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AN ECONOMIC UNDERSTANDING OF SEARCH AND SEIZURE LAW

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This Article uses economic concepts to understand search and seizure law, the law governing government investigations that is most often associated with the Fourth Amendment. It explains search and seizure law as a way to increase the efficiency of law enforcement by accounting for external costs of investigations. The police often discount negative externalities caused by their work. Search and seizure law responds by prohibiting investigative steps when external costs are excessive and not likely to be justified by corresponding public benefits. The result channels government resources into welfare-enhancing investigative paths instead of welfare-reducing steps that would occur absent legal regulation. This perspective on search and seizure law is descriptively helpful, it provides a useful analytical language to describe the role of different Fourth

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Amendment doctrines, and it facilitates fresh normative insights about recurring debates in Fourth Amendment law.

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INTRODUCTION

Although economic analysis plays an important role in many areas of legal scholarship,¹ the law of search and seizure remains a notable exception. Search and seizure law is the part of criminal procedure that addresses limits on government collection of evidence. It consists primarily, although not exclusively, of judicial interpretations of the Fourth Amendment.² The scholarship in the field is vast but predominantly doctrinal,³ focusing heavily on lawyerly considerations such as doctrinal coherence and the correct way to apply legal principles.⁴

Economic analysis has made few inroads into the dense doctrinalism of search and seizure law scholarship. Before his untimely death, William Stuntz used informal economic insights to critique various aspects of Fourth Amendment law.⁵ In recent years, a handful of scholars have used economic

¹ See, e.g., Jon Hanson & David Yosifon, *The Situation: An Introduction to The Situational Character, Critical Realism, Power Economics, and Deep Capture*, 152 U. PA. L. REV. 129, 133 (2003) (describing law and economics as “currently the dominant theoretical paradigm for creating and analyzing legal policy”); Anthony T. Kronman, Dean, Yale Law Sch., Remarks at the Second Driker Forum for Excellence in the Law (Sept. 29, 1994) (describing the law and economics movement as “the single most influential jurisprudential school in this country”), in 42 WAYNE L. REV. 115, 160 (1995). In this Article, I use the term “economics” in the broad sense to mean “the science of rational choice in a world—our world—in which resources are limited in relation to human wants.” RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 3 (7th ed. 2007).

² See U.S. CONST. amend. IV. The field also includes statutory analogs to the Fourth Amendment such as the Electronic Communications Privacy Act of 1986, Pub. L. No. 99-508, 100 Stat. 1848 (1986) (codified as amended in scattered sections of 18 U.S.C.).

³ The most influential work of scholarship in Fourth Amendment law remains Wayne LaFave’s six-volume treatise, WAYNE R. LAFAVE, *SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT* (4th ed. 2004). LaFave’s treatise has been cited by more than 7500 judicial opinions in the Westlaw Journals & Law Reviews (JLR) database as of July 2015.

⁴ For a critique of how Fourth Amendment scholarship is obsessed with coherence, see Ronald J. Allen & Ross M. Rosenberg, *The Fourth Amendment and the Limits of Theory: Local Versus General Theoretical Knowledge*, 72 ST. JOHN’S L. REV. 1149, 1161 (1998). Dozens if not hundreds of scholarly articles contend that the Supreme Court has misapplied the “reasonable expectation of privacy” test. See, e.g., 4 LAFAVE, *supra* note 3, § 2.7(c) (arguing that the Supreme Court misapplied the test in *United States v. Miller*, 425 U.S. 435 (1976), which declined to extend Fourth Amendment protection to bank records).

⁵ See, e.g., William J. Stuntz, *The Distribution of Fourth Amendment Privacy*, 67 GEO. WASH. L. REV. 1265, 1274-76 (1999) (arguing that Fourth Amendment protection acts like a tax that induces a change in the allocation of investigative resources towards unprotected investigative techniques that are cheaper for law enforcement); William J. Stuntz, *Implicit Bargains, Government Power, and the Fourth*

approaches to analyze specific doctrines.⁶ But economic analysis remains fairly rare and generally isolated in search and seizure law scholarship.⁷ The zeitgeist is that economics has little to say about search and seizure law—and that whatever it says isn't very useful.

This Article presents a different view. It argues that economics provides a surprisingly helpful lens to understand and critique search and seizure law. This field of law can be understood as a way to maximize the benefits of criminal law while minimizing the costs of its enforcement. The criminal justice system exists to achieve policy goals such as deterrence, incapacitation, and retribution.⁸ But achieving those goals requires enforcement, and enforcement requires the collection of evidence to prove cases in court. Search and seizure law helps to lower the costs of enforcing the law by blocking investigatory steps that would impose high externalities unlikely to be accounted for by law enforcement.⁹

At first blush, it may seem odd to think of search and seizure law as a way to limit costs. Search and seizure scholarship is mostly about the Fourth

Amendment, 44 STAN. L. REV. 553, 556-62 (1992) (contending that Fourth Amendment law resembles a tort law negligence standard in that law enforcement can only inflict substantial harms when justified by a corresponding public need); William J. Stuntz, *Local Policing After the Terror*, 111 YALE L.J. 2137, 2144-50 (2002) (contending that the cost-benefit implied by constitutional reasonableness should lead to the adoption of more crime-severity distinctions); William J. Stuntz, *Warrants and Fourth Amendment Remedies*, 77 VA. L. REV. 881, 900-03 (1991) [hereinafter Stuntz, *Warrants*] (arguing that one role of search warrants is to avoid the ex post difficulty of measuring the harms of searches).

⁶ See, e.g., Dhammika Dharmapala & Thomas J. Miceli, *Search, Seizure and (False?) Arrest: An Analysis of Fourth Amendment Remedies when Police Can Plant Evidence* (arguing that the remedies of Fourth Amendment law can create or discourage incentives for the police to plant evidence), in RESEARCH HANDBOOK ON ECONOMIC MODELS OF LAW 208, 210 (Thomas J. Miceli & Matthew J. Baker eds., 2013); Tonja Jacobi, *The Law and Economics of the Exclusionary Rule*, 87 NOTRE DAME L. REV. 585, 592-94 (2011) (discussing the deterrent impact of the exclusionary rule); Craig S. Lerner, *The Reasonableness of Probable Cause*, 81 TEX. L. REV. 951 (2003) (applying Learned Hand's economic negligence formula to Fourth Amendment law); Steven Penney, *Reasonable Expectations of Privacy and Novel Search Technologies: An Economic Approach*, 97 J. CRIM. L. & CRIMINOLOGY 477, 479-81 (2007) (arguing that Fourth Amendment law furthers economic self-interest to avoid dispersal of potentially harmful information); Richard A. Posner, *Rethinking the Fourth Amendment*, 1981 SUP. CT. REV. 49, 54-55 (applying economic deterrence theory to Fourth Amendment violations); Ric Simmons, *Ending The Zero-Sum Game: How to Increase the Productivity of the Fourth Amendment*, 36 HARV. J.L. & PUB. POL'Y 549, 552 (2013) (applying economic principles to Fourth Amendment law).

⁷ It is telling that a recent review of the literature on economic approaches to criminal procedure law focuses almost exclusively on "adjudicatory" criminal procedure—the litigation of criminal cases—and particularly the plea bargaining process. See Keith N. Hylton, *Economic Analysis of Criminal Procedure*, in THE OXFORD HANDBOOK OF LAW AND ECONOMICS (Francisco Parisi ed., forthcoming 2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2477425 [<http://perma.cc/6MXV-YCBE>].

⁸ See HERBERT L. PACKER, THE LIMITS OF THE CRIMINAL SANCTION 35-58 (1968) (discussing the justifications for the criminal justice system).

⁹ See *infra* Section I.C.

Amendment, which is generally thought to protect privacy rather than encourage efficient government.¹⁰ The cases speak of rights, not costs.¹¹ But the costs of investigations are only rarely pecuniary, and it can be helpful to understand invasions of rights as the forced imposition of nonpecuniary costs. To collect evidence, the police break down doors and ransack property in a search for proof beyond a reasonable doubt.¹² They place suspects under surveillance, invading their privacy. They place suspects under arrest, infringing their freedom of movement.¹³ All of these investigatory techniques impose costs on society, not only on suspects but also on their families and the communities in which they live. The effect is something like a coal-burning plant that pumps pollution into the atmosphere. Police investigations impose societal costs in the form of civil liberties violated, property destroyed, and peace and stability disrupted.

From this perspective, search and seizure law is a way to account for investigative externalities and impose a rough cost–benefit test. The police act as agents of the public, investigating cases on the public’s behalf. But for reasons of both political economy and sociology, the police are unlikely to account fully for the societal harms that their investigations can impose.¹⁴ Search and seizure law can constrain the police by aligning police action with the public interest. The law can prohibit police action when its societal costs are likely to exceed its public benefits. The result can channel law enforcement resources into welfare-enhancing investigative alternatives instead of the welfare-reducing investigations that would result absent legal regulation.¹⁵

Developing an economic understanding of search and seizure law is useful in three related ways. First, it provides a functional account of existing doctrine. Search and seizure law is notoriously undertheorized; Fourth Amendment law in particular has been condemned as “a mess,”¹⁶ “an embarrassment,”¹⁷ and “a mass of contradictions.”¹⁸ Economics provides a useful perspective from which to understand the role that various doctrines might serve. Second, an economic perspective can provide a helpful shared language

¹⁰ See, e.g., *Riley v. California*, 134 S. Ct. 2473, 2494–95 (2014) (recounting how the Fourth Amendment “was the founding generation’s response to the reviled ‘general warrants’ and ‘writs of assistance’ of the colonial era” that today protects “the privacies of life” from government intrusion (quoting *Boyd v. United States*, 116 U.S. 616, 625–30 (1886))).

¹¹ See, e.g., *id.*

¹² See *infra* Section I.A.

¹³ See *infra* Section I.B.

¹⁴ See *infra* Section I.C.

¹⁵ See *infra* Section I.D.

¹⁶ Allen & Rosenberg, *supra* note 4, at 1149.

¹⁷ AKHIL REED AMAR, *THE CONSTITUTION AND CRIMINAL PROCEDURE: FIRST PRINCIPLES* 1 (1997).

¹⁸ Craig M. Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1468 (1985).

to discuss and critique existing doctrines. Search and seizure law often lacks a shared vocabulary, and widely used terms and concepts are themselves contested.¹⁹ Economics can provide a clearer language to express concepts and understand doctrines. Third, economic analysis provides a normative framework that can advance longstanding scholarly debates. A careful study of one such debate, whether Fourth Amendment law should recognize crime-severity distinctions,²⁰ provides an example of how economic modeling can advance existing understandings.

The economic approach advanced in this Article does not provide the only way to understand search and seizure law. History, text, precedent, and other normative theories of constitutional and statutory interpretation all retain their longstanding importance. Nonetheless, the economic understanding of search and seizure law has significant explanatory power. It can introduce a helpful shared language, and it can provide a useful set of normative tools.

This Article contains four parts. Part I introduces an economic model of investigative criminal procedure law in general, and search and seizure law in particular. Part II shows how existing Fourth Amendment doctrine roughly fits the economic model articulated in Part I. Part III evaluates whether existing Fourth Amendment remedies fit the theory. Finally, Part IV considers the benefits of the economic approach, focusing on how it can generate fresh insights about existing academic debates.

I. AN ECONOMIC MODEL OF SEARCH AND SEIZURE LAW

This Section develops an economic model of criminal investigations and the role of search and seizure protection within it. The Section begins by exploring the negative externalities of criminal investigations, and then turns to the principal-agent problem raised by police enforcement. It then focuses on the functional role of search and seizure law, explaining how the law can enforce a rough cost-benefit standard that can lower the costs of criminal investigations.

A. *The Negative Externalities of Police Investigations*

Gary Becker's celebrated article *Crime and Punishment: An Economic Approach* famously offered an economic approach to the enforcement of criminal laws.²¹ Becker noted that achieving the utilitarian benefits of criminal law requires enforcing the law. The mere existence of criminal laws has little

¹⁹ See, e.g., Orin S. Kerr, *Four Models of Fourth Amendment Protection*, 60 STAN. L. REV. 503, 504-05 (2007) (describing the inconsistency in the Supreme Court's treatment of the reasonable expectation of privacy test).

²⁰ See *infra* Section IV.C.

²¹ Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

effect.²² To achieve the benefits of the law, the government must hire, train, and equip police officers to investigate and enforce the laws.²³ Becker then considered the optimal level of law enforcement as a function of the overall marginal cost of enforcement and the marginal benefit of enforcement.²⁴

Despite its canonical status, Becker's article contains a significant oversight. Becker assumed that the costs of law enforcement are limited to internal expenses shown in the law enforcement budget such as hiring, training, and equipping officers.²⁵ Not so. The costs of criminal investigation also include externalities imposed by investigators on suspects and the public. Once hired and trained, officers must gather evidence to prove crimes beyond a reasonable doubt.²⁶ They must conduct surveillance with the hope of observing criminal activity so they can testify about it in court. They must seize evidence and take it into police custody so they can show it to the jury to prove their cases. And they must arrest suspects and take them into custody so the suspects will appear at trial as defendants.

When the police take these steps, they necessarily impose costs and harms on others. Surveillance invades privacy, disrupting a sense of peace and chilling legitimate activities.²⁷ Some investigative steps are violent, destructive, and costly, such as breaking down a door and rifling through an apartment in a search for evidence.²⁸ Arresting a suspect violates his autonomy and freedom, often depriving his family and children of stability and support.²⁹ Even lesser steps such as stopping a suspect on the street can be a deeply humiliating experience, not only inconveniencing targets but also angering them and their family and friends for being targeted by law enforcement.³⁰ An economic model of criminal law enforcement must account for these costs.

²² See *id.* at 169-70.

²³ See *id.* at 174 & nn. 8-9.

²⁴ See *id.* at 207-09.

²⁵ See *id.* at 174-76.

²⁶ See *In re Winship*, 397 U.S. 358, 364 (1970) (“[W]e explicitly hold that the Due Process Clause protects the accused against conviction except upon proof beyond a reasonable doubt of every fact necessary to constitute the crime with which he is charged.”).

²⁷ See, e.g., Neil M. Richards, *The Dangers of Surveillance*, 126 HARV. L. REV. 1934, 1962-64 (2013) (summarizing the various harms that surveillance can trigger).

²⁸ See, e.g., *Mapp v. Ohio*, 367 U.S. 643, 668 (1961) (describing a search of the suspect's home in which the government broke in to the defendant's home, handcuffed her, and then “numerous officers ransack[ed] through every room and piece of furniture, while the appellant sat, a prisoner in her own bedroom”).

²⁹ See generally DONALD BRAMAN, *DOING TIME ON THE OUTSIDE: INCARCERATION AND FAMILY LIFE IN URBAN AMERICA* (2007).

³⁰ See *Terry v. Ohio*, 392 U.S. 1, 24-25 (1968) (“Even a limited search of the outer clothing for weapons constitutes a severe, though brief, intrusion upon cherished personal security, and it must surely be an annoying, frightening, and perhaps humiliating experience.”).

In the language of economics, investigations create negative externalities. The external costs of enforcement can be roughly analogized to the pollution emitted from a coal plant. A company owns a plant that emits pollution, imposing a cost borne by the public instead of the company. Because the company does not internalize the cost of the pollution, it has an incentive to burn more coal than is desirable. The company will continue to burn coal even when its societal costs exceed its benefits because the company will continue to profit from it. The law may then impose a tax on production to internalize the cost.³¹

Similarly, the “pollution” of criminal investigations is not borne by the police. Instead, it is borne by the public that is subjected to searches, seizures, and surveillance. Much like the company would burn more coal if its costs did not include environmental harms, the police may likewise engage in more invasive investigative techniques than are desirable if they do not account for the external costs.

B. *Criminal Investigations as a Principal–Agent Problem*

The modern approach to enforcing criminal laws is through investigations by police officers, detectives, and agents, who are government employees tasked with collecting evidence. The role of search and seizure law can be helpfully understood as a response to a principal–agent problem created by this arrangement.³² The public, acting through its elected officials, hires the police to investigate and solve crimes to achieve benefits such as deterrence, retribution, and incapacitation.³³ Although identifying the public interest in police enforcement requires assessing the external costs of investigations, there are good reasons to suspect that the public’s agents will undervalue those costs.³⁴ The divergence between the interests of the principal and those of its agent explains the role of search and seizure law.

³¹ See, e.g., Richard P. Adelstein, *The Moral Costs of Crime: Prices, Information, and Organization* (explaining that economists have long hypothesized that the costs of air pollution from steel production could be internalized in the form of a tax on that steel plant), in *THE COSTS OF CRIME* 233, 234–35 (Charles M. Gray ed., 1979).

³² Cf. Richard H. McAdams, *Bill Stuntz and the Principal–Agent Problem in American Criminal Law*, in *THE POLITICAL HEART OF CRIMINAL PROCEDURE* 47 (Michael Klarman et al. eds., 2012).

³³ See Albert W. Alschuler, *The Changing Purposes of Criminal Punishment: A Retrospective on the Past Century and Some Thoughts About the Next*, 70 U. CHI. L. REV. 1, 1 (2003) (listing retribution, deterrence, and incapacitation as primary purposes of criminal punishment); William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 549–50 (2001) [hereinafter Stuntz, *Pathological Politics*] (explaining the criminal investigative power as a grant from the public’s elected representatives to the police to serve as agents on the public’s behalf).

³⁴ See *infra* notes 58–69 and accompanying text.

1. The Principal's Interests

Consider the cost and benefits of investigative steps from the perspective of the public. The net benefit of any particular investigative step can be described as $P^*V - C_i - C_e$, where P represents the increase in probability that the crime will be solved and successfully prosecuted, V represents the net value of a successful prosecution resulting from deterrence and incapacitation, C_i represents the internal costs of the investigative step, and C_e represents its external costs.³⁵ Considered together, $P^*V - C_i - C_e$ represents the net public benefit from the expected decrease in crime that results from any investigative step. The public's interest is to maximize this figure over all of the investigative steps, N , that are feasible using the resources available to law enforcement.

