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Making Sense of English Law Enforcement in the Eighteenth Century

DAVID D. FRIEDMAN

The criminal justice system of England in the eighteenth century presents a curious spectacle to an observer more familiar with modern institutions. The two most striking anomalies are the institutions for prosecuting offenders and the range of punishments. Prosecution of almost all criminal offenses was private, usually by the victim.¹ Intermediate punishments for serious offenses were strikingly absent. It is only a slight exaggeration to say that, in the early years of the century, English courts imposed only two sentences on convicted felons; either they turned them loose or they hanged them.²

In Sections I and II of this Article, I describe the institutions for prosecution and the forms of punishment. In Sections III, IV, and V, I argue that, contrary to the view of almost all modern commentators and many contemporary ones, these institutions may have made considerable sense. The shift in the early nineteenth century toward punishment by imprisonment and law enforcement by paid police, and the later shift to public prosecution, were driven by discontent with the performance of the existing institutions. But it is far from clear whether that discontent was justified. I will argue that both contemporary critics and modern historians have missed important elements in the logic of the system of private prosecution—elements that help explain why it lasted as long as it did and worked as well as it did.

I. The Private Prosecution of Crime

England in the eighteenth century had no public officials corresponding to either police or district attorneys.³ Constables were unpaid and played only a

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1. J. M. Beattie, *Crime and the Courts in England 1660-1800* 35 (Princeton, 1986).

2. After passage of the Transportation Act in 1718, defendants convicted of clergyable offenses were frequently sentenced to transportation and defendants convicted of non-clergyable offenses were often sentenced to hang and then pardoned on condition of transportation. *Id.* at 506-07. Imprisonment did not become an important part of the system until the end of the eighteenth century. *Id.* at 520.

3. *Id.* at 35-36.

minor role in law enforcement.⁴ A victim of crime who wanted a constable to undertake any substantial effort to apprehend the perpetrator was expected to pay the expenses of doing so.⁵ Attempts to create public prosecutors failed in 1855 and again in 1871;⁶ when the office of Director of Public Prosecution was finally established in 1879,⁷ its responsibilities were less than those of an American district attorney, now or then. Eighteenth-century England viewed a system of professional police and prosecutors, government-paid and -appointed, as potentially tyrannical and, worse still, French.⁸

Under English law, any Englishman could prosecute any crime.⁹ In practice, the prosecutor was usually the victim.¹⁰ It was up to him to file charges with the local magistrate, present evidence to the grand jury, and, if the grand jury found a true bill, provide evidence for the trial.¹¹

In some ways, the English system for criminal prosecution was similar to the American system of civil prosecution. Under both, the victim ordinarily initiates and controls the process by which the offender is brought to justice. There is, however, at least one major difference between the two systems. If the victim of a tort succeeds in winning his case, the tortfeasor is required to pay him damages. If the victim of a crime won his case, the criminal was hanged, transported,¹² or possibly pardoned.¹³ The damage payment in civil law provides the victim with an incentive to sue. There seems to have been no corresponding incentive under the eighteenth-century system of private criminal

4. *Id.* at 50-51.

5. *Id.* at 41-42.

6. Philip B. Kurland and D. W. M. Waters, *Public Prosecutions in England, 1854-79: An Essay in English Legislative History*, 1959 Duke L J 493, 505-21, 532-35.

7. *Id.* at 559.

8. *Id.* at 550-62.

9. Beattie, *Crime and the Courts in England* at 35-37 (cited in note 1).

10. *Id.*

11. The procedure I am describing here was an ordinary criminal prosecution commenced and controlled by a private party acting on behalf of the crown; the case would be *Rex v X*, where X is the defendant's name. There was also a procedure, still existing but little used, under which certain private parties could initiate private suits, called appeals, to impose criminal penalties. According to Blackstone:

As this method of prosecution is still in force, I cannot omit to mention it: but as it is very little in use. . . . An appeal of *felony* may be brought for crimes committed either against the parties themselves or their relations. . . . If the appellee be found guilty he shall suffer the same judgment as if he had been convicted by indictment: but with this remarkable difference; that on an indictment, which is at the suit of the king, the king may pardon and remit the execution; on an appeal, which is at the suit of a private subject . . . the king can no more pardon it than he can remit the damages recovered in an action of battery.

William M. Blackstone, 4 *Commentaries* *312-16 (emphasis in original).

12. In the eighteenth century, transportation usually consisted of transporting a convict to a British colony in the New World, where he was sold as an indentured servant for a term of years; the transportee was forbidden to return to England until the end of his term. At the end of the century, after the American Revolution, convicts began to be transported to Australia.

13. See text accompanying notes 37-72.

prosecution.

Modern historians were not the first to notice this problem. One of the central concerns of eighteenth-century legal writers was the difficulty of inducing people to prosecute.¹⁴ One solution was to establish substantial rewards for the conviction of criminals charged with particularly serious crimes.¹⁵ This solution led to new difficulties. In some cases, it was alleged that the accused were framed for offenses that had never occurred.¹⁶ Other cases were said to be the result of entrapment;¹⁷ the perpetrators were persuaded to commit the crimes by confederates whose real purpose was to betray them for the reward.¹⁸ A related problem was the effect that the existence of rewards might have on the attitude of the jury. Jurors knew that the witnesses expected to share in the reward from conviction—and discounted their testimony accordingly.¹⁹

Perhaps because of such problems, the system of rewards was largely abandoned in the early 1750s. It was replaced in 1752 by a provision permitting the court to reimburse prosecutors, especially poor prosecutors, for the expenses of prosecution.²⁰ While such reimbursement reduced the disincentive to prosecute, it did not eliminate it. Expenses were not always reimbursed, or, if reimbursed, reimbursed in full, even when the defendant was convicted.²¹ Not until 1778 did it become possible for a prosecutor to be reimbursed for an unsuccessful prosecution.²²

Dissatisfaction with the perceived problems of private prosecution, and

14. See, for example, Beattie, *Crime and the Courts in England* at 41-48 (cited in note 1) (discussing viewpoints of the eighteenth-century legal community and early attempts to address the problems of cost).

15. The statute was vague about exactly who got the rewards; the prosecutor often shared the reward with witnesses and informers. Ruth Paley, *Thief-takers in London in the Age of the McDaniel Gang, c. 1745-1754*, in Douglas Hay and Francis Snyder, eds, *Policing and Prosecution in Britain: 1750-1859* 301, 316-22 (Clarendon, 1989).

16. Leon Radzinowicz, *2 A History of English Criminal Law and Its Administration from 1750: The Clash between Private Initiative and Public Interest in the Enforcement of the Law* 326-32 (Stevens & Sons, 1956).

17. In one case of entrapment, the prosecutors, who had set up the offense, stood to gain rewards that totalled £120. Paley, *Thief-Takers in London* at 302 (cited in note 15).

18. Those who viewed entrapment as bad do not appear to have considered the possibility that, even if a particular act of entrapment created a crime that would otherwise not have occurred, the net effect might be to reduce crime by making criminals less willing to trust potential confederates.

