

OPTIMALITY IN FOURTH AMENDMENT LAW

Lee Anne Fritzler*

I.	INTRODUCTION	474
II.	A COST-BENEFIT APPROACH TO THE FOURTH AMENDMENT	477
A.	<i>Substance and Process</i>	477
B.	<i>Constitutional Considerations</i>	479
1.	The Relationship between the "Warrant" and "Reasonableness" Clauses	479
2.	Probable Cause	482
3.	The Exclusionary Rule	485
C.	<i>Method of Analysis</i>	486
1.	The Use of an Optimizing Model	486
2.	Ex Ante Perspectives	488
3.	Interests Weighed	488
III.	LAW ENFORCEMENT INTERESTS	489
A.	<i>Preventative Interests</i>	489
B.	<i>Evidence-Gathering Interests</i>	490
1.	Effects of Increased Cost of Information	491
2.	Impact on Overall Crime Rate	494
IV.	PRIVACY-RELATED INTERESTS	503
V.	THE OPTIMAL FOURTH AMENDMENT	507
A.	<i>Optimality in a World without Error or Administrative Costs</i>	507
B.	<i>Factoring in Error and Administrative Costs</i>	508
1.	Costs in Ex Ante Procedures	508
2.	Costs in Remedial Measures	509
3.	Minimizing Costs	510
C.	<i>Optimality in Ex Ante Rules</i>	510
D.	<i>Optimality in Remedial Measures</i>	513
1.	The Exclusionary Rule	513
2.	Tort Remedies	517
VI.	A PROPOSED APPROACH TO FOURTH AMENDMENT LAW	519
VII.	CONCLUSION	523

* Associate, Pettit & Martin, San Francisco. J.D. Georgetown University Law Center (1990); B.B.A. Baylor University (1987). This Article was made possible by a grant from the John M. Olin Foundation. I would like to thank Warren Schwartz, Steven Salop, Silas Wasserstrom, Louis Michael Seidman, Christopher Fennell, and the participants of Georgetown University Law Center's 1989-1990 Law and Economics Workshop for their very helpful comments on earlier drafts of this Article.

I. INTRODUCTION

Fourth amendment law is notoriously confusing and confused.¹ Part of this confusion reflects the difficulty of the constitutional text itself.² However, much of the confusion can be traced to flaws in the United States Supreme Court's approach to this area of decisionmaking.

The Court has failed to deal coherently with an inherent tension in fourth amendment jurisprudence — the tension between the need for the simplicity of "bright-line" rules that can be applied to all situations, and the need for a flexible approach to deal appropriately with each of the widely varying factual situations confronting law enforcement officers and the courts.³ In the past, the Court sought to accommodate this tension by maintaining bright line rules, such as the requirement of a warrant and the requirement of probable cause, while simultaneously complicating and eroding those lines with numerous exceptions.⁴ In recent years, however, the Court has all but abandoned these bright line rules and has resorted more often to a flexible "balancing" approach in which the "reasonableness" term of the fourth amendment reigns.⁵ This balancing approach has governed all stages of fourth amendment analysis:⁶ the initial determination of whether the fourth amendment provides any protection at all in a given context;⁷ the determination of whether the police

1. Numerous commentators have noted this condition of fourth amendment jurisprudence. *E.g.*, Sundby, *A Return to Fourth Amendment Basics: Undoing the Mischief of Camara and Terry*, 72 MINN. L. REV. 383, 383 (1988); Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1472 (1985); Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 349 (1974).

2. The Fourth Amendment reads: "[t]he right of the people to be secure in their persons, papers and effects shall not be violated by unreasonable searches and seizures and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation and particularly describing the place to be searched, and the person or things to be seized." U.S. CONST. amend. IV. A major source of difficulty involves the question of what, if any, relationship the first clause (the "reasonableness" clause) bears to the second clause (the "warrant" clause). *See infra* notes 18-19 and accompanying text (discussing constitutional interpretation of these two clauses).

3. Bradley, *supra* note 1, at 1470.

4. The Supreme Court's treatment of the warrant and probable cause requirements are discussed in Part II (B), *infra*.

5. *See, e.g.*, Katz, *In Search of a Fourth Amendment for the Twenty-First Century*, 65 IND. L.J. 549, 551 (1990) (balancing as helpful approach); Benner, *Diminishing Expectations of Privacy in the Rehnquist Court*, 22 J. MARSHALL L. REV. 825, 826 (1989) (balancing test ubiquitous); Wasserstrom, *The Court's Turn Toward a General Reasonableness Interpretation of the Fourth Amendment*, 27 AM. CRIM. L. REV. 119, 129 (1989) (discussing Court's use of balancing approach) [hereinafter *General Reasonableness*]; Strossen, *The Fourth Amendment in the Balance: Accurately Setting the Scales Through the Least Intrusive Alternative Analysis*, 63 N.Y.U. L. REV. 1173, 1174 (1988) (balancing test has eroded fourth amendment rights).

6. *See New Jersey v. T.L.O.*, 469 U.S. 325, 369 (Brennan, J., dissenting) (enumerating variety of balancing tests employed by Court in fourth amendment context).

7. *See, e.g.*, Florida v. Riley, 109 S. Ct. 693, 694 (1989) (observation of residential backyard from low-flying police helicopter did not constitute "search" so was not covered by fourth amendment); California v. Greenwood, 486 U.S. 35, 39 (1988) (fourth amendment protection does not extend to curbside garbage). In both these decisions, the Court balanced the interests involved to determine whether the privacy interest invaded was one which society should recognize as "reasonable."

intrusion was a violation of the fourth amendment;⁸ and the determination of whether the exclusionary rule should apply where a violation does exist.⁹

Unfortunately, the Court's reasonableness determinations have not reflected careful thought about the manner in which relevant interests should be weighed. Rather, they have been marked by a lack of articulated standards, conclusory statements about costs and benefits,¹⁰ and a balancing process which has amounted to little more than result-oriented rationalization.¹¹ As Justice Brennan noted in his dissent in *United States v. Sharpe*,¹² the Court has engaged in its fourth amendment balancing with "the judicial thumb . . . planted firmly on the law-enforcement side of the scales."¹³

In performing these balancing acts, the Court has consistently confounded issues relating to the substance of fourth amendment jurisprudence with issues involving the appropriate procedural mechanisms which should be used to give effect to these constitutional guarantees.¹⁴ For example, recent decisions have

8. See, e.g., *Michigan Dep't of State Police v. Sitz*, 110 S. Ct. 2481, 2487 (1990) (balancing interests to determine constitutionality of sobriety checkpoints which involve seizure without probable cause or warrant); *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1390 (1989) (balancing to determine constitutionality of suspicionless drug testing of Customs employees); *New Jersey v. T.L.O.*, 469 U.S. at 337 (balancing interests to determine constitutionality of searches of public school students' personal property without warrant).

9. See, e.g., *United States v. Leon*, 468 U.S. 897, 909 (1984) (balancing costs and benefits of exclusionary rule as applied to facially valid warrant which was not based on probable cause); *Stone v. Powell*, 428 U.S. 465, 487 (1976) (exclusionary rule inapplicable in grand jury context).

10. See, e.g., *Michigan Dep't of State Police v. Sitz*, 110 S. Ct. at 2485-86 (Court "balanced" interests at stake by simply stating magnitude of drunken driver problem and asserting that privacy interest of motorists stopped at sobriety checkpoints is "slight"); Strossen, *supra* note 5, at 1183 (describing conclusory nature of Court's statements about costs and benefits). Especially troubling is the Court's disregard for the presence or absence of a significant empirical correlation between the alleviation of a particular societal problem and the fourth amendment constraints on police conduct. In *Sitz*, the Court explicitly stated that the Court of Appeals was wrong to consider the effectiveness of sobriety checkpoints in reducing drunken driving or catching drunk drivers when it assessed the constitutionality of these checkpoints. *Michigan Dep't of State Police v. Sitz*, 110 S. Ct. at 2487.

Indeed, it appears that the Court is not even very concerned about the existence or magnitude of the societal problem cited to justify police intrusions. In *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384 (1989), the majority, in declaring the suspicionless urine testing of Customs employees constitutional, failed to cite "even a single instance in which any of the speculated horrors [resulting from drug use by Customs employees] actually occurred." *Id.* at 1399-1400 (Scalia, J., dissenting) (emphasis in original). See Schulhofer, *On the Fourth Amendment Rights of the Law-Abiding Public*, 1989 SUP. CT. REV. 87, 147 (remarking on "the strikingly poor means-ends fit" in drug testing scheme approved in *Von Raab*).

11. See, e.g., *New Jersey v. T.L.O.*, 469 U.S. at 369-70 (Brennan, J., dissenting) (suggesting balancing approach may be "a convenient umbrella under which a majority that cannot agree on a genuine rationale can conceal its differences").

12. 470 U.S. 675, 720 (1985).

13. *Id.* at 720 (Brennan, J., dissenting); see, e.g., Strossen, *supra* note 5, at 1195; Wasserstrom & Mertons, *The Exclusionary Rule on the Scaffold: But Was It a Fair Trial?*, 22 AM. CRIM. L. REV. 85, 87 (1984).

14. I refer here to remedial measures, such as the exclusionary rule, and also to any other procedural requirements which are not constitutionally required. See *infra* Part II (B) (1) (adopting position that warrant requirement falls into this category of procedural measures).

cut back on the scope of the exclusionary rule while expressing dissatisfaction not only with the procedural mechanism itself, but also with the substantive provisions which it was designed to protect.¹⁵ Conversely, the existence of the exclusionary remedy has undoubtedly factored heavily in the shaping of the fourth amendment's substantive protections.¹⁶

Economic analysis can be used to clarify and define the Court's flawed balancing process in the fourth amendment context. By forbidding "unreasonable" searches and seizures, the amendment itself suggests that cost-benefit analysis is a uniquely appropriate analytical framework.¹⁷ Determining whether a given action is "reasonable" necessarily requires an assessment of the action's favorable and unfavorable consequences in light of the surrounding circumstances — in short, an assessment of the action's costs and benefits.

In the fourth amendment context, an economic or cost-benefit analysis seeks to minimize the sum of costs to law enforcement interests and costs to privacy-related interests. Costs to law enforcement interests arising from fourth amendment constraints include those associated with decreased police power to prevent imminent harm, and those associated with increased difficulty in gathering evidence. Because fourth amendment constraints make information more difficult to obtain, when such constraints exist, some information will be fore-

15. See, e.g., *United States v. Leon*, 468 U.S. at 911-912 (creating "good faith" exception to exclusionary rule, which permits introduction of fruits of illegal search where police officer reasonably relied upon facially valid warrant). As Justice Brennan pointed out in his dissent in *Leon*, the costs which the majority cited in justifying the creation of the good faith exception are actually costs of the fourth amendment rule which makes searches invalid if not supported by probable cause. *Id.* at 941 (Brennan, J., dissenting). See also *Stone v. Powell*, 428 U.S. at 491-92 n. 31 (stating that determination of fourth amendment violation has "no bearing on the basic justice of his incarceration"). In *Powell*, which precludes federal habeas corpus relief for defendants alleging fourth amendment violations, the Court expresses its belief that fourth amendment violations do not affect the "basic justice" of a defendant's incarceration. *Id.* By refusing to provide habeas review in the fourth amendment context while providing it where any other constitutional right is involved, the Court makes it clear that it does not consider fourth amendment violations as serious as violations of other constitutional rights.

16. The fact that exclusion of evidence is the implication of holding a particular police action unconstitutional has likely made courts construe the boundaries of constitutionality more liberally. Cf. *Amsterdam*, *supra* note 1, at 393 (noting "the strains that the present monolithic model of the fourth amendment almost everywhere imposes on the process of defining the amendment's outer boundaries"); Sundby, *supra* note 1, at 415-16 (requirement of warrant makes Court hesitant to define intrusions as searches or seizures covered by fourth amendment).

17. See Strossen, *supra* note 5, at 1192 (reasonableness clause "calls for the weighing of costs and benefits"); Posner, *Rethinking the Fourth Amendment*, 1981 SUP. CT. REV. 49, 74 (economic interpretation of "reasonableness" standard is "natural") [hereinafter *Rethinking the Fourth Amendment*]; Ingber, *Defending the Citadel: The Dangerous Attack of "Reasonable Good Faith"*, 36 VAND. L. REV. 1511, 1535 (1983) (cost-benefit analysis is "built into the amendment itself"); Wasserstrom & Seidman, *The Fourth Amendment as Constitutional Theory*, 77 GEO. L.J. 19, 62 (1988) (reasonableness term suggests utilitarian cost-benefit analysis). *But see* *New Jersey v. T.L.O.*, 469 U.S. at 370 (Brennan, J., dissenting) ("[o]n my view, the presence of the word "unreasonable" in the text of the Fourth Amendment does not grant a shifting majority of this Court the authority to answer all Fourth Amendment questions by consulting its momentary vision of the social good") (emphasis in original).

gone and the likelihood of convicting guilty criminals will decrease. This decrease will affect the deterrence of crime and incapacitation of criminals.

Privacy costs, however, are incurred whenever the constitution permits law enforcement officers to intrude into the lives of private citizens. These costs involve such privacy-related interests as one's interest in privately pursuing lawful activities without interference, one's interest in not having property damaged or put in disarray by police intrusions, and one's interest in being free from intrusions and observations that could cause embarrassment or loss of personal dignity.

In addition, the manner in which fourth amendment law is formulated, applied, and enforced will affect two other types of costs which must also be considered — administrative and error costs. Administrative costs must be incurred to put fourth amendment constraints into practice. Error costs result from mistakes made by law enforcement officers and judges with respect to the scope of the fourth amendment.

In this Article, I will first focus the inquiry by emphasizing the importance of distinguishing the substance of fourth amendment law from the processes by which it is implemented. Next, after establishing the constitutional appropriateness of a cost-benefit approach to fourth amendment jurisprudence, I will set out in a systematic fashion the relevant costs and benefits that should be weighed in setting the bounds of fourth amendment protection.

As an initial step in developing a model of fourth amendment law, I will analyze these tradeoffs in a world free of errors on the part of judges and law enforcement officers, and in a world in which the substantive rules can be administered and enforced costlessly and completely. Next, I will relax those assumptions and bring administrative costs and error costs into the equation. Finally, I will use the information gleaned from an analysis of fourth amendment optimality to formulate guidelines that would most correctly strike the balance between competing interests.

II. A COST-BENEFIT APPROACH TO THE FOURTH AMENDMENT

A. *Substance and Process*

A major source of confusion about the contours of fourth amendment law stems from the Supreme Court's failure to keep the two types of issues presented in every fourth amendment case — those of substance, and those of process — analytically distinct.¹⁸ The "substance" of fourth amendment law refers to the proper balance between law enforcement interests and privacy-related interests. The "process" of fourth amendment law involves administering *ex ante* measures, such as warrants, and *ex post* remedies, such as the exclusionary rule, to ensure compliance with the substance of the constitutional right.¹⁹

18. See Wasserstrom & Seidman, *supra* note 17, at 30-31 (noting that substantive questions have been repeatedly sidestepped by incorrect focus on procedure).

19. A specific constitutional interpretation is implicit in this dichotomy between the "substance" and the "process" of fourth amendment law. This interpretative view is detailed in Part II(B), *infra*.

Substance and process are, of course, interrelated. The amount of fourth amendment protection that citizens experience depends not only on what the substance of the fourth amendment is in abstract terms, but also on the degree to which it is complied with and enforced. Whether there is an exclusionary rule, for example, and whether or not it is always applied, greatly influences the degree to which one's substantive rights are protected.²⁰ However, when no attempt is made to distinguish between the substantive right and the process that gives that right effect, two negative consequences result.

First, valid processes may be jettisoned, not because they fail to work — that is, fail to protect the substantive right — but because they work too well.²¹ For example, the exclusionary rule is often criticized for forcing law enforcement officers to abide by countless “technicalities” and permitting more criminals to escape detection and punishment.²² Yet these technical requirements are not a result of the exclusionary rule itself, but represent instead the Court's present understanding of the substance of fourth amendment law.²³ It is not a valid criticism of the exclusionary rule to say that its operation effectuates substantive fourth amendment law.²⁴

Second, failing to distinguish substance from process has the effect of shifting analysis and debate away from the relevant issues.²⁵ By tampering only with the process, the Court can appear to leave the substance of the fourth amendment intact, while in fact effecting changes that will leave citizens with less fourth amendment protection than they possessed previously. By changing the substance in this indirect manner, the Court can avoid the possible backlash that might result from an overt curtailment of the constitutional amendment itself.²⁶

20. Ingber, *supra* note 17, at 1536 (remedy necessary to prevent fourth amendment from being “mere platitude”). Indeed, it was a recognition of the nexus between right and remedy that prompted the Court to incorporate the exclusionary rule as a constitutional requirement in *Mapp v. Ohio*, 367 U.S. 643, 655-56 (1961).

21. See Wasserstrom & Seidman, *supra* note 17, at 37 (effectiveness of exclusionary rule, not its ineffectiveness, is source of criticism).

22. See, e.g., W. LAFAVE, 1 SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT 21-22 (1987) (discussing popular belief that exclusionary rule “handcuffs” police); Schrock & Welsh, *Up From Calandra: The Exclusionary Rule as a Constitutional Requirement*, 59 MINN. L. REV. 251, 266-67 (1974) (discussing claim that many people believe “technicalities” of suppression doctrine are defeating justice).

23. Ingber, *supra* note 17, at 1554; Le Francois, *On Exorcising the Exclusionary Demons: An Essay on Rhetoric, Principle, and the Exclusionary Rule*, 53 U. CIN. L. REV. 49, 65-66 (1984) (discussing difference between exclusionary rule and fourth amendment).

24. Of course, there are other criticisms of the exclusionary rule which have more validity. See *infra* Part V(D)1 (discussing potential disadvantages associated with exclusionary remedy). The point here is to distinguish between a criticism of the remedial mechanism and a criticism of the substantive law to which it is applied.

25. See Wasserstrom & Seidman, *supra* note 17, at 36 (“arguments over the exclusionary rule turn out to be another way of changing the subject”); Ingber, *supra* note 17, at 1582 (“rhetoric of remedy” confuses decisionmaking about substantive fourth amendment provisions).

26. Ingber, *supra* note 17, at 1557. Ingber makes the majoritarian argument that people should be told in a straightforward manner what interests are at stake so that they may make rational decisions. *Id.* at 1582.