Let's take a closer look at each of these variables. P represents the increase in probability that the evidence needed to prosecute the crime will be discovered as a result of the technique. Investigative methods vary widely in their effectiveness. A low P means that the method does not increase the chance of solving the case very much, while a high P means that the method is more likely to solve the crime.³⁶ V represents the value of successfully prosecuting that particular case. It consists of the prosecution's deterrent effect (the extent to which punishment for the crime will make real the threat of future punishment and discourage future crimes), plus its incapacitative effect (the extent to which punishment may inhibit the wrongdoer's ability to commit future crimes), minus the cost of the punishment itself. In general, more serious crimes should be associated with a higher V .³⁷

Internal costs C_i include two relatively distinct groups of costs. First, some internal costs are those borne by the government as a whole, as seen from the perspective of the police chief or policymakers overseeing the budget. These costs include the government's cost of training the police, equipping them with squad cars, and paying their salaries and benefits. Second, there are additional internal costs from the perspective of individual police officers. Such costs may include the time and effort an officer spends

³⁵ Cf. Lerner, *supra* note 6, at 1020 (applying Learned Hand's negligence formula to Fourth Amendment searches, so that the social benefit of a search can be represented as " $P \times V > C$, where P is the probability of a successful search, V is the social benefit or value associated with the prevention or detection of a particular crime, and C is the social cost (or privacy intrusion) resulting from a particular kind of search"); Simmons, *supra* note 6, at 556-57 (applying Lerner's model).

³⁶ Imagine a person is committing tax fraud. Observing him in public is unlikely to provide particularly helpful evidence. On the other hand, seizing and analyzing his laptop computer is likely to be much more helpful. The former would have a low P and the latter a high P .

³⁷ The correlation is hardly exact. Whether a particular prosecution will have a substantial deterrent or incapacitative effect will always depend on the circumstances of the person prosecuted (whether they are likely to commit more crime absent prosecution, for example), how widely the punishment is reported, and the like.

investigating a case, or the emotional and possible physical harm he experiences from a threat to his safety in a dangerous investigation.

The relationship between these two kinds of internal costs can vary considerably from case to case. If an officer is badly injured on the job, the injury will increase costs both to the individual officer employee and the government employer (through greater healthcare costs and disability benefits). In other cases, however, the two kinds of costs have an inverse relationship. Imagine the police department buys an expensive new surveillance tool that makes it more convenient and less time-consuming for officers to conduct a particular kind of surveillance. The new tool would raise the first kind of internal cost because the government would have to buy the expensive equipment but then decrease the second kind of internal cost by making the surveillance less time-consuming for officers.

Finally, C_e represents the external costs of the investigative step. These costs include privacy harms and property losses that result from an investigation that is imposed on a suspect. They also include the loss of autonomy and freedom imposed directly on the subject of the investigation (who may be guilty or innocent) as well as his family or associates.³⁸ Taking a more expansive view, such costs can include more diffuse burdens imposed on the community at large. For example, a police raid on a neighborhood might trigger feelings of insecurity or danger. Additionally, a strong police presence in a high-crime community can cause widespread feelings of resentment or fear.³⁹

2. The Utility Function of the Police as Agents

Next consider the perspective of the police hired as agents of the public. The utility function of law enforcement is difficult to model with precision. The history of U.S. law enforcement includes a wide range of different kinds of police and agents, hired and trained in different ways, accountable to different superiors, in the context of very different law enforcement efforts.⁴⁰ Generalizations about what motivates the police will vary

³⁸ See *supra* notes 27–30 and accompanying text.

³⁹ See *Illinois v. Wardlow*, 528 U.S. 119, 132 (2000) (Stevens, J., dissenting) (“Among some citizens, particularly minorities and those residing in high crime areas, there is also the possibility that the fleeing person is entirely innocent, but, with or without justification, believes that contact with the police can itself be dangerous, apart from any criminal activity associated with the officer’s sudden presence.”).

⁴⁰ See SAMUEL WALKER, *TAMING THE SYSTEM: THE CONTROL OF DISCRETION IN CRIMINAL JUSTICE 1950–1990*, at 51 (1993) (noting “wide-ranging reforms in the education, training, and supervision of police officers” during the second half of the 20th century). Cf. Jacobi, *supra* note 6, at 602 (“There are tiers of agency in the principal-agent relationship between the police

considerably across different eras, across different government agencies, and across investigations of different kinds of crime.⁴¹

My goal is more modest: merely identifying what kinds of costs and benefits are likely to be a more or less significant part of the utility function of most officers. Following this modest approach, a useful conclusion is that although officers will generally place significant value on internal costs C_i and public benefit P^*V , there is a considerable risk that they will systematically undervalue external costs C_e . The risk of law enforcement undervaluing C_e explains the role of search and seizure law.

a. *Internal Costs, C_i*

First, officers will generally place a significant value on internal costs C_i . This point is obvious for internal costs borne directly by individual officers. For an individual officer, internal costs will include the officer's own time, effort, and threats to his personal safety. The more time and effort a step takes, and the more it threatens the officer's safety, the less an officer will wish to engage in it. Like everyone else, officers consider their self-interest. They will likely weigh such costs carefully.

A similar point is likely true, although to a lesser extent, about internal costs imposed on the government as a whole as seen from the perspective of the police chief or other senior officials.⁴² Individual officers in the field may not themselves care if a particular investigative technique drains the police budget or proves otherwise costly to the department. However, individual officers will be influenced at least to some extent by the policies and priorities of their bosses.⁴³ Police chiefs must staff cases, and they must distribute law enforcement resources within existing budgets.⁴⁴ By influencing choices about where police resources will go, costs imposed on the government will influence how the police behave.

and the State: the police are answerable to their superiors, who are answerable to chiefs of police, the mayor, and so on up the line.”).

⁴¹ See generally WALKER, *supra* note 40; Jacobi, *supra* note 6 (highlighting different viewpoints on police motivation).

⁴² Cf. Jacobi, *supra* note 6, at 603 (noting that the incentive structure for individual officers differs from the incentive structure for more senior officials).

⁴³ See, e.g., *Floyd v. City of New York*, 959 F. Supp. 2d 668, 679 (S.D.N.Y. 2013) (Scheindlin, J.) (discussing how stop-and-frisk policies encouraged by New York City's mayor and police chief influenced the practices of street officers).

⁴⁴ See *id.* at 685 (discussing fiscal restraints of possible remedies to combat police misconduct).

b. *Public Benefit, P*V*

The police will also often place significant value on $P*V$.⁴⁵ Officers will often value solving cases, and they will generally value solving bigger cases more than solving smaller ones. There are two explanations for this: one based in public choice theory and the other based in sociology.

The explanation from public choice theory is that the elected politicians have strong incentives to pay close attention to the voices and interests of potential crime victims.⁴⁶ Crime is a salient issue for many voters and campaign donors who disproportionately represent potential victims of crime rather than suspects.⁴⁷ As a result, the efficacy of law enforcement matters deeply to many voters.⁴⁸ Politicians often respond to that pressure by striving to be “tough on crime,” especially in response to more serious offenses.⁴⁹

The reality that police departments are created, staffed, and run by elected officials or those appointed by elected officials leads to political pressure on officers to solve crimes. Police departments may require officers to bring in a certain number of arrests in a given period.⁵⁰ An officer who makes many arrests may also receive overtime pay for the subsequent court proceedings.⁵¹ These incentives create utility to officers to solve crimes, and especially high-profile or more serious offenses.⁵² From that perspective, solving crimes is only a good thing. As Donald Dripps writes, “Public choice theory suggests that an overwhelming preponderance of political incentives favor unrestricted enforcement of the criminal law.”⁵³

The sociological explanation is that many officers value solving cases because it gives them personal satisfaction and accrues prestige and respect among their peers. Officers are “engaged in the often competitive enterprise

⁴⁵ Recall that P represents the increase in probability that an investigative step will solve a crime and allow its successful prosecution, while V represents the net value of a successful prosecution of that particular case resulting from deterrence and incapacitation.

⁴⁶ See Donald A. Dripps, *Criminal Procedure, Footnote Four, and the Theory of Public Choice; or, Why Don't Legislatures Give a Damn About the Rights of the Accused?*, 44 SYRACUSE L. REV. 1079, 1080 (1993).

⁴⁷ See *id.* at 1089.

⁴⁸ See *id.* at 1089-92; see also Stuntz, *Pathological Politics*, *supra* note 33, at 509.

⁴⁹ See Thomas M. Mengler, *The Sad Refrain of Tough on Crime: Some Thoughts on Saving the Federal Judiciary from the Federalization of State Crime*, 43 U. KAN. L. REV. 503, 529-30 (1995).

⁵⁰ See PETER MOSKOS, *COP IN THE HOOD* 142 (2008) (“Ultimately patrol officers are judged by quantifiable ‘productivity stats.’”); *id.* at 141 (reporting the author’s experience, as a Baltimore police officer, that his superiors imposed a de facto quota on the number of arrests).

⁵¹ See *id.* at 136-37.

⁵² See generally Frank H. Easterbrook, *Criminal Procedure as a Market System*, 12 J. LEGAL STUD. 289 (1983) (offering a similar understanding for prosecutors in the context of plea bargains).

⁵³ Dripps, *supra* note 46, at 1081; see also Michael Simons, *Prosecutorial Discretion and Prosecution Guidelines: A Case Study in Controlling Federalization*, 75 N.Y.U. L. REV. 893, 925 (2000) (“The ordinary political forces that often result in moderation and compromise disappear when the issue is criminal law.”).

of ferreting out crime.”⁵⁴ Taking down a major criminal can be a victory in that “competitive enterprise” that is valued by officers.⁵⁵ Many officers see themselves as there to protect the public from the criminal element preying on innocent victims.⁵⁶ Within that mindset, catching criminals is a win. The bigger the case, the bigger the win. Of course, not all officers will be so public-minded. Some will shirk their duties or have other agendas. But in general, making a major arrest will often be cause for personal satisfaction and respect among fellow officers.⁵⁷

c. *External Costs, C_e*

The third and final piece of the puzzle is the role of external costs. There are good reasons to think that, absent legal regulation, the police will pay comparatively less attention to external costs. In a world with no search and seizure law, officers will care less than they should about the harms their investigations inflict on civil liberties. As with consideration of P^*V , this is true for reasons of both public choice theory and sociology.

The public choice argument for why police officers likely discount C_e is the flip side of why they value P^*V . Those who typically bear the external costs of investigations—criminal suspects and those who live with or near them—tend to be relative outsiders to the political process.⁵⁸ They are outnumbered considerably by those who see themselves as victims of crime.⁵⁹ Criminal defendants are overwhelmingly young⁶⁰ and disproportionately poor,⁶¹ and

⁵⁴ *Johnson v. United States*, 333 U.S. 10, 14 (1948) (Jackson, J.).

⁵⁵ *Id.*

⁵⁶ The police officer’s job, reflected in the common oath, is often said to be “to protect and serve the public.” *Johnson v. Retirement Bd. of Policemen’s Annuity & Benefit Fund*, 484 N.E.2d 1250, 1252 (Ill. App. Ct. 1985).

⁵⁷ See *MOSKOS*, *supra* note 50, at 156 (noting that “[f]elony arrests look like home runs.”).

⁵⁸ See *Dripps*, *supra* note 46, at 1089 (noting that potential victims of crime have “much greater political influence” than criminal suspects).

⁵⁹ The arrest rate in 2012 for the entire United States has been estimated to be 3888.2 arrests per 100,000 inhabitants. See FBI, *CRIME IN THE UNITED STATES 2012—PERSONS ARRESTED* (2013), <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/persons-arrested/persons-arrested> [<http://perma.cc/QXE5-AUXE>]. Although in one sense that number is very high, it also suggests that most people are not likely to see themselves as potential criminal defendants. Even if no person is arrested more than once in a year, over 96% of people are not arrested in a given year.

⁶⁰ See generally FBI, *AGE-SPECIFIC ARREST RATES AND RACE-SPECIFIC ARREST RATES FOR SELECTED OFFENSES, 1993–2001* (2003), http://www.fbi.gov/about-us/cjis/ucr/additional-ucr-publications/age_race_arrest93-01.pdf [<http://perma.cc/P27Z-3G8F>].

⁶¹ According to one study, about 75% of individuals in state prison had been represented by appointed counsel that is only available to those who cannot afford their own defense. STEVEN K. SMITH & CAROL J. DEFRANCES, *BUREAU OF JUSTICE STATISTICS: SELECTED FINDINGS, INDIGENT DEFENSE 2-3* (1996), <http://www.bjs.gov/content/pub/pdf/id.pdf> [<http://perma.cc/MC6T-5TFQ>].

therefore are less likely than most to vote or donate to campaigns.⁶² In many states, previously convicted felons cannot vote at all.⁶³ For these reasons, most elected officials have less incentive than they otherwise would to focus on the external costs typically borne by targets of investigations.⁶⁴ The legislative process disproportionately represents the interests of those who are potential crime victims rather than those who are potential criminal suspects. “Tough on crime” politicians become relatively insensitive to the external costs of investigations. Those incentives are passed on from politicians to the police, resulting in less attention to external costs by officers than the public interest would otherwise demand.⁶⁵

The sociological explanation leads to the same result. Studies indicate that police officers often see the imposition of external costs on suspects as a public good instead of a social cost.⁶⁶ Experienced officers develop confidence in their ability to quickly identify criminals.⁶⁷ Studies suggest that at least some officers divide the public into three categories: criminals, troublemakers who do not deserve police respect, and the public at large.⁶⁸ Because officers focus their investigations on the first two groups, and many have an instinctive faith in their ability to identify their members, officers may come to see the external costs of investigations as an informal punishment inflicted on those who deserve them rather than an unfortunate byproduct of gathering evidence. In some cases, violating a suspect’s privacy or security in the course of investigating crime might be seen as informal “street justice” that itself deters crime or punishes those who trouble or threaten the police.⁶⁹

Political economy and sociological explanations point to the conclusion that police will often discount the external costs of their investigations absent search and seizure law. Officers will often weigh $P*V$ against C_i , but they will tend to pay less attention to external costs C_e . The officers’ relative

62 Older citizens tend to vote at substantially higher rates than younger citizens. See THOM FILE & SARAH CRISSEY, U.S. CENSUS BUREAU, VOTING AND REGISTRATION IN THE ELECTION OF NOVEMBER 2008 at 4 (2010), <http://www.census.gov/prod/2010pubs/p20-562.pdf> [<http://perma.cc/7WAG-MK3E>].

63 See Pamela S. Karlan, *Convictions and Doubts: Retribution, Representation, and the Debate over Felon Disenfranchisement*, 56 STAN. L. REV. 1147, 1156-57 (2004) (“Current laws disenfranchise approximately 3.9 million voting-age citizens, of whom roughly 1.4 million have completed their sentences.”).

64 See Dripps, *supra* note 46, at 1094 (arguing that “taking the side of the suspect . . . invites retaliation by voters fearful of crime”).

65 See *supra* notes 61–63.

66 See, e.g., John Van Maanen, *The Asshole*, in POLICING: A VIEW FROM THE STREET 224-25 (Peter K. Manning & John Van Maanen eds., 1978).

67 See *id.* at 226-27; JEROME H. SKOLNICK, JUSTICE WITHOUT TRIAL: LAW ENFORCEMENT IN DEMOCRATIC SOCIETY 41-43 (3d ed. 1994).

68 See Van Maanen, *supra* note 66, at 223-24 (summarizing studies). See generally Barbara E. Armacost, *Organizational Culture and Police Misconduct*, 72 GEO. WASH. L. REV. 453 (2004).

69 See Van Maanen, *supra* note 66, at 224 (summarizing studies).

inattention to external costs creates a divergence between the interests of the principal and its agent.

C. The Economic Role of Search and Seizure Law

The divergence between the interests of the public and the police as their agents explains the role of search and seizure protections. Absent legal restriction, the police will discount external costs and take steps that seem desirable to officers but are welfare-reducing to society as a whole. Legal limits on investigative steps can change the officer incentives. By banning investigative steps when external costs would be excessive, search and seizure law forces the police to consider external costs that they might otherwise downplay or ignore.

The result is a rough cost–benefit rule. The law can prohibit steps when their likely societal costs would outweigh their likely societal benefits. This can channel law enforcement resources into welfare-enhancing investigative alternatives instead of the welfare-reducing investigations that would result absent legal regulation. Absent legal regulation, officers would have no incentive to try the welfare-enhancing alternatives. Search and seizure law can provide the incentives by banning welfare-reducing investigations.

Consider the Fourth Amendment, the most prominent source of search and seizure restrictions. The Fourth Amendment's basic mechanism is to condition certain investigative methods on a showing of specific factual predicates. Some investigative steps are not deemed searches or seizures, and are therefore outside Fourth Amendment regulation.⁷⁰ But other steps are labeled searches or seizures and are regulated in a specific way: in general, searches and seizures are deemed reasonable, and thus allowed, when the government can establish specific facts showing an expected law enforcement benefit, low external costs, or some combination of the two.⁷¹ As will be developed in detail in Part II, the result is a body of law that selects investigative steps with high external costs in the usual case and subjects them to regulation, ideally allowing them only when the government can establish specific facts that either show low external costs in the circumstances or that the government has a countervailing expected benefit that justifies the imposition of external costs.

So understood, Fourth Amendment law can serve a channeling function in response to high external costs. When external costs are low, the law gives the police discretion to take those investigative steps subject to constraints of internal

⁷⁰ See *infra* Part III.

⁷¹ See *infra* Part IV.

cost (set by law enforcement budgets) and perceived effectiveness.⁷² When external costs are high, the law can prohibit such steps unless the police can make specific showings that the expected benefit outweighs the costs.⁷³ The law does not require the police to select the most beneficial investigative option.⁷⁴ But it can rule out investigative techniques that can be expected to inflict high external costs absent a specific showing of expected benefit. The law pushes investigative resources into welfare-enhancing alternatives.