19. Beattie, *Crime and the Courts in England* at 52-53 (cited in note 1).

20. *Id.* at 42. This change did not entirely eliminate the problem. In the nineteenth century, there were charges that police sometimes conspired with attorneys to convict defendants. Radzinowicz, *2 A History of English Criminal Law* at 326-32, 337-42 (cited in note 16). The attorneys would be reimbursed by the court for their services and would then kick back some of the money to the police. *Id.* Such a scheme depended on the court's willingness to pay more in expenses than the real cost to the attorney of the services provided.

21. Beattie, *Crime and the Courts in England* at 42-43 (cited in note 1).

22. *Id.* at 44.

concerns with what was perceived as a high and rising crime rate, eventually led to the introduction of full-scale paid police forces, first in London in 1829 and later elsewhere in England.²³ The police took over from the private prosecutors much of the responsibility for identifying and apprehending criminals. As the century passed, the police also took over much of the job of prosecuting criminals. By the end of the century, prosecution was still for the most part nominally private, but the private prosecutor was usually a police officer.

It is easy enough now, as it was easy enough then, to see why a system of private prosecution could not work. The puzzle is that it did work. Whether it worked better or worse than alternative institutions is not clear. But we know that during the eighteenth century, many English criminals were charged, prosecuted, and convicted. We also know that while property may not have been as secure as its owners wished, it was sufficiently secure to permit a flourishing economy and an impressive amount of economic growth. In Section III, I suggest a solution to that puzzle.

II. Punishment at the Extremes

Offenses in eighteenth-century England fell into three categories according to their possible punishments: minor offenses, clergyable felonies, and non-clergyable felonies. Minor offenses such as petty larceny—*theft of goods worth less than a shilling*—were typically subject to punishments designed in large part to shame the offender, such as public whipping or exposure in the stocks.²⁴

The distinction between the second and third categories was whether or not offenders could claim benefit of clergy. Benefit of clergy originated as a legal rule permitting clerics charged with capital offenses to have their cases transferred to a church court, which did not impose capital punishment.²⁵ By

23. The introduction of paid police did not eliminate the problems that had been associated with private thief-takers, individuals who helped to catch and convict criminals in order to share in the reward for doing so. Paid police, one of them a Bow Street Runner, a member of the original small group of professional police upon which the London police force was modeled, were involved in an entrapment scandal in 1816, and several Bow Street Runners seem to have accumulated substantial fortunes, presumably from some combination of rewards and payments for compounding. Radzinowicz, *2 A History of English Criminal Law* 268, 333-37 (cited in note 16). Juries distrusted police testimony in the early nineteenth century for the same reason they had distrusted private prosecutors and their witnesses in the mid-eighteenth century—the suspicion that it was given in the hope of receiving a reward for conviction. *Id.* at 344-46. Similar problems of entrapment and official perjury are not unknown today, even though police rewards take more indirect forms.

24. Under some circumstances, these punishments became more than minor; a sufficiently unpopular convict might be attacked in the pillory, sometimes even killed. Beattie, *Crime and the Courts in England* at 466-68 (cited in note 1).

25. Leona Christine Gabel, *Benefit of Clergy in England*, 14 *Smith C Stud Hist* 1 (1929).

the eighteenth century, the application of the rule had changed in two important ways: the definition of clergy had been broadened to include anyone who could read (and, after 1706, any defendant, whether or not he could read) and the church courts had lost their role in dealing with serious crimes.²⁶ The result in many cases was that a defendant convicted of a capital felony could plead his clergy, be branded on the thumb, and be sent home.²⁷

Under a Tudor statute, a defendant who pled his clergy could be imprisoned for up to a year. But that appears to have been done only rarely.²⁸ Defendants who were not actually clergymen were supposed to be allowed to plead clergy only once;²⁹ branding on the thumb may have originated as a device to identify those who had pled clergy once and so could not do so again. But this restriction does not seem to have been enforced very often.³⁰ Presumably the brand had some stigmatizing effect. That, plus the costs borne by the defendant prior to his conviction,³¹ seems to have been at some periods the only penalty actually imposed on someone convicted of a clergyable offense.³²

Clergyable offenses were offenses for which, absent privilege of clergy, the punishment was death.³³ They were therefore generally serious offenses. Manslaughter, for example, was a clergyable felony. And the definition of manslaughter included many offenses that we would define as murder today. A killing in a tavern brawl, even one done with a deadly weapon, was manslaughter as long as there was no evidence of premeditation or previous enmity.³⁴ The killer was allowed to plead his clergy, branded on the thumb,

26. In 1576, "the requirement that the clergied offender be turned over to the ordinary to undergo purgation was abolished. Henceforth, the successful pleading of clergy was to be followed by immediate discharge." Beattie, *Crime and the Courts in England* at 142 (cited in note 1) (citations omitted). The church courts still played a role in "wills and marriages and occasional cases of slander." Douglas Hay, *Property, Authority and the Criminal Law*, in Douglas Hay, et al, eds, *Albion's Fatal Tree: Crime and Society in Eighteenth-Century England* 17, 30 (Penguin, 1975).

27. Beattie, *Crime and the Courts in England* at 452 (cited in note 1).

28. Elizabethan law had "authorized judges to imprison clergied offenders for up to a year. That appears rarely to have been implemented, however." *Id* at 492.

29. *Id* at 452.

30. *Id* at 142-43.

31. A defendant might spend as much as six months in jail waiting to be tried. *Id* at 288. The jails were both unpleasant and unhealthy. *Id* at 289-309. "Indeed 1750 saw the most memorable outbreak [of jail fever] of the century because it carried away not only dozens of prisoners but, following the April session at the Old Bailey, more than fifty people who had been in court, among them the lord mayor of London, two judges, an alderman, a lawyer, a number of court officials, and several members of the jury." *Id* at 304.

32. Beginning in 1718, many felons who pled clergy were transported for seven years, although those guilty of manslaughter were exempted from transportation. *Id* at 88. An earlier attempt in 1663 to replace clergyable discharge with transportation failed. *Id* at 471.

33. *Id* at 141-42.

34. *Id* at 91-93.

and released.

Along with the broadening of the class of defendants permitted benefit of clergy came a narrowing of the range of clergyable offenses. Under the Tudors, a variety of serious offenses were made non-clergyable.³⁵ Starting in the late seventeenth century, many more were added.³⁶ The result was a legal system in which the only punishment for some capital offenses was a branded thumb, while for many others the only punishment a judge could impose was hanging.