B. Constitutional Considerations

Before outlining the costs and benefits that should be considered in determining the proper level of fourth amendment protection, it is necessary to establish the appropriateness of this method of analysis from a constitutional standpoint. As noted above, the "reasonableness" requirement of the fourth amendment is quite amenable to an analysis of costs and benefits.²⁷ The term itself suggests tradeoffs, or a balancing of interests, rather than conferral of an absolute right.²⁸ However, other fourth amendment terms and doctrines have been imbued with various, often conflicting, meanings and are not as easily or so obviously susceptible to economic analysis.²⁹ Thus, before beginning an economic analysis of the fourth amendment, I will briefly explain and justify the constitutional interpretations which I will be using in this Article, and demonstrate the appropriateness of employing an economic approach in the fourth amendment context.

1. The Relationship Between the "Warrant" and "Reasonableness" Clauses

A major source of tension in fourth amendment jurisprudence involves the relationship, if any, between the "reasonableness" clause and the "warrant" clause of the fourth amendment.³⁰ Essentially, the dispute concerns the extent to which these clauses should be read in a conjunctive, as opposed to a disjunctive, manner.³¹ Although commentators have provided varying lists of the competing interpretations,³² it seems there are at least four analytically distinct ways of reading the two clauses. A warrant based upon probable cause can be viewed as: (1) necessary and sufficient for constitutionality (the warrant clause defines reasonableness); (2) necessary but not sufficient (reasonableness must be independently established); (3) sufficient but not necessary (a warrant based on probable cause is one way, but not the only way, to fulfill the reasonableness requirement); or (4) neither necessary nor sufficient (but possibly informing or providing a gloss on reasonableness).

27. See *supra* note 17 and accompanying text (discussing notion that cost-benefit analysis appropriate in fourth amendment analysis).

28. See Wasserstrom & Seidman, *supra* note 17, at 61 (fourth amendment "does not establish a right of privacy that trumps competing policy concerns").

29. For example, probable cause could be read to require a certain minimum of suspicion, such as incriminating evidence must be "more likely than not" to be found in the place searched. Wasserstrom, *The Incredible Shrinking Fourth Amendment*, 21 AM. CRIM. L. REV. 257, 306-307 (1984) [hereinafter *The Incredible Shrinking Fourth Amendment*]. But see Wasserstrom & Seidman, *supra* note 17, at 61-62 (many of Court's more specific formulations mean nothing more than intrusion be "cost-justified in some sense").

30. See, e.g., Sundby, *supra* note 1, at 418 ("intersection" between clauses "mystical").

31. See generally Wasserstrom, *The Fourth Amendment's Two Clauses*, 26 AM. CRIM. L. REV. 1389, 1389-1396 (1989) (discussing relationship between clauses in historical context); Benner, *supra* note 5, at 827-832 (discussing historical development of two clauses).

32. See, e.g., Wasserstrom, *Incredible Shrinking Fourth Amendment*, *supra* note 29, at 281; W. LAFAVE, 1 SEARCH AND SEIZURE 439 (1978) [hereinafter SEARCH AND SEIZURE].

Although the Supreme Court has generally interpreted the fourth amendment to require a warrant based upon probable cause,³³ it has made a number of exceptions to the probable cause and warrant requirements.³⁴ In fact, although the Court has described these as "a few specifically established and well-delineated exceptions,"³⁵ there are actually twenty exceptions to the probable cause and warrant requirements, some of which are so frequently used as to virtually swallow the rule.³⁶

Further, in determining whether to create or apply an exception to the warrant "requirement," the Supreme Court is governed by considerations of reasonableness.³⁷ Historically, the Court created exceptions when the "special needs" of law enforcement made a warrant impracticable.³⁸ In *Michigan Dep't of State Police v. Sitz*,³⁹ however, the Court seemed to all but abandon requiring a showing of extraordinary law enforcement needs before creating an exception; instead, the Court proceeded directly to the question of whether the safeguard of a warrant and probable cause outweighed the costs of those requirements in the sobriety checkpoint context.⁴⁰ Thus, even the Court's rhetoric no longer suggests that a warrant based on probable cause is constitutionally necessary.⁴¹

Similarly, although the Court has generally held that a warrant based upon probable cause is sufficient to meet the constitutional standard,⁴² the Court

33. Y. KAMISAR, W. LAFAVE & J. ISRAEL, *MODERN CRIMINAL PROCEDURE* 207 (7th ed. 1990) (discussing Court's "strong preference" for warrants); Wasserstrom, *Incredible Shrinking Fourth Amendment*, *supra* note 29, at 281.

34. For example, in *Carroll v. United States*, 267 U.S. 132, 155-56 (1925), the Court set out the automobile exception to the warrant clause. Similarly, in *Terry v. Ohio*, 392 U.S. 1, 27 (1968), the Court held that an officer could "stop and frisk" a suspect without a warrant, but with "reasonable suspicion," something less than probable cause.

35. *Katz v. United States*, 389 U.S. 347, 357 (1976).

36. *Katz*, *supra* note 5, at 577 ("[n]otwithstanding the ringing endorsement of the universality of both the warrant and probable cause requirements in *United States v. Chadwick*, most searches fit into exceptions to the warrant requirement"); Bradley, *supra* note 1, at 1473.

37. See Sundby, *supra* note 1, at 386 (reasonableness concept used to justify exigent circumstances exception).

38. See, e.g., *New Jersey v. T.L.O.*, 469 U.S. at 340 ("easing of restrictions" necessary in school setting because of need for school discipline); *National Treasury Employees Union v. Von Raab*, 109 S. Ct. at 1390 (government has heightened interest in deterring drug use on part of Customs employees; fruits of search not to be used in criminal prosecution without employee's consent).

39. 110 S. Ct. 2481 (1990).

40. *Id.* at 2485. The Court responds to the argument that a showing of a special law enforcement need is necessary before using a balancing approach by simply stating that the balancing analysis used in a decision involving checkpoints for aliens, *Brown v. Texas*, 433 U.S. 47 (1979), is also appropriate in analyzing suspicionless stops of motorists for sobriety checks.

41. See, e.g., *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1414 (1989) (Court notes that balance is usually, but not always, struck "in favor of the procedures described by the Warrant Clause of the Fourth Amendment"); see also Wasserstrom, *General Reasonableness*, *supra* note 5, at 129 (noting Court's indifference to warrant clause in recent cases).

42. See, e.g., *New Jersey v. T.L.O.*, 469 U.S. at 359-60 (Brennan, J., dissenting) ("provisions of the Warrant Clause — a warrant and probable cause — provide the yardstick against which official searches and seizures are to be measured").

has suggested that the reasonableness clause might not always be satisfied by compliance with the warrant clause. The Court's decision in *Winston v. Lee*⁴³ suggests that despite meeting the probable cause requirement, a search could nevertheless be unreasonable.⁴⁴ In *Winston*, the Court held that surgical removal of a potentially incriminating bullet was so intrusive that it could not be justified by a showing of probable cause. Likewise, in *Tennessee v. Garner*,⁴⁵ the Court found that probable cause was insufficient to justify deadly "seizure" of a nonviolent fleeing felon, again basing its conclusion on the unreasonableness of the police action, given the circumstances and the gravity of the offense in question.⁴⁶ Although the Court apparently has not yet invalidated as unreasonable any intrusions supported by a warrant based upon probable cause, such a holding would appear to be logically permissible, given the reasoning in the foregoing decisions.

Thus, it appears that although the warrant clause greatly influences the way in which the reasonableness clause is interpreted, the reasonableness clause ultimately controls in contemporary fourth amendment jurisprudence.⁴⁷ Although there is considerable constitutional and historical support for a view of the fourth amendment that makes reasonableness the operative standard,⁴⁸ a move to general reasonableness has been widely viewed as destructive to fourth amendment protections.⁴⁹ This perception has a firm basis in fact; the vast

43. 470 U.S. 753 (1985).

44. See Wasserstrom, *General Reasonableness*, *supra* note 5, at 140-45 (discussing *Winston* majority's view that warrant based on probable cause may sometimes fall short of "reasonableness" required by fourth amendment).

45. 471 U.S. 1 (1985).

46. See Wasserstrom, *General Reasonableness*, *supra* note 5, at 145-48 (discussing *Garner* decision's requirement of more than probable cause).

47. See, e.g., *New Jersey v. T.L.O.*, 469 U.S. at 340 ("[t]he fundamental command of the Fourth Amendment is that searches and seizures be reasonable, and although 'both the concept of probable cause and the requirement of a warrant bear on the reasonableness of a search, . . . in certain limited circumstances neither is required'" (quoting *Almeida-Sanchez v. United States*, 413 U.S. 266, 277 (1973) (Powell, J., dissenting)); see also Strossen, *supra* note 5, at 1174-76 (acknowledging Court's trend towards reasonableness standard); Wasserstrom, *General Reasonableness*, *supra* note 5, at 129 (arguing that Court has moved away from warrant requirement in favor of general reasonableness standard).

48. T. TAYLOR, *TWO STUDIES IN CONSTITUTIONAL INTERPRETATION* 46-47 (1969) (those who have interpreted fourth amendment to require that searches be pursuant to warrants have "stood the amendment on its head"); Wasserstrom, *The Incredible Shrinking Fourth Amendment*, *supra* note 29, at 283 (concern of framers was not with warrantless searches, but rather with general warrants). See also Amsterdam, *supra* note 1, at 410 (agreeing that history supports Taylor's disjunctive reading of two clauses, but maintaining that conjunctive reading should prevail).

49. See, e.g., Strossen, *supra* note 5, at 1174 (balancing as "analytical tool with which . . . Court has effectuated the erosion" of fourth amendment rights); Lippman, *The Decline of Fourth Amendment Jurisprudence*, 11 CRIM. JUST. J. 293, 350 (1989) (Court's cost-benefit analysis has emphasized efficiency and has abandoned prior preference for warrants); Benner, *Diminishing Expectations of Privacy in the Rehnquist Court*, 22 J. MARSHALL L. REV. 825, 826 (1989) (traditional fourth amendment protections "held hostage to await the results of a ubiquitous balancing test"). But see Wasserstrom, *General Reasonableness*, *supra* note 5, at 130-31 (noting cases in which reasonableness has led to more, rather than less, protection than if Court had adhered to probable cause or warrant requirement).

majority of Supreme Court decisions which employ a balancing approach have unambiguously limited the scope of fourth amendment protections enjoyed by citizens.⁵⁰

Thus, an interpretation of the fourth amendment in which reasonableness is the operative standard typically generates discomfort among those concerned with the protection of individual privacy rights. However, a reasonableness-based interpretation need not necessarily work in the direction of eroding individual privacy rights. The fact that reasonableness-based decisions have tended to be skewed in that direction relates to the way the Court has engaged in fourth amendment balancing, and is not inherent in the balancing method itself.⁵¹ In fact, as Professor Wasserstrom points out, reasonableness can potentially cut both ways: although a reasonableness-based analysis may sometimes excuse law enforcement officers from the warrant and probable cause requirements, reasonableness may also require greater protection than a warrant or probable cause.⁵²

A view of the fourth amendment which makes reasonableness the primary consideration is a constitutionally valid interpretation, and at any rate, one to which the Supreme Court is likely to adhere in the foreseeable future.⁵³ Therefore, for purposes of this Article, I will assume that reasonableness is the controlling standard in fourth amendment law. Specifically, I will assume that the constitution requires that searches and seizures be reasonable, but that a warrant based upon probable cause is neither necessary nor sufficient to meet this requirement of reasonableness. However, the warrant clause should inform the description of reasonableness to some extent, in that it suggests a process which may in many instances be coextensive with reasonableness.⁵⁴

2. Probable Cause

Even where the Court has made exceptions to the requirement that warrants be obtained, probable cause has usually remained the controlling standard re-

50. See, e.g., *Michigan Dep't of State Police v. Sitz*, 110 S. Ct. at 2491 (using balancing approach to permit random, suspicionless, sobriety checkpoints); *National Treasury Employees Union v. Von Raab*, 109 S. Ct. at 1389 (using balancing approach to approve suspicionless drug testing of Customs employees); *New Jersey v. T.L.O.*, 469 U.S. at 337 (using balancing approach to permit warrantless searches of personal property of public school students). See also Strossen, *supra* note 5, at 1183-84 (balancing approach to fourth amendment has increased state's search and seizure power and lessened constitutional protections).

51. *But see* Strossen, *supra* note 5, at 1185 (arguing that balancing methods are inherently skewed towards law enforcement interests).

52. Wasserstrom, *General Reasonableness*, *supra* note 5, at 131.

53. A number of commentators have echoed this forecast. E.g., Strossen, *supra* note 5, at 1266; Benner, *supra* note 5, at 825-26. This prediction seems even more certain with the retirement of Justice Brennan, a strong opponent of the "reasonableness" balancing approach. See, e.g., *New Jersey v. T.L.O.*, 469 U.S. at 353-370 (Brennan, J., dissenting) (criticizing majority's use of balancing approach).

54. See Sundby, *supra* note 1, at 432 (maintaining that warrant based on probable cause can be viewed as example of reasonableness).

quired for a search. Probable cause has traditionally been the constitutional minimum used to give content to virtually every search and seizure.⁵⁵

Probable cause has never been defined with any degree of clarity by the Court. In fact, it appears that the Court has "gone to extraordinary lengths to avoid telling us anything about the meaning of 'probable cause' . . ."⁵⁶ In *Brinegar v. United States*,⁵⁷ probable cause was described as involving "probabilities" and requiring "less than evidence which would justify . . . conviction," but "more than bare suspicion."⁵⁸ In *Wong Sun v. United States*,⁵⁹ the Court defined "[t]he quantum of information which constitutes probable cause" as "evidence which would 'warrant a man of reasonable caution in the belief' that a felony has been committed . . ."⁶⁰

One view maintains that the term implies a probability which is "more likely than not."⁶¹ The discussion of a few simple hypotheticals, however, underscores the difficulty with such a definition. In certain situations, probable cause appears to require either too little or too much in terms of proof.⁶² To use one hypothetical provided by a commentator,⁶³ suppose that one knew with certainty that a bomb had been placed in a rented locker in a crowded airport. However, on the day in question, 150 lockers at the airport had been rented. Although a search of any one of the rented lockers would have a very low probability of success — certainly far below the "more likely than not" standard — few would argue that such a search should be precluded.⁶⁴

Conversely, to employ another well-worn hypothetical,⁶⁵ suppose that studies had shown that fifty-one percent of males in a certain neighborhood out on the street during certain hours would be carrying illegal weapons or drugs. Although the probability that a search of any one of these men would be more likely than not to turn up evidence, such a search would presumably be precluded by the fourth amendment.⁶⁶

55. Alschuler, *Bright Line Fever and the Fourth Amendment*, 45 U. PITT. L. REV. 227, 243 (1984); Wasserstrom & Seidman, *supra* note 17, at 85.

56. Wasserstrom & Seidman, *supra* note 17, at 25.

57. 338 U.S. 160 (1949).

58. *Id.* at 174.

59. 371 U.S. 471 (1963).

60. *Id.* at 479.

61. See Wasserstrom & Seidman, *supra* note 17, at 85 ("more-likely-than-not" standard possible reading although not endorsed by Court); Wasserstrom, *Incredible Shrinking Fourth Amendment*, *supra* note 29, at 306-07.

62. See Alschuler, *supra* note 55, at 246-47 (demonstrating that "unitary view of the probable cause requirement" produces different results, so that police officer may claim probable cause for search or arrest depending upon suspect's racial, gender or demographic grouping).

63. *Id.* at 246-47.

64. *Id.*

65. A variation on this hypothetical was used by Alschuler, *id.* at 246; however, he notes his uncertainty as to its origin. *Id.* at 246 n.63.

66. Indeed, it appears that the Supreme Court has at times interpreted probable cause as requiring evidence sufficient to single out an individual for suspicion. LaFave, *SEARCH AND SEIZURE*, *supra* note 32, at 477-78 (citing, *inter alia*, *Wong Sun v. United States*, 371 U.S. 471 (1963)) (arrest of person named Toy upon tip from informant that person by that name who owned

Some factors which appear theoretically important in determining whether probable cause exists include the seriousness of the offense and the potential danger to society if action is not taken.⁶⁷ While these factors have not been employed explicitly by the Court in probable cause determinations,⁶⁸ the Court, in *Welsh v. Wisconsin*,⁶⁹ recognized the relevance of the seriousness of the offense in determining whether the warrantless entry of a home was a violation of the fourth amendment where probable cause to arrest existed.⁷⁰ It seems likely that these elements are also recognized implicitly in the reasoning used in determining probable cause.⁷¹ The relevance of considering the seriousness of the crime in determining the existence of probable cause was eloquently expressed in Justice Jackson's dissent in *Brinegar*:

[I]f we are to make judicial exceptions to the Fourth Amendment . . . it seems to me they should depend somewhat upon the gravity of the offense. If we assume, for example, that a child is kidnapped and the officers throw a roadblock about the neighborhood and search every outgoing car, it would be a drastic and indiscriminating use of the search. The officers might be unable to show probable cause for any particular car. However, I should candidly strive hard to sustain such an action, executed fairly and in good faith, because it might be reasonable to subject travelers to that indignity if it was the only way to save a threatened life and detect a vicious crime. But I should not strain to sustain such a roadblock and universal search to salvage a few bottles of bourbon and catch a bootlegger.⁷²

It seems self-evident that the meaning of probable cause, like the meaning of reasonableness, should be derived from context. However, the Court has

Chinese laundry on certain street was without probable cause where several Chinese laundries on street were owned by persons named Toy). Of course, searches using racial criteria would also be subject to strict scrutiny under the equal protection clause of the fourteenth amendment. *E.g.*, *Korematsu v. United States*, 323 U.S. 214 (1944).

67. R. POSNER, *ECONOMIC ANALYSIS OF LAW* 640 (3d ed. 1986) [hereinafter *ECONOMIC ANALYSIS*].

68. LaFave, *SEARCH AND SEIZURE*, *supra* note 32, at 455. *But see* Alschuler, *supra* note 55, at 247 ("seriousness of the harm that the police seek to prevent or of the offense that they wish to investigate does not seem to enter the constitutional calculus").

69. 466 U.S. 740 (1984).