D. *A Fourth Amendment Example*

A hypothetical is useful to show the potential welfare-enhancing role of search and seizure law. Imagine a necklace has been stolen from a jewelry store in a town with only ten houses. And assume the police know the necklace is in one of the ten houses. A search of the house with the necklace will reveal the necklace, identify the thief, and lead quickly to his guilty plea. Assume that society benefits thirty utils in the future from deterrence and incapacitation if the crime is solved and the thief is locked away. Further assume that forcibly breaking into any home and searching it will cost a total of five utils, which will consist of one util in internal police costs and four utils of external costs imposed on the community. The police have no reason to think the necklace is more likely to be in any one house than any other.

Consider what searches are in the public interest. If the only option is to forcibly search homes, the public interest is best served by no searches at all. Any search hurts the public interest because its expected cost will exceed its expected benefit. The cost is five utils, while the expected benefit is only three utils (a 10% chance of the necklace being in any one home multiplied by the thirty utils of benefit conferred by finding the necklace). The benefit to society (three) is smaller than the cost (five). The officers should not search.

The officers may not see it that way, however. Assume that the police ignore the external costs of their searches. In their calculation, the expected benefit of searching a home is still three utils. But because the officers are ignoring external costs, the cost of a search is only one util instead of five utils. Now searching always seems desirable: three is greater than one, so a search looks like a win every time. Note the difference between the public interest and the police perspective if the police ignore external costs. The officers will want to search every home until the necklace is found because the benefits outweigh the internal costs.

⁷² See *infra* notes 74–76.

⁷³ See *infra* notes 74–76.

⁷⁴ The Supreme Court has repeatedly refused to interpret Fourth Amendment reasonableness so as to require that the government pursue the least intrusive means of proceeding. See *Skinner v. Ry. Labor Excs.' Ass'n*, 489 U.S. 602, 629 n.9 (1989) (citing cases).

The picture changes, however, when we add consideration of Fourth Amendment law. The Fourth Amendment prohibits searching a home except under specific circumstances.⁷⁵ Two circumstances are particularly important. First, the police can search a home if they obtain the voluntarily consent of someone who lives or stays there.⁷⁶ As a result, the police can approach a particular home, knock on the door, and ask the homeowner for permission to search it.⁷⁷ If the person allows the search, the search is constitutional. Second, officers can search a home if they obtain a valid search warrant, which requires the police to establish probable cause that the evidence will be in the home and requires them to search only the home where the evidence is likely to be.⁷⁸ Under this option, they must first investigate the case and find reasons to believe that the necklace is in a particular home. If they can collect sufficient evidence, they can then go to a judge, obtain approval, and search the home.

These two investigative alternatives can change the public interest in a search. Consent searches have lower external costs because they occur with the homeowner's permission and without breaking down doors or otherwise shocking the homeowner. Let's say that if the officers ask for consent and the homeowner agrees and a search follows, the external cost of the search drops from the four utils without consent to only one util with it. Let's also assume that if the officers ask for consent there is a 50% chance that the homeowner will decline. If the homeowner declines, asking for consent has a very low internal cost of (say) one-tenth of a util.

Under this assumption, the option of lawful consent searches creates a net public gain. If the homeowner consents to a search, the consent search is a net gain because the three utils of benefit come at a cost of only two utils (one internal and one external). If the homeowner declines, the only loss was the one-tenth util of police internal cost from asking. Because the societal gain from the consenting homeowner is much greater than the equally likely loss from the objecting homeowner, asking for consent enhances public welfare.

Trying to obtain a search warrant can be similarly beneficial. Investigating the crime to try to develop the needed probable cause can direct the police to the house where the necklace is likely to be. If the police can get a warrant, the search will have a high expected benefit because there is a good chance the necklace is there. Let's add in some plausible numbers. Let's say that if police investigate the crime and seek probable cause that the necklace is in a particular house, the investigation will cost five utils of internal cost of the officers' time

⁷⁵ See *Payton v. New York*, 445 U.S. 573, 586 (1980) ("It is a basic principal of Fourth Amendment law that searches and seizures inside a home without a warrant are presumptively unreasonable.").

⁷⁶ See *Fernandez v. California*, 134 S. Ct. 1126, 1137 (2014) ("A warrantless consent search is reasonable and thus consistent with the Fourth Amendment . . .").

⁷⁷ *Id.* at 1131-35.

⁷⁸ See U.S. CONST. amend. IV.

instead of the one util it costs to simply enter and search. Further, assume a 50% chance the officers can develop probable cause. If the police can establish probable cause, assume a two-thirds likelihood that the necklace will be found there when the house is searched pursuant to a warrant.

Under these assumptions, the option of investigating and obtaining lawful warrants also creates a net public gain. The expected payoff of an investigation is ten utils: a 50% chance of getting probable cause, which will enable a two-thirds chance of gaining thirty utils of public benefit. On the other hand, the expected cost is only 7.5 utils: five utils for the investigation, plus a 50% chance probable cause will be established and a five util cost search (four external utils and one internal util) will follow.

Of course, this example is highly stylized. But notice how the Fourth Amendment can channel investigators into welfare-enhancing investigative methods. The Fourth Amendment blocks the welfare-reducing investigative method (raiding each house without cause) in favor of methods that have either lower external costs (asking for consent) or higher expected benefit (investigating to try to get probable cause). The law blocks the harmful option and channels the police into paths that represent net societal gains.⁷⁹

And here's the key: absent legal restriction, the police would have no incentive to take these steps. In a world without the Fourth Amendment, trying to develop probable cause would seem like a waste of effort and time. From an officer's perspective, searching a house costs only one util. Without Fourth Amendment law, officers would not want to spend five utils of their time and energy in an initial investigation just to have a 50% chance that they would have a two-thirds probability of finding the necklace. Similarly, from their perspective, asking for consent provides no benefit: it only adds cost. Search and seizure law can push officers to take steps in the public interest by imposing restrictions that account for external costs.

E. *Difficulties of Measurement and the Need for Categorical Rules*

The above example might suggest, at first blush, that an economic model of search and seizure law would be simple to apply. In an ideal world, we could tabulate costs and benefits of each step. The law could require the police to adopt the most welfare-enhancing strategy—or, at the very least, to choose among those that are welfare-enhancing—on a case-by-case basis. Imagine a hypothetical world in which the police carried around a sophisticated *Externality-O-Meter* that would exactly measure the externalities of every planned law enforcement step

⁷⁹ The police can also mix these strategies. They can try an investigation first, and if it fails try to obtain consent. Alternatively, they can begin an investigation and uncover at least some information pointing to a specific house and then try a consent search at that house.

and require the police to pay the costs of that step before taking it. Use of the *Externality-O-Meter* would internalize the costs of investigative steps, allowing the police to make the most efficient use of resources.

Unfortunately, matters are not so simple in the real world. The variables P^*V and C_e for a particular law enforcement step in a particular investigation are difficult to measure ex post and exceedingly difficult to predict ex ante. As a result, search and seizure law relies heavily on categorical rules that reflect broad generalizations of costs and benefits over defined ranges of cases.⁸⁰ The categorical nature of search and seizure rules is sufficiently characteristic that it is worth pausing to reflect on the need for such rules and the choices that result.

First, measuring external costs is very difficult. Some kinds of external costs may be measured easily, such as the value of property destroyed when the police break down the door to search for evidence inside.⁸¹ But most external costs of investigations are case-specific and are very difficult to quantify. For example, if the police search a family home and arrest the father for dealing drugs, the external costs might include the invasion of the family's privacy; the residents' lost sense of security; the interruption of family life; and the violation of the father's autonomy. An officer about to take an investigative step will be hard pressed to calculate its external cost accurately.⁸²

The same is true with measuring P^*V . The extent to which a particular investigative technique will actually increase the odds of proving a particular criminal case is difficult to know. In some cases, a search technique may be very effective; in other cases, the same technique will produce no evidence at all. The deterrent and incapacitative value of solving a particular case is also very difficult to measure. In general, we hope and expect criminal prosecutions to have such effects, as they are the forward-looking utilitarian justifications for punishment.⁸³ But how much a particular investigative step will trigger such benefits is generally unknowable ex ante, and to what extent it achieved that goal is not readily measurable ex post.

Compounding the difficulty is the astonishing scale of criminal investigations in the United States. At present, state and federal agencies

⁸⁰ See *Atwater v. City of Lago Vista*, 532 U.S. 318, 347 (2001) (“[W]e have traditionally recognized that a responsible Fourth Amendment balance is not well served by standards requiring sensitive, case-by-case determinations of government need, lest every discretionary judgment in the field be converted into an occasion for constitutional review.”).

⁸¹ The cost might simply be that of repairing the damaged door, or alternatively, purchasing and installing a new one.

⁸² See Stuntz, *Warrants*, *supra* note 5, at 900-03. Even a simple case such as calculating loss from a specific privacy invasion is quite difficult. See, e.g., Bruce E. Boyden, *Can a Computer Intercept Your Mail?*, 34 CARDOZO L. REV. 669, 713 (2012) (discussing the difficulties of calculating privacy harms under the Wiretap Act).

⁸³ See generally JOSHUA DRESSLER, UNDERSTANDING CRIMINAL LAW 13-23 (3d ed. 2001).

employ about 870,000 police officers and agents.⁸⁴ Law enforcement officers in the United States make about 13 million arrests a year,⁸⁵ and arrests cannot lawfully occur unless the officer has probable cause to think that a crime was committed and the officer has developed probable cause to think that the individual arrested committed it.⁸⁶ As a result, the number of individual law enforcement investigative steps actually or potentially subject to Fourth Amendment regulation is likely orders of magnitude higher.

Given the frequency of searches and seizures, and the difficulty in measuring the relevant variables to determine the cost-benefit of each, it is not surprising that Fourth Amendment doctrine is based heavily on categorical rules.⁸⁷ The Fourth Amendment prohibition on unreasonable searches and seizures can be divided into three questions: First, what is a search or seizure, and therefore subject to regulation? Second, when is a search or seizure reasonable, and therefore allowed? And third, what is the remedy for an unreasonable search or seizure?⁸⁸ With respect to each question, the doctrine is based heavily on categorical rules.⁸⁹ There are categorical rules governing the kinds of investigative steps that count as “searches” or “seizures,” when searches or seizures are reasonable and therefore permitted, and what remedies can be imposed for violations.⁹⁰

The categorical nature of most Fourth Amendment rules requires courts to choose how or whether to regulate investigative steps in ways that will have broad distributive effects. To see this, imagine a court must decide between regulating a particular investigative step by using either a permissive rule, which allows the police to take the investigative step with little or no legal regulation, or a restrictive rule, which allows the police to take the investigative step only under specific conditions such as a search warrant.

⁸⁴ See Orin Kerr, *Fourth Amendment Remedies and Development of the Law: A Comment on Camreta v. Greene and Davis v. United States*, 2011 CATO SUP. CT. REV. 237, 256 [hereinafter Kerr, *Fourth Amendment Remedies*] (collecting the figures).

⁸⁵ See HOWARD N. SNYDER, U.S. DEP'T OF JUSTICE, ARRESTS IN THE UNITED STATES 1990-2010 (2012), <http://www.bjs.gov/content/pub/pdf/aus9010.pdf> [<http://perma.cc/7DU8-MDSF>].

⁸⁶ See *United States v. Watson*, 423 U.S. 411, 417-18 (1976) (holding that probable cause to believe suspect committed a felony offense allows an arrest).

⁸⁷ See Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 577 (1992) (“[T]he greater the frequency with which a legal command will apply, the more desirable rules tend to be relative to standards.”).

⁸⁸ See *infra* Parts II-III.

⁸⁹ See *New York v. Belton*, 453 U.S. 454, 458 (1981) (“[T]he protection of the Fourth and Fourteenth Amendments ‘can only be realized if the police are acting under a set of rules which, in most instances, makes it possible to reach a correct determination beforehand as to whether an invasion of privacy is justified in the interest of law enforcement.’” (quoting Wayne R. LaFare, “Case-by-Case Adjudication” Versus “Standardized Procedures”: *The Robinson Dilemma*, 1974 SUP. CT. REV. 127, 142)), *abrogated on other grounds by Arizona v. Grant*, 556 U.S. 332 (2009).

⁹⁰ See *infra* Part III.

Under the permissive rule, the police will engage in the step in a set of cases that we can call N_p . Under the restrictive rule, the police will engage in the step in a smaller set of cases we can denote N_r .

In choosing between two legal rules, a court could compare the sum of $P^*V - C_i - C_e$ over the steps N_r (under the restrictive rule) to that sum over steps N_p (under the permissive rule). If the step triggers high externalities and would be used often under the permissive rules, the sum of the public benefit over N_r would likely be greater than the sum over N_p . In such a case, the restrictive rule would be preferable to the permissive rule, as it lowers the costs of enforcing the law by avoiding the high externalities under the permissive rule. On the other hand, if the step triggers only low externalities and would be used only rarely under the restrictive rule, then the permissive rule is likely preferable to the restrictive rule because the net benefit over N_p likely exceeds that over N_r .

Importantly, courts can and often do reach this result intuitively. To decide between a permissive rule and a restrictive rule, a court might consider whether the permissive rule will lead (or has led) to widespread civil liberties abuses. Roughly speaking, abuses will signal cases with low P^*V , serious abuses will mean a low P^*V matched with a high C_e , and widespread abuses will mean a high N_p . If the restrictive rule will put an end to serious, widespread abuses, the $P^*V - C_i - C_e$ over the steps N_r will likely be greater than $P^*V - C_i - C_e$ over steps N_p .

For an example of this intuitive reasoning, consider the Supreme Court's decision in *United States v. United States District Court*, where the Court considered whether a search warrant is required for domestic security wiretapping.⁹¹ In choosing between the restrictive rule of a warrant and the permissive rule of no warrant, the Supreme Court compared the risk and seriousness of abuses, as well as the impact on legitimate government investigations, under both rules.⁹² The Court concluded that a warrant was required because it would not substantially interfere with legitimate investigations but would significantly limit the serious risks of widespread government abuses.⁹³ Although expressed informally, the Court's analysis rests on a comparison of $P^*V - C_i - C_e$ over steps N_p and N_r .

⁹¹ 407 U.S. 297 (1972).

⁹² *Id.* at 314-21.

⁹³ *Id.* at 321.

II. AN ECONOMIC UNDERSTANDING OF FOURTH AMENDMENT RIGHTS

This Part considers whether existing doctrine fits the theory. Focusing on the Fourth Amendment as the leading example of search and seizure law, it concludes that the contours of existing Fourth Amendment doctrine appear to fit the economic model relatively well. It can't be shown whether existing doctrine actually achieves the goals of the model. That would require empirical studies far beyond the scope of this Article and perhaps impossible to measure accurately.⁹⁴ Instead, this Part makes a more modest claim: the basic contours and features of existing Fourth Amendment doctrine fit what the model would predict about search and seizure law.

Fourth Amendment law fits the model with its two basic steps. First, Fourth Amendment law identifies police investigative techniques that in general will have high externalities. Next, the law conditions use of those techniques on a showing of specific facts that will tend to involve low external costs in context, a countervailing public benefit, or both. Fourth Amendment case law takes on these two steps using the textual prohibition of unreasonable searches and seizures, which divides the inquiry into the threshold question of what is a search or seizure (and thus regulated by the Fourth Amendment) and the subsequent question of reasonableness.

Identifying searches and seizures roughly draws the line between techniques with low external costs that should not require legal regulation and techniques with high external costs that should.⁹⁵ The reasonableness inquiry requires the government to justify the use of techniques that generally have high external costs with specific facts either showing that the imposition of costs is justified by a likely public benefit or that those costs are low in context.⁹⁶ The warrant requirement requires the government to show a likelihood of public benefit to justify a search,⁹⁷ while other exceptions, such as consent, require a showing that a technique is being used in a way that external costs are likely to be low.⁹⁸ The result is a rough cost-benefit inquiry that restricts the use of certain techniques unless the public benefit is likely to outweigh the external costs.

⁹⁴ As desirable as such empirical evidence would be, the field of criminal procedure has long developed without it. *See generally* Tracey L. Meares & Bernard E. Harcourt, *Foreword: Transparent Adjudication and Social Science Research in Constitutional Criminal Procedure*, 90 J. CRIM. L. & CRIMINOLOGY 733, 735 (2000) (criticizing the lack of empirical and scientific analysis in constitutional criminal procedure decisions).

⁹⁵ *See infra* Section II.A.

⁹⁶ *See infra* Section II.C.

⁹⁷ *See infra* subsection II.C.1.

⁹⁸ *See infra* subsection II.C.2.

The analysis proceeds in three parts. The first part shows how the scope of searches and seizures plausibly distinguishes steps with low externalities from steps with high externalities. The second part considers the recurring question of technological change and the dynamic I have elsewhere called “equilibrium-adjustment.”⁹⁹ The third part explains the function of the warrant requirement and exceptions to the warrant requirement.

A. *Searches and Seizures*

Supreme Court case law on searches and seizures is notoriously complicated, but it can be understood largely by reference to external costs C_e . The test for searches roughly identifies the point that government action likely will trigger significant external costs relating to invasions of privacy. Similarly, the test for seizures roughly identifies the point that government action likely will trigger significant external costs relating to control of property.

1. Searches

There are two ways of understanding Fourth Amendment search doctrine: what I have called the “principles layer” and the “application layer.”¹⁰⁰ The principles layer of doctrine announces the general standards and terms of art to be used in applying Fourth Amendment law.¹⁰¹ The application layer of doctrine applies those principles to identify the specific rules that govern a specific subset of cases.¹⁰² The distinction is important because there is a wide gap between the conceptual uncertainty of the principles layer and the relatively clear rules at the application layer.¹⁰³

At the principles layer, the Supreme Court has stated that a search occurs when government conduct violates a “reasonable expectation of privacy” or constitutes a physical trespass.¹⁰⁴ The “reasonable expectation of privacy” test is difficult to understand because it is a contested term of art rather than a literal test. As I have detailed elsewhere, the Court has given this phrase different meanings in different contexts, and it has not attempted to reconcile those different approaches.¹⁰⁵ Given these complexities and the highly contested nature

⁹⁹ Orin S. Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476, 480 (2011) [hereinafter Kerr, *Equilibrium-Adjustment*].