While hanging was, during much of the century, the only punishment that a judge could impose for serious non-clergyable felonies, that did not mean that everyone charged with such a felony, or even everyone charged and found guilty, was actually hanged. A substantial fraction of defendants were acquitted.³⁷ Of those convicted, many were convicted of a lesser offense.³⁸ A jury might find a defendant guilty of an offense that was punishable by whipping or the pillory either to keep the offender from pleading his clergy and being released or to prevent him from being convicted of a capital offense and hanged.³⁹ After the introduction of the Transportation Act in 1718, a jury might find a defendant guilty of a clergyable rather than a non-clergyable felony in order to convert the punishment from hanging to transportation.⁴⁰

In some cases the verdict was clearly an act of "pious perjury" by the jury.⁴¹ The fiction was clear when a jury found a defendant guilty of stealing from a house goods worth thirty-nine shillings, although the goods were obviously worth much more than that; forty shillings was the value that would make the theft non-clergyable.⁴² In other cases, the jury failed to include in its verdict certain features of the crime, such as the fact that the theft was

35. By the end of the sixteenth century, clergy had been removed from, among other offenses, petty treason (killing one's "lord, master or sovereign immediate"), murder, housebreaking (when there was someone in the house who was "put in fear"), highway robbery, horse stealing, theft from churches, pocket-picking, and burglary. *Id.* at 143. Most forms of larceny remained clergyable. *Id.*

36. "[T]aking goods from a house when the owner was present and put in fear, and breaking into houses, shops, and warehouses and stealing to the value of five shillings (1691); shoplifting to the value of five shillings and thefts to the same value from stables and warehouses (1699); and theft from a house or outhouse to the value of forty shillings, even without breaking in and even if no one was present (1713); [sheep stealing (1741); cattle theft (1742);] theft from a bleaching ground of linen or cotton cloth worth ten shillings or more (1731, 1745); theft from a ship in a navigable river or from a wharf goods valued at forty shillings or more (1751); theft from the mails (1765). . . ." *Id.* at 144-45.

37. *Id.* at 425.

38. *Id.* at 421-30.

39. *Id.* at 485-87.

40. *Id.* at 500-06.

41. *Id.* at 424.

42. Examples cited by Beattie include "theft of twenty-three guineas from a house . . . ; lace valued at more than a hundred pounds in the indictment . . . ; gold rings and jewelry . . . valued by the owners at more than three hundred pounds. . . ." *Id.* at 424. All of these were found by the jury to be worth thirty-nine shillings. *Id.* at 424-25.

from a house at night or involved breaking and entering, that would have made it non-clergyable.⁴³ In the sample examined by Beattie, the combined effect of acquittals and convictions for a lesser (non-capital) offense was that fewer than 40 percent of those charged with capital property felonies and fewer than 25 percent of those charged with murder were actually convicted of those offenses.⁴⁴

Even conviction did not necessarily, or even usually, result in hanging. It was quite common for a defendant to be convicted and then pardoned.⁴⁵ In some cases the reason was that the judge disagreed with the jury's verdict and recommended a pardon in order to avoid the execution of an innocent person.⁴⁶ In many other cases, the pardon was the result of petitions by the convicted defendant's relatives, friends, employer, and anyone else willing to petition the crown on his behalf.⁴⁷

Some pardons resulted in the convict going free;⁴⁸ many others were a device for substituting a lesser but still serious punishment.⁴⁹ The convicted criminal was pardoned, conditional on his agreeing to be transported.⁵⁰ Of those convicted of capital felonies in Beattie's sample, only about 40 percent were hanged.⁵¹ Most of the rest were either pardoned and released or pardoned and transported;⁵² some were pardoned on condition that they agree to enlist in the army or navy.⁵³ Multiplying the percentage of those convicted by the percentage of those who were hanged, it appears that the percentage of defendants charged with a capital property felony who were actually hanged was less than 16 percent.

Large-scale use of transportation as a criminal punishment began around 1663.⁵⁴ It was imposed both on defendants convicted of capital non-clergyable felonies and pardoned on condition of transportation, and on some defendants convicted of clergyable felonies.⁵⁵ A judge who wished to transport a defendant convicted of a clergyable felony could choose to apply the literacy requirement strictly and find that the defendant was not literate and thus not

43. *Id.* at 428.

44. *Id.* at 425 tbl 8.4. The figures quoted here are based on the assize files of the Home Circuit and the quarter sessions rolls of Surrey. They are limited to those years between 1660 and 1800 for which complete indictment evidence was available. The sample is described in detail at *id.* at 639-43.

45. *Id.* at 433 tbl 8.6.

46. *Id.* at 433.

47. *Id.* at 443-44.

48. *Id.* at 431.

49. *Id.*

50. *Id.*

51. *Id.* at 433 tbl 8.6.

52. *Id.* at 431-33.

53. *Id.* at 498, 532-33.

54. *Id.* at 473.

55. *Id.* at 477-78.

entitled to benefit of clergy.⁵⁶ Alternatively, if the defendant was already branded for a previous offense, the judge could enforce the rule forbidding non-clerics to plead clergy more than once.⁵⁷

Transportation was by private merchants. A merchant who wished to transport a felon was required to pay the sheriff “a price per head that included jail fees, the fees of the clerk of the appropriate court, fees for drawing up the pardon, and so on. . . .”⁵⁸ After transporting a felon to the New World, the merchant could sell him into indentured servitude for a term depending on his offense.⁵⁹ This was a profitable transaction if the felon was young and healthy or had useful skills. But many felons did not bring enough return to pay the merchant's cost.⁶⁰ The result was that felons who had been sentenced to transportation, but whom nobody was willing to transport, accumulated in jails intended only as temporary holding places.⁶¹

Another problem concerned the colonies to which the felons were sent. In the 1670s, both Virginia and Maryland passed laws prohibiting transportation.⁶² Beattie concludes that “transportation to the mainland colonies was being seriously curtailed by the 1670s.”⁶³ While some transportation continued, it seems to have become an uncommon punishment by the end of the seventeenth century.⁶⁴

The second period of transportation began in 1718 with the introduction of the Transportation Act.⁶⁵ This time the government made no attempt to charge merchants for the privilege of transporting convicted felons. Instead, the merchants were offered a subsidy of three pounds per transportee.⁶⁶ On those terms transportation was profitable. The system was continued until the American Revolution removed most of the places to which transportees were being sent from the authority of the crown.⁶⁷

After 1776, a variety of temporary measures were used to deal with prisoners who would otherwise have been transported. Some, confined in hulks

56. *Id.* at 474-75.

57. *Id.* at 475.

58. *Id.* at 479.

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*

63. *Id.* at 480.

64. *Id.* at 478.

65. *Id.* at 500-06.

66. *Id.* at 504. In 1727, the subsidy was increased to five pounds per transportee. *Id.* at 505.

67. *Id.* at 548. Beattie suggests that transportation had begun to lose favor a few years before the American Revolution. His explanation is that it was no longer believed to provide either adequate punishment or adequate incapacitation. *Id.* at 540-41, 543-44. Transatlantic voyages became substantially safer and less expensive during the fifty years after 1720. *Id.* at 541. A transportee could escape from his indenture or (if he had money) avoid it by paying off the captain who transported him, and return to England illegally. *Id.* at 540.

moored in the Thames, were used as convict labor for work on improving the river.⁶⁸ Others were held in jails.⁶⁹ None of these expedients proved satisfactory, and they were eventually replaced by transportation to Australia.⁷⁰ At about the same time, there were attempts to expand and regularize the use of long-term imprisonment.⁷¹ While initially frustrated by the unwillingness of local governments to build the necessary facilities, such attempts were ultimately successful.⁷²

Despite complications, the overall picture of punishment for serious offenses is fairly simple. For clergyable felonies, the convicted offender was either branded on the thumb and sent home or (especially after 1718) transported. For non-clergyable capital offenses, of which there were a great many, the convicted offender was pardoned, pardoned and transported, or hanged. Jails were used to confine defendants awaiting trial or convicts awaiting punishment.⁷³ Occasionally something went wrong with the system and convicted prisoners started to accumulate in the jail system. Toward the end of the century, there were proposals to use confinement as a punishment, and some efforts began in that direction.