70. *Id.* at 750 (warrantless entry not justified where suspected offense was drunk driving, which was only civil offense within that jurisdiction). *But see* *Mincey v. Arizona*, 437 U.S. 385, 393-94 (1978) (rejecting Arizona Supreme Court's "murder scene exception" to warrant requirement; seriousness of crime cannot justify intrusion).

71. *See generally* Schroeder, *Factoring the Seriousness of the Offense Into Fourth Amendment Equations — Warrantless Entries Into Premises: the Legacy of Welsh v. Wisconsin*, 38 KAN. L. REV. 439 (1990) (analyzing *Welsh*, and arguing that consideration of seriousness of offense could usefully be factored into fourth amendment determinations).

72. *Brinegar v. United States*, 338 U.S. at 183 (Jackson, J., dissenting).

never endorsed such a sliding scale view of probable cause.⁷³ Although critics of a sliding scale approach allege that it would “produce more slide than scale,”⁷⁴ resulting in an unworkable “general oozeiness,”⁷⁵ it is highly questionable whether any coherent method of defining probable cause can avoid such adjustments to reflect the shifting weight of interests. In fact, use of a rigid standard of probable cause can lead to less constitutional protection.⁷⁶ If a rigid standard is used, and a court is faced with a situation in which the quantum of evidence required by the inflexible concept of probable cause is too high, the court must choose to use an unreasonably stringent requirement, water down the overall probable cause standard, or remove the action in question from the scope of the fourth amendment altogether.⁷⁷

For purposes of this Article, I will take the view that probable cause can only be usefully defined as a sliding scale. The Constitution’s “probable cause” requirement makes explicit that one factor to be weighed in the reasonableness determination involves the probability of discovering evidence of, or preventing future harm from, criminal activity. However, the amount of cause that is “probable” in a given case must be defined by reference to what it is reasonable to require in that context.

3. The Exclusionary Rule

The constitutional status of the exclusionary remedy has also been much debated.⁷⁸ Clearly, there is no requirement of exclusion within the text of the fourth amendment itself.⁷⁹ In the past, the exclusionary rule appears to have been considered a constitutional requirement because it was perceived as the only remedy for police misconduct that would adequately enforce the substance of the fourth amendment.⁸⁰

73. Of course, the Court has permitted searches on less than full probable cause in certain investigative situations. *E.g.*, *Terry v. Ohio*, 392 U.S. at 27 (“stop and frisk” can be done upon “reasonable suspicion”); *Camara v. Municipal Court*, 387 U.S. 523, 538 (1967) (weaker form of probable cause permissible in housing inspection situation).

74. *Amsterdam*, *supra* note 1, at 394.

75. *Id.* at 415.

76. *See Serr*, *Great Expectations of Privacy: A New Model for Fourth Amendment Protection*, 73 MINN. L. REV. 583, 642 (1989) (permitting lesser degrees of protection is preferable to no protection at all); *cf. Sundby*, *supra* note 1, at 415-16 (reliance on monolithic model which requires warrants in all cases would lead to removal of many governmental actions from realm of fourth amendment protection).

77. *See Amsterdam*, *supra* note 1, at 388 (“all or nothing approach to the amendment puts extraordinary strains upon the process of drawing its outer boundary lines”). For example, in *California v. Greenwood*, 108 S. Ct. 1625, 1628-29 (1988), the Court held that curbside garbage is not protected by the fourth amendment. This decision likely reflects an unwillingness to require traditional levels of “probable cause” in the garbage context.

78. *W. LAFAVE*, 1 CRIMINAL PROCEDURE 136 (1984) [hereinafter CRIMINAL PROCEDURE].

79. In this regard, however, the exclusionary rule does not differ from the majority of fourth amendment doctrines. *Wasserstrom & Seidman*, *supra* note 17, at 87.

80. *See Mapp v. Ohio*, 367 U.S. at 651-53 (stating that states and Supreme Court have recognized “obvious futility of relegating the Fourth Amendment to the protection” of any remedies other than exclusionary rule).

For purposes of this Article, I will take the position, which has been affirmed repeatedly by the Supreme Court, that the exclusionary remedy is a judicially-created remedy,⁸¹ rather than a requirement imposed upon the courts by the language of the Constitution. Although the idea that the exclusionary rule is a judicially-created remedy has often been advanced as part of a rationale to limit, abolish or make exceptions to it,⁸² I am taking this position because I believe that the substance of fourth amendment law can be more usefully analyzed by initially separating it from remedial measures. Much of the confusion arising from fourth amendment law stems from an attempt to analyze the "what" of fourth amendment law under the shadow of a very problematic and controversial "how." Recognizing that the exclusionary rule is not a constitutional given permits an unhindered analysis of the substance of fourth amendment law.

C. Method of Analysis

1. The Use of an Optimizing Model

It should be noted at the outset that my method of analyzing fourth amendment optimality will be significantly different than from prior economic formulations in the fourth amendment context, such as Judge Posner's.⁸³ Under Posner's formulation of cost-benefit analysis in the fourth amendment context, costs and benefits are assigned to each contemplated search.⁸⁴ If the costs exceed the benefits, the search is deemed unreasonable; if the benefits exceed the costs, the search is deemed reasonable.⁸⁵

My model, in contrast, focuses not on the reasonableness of particular searches, but upon formulating the optimal set of fourth amendment rules to govern all searches. I begin with the assumption that some set of fourth amendment constraints will limit police conduct. Under any conceivable set of fourth amendment constraints on searches and seizures, certain types of law enforcement costs will be incurred, and certain types of privacy costs will also be incurred.⁸⁶ These types of costs are set out in Parts III and IV of this

81. See, e.g., *Calandra v. United States*, 414 U.S. 338, 347-48 (1974) ("the rule is a judicially created remedy designed to safeguard Fourth Amendment rights generally through its deterrent effect"); *Stone v. Powell*, 428 U.S. at 482 ("exclusionary rule was a judicially created means of effectuating the rights secured by the Fourth Amendment").

82. E.g., *United States v. Leon*, 468 U.S. at 906-908 (creating good faith exception to exclusionary rule); *Bivens v. Six Unknown Named Agents of Fed. Bureau of Narcotics*, 403 U.S. 388, 422 (1971) (Burger, J., dissenting) (calling for Congress to create alternative to exclusionary rule); *Stone v. Powell*, 428 U.S. at 496-502 (Burger, J., concurring) (calling for Court to abolish exclusionary rule).

83. Posner, *ECONOMIC ANALYSIS*, *supra* note 67, at 640.

84. *Id.* Posner balances the cost of the search in terms of lost privacy against the social loss associated with failure to convict, multiplied by the probability that conviction will be impossible if the search is foregone. *Id.*

85. *Id.*

86. A fourth amendment rule that precluded all police action would avoid all privacy costs; such a rule, however, is inconceivable.

Article. The optimal set of fourth amendment rules in a given investigative situation would be the set of rules which would minimize the sum of these law enforcement costs and privacy costs.

Constructing the model in this way has two advantages. First, such a formulation gives full expression to a reality — often suppressed in economic analyses — that law enforcement officers are rarely if ever faced with a binary investigative choice (that is, whether or not to search). A corollary to this idea is that fourth amendment restraints typically encumber, rather than preclude, a given line of investigation.⁸⁷ An analysis which seeks to arrive at the optimum degree of encumbrance has more practical usefulness than an analysis which assesses the reasonableness of individual searches.

Second, constructing the model in this manner shifts the analysis from the question of whether a particular search is cost-justified (that is, total benefits exceed total costs) to the question of formulating optimizing rules, where total benefits exceed total costs by the greatest margin. Posner, in defining an unreasonable search simply as one where “the costs exceed the benefits” does not seem to contemplate optimality as a factor in determining reasonableness.⁸⁸ Under his definition, a search for which benefits exceeded costs would be deemed reasonable whether or not the margin of difference between costs and benefits was as large as possible. In contrast, if optimality were the standard by which police actions were to be judged, a search’s benefits would not only have to exceed its costs, but the search’s benefits would also have to exceed the costs by the greatest possible margin.

The fourth amendment, of course, only requires that searches be reasonable. This fact opens up the question of whether a suboptimal search is always unreasonable, or conversely, whether a search must be optimal to be reasonable. Neither the constitutional text nor common sense would appear to support a reading of a reasonableness term that requires optimality.⁸⁹ At the other extreme, however, a search might be unreasonable even where benefits exceed costs, if it were extremely inferior to a clearly available alternative. For example, a search of an apartment in the middle of the night might be cost-justified, but might nevertheless be unreasonable if the search could be done just as cheaply and effectively during waking hours.⁹⁰ Optimality should be viewed in aspirational terms, with the understanding that reasonableness encompasses a range of acceptable police conduct, some of which will necessarily fall short of optimality.

87. See LaFave, *SEARCH & SEIZURE*, *supra* note 32, at 455-57 (citing case in which quantum of information gathered fell short of probable cause because officer failed to undertake particular action which was available to him).

88. Posner, *ECONOMIC ANALYSIS*, *supra* note 67, at 640.

89. See *infra* notes 233-40 and accompanying text (discussing related idea of “least intrusive means” analysis).

90. This example assumes that no legitimate purpose was advanced by conducting the search at night, and that the inconvenient timing was purely a gratuitous, additional element of intrusiveness.

In setting up an equation which captures the relevant tradeoffs, I will pursue an optimizing strategy in order to arrive at an aspirational benchmark by which reasonableness can be judged. However, it should be noted that I am not equating reasonableness with optimality, as will be made clear by the fourth amendment guidelines proposed in Part VI.

2. Ex Ante Perspective

Calculations in the fourth amendment context are necessarily performed from an ex ante perspective. The decision as to whether intrusive action will be taken is obviously made prior to the search. It is at this point that law enforcement officers must meet fourth amendment standards of behavior. Therefore, only the expected values of various costs are relevant; the actual values are unknown prior to the search. A search that is not justified ex ante cannot be justified ex post by the fact that evidence was discovered.⁹¹

While the importance of using an ex ante approach is not unique to fourth amendment law,⁹² its use is especially important in this context. Under the current remedial system of the exclusionary rule, fourth amendment abuses usually receive judicial scrutiny only in those cases where incriminating evidence was in fact discovered. Thus, it is critically important that the fact that evidence was uncovered not influence the court's judgment of the search's constitutionality.⁹³

3. Interests at Stake

Two major groups of competing interests shape the meaning of fourth amendment reasonableness: law enforcement interests, and privacy-related interests.⁹⁴ Law enforcement interests are society's interests in minimizing the costs associated with criminal behavior. Privacy-related interests include not

91. See LaFave, *SEARCH AND SEIZURE*, *supra* note 32, at 456-66 ("axiomatic" that legality of search cannot turn upon its outcome). *But see* Posner, *Rethinking the Fourth Amendment*, *supra* note 17, at 75 (arguing fact that evidence is actually uncovered is relevant to determining reasonableness of search).

92. For example, such an approach is often used in tort law. See generally S. SHAVELL, *ECONOMIC ANALYSIS OF ACCIDENT LAW* (1987).

93. In reality, the existence of such evidence almost certainly is prejudicial to some degree. See Wasserstrom, *Incredible Shrinking Fourth Amendment*, *supra* note 29, at 320 (under reasonableness standard, many searches might be upheld despite ex ante unreasonableness by virtue of fact that evidence was actually found).

94. This model assumes, as does the fourth amendment itself, that these interests are in tension with each other. In other words, privacy-related interests are not automatically advanced to an optimal degree by the single-minded pursuit of law enforcement objectives. This is because police officers, although acting subject to budget constraints, do not internalize the privacy-related costs that are imposed upon those subject to their actions. For example, a police officer might be able to maximize conviction rates under budgetary constraints by performing extremely destructive and intrusive searches, if such searches were cheaper than more careful and constrained searches. Alternately, police officers might find systematic monitoring of the entire population a more efficient method of gaining convictions than attempting to track down the suspects for each criminal incident.

only privacy as conventionally defined, but also other interests that individuals have in being left undisturbed, such as the uninterrupted use of their property.⁹⁵

These two categories of interests must be factored into the optimizing model in order to determine the appropriate tradeoffs between them.

III. LAW ENFORCEMENT INTERESTS

A. Preventative Interests

The rationale usually advanced for police intrusions is the gathering of evidence calculated to facilitate the conviction of the guilty. However, some police intrusions serve another function: preventing imminent harm.⁹⁶ For example, the type of pat-down frisk discussed in *Terry v. Ohio*⁹⁷ has as its primary purpose the disarming of a suspect to prevent harm to the officer and others.⁹⁸ Of course, if the pat-down leads to the seizure of an illegal handgun, the intrusion will also have had an evidence-gathering function. To use a hypothetical mentioned earlier,⁹⁹ a search of airport lockers for a bomb would primarily be motivated by a desire to prevent an explosion by finding and defusing the bomb, although the search might also yield evidence that would be useful in convicting the perpetrator.

Preventative concerns are also present in less dramatic scenarios. For example, a search of a suspected drug dealer's home might be expected to yield evidence against the suspected dealer. However, if drugs are seized, future crimes of distribution might be prevented, and the ongoing crime of possession would be ended immediately. Certainly, the seizure of drugs is preventative in some sense, as would be the seizure of any contraband. Similarly, a murder suspect might be seized, both to facilitate the gathering of evidence (such as fingerprints, or identification through a lineup) and to prevent the suspect from doing any further harm.¹⁰⁰

95. "Privacy-related interests" is used to refer only to interests which are infringed by the actions of law enforcement officers. Obviously, these interests can be infringed by other parties, and are almost certainly infringed by any criminal act. The encroachments on privacy stemming from criminal activity make up part of the "costs of crime" described in Part III, and thus are part of the interests to be weighed against the official intrusions of privacy set out in Part IV.

96. See LaFave, *SEARCH AND SEIZURE*, *supra* note 32, at 457 (quicker action necessary where "serious adverse consequences might occur in the interim"). Of course, all searches and seizures which facilitate convictions could be viewed as indirectly preventing future crimes through deterrence and (relatively long-term) incapacitation. These indirect effects stem from the collection of evidence, which will be discussed *infra* at notes 176-178 and accompanying text. Here my discussion of preventative police intrusions refers only to actions which directly prevent crimes in the short term by intervening and removing the implements of crime, or incapacitating the potential perpetrator, to prevent imminent harm.

97. 392 U.S. 1 (1968).

98. *Id.* at 20.

99. See *supra* notes 63-64 and accompanying text (discussing hypothetical of bomb threat for airport lockers).

100. The Bail Reform Act of 1984, 18 U.S.C. §§ 3141-3150 (1984), which provides for the detention of suspected dangerous criminals without bail pending trial, adds weight and legitimacy to this preventative motive for seizures.

The costs associated with a fourth amendment rule's preclusion of preventative intrusions are a factor of the marginal increase in probability that the harm will occur, which is attributable to the fourth amendment rule, and the seriousness of the harm sought to be prevented. Because a fourth amendment rule will create some obstacles to intervention (at the limit, intervention would be forbidden), there is a marginal increase in the probability of the harm occurring which can be directly attributable to that rule. This marginal increase represents the difference between the probability of harm under a fourth amendment rule, and the probability of harm where no fourth amendment rule exists.

To take the example of a bomb inside an airport locker,¹⁰¹ if the officers knew that the bomb had been rigged to explode even if it were found and efforts were made to defuse it, then the probability that harm would occur, even in the absence of fourth amendment rules hindering intervention, would be relatively high. The relevant factor would be the marginal increase in the probability of an explosion that would result from a given fourth amendment restriction. The seriousness of the harm would depend on how destructive the bomb would be, how many people it would likely kill or injure, and other like factors.

Thus, the costs associated with preventative police action can be summarized as follows:

$$(1) \quad [p(h)f - p(h)nf] \times s(h)$$

Here, $p(h)f$ represents the probability of harm associated with a fourth amendment rule; $p(h)nf$ represents the probability of harm that would exist even in the absence of such a restriction on police action; and $s(h)$ represents the seriousness of the contemplated harm.

B. Evidence-Gathering Interests

The impact of fourth amendment law on evidence-gathering interests can be expressed in the following shorthand manner: whenever law enforcement officers are foreclosed from undertaking a particular search or seizure, there is some probability that criminal activity will go undetected, or some criminals will go unconvicted, as a result. This formulation, however, obscures the fact that in most if not all cases, law enforcement officers are not confronted with a binary choice such as search or non-search. Instead, there are typically a range of investigative tools and methods that can be used to uncover crime, only some of which will be limited or excluded by fourth amendment law. Thus, the fact that the fourth amendment precludes an officer from undertaking the search he would make if given free rein does not mean that no criminal investigation will be made at all. In many cases, a search that is costlier or that is inferior in some fact-finding respects will be available when the

101. See *supra* notes 63-64 and accompanying text (discussing hypothetical of bomb threat in airport lockers).

fourth amendment prevents the search which would be optimum from a purely fact-finding perspective.

1. Effects of Increased Cost of Information

To the extent that fourth amendment rules require *ex ante* procedures, law enforcement officers incur costs in complying with those rules.¹⁰² For example, if the fourth amendment were interpreted to require that a law enforcement officer achieve some specific degree of certainty before searching, such as a fifty percent probability of finding evidence, needless effort might be wasted in attempting to attain sufficient surety.

Similarly, a proposed fourth amendment rule may require a law enforcement officer to make a search in a less efficient manner,¹⁰³ or may foreclose one means of gathering proof on a suspect, forcing the law enforcement officer to gather proof in a less efficient way. To the extent criminals are aware of various rules limiting certain types of searches, they can strategically arrange their activities such that law enforcement officers are unable to apprehend them without incurring added costs. For example, criminals aware of the distinctions drawn between automobiles and houses,¹⁰⁴ in terms of protection afforded by the fourth amendment, might keep the instrumentalities of their crimes at home rather than in their cars.

The costs associated with a fourth amendment rule which forecloses certain investigative avenues are related to the increased cost and decreased amount of information available to identify and convict guilty individuals.¹⁰⁵ In Figure 1,¹⁰⁶ C1 represents the cost curve for information, which depicts the marginal increase in cost associated with each additional increment of information within the relevant range. The phrase "increment of information" is used here

102. I am not referring to costs associated with trying to understand or apply a particular *ex ante* procedure, or costs involved in applying it erroneously. Nor am I referring to the actual cost to society of, for example, issuing a warrant. These costs will be discussed in Part V(B)(1), *infra*, the section on *ex ante* procedures. The point that I am making here is that, to the extent that fourth amendment rules preclude certain avenues of searching, police officers incur costs in trying to work around those rules.