¹⁰⁰ See *id.* at 490-92 (articulating the distinction between the two types of Fourth Amendment doctrine).

¹⁰¹ See *id.* at 490.

¹⁰² See *id.* at 491.

¹⁰³ See Allen & Rosenberg, *supra* note 4, at 1153-61 (noting the clarity of Fourth Amendment rules and its contrast with the ambiguity of Fourth Amendment theory).

¹⁰⁴ *United States v. Jones*, 132 S. Ct. 945, 950-52 (2012).

¹⁰⁵ Orin S. Kerr, *Four Models of Fourth Amendment Protection*, 60 STAN. L. REV. 503, 504-05 (2007).

of principles layer doctrine, the more helpful way to understand Fourth Amendment search doctrine is to focus on the application layer.

At the application layer, the rules for what is a Fourth Amendment search tend to be fairly clear. Examples of searches include physically breaking into a person's home;¹⁰⁶ rifling through a person's pockets;¹⁰⁷ entering a suspect's car;¹⁰⁸ and opening up a person's packages or postal letters.¹⁰⁹ On the other hand, conduct that does not count as a search includes observing a person in public,¹¹⁰ entering open fields not near a home,¹¹¹ accessing a person's garbage left at the side of the road for pickup,¹¹² aerial observation from public airspace,¹¹³ and obtaining information that has been voluntarily disclosed to third parties.¹¹⁴ The main theme among these results is the difference between inside surveillance and outside surveillance. For the most part, the doctrine can be explained by a simple principle: breaking into a private space is a search, while observing from outside is not.¹¹⁵

So understood, Fourth Amendment search doctrine plausibly identifies the point that government action will tend to trigger significant external costs relating to invasions of privacy. Different people may disagree on what specific kinds of conduct invade privacy. But existing doctrine likely matches fairly shared intuitions. The "prototypical"¹¹⁶ search, entry into a home, is particularly invasive because "every man's house is his castle,"¹¹⁷ where "intimate activity associated with the sanctity of a man's home and the

¹⁰⁶ See *Silverman v. United States*, 365 U.S. 505, 511 (1961) ("At the very core [of the Fourth Amendment] stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.").

¹⁰⁷ See *Terry v. Ohio*, 392 U.S. 1, 16 (1968) ("[I]t is nothing less than sheer torture of the English language to suggest that a careful exploration of the outer surfaces of a person's clothing all over his or her body in an attempt to find weapons is not a 'search.'").

¹⁰⁸ See *United States v. Ross*, 456 U.S. 798, 820-22 (1982).

¹⁰⁹ *Ex parte Jackson*, 96 U.S. 727, 733 (1877).

¹¹⁰ See *Katz v. United States*, 389 U.S. 347, 361 (1967) (Harlan, J., concurring) ("[C]onversations in the open would not be protected against being overheard, for the expectation of privacy under the circumstances would be unreasonable.").

¹¹¹ *Oliver v. United States*, 466 U.S. 170, 184 (1984).

¹¹² *California v. Greenwood*, 486 U.S. 35, 40 (1988).

¹¹³ *California v. Ciraolo*, 476 U.S. 207, 215 (1986).

¹¹⁴ *United States v. Miller*, 425 U.S. 435, 442-43 (1976).

¹¹⁵ See Orin S. Kerr, *Applying the Fourth Amendment to the Internet: A General Approach*, 62 STAN. L. REV. 1005, 1010 (2009). Cases at the margins often involve line drawing between inside and outside surveillance. See *id.* at 1035-37. For example, directing a thermal-imaging device at a private home from public space to learn the details of what is inside the home is a search, at least so long as the device is not in general public use, because it is a virtual entry in the home; on the other hand, using a drug-sniffing dog to walk around a car and smell for narcotics inside is not a search because it does not reveal the same private information that physical entry would reveal. See *id.* at 1035-36 (discussing the majority and dissenting opinions in *Kyllo v. United States*, 533 U.S. 27 (2001)).

¹¹⁶ *Kyllo*, 533 U.S. at 34.

¹¹⁷ *Ker v. California*, 374 U.S. 23, 50 (1963) (quoting *Barnard v. Bartlett*, 64 Mass. 501, 502-03 (1852)).

privacies of life”¹¹⁸ occurs, making the home “the center of the private lives of our people.”¹¹⁹ Patting down a person’s outer garments is a search because it is “a serious intrusion upon the sanctity of the person, which may inflict great indignity and arouse strong resentment.”¹²⁰ People tend to store their most secret items away in private spaces such as their homes and their pockets, the thinking runs, so that exposure of the contents of those private spaces carries with it a great sense of violation and loss.

In contrast, the cases suggest that observation from the outside—the conduct that is not deemed a search—tends to trigger lower external costs. Public spaces “do not provide the setting for those intimate activities that the Fourth Amendment is intended to shelter from governmental interference or surveillance.”¹²¹ When we go outside, we know that we can be observed by others just as we observe others ourselves. We routinely adjust our conduct accordingly, taking steps to hide what is revealed and making observation less invasive. The government can surely learn something about a person using public surveillance. Watching a person in public can reveal their sex, height, weight, race, mannerisms, and plans for the day. But learning such widely known information is not generally associated with the kind of embarrassment or harm that comes from the exposure of hidden information in enclosed spaces such as our homes, our letters, or our pockets.

Again, opinions can vary person-to-person or community-to-community on exactly what constitutes a significant privacy invasion. In general, though, the Supreme Court’s cases defining Fourth Amendment searches likely track widely shared intuitions of external costs.¹²²

2. Seizures

The next threshold question, the test for a Fourth Amendment seizure, is whether the government meaningfully interferes with an individual’s possessory interest.¹²³ The classic case is governmental taking control of a

¹¹⁸ *Oliver v. United States*, 466 U.S. 170, 180 (1984).

¹¹⁹ *Minnesota v. Carter*, 525 U.S. 83, 99 (1998) (Kennedy, J., concurring).

¹²⁰ *Terry v. Ohio*, 392 U.S. 1, 17 (1968).

¹²¹ *Oliver*, 466 U.S. at 179.

¹²² In some cases, the need for categorical bright line rules leads to underinclusive or overinclusive results in specific cases. An intriguing example is *Arizona v. Hicks*, in which an officer inside a suspect’s apartment suspected that an expensive turntable he saw might be stolen. 480 U.S. 321 (1987). The officer picked up the turntable to read the serial number in order to check whether it was stolen. *Id.* at 323. The Court divided six to three on whether this was a search. *Id.* at 333. To six Justices, per Justice Scalia, moving the turntable was a search because it exposed private information, and the very minor intrusion on privacy under the specific facts of that case did not alter that conclusion. *Id.* at 323-29. To three Justices in dissent, the officer’s act was such a minor invasion that it should not have been deemed a search. *Id.* at 333-39.

¹²³ *United States v. Jacobsen*, 466 U.S. 109, 113 (1984).

suspect's property and bringing it into police custody. Seizures also occur when the government permanently damages property,¹²⁴ although minor or only temporary damage is not a seizure.¹²⁵ Further, government agents seize a person (as compared to property) when they "restrain[] the freedom of a person to walk away."¹²⁶ The basic test is whether the government acquires control: the government "seizes" an item for Fourth Amendment purposes when it wrests control of it away from its prior possessor.

The seizure test also relates closely to C_e . It identifies the point at which government action triggers significant externalities involving property control. Investigative steps cause significant harm when they destroy property, deny people access to their property, or limit a person's freedom of movement. The test for Fourth Amendment seizures draws that line directly. When the government destroys property, takes it away, or limits a person's freedom, the government action will tend to have a high C_e and will constitute a Fourth Amendment seizure subject to regulation. When government action falls short of those consequences, the government action will tend to have a lower C_e and will not count as a seizure. The seizure definition generally distinguishes minor inconveniences from more significant deprivations of property or freedom—that is, low C_e from high C_e .

B. *Equilibrium-Adjustment and the Problem of Technological Change*

Focusing on C_e to understand what constitutes a search or seizure also helps explain how Fourth Amendment doctrine responds to technological change. The Supreme Court changes Fourth Amendment doctrine over time in a predictable way that I call "equilibrium-adjustment."¹²⁷ As technological change expands or narrows government power under preexisting Fourth Amendment rules, the Court changes the rules to try to maintain the prior equilibrium of government investigative power.¹²⁸ If technological change expands government power under the old rules, the Court adds legal protections; if technological change restricts government power, the Court cuts back on legal protections.¹²⁹

Equilibrium-adjustment can be understood as an application of the economic approach to the specific problem of technological change. Technological change alters the prior relationship among C_e , C_i , and P^*V over

¹²⁴ *Bonds v. Cox*, 20 F.3d 697, 702 (6th Cir. 1994).

¹²⁵ *Porter v. Jewell*, 453 F. App'x 934, 937 (11th Cir. 2012).

¹²⁶ *Brower v. Cnty. of Inyo*, 489 U.S. 593, 595 (1989) (quoting *Tennessee v. Garner*, 471 U.S. 1, 7 (1985)).

¹²⁷ Kerr, *Equilibrium-Adjustment*, *supra* note 99, at 478.

¹²⁸ *See id.* at 479–80.

¹²⁹ *See id.* at 480.

the set N of uses. When the Court engages in equilibrium-adjustment, it changes from permissive rules to restrictive rules, or from restrictive rules to permissive rules, in ways that move toward restoring the prior relationship among these variables. This allows Fourth Amendment doctrine to maintain its rough cost-benefit approach when technology alters the costs and benefits of different investigative steps.

Two recent examples help demonstrate the dynamic: GPS monitoring in Justice Alito's concurring opinion in *United States v. Jones*,¹³⁰ and applying the search-incident-to-arrest exception to cell phones in *Riley v. California*.¹³¹ In his concurring opinion in *Jones*, on behalf of four Justices, Justice Alito concluded that long-term monitoring of a GPS device installed in a car constituted a Fourth Amendment search.¹³² In a 1983 case, the Court had held that monitoring a primitive radio beeper inside a car to determine its location on public roads is not a search because a person has no reasonable expectation of privacy in public.¹³³ In contrast to radio beepers, the GPS devices at issue in *Jones* are cheap, easy to use, and generate tremendous amounts of data. According to Justice Alito, that technological change made a difference. Technology had made pervasive monitoring that was previously "difficult and costly and therefore rarely undertaken"¹³⁴ instead now "relatively easy and cheap."¹³⁵ This led to a threat of more invasive monitoring than before, justifying Fourth Amendment regulation of long-term GPS surveillance.¹³⁶

Justice Alito's equilibrium-adjustment is easily understood in economic terms.¹³⁷ Technological advances had lowered internal costs C_i at the same time that it had raised C_e . As C_i dropped, use of the technique became more widespread, expanding the set N_p , thus including more uses at greater C_e in contexts with low P . Put another way, as the technology became cheaper and more invasive, the police could use it more often, including when there was little or no law enforcement need for it. Technology lowered internal costs, creating dangers of abuse under the permissive rule. Justice Alito adopted the restrictive rule to help ensure that the government would use this high- C_e authority only when justified by a significant P .

¹³⁰ 132 S. Ct. 945 (2012).

¹³¹ 134 S. Ct. 2473 (2014).

¹³² See *Jones*, 132 S. Ct. at 964 (Alito, J., concurring).

¹³³ *United States v. Knotts*, 460 U.S. 276, 285 (1983).

¹³⁴ See *Jones*, 132 S. Ct. at 963 (Alito, J., concurring).

¹³⁵ *Id.* at 964.

¹³⁶ Justice Alito did not state at precisely what point that line was crossed, although he concluded that twenty-eight days was too long. See *id.* at 964.

¹³⁷ See Kevin S. Bankston & Ashkan Soltani, *Tiny Constables and the Cost of Surveillance: Making Cents Out of United States v. Jones*, 123 YALE L.J. ONLINE 335, 335 (2014) (providing a "cost-based conception of the expectation of privacy").

The recent majority opinion in *Riley v. California* reveals a similar dynamic.¹³⁸ In 1973, the Supreme Court had announced a bright-line rule that all property on a person at the time of arrest can be searched incident to arrest without a warrant.¹³⁹ In *Riley*, the Court held that a different rule applied to searching cell phones possessed at the time of arrest. The Court's opinion relied in large part on the differences between physical and digital searches. A search of physical evidence on the person were necessarily narrow, the Court noted, as a person could only store so much physical evidence in his pocket. Modern smart phones raised a different dynamic, as they can store an extraordinary amount of deeply personal information.¹⁴⁰ The ability to store so much personal information made the search of a cell phone much more invasive and therefore justified a warrant.¹⁴¹

The Court's equilibrium-adjustment in *Riley* is again readily explained in economic terms. In 1973, a search incident to arrest triggered low C_e . The introduction of modern cell phones greatly increased the invasiveness of such searches, raising C_e . The Court adjusted to a restrictive rule for such searches in light of that change, requiring the government to prove an expected benefit before imposing the greater external cost.

C. *Constitutional Reasonableness: The Warrant Requirement and Its Exceptions*

When the government conducts a search or seizure, the Fourth Amendment requires that it must be "reasonable." The Supreme Court has explained that reasonableness usually requires a search warrant or an exception to the warrant requirement.¹⁴² We can therefore review the doctrines related to reasonableness by starting with the warrant requirement and then reviewing its exceptions. Broadly speaking, the doctrine seems to reflect a general principle that searches and seizures are reasonable when the government can establish specific facts either showing an expected law enforcement benefit, low external costs in context, or some combination of the two.

1. The Warrant Requirement

The Fourth Amendment states that "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."¹⁴³ Probable

¹³⁸ 134 S. Ct. 2473, 2480 (2014).

¹³⁹ *United States v. Robinson*, 414 U.S. 218, 235 (1973).

¹⁴⁰ *Riley*, 134 S. Ct. at 2489.

¹⁴¹ *See id.* at 2493.

¹⁴² *Schneckloth v. Bustamonte*, 412 U.S. 218, 219 (1973).

¹⁴³ U.S. CONST. amend IV.

cause requires proof of “a fair probability that contraband or evidence of a crime will be found in a particular place.”¹⁴⁴ The particularity requirement limits the scope of Fourth Amendment searches to a particular place and particular evidence. The particularity requirement limits the scope of Fourth Amendment searches to a particular place and particular evidence. The requirement forbids “general searches,” which are searches that do not limit where the police can search and for what.¹⁴⁵ Under the particularity requirement, the government can typically search only one home at a time, and the warrant must name the evidence sought to the degree practicable.¹⁴⁶

The requirements of probable cause and particularity limit invasive searches to circumstances that are likely to advance investigations and that will have limited external costs. Probable cause suggests a relatively high P ; particularity requires a relatively low C_e . The warrant requirement allows searches and seizures when the imposition of C_e is offset by a significant P and the use of mechanisms to lower C_e .

The probable cause requirement serves three roles. First, it requires the government to show a likely benefit that justifies its cost. The government must establish a significant likelihood that the search will be a success and that evidence of the crime will be recovered in the place searched. This will tend to correlate with a high P : the more likely it is that evidence will be found, the more likely the search will assist in solving the case. A “fair probability”¹⁴⁷ that evidence will be found in the place to be searched establishes a significant likelihood that the search will advance the investigation.

Second, the probable cause requirement channels police resources into low- C_e evidence-gathering that can minimize the need for high- C_e searches. If the search doctrine accurately distinguishes low-externality techniques from high-externality techniques, the probable cause requirement will limit the number of high-externality searches by forcing the police to use low-externality steps to identify where evidence is likely to be located. If the police can solve cases using only low-externality methods, they will try that first. And if the police need warrants, they will try to gather evidence to justify those warrants using low-externality techniques. The necklace hypothetical discussed earlier in Part I hints at this dynamic. The warrant requirement forced the police to conduct a low-externality investigation to find out which house stored the necklace instead of simply raiding every house.

¹⁴⁴ *Illinois v. Gates*, 462 U.S. 213, 238 (1983).

¹⁴⁵ See generally *Stanford v. Texas*, 379 U.S. 476, 481-86 (1965).

¹⁴⁶ See 4 LAFAVE, *supra* note 3, § 3.4(e) (discussing the particularly requirement as applied to multiple-occupancy buildings).

¹⁴⁷ *Gates*, 462 U.S. at 238.

Probable cause can also limit C_e by increasing the chance that external costs will be borne by the guilty rather than the innocent. A search of a guilty person will generally impose smaller external costs than a search of someone who is innocent.¹⁴⁸ An innocent person who is searched is likely to feel shocked and humiliated by the experience; a guilty person is more likely to feel unlucky that the police were able to catch him.¹⁴⁹ Although a search warrant for evidence of crime can be used to search the home of an innocent third party,¹⁵⁰ the more common case is for a warrant to be executed at the home of a suspect. The requirement of probable cause thus leads to more searches and seizures of the guilty, which will generally be associated with lower C_e .

The particularity requirement also lowers C_e by ensuring that warrant searches are narrow in location and scope. The search must occur at a specific place, such as an individual home: a warrant cannot be obtained to search a city block or an entire neighborhood.¹⁵¹ A warrant allowing such a broad search would be a prohibited “general warrant” that would impose an extremely high C_e . Requiring that the warrant describe the item to be searched with particularity limits where the police can search (they can only search where the described evidence could be found), how much they can take away (they ordinarily can only seize evidence described in the warrant), and potentially how long the search can continue (as the search must end when the described evidence has been located).¹⁵² The particularity requirement thus limits C_e by limiting how much the government can search and how much property it can take away.

2. Exceptions to the Warrant Requirement

Fourth Amendment doctrine also recognizes several exceptions to the warrant requirement. Established exceptions include consent, exigent circumstances, as well as the general reasonableness approach that the Supreme Court occasionally applies.¹⁵³ In these circumstances, a search is reasonable—and therefore allowable—even if no warrant has been obtained.