The puzzle here is the failure to use imprisonment as an intermediate punishment. Its advantage is and was obvious: the level of punishment can be continuously adjusted to fit what the convict is thought to deserve. Imprisonment was not a novel idea—it existed in statute,⁷⁴ had been used to a significant degree in the past, especially by church courts,⁷⁵ and was in regular use in France.⁷⁶

III. The Logic of Private Enforcement

Despite its apparent difficulties, private enforcement of criminal law seems to have been a reasonably successful system. While contemporaries, then as now, worried about rising crime rates,⁷⁷ there seems to be little evidence that crime rates were actually rising. Beattie's figures, based on homicide indictments per capita, suggest that rural homicide rates fell more than fourfold, and

68. Id at 566-67.

69. Id at 568.

70. Id at 592-600.

71. Id at 601.

72. Id at 573-76; Sidney Webb and Beatrice Webb, 6 *English Local Government: English Prisons under Local Government* 50-54 (Frank Cass & Co., 1963).

73. I am not considering here the use of workhouses and other forms of confinement for those not convicted of serious offenses, such as vagrants.

74. Beattie, *Crime and the Courts in England* at 492 (cited in note 1); see also note 28 and the accompanying text.

75. John H. Langbein, *The Historical Origins of the Sanction of Imprisonment for Serious Crimes*, 5 J Legal Stud 35, 38-39 (1976).

76. Richard Mowery Andrews, 1 *Law, Magistracy, and Crime in Old Regime Paris, 1735-1789* 316-83 (Cambridge, 1994).

77. Beattie, *Crime and the Courts in England* at 520-21 (cited in note 1).

urban rates about ninefold, between 1660 and 1800.⁷⁸ Combining that information with data for the early twentieth century,⁷⁹ it seems likely that much, perhaps most, of the drop in the crime rate between 1660 and 1900 occurred prior to the introduction of paid police.

Such conclusions must be qualified by the fact that the seventeenth- and eighteenth-century data reflect homicide indictments, not homicides. If the fraction of homicides resulting in indictments fell sharply from 1660 to 1800, that could explain the data without any decrease in the murder rate. But there seems to be no evidence of a decline on that scale. Beattie concludes that while some of the decline in the indictment rate may reflect a change in what events were prosecuted as homicide, at least some is due to a real drop in the murder rate.⁸⁰

I believe that the success of the system may have been due, at least in part, to two features that have been noted by historians but not properly appreciated. One was the production of deterrence as a private good. The other was the use of compounding—out-of-court settlement of criminal charges—to reward private prosecutors at the expense of accused criminals.

A. DETERRENCE AS A PRIVATE GOOD

Consider the situation from the viewpoint of a potential victim of crime—say the owner of a warehouse containing goods easily stolen and fenced. He would like potential thieves to believe that, if apprehended, they will be prosecuted to the full extent of the law. But if he actually caught a thief, he would be strongly tempted not to file charges. Carrying the case through as a private prosecutor might cost a substantial amount—many times the value of the goods stolen.⁸¹ The prosecutor not only had to pay legal fees, he also had to pay transportation and lodging expenses for his witnesses to attend court, often a distance of a day's

78. Homicide indictment rates reported by Beattie fell from 8.1 per one hundred thousand residents for the period 1660 to 1679 to 0.9 for the period 1780 to 1802 in the urban parishes of Surrey, from 4.3 to 0.9 in the rural parishes of Surrey, and from 2.6 to 0.6 in (rural) Sussex. *Id.* at 108.

79. The rate of homicides known to police in England from 1906 to 1910 was 0.8 per one hundred thousand residents. Ted Robert Gurr, *Historical Trends in Violent Crime: A Critical Review of the Evidence*, 3 *Crime & Justice* 295, 310 (1981).

80. Beattie, *Crime and the Courts in England* at 108-12 (cited in note 1). An interesting project, which so far as I know has not been done, would be to examine statistics for homicide indictments during the period just before and during the introduction of professional police, in an attempt to determine whether there was a significant change in the ratio of indictments to homicides.

81. Philips cites the case of Mr. James Bailey, a member of an association for the prosecution of felons, who succeeded in recovering his stolen horse and in prosecuting the thief. His total outlay on the case came to £66.9s.7d. David Philips, *Good Men to Associate and Bad Men to Conspire: Associations for the Prosecution of Felons, 1760-1860*, in Hay and Snyder, eds, *Policing and Prosecution in Britain* 82, 115 (cited in note 15). A horse was "worth from £10 to £50." *Id.* at 116.

travel or more from their homes.⁸² A successful prosecutor might be reimbursed for expenses by the court, but such reimbursement was unlikely to cover all expenses.⁸³ If the criminal was not caught in the act but had to be located and apprehended before he was prosecuted, there would be additional costs, possibly including the cost of advertising and paying a reward.

Potential victims wished potential criminals to be deterred; the problem was that, in order to achieve that result, it had to be in the interest of actual victims to apprehend and prosecute actual criminals. One solution was reputation. A merchant who expected to be a frequent target of thefts might prosecute one thief to assure others of his resolve. But most potential victims would be lucky to catch one thief in a lifetime. How could they commit themselves in advance, so that potential thieves would know they would be prosecuted?

The solution was to create or join an association for the prosecution of felons. Most such associations consisted of between twenty and one hundred members, all living in the same general area.⁸⁴ Each member, on joining, contributed a fixed payment to a common pool.⁸⁵ The money was available to pay the cost of prosecuting a crime committed against any member.⁸⁶ The list of members was published in the local newspaper.⁸⁷

Thousands of prosecution associations were established in the eighteenth century and the early part of the nineteenth century.⁸⁸ I believe that their main function was not insurance, as some historians have argued,⁸⁹ but commitment. By joining such an association, a potential victim committed himself to prosecute. The money had already been paid out.

Not everyone joined such associations. While it is impossible to make exact estimates, members and their households surely constituted a minority, quite possibly a small minority, of the population. There were at least two different reasons not to join, corresponding to two different groups of non-members. The first consisted of potential victims for whom deterrence was already a private good. Wealthy individuals and firms that were either large or particularly subject to theft were repeat players with an adequate private incentive to follow through on their commitment to prosecute. The second group consisted of those for

82. *Id.*

83. Of the £66.9s.7d laid out by James Bailey, £38.8s.6d was repaid by the court. *Id.*

84. My description here is based on Philips, *Good Men to Associate* at 113 (cited in note 81) and P. F. R. King, *Prosecution Associations and Their Impact in Eighteenth-Century Essex*, in Hay and Snyder, eds, *Policing and Prosecution in Britain 171* (cited in note 15), and ignores considerable variation in the actual institutions. A few prosecution associations covered more than a local area. Philips, *Good Men to Associate* at 134 (cited in note 81). Some charged different amounts to members of different status. *Id.* at 135.

85. Philips, *Good Men to Associate* at 135 (cited in note 81).

86. *Id.* at 138.

87. *Id.* at 139; King, *Prosecution Associations* at 172 (cited in note 84).

88. Philips offers estimates of the number of such associations ranging as high as four thousand associations around 1839 and thinks "at least 1000" is a good working figure. Philips, *Good Men to Associate* at 120 (cited in note 81).