103. For example, one case before the Court recently challenged the use of an electronic tracking device to track the path of a suspect who was driving a car. *United States v. Knotts*, 103 S. Ct. 1081 (1983) (cited and discussed in La Fave, *Fourth Amendment Vagaries (Of Improbable Cause, Imperceptible Plain View, Notorious Privacy, and Balancing Askew)*, 74 J. CRIM. L. & CRIMINOLOGY 1171, 1174-78 (1983) [hereinafter *Vagaries*]). Although the defense conceded that the police could physically follow the suspect and achieve the same effect, it argued (unsuccessfully) that using electronic means to do so was illegitimate. *Id.* at 1178.

104. *See, e.g., Chambers v. Maroney*, 399 U.S. 42, 52 (1970) (upholding warrantless station-house search of arrestee's seized automobile).

105. This framework of analysis was suggested by Professor Warren Schwartz. *See Schwartz, Objective and Subjective Standards of Negligence: Defining the Reasonable Person to Induce Optimal Care and Optimal Populations of Injurers and Victims*, 78 GEO. L.J. 241, 242-244 (1989) (using this framework in analogous area of negligence standards).

106. *Cf. id.* at 256 fig. A (figure depicting effects of increased cost curve in context of negligence standards).

to denote that unit of information which would decrease the risk of conviction or acquittal error by some standardized amount within the relevant range.¹⁰⁷ For example, an increment of information can be conceptualized as that amount of information which would have the capacity to decrease the risk of trial error by an additional one percent. Limiting the range of legitimate police activity through fourth amendment constraints will have the effect of shifting the cost curve for fact-finding upward to C2.¹⁰⁸

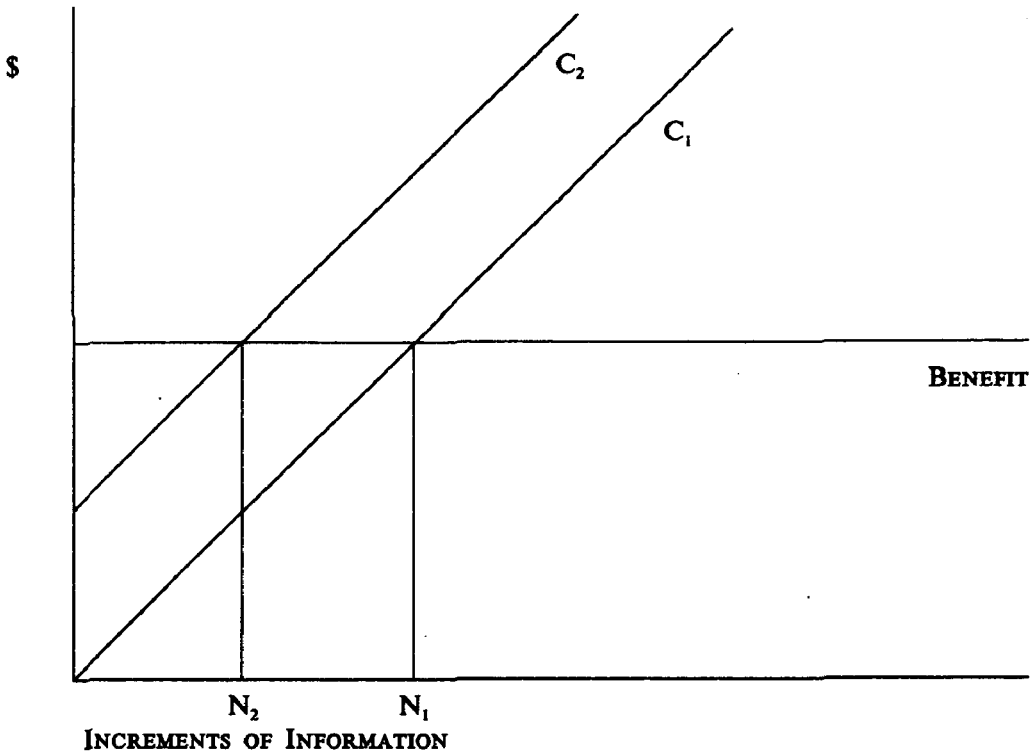
The benefit line in Figure 1 represents the marginal benefits associated with each additional increment of information.¹⁰⁹ When the cost curve is shifted up-

107. Fourth amendment constraints only shift the cost curve for information upward for those increments of information which could be most cheaply obtained through a search or seizure. Increments of information which can be acquired more cheaply without the use of searches or seizures would not become more costly to obtain as a result of fourth amendment rules. For example, if an increment of information could be provided by an eyewitness at lower cost (from a law enforcement perspective) than through a search, the cost of obtaining that increment of information would not be affected by fourth amendment constraints. Thus, the cost curve is only shifted upward as to those increments of information which would further reduce the probability of error from that probability which would exist once all the increments of information which could be obtained more cheaply through other investigative techniques have been obtained. At the other end of the spectrum, there are some increments of information that are not obtainable in a given case, even if unlimited searches and seizures were permitted. For example, decreasing the risk of error from two percent to one percent might simply be impossible in a given case. These increments of information would likewise be excluded from the relevant range because the cost of obtaining these increments would not be affected by fourth amendment rules.

In defining the relevant range, all increments of information which would be most cheaply obtainable through searches and seizures must be included. One result of a fourth amendment rule might be that some increments of information which would initially be cheaper to obtain through a search or seizure would be made more expensive or impossible to obtain through that route as a result of that rule, thus making it cheaper for the police officer to employ some means other than a search or seizure to obtain that increment of evidence. Even though the increment of information is ultimately obtained through a means other than a search or seizure, it should clearly be included in the relevant range since the cost of obtaining it increased as a result of the fourth amendment rule. Obviously, the relevant range would be defined differently in each factual situation.

108. Implicit in Figure 1 is the assumption that the cost curve will be shifted upward uniformly for all increments of information within the relevant range. It is probable that, in any given case, the cost curve would not actually shift uniformly upward (that is, the shape of the higher cost curve would differ from that of the original cost curve). This is true because the cost of obtaining some increments of information may not be increased as much by fourth amendment constraints as the cost of other increments of information. In the absence of any empirical information on this point, I am assuming that these variations in the shape of the upward-shifted cost curve would not be significant over the range of cases.

109. Since each increment of information has been defined in terms of its ability to decrease the probability of error, the marginal benefit associated with each increment of information can be viewed as uniform in the sense of the reduction of the probability of error. Thus B, the line representing marginal benefits, is a horizontal line. It could be argued, however, that the reduction of error by a standardized amount is more "beneficial" to society in some ranges of probabilities than in others. For example, it could be argued that society benefits more (or less) from a reduction from a five percent probability of error to a four percent probability of error than it does from a reduction in probability of error from 56 percent to 55 percent. For purposes of this analysis, I am ignoring such considerations and assuming that each equivalent reduction in probability of error is equally valuable to society.

Figure 1

ward, fewer increments of information are obtained. The upward-shifted cost curve causes the cost of some increments of information to exceed the benefits; thus, these increments of information will be foregone. N_2 increments, rather than N_1 increments, will be obtained. Since fewer increments of information are available to the factfinder, the truthseeking function will be eroded as a result, and the probability of an erroneous conviction or acquittal will increase. The costs associated with this impairment of the truthseeking function will be referred to as "truthseeking costs."¹¹⁰ A second effect of the upward-shifted cost curve is that those increments of information that *are* obtained will cost more to obtain. This additional cost component will be termed "information costs."

While the increments of information which are obtained in a world with fourth amendment constraints are more expensive than in a world free of such constraints, it is unclear whether the total amount spent to obtain information

110. "Truthseeking costs" represent the costs associated with conviction or acquittal error, and are a type of error costs. The criminal justice system is deprived of information, and is less accurate at its assigned task of identifying and punishing guilty individuals. However, I am using this terminology to avoid confusion with error costs which will be introduced later in the context of the application of fourth amendment standards.

will increase as a result of the fourth amendment constraints. The result will depend upon the interaction between two effects: the increased cost of the increments of information that are obtained; and the decreased number of increments of information obtained. The relative magnitude of these two effects depends in turn upon the shape of the cost curve,¹¹¹ the magnitude of the upward shift,¹¹² and the position of the benefit line relative to the cost curves.

I am assuming, however, that some increments of information will be lost under any system of fourth amendment constraints.¹¹³ There is empirical support for the proposition that some increments of information will become unobtainable at any price under certain fourth amendment constraints. For example, the information that would have been disclosed by the surgically removed bullet in *Winston v. Lee*¹¹⁴ could not be gotten in any other manner, and the Court's opinion suggests that no amount of probable cause gleaned from other investigative techniques would ever be sufficient to justify the surgical procedure.¹¹⁵ Or, to take a more ordinary case, police may spend time pursuing procedures which will enable them to carry out a search without running afoul of the fourth amendment, but by the time the search is carried out, some of the evidence has deteriorated or has been destroyed. In many cases, however, information can be obtained in a number of alternative ways. For example, by gaining a higher degree of certainty about the efficacy of a certain search by meeting a probable cause requirement, a previously forbidden search could become possible.¹¹⁶ In such a case, the increment of information simply will have become more costly to obtain. Whether or not it is obtained will depend upon whether the benefits associated with obtaining it outweigh the new cost of obtaining it.¹¹⁷

2. Impact on Overall Crime Rate

To the extent information is not uncovered, there will be less accuracy in distinguishing the guilty from the innocent.¹¹⁸ This fact results in two types of

111. The shape of the cost curve in Figure 1 has no empirical basis and is intended only as an example of a possible cost curve. The shape of the cost curve would be expected to be somewhat different in different investigative situations. In addition, the shape of the upward-shifted cost curve might not correspond to that of the initial cost curve, as discussed in note 108, *supra*.

112. The magnitude of the upward shift would be related to the stringency of the fourth amendment constraints being applied to police officers, and would reflect the extent to which these constraints operate to increase costs.

113. If the benefit line lay above even the upward-shifted cost curve at all points in the relevant range, no increments of information would be foregone as a result of the fourth amendment constraints. However, for purposes of this analysis, I am assuming that the benefit line intersects both cost curves at some point. In other words, the benefits derived from some increments of information is exceeded by the costs of obtaining those increments of information.

114. 470 U.S. 753 (1985).

115. Indeed, the very presence of extrinsic evidence tending to show the defendant's guilt was found to militate against the constitutionality of the surgical procedure. *Id.* at 765; see Wasserstrom, *General Reasonableness*, *supra* note 5, at 143 (discussing Court's reliance on strength of evidence against defendant in deciding that surgical removal of bullet would be unconstitutional).

116. The relationship between these two effects is discussed in further detail Part III(B), *infra*.

117. See *supra* notes 107-10 and accompanying text (discussing increase in cost resulting from additional increments of information).

118. My analysis assumes, of course, that fourth amendment constraints do not in themselves

“truthseeking” problems. First, there will be guilty individuals who are never detected or arrested as a result of the fact that less information is uncovered. Second, there will be erroneous verdicts resulting from the reduced amount of information available to the decisionmaker. Specifically, guilty individuals will be brought to trial but will be erroneously acquitted¹¹⁹ due to the reduced amount of information available.¹²⁰

It is important to understand that these costs do not include acquittals that result from *exclusion* of evidence. At this stage of the analysis, I am assuming an error-free world where law enforcement officers comply fully with fourth amendment requirements. Thus, there would be no costs attributable to excluding illegally-obtained evidence, because no evidence would be acquired by unconstitutional means. Instead, these costs reflect the decreased amount of information that is actually presented to the factfinder when the police follow the dictates of the fourth amendment.

When truthseeking is impaired, thereby allowing guilty individuals to go free or undetected, societal costs associated with crime increase. The magnitude of these increased crime-related costs is related to the amount of relevant information that goes undiscovered as a result of fourth amendment restrictions. As noted earlier, the amount of information that will go undiscovered is a function of the relationship between the two responses to an upward-shifting cost curve for information — an increase in costs incurred in obtaining additional quantities of information, and a decrease in the amount of information acquired. If the former response dominates, then information costs would be higher, but truthseeking costs would be relatively low. If the latter reaction dominates, information costs would not increase at all or might even decrease, but truthseeking costs would be relatively high. Thus, there is an inverse relationship between information costs and truthseeking costs. This is merely a restatement of the simple notion that more information provided to the decisionmaker means fewer mistakes by the decisionmaker.

The relationship between these two responses to an increased cost curve for information will depend upon the extent to which law enforcement officers or

serve to *enhance* truthseeking. However, one could argue that fourth amendment constraints enhance the truthseeking process to the extent that they serve as a check on unlawful police activity in derogation of truthseeking, such as the “planting” of evidence.

119. This reduced amount of evidence available to the decisionmaker could also result in convictions of innocent persons as well, since fourth amendment constraints could prevent police officers from obtaining exculpatory evidence, which under the doctrine enunciated in *Brady v. Maryland*, 373 U.S. 83 (1963), must be made available to the defendant. From a societal standpoint, an erroneous conviction is far worse than an erroneous acquittal. In addition to society's interest in fairness, and the disutility associated with the incapacitation of an individual who otherwise would be usefully contributing to the community, the actual guilty party remains at large. Thus, implicit in any erroneous conviction is a “false positive” (innocent party is convicted), as well as a corresponding “false negative” (real criminal goes free or is undetected). However, I am assuming here that erroneous convictions are a relatively rare result of fourth amendment constraints. To the extent that these “false positives” are empirically significant, they would need to be factored into the model.

120. Only the *marginal* increase in false acquittals directly related to the reduction in information presented to the jury or judge is relevant. False acquittals for other reasons are not a cost associated with the fourth amendment.

police departments internalize increased costs in obtaining information. Assuming that law enforcement officers have perfect information about the truth-seeking costs associated with failing to spend the additional amount of time to gather certain information, and that they perfectly internalize those relevant costs, it would be expected that they would simply continue to gather information when it is "worth it." Despite the increased price of information imposed by fourth amendment constraints, they would continue to "purchase" information up to the point at which it becomes more costly than the truth-seeking benefits that would be lost if the information were not gathered.¹²¹ In other words, on Figure 1, they would purchase N2 increments of information.

Thus, in each investigative context, the relative costs of information and of impaired truthseeking would dictate the number of increments of information that would be purchased. For example, suppose a brutal murder took place and the investigation had revealed a prime suspect. Suppose further that the police would like to search the suspect's apartment for blood-stained garments and other evidence linking the suspect to the crime. However, the fourth amendment restrains the police from conducting the search without a warrant. Given the seriousness of the crime and the strength of the potential evidence, truthseeking costs associated with foregoing this search would be quite high. On the other hand, if additional costs were incurred to obtain the information, the information could be gathered with minimal or no truthseeking loss.¹²² In this case, the benefits derived from the information would be worth the time and trouble spent to obtain a search warrant. Law enforcement officers would be expected to expend this extra amount of time to obtain the information, since the increased cost of information would be lower than the truthseeking costs that would result if the information were foregone.

In reality, however, it is less certain that officers will act optimally under fourth amendment constraints by adjusting their "purchases" of information in the manner indicated in Figure 1. It is unclear what portion of truthseeking costs are actually internalized by the police. When truthseeking is compromised, the probability of an erroneous acquittal increases, leading to elevated crime costs.¹²³ The costs associated with increased crime, or conversely, the benefits associated with preventing such an increase in crime, impact upon society as a whole, but are less likely to be fully internalized by the police. The costs spent to obtain the information, however, will be internalized by the po-

121. The marginal benefits achieved from each increment of information is, by definition, equivalent to the loss in truthseeking capacity which would result were the information not obtained. Restating "benefits" in terms of truthseeking costs underscores the important concept of the tradeoff between these two types of costs.

122. In this example, the only truthseeking loss that might result would be linked to the additional time taken to obtain the search warrant. If evidence could be hidden or destroyed during the interim, this would constitute a truthseeking loss. See *infra* note 125 and accompanying text (incorporating this idea into an equation).

123. The costs associated with an increased probability of an erroneous acquittal are set out more formally at *infra* note 128-30 and accompanying text.

lice department.¹²⁴ To the extent that law enforcement bodies are imperfect proxies for societal preferences, too few resources may be spent on information gathering when the cost of information rises, leading to a result where greater truthseeking costs are incurred.

The mix of information and truthseeking costs that will be incurred can be summarized in the following way:

$$(2) \quad [p(i) \times c(i)] + [p(ie) \times c(e)] + [p(t) \times c(t)]$$

Here, $p(i)$ represents the probability that the law enforcement officer will "purchase" an increment of information at the new, higher price, rather than forego the information. The marginal increased cost of the information is represented by $c(i)$. $C(i)$ can be derived by subtracting the cost of information in the absence of fourth amendment constraints from the cost of the information in the presence of such restraints.

The middle term, $[p(ie) \times c(e)]$, allows for the possibility that even where additional resources are spent to gather evidence, some portion of that information may be unattainable. The clearest example of this would be a situation in which compliance with a procedural requirement such as a search warrant would give a suspect time to destroy or hide evidence. This particular type of cost is incurred when law enforcement officers choose to spend additional resources to obtain the information, but the information received is inferior in some respects to information which could have been obtained if no constraints existed. $P(ie)$ expresses the probability of such an occurrence, by representing the probability that some portion of evidence — a subset of the increment of evidence being sought — will be lost, given that the law enforcement officer has chosen to incur increased information costs rather than voluntarily forego the entire increment of information. $C(e)$ represents the costs associated with the portion of evidence that is lost despite the efforts of police (through higher expenditures) to obtain such evidence.¹²⁵ Stated differently, $c(e)$ represents the degree to which the increment of information has deteriorated in terms of its power to reduce conviction or acquittal errors.¹²⁶

$P(t)$ represents the probability that, in response to the higher costs of information, a law enforcement officer will not obtain an increment of information but will instead incur costs associated with inferior truthseeking. $P(t)$ is the reciprocal of $p(i)$, since a law enforcement officer must choose between these two options with regard to a given increment of evidence. Thus, $p(t)$ can be more simply expressed as $p(1 - p(i))$. $C(t)$ refers to marginal truthseeking costs associated with the foregone evidence.

124. For present purposes, I am assuming that police departments have relatively fixed operating budgets which must be allocated among a number of functions.