¹⁴⁸ Posner, *supra* note 6, at 60; cf. *Scott v. Harris*, 550 U.S. 372, 384 (2007) (weighing costs and benefits associated with the police officer’s use of force and discounting the harms imposed on the culpable individual who created the risk and “produced the choice between two evils” of whether to use force to stop him or let him escape).

¹⁴⁹ See Posner, *supra* note 3, at 60 (arguing that one who commits crime is likely to be relatively insensitive to the affront of being investigated and caught).

¹⁵⁰ See *Zurcher v. Stanford Daily*, 436 U.S. 547, 554 (1978) (allowing a search warrant to be executed at a third-party premises).

¹⁵¹ See 4 LAFAYE, *supra* note 6, § 4.5.

¹⁵² See *Horton v. California*, 496 U.S. 128, 139-41 (1990).

¹⁵³ See *Groh v. Ramirez*, 540 U.S. 551, 572 (2004) (Thomas, J., dissenting) (listing exceptions to the warrant requirement).

Each of these exceptions can be explained as allowing investigative steps when external costs C_e are low, the expected benefit P^*V is high, or some combination of the two.

First, consent searches are reasonable when a person with common authority over the space to be searched voluntarily consents to a search of that space.¹⁵⁴ The voluntariness standard is based on all of the circumstances that indicate whether the consent was voluntary or instead the product of duress or coercion.¹⁵⁵ Consent doctrine is generally consistent with an economic perspective to the extent it allows searches when the expected C_e should be unusually low. When a person with authority over a space voluntarily consents to a search, the government will not need to surprise the targets by breaking down the door and rifling through property. The consenting person can open the door, so the door is not broken down; she can direct the police to the evidence, so the police do not need to rifle through the entire space. Further, those who consent to a search will not have the same sense of violation or humiliation that they would have if the police were to raid their spaces without permission. If the consent is truly voluntary—a significant assumption—the consenting individual is in charge and external costs should be comparatively low.

The police can also conduct a warrantless search or seizure when justified by exigent circumstances. This exception applies when, based on the totality of the circumstances, “the exigencies of the situation make the needs of law enforcement so compelling that a warrantless search is objectively reasonable under the Fourth Amendment.”¹⁵⁶ This can occur in several different circumstances. In some cases, exigent circumstances allow searches when the trail would otherwise go cold: the entry may be necessary “to prevent the imminent destruction of evidence,”¹⁵⁷ or when the officers are in “hot pursuit of a fleeing suspect.”¹⁵⁸ In those circumstances, most courts require probable cause in addition to the emergency.¹⁵⁹ Exigent circumstances searches may also be justified when the officers have a quick opportunity to prevent harms, such as when officers enter “to provide emergency assistance to an occupant of a home.”¹⁶⁰

In general, the exigent circumstances doctrine allows searches when the benefit P^*V is unusually high. Consider *Welsh v. Wisconsin*.¹⁶¹ A suspected

¹⁵⁴ See 4 LAFAVE, *supra* note 3, § 8.

¹⁵⁵ *Schneckloth v. Bustamonte*, 412 U.S. 218, 227 (1973).

¹⁵⁶ *Missouri v. McNeely* 133 S. Ct. 1552, 1558 (2013) (quoting *Kentucky v. King*, 131 S. Ct. 1849, 1856 (2011)).

¹⁵⁷ *Id.* at 1559.

¹⁵⁸ *Id.* at 1558.

¹⁵⁹ See, e.g., *United States v. Cisneros-Gutierrez*, 598 F.3d 997, 1004 (8th Cir. 2010).

¹⁶⁰ *McNeely*, 133 S. Ct. at 1558.

¹⁶¹ 466 U.S. 740 (1984).

drunk driver wandered into his home, and a police officer entered the home without a warrant to arrest the suspect in his bedroom. The Court ruled that the exigent circumstances doctrine did not allow the entry.¹⁶² On one hand, entry into a home was the “chief evil” that the Fourth Amendment protected against, suggesting that the costs C_e was high.¹⁶³ On the other hand, the crime of drunk driving was only a very minor offense—under Wisconsin law at the time, it was only a noncriminal violation—indicating a very low interest of the state (and thus a low V).¹⁶⁴ Given the significance of entering the home, forced entry to gain evidence of a crime that was of such minor significance to the state was not reasonable.¹⁶⁵

Fourth Amendment doctrine also permits the police to engage in several kinds of searches justified by officer safety. During a temporary stop, officers can frisk a suspect for weapons if there are specific and articulable facts that a suspect is armed and dangerous.¹⁶⁶ After making an arrest, they can search neighboring areas that might harbor a co-conspirator.¹⁶⁷ During a traffic stop, officers can order the driver and passengers out of the car.¹⁶⁸ All of these steps involve relatively narrow searches and seizures justified as measures that protect officer safety and thereby lower internal costs C_i . If an officer cannot take steps to avoid danger, he increases the chances of incurring the severe costs of being seriously injured or even killed. If a search or seizure for officer protection is only minimally invasive—that is, it has low C_e —then allowing an officer to take such a modest step to avoid this severe potential cost will lower the overall cost of enforcing the law.

Finally, the Supreme Court has also allowed some kinds of searches and seizures without a warrant based on a more general reasonableness balancing standard. The Court has applied this standard in specific contexts outside the traditional warrant doctrine and its exceptions, such as for excessive force claims¹⁶⁹ and searches inside a person’s body for evidence.¹⁷⁰ Under the general reasonableness standard, “Whether a search is reasonable is determined by assessing, on the one hand, the degree to which it intrudes upon an individual’s

¹⁶² *Id.* at 753-54.

¹⁶³ *Id.* at 748 (quoting *United States v. U.S. Dist. Court*, 407 U.S. 297, 313 (1972)).

¹⁶⁴ *See id.* at 754 (reasoning that the state’s classification of drunk driving as a “noncriminal, civil forfeiture offense” indicates that the state’s interest was not particularly weighty).

¹⁶⁵ *See id.* at 753 (“[A]pplication of the exigent-circumstances exception in the context of a home entry should rarely be sanctioned when there is probable cause to believe that only a minor offense, such as the kind at issue in this case, has been committed.”).

¹⁶⁶ *Terry v. Ohio*, 392 U.S. 1, 21 (1968).

¹⁶⁷ *Maryland v. Buie*, 494 U.S. 325, 335 (1990).

¹⁶⁸ *Maryland v. Wilson*, 519 U.S. 408, 414 (1997); *Pennsylvania v. Mimms*, 434 U.S. 106, 111 (1977).

¹⁶⁹ *Graham v. Connor*, 490 U.S. 386, 395 (1989).

¹⁷⁰ *See Winston v. Lee*, 470 U.S. 753, 766 (1985) (weighing the “medical risks of the operation” and the “intrusion on the [suspect’s] privacy interests” against the public’s interest in prosecuting the suspect).

privacy and, on the other, the degree to which it is needed for the promotion of legitimate governmental interests.”¹⁷¹ This standard “involves a balancing of all relevant factors”¹⁷² based on a totality of all of the circumstances: the court will “balance the privacy-related and law enforcement-related concerns to determine if the intrusion was reasonable.”¹⁷³ For a search to be deemed reasonable and therefore lawful, “[t]he government interest must outweigh the degree to which the search invades an individual’s legitimate expectations of privacy.”¹⁷⁴

The general reasonableness standard clearly fits the economic perspective. Here, the doctrine itself is a thinly disguised cost–benefit analysis. When a court “balances” the intrusion of a search with the degree it promotes legitimate government interests, the court is really asking whether the benefits of that promotion exceed its costs.¹⁷⁵ Consider *Maryland v. King*,¹⁷⁶ which analyzed whether the Fourth Amendment permits the government to take a buccal swab of a suspect arrested for a serious crime and analyze the DNA for a match with samples in a government database.¹⁷⁷ According to the majority, this investigative step greatly advanced the government’s interest in furthering its criminal cases¹⁷⁸—that is, the method has a high *P*. With “unique effectiveness,”¹⁷⁹ the procedure provided a “safe and accurate way to process and identify the persons and possessions they must take into custody,”¹⁸⁰ needed to assess the arrestee’s dangerousness and flight risk.

On the other hand, the swab in *King* imposed only “a minimal”¹⁸¹ intrusion—that is, low C_e . It did not create a physical danger and involved “virtually no risk, trauma, or pain.”¹⁸² The swab was used only when a person had been arrested and therefore already had reduced freedom and privacy, and subsequent DNA analysis was only for identity purposes and was not known to reveal “any private medical information.”¹⁸³ Because the DNA testing greatly furthered government interests and imposed only minimal physical or privacy

¹⁷¹ *Samson v. California*, 547 U.S. 843, 848 (2006) (quoting *United States v. Knights*, 534 U.S. 112, 118–19 (2001)).

¹⁷² *Whren v. United States*, 517 U.S. 806, 817 (1996).

¹⁷³ *Illinois v. McArthur*, 531 U.S. 326, 331 (2001).

¹⁷⁴ *Maryland v. King*, 133 S. Ct. 1958, 1977 (2013).

¹⁷⁵ See, e.g., *Weigel v. Broad*, 544 F.3d 1143, 1161–63 (10th Cir. 2008) (analyzing the reasonableness of a use of force and concluding that “[t]he cost-benefit analysis clearly tips in favor of the troopers even though it resulted in Weigel’s death”).

¹⁷⁶ 133 S. Ct. 1958 (2013).

¹⁷⁷ *Id.* at 1966–68.

¹⁷⁸ See *id.* at 1977 (reasoning that DNA testing has “unmatched potential . . . to serve” the government’s interest in identifying arrestees).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* at 1970.

¹⁸¹ *Id.* at 1977.

¹⁸² *Id.* at 1979 (quoting *Schmerber v. California*, 384 U.S. 757, 771 (1966)).

¹⁸³ *Id.* at 1978–79.

harms, the former outweighed the latter and the search was reasonable at least for “serious offenses”¹⁸⁴—that is, offenses with high V . As *King* suggests, the general reasonableness balancing under the Fourth Amendment is readily (even obviously) understood as a form of cost–benefit analysis.

People will disagree about whether the Supreme Court gets it right. Opinions will differ about what kind of conduct triggers high externalities or what contexts are likely to trigger a countervailing government benefit. The Justices will often disagree, as well. Like many important Fourth Amendment precedents, *King* was 5-4.¹⁸⁵ But in general, the categorical rules of Fourth Amendment law at least plausibly reflect common intuitions about what kinds of conduct are particularly invasive and what contexts render such conduct more helpful than harmful.

III. AN ECONOMIC UNDERSTANDING OF FOURTH AMENDMENT REMEDIES

When the Fourth Amendment has been violated, the next question is the appropriate remedy. Federal law creates three primary legal remedies for Fourth Amendment violations: the exclusionary rule, civil damages against officers, and criminal prosecution.¹⁸⁶ This Part explores the remedies for Fourth Amendment violations and considers whether existing remedies doctrine fits the economic model.

The Part makes two basic points. First, at least at the level of narrative, the Supreme Court’s current explanation of its existing remedies scheme appears consistent with the economic goal of achieving the most enforcement of the law at the lowest overall cost. The exclusionary rule is expressly governed by a cost–benefit inquiry. Suppression is allowed only if the deterrent benefits of suppression outweigh the costs of lost prosecutions.¹⁸⁷ Weighing the costs and benefits of the exclusionary rule in a particular context considers whether the benefit of lower C_e from following Fourth Amendment doctrine offsets the harm of lower $P*V$ from evidence that cannot be used. Similarly, the doctrine of qualified immunity that applies to both civil and criminal actions against individual officers has been justified on grounds that it avoids overdeterrence that would cause shirking resulting from a threat of high C_i .¹⁸⁸

¹⁸⁴ See *id.* at 1989 (Scalia, J., dissenting) (noting the majority’s repeated emphasis that its holding was limited to serious offenses).

¹⁸⁵ *Id.* at 1980 (Scalia, J., dissenting).

¹⁸⁶ See *infra* Section III.A.

¹⁸⁷ See *infra* notes 197–206 and accompanying text.

¹⁸⁸ See *infra* notes 232–41 and accompanying text.

Second, whether existing doctrine actually achieves these goals is frustratingly unclear. The difficulty of knowing how officers actually respond to various remedies creates a major barrier to more helpful analysis. With the empirical answers unclear,¹⁸⁹ it is difficult to say what kinds of remedies are actually likely to achieve the goals set up by the narratives of existing doctrine. Indeed, much of the existing scholarship on economic approaches to Fourth Amendment law works through different assumptions about the impact of Fourth Amendment remedies, and particularly the exclusionary rule.¹⁹⁰

In general, then, existing doctrine purports to achieve economic goals but may or may not achieve them based on the answers to still-unresolved empirical questions. To see this, the section begins with a summary of Fourth Amendment remedies for those unfamiliar with current law, turns to the economic narratives of the Fourth Amendment's remedies scheme, and then covers several critiques of those remedies and the assumptions on which they rest.

A. An Overview of Fourth Amendment Remedies

The three primary remedies for Fourth Amendment violations apply in different contexts. The first is the exclusionary rule, a remedy against the state that limits what evidence the state can use in criminal prosecutions.¹⁹¹ In addition to the exclusionary rule, there are additional remedies that can be applied against individual officers who violate the Fourth Amendment. First, the officer can be sued for damages in his personal capacity if the search is unsuccessful and no charges are brought for the crime discovered.¹⁹² Second, an officer who violates the Fourth Amendment can be charged with a civil rights crime.¹⁹³

The primary and most often litigated remedy for Fourth Amendment violations is the exclusionary rule, the rule that evidence obtained in violation of the Constitution may be excluded in a subsequent criminal prosecution. The exclusionary rule is potentially available when a search or seizure yields evidence and criminal charges are brought.¹⁹⁴ The defendant will move to suppress the evidence that was unlawfully obtained, and the court will rule on whether the Fourth Amendment was violated and (if so) if the evidence must be suppressed. Under the exclusionary rule, evidence that is a “fruit of

¹⁸⁹ See *infra* note 220 and accompanying text.

¹⁹⁰ See *infra* notes 258–268 and accompanying text.

¹⁹¹ See generally *Mapp v. Ohio*, 367 U.S. 643 (1961).

¹⁹² See 42 U.S.C. § 1983 (2012) (allowing civil remedies for a deprivation of constitutional rights); *Heck v. Humphrey*, 512 U.S. 477, 486–87, 487 n.7 (1994) (barring any civil remedies under § 1983 if judgment for “the plaintiff would necessarily imply the invalidity of his conviction or sentence”).

¹⁹³ 18 U.S.C. § 242 (2012).

¹⁹⁴ See Kerr, *Fourth Amendment Remedies*, *supra* note 84, at 240.

the poisonous tree” of a constitutional violation cannot be used to prove the defendant’s guilt.¹⁹⁵ The jury never hears of the wrongly obtained evidence. If the evidence needed for guilt is suppressed, the government ordinarily will move to dismiss the charges and the guilty individual will go unpunished.

Describing the scope and rationale of the exclusionary rule is difficult because its scope has changed considerably over time and is presently in flux. The Supreme Court expanded the rule dramatically in the 1960s.¹⁹⁶ Beginning in the 1970s and 1980s,¹⁹⁷ however, the Court began to limit the rule “by weighing the costs and benefits”¹⁹⁸ of suppression. On the cost side, suppression imposes societal costs by “set[ting] the criminal loose in the community without punishment.”¹⁹⁹ On the benefit side, suppression can deter future violations of the law.²⁰⁰ If evidence is suppressed today and a criminal is set free, officers who are aiming for convictions in future cases will want to follow the rules to ensure that those convictions stand. As a result, the Court has instructed that the rule is applied only as needed to deter police violations of existing Fourth Amendment law.²⁰¹

How to apply this balancing test is presently the subject of considerable uncertainty. Before 2009, the Court applied the balancing test by considering broad categories of legal errors and applying the balance over that category.²⁰² For example, the Court would apply the balance over all knock-and-announce violations,²⁰³ or for all facial defects in warrants,²⁰⁴ to see when the exclusionary rule was available for that category of violation. More recently, however, the Court suggested that the balancing framework may apply on a case-by-case basis.²⁰⁵ As interpreted by lower courts, the new doctrine may ask courts to consider whether the deterrent benefit of suppression outweighs the loss of a conviction in that one case.²⁰⁶ However the Court ultimately

¹⁹⁵ *Wong Sun v. United States*, 371 U.S. 471, 487-88 (1963).

¹⁹⁶ The most significant case was *Mapp v. Ohio*, which applied the exclusionary rule to state violations of the Fourth Amendment. 367 U.S. 643, 656-57 (1961).

¹⁹⁷ See *United States v. Calandra*, 414 U.S. 338, 354 (1974) (applying a balancing approach to exclusionary rule analysis for the first time).

¹⁹⁸ *United States v. Leon*, 468 U.S. 897, 907 (1984).

¹⁹⁹ *Davis v. United States*, 131 S. Ct. 2419, 2427 (2011).

²⁰⁰ *Id.* at 2426-27.

²⁰¹ *Id.* at 2426.

²⁰² For example, in *Leon*, the Court adopted general categorical rules for when errors in warrants should lead to suppression. 468 U.S. at 923. Reliance on minor defects does not justify suppression while suppression is available for reliance on major defects. *Id.* at 923-25.

²⁰³ See *Hudson v. Michigan*, 547 U.S. 586, 599 (2006).

²⁰⁴ See *Leon*, 468 U.S. at 923.

²⁰⁵ The Court’s decision in *Davis v. United States*, can be read as requiring an officer’s conduct to be personally culpable before the exclusionary rule is available. 131 S. Ct. 2419, 2428 (2011) (“Police practices trigger the harsh sanction of exclusion only when they are deliberate enough to yield meaningful deterrence, and culpable enough to be worth the price paid by the justice system.”).