89. *Id.* at 139.

whom private deterrence was not worth its cost: potential victims whose expected costs of crime were low enough to make the value of deterrence less than its cost, including both the cost of prosecution and the administrative cost of the association.⁹⁰

Private deterrence provides one explanation for why offenses were prosecuted, but it cannot be the full explanation. Even a casual examination of surviving court records reveals many cases where the prosecutor was neither associated with a prosecution association, wealthy, nor representing a firm. What, in such cases, was the incentive to prosecute?

One answer popular at the time was that prosecutors were motivated by a desire for vengeance.⁹¹ Another possible answer is that prosecution was sometimes a necessary step toward recovering stolen property.⁹² Another is that prosecutors began prosecutions in the hope of being paid not to complete them.

B. IN DEFENSE OF COMPOUNDING FELONIES

One way of resolving a civil suit is through an out-of-court settlement. The equivalent in a system of private enforcement of criminal law is for the prosecutor to compound the offense—to agree, in exchange for some sort of compensation, not to press charges. Compounding a misdemeanor was legal in eighteenth-century England. Indeed, magistrates seem to have felt that part of their job was to encourage private settlements between the offender and the injured party, thus keeping disputes out of the courts.⁹³

90. A related reason for not joining would be the imperfect privatization of deterrence. The less prominent a potential victim was, the less likely it was that a potential thief would know enough about his commitments to be deterred by them. And private deterrence would be useless against crimes, such as most highway robberies, committed by criminals who did not know who their victims were.

91. Beattie, *Crime and the Courts in England* at 174 (cited in note 1).

92. Sir Dudley Ryder, *Ryder Shorthand Documents* § 14 at 33 (transcribed by Institute of Historical Research, 1973) (original on file with the Lincoln's Inn Library in London) (reporting the testimony of a pawnbroker who stated the following about a robbery victim: "She came again on Monday when she came and asked for her gown, and she would have it where she found it, but I would not unless she would prosecute the prisoner"). See also Blackstone, 4 *Commentaries* *362 ("On a conviction of larceny, in particular, the prosecutor shall have restitution of his goods, by virtue of the statute 21 Hen. VIII, c. 11.").

93. Beattie argues that fines for minor offenses were largely token payments to show that the two parties had reached agreement. Beattie, *Crime and the Courts in England* at 457 (cited in note 1). "A larger fine might well result when such agreement was not forthcoming, and its threat, along with the further threat that the nonpayment of a large fine could result in a period in jail, was clearly used by the courts as a way of persuading a recalcitrant prisoner to come to terms with the complainant." *Id.* Beattie cites the Recorder of London in 1729: "In discussing an assault and battery, he said that it was 'usual in these cases for the Defendant to make satisfaction to the Prosecutor for his wounds, and costs and charges—before the Court sets the fine . . . which is usually greater if a Defendant won't make a Prosecutor easy as the Court directs. . . . and then if he forbears to appear and prosecute [the defendant] will be discharged, and all charges

Compounding a felony was illegal; once a prosecutor had filed felony charges, he was supposed to carry the case through to trial.⁹⁴ It appears to have also been fairly common. One of the criticisms of the system of private prosecution, especially during the nineteenth-century attempts to establish a system of public prosecutors, was that many cases were dropped because of agreements between the prosecutor and the defendant.⁹⁵

What both modern and contemporary commentators seem to have missed is that, however corrupt such arrangements might have been from a legal standpoint, they helped solve the fundamental problem of private prosecution. The possibility of compounding provided an incentive to prosecute—it converted the system into something more like a civil system, where a victim sues in the hope of collecting money damages. And while compounding might save the criminal from the noose, he did not get off scot-free. He ended up paying, to the prosecutor, what was in effect a fine.

Viewed from this standpoint, cases that actually went to trial represent failures, not successes, of the system. As a general rule, the loss to the criminal of being hanged or transported was considerably greater than the resulting gain to the prosecutor. Between the two values there was a bargaining range. Sometimes bargaining would break down, perhaps because of differing opinions concerning the probability of conviction or the assets available to the defendant, perhaps due to mutual stubbornness in trying to get the most favorable possible outcome. But under normal circumstances, if my conjecture about how the system worked is correct, some payment in cash or kind, offered by the defendant himself or others on his behalf, would be agreed upon.⁹⁶ That payment

of a Tryal saved, which would be a greate expence.” *Id.* at 457-58.

According to Blackstone:

It is not uncommon, when a person is convicted of a misdemeanor, which principally and more immediately affects some individual, as a battery . . . , for the court to permit the defendant to *speak with the prosecutor*, before any judgment is pronounced; and if the prosecutor declares himself satisfied, to inflict but a trivial punishment. This is done to re-imburse the prosecutor his expenses, and make him some private amends, without the trouble and circuitry of a civil action. But it surely is a dangerous practice . . . prosecutions for assaults are by these means too frequently commenced rather for private lucre than for the great ends of public justice.

Blackstone, 4 *Commentaries* *363-64 (emphasis in original).

94. “The compounding of penal actions, originally allowed, was made illegal by 18 Eliz. c. 5, made perpetual by 27 Eliz. c. 10.” Radzinowicz, 2 *A History of English Criminal Law* at 138 n 2 (cited in note 16). See also Blackstone, 4 *Commentaries* *134-35, 136.

95. Kurland and Waters, 1959 Duke L J at 512 (cited in note 6).

96. The following are a few examples I have come across:

“Ainsworth was caught stealing, begged Blundell repeatedly not to prosecute, and entered into negotiations to work on one of his master's houses in return for forgiveness.” Hay, *Property, Authority and the Criminal Law* at 41 (cited in note 26).

“Mrs. Woodb. asked Ann Wh. to pay the money and she said she would provided there would be no more trouble afterwards.” *R. v Ann White*, in Ryder, *Ryder Shorthand Documents* § 14 at 33-34 (cited in note 92). This was from the testimony of Francis

would punish the defendant, compensate the victim (assuming, as was usually the case, that the victim was the prosecutor), and reward the act of prosecuting.

We do not know how common such arrangements were. One study of eighteenth-century cases found that “28 of the 227 prosecutors bound by recognizances to appear at the Essex quarter sessions failed to bring an indictment, but only two had their recognizances estreated.”⁹⁷ The fact that the penalty for a prosecutor who failed to indict was rarely enforced is consistent with the view that compounding a felony was a practical option for a prosecutor. The small percentage of cases dropped, on the other hand, is evidence against the conjecture offered. This figure does not, however, include either those prosecutors who were bought off before filing charges or those who brought an indictment, perhaps in order to avoid the risk of legal penalties for not doing so, but who deliberately lost the case.

One reason a case might go to trial was a breakdown in bargaining; another was that the prosecutor's objective was deterrence rather than compensation. Execution, or even transportation, would impose a larger cost on most criminals than the largest payment they could make, and thus provide more deterrence. A prosecutor seeking deterrence, whether with his own money or as part of an association, would have to trade off that benefit against the benefit of receiving whatever the criminal was willing and able to pay.