125. The "e" term in this part of the equation represents a particular subset of information which is at risk of being lost by compliance with the fourth amendment. In actuality, there would be a number of such subsets that might be lost in such a situation. The costs associated with these subsets and the probabilities associated with their occurrence would be multiplied for each subset, and the results totaled.

126. See text accompanying *supra* note 107 (defining what is meant by an "increment of information").

There are two major sources of crime costs that result from an impairment of the truthseeking function: decreased deterrence, and decreased incapacitation. Thus the term $c(t)$ can be expressed in the following manner:

$$(3) \quad c(t) = c(d) + c(c)$$

Here, $c(d)$ and $c(c)$ represent the deterrence costs and the incapacitation costs, respectively, associated with a loss in truthseeking.

When a guilty person escapes punishment, the probability of punishment for persons committing that crime decreases. Gary Becker's model of crime and punishment¹²⁷ posits a "demand" curve for each given type of crime (Figure 2).¹²⁸ The number of crimes that are committed depends, under this model, on the expected value of punishment.¹²⁹ In Figure 2, the y axis represents the expected value of punishment, while the x axis represents the number of crimes that will be committed. The expected value of punishment, from the point of view of the potential criminal, consists of the probability of punishment multiplied by the severity of punishment. An individual will choose to commit a crime if the utility derived from committing the crime is greater than the expected value of punishment.¹³⁰

Under Becker's model, for any given crime there is a socially optimal combination of probability of punishment and severity of punishment.¹³¹ This optimal combination yields a particular expected value of punishment for persons committing that crime, and thus optimally deters crime.¹³² A decrease in the severity of punishment or the probability of punishment would decrease that expected value of punishment, and would lead to some decrease in deterrence. In Figure 2, when the expected value of punishment decreases from P1 to P2, the number of crimes committed increases from C1 to C2.¹³³

If the severity of punishment were held constant, a decrease in the probability of punishment would result in a decreased expected value of punishment and, thus, in decreased deterrence for the crime in question. The amount of decreased deterrence associated with such a decrease would depend upon the slope of the "demand" curve for that particular crime.¹³⁴ Under Becker's

127. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 181-84 (1968).

128. Becker refers to a "supply of offenses" which is affected by changes in expected punishment. *Id.* at 176. I am using the "demand curve" terminology to mean the same thing.

129. *Id.*

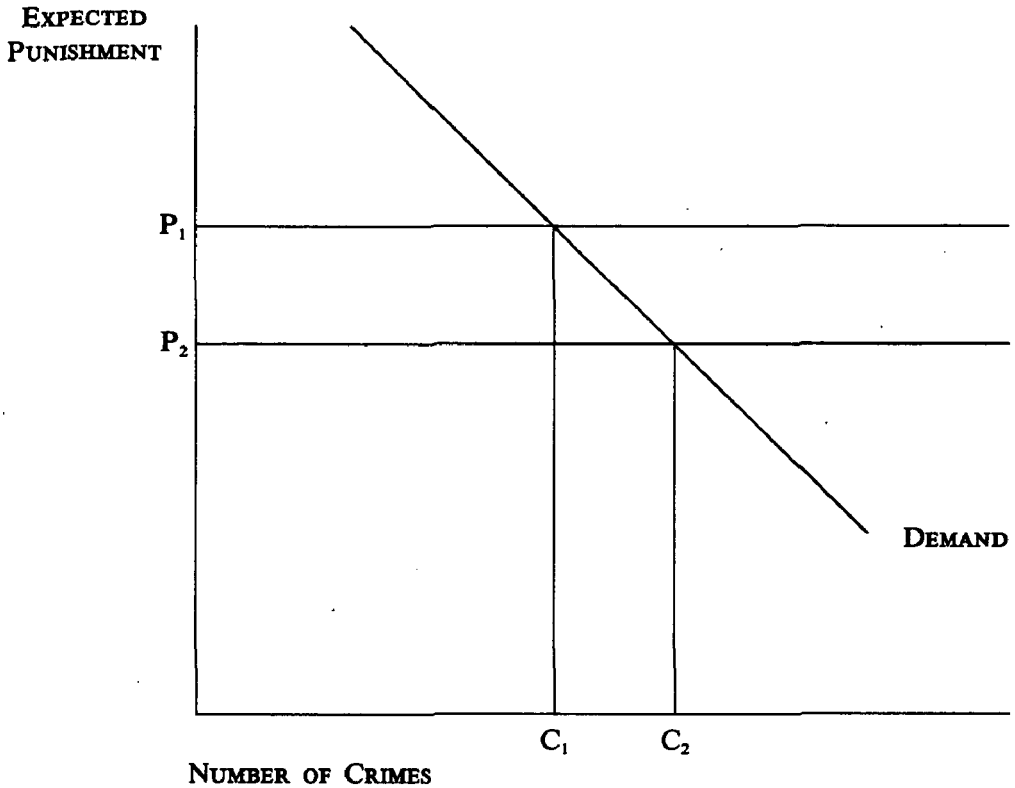
130. This model assumes that criminals are rational in the sense that they are able to assess and respond to changes in the "price" associated with committing a crime. This assumption is, of course, implicit in the idea of deterrence itself.

131. Becker, *supra* note 127, at 181.

132. *Id.* at 183. Optimal deterrence of crime, under Becker's theory, is not synonymous with maximum deterrence of crime. Since punishment, as well as crime, is costly to society, the optimum amount of deterrence is that amount which will lead to the minimization of the sum of the costs associated with crime and punishment. *Id.* at 180-81.

133. *Id.* at 182 fig. 1.

134. *See id.* at 185-90 (discussing elasticity of offenses). The demand curve in Figure 2 is simply shown as an example of a possible demand curve; there is no empirical support for the slope that is depicted.

Figure 2

model, the elements of severity and probability work together to produce a single expected value of punishment.¹³⁵ Therefore, a decrease in the probability of punishment could theoretically be offset by an increase in the severity of punishment.¹³⁶ Severity and probability, however, are not perfectly fungible factors. Scholarship in this field has demonstrated that an increase in probability of punishment is a much more desirable and efficient method of increasing deterrence than is a comparable increase in severity of punishment.¹³⁷ The

135. *Id.* at 183.

136. *Id.* at 183-84. Becker notes, however, that attitudes towards risk would alter this analysis. *Id.*

137. See, e.g., Block & Sidak, *The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?*, 68 GEO. L.J. 1131, 1136-38 (1980) (arguing that as long as prosecutors and judges mischaracterize legal corporate behavior as illegal, antitrust laws cannot be optimally enforced by increasing severity of punishment and decreasing probability of punishment); Polinsky & Shavell, *The Optimal Tradeoff Between the Probability and Magnitude of Fines*, 69 AM. ECON. REV. 880, 881-87 (1979) (arguing that individual risk aversion makes increasing penalties imperfect method for increasing deterrence); Stigler, *The Optimum Enforcement of Laws*, 78 J. POL. ECON. 526, 526-29 (1970) (arguing that society must limit penalties for relatively less serious crimes in order to marginally deter individuals from committing relatively more serious crimes).

considerations explicated in these works provide support for my next assumption: within the relevant range, any increase in probability of punishment leads to a Pareto superior combination of probability and severity of punishment; any decrease in probability leads to a Pareto inferior combination.¹³⁸

Thus, any fourth amendment rule would be expected to hamper the truth-seeking function to some extent and to result in less detection and conviction of guilty individuals. Since the probability of being punished for a given crime would go down, and since any compensatory increase in severity of punishment would necessarily be imperfect,¹³⁹ the expected "cost" of crime, from the perspective of a potential criminal, would decrease.¹⁴⁰ This result would lead to decreased deterrence, and some increase in the incidence of the crime.¹⁴¹ The magnitude of this increase will depend upon the slope of the line defining the relationship between incidence of crime¹⁴² and expected value of punishment.¹⁴³ In other words, the extent to which there will be costs associated with loss of

138. This assumption is made only as to shifts in probability within the relevant range (that is, shifts in probability that could be attributable to changes in fourth amendment law). Becker's model posits an optimal combination of probability and severity. Becker, *supra* note 127, at 181. Thus, at some point additional increases in probability are less efficient than a comparable increase in severity, because of the increasing marginal costs of enforcement, for example. To simplify the analysis, however, I am assuming that the changes in probability that could be brought about by changes in fourth amendment law fall within a range in which increased probability moves the combination of increased probability and severity closer to optimality.

139. See *supra* note 137 and accompanying text (discussing notion that increase in severity of punishment not most efficient method for increasing deterrence).

140. How much the expected value of crime would decrease would depend upon the extent to which an increase in severity of punishment is used to compensate for the decreased probability of crime. It would be expected that society would attempt to compensate in this manner if the costs associated with increased severity were less than the costs that would stem from the marginal decrease in expected value of punishment that would otherwise result. I am assuming that, given a decrease in the probability of punishment, some efforts to compensate through increased severity will be undertaken. However, I am further assuming that the costliness and ineffectiveness of increased severity as a substitute for a higher probability of punishment, *supra* note 137, would preclude an increase in severity sufficient to fully make up for the decrease in probability of punishment. The recent trend towards harsher sentences reflected in the Federal Sentencing Guidelines, however, indicates a societal willingness to increase severity rather dramatically in certain instances, and makes this assumption empirically questionable. I am nevertheless assuming that the expected value of punishment will go down as a result of the decreased probability of punishment resulting from fourth amendment constraints.

141. This analysis assumes that criminals can accurately assess the expected value of punishment as measured by the actual probability of conviction and severity of punishment. If the search did not lead to a conviction, then the probability of conviction for the overall population would not be increased. However, it could be argued that criminals would be deterred from crime by a perception that many random searches were taking place, whether or not those searches actually resulted in convictions. At the limit, a "police state" might deter crime out of proportion to the actual increase in probability of conviction for specific crimes. For the analysis of this Article, I am ignoring this possibility, and looking only at the impact on the conviction rate as an index of increased deterrence.

142. Each type of crime would have to be evaluated separately. The relationship between the incidence of crime and the punishment would be different for each crime.

143. Becker, *supra* note 127, at 185-90.

deterrence depends upon how effective deterrence is for that crime in the first place.

How costly this loss of deterrence is depends upon the seriousness of the crime involved, since a decrease in deterrence means that more crimes of that type will be committed. If the crime is a very serious one, then society will suffer much greater harm if even a few less individuals are deterred from engaging in it. Thus, the number of crimes which go undeterred and the cost to society for each such undeterred crime together determine the societal loss that results from a decreased probability of punishment.¹⁴⁴

To further elaborate, the term "d" in Equation 3 would represent the expected value of deterrence associated with the search (if performed). This value can be expressed as:

$$(4) \quad d = p(s(k) \times h)$$

In Equation 4, p represents the decreased marginal probability of a conviction if the information is foregone,¹⁴⁵ s represents the slope of the demand curve for crime k within the relevant range, and h represents the societal harm caused by the crime. This term is designed to express the amount of deterrence that could be expected from a given search. If a particular crime has very elastic demand — it is easily deterred if the expected value of punishment rises — then the slope of the demand curve would be greater, and the deterrence value associated with a given search would be greater.

The second major law enforcement cost that results from a fourth amendment formulation that impairs the truthseeking function is the cost associated with the inability to incapacitate the wrongdoer.¹⁴⁶ Obviously, if a criminal is not apprehended, he or she is free to continue in a life of crime, imposing

144. A decreased probability of punishment would also have some impact on the costs associated with punishing criminals. Society would save money by punishing fewer criminals, but would spend more money to punish the individuals that it did punish, because the punishment would be expected to be somewhat more severe. See *supra* text accompanying note 136 (noting theoretical inverse relationship between probability of punishment and severity of punishment) and *supra* note 140 (increased severity of punishment used to compensate for decreased probability). The net impact on cost of punishment is indeterminate. I am assuming, for purposes of this Article, that the net impact would not be significant; thus, I have omitted this factor from my model.

145. This decrease would reduce the probability of obtaining one conviction. If multiple convictions were possible for a given search, then this term would have to be calculated for each possible conviction, and the terms would be added together. Similarly, if there were a possibility of convicting for several different crimes, the terms would have to be calculated separately for each crime, and summed.

146. I am discussing only the costs associated with the *inability* to incapacitate the criminal. Clearly, there are costs associated with the incapacitation of the criminal. To the extent that criminals are not punished, society saves money on punishment. However, Becker's model suggests that any decrease in the number of criminals punished (probability of punishment) would be counterbalanced to some extent by an increase in the severity of punishment for those criminals that *are* punished. See *supra* note 136 and accompanying text (discussing this phenomenon). Costs associated with this increase in severity of punishment would counterbalance those savings in punishment costs that would result from the punishment of a smaller proportion of criminals. Thus, it is unclear whether punishment costs would increase or decrease overall as a result of fourth amendment constraints.

more costs on society. As in the case of deterrence, the incapacitation cost associated with foregoing any particular search depends upon whether that search would have been fruitful. If there were no criminal activity to uncover, and no criminal to incapacitate, at the site of a given search, there would be no incapacitation costs for foregoing the search. As the probability of uncovering crime increases, the expected incapacitation costs associated with foregoing the search similarly will rise. In addition, the cost of failing to incapacitate a criminal depends upon how much cost would have been avoided had the incapacitation happened. For example, there are very few incapacitation costs associated with foregoing a search that would have led to the capture of a petty thief. Even if the thief were captured, the thief's sentence would likely be short, and the period of incapacitation brief. Further, the costs associated with the crimes that this thief would otherwise perpetrate during the term of the incapacitation are relatively small. Thus, to determine incapacitation costs, both the types of crimes the individual is likely to continue committing, and the length of time that the individual would be incapacitated if a search led to conviction must be taken into account. With respect to some crimes involving relatively competitive markets, such as drug sales, incapacitation of an individual may not result in a decrease in crimes because other individuals will step in and substitute their own crimes for the crimes that the individual would have committed if he or she remained free.¹⁴⁷

The term "c" in Equation 3 can thus be expressed as:

$$(5) \quad c = [p(kr_1 + kr_2 \dots + kr_n)] - [p(s) \times c(s)]$$

In Equation 5, p represents the decreased marginal probability of conviction associated with foregoing the information, k represents the costs of crime k , and r_1 represents the probability that the crime will be committed once if the criminal is not incapacitated. R_2 represents the probability the crime will be repeated a second time, and n represents the expected number of such repetitions. This number is offset, however, by the degree to which other individuals would step in and substitute their own crimes for the crimes that would be prevented by incarceration of a defendant. $P(s)$ represents the probability that such substitution would take place, and $c(s)$ represents the social cost associated with the substituted criminal behavior.

Other possible costs associated with fourth amendment law involve the public perception and integrity of the legal system itself. The legal system's functioning is impaired if it is perceived as unfairly freeing criminals.¹⁴⁸ However, it has also been argued that both the public perception and the integrity of the legal system are harmed when improperly obtained evidence is allowed to be the basis of a conviction.¹⁴⁹ These costs are based on individual preferences

147. See generally P. REUTER, R. MACCOUN & P. MURPHY, *MONEY FROM CRIME* (1990) (discussing drug markets and the economics of drug dealing in Washington, D.C.).

148. See Ingber, *supra* note 17, at 1521-22 & nn.52-58 (noting attacks on exclusionary rule and critiques of legal system seen as "coddling criminals").

149. See, e.g., *United States v. Calandra*, 414 U.S. at 357 (Brennan, J., dissenting) (exclusion-

and cut in both directions. The net impact on public perception and judicial integrity of a given fourth amendment constraint is indeterminate. For this reason, these costs are not included in my model.

The related cost of criminals "going free" will be analyzed in the section on remedial measures.¹⁵⁰ In the present section, I am assuming that remedial measures are costlessly enforced and completely effective. Under these assumptions, instead of the criminal later being released upon suppression of the evidence, the evidence would never initially be found because the illegal search would not have been conducted.

The total costs associated with law enforcement interests can be expressed as:

$$(6) \quad C(le) = \{[p(h)f - p(h)nf] \times s(h)\} \\ + \{[p(i) \times c(i)] + [p(ie) \times c(e)] + [p(t) \times c(t)]\}$$

The first large bracketed term, $\{[p(h)n - p(h)i] \times s(h)\}$, includes the costs incurred when the preventative function of an intrusion is limited by fourth amendment rules. The second large bracketed term, $\{[p(i) \times c(i)] + [p(ie) \times c(e)] + [p(t) \times c(t)]\}$, includes the costs that are incurred when fourth amendment rules shift the cost curve for acquiring information upward.

IV. PRIVACY-RELATED INTERESTS

The law enforcement costs outlined above must be balanced against a group of "privacy-related interests" in order to determine the optimum level of fourth amendment protection against searches and seizures. In addition to the core of interests commonly recognized as constituting privacy, these interests would include property interests which are potentially violated by searches and seizures.

ary rule enables judiciary "to avoid the taint of partnership in official lawlessness and [to assure] the people . . . that the government would not profit from its lawless behavior, thus minimizing the risk of seriously undermining popular trust in government"); *Terry v. Ohio*, 392 U.S. at 12 (in addition to serving deterrent purpose, exclusionary rule "serves another vital function — 'the imperative of judicial integrity'") (quoting *Elkins v. United States*, 364 U.S. 206, 222 (1960)); *Mapp v. Ohio*, 367 U.S. at 659 (although exclusion of probative evidence may in some cases allow guilty suspect to be acquitted, "the imperative of judicial integrity" requires this result).

Although the Court once forcefully argued that maintenance of public support for the legal system and "judicial integrity" was nearly equal to deterrence of illegal governmental conduct as a purpose behind the exclusionary rule, *e.g.*, *Terry v. Ohio*, 392 U.S. at 12; *Mapp v. Ohio*, 367 U.S. at 659, the Court has recently downplayed the former rationale and has instead stressed deterrence as the primary purpose behind the rule. *E.g.*, *United States v. Havens*, 446 U.S. 620, 626-27 (1980) (exclusionary rule's primary purpose of deterrence not frustrated by allowing use of illegally seized evidence to impeach defendant's testimony); *United States v. Calandra*, 414 U.S. at 347-52 (exclusionary rule's "prime purpose [of deterring] unlawful police conduct" not frustrated by allowing use of illegally seized evidence in grand jury proceedings).

For general discussions and critiques of the Court's various analyses of the purposes behind the exclusionary rule, *see generally*, LaFave, *supra* note 22, at § 1.1(f) (discussing Court's asserted purposes); Schrock & Welsch, *supra* note 22, at 263-64 (discussing Court's asserted purposes but criticizing Court for relying on "an unstable combination of arguments" to support rule).