²⁰⁶ See *infra* note 223.

resolves the tension, the key idea is that the scope of the exclusionary rule is defined by a cost/benefit consideration.

Civil remedies against individual officers provide a secondary remedy for Fourth Amendment violations. Because the doctrine of sovereign immunity generally blocks suits against sovereigns,²⁰⁷ civil suits typically must be brought against individual officers who conduct searches and seizures. The civil remedy is limited in two important ways. First, civil suits can be filed only when the outcome would not challenge a criminal conviction.²⁰⁸ As a practical matter, this means that civil suits are mostly brought by innocent subjects of searches or seizures rather than convicted criminals.²⁰⁹

Second, under the doctrine of qualified immunity, suits can only succeed if the constitutional violation was clearly established at the time it occurred.²¹⁰ Civil damages can be recovered only if the violation was clear: the officer must be “plainly incompetent”²¹¹ in his effort to comply with the law rather than just wrong. This doctrine has been based on the need to have officers conduct searches and seizures free of fear of liability for minor errors while also having them keep an eye out for the law.²¹² The standard attempts to strike a balance between “the public interest in encouraging the vigorous exercise of official authority,” which would be imperiled if officers could be held personally liable for all violations, with the need to encourage officers to be aware of and to follow “clearly established constitutional limits.”²¹³

The limitations on Fourth Amendment civil suits mean that they tend to play a much more limited role in enforcing the Fourth Amendment than does the exclusionary rule. Civil suits are also heavily focused on only a few types of constitutional violations. For example, a large proportion of civil Fourth Amendment suits alleged excessive uses of force in the investigative process, which can constitute an unreasonable seizure under the Fourth Amendment.²¹⁴ Notably, such suits are not challenging the collection of evidence in the investigative process. Rather, they seek remedies for unreasonable harm exerted on an individual, such as shooting an unarmed suspect fleeing the scene of a crime.

²⁰⁷ See, e.g., *Fed. Deposit Ins. Corp. v. Meyer*, 510 U.S. 471, 477-78 (1994) (holding that constitutional tort suits against the federal government are barred by sovereign immunity).

²⁰⁸ *Heck v. Humphrey*, 512 U.S. 477, 486 (1994).

²⁰⁹ Notably, Fourth Amendment civil claims based on excessive force hold officers individually liable for unreasonable uses of force against an individual instead of unlawful discovery of evidence of a person's guilt.

²¹⁰ *Anderson v. Creighton*, 483 U.S. 635, 640 (1987).

²¹¹ *Malley v. Briggs*, 475 U.S. 335, 341 (1986).

²¹² See *id.* at 343.

²¹³ *Butz v. Economou*, 438 U.S. 478, 506 (1978).

²¹⁴ *Graham v. Connor*, 490 U.S. 386, 395 (1989).

The third type of Fourth Amendment remedy is criminal prosecution against an officer who violated the Fourth Amendment.²¹⁵ Criminal prosecutions for violating the Fourth Amendment are very rare,²¹⁶ but the statutory basis of such prosecutions is long established.²¹⁷ Mirroring the standard of qualified immunity, criminal charges cannot be brought unless the violation is clearly established.²¹⁸ The Supreme Court has justified that standard on due process grounds: criminal punishment tied to uncertain constitutional standards does not give officers sufficient notice of what is criminally prohibited.²¹⁹

Identifying *ex ante* incentives created by Fourth Amendment remedies is made complicated because officers typically won't know which remedies regime may apply to their conduct. If the search or seizure yields evidence and charges are brought, the litigated remedy for violations will be suppression. On the other hand, if the search or seizure yields no evidence, the litigated remedy (if any) would likely arise in a civil case instead. In both instances, criminal liability is at least a theoretical concern when the Fourth Amendment violation is clear. Given that the officer generally won't know whether his search or seizure will lead to evidence, it is difficult to identify a single remedial doctrine that determines an officer's incentives outside the context of blatant violations.

B. *The Narratives of Fourth Amendment Remedies*

Whether existing remedies doctrine fulfills the economic goal of minimizing the costs of enforcing the law rests on presently unanswerable empirical questions. The empirical literature on how the exclusionary rule and civil damages actually deter officers is unsettled and remains in considerable dispute.²²⁰ This Section will instead make a narrower point. The narratives of

²¹⁵ 18 U.S.C. § 242 (2012).

²¹⁶ RONALD JAY ALLEN ET AL., *CRIMINAL PROCEDURE: INVESTIGATION AND RIGHT TO COUNSEL* 357 (2d ed. 2011) (noting that in fiscal year 2008 prosecutors filed no charges under 18 U.S.C. §§ 2234–2236 (2012), which specifically criminalize unconstitutional searches, and sixty charges under 18 U.S.C. § 242 (2012), a broader statute often considered the criminal counterpart to § 1983).

²¹⁷ Congress first passed the provision that would serve as the forerunner to 18 U.S.C. § 242 as part of the Civil Rights Act of 1866. Pub. L. No. 39-26, 14 Stat. 27.

²¹⁸ *United States v. Lanier*, 520 U.S. 259, 271-72 (1997).

²¹⁹ *Id.* at 270-71.

²²⁰ That extensive literature includes Raymond A. Atkins & Paul H. Rubin, *Effects of Criminal Procedure on Crime Rates: Mapping Out the Consequences of the Exclusionary Rule*, 46 J.L. & ECON. 157 (2003); William C. Heffernan & Richard W. Lovely, *Evaluating the Fourth Amendment Exclusionary Rule: The Problem of Police Compliance with the Law*, 24 U. MICH. J.L. REFORM 311 (1991); Dallin H. Oaks, *Studying the Exclusionary Rule in Search and Seizure*, 37 U. CHI. L. REV. 665 (1970); James E. Spiotto, *Search and Seizure: An Empirical Study of the Exclusionary Rule and Its Alternatives*, 2 J. LEGAL STUD. 243 (1973); Craig D. Uchida & Timothy S. Bynum, *Search Warrants, Motions To Suppress and "Lost Cases": The Effects of the Exclusionary Rule in Seven Jurisdictions*, 81 J. CRIM. L. & CRIMINOLOGY

existing remedies doctrine reflect economic thinking. That is, regardless of whether the remedies scheme actually achieves the goals of efficient enforcement, the rules have been expressly justified by the goal of efficiency.

First, the Supreme Court's exclusionary rule jurisprudence is expressly economic in orientation. It requires the court to "weigh [the] costs and deterrence benefits"²²¹ of suppression, suppressing evidence only if the deterrent benefits of suppression outweigh its costs in lost prosecutions.²²² The law generally does so using categorical rules, which weigh the net benefit of deterrence from making an exclusionary rule available against the net loss of criminal cases when the rules are violated. The idea is that deterrence lowers the costs of investigations by discouraging officers from steps that the Fourth Amendment prohibits as a result of their unacceptably high C_e . On the other hand, the risk of suppression lowers P , and thus lowers $P*V$, by forbidding the introduction of evidence needed to bring a successful prosecution. Weighing the costs and benefits of the exclusionary rule considers whether the benefit of lower C_e offsets the harm of lower $P*V$ in a particular context.²²³

For example, in *United States v. Leon*,²²⁴ the Court weighed the deterrent effect of an exclusionary rule for minor defects in warrants against the cost of lost cases when warrants have such minor defects. The Court concluded that the deterrent effect was low (because minor mistakes are the fault of the magistrate rather than the officer) while the cost in lost cases would be high (because many warrants might have minor defects), and thus that the exclusionary rule should not apply when search warrants have such defects.²²⁵ Similarly, in *Hudson v. Michigan*,²²⁶ the Court weighed the deterrent effect of an exclusionary rule for violations of the requirement that officers knock and

1034 (1991); Myron W. Orfield, Jr., Comment, *The Exclusionary Rule and Deterrence: An Empirical Study of Chicago Narcotics Officers*, 54 U. CHI. L. REV. 1016 (1987); see also COMPTROLLER GEN., U.S. GEN. ACCOUNTING OFFICE, GGD-79-45, IMPACT OF THE EXCLUSIONARY RULE ON FEDERAL CRIMINAL PROSECUTIONS (1979).

²²¹ *Davis v. United States*, 131 S. Ct. 2419, 2427 (2011).

²²² This approach dates back to *United States v. Calandra*, 414 U.S. 338, 349, 354 (1974).

²²³ Notably, uncertainty in existing case law about whether the cost-benefit balancing should occur at a categorical level of a case-by-case level has led to at least some lower court opinions to make a cost/benefit approach based on the impact of the exclusionary rule and the value of that particular case. See, e.g., *Delker v. State*, 2008-CT-00114-SCT (¶ 18) (Miss. 2010) (holding that the exclusionary rule was not justified where an officer conducted a DUI stop outside the jurisdictional boundary line because the defendant was a "recalcitrant, multiple-DUI offender" who could have killed someone if he had not been arrested, while the benefit of getting officers to recognize the jurisdictional boundaries of their authority is comparatively modest).

²²⁴ 468 U.S. 897, 906-07 (1984).

²²⁵ See *id.* at 913-22.

²²⁶ 547 U.S. 586, 591-599 (2006).

announce their presence when executing warrants.²²⁷ The majority concluded that officers would likely follow the rule without suppression, and that the cost of losing cases and allowing litigation over violations outweighed that cost.²²⁸ These cases reflect the notion that the social costs of exclusion are so great that the exclusionary rule is only justifiable when the corresponding deterrence benefit is quite significant.

Unlike the exclusionary rule, the civil and criminal remedies for Fourth Amendment violations are imposed directly on the officer as an internal cost C_i .²²⁹ For an officer, a decision to take an investigative step implies a potential benefit derived from $P*V$ and an additional accompanying risk of C_i imposed as a legal sanction if the officer has violated the law. Both criminal and civil remedies incorporate the limits of qualified immunity doctrine by which an officer cannot be held personally liable unless the violation was clear.²³⁰ The Court has explained this standard as “an attempt to balance competing values,” first in allowing a remedy “to protect the rights of citizens,” and second “to protect officials who are required to exercise their discretion and the related public interest in encouraging the vigorous exercise of official authority.”²³¹

The qualified immunity standard can be seen as an effort to create incentives that optimize the investigative process. The Court has articulated a “functional approach”²³² to the scope of civil liability, in which the Justices attempt to “examine the nature of the functions with which a particular official or class of officials has been lawfully entrusted, and . . . seek to evaluate the effect that exposure to particular forms of liability would likely have on the appropriate exercise of those functions.”²³³ Fourth Amendment law is complex and fact-specific, requiring police officers to make split-second judgments in the field²³⁴ and often generating circuit splits in the appellate courts.²³⁵ The Justices have adopted a qualified immunity standard out of concern that direct personal liability against individual officers would overdeter and lead to shirking.²³⁶ The cost of a single mistaken judgment in

²²⁷ See *id.* at 594-99.

²²⁸ *Id.* at 599.

²²⁹ Civil suits against governments are generally prohibited by sovereign immunity, with the exception of some kinds of suits against municipalities. See *Monell v. Dep't of Soc. Servs.*, 436 U.S. 658, 691-714 (1978).

²³⁰ See *supra* note 218 and accompanying text.

²³¹ *Harlow v. Fitzgerald*, 457 U.S. 800, 807 (1982).

²³² *Forrester v. White*, 484 U.S. 219, 224 (1988).

²³³ *Id.*

²³⁴ *New York v. Belton*, 453 U.S. 454, 458 (1981).

²³⁵ Wayne A. Logan, *Constitutional Cacophony: Federal Circuit Splits and the Fourth Amendment*, 65 VAND. L. REV. 1137, 1149-50 (2012).

²³⁶ See *Anderson v. Creighton*, 483 U.S. 635, 638 (1987) (expressing concern that “personal monetary liability and harassing litigation will unduly inhibit officials in the discharge of their duties”).

a single case could be several years' pay or (in a rare case of prosecution) an officer's freedom.²³⁷ On the other hand, a rule of absolute immunity plausibly would underdeter violations by ensuring that officers cannot be held personally liable even in the case of egregious violations and ensuring that there would be no remedy at all when evidence was not obtained. The qualified immunity standard deters neither too much nor too little, at least according to the Court's opinions.²³⁸

As expressed earlier, it remains unclear whether existing Fourth Amendment doctrine properly serves the role that the Supreme Court wishes. Opinions vary widely on whether the Court's framework rests on correct assumptions.²³⁹ My point here is more modest. Whether Supreme Court majorities correctly understand what motivates police behavior, the Court's explanation of its existing remedies appears to reflect the economic goal of achieving the most enforcement of the law at the lowest overall cost.

C. *Economic Critiques of the Exclusionary Rule*

Although the Fourth Amendment scholarship that draws on economic concepts remains relatively sparse,²⁴⁰ much of that literature consists of criticisms of the exclusionary rule.²⁴¹ A quick overview of representative criticisms provides a sense of how the economic insights have been used and their strengths and weaknesses. This section will focus on three economic arguments against the exclusionary rule offered by Richard Posner, Hugo and Sue Mialon, and Tonja Jacobi, respectively. The first argument, Posner's, has proved influential and has partially been adopted by existing law.²⁴² The remaining two arguments show how different assumptions about how the exclusionary rule operates can have a major influence on perceptions of the rule's value.

²³⁷ See *supra* notes 208–220 and accompanying text.

²³⁸ See, e.g., *Malley v. Briggs*, 475 U.S. 335, 343–44 (1986) (reasoning that the Court's qualified immunity standard will not “frequently deter an officer from submitting an affidavit when probable cause to make an arrest is present” while at the same time discouraging “premature” applications, which “waste . . . judicial resources . . . [or] lead to premature arrests”).

²³⁹ See, e.g., Seth Stoughton, *Policing Facts*, 88 TUL. L. REV. 847, 880 (2014) (expressing former police officer's view that officers on the beat usually do not care about whether evidence is suppressed because they have only limited interactions with prosecutors). Subsequent subsections explore additional critiques.

²⁴⁰ See *supra* notes 3–7.

²⁴¹ See *supra* note 220 and accompanying text.

²⁴² See *infra* notes 251–254.

1. Richard Posner on Civil Remedies

The most prominent economic critique of the Fourth Amendment is Richard Posner's 1981 argument that the then-existing form of exclusionary rule was an economically inefficient remedy as compared to civil tort remedies.²⁴³ According to Posner, the exclusionary rule was "an exceptionally crude deterrent device."²⁴⁴ When imposed, the exclusionary rule inflicted such a high cost that it was likely to overdeter searches and seizures at the margins.²⁴⁵ Given the uncertainties about how the Fourth Amendment should apply, Posner wrote, the threat of the exclusionary rule would scare officers away from close cases to avoid suppression of evidence.²⁴⁶

In contrast, Posner argued, it should be possible to calibrate civil tort remedies to achieve optimal deterrence.²⁴⁷ A tort remedy could require officers to pay damages in the amount that the government action imposed unnecessary costs, requiring officers to pay for unreasonable externalities they impose.²⁴⁸ There are common arguments against relying on tort liability to enforce the Fourth Amendment, such as that criminals make unsympathetic plaintiffs and that damages may be too small in an individual case to make a suit likely or a sufficient deterrent.²⁴⁹ According to Posner, these dynamics may be features rather than bugs, and in any event are not insurmountable difficulties.²⁵⁰

In retrospect, Posner's view of the exclusionary rule has largely won out in the intervening 35 years. Starting in 1984, three years after Posner's essay appeared, the Supreme Court broadly adopted a cost-benefit approach to its

²⁴³ Posner, *supra* note 6, at 49-50.

²⁴⁴ *Id.* at 56.

²⁴⁵ *Id.* at 59.

²⁴⁶ *Id.*

²⁴⁷ *Id.* at 54.

²⁴⁸ A paper that builds on Posner's basic approach, Dhammika Dharmapala & Tomas Miceli, *Search, Seizure and (False?) Arrest: An Analysis of Fourth Amendment Remedies When Police Can Plant Evidence* (Oct. 31, 2003) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=449340 [http://perma.cc/7KCJ-GEL6] contends that the exclusionary rule deters bad faith planting of illegal evidence more than civil remedies, and thus can be useful to deter bad faith policing more generally. However, this argument appears to be premised on a misunderstanding of what the exclusionary rule means. The authors treat the exclusionary rule as another term for the warrant requirement. Under this approach, requiring warrants limits police misconduct by limiting the opportunity for bad faith searches. The result is an argument about the role of the warrant requirement, not an argument about the merits of the exclusionary rule. For a related discussion, see Stuntz, *Warrants*, *supra* note 5.

²⁴⁹ Posner, *supra* note 6, at 59.

²⁵⁰ A difficulty with Posner's optimistic view of tort remedies is that the externalities of police investigations are widely distributed. A home search might damage the target's property and upset him. But it might also damage a neighbor's or roommate's property, upset the family, and cause distress and fear among friends, coworkers, and the broader community. Because the externalities of investigations are widely distributed, civil suits by individual targets may not provide a sufficient remedy even assuming that the challenges Posner identifies can be addressed.

use that has cut back dramatically on its scope.²⁵¹ Today, evidence is suppressed only rarely. Suppression is now treated as a “bitter pill”²⁵² that is imposed “only as a last resort.”²⁵³ The exclusionary rule is applied only when “the deterrence benefits of suppression . . . outweigh its heavy costs,” and it is not imposed when the officer was acting in good faith.²⁵⁴ Today’s exclusionary rule is much narrower than the one that Posner criticized in 1981, and those limits largely reflect the economic concerns that Posner raised.

Granted, only one half of Posner’s view has been adopted. Civil remedies today are substantially more modest than when Posner wrote. Qualified immunity doctrine has been applied broadly in the Fourth Amendment context.²⁵⁵ And thanks to *Heck v. Humphrey*,²⁵⁶ criminal defendants who have been unlawfully searched generally are prohibited from filing civil suits.²⁵⁷ But at least one half of Posner’s approach, significant limitations on the exclusionary rule, has been largely embraced.