If my conjecture is correct, a common outcome under this system was neither hanging nor transportation but a fine, paid by the criminal to the prosecutor. One advantage of such a system, compared to either civil law or criminal fines, was its superior flexibility. The fine was determined not by the court's estimate of what the defendant owed or could pay but by bargaining between the parties most immediately concerned. Defendants might be less eager to appear judgment-proof if the consequence of that status was being hanged.⁹⁸

Smith, a pawnbroker. Mrs. Woodburn was the owner of the stolen gown; Ann White was the mother of the accused thief, also named Ann White. *Id.* The money was being paid to Smith in order to redeem the gown, in order that it could be returned to its owner. *Id.* The elder Ann White paid the money, but her daughter was nonetheless charged and convicted. *Id.*

And, from the testimony of Jo. Watkins, father of prisoner: “The prosecutor has been with me, and wanted money to stop the proceedings, he having been at great expense. But I refused. . . . He said, would I give nothing to save my child?” *R. v Hannah Watkins*, in Ryder, *Ryder Shorthand Documents* § 14 at 53 (cited in note 92). The girl, who was accused of having stolen and pawned a laced waistcoat, was acquitted, apparently because she was too young, at age eleven, to have sufficient discretion to be held guilty of a felony. *Id.*

97. Peter King, *Decision-makers and Decision-making in the English Criminal Law, 1750-1800*, 27 *Hist J* 25, 27 n 6 (1984). To have “their recognizances estreated” basically means forfeiture of the sum of money that a prosecutor had to pledge as assurance that he would show up to prosecute his case. Beattie asserts that “the vast majority of those committed by magistrates to stand trial for felonies were charged and brought to court” but does not provide any actual numbers. Beattie, *Crime and the Courts in England* at 400 (cited in note 1).

98. Of course, a criminal system could also offer the defendant the choice between

Controlling undesirable acts by treating them as crimes under a system of private prosecution has another advantage over the alternative approach of treating them as torts. For many offenses, the victim is also the best witness. In a civil system, where legal success produces a damage payment from tortfeasor to victim, the victim has an incentive to perjure himself—a problem familiar enough in modern tort law. A jury, recognizing that incentive, may be skeptical of evidence offered by the plaintiff on his own account or by witnesses provided by the plaintiff.

In a criminal system, the victim has little to gain by perjury. Assuming that perjury has some costs, his testimony can be trusted.⁹⁹ A victim who hopes to be paid to drop charges before the trial has an incentive to threaten to perjure himself in order to secure a conviction. But unless he has some way of committing himself to carry out such a threat, it will not be believable. Paradoxically, the result may be to make prosecution more profitable than it would be under a civil system. If the case actually goes to trial the prosecutor gets nothing, so the prosecutor's reservation price, the lowest price at which settlement makes him better off than trial, is lower than under a civil system. But the defendant's reservation price, the highest amount he can pay and still be better off than if the case is tried, will be higher under the criminal system, since the greater credibility of prosecution testimony under such a system makes conviction more likely. Furthermore such a system, by reducing the victim's incentive to commit perjury, may do a better job than would a civil system of distinguishing the guilty from the innocent.

Concerns about the possibility of profitable perjury, and the effect of that possibility on the willingness of juries to believe witnesses, are not entirely theoretical, nor are they based only on modern experience with plaintiffs who abandon their wheelchairs immediately after being awarded large damage payments for permanently disabling injuries. Such problems were discussed in the eighteenth century in the context of rewards for the conviction of criminals guilty of certain crimes. It was widely believed that such rewards led both to entrapment and to attempts to frame innocent parties, and that such concerns were reflected in jury skepticism.¹⁰⁰ Those were among the reasons for the partial abandonment, in the middle of the century, of the system of public rewards.¹⁰¹

hanging and paying a fine. As we will see in Section V, such a transaction may have been implicit in the pardoning system, although the payment took a non-pecuniary form. But the court might be less competent at finding the right fine—the highest that the criminal (and, possibly, his friends and family) were prepared to pay—than a private prosecutor pursuing his private interest.

99. This may or may not be true if the prosecutor's principle objective is deterrence. Using perjury to convict a defendant who potential offenders believe is innocent does not deter. Using perjury to convict a party who potential offenders believe is guilty does.

100. Beattie, *Crime and the Courts in England* at 50-55 (cited in note 1).

101. *Id.* at 53. The problem was recognized by the law in the related context of informants who were entitled to a part of the fine paid by those they informed against. "When suing for a penalty, an informer was considered an incompetent witness unless made competent by statute." Radzinowicz, 2 *A History of English Criminal Law* at 139

The conjecture I have offered is relevant not only to an explanation of why crimes were prosecuted but also to another issue raised in modern discussions of eighteenth-century English law: its relation to the system of class and authority. Some authors view the law as a class neutral instrument, employed by rich and poor alike to protect themselves against the small criminal minority.¹⁰² Others argue that it was primarily a device by which the rich protected themselves from the poor, or by which the ruling class established and maintained its legitimacy.¹⁰³

One argument for the latter view is that, in a system of private prosecution, those with more resources are better able to prosecute, and thus deter, crimes committed against them. That is surely true to some extent, although writers who view the law as class-neutral have offered evidence that many private prosecutors were ordinary members of the working class.¹⁰⁴ But what both sides have missed is the tendency of the system to discriminate in favor of poor criminals and against rich ones.

One reason to start a prosecution is in order to be paid to drop it, a point familiar in discussions of malicious prosecution.¹⁰⁵ One implication is that the incentive to prosecute criminals is greater the greater their ability to pay to have charges dropped. A victim who catches an obviously penniless thief is probably best off giving him a beating and turning him loose or at most insisting on a public apology. A victim who catches a well-dressed thief has more to gain by prosecuting. The eventual out-of-court settlement leaves the thief better off than if he had been tried and convicted but worse off than if the victim had not bothered to prosecute because it was not worth the cost.

There may have been other features of the legal system that worked in the opposite direction, such as the likelihood that middle class juries, chosen under a system in which jurors had to meet a property qualification, would be more sympathetic to middle class than to lower class defendants and interests. But that would also have been true under a system of public prosecution. Private prosecution added to the system an incentive for selective prosecution of those who could pay to avoid the risk of trial.¹⁰⁶

One issue that a system of private prosecution must deal with is the alloca-

(cited in note 16).

102. John H. Langbein, *Albion's Fatal Flaw*, 98 *Past & Present* 96 (1983).

103. This argument is made repeatedly by various authors in Hay, et al, eds, *Albion's Fatal Tree* (cited in note 26), in particular in Hay, *Property, Authority and the Criminal Law* at 17 (cited in note 26). It is persuasively rebutted in Langbein, 98 *Past & Present* at 96 (cited in note 102). For a re-rebuttal, see Peter Linebaugh, (*Marxist*) *Social History and (Conservative) Legal History: A Reply to Professor Langbein*, 60 *NYU L Rev* 212 (1985).

104. Beattie, *Crime and the Courts in England* at 195 (cited in note 1).

105. See generally Douglas Hay, *Prosecution and Power: Malicious Prosecution in the English Courts, 1750-1850*, in Hay and Snyder, eds, *Policing and Prosecution in Britain* 343 (cited in note 15).