150. *Infra* notes 195-224 and accompanying text.

The first privacy-related interest is the right to pursue one's own lawful activities without interference.¹⁵¹ This interest is violated when a person is interrupted while conducting a lawful activity.¹⁵² The degree of intrusiveness of a search or seizure determines the degree to which this interest is harmed. For example, when law enforcement officers burst into a living room and handcuff the occupants for several hours while they search, those occupants are precluded from engaging in whatever valuable activities¹⁵³ they would otherwise have been pursuing. However, this particular type of privacy interest is not infringed by a bug on a telephone.¹⁵⁴

The extent to which this interest is interfered with also depends upon the setting in which the search occurs.¹⁵⁵ In some settings, such as a home, there is a greater value attached to noninterference with one's activities. If a law enforcement officer stops an individual who is walking down the street, on the other hand, that person may be momentarily prevented from continuing his or her activities, but the intrusion is not as extreme. Similarly, it is also less intrusive to stop a driver for a limited period of time than it is to enter a home. One reason for these differences may be that people walking or driving down a street are pursuing an apparent activity — walking or driving — whereas a person inside a home could be engaged in any number of activities. Another basis for making a distinction would be that drivers and pedestrians have come into a public place to pursue their activities, while a person in a

151. See, e.g., R. POSNER, *ECONOMICS OF JUSTICE* 272-73 (1981) (discussing individual's interest in being left alone) [hereinafter *ECONOMICS OF JUSTICE*].

152. For now, I will assume that only lawful activities are considered to be socially valuable. Therefore, there is only a cost incurred when a lawful activity is interrupted, not when an unlawful activity is interrupted. This issue will be dealt with in more detail when I set up the optimality equation. *Infra* notes 170-72 and accompanying text.

153. For purposes of this analysis, the assumption is that every lawful activity is valuable because it has a subjective value to the person engaging in it. I will not attempt to make value judgments as to whether it is more costly to interrupt an individual hard at work on a law review article than it is to interrupt an individual watching television. For purposes of this analysis, all lawful activities are considered to have value. However, the setting in which one pursues an activity may reflect the extent to which nonintrusion is valued. See *infra* notes 156-57 & 165 and accompanying text (discussing different levels of fourth amendment protection given in different contexts).

154. This result assumes that the bug is unobtrusive. However, if the bug emitted an irritating static sound every few seconds, there would be an invasion of this interest, as the sound would interfere with the ability to carry on a conversation. See Posner, *ECONOMICS OF JUSTICE*, *supra* note 151, at 313 (detailing similar example).

155. In *Katz v. United States*, 389 U.S. 347 (1967), the Supreme Court introduced the "legitimate expectation of privacy" test which has governed its decisions regarding the scope of fourth amendment coverage ever since. In determining whether the fourth amendment applies, the Court looks both at whether a person expected no intrusion on his privacy, and whether it would be reasonable to expect no such intrusion in today's society. Thus, there is both an objective and a subjective component to the test. Gutterman, *A Formulation of the Value and Means Models of the Fourth Amendment in the Age of Technologically Enhanced Surveillance*, 39 *SYRACUSE L. REV.* 647, 647-667 (1988). Part of the analysis focuses on whether the person manifested an intention to keep something private, or whether the person instead knowingly exposed the information to the public. *Id.* at 664.

home has chosen not to expose himself or herself to the world.¹⁵⁶ To some extent, the fact that a person chooses to place himself or herself in a given setting may provide an index as to how important privacy is to that person at that time. Thus, the fact that a person makes an effort to avoid interference may indicate that the person's interest in avoiding interference is great.¹⁵⁷

Similarly tied to the intrusiveness of a search is the privacy-related interest of not having one's belongings damaged or put into disarray.¹⁵⁸ In other words, there are costs associated with destructive law enforcement behavior during a search or seizure. If a piece of furniture is broken, there is a loss; if one's personal papers and belongings are strewn all over the floor, there are costs associated with putting them back in order.¹⁵⁹ There is a privacy interest, perhaps more properly termed a property interest, in not having one's possessions taken away by police for any period of time. The degree to which this interest is interfered with depends upon the items which are taken and the length of time that their owner is deprived of their use.¹⁶⁰

A different type of privacy interest involves one's desire to keep certain pieces of information private.¹⁶¹ This interest can be illustrated by the desire not to have one's telephone bugged, even though one will not be engaging in any criminal transactions. There are several reasons why one might wish to keep information private. First, one might have a proprietary interest in the information, as in the case of trade secrets.¹⁶² In such an instance, disclosure of the information would result in an economic loss. Alternatively, one might wish to hide facts about oneself, if the disclosure of these facts would result in some type of disutility.¹⁶³ The disutility could be either economic or personal. Posner has argued that this type of interest is illegitimate, because it withholds information that could help individuals make better decisions about who they will associate with in their business and personal lives.¹⁶⁴ The interest would have some legitimacy, however, if it were found that certain pieces of

156. The Supreme Court has used this rationale to justify a higher level of fourth amendment protection inside residences. See Gutterman, *supra* note 155, at 672 (discussing "public exposure" theory).

157. The Supreme Court often looks at the conduct of the person being searched for clues as to the importance of the interest allegedly violated. For example, if a person carries an object loose on a car seat, the Court might reason that the person did not have as great an interest in protecting privacy than as if the object were wrapped and concealed in some hidden compartment. This reasoning also justifies heightened privacy in the home. See *supra* notes 155-56 and accompanying text (discussing "legitimate expectation of privacy" test and its application).

158. See Dix, *Means of Executing Searches and Seizures as Fourth Amendment Issues*, 67 MINN. L. REV. 89, 92-94 (1982) (describing facts in case involving very destructive search).

159. *Id.*

160. *Id.* at 107-09; Florida v. Royer, 460 U.S. 491, 505-06 (1983) (cited in LaFave, *Vagaries*, *supra* note 103, at 1209).

161. Posner, *ECONOMICS OF JUSTICE*, *supra* note 151, at 232-50.

162. *Id.* at 242-45.

163. *Id.* at 232-33.

164. *Id.* at 233-34.

information are systematically misinterpreted by others.¹⁶⁵ The intensity of one's interest in keeping information private can be measured by the costs a person would incur to keep that information private. For example, people might incur additional costs to talk to each other in person if they believe there is a chance that their phone is being bugged.¹⁶⁶

There are also a group of privacy interests that are more difficult to define. One such interest is perhaps best exemplified by the desire of individuals in our culture not to be observed naked by strangers. The cost associated with such observation is one of embarrassment, or loss of dignity. One commentator refers to this type of interest as an interest in not being the subject of attention.¹⁶⁷ This interest is real, the argument runs, even if no additional facts could be gained from the attention, and even if it would not interfere with one's productive activities.¹⁶⁸ The intensity of this interest can also be gauged by the costs that individuals would incur to prevent being observed. Interfering with such an interest would cause individuals to spend money on socially useless measures to avoid being seen. For example, if police developed a technology which permitted them to see through ordinary, unreinforced walls, and the fourth amendment did not prohibit them from using this technology at will, people would spend money installing the necessary reinforcement that would thwart the technological device. This expenditure would be a net social waste.¹⁶⁹

One final interest should be noted. Criminals have an interest in not having evidence of their crimes discovered. This is a real interest, in that they suffer disutility if interference with this interest occurs. However, this interest should not be factored into the balance, because the assumption is that society has already reached a determination that criminal conduct is, on balance, costly.¹⁷⁰ While it could be argued that there is some social utility associated with certain crimes, this utility is presumed to be outweighed by consideration of the harms caused. Thus, the assumption for this analysis is that criminal conduct is not to be considered socially valuable, and a criminal's interest in not being

165. Gavison, *Privacy and the Limits of Law*, 89 YALE L.J. 421, 454 (1980) (nondisclosure may be preferable because in some circumstances risk of misinterpretation or irrational reaction may be so great that it "may be best to let one's ignorance mitigate one's prejudice").

166. Posner, *ECONOMIC ANALYSIS*, *supra* note 83, at 639.

167. Gavison, *supra* note 165, at 432.

168. *Id.* at 432-33.

169. See Posner, *The Right of Privacy*, 12 GA. L. REV. 393, 403-04 (1978) (discussing social loss that results from costs incurred to maintain privacy).

170. Although criminal conduct is always costly to society, at some point punishment of criminal conduct becomes more costly than the crime itself. This is the point demonstrated by Becker's analysis, which posits that utility is maximized by an optimum amount of deterrence, not the maximum amount of deterrence. *Supra* notes 127-36 and accompanying text. This does not, however, change the fact that criminal conduct is costly and that society is better off without it. It merely demonstrates the need to adjust the combination of probability and severity of punishment so as to provide the optimum amount of deterrence. See *supra* notes 136-38 and accompanying text (discussing this adjustment).

detected is not an interest that needs to be captured in the fourth amendment balance.¹⁷¹

This is not to say, however, that criminals do not have all the privacy interests listed above. While they have no legitimate interest in concealing their crime, police action can interfere with the legitimate interests of criminals.¹⁷² For example, a law enforcement officer, in searching a room, may break all the furniture in his (successful) effort to locate drugs. The costs associated with the broken furniture would be factored into the equation, but the costs associated with having the drugs discovered would not be considered.¹⁷³

Total privacy-related costs associated with police intrusions can be expressed as follows:

$$(7) \quad C(v) = \{p(i)[(v1 + v2)d + v3 + v4 + v5]\} + v6$$

Here, $C(v)$ represents the total privacy costs, $p(i)$ represents the probability that law enforcement officers will choose to engage in investigative activity under the restraints imposed by fourth amendment rules rather than simply forego the investigation altogether.¹⁷⁴ $V1$, $v2$, $v3$, $v4$, and $v5$ represent the various types of privacy-related interests outlined above. The first two of these interests — the interest in pursuing lawful activities without interference, and the interest in not having one's belongings damaged or put into disarray — are tied to the degree of intrusiveness of a search, represented by d . $V6$ represents costs to all privacy-related interests from preventative intrusions.¹⁷⁵

V. THE OPTIMAL FOURTH AMENDMENT

A. *Optimality in a World Without Error Costs or Administrative Costs*

Under the assumption of no error costs and no administrative costs, fourth amendment "reasonableness" could be determined by balancing the interests delineated above. The balance would be struck differently depending upon the various factors detailed above: the severity of the crime under investigation; the probability of finding incriminating evidence; the other alternatives available for gaining such evidence and the costs associated with those alternatives; the intrusiveness of the search; the setting of the search; and the extent to which the subject of the search has indicated a desire to maintain privacy.

An optimal system of fourth amendment rules would operate so that the sum of law enforcement costs and privacy-related costs would be minimized over the spectrum of cases. This minimization can be expressed in the following manner, where T is to be minimized:

171. Gavison, *supra* note 165, at 435.

172. *Id.*

173. I do not mean to suggest that furniture-breaking would necessarily be considered reasonable or unreasonable in this situation. The broken furniture, however, should be a cost weighed against the law enforcement interests at stake in the case.

174. See *supra* notes 124-26 and accompanying text (explaining derivation of $p(i)$ term).

175. See *supra* notes 96-101 and accompanying text (discussing preventative intrusions).

$$(8) \quad T = C(l_e) + C(v)$$

As noted earlier, this model does not test the reasonableness of a particular discrete search, but instead tests the optimality of a given level of fourth amendment protection as applied to a particular type of investigative situation. For example, if the level of fourth amendment protection were set very low, law enforcement costs would be low. However, privacy-related costs would be high, since law enforcement officers would face very few impediments to carrying out desired searches. Conversely, if a relatively high level of fourth amendment protection were established, law enforcement costs would be higher, while privacy-related costs would be lower. The optimum level of fourth amendment protection would, of course, minimize the sum of these two costs.

Using this model, the optimum level of fourth amendment protection could be determined for any given investigative situation. The optimum level would be expected to be different in different situations, as the relative costs of law enforcement and privacy-related interests will differ. For example, we would want fewer restraints put on police action in the case of the bomb inside the locker than we would want in a situation involving a search for a small quantity of drugs allegedly secreted within a home. Thus, the optimal level of fourth amendment protection is, at least in the abstract, a sliding scale concept that changes with each investigative situation.

B. Factoring in Error and Administrative Costs

1. Costs in Ex Ante Procedures

The extent to which any theoretical level of fourth amendment protection can be realized in a society depends largely upon what mechanisms, procedures, or rules are used to put it into effect. The equation developed earlier addresses the question of what the optimal level of fourth amendment protection would be in the abstract, assuming no error or administrative costs. Thus, it assumes that fourth amendment rules can be developed which will perfectly conform to optimality in all investigative situations. It further assumes that law enforcement officers always comply with the fourth amendment standards that have been set, and judges are always able to tell whether or not law enforcement officers have complied with these requirements. Stated differently, law enforcement officers and judges have perfect information about the location of the line between constitutional and unconstitutional conduct, and about their own conduct relative to that line. Furthermore, law enforcement officers would have full knowledge of relevant costs and benefits and would make the most efficient choice as to whether increments of information should be obtained at a greater cost, or whether they should instead be foregone.

Even assuming that the standard for fourth amendment compliance is correctly set at the level which will minimize total societal costs, there will be

some uncertainty surrounding the standard.¹⁷⁶ Specifically, law enforcement officers will not be sure what measures must be complied with in order to make a search constitutional, or whether compliance with these measures is a worthwhile endeavor. Law enforcement officers could be expected to make errors of four kinds: (1) making illegal searches (that is, searches that are not in compliance with the fourth amendment standard); (2) taking precautions in relation to an investigation in excess of the fourth amendment requirements; (3) refraining from an investigation on the erroneous belief that it could not efficiently be brought into compliance with the fourth amendment standard (that is, a belief that the increased information costs were higher than the truthseeking costs associated with foregoing the investigation); and (4) bringing an investigation into compliance with the fourth amendment where it would have been cheaper to forego the information sought (that is, where information costs exceeded the truthseeking costs that would have been foregone).

The extent to which such errors will occur depends, among other things, upon the complexity of the operative fourth amendment constraints. There is some tension between the simplicity of a standard and its accuracy in tracking the substantive optimum. The fourth amendment rule that would lead to an optimal balancing between the relevant costs would differ with each changing set of circumstances. In order to minimize the sum of law enforcement and privacy-related costs in the entire universe of cases, a different optimum rule would be used in each individual case. A different rule for every set of facts, while leading to the minimization of law enforcement and privacy-related costs, may be costly in other respects. The more simple the fourth amendment rules, the less responsive they are to changes in investigative situations. Thus, increasing simplicity would be expected to yield more errors due to the rules' failure to track the optimum.

In addition, a system of fourth amendment constraints is not costless to administer. Law enforcement agencies incur costs associated with training officers to comply with fourth amendment constraints, and also bear the cost of officers applying this training to a given situation or complying with any ex ante procedures that might be prescribed by a given set of fourth amendment constraints (for example, the warrant requirement). If an ex ante procedure such as a warrant is used, there are costs associated with the issuance of the warrant itself, such as the time of the magistrate.

2. Costs in Remedial Measures

In reviewing police conduct, judges will incur administrative costs in determining whether the officer complied with the fourth amendment standard. Where this determination is erroneous, error costs will result. Judicial errors are of two types: (1) finding a legal search illegal; and (2) finding an illegal search legal. The extent to which error costs would be associated with either

176. See Calfee & Craswell, *Some Effects of Uncertainty on Compliance With Legal Standards*, 70 VA. L. REV. 965, 968 (1984) (uncertainty of standards due to indeterminacy of legal consequences that will result from their application).

remedy depends upon the degree of uncertainty facing the law enforcement officer who must make the decision.¹⁷⁷ The amount of uncertainty as to the actual location of the negligence standard will depend, in large part, upon the complexity of the legal rules and ex ante procedures that have been developed to guide officers.

The way in which these errors impact upon the equation depends upon the consequence of making each type of error.¹⁷⁸ These consequences depend upon the remedy that is used to enforce the fourth amendment standard. Thus, the frequency of judicial errors would be expected to bear some relationship to the complexity of the operative rules or procedures; the costliness of each error would depend upon the cost to society of imposing the operative remedy. One cost of an erroneous judicial determination is its effect in signaling a different standard to the police force than the one originally formulated, making future police errors more likely.

3. Minimizing Error and Administrative Costs

The minimization of the error costs and administrative costs outlined above can be expressed as follows where C(a) represents the total error and administrative costs :

$$(9) \quad C(a) = d + e_1 + e_2 + a_1 + a_2$$

In this equation, d represents the costs associated with the deviation of ex ante rules from the optimum, e₁ represents the error costs in law enforcement officers' compliance with ex ante rules, and a₁ represents the administrative costs for law enforcement officers in complying with ex ante rules. In addition, e₂ represents the error costs at the judicial level in determining whether law enforcement officers were in compliance with the operative standard, and a₂ represents the administrative costs in the judicial determination of whether law enforcement officers were in compliance with the fourth amendment standard.

C. *Optimality in Ex Ante Rules*

One commentator, dismayed by the current lack of clarity in fourth amendment law, has maintained that the brightest possible line should be adopted, one which can be summed up in a "terse command any policeman can understand."¹⁷⁹ Certainly, such a bright line might be expected to reduce the administrative and error costs incurred by law enforcement officers in complying with that standard. However, the desirability of any given standard must be evaluated not only in terms of how "bright" it is, but also in terms of how

177. See *id.* at 970-74 (showing differences attributable to different probability distributions regarding liability).

178. Of course, the way in which these errors are weighed is also of critical importance. Cf. *American Hospital Supply v. Hospital Products Ltd.*, 780 F.2d 589, 593 (7th Cir. 1985) (discussing appropriate manner of weighing uncertainties in preliminary injunction context).

179. Bradley, *supra* note 1, at 1500-01.

closely it tracks the optimum standard.¹⁸⁰ Simply because a standard is a "terse command every policeman can understand,"¹⁸¹ does not mean that its application will lead to optimal results; if the "terse command" does not track the optimum, there will be very high error costs associated with that inferior "fit," which may very well outweigh the benefits associated with easy and accurate application of the standard.

