . . criminalize everything from embellishing an online-dating profile to using a pseudonym on Facebook.

Van Buren, 141 S. Ct. at 1661. Because the Court believed the broad interpretation wrong as a matter of "text, context, and structure," this policy argument was merely "extra icing on a cake already frosted." *Id.* (quoting Yates v. United States, 574 U.S. 528, 557 (2015) (Kagan, J., dissenting)).

"database[s] of ruin" containing far too much information about everyone[105] (what can be considered the contemporary Fourth Amendment's "time machine" problem),[106] probable cause is readily available.[107] In other words, through a combination of an overbroad criminal law and modern databasing, a federal special agent could potentially obtain a particularized warrant to search most any computer, making our system *effectively* one of the general warrant, or, again, one of the neo-general warrant.[108] Fortunately, a Court majority interpreted the Act to avoid this result,[109] but of course the point remains, as Congress could always decide it instead prefers the Department of Justice's more expansive view.

A similar potential has long existed for an oft-litigated mode of transportation: the automobile. Here there have been twists and turns, each well known to the criminal procedure practitioner or scholar, from the essentially 'open season on stopping and searching' regime of *Whren*[110]-*Atwater*[111]-*Moore*[112]-*Belton*[113]/*Thornton*[114]-

105. *See* Paul Ohm, *Don't Build a Database of Ruin*, HARV. BUS. REV. (Aug. 23, 2012), https://hbr.org/2012/08/dont-build-a-database-of-ruin [https://perma.cc/9V4Z-XDZV].

106. *See* Henderson, *supra* note 18. The Second Circuit very briefly touched upon this theory in *United States v. Ganias*, 824 F.3d 199, 220 n.42 (2d Cir. 2016), and the Supreme Court accepted a form of it in *Carpenter v. United States*, 138 S. Ct. 2206, 2218 (2018) ("With access to CSLI, the Government can now travel back in time to retrace a person's whereabouts, subject only to the retention polices of the wireless carriers, which currently maintain records for up to five years.").

107. *See* Ohm, *supra* note 19 ("In increasingly common situations, whenever the police have any suspicion at all about a piece of evidence, they almost always have probable cause . . . ."). *But see* Andrew E. Taslitz, *Cybersurveillance Without Restraint? The Meaning and Social Value of the Probable Cause and Reasonable Suspicion Standards in Governmental Access to Third-Party Electronic Records*, 103 J. CRIM. L. & CRIMINOLOGY 839, 843–45, 893–97 (2013) (providing some pushback).

108. *Carpenter v. United States*, discussed above, was of course a very positive development, making it harder for police to access at least certain types of data in that "database of ruin." *See supra* notes 34, 97. As usual, there is more than one way to attack a Fourth Amendment problem; time will tell how broad or narrow this particular limitation will become as courts decide to what types and amounts of data the rule applies.

109. *Van Buren*, 141 S. Ct. at 1661.

110. Whren v. United States, 517 U.S. 806 (1996) (permitting, as a Fourth Amendment matter, pretextual stops).

111. Atwater v. City of Lago Vista, 532 U.S. 318 (2001) (permitting arrest for officer-witnessed crimes, no matter how ticky-tack the offense).

112. Virginia v. Moore, 553 U.S. 164 (2008) (permitting, as a Fourth Amendment matter, arrest for non-arrestable offenses).

113. New York v. Belton, 453 U.S. 454 (1981) (permitting, as a police entitlement, the search of the passenger compartment of an automobile upon arrest of a recent occupant), *abrogated by* Arizona v. Gant, 556 U.S. 332 (2009).

114. Thornton v. United States, 541 U.S. 615 (2004) (permitting that police-entitlement search when officers first encounter the recent occupant outside of the vehicle).

Heien[115]-*Florence*[116]-*Navarette*[117] to the slight pullback in *Gant*.[118] We need not belabor the details; the point is that made twenty years ago by Bill Stuntz: "Police have the same kind of authority over drivers and passengers that old-style vagrancy and loitering laws used to give them over pedestrians: they can stop anyone, anytime, for any reason,"[119] and, often enough, search as well.[120] On our roads, then, overcriminalization triggers a general warrant concern;[121] any automobile occupant's liberty is subject to infringement at any moment upon what is essentially police whim, the Fourth Amendment individualized suspicion limitations doing little meaningful work. And while here caused by overcriminalization, technology can act as a force multiplier: whereas an officer can only be in one place, cameras and other sensors can be everywhere and then trigger enforcement.[122] It is thus

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115. Heien v. North Carolina, 574 U.S. 54 (2014) (permitting seizures based upon reasonable officer mistakes, whether of fact or law).

116. Florence v. Bd. of Chosen Freeholders 566 U.S. 318 (2012) (permitting strip searches of any arrestee admitted to general jail population).

117. Navarette v. California, 572 U.S. 393 (2014) (invoking the evidentiary rule of present-sense impressions to permit a stop supported by only a little-to-no-veracity tip).

118. *Gant*, 556 U.S. at 332 (rejecting the police-entitlement rule of *Belton/Thornton*, but adding a new permission to search upon reason to believe a passenger compartment contains evidence of the crime of arrest).

119. William J. Stuntz, *O.J. Simpson, Bill Clinton, and the Transsubstantive Fourth Amendment*, 114 HARV. L. REV. 842, 853–54 (2001).

120. The *Whren* Court was willing to recognize the problem, albeit it felt at a loss for a solution:

> Petitioners urge as an extraordinary factor in this case that the "multitude of applicable traffic and equipment regulations" is so large and so difficult to obey perfectly that virtually everyone is guilty of violation, permitting the police to single out almost whomever they wish for a stop. But we are aware of no principle that would allow us to decide at what point a code of law becomes so expansive and so commonly violated that infraction itself can no longer be the ordinary measure of the lawfulness of enforcement. And even if we could identify such exorbitant codes, we do not know by what standard (or what right) we would decide, as petitioners would have us do, which particular provisions are sufficiently important to merit enforcement.

Whren v. United States, 517 U.S. 806, 818–19 (1996). Difficult or no, we believe the Court has a Fourth Amendment obligation to try.

121. For more on how to think about one important type of over-criminalization see Brennan-Marquez, *Extremely Broad Laws*, *supra* note 17.

122. Consider BriefCam, a company that describes its product as follows: "The BriefCam complete Video Content Analytics platform drives exponential value from surveillance system investments by making video searchable, actionable and quantifiable. The unique fusion of VIDEO SYNOPSIS and Deep Learning solutions enable rapid video review and search, face recognition, real-time alerting and quantitative video insights." BRIEFCAM, https://www.briefcam.com/ [https://perma.cc/2KH7-JZMX] (last visited Feb. 1, 2023). According to a demonstration provided in Hartford, CT, it can do just that, permitting a user to effectively work through 24 hours' worth of video (here from a local street-corner camera) in approximately five minutes by watching pieces of footage from different times of day overlaid into a visually-lucid composite. Users can also select an object or action of salience—e.g., "red car turning left"—and filter out everything else, immediately locating all red cars making a left turn over the 24-hour period. The results appeared sufficiently magical as to bring to mind the neuro-chip "the Grain" from the first season of Black Mirror, an imagined marvel recording everything people do, see, and hear. *See Black Mirror: The Entire History of*

unsurprising that traffic cameras are often unpopular despite their potential to increase safety and fairness[123]: the overcriminalization that remains bearable given the practical impossibility of significant enforcement (resource restraints) becomes intolerable when that restraint disappears.