2. Hugo and Sue Mialon and Incentives to Commit Crimes

Economists Hugo Mialon and Sue Mialon have developed a formal economic model of the exclusionary rule, which posits that suppression encourages crime by increasing criminals’ incentive to commit it.²⁵⁸ According to the Mialons’ model, criminals choose whether to commit crime in part based on whether the exclusionary rule provides a means to avoid punishment.²⁵⁹ The expectation that evidence may be suppressed discounts the expected cost of committing a crime and thus encourages more of it.²⁶⁰ As a result, the exclusionary rule causes crime.²⁶¹ The resulting increase in crime rates causes two offsetting effects on police conduct, the Mialons argue. On one hand, the police will search less because they will know that fewer searches will lead to

²⁵¹ See *supra* notes 197–206.

²⁵² *Davis v. United States*, 131 S. Ct. 2419, 2427 (2011).

²⁵³ *Id.* (citing *Hudson v. Michigan*, 547 U.S. 586, 591 (2006)).

²⁵⁴ *Id.*

²⁵⁵ The Court did not determine that the “clearly established law” formulation of qualified immunity applied in the routine Fourth Amendment setting until *Anderson v. Creighton*, 483 U.S. 635 (1987), which adopted the standard of *Harlow v. Fitzgerald*, 457 U.S. 800 (1982). Both decisions post-dated Posner’s article.

²⁵⁶ *Heck v. Humphrey*, 512 U.S. 477 (1994).

²⁵⁷ The Court expressed concern in *Heck* that criminals would use civil actions as a way to challenge their convictions and thus circumvent the limitations on habeas corpus proceedings. *Id.* at 484–85.

²⁵⁸ Hugo M. Mialon & Sue H. Mialon, *The Effects of the Fourth Amendment: An Economic Analysis*, 24 J.L. ECON. & ORG. 22, 35 (2007).

²⁵⁹ *Id.* at 26, 29–30, 35.

²⁶⁰ *Id.* at 29–30, 35.

²⁶¹ *Id.* at 35.

successful prosecutions.²⁶² On the other hand, rising crime rates will mean more criminals to search and thus encourage more searches.²⁶³

The Mialons' model is problematic in part because it rests on assumptions that seem out of step with existing doctrine and the realities of criminal adjudication. First, the model assumes that the Fourth Amendment is violated so often, and the exclusionary rule is applied so frequently, that suppression of critical evidence is a significant risk *ex ante*. Second, it assumes that criminals study Fourth Amendment law sufficiently closely, and are sufficiently rational in their risk assessment, that the likelihood of suppression can impact their decisions of whether to commit crime. Third, the model assumes that for a criminal, being arrested and prosecuted, only to have some evidence thrown out eventually, is akin to never being caught at all.

These assumptions seem unrealistic in the criminal justice system we have today. Under the current version of the exclusionary rule, very few criminals go free. Even when a court rules that the Fourth Amendment was violated, a defendant must run a challenging gauntlet of limiting doctrines such as standing and the fruit-of-the-poisonous tree before suppression is available. By the time a court grants a motion to suppress, a defendant may have spent a year or more in jail pending trial. And in many cases, the government will be able to prove the crime without the admission of that specific evidence suppressed. Under those circumstances, only a very foolish criminal would be more likely to commit a crime based on the possibility that, after he is caught and charged, he will be set free thanks to the exclusionary rule.

3. Tonja Jacobi and Juror Reactions

Professor Jacobi has developed an economic model of the exclusionary rule that focuses on juror incentives, under which she concludes that the exclusionary rule is flawed in part because it leads to wrongful convictions.²⁶⁴ According to Jacobi's model, jurors are aware of the exclusionary rule and adjust their approach to verdicts accordingly. In particular, juries will react to gaps in the government's case by presuming that evidence has been suppressed and that the government has evidence of guilt that it cannot show the jury.²⁶⁵ Jurors will then "discount the prosecution's burden of proof—and the defendant's right to reasonable doubt—by an estimate of the effect of the

²⁶² *Id.*

²⁶³ *Id.*

²⁶⁴ Tonja Jacobi, *The Law and Economics of the Exclusionary Rule*, 87 NOTRE DAME L. REV. 585, 631 (2011). For a related argument, see Richard McAdams, et al., *Do Exclusionary Rules Convict the Innocent?*, in RESEARCH HANDBOOK OF ECONOMIC MODELS OF LAW 193-207 (Miceli & Baker eds., 2014).

²⁶⁵ *Id.*

rule.”²⁶⁶ The result will be that innocent people are convicted: when the government has a weak case against an innocent defendant, jurors will imagine that evidence has been suppressed and will discount the burden of proof on their way to an erroneous conviction.²⁶⁷

Jacobi’s model rests on empirical assumptions that are at best unproven. First, no study has suggested that jurors think about the exclusionary rule and discount burdens of proof in light of it. It is possible that some jurors may have that reaction, but to my knowledge no study has documented it. Second, if key evidence is suppressed, the case likely will not go to the jury at all: prosecutors ordinarily will dismiss charges based on that evidence rather than go forward with legally insufficient cases. Third, odd gaps in the prosecution’s case are much more likely to be the result of routine evidentiary rulings rather than the Fourth Amendment’s exclusionary rule. Finally, it seems worth noting that jury trials are the rare exception in the criminal justice system. Only about 2 to 5% of criminal cases result in a jury trial.²⁶⁸ Given these points, the dynamic that Jacobi’s model predicts remains unproven.

D. *Civil Remedies*

The economic perspective also prompts questions about the scope of Fourth Amendment civil remedies and existing assumptions about what motivates officer action. Under existing qualified immunity doctrine, officers do not internalize the costs of their Fourth Amendment violations—much less the cost of their investigative steps—because they are held liable only where the violation is obvious and the officer is “plainly incompetent.”²⁶⁹ The case for qualified immunity has been based significantly on fears that personal liability can overdeter and lead to shirking.²⁷⁰ The Justices have largely assumed that an officer sued in his personal capacity will pay a judgment out of his own pocket.

A recent article by Joanna Schwartz casts doubt on this assumption,²⁷¹ and raises the significant argument that eliminating qualified immunity could help internalize investigative costs without inducing shirking. Schwartz

²⁶⁶ *Id.* at 589.

²⁶⁷ *Id.* at 632-33.

²⁶⁸ Well over 90% of cases are resolved through guilty pleas, and others end in dismissal or a bench trial. STEPHANOS BIBAS, *THE MACHINERY OF CRIMINAL JUSTICE* 20 (2012).

²⁶⁹ *Malley v. Briggs*, 475 U.S. 335, 341 (1986).

²⁷⁰ *See, e.g., Forrester v. White*, 484 U.S. 219, 223 (1988) (“When officials are threatened with personal liability . . . they may well be induced to act with an excess of caution or otherwise to skew their decisions in ways that result in less than full fidelity to the objective and independent criteria that ought to guide their conduct.”); *Harlow v. Fitzgerald*, 457 U.S. 800, 806 (1982) (referring to the threat of personal liability as “potentially disabling”).

²⁷¹ Joanna C. Schwartz, *Police Indemnification*, 89 N.Y.U. L. REV. 885 (2014).

gathered data on litigation payouts and indemnification decisions for forty-four large police departments and thirty-seven small and mid-sized departments, collectively representing about 20% of police officers in the United States.²⁷² The results were surprising. From 2006 to 2011, officers in the large departments personally contributed to only 0.41 % of the almost 10,000 judgments against individual officers, amounting to only 0.02% of the \$735 million in judgments against them.²⁷³ Officers in the smaller and mid-size departments contributed nothing at all, and no officer in any jurisdiction contributed to punitive damages payments.²⁷⁴

Schwartz's findings have an obvious implication for the scope of civil liability. If individual officers do not pay judgments against them, then the fear of overdeterrence that has justified qualified immunity doctrine is subject to serious question.²⁷⁵ The structure of modern civil liability doctrine may be premised on an incorrect assumption of officer incentives. As with the exclusionary rule, existing law on civil remedies can be (and has been) explained using the economic approach. And as with the exclusionary rule, whether existing law is premised on accurate assumptions about officer incentives remains uncertain.

IV. USEFULNESS OF THE ECONOMIC UNDERSTANDING OF SEARCH AND SEIZURE LAW

A skeptical reader might respond, "Well, so what?" Perhaps the economic approach is merely a "just so" story that can be asserted for any area of law. Given that there are many theories of the Fourth Amendment, and economic approaches are unlikely to displace them, exactly what is gained by conceiving of search and seizure law through an economic lens?

This Part argues that the approach has three related benefits. First, the approach can explain the possible functional role of existing doctrine, bringing to light functions that can be otherwise difficult to see. Second, the approach can provide a common language for analyzing the basic choices and implications of different rules. Third, and most importantly, the approach provides a normative lens for analyzing proposals to reform the law.

Most of this Part focuses on the normative implications by revisiting a recurring debate in Fourth Amendment law on crime-severity distinctions. Most Fourth Amendment rules are "transsubstantive," to use Bill Stuntz's term: they apply in the same way for all crimes that are defined by the

²⁷² *Id.* at 904, 907.

²⁷³ *Id.* at 912-13.

²⁷⁴ *Id.* at 915, 917.

²⁷⁵ *Id.* at 938-43.

legislature.²⁷⁶ Among Fourth Amendment scholars, the relative absence of crime-severity distinctions has been widely criticized.²⁷⁷ Scholars have argued that the public interest side of Fourth Amendment reasonableness should focus more on the crime under investigation, with investigations of less serious crimes triggering greater restrictions.²⁷⁸ The Supreme Court has resisted this argument, however, chiefly on the ground of administrability.²⁷⁹

This Part shows how the economic model can shed new light on the crime-severity debate. The economic model can explain the specific conditions under which crime-severity distinctions are more or less likely to serve the interests of a more efficient investigative process. It shows that, in general, such distinctions are more likely to be desirable when considering techniques with moderate externalities, techniques used to investigate both major and minor crimes, and techniques applied in narrow factual settings. Applying these general principles to existing doctrine suggests that crime-severity distinctions would work more effectively in some settings, such as the regulation of stop-and-frisk, but less effectively elsewhere.

A. *The Descriptive Benefit*

The first benefit of the economic approach is what I will call a descriptive benefit: it offers a functional explanation of existing doctrines that may otherwise be difficult to see. The existence of a functional explanation does not mean that existing doctrine succeeds in serving that function. But it might, and that can help explain existing doctrines in a way that can be a significant advance over the status quo. Search and seizure law is often described as a theoretical disaster. As Louis Michael Seidman and Silas Wasserstrom memorably put it, the Supreme Court's Fourth Amendment jurisprudence consists of "a series of inconsistent and bizarre results that [the Court] has left entirely undefended."²⁸⁰ Understanding how existing doctrine might further the functional role suggested by the economic approach can help shed light on existing law and require attention from those who propose that existing law should be changed.

Consider the massive amount of legal scholarship arguing that the Court should adopt a broader view of what constitutes a Fourth Amendment "search." Some argue that the linguistic meaning of the word "search" demands a broader

²⁷⁶ William J. Stuntz, Commentary, *O.J. Simpson, Bill Clinton, and the Transsubstantive Fourth Amendment*, 114 HARV. L. REV. 842, 869-70 (2001) [hereinafter Stuntz, *Simpson, Clinton*].

²⁷⁷ See *infra* notes 297-304 and accompanying text.

²⁷⁸ See *infra* notes 304-08 and accompanying text.

²⁷⁹ See *infra* notes 305-310 and accompanying text.

²⁸⁰ Silas J. Wasserstrom & Louis Michael Seidman, *The Fourth Amendment as Constitutional Theory*, 77 GEO. L.J. 19, 29 (1988).

interpretation.²⁸¹ Many scholars argue that the Supreme Court misunderstands when an expectation of privacy is reasonable, which leads the Court to misapply the search doctrine.²⁸² The common view is that most investigative techniques should be deemed a search.²⁸³ Lurking in these works is an underexplored question: why have investigative practices that are categorically exempt from Fourth Amendment regulation as nonsearches? To many scholars, the category of nonsearch is a constitutional oddity.²⁸⁴

The economic model suggests a functional explanation for the carve-out. Criminal procedure law is only needed for investigative steps with high externalities relative to internal costs. When externalities are low, the internal costs of police action accurately reflect the overall social costs. The risk of the police engaging in low-benefit but high-cost investigative steps is small. The need for search and seizure law arises only when externalities are high, creating a gap between social welfare and government incentives. The carve-out of nonsearches limits legal regulation to the problems that the law exists to address and provides a destination for the channeling function of the law away from high-cost investigative techniques. Imposing legal regulation when externalities are low likely would block welfare-enhancing investigative steps instead of inefficient ones.

B. *The Analytical Benefit*

The second benefit of the economic approach is what I will call the analytical benefit: the language and concepts of economics can help clarify and explain arguments about search and seizure law that may otherwise be murky. Many key concepts in the field are deeply contested, such as the

²⁸¹ See, e.g., Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 396 (1974) (“The plain meaning of the English language would surely not be affronted if every police activity that involves seeking out crime or evidence of crime were held to be a search.”).

²⁸² As an example, dozens if not hundreds of articles have made this criticism with respect to third party doctrine. See, e.g., Gerald G. Ashdown, *The Fourth Amendment and the “Legitimate Expectation of Privacy,”* 34 VAND. L. REV. 1289, 1315-16 (1981) (“The selective disclosure cases are a prime example of the Supreme Court’s use of the privacy concept, which originally was designed to expand the scope of fourth amendment protection, to draw unrealistic distinctions in favor of law enforcement.”); Lewis R. Katz, *In Search of a Fourth Amendment for the Twenty-First Century*, 65 IND. L.J. 549, 564-66 (1990) (“The Supreme Court has used the ‘knowing exposure’ rationale to transform the reasonable expectation of privacy standard into a simple assumption of risk test.”).

²⁸³ See, e.g., Daniel J. Solove, *Fourth Amendment Pragmatism*, 51 B.C. L. REV. 1511, 1514 (2010) (arguing that the Fourth Amendment should apply “whenever a problem of reasonable significance can be identified with a particular form of government information gathering”).

²⁸⁴ See, e.g., John F. Stinneford, *The “Not a Search” Game*, 38 HARV. J.L. & PUB. POL’Y 17, 20-20 (2015) (describing the Supreme Court’s cases holding various surveillance practices to be nonsearches as a “game” that the Justices play to wrongly label reasonable searches as nonsearches).

nature of the “reasonable expectation of privacy” test.²⁸⁵ When basic concepts are contested, progress can be difficult. Scholars and courts alike could use the shared language and clearer concepts of economics to improve the clarity of their arguments.

Consider, for example, the central concept of Fourth Amendment balancing. Fourth Amendment doctrine often features balancing, and yet courts and scholars are often unsure of what exactly to balance.²⁸⁶ The doctrine often calls for comparing apples and oranges. How do you “balance” the government’s interest in a case against an individual’s interest in privacy?

The economic approach suggests a few answers. First, when a court “balances” the intrusion of a search with the degree it promotes legitimate government interests, the proper question is whether the marginal benefits of that promotion were reasonably expected to exceed its marginal costs.²⁸⁷ In some instances, that balancing will occur on a case-by-case basis (such as whether an officer’s use of force was excessive).²⁸⁸ In other contexts, the balancing is more categorical (such as how much cause is required to stop a suspect).²⁸⁹ In either case, the purpose of the balancing is to identify the factual category of acts—and legal regulation of that category, if any—in which the benefits to promoting the enforcement of the law P^*V will be expected to exceed the costs of that act $C_i + C_e$.

Even just the simple lesson of marginal thinking could help courts. In conducting Fourth Amendment balancing, courts often compare absolute costs to marginal benefits or marginal costs to absolute benefits with predictable results. A Second Circuit decision on the reasonableness of national security wiretapping abroad provides an example.²⁹⁰ In balancing the privacy costs of surveillance with its security benefits, the Second Circuit compared marginal costs to absolute benefits.²⁹¹ The court considered whether invading the target’s privacy was justified in light of the general public interest in catching terrorists, instead of weighing how much the government’s monitoring advanced the public

²⁸⁵ See Kerr, *Four Models*, *supra* note 105, at 524 (identifying how the Supreme Court shifts among four models to determine what is a search).

²⁸⁶ See, e.g., Shima Baradaran, *Rebalancing the Fourth Amendment*, 102 GEO. L.J. 1, 14-29 (2013).

²⁸⁷ See, e.g., *Weigel v. Broad*, 544 F.3d 1143, 1163 (10th Cir. 2008) (O’Brien, J., dissenting) (analyzing the reasonableness of a use of force and concluding that “[t]he cost-benefit analysis clearly tips in favor of the troopers even though it resulted in Weigel’s death”).

²⁸⁸ See, e.g., *id.* at 1161-68 (O’Brien, J., dissenting).

²⁸⁹ See, e.g., *Navarette v. California*, 134 S. Ct. 1683, 1687 (2014).

²⁹⁰ *In re Terrorist Bombings of U.S. Embassies in E. Afr.*, 552 F.3d 157 (2d Cir. 2008).

²⁹¹ Specifically, the court compared the extent to which the surveillance violated the target’s privacy with “the self-evident need to investigate threats to national security presented by foreign terrorist organizations.” *Id.* at 175. The court added that it was “loath to discount—much less disparage—the government’s decision” to conduct the monitoring. *Id.*

interest in stopping terrorist attacks.²⁹² Unsurprisingly, the court found that the benefit of the monitoring outweighed the costs and that the monitoring was reasonable.²⁹³ We can't know if the court would have reached a different result had it compared marginal costs to marginal benefits. But this was the right question to ask, and answering it would have required a very different analysis.

A similar problem arises when courts weigh the costs and benefits of the exclusionary rule. Courts should compare marginal costs to marginal benefits. Instead, decisions often weigh the marginal benefit of suppression with the absolute costs of the exclusionary rule.²⁹⁴ Existing doctrine generally assumes as a matter of law that the exclusionary rule always has "heavy costs,"²⁹⁵ foregoing focus on marginal costs for an abstract consideration of costs in the absolute.²⁹⁶ The result stacks the deck against the exclusionary rule. An explicit recognition of the economic approach might lead courts to make the proper comparison between marginal costs and marginal benefits more often.