A "brighter" or more simplistic rule should only be used where the savings in administrative and error costs for both the law enforcement officers and the judicial system outweigh the error that is built into the rule by virtue of its failure to capture the subtleties of the optimal formulation. To reduce these costs, similar cases could be grouped under a number of graduated rules. Assuming that administrative and error costs are directly correlated with the number of such rules,¹⁸² additional gradations would be added only where the benefits in terms of a better fit with the optimum exceeded the costs of such additional rules.

Furthermore, there is some question as to whether bright lines are particularly helpful in reducing error and administrative costs. Where the bright lines become numerous and complex, their usefulness diminishes accordingly.¹⁸³ Alternatively, if too few bright lines are set, in many cases the line may not provide a very good fit with the situation. In such instances, the temptation will be great for the Court to achieve a more correct substantive result by tampering with a procedural doctrine,¹⁸⁴ or perhaps by writing a particular realm of activity out of the fourth amendment altogether.¹⁸⁵

A single standard could be set which would govern all situations. Prior to *Terry v. Ohio*¹⁸⁶ and *Camara v. Municipal Court*,¹⁸⁷ a single standard was arguably applied by the Supreme Court.¹⁸⁸ "Probable cause," a concept which apparently bore some fixed meaning, was required of every search or seizure. The use of such an unchanging standard has the disadvantage of poorly tracking the optimum standard, and leading to very poor decisions in some of the

180. See LaFave, *The Fourth Amendment in an Imperfect World: On Drawing "Bright Lines" and "Good Faith,"* 43 U. PITT. L. REV. 307, 328 (1982) (stating "[t]he . . . question is whether the rule will produce results which at least approximate those which would be obtained if a more careful case-by-case application of a principle were feasible") (emphasis in original).

181. Bradley, *supra* note 1, at 1500-01.

182. This assumption is not necessarily correct. See *infra* notes 226-27 and accompanying text (discussing possibility that completely flexible reasonableness standard might incur less administrative and error costs than set of bright line rules). One type of error cost almost certainly increases with a decreasing number of standards — the errors associated with deviation from the optimum. *Supra* notes 177-78 and accompanying text.

183. Alschuler, *supra* note 55, at 287.

184. *E.g.*, *United States v. Leon*, 468 U.S. at 905.

185. *E.g.*, *California v. Greenwood*, 108 S. Ct. at 1628-29 (no fourth amendment protection for curbside garbage); *Florida v. Riley*, 109 S. Ct. at 506-07 (no fourth amendment protection for backyard areas which can be viewed from low-flying aircraft).

186. 392 U.S. 1 (1968).

187. 387 U.S. 523 (1967).

188. See Sunby, *supra* note 1, at 387 (discussing probable cause standard as only standard before *Camara*).

individual cases. While the Court still claims to adhere to a single standard of probable cause, with the advent of *Terry*, at least one additional gradation was added. In *Terry*, the Court held that a pat-down type frisk was permissible on "reasonable suspicion," a quantum of certainty substantially less than that required under probable cause.¹⁸⁹ While the Court has not yet embraced a graduated or sliding scale approach to searches and seizures, *Terry* demonstrates the Court's recognition of the problems inherent in applying a uniform standard to a wide range of cases with anything but uniform attributes.

At the other end of the spectrum, it would be possible to require law enforcement officers to perform a particularized minimization function in their heads before conducting each investigation, and to restrain their actions accordingly. However, many believe that this equation — or any equation — would be too difficult for officers "on the beat."¹⁹⁰ Not only would law enforcement officers tend to systematically overvalue the law enforcement interests and systematically undervalue privacy interests, but they also might not have time to make a calculation of any kind.

The principal advantages to using the latter approach would be its flexibility and its straightforwardness. A court applying such an approach could simply proceed to the question of reasonableness in light of the relevant factors, rather than having to first justify its disregard for procedural compliance in that particular circumstance. Thus, the Court's disingenuous preliminary exercise of explaining away the warrant and probable cause "requirements" through application or invention of yet another exception could be eliminated.

In addition, such an approach has relatively low administrative costs. These costs are quite low at the time that the officer is making the search — compared, for example, to the administrative costs that an officer would incur obtaining a warrant — but are somewhat higher when a reviewing court has to determine whether the search was reasonable. The court would be determining each case on its own facts and would not be able to apply general principals¹⁹¹ to the extent it has where a specific ex ante procedure, such as a warrant, was required.

The real risk associated with such an approach is error costs. Because the standard is so flexible and the inquiry so open-ended, law enforcement officers and judges are more likely to make errors — either intentionally or unintentionally — in construing the proper level of fourth amendment protection in each given setting.

If error costs associated with self-imposed police reasonableness are unacceptably high, an alternative consists of "erecting appropriate procedures that will balance these interests tolerably well over the range of cases."¹⁹² While

189. *Terry v. Ohio*, 392 U.S. at 27.

190. Wasserstrom, *The Incredible Shrinking Fourth Amendment*, *supra* note 29, at 315. *But see* Posner, *Rethinking the Fourth Amendment*, *supra* note 17, at 75 (arguing that such cost-benefit analysis would not be unrealistic for police to obey).

191. Wasserstrom, *The Incredible Shrinking Fourth Amendment*, *supra* note 29, at 315.

192. Wasserstrom & Seidman, *supra* note 17, at 33.

numerous formulations of such procedures are imaginable, the most familiar such procedure is the requirement that a warrant be obtained prior to undertaking a given search or seizure. To the extent that the judge or magistrate issuing the warrant is systematically better equipped to balance the interests fairly than is a law enforcement officer, fewer errors would be expected through the use of such a procedure.¹⁹³

The Court has demonstrated a good deal of flexibility with respect to warrants. Although a warrant is required unless an exception applies, the Court has recognized quite a number of exceptions. These exceptions make fourth amendment law more confusing, and thus increase the error costs. This increased confusion is cost-justified,¹⁹⁴ however, if the increased "fit" with optimality compensates for the additional error costs.

D. Optimality in Remedial Measures

1. The Exclusionary Rule

The fourth amendment is essentially a negligence standard,¹⁹⁵ in that it only requires "reasonable" behavior in searching and seizing. A law enforcement officer is not subject to strict liability for searches that invade privacy, so long as his or her actions are reasonable. The model constructed earlier defines the optimum level at which a fourth amendment negligence standard should be set. At the present time, at least in most instances,¹⁹⁶ a failure to comply with the Supreme Court's standard of fourth amendment protection results in exclusion of the improperly obtained evidence.

Where the sanction for failure to comply with a negligence standard is sufficiently strict, a high degree of compliance with that standard should result. This is true because all liability — that is, all risk of the exclusionary sanction — can be avoided by raising the level of conduct to the designated standard.¹⁹⁷ Assuming that officers are able to ascertain exactly where the line between permitted and prohibited conduct lies (and are confident that judges will always accurately assess their conduct), under a negligence rule, one would ex-

193. This advantage would be reduced or eliminated to the extent that issuers of warrants are biased in favor of law enforcement interests. See Lippman, *The Decline of Fourth Amendment Jurisprudence*, 11 CRIM. JUST. J. 293, 352-53 (citing studies showing judges and magistrates to be allied with law enforcement in issuing of warrants).

194. Cost-justified, of course, is not the same as optimality. See *supra* note 88 and accompanying text (discussing difference between cost-effectiveness and optimality).

195. Posner, *Rethinking the Fourth Amendment*, *supra* note 17, at 70-71.

196. There are, of course, a number of exceptions to this rule, including the "good faith" exception articulated in *United States v. Leon*, 468 U.S. at 922-25. See also *Stone v. Powell*, 428 U.S. at 494 (where state has provided opportunity for full and fair litigation of fourth amendment claim, state prisoner may not be granted habeus corpus relief on ground that evidence obtained through unconstitutional search and seizure was introduced at trial); *United States v. Calandra*, 414 U.S. at 353-55 (witness summoned to appear and testify before grand jury may not refuse to answer questions on ground that they are based on evidence obtained from unlawful search and seizure).

197. Calfee & Craswell, *supra* note 176, at 976.

pect perfect compliance with the standard; the officer would neither fall short of the standard nor go above it.¹⁹⁸

There is no incentive for a law enforcement officer to go beyond the negligence standard in a world without errors, since merely meeting the standard absolves him or her of all liability. Consequently, the exclusionary rule could not be said to "overdeter" police behavior in such a world. Thus, arguments made by critics of the exclusionary rule about its "overdeterrence" of searches are often misguided. The critic is often actually opposed to the substance of the fourth amendment standard which is being enforced. The good faith exception to the exclusionary rule illustrates this point. In *Leon*, the Court applied cost-benefit analysis to the exclusionary rule's application where there was a "technical" violation of the fourth amendment.¹⁹⁹ The Court criticized the use of the exclusionary remedy in this context and declined to apply it. The real criticism, however, was of the "technical" fourth amendment requirement that warrants must always be supported by probable cause. It was this provision that was perceived as overly restrictive, not the exclusionary remedy. This point has not gone unrecognized; a number of commentators have noted the volume of misdirected criticism leveled at the exclusionary rule.²⁰⁰

The problem, of course, is that law enforcement officers often have no idea as to the precise location of the standard, and believe that there is a significant possibility that a judge will mischaracterize their conduct, either permitting it when it should be prohibited, or prohibiting it when it should be permitted.²⁰¹ If the expected value of "punishment" from making a certain type of error — or erroneously being found to have made that type of error — is sufficiently high, rational actors will try to reduce the chance of liability for their conduct by overcomplying with the standard.²⁰² It is in this sense, and only in this sense, that the exclusionary rule could be found to overdeter searches that are actually reasonable.

Even here, overdeterrence would occur only if the expected "punishment" value of conducting illegal searches was systematically higher than the expected loss related to making other types of errors. This fact is unambiguously true in the exclusionary rule context. The "punishment" that is given in conjunction with the making of an illegal search is simply that the evidence cannot be used. A deadweight loss of reduced truthseeking accuracy results,²⁰³ as well as

198. See *id.* (discussing incentive to comply exactly with precisely known standard of conduct); Cooter & Ulen, *An Economic Case for Comparative Negligence*, 61 N.Y.U. L. REV. 1067, 1085 (1986) (describing behavior under negligence standard).

199. *United States v. Leon*, 468 U.S. at 907 (magistrate erroneously issued warrant not supported by probable cause).

200. *E.g.*, Wasserstrom & Seidman, *supra* note 17, at 35-36; Bradley, *supra* note 1, at 1481; Le Francois, *supra* note 23, at 65-66.

201. See Bradley, *supra* note 1, at 1468-69 (citing confusion among police as to proper standards).

202. Calfee & Craswell, *supra* note 176, at 965.

203. There is a deadweight loss even if the only way in which the police officer could have complied with the fourth amendment would have been by foregoing the investigation altogether.

a windfall for the defendant, which is troubling from a distributive standpoint.

Furthermore, only a tiny fraction of fourth amendment violations are punished in this manner. Violations which do not result in incriminating evidence are not punished. In addition, very few acquittals per year are attributable to the successful suppression of illegally-obtained evidence.²⁰⁴ The expected value of punishment is a function both of the probability of punishment and the seriousness of the punishment.²⁰⁵ Thus, while the severity of punishment is arguably quite high, the probability of being punished in this manner is quite low.

As noted previously, in most cases, the officer is not merely making a binary type of choice — such as, to search or not to search. Instead, the issue is whether additional costs should be incurred to comply with the negligence standard. In such a situation, it makes sense that the uncertainty regarding the exact location of the standard might lead to excessive expenditures of this type in an effort to bring the standard of conduct to the level that seems to be constitutionally demanded. Alternatively, if a law enforcement officer mistakenly believed that the fourth amendment constraint required incurring more costs to obtain an increment of evidence than the restraint actually required, the increment of evidence might erroneously be foregone because the perceived cost of obtaining the evidence would be too high. Nevertheless, the gains, from the perspective of the law enforcement officer, associated with meeting the standard, or ensuring that one will be held to have met the standard, are great compared to the potential loss if one is found not to have met the standard.²⁰⁶

This cost associated with overdeterrence is not a cost usually identified by critics of the exclusionary rule. Critics of the exclusionary rule argue that the costs of overdeterrence involve criminals going free. Under this analysis, it seems clear that there would be little incentive to overcomply with a standard if the officer were certain that by complying the criminal would go free.²⁰⁷

In this situation, compliance with the fourth amendment would have meant that the evidence would never have been available, and the same truthseeking loss would result. However, where the fourth amendment was not complied with, privacy-related costs have already been incurred. Since the costs have already been incurred, it would be preferable to at least realize the benefits which were derived —albeit inefficiently and illegally.

204. See Lippman, *supra* note 193, at 353-54 (citing studies showing estimated loss of adult felony arrests of between 0.6 percent and 2.35 percent due to illegal search); Kamisar, "Comparative Reprehensibility" and the Fourth Amendment Exclusionary Rule, 86 MICH. L. REV. 1, 27-28 (1987) (citing statewide California studies showing less than .3 percent of all nondrug arrests rejected by prosecution for illegally-obtained evidence).

205. See Becker, *supra* note 127, at 181. See also *supra* notes 135-37 and accompanying text (discussing extent to which severity and probability are not fungible).

206. See Cooter & Ulen, *supra* note 198, at 1085 (explaining abrupt jump in potential costs when one has crossed line into behavior prohibited by legal standard).

207. I am assuming that officers suffer the same psychic disutility when they know their failure to investigate leads to a criminal going free, as they do when the criminal later goes free because illegally obtained evidence is suppressed. This assumption may not be empirically correct; officers may be more damaged by the suppression of evidence which frees a suspect in custody than by an inability to investigate a suspect still at large.

Instead, the overcompliance would tend to take the form of incurring more costs than are constitutionally necessary in attempting to convict the criminal by engaging in less than efficient searches, and in foregoing some increments of evidence which become too costly to obtain once the risk of exclusion is considered. The relatively rare²⁰⁸ instances where a criminal is set free as a result of suppressed evidence illustrate that the exclusionary rule underdeters, not that it overdeters. If the exclusionary rule actually overdeterred, then evidence would not ultimately be excluded because law enforcement officials would be especially careful to comply with the mandates of the fourth amendment.

Ironically, critics of the exclusionary rule often — and sometimes in the same breath²⁰⁹ — accuse the rule of not performing its deterrent function. The empirical basis for this charge is apparently the fact that some evidence is suppressed, meaning that some law enforcement officers were not sufficiently deterred.²¹⁰ This fact, of course, proves nothing, since the same argument could be made with respect to punishment for crimes; some criminals remain undeterred, so punishment does not deter. In fact, as one commentator has noted, the empirical and theoretical basis for believing the exclusionary rule deters is roughly analogous to the underlying assumption that our system of criminal law and punishment deters.²¹¹ Thus, the idea that the exclusionary rule deters “deserves as much respect as does the deterrent value of the criminal law generally.”²¹² Anthony Amsterdam stated the case more strongly when he noted that, given the lack of evidence suggesting a deterrent effect for a crime such as larceny, the proposition that the exclusionary rule deters “look[s] as solid by comparison as the law of gravity.”²¹³

There are, however, situations in which the exclusionary rule would not appear to deter very well. Where the primary purpose of an intrusion is not to gather evidence, but is instead to prevent some type of imminent harm, the exclusionary rule would presumably not constitute a good deterrent. If a procedural rule, such as “standing,” were certain to preclude a motion to suppress from the individual against whom the evidence was to be used, the exclusionary rule would not appear to be a good deterrent. Even in these situations, however, the exclusionary rule would deter to the extent there was any anticipated future use of the evidence that might make it susceptible to exclusion.²¹⁴

208. Kamisar, *supra* note 204, at 31 n.130.

209. *E.g.*, Posner, *Rethinking the Fourth Amendment*, *supra* note 17, at 54 (criticizing exclusionary rule for its potential both to underdeter and overdeter law enforcement officers).

210. Ingber, *supra* note 17, at 1523.

211. *Id.* at 1552.

212. *Id.*

213. Amsterdam, *supra* note 1, at 431.

214. For example, a preventative search might also yield useful evidence. While an officer motivated purely by a desire to prevent imminent harm would not be deterred, an officer who also foresaw the potential use of evidence that might be gathered might be deterred from violating the fourth amendment.

The exclusionary rule might underdeter if the fourth amendment negligence standard were set so high that law enforcement officers would be better off not meeting the standard and bearing the losses — exclusion — associated with noncompliance.²¹⁵ Since all liability could be avoided by meeting the standard, a voluntary choice to remain negligent would only occur where the costs associated with the level of fourth amendment care that the officer does take, added to the expected liability in terms of exclusion, is less than the cost of meeting the negligence standard (that is, complying with the fourth amendment).²¹⁶

In factoring the impact of the exclusionary rule into the balance between interests, the error costs described earlier must be taken into account. To the extent that the exclusionary rule overdeters, it will increase the cost associated with the term “c(i)” in Equation 2 detailed earlier. C(i) represents the added information costs that result from fourth amendment constraints.

To the extent the exclusionary rule does not work, either because it does not deter, or because law enforcement officers make errors and accidentally make improper searches, costs associated with the invasion of privacy would be increased. Additionally, the costs associated with the loss of deterrence and incapacitation, to the extent the exclusion of evidence results in an acquittal that would not otherwise have occurred, would increase as well. In order to assess the magnitude of these costs, empirical data on the number of infra-marginal or nondeterred officers would need to be gathered.

2. Tort Remedies

In assessing the costs associated with an exclusionary remedy, it is helpful to briefly compare these costs to the costs associated with a tort remedy. Although criticisms of the exclusionary rule are often overstated, it is indisputable that a tort remedy could be more exactly calibrated to optimally deter, and could potentially avoid the problems of overdeterrence and underdeterrence.²¹⁷ Unlike the exclusionary rule, a tort remedy is linked to the actual costs of violating the fourth amendment.²¹⁸ Thus, simply by making the intrusion “cost” the correct amount, optimum deterrence could theoretically be achieved.

In addition, the tort remedy is more efficient than the exclusionary rule because it does not result in the “deadweight loss” of excluded evidence.²¹⁹ In distributive terms, the tort remedy is also attractive since it avoids the exclusionary rule’s windfall award to the defendant, and serves a compensatory function by reimbursing individuals for fourth amendment violations.

215. See Shavell, *supra* note 92, at 83 (discussing this effect in tort context).

216. See *id.* (discussing negligence standard in tort context). By choosing not to meet the negligence standard, an individual is essentially choosing to operate under a strict liability rule. The costs of taking care are balanced against the expected costs of liability, since the individual will bear all of these costs. *Id.*

217. Posner, *Rethinking the Fourth Amendment*, *supra* note 17, at 56.

218. *Id.*

219. *Id.* at 58.