Many other examples could no doubt be developed.[124] But the upshot is clear: overcriminalization plus modern technology—the latter sometimes being a necessary ingredient and sometimes a force multiplier—threaten to render the traditional Fourth Amendment individualized suspicion requirements largely ineffective, making for a world of neo-general warrants. And thus a response, consistent with our Fourth Amendment's founding history, is to see the Amendment not merely as a *procedural* mechanism requiring some measure of suspicion before an individual officer conducts a "search" or "seizure," but also a *substantive* restraint on how many of those searches and seizures ought to collectively be taking place. That is a task for which search and seizure budgets are well-suited; in some sense, budgets just *are* substantive limits on police power.

III. The Democratic Justification

The appeal of budgets goes beyond the vindication of constitutional values. Budgets also promise to facilitate greater democratic oversight of policing in two interrelated ways. First, search and seizure budgets offer a better mechanism than resource control for implementing local political judgments about the appropriate level of intrusive policing. Resource constraints are necessarily haphazard because funding is a very imperfect proxy for intrusive police capacity. Budgets, by contrast, directly track intrusion, making them (1) a more tailored constraint, and (2) a vehicle

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You (Netflix 2011); ARTHUR C. CLARKE, PROFILES OF THE FUTURE: AN INQUIRY INTO THE LIMITS OF THE POSSIBLE 21 (rev. ed. 1973) ("Any sufficiently advanced technology is indistinguishable from magic.").

123. *See, e.g.*, Elaine S. Povich, *Taking a U-Turn on Red-Light, Speed Cameras*, PEW: STATELINE (Sept. 28, 2018), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2018/09/28/taking-a-uturn-on-redlight-speed-cameras [https://perma.cc/NF7C-GKNT]; Lisa Riordan Seville & Hannah Rappleye, *Lights, Cameras, Reaction: Resistance Builds Against Red-Light Cameras*, NBC NEWS, (Feb. 19, 2013, 1:46 AM), https://www.nbcnews.com/news/investigations/lights-cameras-reaction-resistance-builds-against-red-light-cameras-flna1c8423207 [https://perma.cc/8JTM-7CWT]; Joe Sharkey, *The Collision Over Traffic Cameras*, N.Y. TIMES (July 4, 2011), https://www.nytimes.com/2011/07/05/business/05road.html [https://perma.cc/W85J-A7GT]; THENEWSPAPER.COM, https://www.thenewspaper.com/ [https://perma.cc/B7L2-YLGD] (gathering negative content) (last visited Feb. 1, 2023).

124. A contemporary search rather directly analogous to the general searches of colonial times are "Google keyword search warrants" through which law enforcement trawls every person's Google history. *See* Thomas Brewster, *Exclusive: Government Secretly Orders Google to Identify Anyone Who Searched a Sexual Assault Victim's Name, Address or Telephone Number*, FORBES (Oct. 4, 2021, 10:33 AM), https://www.forbes.com/sites/thomasbrewster/2021/10/04/google-keyword-warrants-give-us-government-data-on-search-users/?sh=5b61906b7c97 [https://perma.cc/32SG-7U2X]; Jennifer Lynch, *Modern-Day General Warrants and the Challenge of Protecting Third-Party Privacy Rights in Mass, Suspicionless Searches of Consumer Databases*, HOOVER INST., Sept. 23, 2021, at 1.

for measuring the dynamic effects of changes in police practice. Second, budgets limit the ability of technology to multiply intrusive policing. In today's world, police are free to take any 'savings' deriving from novel surveillance technology—such as facial recognition—and use them to increase the volume of intrusive policing. Budgets would constrain this dynamic.

An important caveat before diving in—budgets would be no more (or less) vulnerable than other governance mechanisms to *global* objections to 'democratic policing.' That is, to the extent budgets raise concerns about democratic bodies getting governance questions wrong, with all the consequences that might follow, those concerns go to the heart of democratic governance *as an enterprise*. Serious questions exist about whether, and to what extent, local political control of police institutions is the cause or the remedy of structural pathologies.[125] Without purporting to move that ball, we will proceed from the assumption that more democratic control of police institutions is a salutary thing; and we will defend budgets as a mechanism of implementing such control. A thorough justification (or critique) of that assumption must lie elsewhere.

A. Directly Regulating Intrusive Activity

At present, the main lever lawmakers have for modulating aggregate police power is resource control. By limiting—or threatening to limit—appropriations, legislators exert some degree of control over the amount of policing. They can also, of course, ban specific police tactics (e.g., a chokehold) or require specific tactics (e.g., giving a warning before every search). But assuming that legislatures wish to maintain case-sensitive flexibility in policing, global police capacity can be calibrated only through rough approximations of marginal cost: determining the average 'price' of that search or seizure (meaning its ultimate financial cost to the police), and setting resource levels accordingly.

The major problem with this model is that resources are fungible. A police department that faces a decrease in funding always has the option to 'subsidize' intrusive activities by slashing the budget for less intrusive activities, such as community outreach, non-criminal wellness visits, facilitating public events, and the like. Budgets, by contrast, would directly express political judgments about the appropriate level of aggregate police power. Not only would budgets specifically target intrusive policing, they would also create a ready-made mechanism of

125. *See* Kleinfeld, *supra* note 83, at 1376 ("Within the welter of diverse views about what has gone wrong [in U.S. criminal justice] and how it could be set right, one foundational, enormously important, and yet largely unrecognized line of disagreement can be seen. On one side are those who think the root of the present crisis is the outsized influence of the American public—a violent, vengeful, stupid, uninformed, racist, indifferent, or otherwise wrongheaded American public—and the solution is to place control over criminal justice in the hands of officials and experts. On the other side are those who think the root of the present crisis is a set of bureaucratic attitudes, structures, and incentives divorced from the American public's concerns and sense of justice, and the solution is to make criminal justice more community focused and responsive to lay influences.").

experimentation. Polities could set budgets and then observe the effects, reconfiguring as necessary in the event that initial estimates prove imperfect (as they often do).[126] What is more, and for the same basic reason, budgets would also help mediate disagreements—even stark ideological disagreements—about the role of police.[127] Budgets would not resolve such disagreements, of course. But they would provide a means of arriving at second-order compromise. They would channel the political fray into a manageable policy decision: how many intrusive acts—searches and seizures—should police be allowed to perform?

Fair enough, a skeptic might say; but why should we have confidence that democratic bodies would set budgets correctly? Particularly given the epistemic difficulties that surround policing—among other things, the fact that police activity is often opaque to the public,[128] and that the causal relationship between policing and crime is a matter of fierce dispute[129]—what realistic hope is there for well-calibrated budget regimes? If anything, the economic orthodoxy runs the other way: quantity restrictions (like budgets) are thought to be even less efficient than price restrictions, since the latter allow cost-bearing actors to make contextual judgments about optimal output,[130] and this is particularly so when conditions on the ground are prone to fluctuate.[131]

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126. Nor must the impacts of any initially fallible budget levels prove dire; as described in Parts I and IV, there are myriad manners of implementing a budget regime. As for the general utility of experimentation in the criminal justice sphere, see Andrew Manuel Crespo, *Systemic Facts: Toward Institutional Awareness in Criminal Courts*, 129 HARV. L. REV. 2049 (2016).

127. *See, e.g.*, Giovanni Russonello, *A Movement Meets a Question: Defund or Reform the Police?*, N.Y. TIMES (June 11, 2020), https://www.nytimes.com/2020/06/09/us/politics/defund-police-joe-biden-trump.html?searchResultPosition=1 [https://perma.cc/6MYE-R7X7] (tracing these ideological divisions); Morgan, *supra* note 17 (critiquing disorderly conduct law and therefore policing thereof); Amna A. Akbar, *Toward a Radical Imagination of Law*, 93 N.Y.U. L. REV. 405–79 (2018) (examining the Black Lives Matter Movement as an effort to transform the State); Friedman & Ponomarenko, *supra* note 6, at 1836 (arguing that policing must move towards a more "democratically accountable footing").