C. *The Normative Benefit*

The third benefit of the economic approach is normative. The approach helps generate nonobvious insights about the merits of different aspects of search and seizure law. The remainder of the Article demonstrates the point by focusing on a salient example, the debate over crime-severity distinctions in Fourth Amendment law. It begins by introducing the crime-severity debate; it then turns to the insights of the economic approach; and it concludes by showing how the insights can shed light on when crime-severity distinctions are more or less likely to be helpful.

1. Introduction to the Crime-Severity Debate

Fourth Amendment law features categorical rules that usually apply to all investigations without reference to the severity of the crime investigated. As Jeffrey Bellin has summarized, "[T]he legal standard for evaluating a search (or seizure) is the same whether a police officer suspects that a person jaywalked or

²⁹² *See id.* at 175-77 ("Because the surveillance of suspected al Qaeda operatives must be sustained and thorough in order to be effective, we cannot conclude that the scope of the government's electronic surveillance was overbroad.").

²⁹³ *Id.* at 177.

²⁹⁴ *See, e.g.,* *Davis v. United States*, 131 S. Ct. 2419, 2427 (2011) (comparing the deterrent benefit of applying the exclusionary rule in a given set of circumstances against the proposition that suppression "almost always requires courts to ignore reliable, trustworthy evidence bearing on guilt or innocence" and "in many cases . . . set[s] the criminal loose in the community without punishment").

²⁹⁵ *Id.*

²⁹⁶ *See id.* (holding that suppression is only warranted when its deterrence effect in a given scenario "outweigh[s] its heavy costs").

is the Green River Killer.”²⁹⁷ The Supreme Court has generally rejected efforts to create different categorical rules that apply to different offenses based on the seriousness of the crime.²⁹⁸ To be clear, not all Fourth Amendment doctrine ignores the seriousness of the offense. Crime-severity distinctions are used on occasion.²⁹⁹ But they remain the exception rather than the rule.

The rarity of crime-severity distinctions in Fourth Amendment law has drawn widespread criticism from many prominent Fourth Amendment scholars. Bill Stuntz,³⁰⁰ Akhil Amar,³⁰¹ John Kaplan,³⁰² Sherry Colb,³⁰³ and Jeffrey Bellin³⁰⁴ have all argued for crime-specific Fourth Amendment rules. Transsubstantive Fourth Amendment rules are not well tailored to the government interest, they reason. To enable the government sufficient power to investigate major crimes, such blunt rules end up granting the government too much power to investigate minor offenses in ways that lead to abuses—and in some circumstances give the government too little power to investigate particularly serious offenses such as terrorist plots.

²⁹⁷ Jeffrey Bellin, *Crime-Severity Distinctions and the Fourth Amendment: Reassessing Reasonableness in a Changing World*, 97 IOWA L. REV. 1, 4-5 (2011); see also *Mincey v. Arizona*, 437 U.S. 385, 402-03 (1978) (rejecting a “murder crime scene” exception to the warrant requirement).

²⁹⁸ See *Mincey*, 437 U.S. at 394 (“We decline to hold that the seriousness of the offense under investigation itself creates exigent circumstances of the kind that under the Fourth Amendment justify a warrantless search.”).

²⁹⁹ Exceptions include exigent circumstances and excessive use of force, two contexts in which courts engage in case-by-case reasonableness balancing. See, e.g., *Scott v. Harris*, 550 U.S. 372, 382 n.9 (2007) (factoring crime severity factors into excessive force analysis); *Welsh v. Wisconsin*, 466 U.S. 740, 752 (1984) (factoring crime severity factors into exigent circumstances). Further, in some instances the Supreme Court will sneak in crime-severity distinctions *sub silentio*. For example, in *Arizona v. Gant*, the Court allowed a search of a car incident to a driver’s arrest only if the driver was a threat to the officer or “it [was] reasonable to believe that evidence of the offense of arrest might be found in the vehicle.” 556 U.S. 332 335, 347 (2009). As a practical matter, the new rule acts something like a crime-severity distinction, as it prohibits searches when the driver is arrested for a minor traffic offense.

³⁰⁰ See Stuntz, *Simpson, Clinton*, *supra* note 276, at 870 (asserting that “any decent balance” of government need and individual interests would consider the severity of the crime the police are investigating).

³⁰¹ See Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 802 (1994) (arguing that “[c]ommon sense” indicates that the reasonableness inquiry should consider “the importance of finding what the government is looking for”).

³⁰² See John Kaplan, *The Limits of the Exclusionary Rule*, 26 STAN. L. REV. 1027, 1046 (1974) (arguing that the exclusionary rule should not apply for “the most serious cases,” particularly “treason, espionage, murder, armed robbery, and kidnaping by organized groups”).

³⁰³ See Sherry F. Colb, *The Qualitative Dimension of Fourth Amendment “Reasonableness,”* 98 COLUM. L. REV. 1642, 1692-93 (1998) (proposing to limit *Terry* stops to instances where the police have reasonable suspicion that the suspects are “preparing to engage in a potentially violent or otherwise serious crime”).

³⁰⁴ See Bellin, *supra* note 297, at 48 (“[N]o common conception of reasonableness is complete without an assessment of the purpose of a particular search or seizure.”).

The Supreme Court's rejection of these arguments has focused on administrative costs. In *Atwater v. City of Lago Vista*,³⁰⁵ the plaintiff argued that being arrested for a very minor offense—driving without a seatbelt, which had a maximum penalty of a \$50 fine—was not “reasonable” even with probable cause.³⁰⁶ The five-Justice majority rejected Atwater's crime-severity distinction on the ground that administering the Fourth Amendment generally called for bright-line rules rather than case-by-case judgments.³⁰⁷ Incorporating a crime-severity distinction into a bright-line rule was unworkable because officers in the field would be unable to apply it: the fact-specific nature of criminal codes and the uncertain facts of quickly evolving investigations left officers unable to know whether a particular offense was sufficiently serious to satisfy otherwise plausible crime-severity lines.³⁰⁸ The difficulty of knowing how the law should apply would lead to costly litigation and likely overdeter officers from taking the risk of making an arrest.³⁰⁹ In context, “the costs to society” of letting people go when they should have been arrested “could easily outweigh the costs to defendants of being needlessly arrested and booked.”³¹⁰

Although *Atwater* raises a serious concern about administrative costs, those costs must be weighed against the potential gains of crime-severity distinctions. The important question is a contextual one: what are the circumstances in which the benefits of crime-severity are likely to be significant, such that they may outweigh the costs identified by the Court in *Atwater*? As the next subsection shows, the economic model of the Fourth Amendment articulated in this article can help identify those circumstances.

2. Insights of the Economic Model

The argument for crime-severity distinctions is readily understood in economic terms. Because V is smaller for a minor crime than for a major crime, and C_i is constant, a particular technique should be used for less serious crimes when P is particularly high or C_e particularly low. But matters become more complicated because search and seizure law ordinarily relies on categorical rules, or at least standards within broad categories. Recall from Part I that in choosing between two legal rules, a permissive rule p and a restrictive rule r , a court could compare the sum of $P^*V - C_i - C_e$ over the steps N_r (under the restrictive rule) to that sum over steps N_p (under the

305 532 U.S. 318 (2001).

306 *Id.* at 325.

307 *Id.* at 347.

308 *See generally id.* at 347-51.

309 *Id.* at 351.

310 *Id.*

permissive rule). If the step triggers high externalities and would be used often under the permissive rule, for example, the sum of the steps over N_r would likely be greater than the sum of the steps over N_p and the restrictive rule would be preferable to the permissive rule.

The option of a crime-severity distinction adds a third option. The restrictive rule and permissive rule operate at the same time, but for different crimes. For example, the law might adopt the permissive rule for investigations of serious crimes but the restrictive rule for investigations of minor crimes. Now we introduce a third comparison, the sum of $P*V - C_i - C_e$ over the subset of steps N_r that involve minor crimes in addition to the subset of steps N_p that involve serious crimes. The comparison allows us to develop a qualitative sense of the contexts in which a crime-severity distinction could be desirable and when it is less so. In particular, it suggests three lessons about when crime-severity distinctions might be more or less likely to be beneficial.

First, the case for a crime-severity distinction is strongest when a particular investigative step has moderate externalities. If the investigative step imposes high external costs, it would be preferable to impose the restrictive rule for all crimes. On the other hand, if it triggers only low external costs, it would be preferable to have a permissive rule for all crimes. The sweet spot of moderate externalities appears to create the best context for crime-severity distinctions. Under those assumptions, allowing the practice for serious crimes under a permissive rule would more likely enhance welfare but allowing the same practice under the permissive rule for minor crimes more likely would not.

Second, the case for crime-severity distinctions is strongest when the particular investigative technique would be used frequently for both major crimes and minor crimes under the permissive rule. Frequent use for both major crimes and minor crimes is most likely to justify taking on the difficult problem of administrative costs explored in *Arwater*. If an investigative technique is used mostly for major crimes under a permissive rule, then few instances of medium-cost, low-benefit uses will occur for minor crimes that would justify the administrative costs of a crime-severity distinction to justify imposing the restrictive rule for minor crimes.³¹¹ On the other hand, if an investigative technique is rarely used for major crimes under a permissive rule,

³¹¹ The Court suggested this point in *Arwater* by when it questioned whether the problem of arrests for very minor crimes was something that occurred often. *Id.* at 351-52. The rarity of the facts suggested that the problem wasn't big enough to justify a special crime-severity rule. In other words, the welfare losses of arrests for minor crimes were lower than the administrative costs of a crime-severity distinction.

then few medium-cost, high-benefit uses will occur for major crimes that might justify the administrative costs of a special permissive rule for major crimes.

A third limitation is that crime-severity distinctions are more likely to be useful when the doctrine concerns a narrow rule or even case-by-case standard rather than a rule of wide applicability. This is so because the comparison required to decide whether to adopt a crime-severity distinction—specifically, comparing the sum of $P^*V - C_i - C_e$ over the full set N_r , the full set N_p , and the subset of steps N_r that involves minor crimes in addition to the subset of steps N_p that involves serious crimes—requires considerable knowledge about those sets of uses. The wider the rule, the less likely it is that courts can gauge the set of uses under a restrictive and permissive rule to determine the desirability of crime-severity distinctions. On the other hand, the narrower the uses contemplated by the rule, the more likely it is that these values can be plausibly estimated. At the extreme end, if the doctrine calls for a case-by-case determination in the one case under review rather than a categorical rule, the case for factoring in crime-severity is easiest to make.

3. Better and Worse Contexts for Crime-Severity Distinctions

These general principles support more specific conclusions about when crime-severity distinctions are more or less promising. For example, the threshold question of what counts as a search or seizure provides a difficult context for crime-severity distinctions. When courts consider whether a technique constitutes a search or seizure, the question is typically generalized. The issue is whether that kind of technique is regulated by the Fourth Amendment regardless of the context in which it is used. A broad rule complicates the possible use of crime-severity distinctions because the set of uses of the technique are difficult to predict. On the other hand, if the rule is so narrow that it applies only to a particular kind of investigation, it is less likely that applications of the rule will occur with both major and minor crimes.

The facts and scope of *Kyllo v. United States*³¹² provide a helpful illustration. In *Kyllo*, the FBI used an infrared thermal imaging device directed at a home to determine the temperature of exterior walls and develop cause to believe that a marijuana growing enterprise was occurring inside.³¹³ In crafting a rule to determine whether the facts of *Kyllo* constituted a search, the Court had to choose between ruling broadly or narrowly. The Court opted to “tak[e] the long view,” and adopted a single rule for all sense-enhancing devices directed at a home, whether for existing infrared devices or future

³¹² 533 U.S. 27 (2001).

³¹³ *Id.* at 29-30.

technologies that may be able to see through walls.³¹⁴ With a rule so broad, it is difficult to know what technology will be regulated in the future or what uses it will find. The Court was handing down doctrine to regulate technologies not yet invented. It is therefore difficult to know the sets N_p , N_r , or their subsets for minor and major crimes. This is not a promising context for a crime-severity distinction.

The *Kyllo* court could have adopted a narrower approach, however, such as crafting a rule that only applies to the use of infrared thermal imaging devices directed at a home. But the only likely use of such technologies in criminal investigations was precisely the use in that case: taking thermal images to find wide-scale use of growing lamps in marijuana growing investigations. The absence of a diverse context for using such a narrow technology would also counsel against a crime-severity distinction. Reasonable people can disagree about whether thermal imaging should constitute a search. But there's little benefit to a crime-severity distinction for a technology only used in one specific kind of criminal investigation.

In contrast, Fourth Amendment doctrines that rely on case-by-case standards are a more promising context for crime severity distinctions. The obvious example is exigent circumstances, which allows warrantless searches and seizures when an emergency requires quick action because delay would frustrate the search for evidence.³¹⁵ Because every exigency case is different, and each requires an individual weighing of government and privacy interests in that one case, it is simple to consider the severity of the crime under investigation. And indeed, this is one of the rare contexts in which the Court has recognized crime-severity as relevant. In *Welsh v. Wisconsin*,³¹⁶ the Court held that “an important factor to be considered when determining whether any exigency exists is the gravity of the underlying offense for which the arrest is being made.”³¹⁷ The Court presented this as a “common-sense”³¹⁸ idea in light of the need to weigh the government's interest against the privacy interest; surely the government had a lesser interest in investigating a less serious crime.³¹⁹

The law of stop-and-frisk under the framework created by *Terry v. Ohio*³²⁰ also offers a relatively promising context for crime-severity distinctions, albeit one less straightforward than the case-by-case weighing of exigent circumstances. Stops and frisks tend to involve mid-level externalities. Stopping a person is an inconvenience, but less of an inconvenience than a

³¹⁴ *Id.* at 40.

³¹⁵ *See supra* notes 156–164.

³¹⁶ 466 U.S. 740 (1984).

³¹⁷ *Id.* at 753.

³¹⁸ *Id.*

³¹⁹ *Id.* at 752–53.

³²⁰ 392 U.S. 1 (1968).

full arrest. Frisking is an affront, but such searches must be narrow searches for officer safety reasons and are less invasive than a complete search for evidence. Second, stops and frisks occur frequently both for major crimes and minor crimes. Officers routinely stop individuals for minor offenses such as traffic violations or trespasses. On the other hand, they also frequently use stop-and-frisk to investigate major crimes such as homicides. Third, the rules for stop-and-frisk regulate narrow and specific sets of facts, allowing courts to craft severity distinctions with a relatively strong understanding of the distribution of uses.

These elements make the law of stop-and-frisk relatively favorable to the introduction of crime-severity distinctions. For example, courts could use crime-severity distinctions to regulate how long stops may occur. They could hold that reasonable suspicion to believe a suspect has committed a minor offense justifies only a very short stop, while reasonable suspicion to believe a suspect has committed a serious offense justifies a significantly longer one. Similarly, they could use such distinctions to regulate whether and when the police can ask questions unrelated to the stop. Stops for minor offenses could have more limited questioning, while stops for major offenses could allow broader questioning. Finally, the courts could expressly adopt a view, suggested but not reached in *United States v. Hensley*,³²¹ that stops to investigate past crimes are permitted for major crimes but not for minor ones. Each of these proposals raises the competing problem of administrative costs raised in *Arwater*, and the choice of whether or how to draw the distinction would need to be analyzed on its merits.³²² But the economic approach is helpful to cabin the analysis by identifying the kinds of contexts in which a crime-severity distinction is more or less promising.

CONCLUSION

Resistance to economic thinking in search and seizure law may reflect decades-old perceptions among criminal procedure professors that law and

³²¹ See 469 U.S. 221, 223-24, 229 (1985) (allowing stop of a suspect for a past crime, “in the context of felonies or crimes involving a threat to public safety,” but also stating that “[w]e need not and do not decide today whether *Terry* stops to investigate all past crimes, however serious, are permitted”).

³²² Cf. Orin S. Kerr, *A First Look at Navarette v. California: Are Stops Governed by the Rules of Terry or by Case-by-Case Reasonableness?*, VOLOKH CONSPIRACY (Jan. 2, 2014), <http://volokh.com/2014/01/02/first-look-navarette-v-california-stops-governed-rules-terry-case-case-reasonableness/> [<http://perma.cc/4Z8V-9ZX2>] (arguing that a case-by-case balancing approach would be hard to apply in a suppression hearing, enables courts to manipulate the standard to reach the desired outcome, and would make the constitutionality of a search dependent on variable public perceptions of crime severity).

economics is a tool chiefly used to narrow constitutional rights.³²³ To academics with expansive views of the Bill of Rights, the notion of importing economics into discussions of search and seizure law may resemble a large wooden horse left by the Greek army just outside the city of Troy. However appealing it may seem in the abstract, one wouldn't want to wheel it inside the gates.

If that history continues to influence perceptions among criminal procedure scholars today, the association is both unfortunate and inaccurate. The economic view of search and seizure law respects and encompasses the full range of civil libertarian positions about the proper scope of constitutional and statutory privacy rights. It merely seeks to situate those claims in a framework that can clarify and explain the functional role of different possible rules subject to different assumptions about what motivates the police. The economic understanding is not a magic wand that solves problems. But it provides a useful framework—descriptively, analytically, and normatively—that deserves more attention among criminal procedure scholars.

323 See John J. Donohue III, *Law and Economics: The Road Not Taken*, 22 LAW & SOC'Y REV. 903, 904 (1988) (“[F]or many, law and economics implies Posner, Bork, and Easterbrook, and it therefore becomes ideologically suspect.”); see also *United States v. Leon*, 468 U.S. 897, 929 (1984) (Brennan, J., dissenting) (arguing that the cost-benefit analysis in the exclusionary rule context provides “an illusion of technical precision and ineluctability” that disguises an agenda to make the exclusionary rule “disappear with a mere wave of the hand”).