The tort remedy would be available to every victim of an illegal search and seizure, whereas the exclusionary remedy is, by definition, only available to those against whom incriminating evidence is sought to be admitted. This would theoretically increase the probability of "punishment" for fourth amendment violations under a tort remedy. Assuming that law enforcement officers are responsive to this "punishment," this increase in probability would be expected to be more efficient at deterring misconduct than would a comparable increase in the severity of punishment.²²⁰

A number of practical considerations have been cited by critics of tort liability for fourth amendment violations. Perhaps most significantly, it has been argued that the cost of litigation, the relatively small amounts available in damages, the institutional bias in favor of law enforcement officers, and the fact that those most likely to be victims of an illegal search or seizure would have the least access to the courts, would tend to make tort suits infeasible for the victim of constitutional violations.²²¹ This argument maintains that defendants in criminal cases, who are guaranteed a lawyer and who have the most at stake, are the individuals best situated to enforce fourth amendment substantive guarantees. It is alleged that a system of tort remedies would simply not be used by those who would most need the protection of the fourth amendment; indeed, those least capable of bringing suit could be systematically victimized with impunity.²²²

If this proposition were true, tort remedies would underdeter, and there would be increased societal costs associated with privacy-related interests. However, the argument of underdeterrence may be somewhat misleading in that the factors cited above, which are said to exist under existing or imagined tort remedy regimes, are used to indict the entire concept of tort remedies. In other words, the fact that an individual whose rights were violated would be unlikely to bring a tort suit, given the present system for tort recovery, does not mean that monetary remedies in general are undesirable.

A system of tort recovery unique to the fourth amendment context could be developed, with the amount of recovery available adjusted to make it worthwhile for the plaintiffs to sue and worthwhile for lawyers to represent these plaintiffs. Adjudications of these disputes could be relegated to an administrative agency or special master in an attempt to avoid biases in favor of law enforcement officers. Of course, to the extent tort remedies would be pursued, there would be administrative costs in adjudicating the disputes. This factor would also have to be taken into account in designing this new system. The point is simply that society has at its disposal the mechanisms necessary to make bringing a tort suit sufficiently attractive. The fact that these mechanisms are not currently in place is not a valid argument against tort remedies in

220. See *supra* notes 136-38 and accompanying text (discussing desirability of increasing probability of punishment in context of criminal activity).

221. See, e.g., Amsterdam, *supra* note 1, at 429-33 (detailing difficulties with tort remedies).

222. *Id.* at 430.

general; it does, however, argue for caution in designing the system that would replace the exclusionary rule.²²³

In addition, there is arguably a countervailing effect resulting from the law enforcement officers' greater internalization of a tort sanction. In fact, it has been alleged that tort remedies would overdeter to a greater extent than the exclusionary rule since the officer would be risking *personal* liability by undertaking searches.²²⁴ If this effect dominated, the costs associated with overdeterrence would be the same as those that would result from overdeterrence in the exclusionary rule context - increased costs incurred in conducting searches, with some increments of information being foregone because they are perceived as too costly to obtain.

VI. A PROPOSED APPROACH TO FOURTH AMENDMENT LAW

The purpose of the foregoing model is to help develop a method for framing the right set of questions in this enormously complex and controversial area of law. However, a systematic appraisal of costs and benefits in fourth amendment law strongly suggests that certain structural changes in fourth amendment jurisprudence are necessary to achieve optimality in fourth amendment law.

The starting point for an optimizing approach to fourth amendment law is the realization that different levels of substantive constraints on police action are appropriate in different situations. This simple point has never been explicitly advanced by the Supreme Court;²²⁵ instead, procedural devices such as the warrant and the exclusionary rule, have been manipulated to obliquely achieve a rough gradation of fourth amendment protection. A much more straightforward and precise way to calibrate the varying degrees of appropriate fourth amendment protection is through the adoption of a sliding scale of probable cause. In proposing the sliding scale approach, this Article makes use of an empirically untested, but warranted, assumption that the gains from a closer fit with optimality would outweigh any increases in error and administrative costs.²²⁶

223. In other words, alternatives to the exclusionary rule need not be summarily dismissed, as they were by one commentator, as mere "pie in the sky." Amsterdam, *supra* note 1, at 429. One potential alternative would be a type of liquidated damages award which would be large enough to provide even poor individuals with an incentive to sue. Posner, *Excessive Sanctions for Government Misconduct*, 57 WASH. L. REV. 635, 639 (1982).

224. Note, *The Exclusionary Rule and Deterrence: An Empirical Study of Chicago Narcotics Officers*, 54 U. CHI. L. REV. 1016, 1053 (1984)(in this study, 95 percent of police officers surveyed stated that they would be afraid to conduct necessary searches if personal liability were available).

225. See *supra* note 55 and accompanying text (discussing Court's unitary standard of probable cause).

226. See *supra* Part V (A) (discussing optimality in world without error or administrative costs). A similar assumption is implicit in *United States v. Chaidez*, 59 USLW 2315 (7th Cir. 1990). In this recent case, the Seventh Circuit explicitly adopted a sliding scale test for police intrusions short of arrest under which the level of probability required varies with the level of the intrusiveness of the police action. In adopting this approach, the court noted the unfairness and futility of "pigeonholing" investigative situations into only two categories when those situations actually represent points along a continuum. *Id.* at 2316.

Under a sliding scale approach, the seriousness of the crime, as well as the costliness and purpose of the intrusion, would be explicitly taken into account. Informed by the reasonableness clause, probable cause would reflect the degree of certainty necessary for police intrusions in various situations. For example, an intrusion directed at preventing imminent death or serious bodily injury would require less probable cause than an intrusion directed at obtaining evidence that a misdemeanor had been committed. In some situations, no amount of probable cause would be sufficient, because under any level of certainty, privacy-related costs would outweigh law enforcement interests.²²⁷

Although commentators have criticized a sliding scale approach for its indeterminacy,²²⁸ as well as its potential for abrogation of individual rights,²²⁹ such an approach would likely be as definite and protective of privacy rights as the Court's present approach. Since the Court has never adequately defined probable cause, the standard is currently quite indeterminate. Further, it is apparent that different amounts of probable cause are in fact required in different cases. The Court's failure to acknowledge this fact arguably heightens the indeterminacy and potential for decisions based on factors irrelevant to the inquiry.

To the extent that the Court attempts to maintain a unitary standard of probable cause, that standard will necessarily be watered down to the least common denominator in terms of fourth amendment protection. Alternatively, the Court might remove certain situations from fourth amendment scrutiny, if the implication of affording fourth amendment privilege is that an unjustifiably high probable cause standard will be applied in that context. Lastly, the Court can alter the enforcement mechanism to reduce the level of protection available under the fourth amendment. This avenue is perhaps the most dangerous in terms of limiting individual rights, because it does not purport to be affecting rights at all. Clearly, the Court has at its disposal sufficient tools which can be used to whittle away fourth amendment protections. A sliding scale of probable cause would permit a more precise and more straightforward adjustment of fourth amendment rights, one which would at least focus the fourth amendment debate on the relevant issues.

An assumption that law enforcement officers "on the beat" could engage in any kind of calculation has been consistently deemed unrealistic by critics. However, the type of factors involved in the model described in this Article are likely to be more familiar to officers than some of the Court's more muddy "bright line" rules.²³⁰ Further, the ability of individuals to make ra-

227. See *Winston v. Lee*, 470 U.S. at 259 ("compelled surgical intrusion into an individual's body for evidence . . . implicates expectations of privacy and security of such magnitude that the intrusion may be 'unreasonable' even if likely to produce evidence of a crime"). For a discussion of *Winston*, see Wasserstrom, *General Reasonableness*, *supra* note 5, at 140-145.

228. Amsterdam, *supra* note 1, at 414-15.

229. Wasserstrom, *Incredible Shrinking Fourth Amendment*, *supra* note 29, at 309-12 (discussing Court's recent tendency to allow greater discretion in police searches).

230. Alschuler, *supra* note 55, at 287 ("[w]hat renders substantive fourth amendment law incomprehensible, however, is not the lack of categorical rules but too many of them").

tional judgements based on a variety of factors has been considered quite possible in other contexts, such as tort law.²³¹

The optimum level of probable cause in a given fact situation would be the degree of certainty which would minimize the total law enforcement and privacy-related costs. To determine what level of probability would be optimum in a given situation, the seriousness of the crime, the possibility of preventing future harm, and the costliness of the intrusion in terms of privacy-related costs would have to be considered. Each additional increment of certainty about the efficacy of the intrusion serves to decrease the expected privacy-related costs. However, the price of requiring additional increments of certainty includes the cost of obtaining more information, the risk of losing information through delay, and the possibility that the investigation will be abandoned altogether. The balance will be struck differently in different circumstances; thus, a different degree of certainty will be optimal in different settings.

However, the fourth amendment only forbids unreasonable searches, not all suboptimal searches.²³² Thus, a requirement that the level of probable cause be optimal would arguably go beyond the dictates of the fourth amendment. An idea related to optimality — “least intrusive means” — has been discussed at some length by the Court and commentators.²³³ Although the content of the phrase “least intrusive means” appears to vary somewhat among users,²³⁴ Strossen defines it in a way that basically embodies an optimizing strategy.²³⁵ Under her analysis, if an alternate strategy can reduce privacy costs more than it increases law enforcement costs, it is constitutionally required.²³⁶

Because the use of the less intrusive means of effecting a search would decrease the expected privacy-related costs associated with an intrusion, a lower standard of probable cause would then be optimal. Thus, where privacy-related costs could be reduced significantly and relatively cheaply through the

231. See generally, Shavell, *supra* note 92 (discussing tort standards under assumption that individuals can act rationally to maximize utility).

232. *Supra* text accompanying note 89.

233. Strossen, *supra* note 5, and cases cited therein (discussing incorporation of “least intrusive means” test in Court’s use of fourth amendment balancing test); Sundby, *supra* note 1, at 430-48 (discussing need for “compelling government interest-least intrusive means” test to help define meaning of reasonableness clause in fourth amendment).

234. Compare Strossen, *supra* note 5, at 1266 (“[t]o give proper weight to fourth amendment values, the balancing analysis must compare the marginal costs and benefits of alternative search and seizure techniques, and uphold a particular technique only if it is the least intrusive measure and substantially promotes the state’s goals”) with Sundby, *supra* note 1, at 442 (“the compelling governmental interest-least intrusive test establishes a high standard across the board for all intrusions and in the process recognizes that all intrusions implicate the citizenry’s privacy interest”).

235. Strossen, *supra* note 5, at 1206-07. “Least intrusive means” analysis, even when it is defined in this manner, can still be conceptually distinguished from a pure optimizing strategy. Under least intrusive means analysis, increases in the marginal benefit are apparently constitutionally required *only* where that increase is derived in part from a decrease in privacy costs associated with intrusiveness. *Id.* at 1266. Under an optimization approach, any increase in marginal benefit would be relevant, regardless of its source.

236. *Id.* at 1266.

use of less intrusive means, a sliding scale approach would provide the proper incentives to use those less intrusive means. For example, if police could search a home during waking hours at no extra cost to law enforcement interests instead of searching during the middle of the night, this model would have the police choose the less intrusive search. By choosing to perform a less intrusive search, the privacy-related costs would be reduced, permitting police to search on a lesser quantum of probable cause, since probable cause is set with respect to the relevant balance of costs.

Although some support for "least intrusive means" analysis can be gleaned from certain Court decisions,²³⁷ the Court has neither explicitly endorsed nor expansively applied "least intrusive means" analysis.²³⁸ In following this course, the Court has cited the exigencies of law enforcement work, and the inability of officers in the field to instantaneously determine what method would later be deemed by a court to constitute the "least intrusive means."²³⁹ These criticisms would seem to apply a fortiori to a pure optimizing strategy, where the law enforcement officer would be called upon not only to consider whether privacy costs could be reduced, but also whether any factor in the total mix of costs and benefits could be altered so the net benefit would be higher.²⁴⁰

A somewhat weaker verbal formulation embodying the idea of "least intrusive means" analysis, such as "significantly less intrusive means," or "obviously available and less intrusive alternative," might avoid the pitfalls of a pure optimizing strategy while retaining the goal of optimization in fourth amendment law.²⁴¹ The operative fourth amendment rule would then be: a cost-justified search, in which a search's benefits exceed its costs, would be reasonable in the absence of an alternate means which would be less intrusive, and would fall within the qualified formulation being used. Using this analysis, intrusions based on levels of probable cause falling within an acceptable range of optimality would also be considered reasonable within the constitutional context of the fourth amendment. Thus, a search would not be deemed unreasonable on the ground that some conceivable alternate action would move the search closer to optimality by a tiny margin. Instead, the search would be held reasonable if it were cost-justified, and if the law enforcement

237. See *Florida v. Royer*, 460 U.S. at 500 (endorsing least intrusive means analysis in limited "Terry-stop" context); Strossen, *supra* note 5, at 1215-21 and cases cited therein (discussing cases in which least intrusive means analysis has been applied).

238. Cases such as *United States v. Sokolow*, 109 S. Ct. 1581, 1587 (1989), have limited *Royer* to its facts on this point, and have declined to apply the "least intrusive means" analysis to other situations. See Strossen, *supra* note 5, at 1221-31 (discussing cases in which "least intrusive means" analysis has been disfavored).

239. *United States v. Sokolow*, 109 S. Ct. at 1587 ("least intrusive means" analysis would "unduly hamper the officers' ability to make on-the-spot decisions").

240. See *supra* notes 233-35 and accompanying text (discussing conceptual differences between pure optimization and "least intrusive means").

241. Strossen provides similar limiting language in suggesting that a search technique be upheld "only if it is the least intrusive measure that substantially promotes the state's goals." Strossen, *supra* note 5, at 1266.

officer did not gratuitously make the search more intrusive than necessary, or blindly overlook an obvious alternative that would be less intrusive. This result seems consistent with the distinction between optimality and reasonableness — a search need not be optimal in all respects to be reasonable.

While a reasonableness-informed sliding scale of probable cause would be the central feature in an efficient system of fourth amendment law, warrants would also serve an important function. If a search were warrantless, the law enforcement officer would be called upon to make the determination as to the applicable level of probable cause in a given situation, and determine whether or not such probable cause existed. To the extent that law enforcement officers systematically overvalue law enforcement interests at the expense of privacy-related interests, errors could be expected. Further errors would derive from the difficulty of determining the category of a given situation, and determining whether the proper quantum of probable cause had been reached.

These errors might be reduced through the use of warrants issued by a “detached and neutral” magistrate. First, the systematic errors involving overvaluation of law enforcement interests would arguably be alleviated. In addition, magistrates might better be able to assess the salient attributes of a fact pattern, and determine whether the officer had in fact shown adequate probable cause. If magistrates could significantly reduce the number of errors, the use of warrants could be encouraged by making them a burden-shifting device, much as they are today.

VII. CONCLUSION

Fourth amendment law, as currently manifested, is a confusing mess that is criticized by virtually everyone.²⁴² While the Court’s misapplication of a reasonableness-based balancing approach has added to the confusion, a cost-benefit approach could be usefully employed to bring coherence to this area of law. A thoughtful balancing of the relevant interests can make fourth amendment law both internally consistent and socially optimal.

Optimization in the fourth amendment context consists of minimizing the sum of the costs to law enforcement interests and the costs to privacy-related interests. Fourth amendment constraints shift the cost curve for obtaining information upward; thus, law enforcement officers are able to obtain fewer increments of information, and those increments which are obtained will be more costly. The price of fourth amendment constraints to law enforcement includes costs associated with the increased burden of obtaining evidence, as well as costs to truthseeking that result when increments of evidence are foregone. These truthseeking costs include decreased deterrence and the resultant increases in crime, and costs associated with criminals who are not incapacitated. In addition, fourth amendment constraints also result in costs associated with officers’ diminished capacity to prevent the damage caused by imminent or ongoing criminal acts. Individual citizens incur privacy costs, however, to

242. Wasserstrom & Seidman, *supra* note 17, at 19.

the extent that law enforcement officers are permitted to intrude into their lives. The optimum fourth amendment standard is the standard that would minimize the sum of these two costs.

In addition, there are error and administrative costs that must be factored into any set of fourth amendment rules. The fourth amendment standard, derived in the abstract, must be boiled down to rules that can be applied to actual situations by law enforcement officers and judges. Error costs will result from the failure of these rules to track the fourth amendment optimum, as well as from errors by law enforcement officers in determining where the fourth amendment standard has been set and whether their actions meet that standard. Judges will make errors as to the precise location of the fourth amendment standard relative to the action of the officer. In addition, administrative costs will be incurred in attempts to understand and apply the relevant fourth amendment standard, comply with any *ex ante* standards, and apply remedial measures. Thus, the optimal set of fourth amendment constraints must minimize the sum of error, administrative, law enforcement, and privacy-related costs.

Because the relative strength of law enforcement interests and privacy-related interests will differ depending upon the investigative situation, a single standard of probable cause will not always yield optimality. Instead, a sliding scale of probable cause permits the amount of probable cause required to differ according to the differing strengths of various interests. Of course, a sliding scale is superior to a single standard only to the extent that this closer fit to optimality is not overshadowed by countervailing increases in error and administrative costs.

The exclusionary remedy, much maligned of late, also appears ill-suited to an optimizing strategy. A truly adequate tort remedy could be formulated which would permit the "punishment," in terms of compensation, to be calibrated to fit the fourth amendment violation. The deadweight loss of excluded evidence and the windfall to criminal defendants make the exclusionary rule an inefficient tool for achieving fourth amendment compliance. However, if there is to be compliance at all, tort remedies must be sufficiently severe to deter violations, and, conversely, the recovery must be sufficiently attractive to potential plaintiffs and their lawyers.

It is essential that the relevant costs and benefits be identified and considered by those wishing to reform fourth amendment law. However, statements of these costs and benefits have rarely been objective, and have often been motivated by ideological agendas. Most importantly, the question of the proper remedy has been allowed to cloud the assessment of relevant tradeoffs in the fourth amendment context, and has distorted the development of substantive fourth amendment law. The optimizing strategy detailed in this Article provides a vehicle for more focused, coherent, and intellectually honest debate and reform in the fourth amendment context.