128. *See, e.g.*, Jonathan Manes, *Secrecy and Evasion in Police Surveillance Technology*, 34 BERKLEY TECH. L.J. 503, 505–07 (2019) (noting that the public's adoption of communication technologies has resulted in "new and previously unimaginable investigative tools" for law enforcement, and these "new capabilities have proliferated largely in secret").

129. *Compare* Paul G. Cassell, *Explaining the Recent Homicide Spike in U.S. Cities: The "Minneapolis Effect" and the Decline in Proactive Policing*, 33 FED. SENT'G REPT. 83 (2020) (arguing that the recent homicide spike is mostly attributable to diminished police activity), *with* Ron Arthur & Jeff Asher, *What Drove the Historically Large Murder Spike in 2020?*, INTERCEPT (Feb. 21, 2021, 4:00 A.M.), https://theintercept.com/2021/02/21/2020-murder-homicide-rate-causes [https://perma.cc/JAS2-JXPF] (arguing that the spike is largely attributable to the proliferation of more privately-owned guns). For more general background, see Jeffrey Fagan & Daniel Richman, *Understanding Recent Spikes and Longer Trends in American Murders*, 117 COLUM. L. REV. 1235 (2017).

130. *See* Martin L. Weitzman, *Prices vs. Quantities*, 41 REV. ECON. STUD. 477, 478 (1974); Robert Cooter, *Prices and Sanctions*, 84 COLUM. L. REV. 1523, 1523–24 (1984); Ian Ayres & Gideon Parchomovsky, *Tradable Patent Rights*, 60 STAN. L. REV. 863, 863–65 (2007).

131. In the context of policing, for example, we have recently witnessed a dramatic change in conditions regarding homicide rates. *See* Cheryl Corley, *Massive 1-Year Rise in Homicide Rates Collided with the Pandemic in 2020*, NPR, (Jan. 6, 2021, 5:00 AM), https://www.npr.org/2021/01/06/953254623/massive-1-year-rise-in-homicide-rates-collided-with-the-pandemic-in-2020 [https://perma.cc/

There are two responses to this objection. The first is that, at some level, the language of efficiency mischaracterizes the nature of the problem. Policing is far different from, say, widgets sold on the market. It is not simply that different groups of people disagree about all aspects of policing (even including whether and to what extent police forces should exist).[132] It is that the question has an irreducibly political cast, making it difficult, if not impossible, to devise abstract criteria of efficiency or optimality. In other words, there is a sense in which the optimal amount of intrusive policing just *is* the amount licensed by the democratic process.[133]

The second response is more in the economic weeds. Namely, there is reason to doubt whether the economic orthodoxy disfavoring quantity restrictions carries over to the realm of policing given (1) the absence of ready "price" alternatives[134] as well as (2) the difficulty of computing the harms associated with particular searches or seizures,[135] especially if one factors in the compounding nature of those harms.[136] More fundamentally, the orthodoxy favoring price restrictions may not be

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3DS3-4LJ5]; Devlin Barrett, *2020 Saw an Unprecedented Spike in Homicides From Big Cities to Small Towns*, WASH. POST (Dec. 30, 2020, 7:00 PM), https://www.washingtonpost.com/national-security/reoord-spike-murders-2020/2020/12/30/1dcb057c-4ae5-11eb-839a-cf4ba7b7c48c_story.html [https://perma.cc/C5W2-QBHG]; Thomas Fuller & Tim Arango, *Police Pin a Rise in Murders on an Unusual Suspect: Covid*, N.Y. TIMES (Nov. 15, 2021) https://www.nytimes.com/2020/10/29/us/coronavirus-murders.html [https://perma.cc/79WL-M3X7].

132. For sources challenging the police as an institution and explaining the abolitionist praxis, see generally Amna A. Akbar, *An Abolitionist Horizon for (Police) Reform*, 108 CALIF. L. REV. 1781 (2020); Meghan G. McDowell & Luis A. Fernandez, *'Disband, Disempower, and Disarm': Amplifying the Theory and Practice of Police Abolition*, 26 CRITICAL CRIMINOLOGY 373 (2018); Mariame Kaba, Opinion, *Yes, We Mean Literally Abolish the Police*, N.Y. TIMES (June 12, 2020), https://www.nytimes.com/2020/06/12/opinion/sunday/floyd-abolish-defund-police.html [https://perma.cc/965E-24FD].

133. *See* Cass R. Sunstein, *Incommensurability and Valuation in Law*, 92 MICH. L. REV. 779, 857 (1994) (explaining that in determining how to choose among incommensurable goods, "perhaps the people entrusted with the power of the decision will ask, as part of the inquiry, about the society's prevailing ideals, about ways minimally to damage relevant goods, and about what decision best fits with the community's self-understanding as this has been established over time").

134. In the economic literature discussing tradeoffs between price restrictions and quantity restrictions, the typical comparison is between price controls—of which markets are an example—and production quotas. *See, e.g.*, Weitzman, *supra* note 130. Budgets are a species of quota. But in the policing context, there is currently no direct equivalent of a price control. For a fascinating proposal recommending them, see Miriam H. Baer, *Pricing the Fourth Amendment*, 58 WM. & MARY L. REV. 1103 (2017).

135. *See, e.g.*, Brennan-Marquez & Henderson, *Fourth Amendment Anxiety*, *supra* note 78 (recognizing that police holding of data-rich evidence causes nebulous, increased harm).

136. *See, e.g.*, Kiel Brennan-Marquez, *Big Data Policing and the Redistribution of Anxiety*, 15 OHIO ST. J. CRIM. L. 487, 492–93 (2018) (exploring the compounding effects of stop-and-frisk tactics); Tracey L. Meares, *Programming Errors: Understanding the Constitutionality of Stop-and-Frisk as a Program, Not an Incident*, 82 U. CHI. L. REV. 159, 159 (2015) ("Although the constitutional framework [around searches and seizures] is based on a one-off investigative incident, many of those who are stopped—the majority of them young men of color—do not experience the stops as one-off incidents. They experience them as a program to police them as a group, which is, of course, the reality."); Floyd v. City of New York, 959 F. Supp. 2d 540, 557 (S.D.N.Y. 2013) ("No one should live in fear of being stopped whenever he leaves his home to go about the activities of daily life. Those who are routinely

an actual law of economics; according to recent work, it is driven by an assumption, typically (but not necessarily) true, about the relative slope of the marginal-cost curve (supply) vis-à-vis the marginal-utility curve (demand) in a given domain. Price restrictions are more efficient if, and *only* if, the utility curve is downward sloping at the same or greater rate than the cost curve is upward sloping; when the inverse is true, quantity restrictions become preferable.[137] And there is reason, prima facie, to think policing is such a domain, especially given the compounding effect of policing harms.[138]

None of this means to imply that budgets will be optimally configured right from the start. That is probably too high a bar for any new regulatory device, and there are well-documented social choice pathologies specific to criminal justice that would likely produce growing pains.[139] Still, there is reason for optimism. Whereas lawmakers can readily (and at times, sympathetically) defend monetary decisions by referencing vague, pro-social police activity, search and seizure budgets are not so amenable. Unlike the claim that a monetary allotment has been formulated too generously, the claim that a search and seizure budget is too high—that it will end up permitting more searches and seizures than it should—cannot be met with the counterargument that ostensibly-too-high calibration is necessary to achieve other (non-search and seizure) goals. Rather, the proof will be in the proverbial pudding. A given budget will either be (demonstrably) consistent with the overall goals of the polity, or it will not be. And in the latter case, it can be reformed.