106. The same phenomenon in modern civil law is described as searching for defendants with deep pockets.

tion of property rights to prosecute particular offenses. This is not a problem if the only incentive is deterrence—I would be happy to have you bear the cost of prosecuting, and thus deterring, offenders who injure me. But it may be a problem if the incentive for prosecution is the opportunity to collect a reward or be paid to drop charges. It might also be a problem if one possible prosecutor is an accessory of the criminal, who wishes to control the prosecution in order to make sure that it fails.¹⁰⁷

Under the law as interpreted by the courts, rewards did not raise this problem in any serious form. Since the statute establishing the rewards was ambiguous as to who was entitled to get them, their allocation was determined by the judge.¹⁰⁸ The reward was usually divided among a number of different people, including the prosecutor, each of whom had some hand in securing the conviction.¹⁰⁹

In order to either obtain an out-of-court settlement or protect a confederate, a prosecutor who drops charges must be able to prevent another prosecutor from taking up the case.¹¹⁰ A victim who was himself the chief witness, or who could control other essential witnesses, was in a position to do so. Other potential prosecutors were not. The only way they could provide the offender reasonable security against prosecution was to carry the process far enough forward to make the charges *res adjudicata* and thus allow the defendant to invoke the double jeopardy protection.¹¹¹

That might be risky. Once a trial started, it was controlled by the judge, not the prosecutor.¹¹² And while the prosecutor could bring witnesses in, he could

107. Conspiracies between poachers and informers were alleged to have occurred in the enforcement of the game laws. "If a friend laid an information before the keepers could, it prevented their prosecuting, for the informer had rights in the fine. Five pounds sterling went from the poacher to the JP, then to the friend (as informer) and back again to the poacher over a pint in the alehouse." Douglas Hay, *Poaching and the Game Laws on Cannock Chase*, in Hay, et al, eds, *Albion's Fatal Tree* 189, 198 (cited in note 26). Hay asserts that this was a common trick. *Id.* (citing *Some Considerations on the Game Laws, and the Present Practice in Executing Them; with a Hint to the Non-Subscribers* 26 (1753)). I know of no similar example in the context of more serious offenses.

108. Beattie, *Crime and the Courts in England* at 43 (cited in note 1).

109. *Id.*

110. According to Blackstone, where a statute provides a penalty payable to the informer, the first person who brings an action "obtains an inchoate imperfect degree of property by commencing his suit: but it is not consummated till judgement; for, if any collusion appears, he loses the priority he had gained." Blackstone, 2 *Commentaries* *437.

111. A defendant could defend himself against prosecution by a plea of *autrefois acquit* or *autrefois convict*—having been either acquitted or convicted in one trial, he could not be tried again. Blackstone, 4 *Commentaries* *335-36. It is not clear whether any similar defense existed for a defendant who had been charged but not tried, due to the failure of the prosecutor to show up at the trial. The equivalent situation in a civil case resulted in a *non prosiquiter* being entered; the plaintiff owed costs to the defendant and a fine to the crown, but could reinstitute his suit after paying them. Blackstone, 3 *Commentaries* *296.

112. Beattie, *Crime and the Courts in England* at 342-43 (cited in note 1).

not keep witnesses out.¹¹³ So in a situation where two different people wanted to prosecute, it is not clear to what degree the one who succeeded in being named prosecutor could effectively exclude the other.

If two different people did wish to prosecute the same offense, what would happen? One possibility is that the conflict would be resolved by the magistrate. The usual first step of prosecution, filing charges with the magistrate, required his approval,¹¹⁴ although a prosecutor had the option of instead proceeding directly to the grand jury.¹¹⁵ Another possibility is that the rule "first in time, first in right" would have applied to such cases, as it seems to have applied to the related case of informers entitled to collect a share of the penalty prescribed under penal statutes.¹¹⁶

IV. Punishment and Punishment Cost

In analyzing the choice among alternative punishments, a useful concept is punishment inefficiency: the ratio of punishment cost to amount of punishment.¹¹⁷ A costlessly collected fine or damage payment has an inefficiency of zero; what one person loses another gets. Execution has an inefficiency of about one; the criminal loses his life and nobody gets one.¹¹⁸ Imprisonment, as practiced in the U.S. at present, has an inefficiency considerably greater than one. The criminal loses his liberty, nobody gets it, and the state must pay for the prison.

One possible explanation for the pattern of criminal punishments in eighteenth-century England is that imprisonment was avoided because it was too expensive. If this is correct, the later shift to a system that made extensive use of imprisonment can be interpreted as a consequence of economic growth. A punishment too costly for a poor country might be appropriate for a rich one.

This conjecture suggests several questions. The first is whether imprisonment in the eighteenth century was necessarily more inefficient than execution. The answer is not immediately obvious. A penal system that was willing to hang sheep stealers had no moral qualms about setting them to hard labor instead. If the output that could be extracted from prisoners was more than the cost of

113. Blackstone, 4 *Commentaries* *359.

114. Beattie, *Crime and the Courts in England* at 36, 319 (cited in note 1).

115. *Id.* at 82.

116. Blackstone, 2 *Commentaries* *437.

117. For more detailed discussions of punishment inefficiency and its relevance to the choice of punishment, see David D. Friedman, *Reflections on Optimal Punishment or Should the Rich Pay Higher Fines?*, 3 *Res L & Econ* 185 (1981); David D. Friedman, *Should the Characteristics of Victims and Criminals Count?: Payne v. Tennessee and Two Views of Efficient Punishment*, 34 *BC L Rev* 731 (1993).

118. The inefficiency is slightly greater than one if we include the cost of hiring the executioner. It might be less than one if the state obtained some direct benefit from execution, such as the entertainment value of public hangings or the market value of the corpse sold to surgeons for dissection. See, for example, Peter Linebaugh, *The Tyburn Riot against the Surgeons*, in Hay, et al, eds, *Albion's Fatal Tree* 65 (cited in note 26).

guarding and maintaining them, then imprisonment, although still less efficient than a fine, would be more efficient than execution.

Apparently it was not. One piece of evidence comes from the attempt to use prison labor for improvements on the Thames when transportation was interrupted by the American Revolution.¹¹⁹ Modern historians have concluded that the value of the work done was much less than the cost of maintaining the prisoners.¹²⁰

A more interesting attempt occurred on the other side of the English Channel. French criminals sentenced to the galleys became part of an elaborate system of state-run slavery.¹²¹ Until 1748 they were sent to the arsenal at Marseilles, where the galley fleet was based.¹²² Those in sufficiently good condition were assigned to galleys as rowers.¹²³ The rest were used in the arsenal to produce goods for government use under the direction of private employers.¹²⁴ The private employers paid a small wage to the galley slaves, presumably for incentive purposes, and received a subsidy from the state.¹²⁵ According to Andrews, the system provided the state with goods at below market prices.¹²⁶

During the winter months the galleys were kept at dock.¹²⁷ Their oarsmen were rented out, with guards, to employers in Marseilles.¹²⁸ Other prisoners ran small businesses in shacks on the dockside, paying off the officers of their galley with a share of the profits.¹²⁹

In 1748, the galleys were abolished,¹³⁰ the galley slaves were shifted elsewhere, many to Brest, the chief base of the Atlantic fleet.¹³¹ At Brest, an elaborate prison was constructed for the galley slaves, implementing the latest ideas in eighteenth-century penology.¹³² Each slave worked eight days outside of the prison and eight days in.¹³³ The outside work was mostly heavy labor on behalf of the fleet, but prisoners with useful skills were allowed to use them.¹³⁴

119. Beattie, *Crime and the Courts in England* at 593 (cited in note 1).

120. "Duncan Campbell was paid about thirty-eight pounds a year for each prisoner on board his ships. The government got the benefit of their labor, but it came nowhere near that figure in value." *Id.* (citing W. Branch Johnson, *The English Prison Hulks* 9 (Christopher Johnson, 1957)).