B. Reallocating 'Police Surplus'

A second democratic upside of budgets has to do with 'policing surplus,' and the way it gets reinvested over time. Consider what happens, in the status quo world,

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subjected to stops are overwhelmingly people of color, and they are justifiably troubled to be singled out when many of them have done nothing to attract the unwanted attention. Some plaintiffs testified that stops make them feel unwelcome in some parts of the City, and distrustful of the police.").

137. The reason has to do with the impact of getting prices wrong. When the cost curve is steeper than the benefit curve, a small error in pricing generates an amplified error in quantity. So, for example, if the price is set just a small amount too low, the small delta (in price) can nevertheless result in a huge spike of quantity—which, in the policing setting, would mean a huge spike in the harm associated with intrusive policing. For further background and more technical argumentation, see Ayres & Parchomovsky, *supra* note 130, at 889–90.

138. *See, e.g.*, Meares, *supra* note 136. Furthermore, Ayres and Parchomovsky suggest that, as a functional matter, regimes that involve a *mix* of price restrictions and quantity restrictions are likely, in practice, to be the most efficient of all—and that is roughly what a budget regime, overlaid on a suspicion regime, would be. *See* Ayres & Parchomovsky, *supra* note 130, at 889–90.

139. These pathologies come in various forms. One is simply that lawmakers have a strong incentive to delegate large amounts of power to law enforcement institutions. *See* William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 510 (2001). Another is that, when the chips are down, it is typically the police, prosecutors, and judges—not lawmakers—that shoulder blame for errors and abuse. *See* Zachary Price, *The Rule of Lenity as Rule of Structure*, 72 FORDHAM L. REV. 885, 887–88 (2004); *see also* Friedman & Ponomarenko, *supra* note 6, at 1862–65 (demonstrating, through public choice theory, that legislators rarely have an incentive to regulate policing).

when technological (or other) change causes the marginal cost of information processing—and thus, of generating suspicion—to decrease. Suppose that, at t_1, before the change went into effect, officials were performing X searches per week at a total cost of Y resource units (money, labor, etcetera). And for simplicity's sake, suppose the change causes the marginal cost of each search to fall by 50%, such that, at t_2, the total cost of performing X searches per week becomes Y/2—yielding a surplus of Y/2 for the police to reinvest. They might spearhead more community outreach.[140] They might do more trainings.[141] They might give officers more vacation time.[142] And so forth. The point, however, is that *another* thing police might do is perform greater than X (in theory, up to 2X) searches and seizures. Of course, they also might not; other priorities, apart from investing the surplus to expand search-and-seizure capacity, might win out. But in the status quo regime, the decision would fall to the police alone.

Now compare this to a budget regime. Suppose, once again, that, at t_1, officials perform X searches per week at a total cost of Y resource units, and the marginal cost falls by 50%, such that, at t_2, the total cost of performing X searches per week becomes Y/2. But now suppose, additionally, that a budget is in place, limiting the number of searches per week to 1.5X. Consistent with the budget, the police would still be able to reinvest some of the surplus associated with the decline in marginal cost toward the performance of more searches and seizures—up to a point. But the extent of the reinvestment would be limited; once the search-per-week count hit

140. For example, the town of Parker, Colorado, hosts a variety of programs to "encourage conversation, education and participation" with residents and business owners, including Coffee with a Cop, Cram the Cruiser to Prevent Hunger, 9-1-1 Education Classes, and a Ride-Along Program. *Community Outreach/Crime Prevention*, PARKER POLICE, http://parkerpd.org/487/Community-OutreachCrime-Prevention [https://perma.cc/XGW4-TQ48] (last visited Feb. 1, 2023). Departments across the country participate in similar programs. *See, e.g.*, *Community Affairs,* NYPD, https://www1.nyc.gov/site/nypd/bureaus/administrative/community-affairs.page [https://perma.cc/AF2J-DMW7] (last visited Feb. 1, 2023); *Community Outreach and Development Division,* LAPD, https://www.lapdonline.org/office-of-the-chief-of-police/community-outreach/ [https://perma.cc/9EGJ-AXPR] (last visited Feb. 1, 2021); *Community Policing*, CHI. POLICE DEP'T, https://home.chicagopolice.org/reform/sections/community-policing/ [https://perma.cc/2V2J-PTVR] (last visited Feb. 1, 2023).

141. For example, in the wake of the killings of Eric Garner and Michael Brown, the NYPD began a training program focused on implicit biases. *See* Al Baker, *Confronting Implicit Bias in the New York Police Department*, N.Y. TIMES (July 15, 2018), https://www.nytimes.com/2018/07/15/nyregion/bias-training-police.html [https://perma.cc/D53E-9M9D]. In 2015, departments across the country conducted use-of-force training that focused on de-escalation tactics, like "talking calmly and reasonably with sometimes unreasonable people." Timothy Williams, *Long Taught to Use Force, Police Warily Learn to De-Escalate*, N.Y. TIMES (June 27, 2015) https://www.nytimes.com/2015/06/28/us/long-taught-to-use-force-police-warily-learn-to-de-escalate.html [https://perma.cc/SJ3G-U4DW].

142. In 2019, for example, the NYPD revamped its vacation policy to better "address . . . mental health and morale." Tina Moore & Craig McCarthy, *NYPD Revamps Vacation Policy in Push to Improve Cops' Mental Health*, N.Y. POST (Nov. 14, 2019, 7:23 PM), https://nypost.com/2019/11/14/nypd-revamps-vacation-policy-in-push-to-improve-cops-mental-health/ [https://perma.cc/647F-AMA2].

1.5X, the budget would trigger in some form,[143] requiring that the police invest the surplus elsewhere. As before, the "elsewhere" might be more community outreach, more trainings, more vacation time, or something else altogether. Whatever the exact form the reinvested surplus takes, the important thing is the one form it could *not* take: more searches and seizures, past the budget's threshold.

The foregoing is obviously a toy example designed merely to illustrate the conceptual point, not to track real-world complexities. But the conceptual point is important. Relative to the status quo, which effectively confers police *carte blanche* discretion to decide how to reinvest the surplus whenever searches and seizures become cheaper, a budget regime would tend to channel reinvestment toward less intrusive police activities.

In other words, budgets would discourage escalation, hedging against over-zealous policing. The point here should be intuitive, for it is familiar to everyday life. Knowing there is a limit on the permissible magnitude of an activity encourages actors to self-regulate—more specifically, it encourages them to behave *prophylactically*, to refrain from simply operating as close to the boundary as possible.[144] This is one of the points—not infrequently, the main point—of having a budget. The idea is to cultivate an ethic of longitudinal planning, whereby the subject of a budget (here, a police department) proactively takes steps to anticipate future uncertainty, to adopt internal systems of feedback, and to allocate resources conservatively, erring on the side of saving rather than spending, which, in this case, means marginally fewer searches and seizures.[145]

IV. BUDGETARY DESIGN

Having explored the appeal of budgets in concept, this Part focuses on mechanics. How could budgets be configured, in practice, to (1) avoid too much rigidity and (2) capitalize on their 'carrot' dimensions? We discuss a number of possibilities below. But all in all, the upshot is that budgets might come in myriad shapes and sizes, running the gamut both in terms of how much they would limit

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143. For variations in budget types, see *supra* Part I; *infra* Part IV.

144. For background on self-regulation as a concept, see Megan McClelland, John Geldhof, Fred Morrison, Steinunn Gestsdóttir, Claire Cameron, Ed Bowers, Angela Duckworth, Todd Little & Jennie Grammer, *Self-Regulation*, *in* HANDBOOK OF LIFE COURSE HEALTH DEVELOPMENT 275–92 (Neal Halfon, Christopher B. Forrest, Richard M. Lerner & Elaine M. Faustman eds., 2018); *see also* Jodi L. Short & Michael W. Toffel, *Making Self-Regulation More than Merely Symbolic: The Critical Role of the Legal Environment*, 55 ADMIN. SCI. Q. 361 (2010) (arguing that the legal environment influences the likelihood that organizations will implement the self-regulatory commitments that they symbolically adopt).

145. *See* Tom R. Tyler, *Legitimacy and Criminal Justice: The Benefits of Self-Regulation*, 7 OHIO ST. J. CRIM. L. 307 (2009) (arguing for a self-regulatory approach to law and criminal justice, focusing on engaging people's values as opposed to the normative deterrence approach); *see also* SENDHIL MULLAINATHAN & ELDAR SHAFIR, SCARCITY: WHY HAVING TOO LITTLE MEANS SO MUCH 70–93 (2013) (using a "smaller suitcase" metaphor to encourage appreciation for whatever the metric, be it the dollar, the hour, or the calorie—or, for our purposes—the search or seizure).

aggregate police activity (by comparison to a budget-less world) and in terms of their manner of doing so. At one extreme would be budgets that, because of their permissiveness and dynamic flexibility, stand to alter statistical patterns of policing—the actual quantity of searches and seizures performed over a given period—very little. This would not make the budgets meaningless; it would simply make their focus something other than aggregate patterns. After all, even highly permissive budgets might have a salutary impact on the psychology of individual officers, insofar as they (like permissive budgets of any kind) serve as a reminder of scarcity and corresponding gravity.[146] Likewise, budgets at *whatever* level would serve an accounting function: to demonstrate compliance, police would have to keep rigorous track of the searches and seizures they perform, which alone would often be an enormous improvement over current practice.

At the other extreme, by contrast, would be budgets that stand to significantly curtail the volume of intrusive policing, relative to the status quo. One can imagine, for instance, a budget rooted in opposition to urban stop-and-frisk policies whose *raison d'etre* was to sharply limit police use of *Terry* stops.[147] In that kind of case, the budget would be less of a nudge, more of a rein. Infinite granularity and variance lie between these extremes. And the 'right' answer would depend on local conditions—the kinds of crimes police typically need to deter or investigate, the political appetite for various kinds of harms and risks, and the administrative and technological viability of different features. For the reasons we discussed in Part III, the indeterminacy of these considerations would be a feature, not a bug; it is what makes budgets amenable to local political control and, as such, a readymade tool for 'democratic policing.'

With those high-level points in mind, in we dive.

A. Exigency, Discounting, and Fast Tracking

The first, most straightforward lever of budget flexibility would be exemptions, as well as other discounting systems, that depend on qualitative considerations about the type of searches or seizures in question. And the most critical of such exemptions would seem to be exigency.

Under existing law, various exigent circumstances permit what would otherwise be constitutionally unreasonable searches and seizures. For example, police may warrantlessly enter private property (1) to render emergency aid,[148] (2) when in "hot pursuit" of a fleeing suspect,[149] and (3) when they fear the imminent

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146. *See generally* MULLAINATHAN & SHAFIR, *supra* note 145.

147. *See generally* David Rudovsky & David A. Harris, Terry *Stops and Frisks: The Troubling Use of Common Sense in a World of Empirical Data*, 79 OHIO ST. L.J. 501 (2018) (explaining the *Terry* doctrine and arguing it should be much more data-based).

148. Michigan v. Fisher, 558 U.S. 45, 49 (2009).

149. United States v. Santana, 427 U.S. 38, 42–43 (1976); *see also* Lange v. California, 141 S. Ct. 2011 (2021) (looking to other exigencies when police chase a misdemeanant).

destruction of evidence.[150] At bottom, the rationale is that individual officers—and the enterprise of law enforcement writ large—should not be straitjacketed in the face of clear and urgent cause.[151] The same logic would apply to exigency in the context of budgets, and it could be operationalized in several non-mutually exclusive ways.

The first would be to give officials case-by-case dispensation, on a showing of exigent need, to perform searches and seizures even after 'running out.' In other words, upon challenge, police could be allowed to defend above-budget searches or seizures—against a charge of per se illegality—by demonstrating there was an exigency at the time of the policing intrusion. Procedurally, this would mirror the Fourth Amendment status quo.[152] Challenges would occur *ex post*—the point of an exigency claim is that *ex ante* authorization is too burdensome—and the legal standard would presumably mimic, or at least draw from, that of the Fourth Amendment.

The second way to operationalize this exception would be to cordon off exigent searches and seizures from the budget system entirely. One can imagine a system, in other words, where exigent searches and seizures simply do not toll against the fixed pool. And one can also imagine a 'discount system,' in which certain kinds of searches and seizures are treated differently from others; searches incident to arrest could, for example, be treated as less marginally intrusive across the board, given that the arrest has already occurred, potentially warranting an X/N discount.[153] Whatever its particulars, this 'cordon off' approach would be more in keeping with the principles underlying both the budget mechanism and the exigency exception; in some sense, exigent searches and seizures fall entirely beyond the scope of what budgets aim to constrain, given the inherently-limited nature of exigency. But this approach would also pose a number of governance obstacles. For

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150. Kentucky v. King, 563 U.S. 452, 460 (2011).

151. For further discussion on these conceptual backgrounds and the tensions between exigency and intrusions on individual liberty, see Kit Kinports, *The Quantum of Suspicion Needed for an Exigent Circumstances Search*, 52 U. MICH. J.L. REFORM 615 (2019); John Mark Huff, *Warrantless Entries and Searches Under Exigent Circumstances: Why Are They Justified and What Types of Circumstances Are Considered Exigent?*, 87 U. DET. MERCY L. REV. 373 (2010); Peter Margulies, *Judging Terror in the "Zone of Twilight": Exigency, Institutional Equity, and Procedure After September 11*, 84 B.U. L. REV. 383 (2004); John F. Decker, *Emergency Circumstances, Police Responses, and Fourth Amendment Restrictions*, 89 J. CRIM. L. & CRIMINOLOGY 433 (1999); Richard A. Williamson, *The Supreme Court, Warrantless Searches, and Exigent Circumstances*, 31 OKLA. L. REV. 110 (1978).

152. For example, police routinely defend searches on exigency grounds when individuals file civil rights lawsuits under 42 U.S.C. § 1983 or *Bivens v. Six Unknown Named Agents of the Federal Bureau of Narcotics*, 403 U.S. 388 (1971), or when criminal defendants file motions to suppress.

153. It is similarly easy to imagine situations where, formally speaking, many searches or seizures occur, but the 'functional' quantity—for purposes of tolling against the budget—seems different. When police run a sobriety roadblock, say, or for other reason have to stop and interrogate a number of individuals within a very limited region in space and time, different rules might apply. Like for exigencies, the Fourth Amendment rules can certainly differ in such circumstances. *See, e.g.*, Mich. Dep't of State Police v. Sitz, 496 U.S. 444 (1990) (permitting sobriety checkpoints).

instance, who would determine whether a given search or seizure qualified as exigent?[154] Letting police make the determination would create incentives for creative accounting,[155] whereas engaging an oversight body—judicial or otherwise—could quickly become a morass. (Would every single search and seizure be reviewed? If not, which ones? A randomized auditing?) There is, in short, a serious question about whether trying to exempt exigent intrusions on an ongoing basis would be worth the candle. But even if not, at a minimum, budgets should yield to exigency case-by-case—and perhaps they should be designed with a marginal buffer in mind, engineered to replicate the (rough) effects of an ongoing exemption system.

The third way to operationalize an exigency exception to the budget system—again, not exclusive of the other two—would be some means of pursuing expansion of the original budget. One could imagine, for example, a mechanism that gives departmental higher-ups a 'fast track' means to request a greater allocation of searches and seizures from the city council or equivalent body; that is, instead of making police departments wait until the close of the fiscal year or other relevant period to request an adjustment based on need, they could be allowed to do so more proactively, in a manner analogous to expedited or emergency judicial orders. Furthermore, one could also imagine a system where departments are automatically granted dispensation in the moment, and then required to explain it afterwards. Under such a 'delayed budget,' upon hitting any one of specified thresholds, a police commissioner or other responsible person would have to appear before the city council or other decision-maker and justify that level of policing, on pain of cutoffs kicking in for failure to satisfactorily engage in that deliberative process—a sort of budget 'sunset' regime. Such an approach could fall prey to all the familiar pathologies of wholly ex-post remedies, but it would also afford police maximal flexibility *ex ante* where that proves to be the overriding priority.

B. Saving, Borrowing, and Bonuses

Another lever of flexibility would be saving and borrowing systems—allowing police, up to a limit, to roll-over unused searches and seizures from Period *n* to

154. Again we have a Fourth Amendment analog: "Prior decisions of this Court . . . have emphasized that [exigent circumstances] exceptions to the warrant requirement are few in number and carefully delineated, and that the police bear a heavy burden when attempting to demonstrate an urgent need that might justify warrantless searches or arrests." Welsh v. Wisconsin, 466 U.S. 740, 749–50 (1984) (internal quotation omitted).

155. This is similar to a concern regarding sometimes-on body cameras: their effectiveness wholly stems from whether, in a given encounter, police decide to turn them on. *See* Lindsey Van Ness, *Body Cameras May Not Be the Easy Answer Everyone Was Looking for*, PEW: STATELINE (Jan. 14, 2020), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/01/14/body-cameras-may-not-be-the-easy-answer-everyone-was-looking-for [https://perma.cc/BYG5-YDLH] ("[T]he effectiveness of cameras depends on when officers are required to turn them on, whether they must [or may] review the video before they write incident reports, and whether videos are released to people involved in an incident or to the public.").

Period *n+1*, and to "mortgage" searches and seizures the other direction. This would mitigate the effects of having artificial cut-points at the beginnings and ends of different periods,[156] and it would encourage officials not to squander searches or seizures during 'flush' times.[157] Furthermore, it would diminish the sting of unforeseen changes in patterns of criminality and other variables that legitimately increase the need for search-and-seizure activity.

We can begin with borrowing, where the concept is straightforward. The main worry—and corresponding design puzzle—is how to ensure that police not borrow so heavily, or in such lopsided fashion, that it effectively undoes the atmosphere of scarcity.[158] Of course, even if the police *wished* to do this, there would be natural limits on the enterprise, given that diminished scarcity at t_1 would correspond to enhanced scarcity at t_2. But even so, hijinks remain possible, and budget regimes should be configured accordingly.

Broadly speaking, there would be two ways to hedge against excessive borrowing. One would simply be to cap quantities. Police might, for example, be prohibited from borrowing more than X/10 searches or seizures from the subsequent period.[159] Or, similarly in order to encourage proactive budgeting, their ability to borrow might be tied to how many searches or seizures they currently had left.[160] The second strategy would be to make borrowing costly. This could be

156. A study conducted on rollover vacation policies demonstrates the concept: "[T]he ability to roll over time off determined whether employees took all their vacation time . . . . Many employees seem to want to reserve vacation time, saving it for the next year, if they are able to roll over time from year to year." Stephen Miller, *Unused Vacation Days Can Be Detrimental*, SHRM (Nov. 12, 2013), https://www.shrm.org/resourcesandtools/hr-topics/benefits/pages/unused-vacation-detrimental.aspx [https://perma.cc/FFE3-JYKK].

157. Here, credit card spending is illustrative: people tend to "spend more with plastic," because "if you have a credit card, there is really no immediate penalty for overspending, so it's easier to go over your budget." Bill Hardekopf, *Do People Really Spend More with Credit Cards?*, FORBES (July 16, 2018, 10:48 AM), https://www.forbes.com/sites/billhardekopf/2018/07/16/do-people-really-spend-more-with-credit-cards/?sh=757205301c19 [https://perma.cc/W8PL-3UQ4]. When you think you have more, you tend to spend more.

158. *See* Richard P. Nielson, *High Leverage Finance Capitalism, the Economic Crisis, Structurally Related Ethics Issues and Potential Reforms*, 20 BUS. ETHICS Q. 299 (2010) (proffering that the 2007–2009 economic crisis was brought about by the "perfect economic storm," namely, four types of high-leverage finance capitalism).

159. Essentially, excessive borrowing would be tamed by employing a borrowing limit, much like federal student loan limits. *See* Dori Zinn & Alicia Hahn, *Student Loan Limits: How Much Can You Borrow?*, FORBES (Oct. 18, 2022, 6:49 AM), https://www.forbes.com/advisor/student-loans/student-loan-limits/ [https://perma.cc/QE9P-USKE].

160. This is analogous to a reserve requirement, where banking regulations are illustrative: "[B]anks are required to hold 10% of their total money in the vaults at the end of each day. The 10% is a requirement chosen based on the statistical possibility of how many people might want to pull out their funds at any given time." Tatiana Koffman, *How the Federal Reserve 'Broke the Internet'—Everything You Need to Know*, FORBES (Mar. 18, 2020, 2:36 PM), https://www.forbes.com/sites/tatianakoffman/2020/03/18/how-the-federal-reserve-broke-the-internet-and-why-it-might-leave-you-broke/?sh=42330ff07fcf [https://perma.cc/DLE7-3Q9Y].

accomplished through a flat-rate Pigouvian tax[161] or through a 'discounting' mechanism—analogous to an interest rate—that required police to exchange more future searches and seizures (at, say, a 1.5x or 2x rate) for their present counterparts.

The saving concept is slightly more complicated. There can be little doubt that *some* means of encouraging saving is desirable; we would not want a system in which police, knowing they would simply lose leftover searches and seizures, might be inclined to gratuitously "spend" surplus at the end of a given period.[162] But the mechanism could take two fundamentally different, non-exclusive forms, and the relative advantages and drawbacks of the two are far from obvious.

The first approach would be a roll-over system—the mirror-image of a borrowing mechanism—allowing police to add leftover searches and seizures from Period *n* to their starting total for Period *n+1*.[163] This would have the advantage of overall budgetary flexibility; it would allow police to consumption-smooth across designated periods, which would be particularly valuable in environments where crime (as well as other variables driving enforcement need) tend to fluctuate unpredictably. The downside, on the other hand, would be a 'stockpiling' risk.[164] By saving across periods, police could end up with an excessively large pool of searches and seizures, raising concerns about lopsidedness akin to those described in connection with borrowing—stockpiling could allow police to effectively overcome the atmosphere of perceived scarcity. As on the borrowing side, this

161. "A Pigouvian tax, named after 1920 British economist Arthur C. Pigou, is a tax on a market transaction that creates a negative externality, or an additional cost, borne by individuals not directly involved in the transaction. Examples include tobacco taxes, sugar taxes, and carbon taxes." *Pigouvian Tax*, TAX FOUND.: TAXEDU, https://taxfoundation.org/tax-basics/pigouvian-tax/ [https://perma.cc/EA5S-GPX5] (last visited Feb. 1, 2023); *see also* Baer, *supra* note 134 (discussing how a Piguovian tax scheme might curtail Fourth Amendment violations); Peter N. Salib, *The Pigouvian Constitution*, 88 U. CHI. L. REV. 1081, 1081 (2021) (proposing Pigouvian taxation as a new regulatory tool for "maintain[ing] a careful proportionality between the constitutional burdens [regulations] impose and the social harms they continue to eliminate").

162. Flexible spending accounts (FSAs) provide a useful, unfortunate example. FSAs enable employees to set aside pre-tax money to pay for certain qualified medical expenses. At the end of the plan year, however, the employee forfeits any money remaining in the account. Thus, at the end of the year, employees "will rush to the doctor or dentist to use up any remaining funds[,]" as—with FSAs—it's either use it, or lose it. Susan Johnston Taylor, *Money Still in Your Flexible Spending Account? Use It or Lose It*, U.S. NEWS & WORLD REP. (Nov. 19, 2012, 1:55 PM), https://money.usnews.com/money/personal-finance/articles/2012/11/19/money-still-in-your-flexible-spending-account-use-it-or-lose-it [https://perma.cc/K2VJ-QBAT].

163. Many are familiar with such a system in mobile phone 'minutes' or data. *See, e.g.*, *Carryover Data FAQs*, VERIZON, https://www.verizon.com/support/carryover-data-faqs/ [https://perma.cc/3PZ5-LAXD] (last visited Feb. 1, 2023).

164. Or, really, the risk that when someone has too much 'extra' on hand she need not be careful about how she spends it. For example, a survey of one hundred millionaires revealed one common trend: The majority don't keep a budget. *See* Hillary Hoffower, *A Self-Made Millionaire Who Interviewed 100 Other Millionaires Found There's a Surprising Habit Many Have in Common*, INSIDER (Dec. 9, 2018, 11:34 AM), https://www.businessinsider.com/millionaires-no-budgets-esi-money-millionaire-interviews-2018-12 [https://perma.cc/54C4-HWA8].

dynamic could be mitigated by some combination of caps and fees, but it would remain a possibility.

The second savings approach would be a buyback system, allowing police to 'cash in' on unused searches and seizures at the end of a period. The exchange could take any number of forms, but the simplest would be extra resources. Departments that managed to come in under their budgets would receive extra appropriations—earmarked by the legislature or other relevant deliberative body—in return.

Compared to straightforward saving, a buyback approach would have (at least) two advantages. First, it would encourage officials to minimize searches and seizures *even if* policing goals did not independently create the same incentive.[165] It is possible to imagine enforcement environments where conserving searches and seizures through time might not be a priority—for example, because crime virtually never reached levels where the normal allocation was insufficient to meet police demand—and it would make sense, on policy grounds, to give officials an added incentive to err on the side of fewer searches and seizures. This would include, but certainly not be limited to, investment in less intrusive tactics capable of achieving the same law enforcement goals. Second, buybacks could cause a regulatory device that otherwise would seem like a 'stick' to officials—meaning budgets themselves—to feel slightly more 'carrot'-like.[166] This may sound trivial or superficial, but the organizational psychology literature could hardly be plainer. Workers respond better to environments that seem configured to reward rather than penalize, even if, from a strictly economic perspective, the two routes are indistinguishable.[167]

But a buyback system could also have serious drawbacks. Chief among them, naturally, is the risk of *too much* conservation, resulting in under-policing.[168] We

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165. *Cf.* Sirio Aramonte, *Mind the Buybacks, Beware of the Leverage*, BIS Q. REV., Sept. 2020, at 49 (exploring how buybacks affect a firm's performance and financial resilience through leverage).

166. There is significant debate regarding whether legal norms ought to be enforced through "carrots[,] positive sanctions, rewards, and bonuses," or through "sticks" such as "negative sanctions, penalties, damages, fines, and imprisonment." Gerrit De Geest & Giuseppe Dari-Mattiacci, *The Rise of Carrots and the Decline of Sticks*, 80 U. CHI. L. REV. 341, 343 (2013); *see also* James Andreoni, William Harbaugh & Lise Vesterlund, *The Carrot or the Stick: Rewards, Punishments, and Cooperation*, 93 AM. ECON. REV. 893 (2003).

167. *See* Adam Grant, *What Really Helps Employees to Improve (It's Not Criticism)*, KNOWLEDGE AT WHARTON (May 16, 2019), https://knowledge.wharton.upenn.edu/article/really-helps-employees-improve-not-criticism/ [https://perma.cc/KDJ8-KHNC] (reporting the sentiments of Marcus Buckingham, one of the founders of the strengths-based movement in HR); Tali Sharot, *What Motivates Employees More: Rewards or Punishments?*, HARV. BUS. REV. (Sept. 26, 2017), https://hbr.org/2017/09/what-motivates-employees-more-rewards-or-punishments [https://perma.cc/5VYZ-QQYL] ("Neuroscience suggests that when it comes to motivating action, rewards may be more effective than punishments.").

168. *See, e.g.*, Zaid Jilani, *Progressive Denial Won't Stop Violent Crime*, ATLANTIC (July 27, 2021, 9:10 AM), https://www.theatlantic.com/ideas/archive/2021/07/crime-progressives/619569/ [https://perma.cc/7BWV-XL3T] (arguing that under-policing is resulting in unacceptable rates of

would not want police taking an overly prophylactic approach toward searches and seizures, simply because of the abstract promise of a reward. The overall goal of a budget regime, after all, is to bring police incentives more in line with public goals—hence the emphasis on democratic oversight above. It would be counter-productive, to say the least, if tailoring the design of a budget to correct for end-of-period overabundance caused the entire mechanism to facilitate insufficiently zealous law enforcement.

A third lever of flexibility would be bonuses: rewarding police for using fewer searches and seizures. On economic principles this makes sense (though it might also raise similar concerns about under-policing), and it could be effectuated in various ways. The simplest would be to identify pro-social conduct and encourage it at the department level. That is, regardless of specifically who was responsible for the pro-social conduct, the bonus would net to the entire police force, and, at least in theory, department protocols would evolve in response. So, particular instances of pro-social conduct—de-escalation, for instance—could yield a set number of extra searches and seizures or (seemingly better as that is odd 'reward'), extra budgetary allowance for other purposes.

More tailored bonus regimes are also easy to imagine. For example, individual officials could be given a more personalized incentive to engage in pro-social conduct—salary increases, say, or enhanced vacation time.[169] Furthermore, individualized incentives could be synced up with departmental mechanisms of review and promotion; an officer's performance within the strictures of the budget system could form part of their workplace evaluation.[170] Finally, bonuses could be used to cultivate healthy competition between units, or even between departments, feeding into the carrots-and-sticks point traced above. Once again, however, systems of bonuses risk under-policing, as there is no interest like *self*-interest, and it would hardly be surprising if police engaged in less policing—including less of the policing communities require—if their salaries increased accordingly. Thus, the effectiveness of budgetary design parameters would depend upon other variables, including how ably systems can detect and deter under-policing, in order to ensure that the parameters are encouraging *better* policing, not just less policing.

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violent crime); Rod K. Brunson, *Protests Focus on Over-Policing. But Under-Policing Is Also Deadly*, WASH. POST (June 12, 2020, 9:10 AM), https://www.washingtonpost.com/outlook/underpolicing-cities-violent-crime/2020/06/12/b5d1fd26-ac0c-11ea-9063-e69bd6520940_story.html [https://perma.cc/EM2C-YLZE] ("[A] great deal of scholarship has demonstrated that under-policing also leaves residents feeling perpetually underserved and unsafe.").

169. *See* Donald P. Schwab, *Impact of Alternative Compensation Systems on Pay Valence and Instrumentality Perceptions*, 58 J. APPLIED PSYCH. 308 (1973) (concluding that individuals may be more effective when working towards individual incentives versus group incentives).

170. *Cf.* Larry M. Coutts & Frank W. Schneider, *Police Officer Performance Appraisal Systems: How Good Are They?*, 27 POLICING 67 (2004) (painting a bleak picture of performance appraisal systems of police in Canada, including officers reporting that they were appraised in terms of personal traits as opposed to work-related behaviors).

C. 'Smart' Budgets

Clearly, then, the design and calibration of search and seizure budgets would ideally draw from, and respond to, significant amounts of diverse information, which makes them ready-made for the big-data revolution.[171] And, as systems of machine learning improve, so presumably could these budgetary systems. Indeed, all of the foregoing design discussion assumes that budgets would be a 'dumb' governance tool; in other words, that however flexible budgets might become in light of design toggles like saving and borrowing mechanisms, they would be fundamentally rigid, context-insensitive mechanisms of constraint. In principle, search and seizure budgets could be made context-sensitive: it would simply be a matter of specifying conditions of flexibility, taking measurements to determine whether the conditions were met, and updating budgets accordingly. In practice, of course, this is no easy task—at least, not with current technology. But artificial intelligence could change things.[172] It is easy to imagine a future in which search and seizure budgets (and many other allocation decisions) are determined by context-responsive AI tools. Put slightly differently, the flexibility contemplated by the design mechanisms discussed above could be secured, in principle, by more directly responsive technological means.

Ultimately, that technological capacity may or may not exist—or at any rate, it may not exist for some time. Regardless, at a *governance* level, there is an antecedent question to consider: how 'smart,' in principle, would we desire budgets to be? And this question relates not only to any system of machine-intelligent budgeting, but also to the more traditional budgetary design parameters we have described. Part of the appeal of budgets, after all, is their simplicity. For purposes of oversight, they are intelligible; they channel what might otherwise be an unmanageable set of questions about the nature and scope of police power into a comprehensible form. Furthermore, and for essentially the same reason, basic budgets are difficult to circumvent. They are resilient in the face of technological change, but more than that, they are resilient in the face of hijinks. Of course, there is always risk of outright non-compliance. Some searches and seizures, for example, may never get recorded; some departments may simply flout the rules.[173] Short of that, however, simple budgets make little room for mischief *within* the formal bounds of compliance. Their mandate is cut-and-dry.

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171. For more on our big-data world, see Henderson, *Our Records Panopticon*, *supra* note 91, at 700–09.

172. For more on the technology of AI, see Kiel Brennan-Marquez & Stephen E. Henderson, *Artificial Intelligence and Role-Reversible Judgment*, 109 J. CRIM. L. & CRIMINOLOGY 137, 143–45 (2019).

173. Along these lines, one important set of questions we do not yet address is remedial: what mix of administrative oversight, litigation, monetary sanctions, and so forth should be used to maximize the likelihood of compliance on the ground? These questions are notoriously difficult for policing writ large, and we leave them for future work.

Making budgets 'smarter' risks diminishing these benefits. The more adaptive the regime, the less intelligible it becomes as political feedback infrastructure. It is one thing for a city councilor, or a member of the public, to learn that police have X searches and seizures remaining for the month, at a historical pace of Y/day, full stop. It is quite another to learn that police have $X+N$ searches and seizures remaining, where N represents a complex distribution of 'smart' possibilities. Moreover, smart budgets would be prone to additional gamesmanship. Even if their allocation still operated as a hard boundary, if that boundary could be expanded by toggling input variables, then police would have an incentive—if not necessarily the practical capability—to manipulate those variables.[174]

This is not to say smart budgets are inadvisable—just that, before embarking on the enterprise, we would want to think carefully about the downsides. Ultimately, there may be something to be said for dumb rules. Especially in environments where value disputes are inevitable and incentives to cheat are legion, inflexibility can be surprisingly welcome.[175]

CONCLUSION

In 1783, George Washington reflected upon the American experiment as he announced the disbanding of the victorious Continental Army.[176] If the fledging republic was headed for failure, he argued, the failure would be the peoples' own.[177]

Today, American policing is in crisis,[178] and Washington's words still ring true; the crisis has been one of our own making, and the only solution is political will.

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174. *See generally* WENDY NELSON ESPELAND & MICHAEL SAUDER, ENGINES OF ANXIETY: ACADEMIC RANKINGS, REPUTATION, AND ACCOUNTABILITY (2016) (exploring the ways that metric-based systems—of which budgets are an example—almost always create incentives toward the manipulation of input variables).

175. And, of course, any particular system of machine learning or other artificial intelligence can be riddled with invidious bias. *See, e.g.*, Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671 (2016). We do not minimize that issue by failing to discuss it; we merely confine our initial desirability discussion to a world in which this issue can be solved, at least such that any such 'smart' implementation is no more biased than its alternatives.

176. *See* Letter from George Washington to the Governors of All the States, *supra* note 51.

177. *Id.* at 256 ("At this auspicious period, the United States came into existence as a nation; and, if their citizens should not be completely free and happy, the fault will be entirely their own.").

178. *See, e.g.*, Paige Fry & Annie Sweeney, *Chicago Police Again Face Criticism for Response to Unrest Over George Floyd Killing, as Federal Monitor Files Report*, CHI. TRIB. (July 20, 2021, 5:34 PM), https://www.chicagotribune.com/news/criminal-justice/ct-george-floyd-protests-chicago-police-monitor-findings-20210720-pdg3mgy7m5fwbno2gd3wiqlxtm-story.html [https://perma.cc/XZ58-8AJY] ("In February of this year, the city Inspector General released a scathing analysis that concluded the department was ill-prepared and lacked a firm plan for the protests, resulting in a chaotic response that put both police and the public at risk."); Olga R. Rodriguez, *San Francisco Sees Rise in Shootings, Aggravated Assaults*, AP NEWS (July 12, 2021), https://apnews.com/article/joe-biden-government-and-politics-san-francisco-d0be6745b69484eac0bb084b21335a57 [https://perma.cc/R62H-HWXZ] ("San Francisco saw an increase in shootings in the first half of 2021 compared to the same period in 2020, and a slight uptick in aggravated assaults like those seen in viral videos that have drawn national attention."); Patrik Jonsson, *In Atlanta, a Glimpse of Why 'Defund the Police' Has Faltered*, CHRISTIAN

Search and seizure budgets are a means of channeling that will—incrementally, yes, but in a manner that harmonizes with our constitutional tradition and broader currents of democratic police reform. As we seek to move forward after years of controversy and loss, search and seizure budgets should become part of the conversation around policing.

SCI. MONITOR (July 6, 2021) https://www.csmonitor.com/USA/2021/0706/In-Atlanta-a-glimpse-of-why-defund-the-police-has-faltered [https://perma.cc/9VXS-XR8F] ("Like other cities, Atlanta has witnessed a new crime wave."); Sarah Ravani, *Oakland Mayor Schaaf Fires Back at City Council Members over Police Funding Debate*, S.F. CHRON. (July 4, 2021, 3:52 PM), https://www.sfchronicle.com/eastbay/article/Oakland-Mayor-Schaaf-lashes-out-at-City-Council-16290972.php [https://perma.cc/5QV6-P79E] ("The debate among City Council and the city administration on how to best keep the city safe comes amid a spike in violent crime in Oakland."); *see also Sunday Reading: America's Policing Crisis*, NEW YORKER (May 2, 2021), https://www.newyorker.com/books/double-take/sunday-reading-americas-policing-crisis [https://perma.cc/WH5G-RTM9] (gathering essays).