121. My description of the galley slave system is based on Andrews, 1 *Law, Magistracy, and Crime in Old Regime Paris* at 316-43 (cited in note 76).

122. *Id.* at 316.

123. *Id.* at 320.

124. *Id.* at 325-26.

125. *Id.* at 326.

126. *Id.* Andrews does not offer either the evidence for that conclusion or any numbers that could be used to compare the gains with the associated costs.

127. *Id.* at 320.

128. *Id.* at 327-28.

129. *Id.* at 328.

130. *Id.* at 330.

131. *Id.*

132. *Id.*

133. *Id.* at 341.

134. *Id.* at 342.

The eight days in prison were devoted to a mix of prison maintenance and production of goods and services.¹³⁵ The latter were sold to the public in the prison courtyard, which functioned as a sort of bazaar, with sellers of goods and providers of services chained in place.¹³⁶

The interesting question for our purposes is whether this elaborate system of slave labor showed a profit or at least covered most of its costs. Nobody seems to have worked out the relevant accounts but there is indirect evidence. While the French state exploited the labor of its galley slaves, it made little attempt to exploit the labor of the much larger number of prisoners not sentenced to the galleys.¹³⁷ If the galley slave system had been a clear success, it is hard to believe that the eighteenth-century French state, perennially short of cash,¹³⁸ would not have applied a similar approach to the rest of its prison population, or at least to those prisoners in reasonably good physical condition.

A second piece of evidence comes from the role played by galley slavery in the history of imprisonment.¹³⁹ At about the end of the fifteenth century, Mediterranean states with galley fleets began using condemned prisoners as oarsmen.¹⁴⁰ In some cases, states without galley fleets commuted capital sentences in order to provide rowers for the fleets of their Mediterranean allies.¹⁴¹ The result was a substantial shift away from capital punishment in favor of one specific form of imprisonment—galley slavery.

That sequence of events suggests that rowing a galley was a job particularly well-suited to prisoners—sufficiently so to convert imprisonment from a punishment less efficient than execution to one more efficient than execution. There are at least two obvious reasons why that might have been the case. One is that galley labor is relatively easy to supervise. Since the oarsmen are all rowing together under the observation of a free officer, any slacking will be immediately obvious and can be immediately punished.¹⁴² The other is that it is difficult for

135. Id.

136. Id.

137. Id at 343-83.

138. Id at 213-15.

139. Langbein, 5 J Legal Stud at 39-44 (cited in note 75).

140. Langbein asserts that “the use of captives in the galleys had been known in antiquity, and may have been a more or less continuous process in the Eastern Mediterranean into the Renaissance.” Id at 40 n 26 (citing Paul Masson, *Les Galères de France*, 20 *Annales de la Faculté des Lettres d'Aix* 7, 8-10 (1937)). According to Casson, this is mistaken. Lionel Casson, *The Ancient Mariners: Seafarers and Seafighters of the Mediterranean in Ancient Times* 87 (Princeton, 2d ed 1991). In a careful and convincing discussion, he argues that, in classical antiquity, neither slaves nor convicts were used to row warships save in rare emergencies. Id.

One obvious conjecture is that the use of slave-rowed galleys for military purposes was associated with the increasing use of cannon in naval warfare. As long as the usual form of combat involved a substantial element of boarding and hand-to-hand combat, as seems to have been the case both for classical naval engagements and during the Viking period, a ship whose rowers could not be trusted with weapons was at a serious disadvantage.

141. Langbein, 5 J Legal Stud at 40-41 (cited in note 75).

142. Similar considerations appear in the literature on plantation slavery in the New

a chained prisoner to escape from a galley at sea.

I conclude that galley slaves, used to row galleys at a time when galleys were still militarily useful, probably produced services worth more than the cost of guarding and maintaining the slaves. But in other employments, France, like England, found that prisoners cost more than they could be made to produce.

If, as these arguments suggest, imprisonment had a positive cost, the next question to ask is how that cost compared with what the British government was willing to pay for other punishments. We can get some evidence on that from the history of transportation. One reason the seventeenth-century experiment with transportation failed was that the government was unwilling to pay for it. The second experiment, begun in 1718, succeeded, in part because the government provided a three pound per convict subsidy to help cover the cost of transportation. That suggests that the amount the government was willing to pay for transportation reached three pounds per transportee in about 1718.¹⁴³

Three pounds per transportee was a one-time cost, in exchange for which the transportee was removed from England for at least seven, and in many cases at least fourteen, years.¹⁴⁴ I have no figures for the cost of prisons in England, save the very high figure for confinement of prisoners in hulks during the American Revolution.¹⁴⁵ But the cost per prisoner at one of the contemporary French prisons was the equivalent of about four pounds sterling a year.¹⁴⁶ That suggests that imprisonment cost substantially more than the English state was willing to pay.

One further element in the pattern of punishment in England in the eighteenth century is implied by the conclusions of Section III above. Punishments for serious crimes were not limited to execution and transportation. There was also the possibility of a payment, in cash or kind, worked out between criminal and prosecutor. The punishments provided by law were default outcomes, providing the background against which such bargaining occurred. A fine is a relatively efficient punishment, since what one party loses another gains. The legal punishments of transportation and hanging were less efficient than fines but still more

World; there too it has been argued that particular activities were well suited to slavery because they involved groups of workers working together at tasks that were easily standardized and supervised (the "gang system"). See Robert Fogel, *Without Consent or Contract*, 21-45, 72-80 (W. W. Norton, 1989).

143. Beattie suggests that the reason for the change in policy was that the financial situation of the English government had improved considerably by 1718. Beattie, *Crime and the Courts in England* at 504 (cited in note 1).

144. This ignores those transportees who returned illegally before their sentences were up. It appears from Beattie that such transportees became a significant problem during the second half of the century. *Id.* at 540-41. Seven years was the usual sentence of transportation (and term of indenture) for clergyable felonies; fourteen for non-clergyable felons pardoned on condition of transportation. *Id.* at 519. Presumably many of the transportees either died before completing their terms or chose to remain in the New World.

145. See note 120 and the accompanying text.

146. Andrews, 1 *Law, Magistracy, and Crime in Old Regime Paris* at 354-55 (cited in note 76).

efficient, and less costly to the state, than imprisonment.

V. Pardons

There is one further oddity in the pattern of punishments in eighteenth-century England: the extensive use of pardons. In Beattie's study of Surrey between 1660 and 1800, he found that only about 40 percent of those convicted of capital felonies were actually executed.¹⁴⁷ For many of the rest, especially after 1718, a pardon was conditional on transportation.¹⁴⁸ But for some, the pardons were unconditional. Having been charged, jailed, tried, convicted, and jailed again while waiting execution, some criminals were simply released.

Pardons may sometimes have been used to correct what the judge regarded as an erroneous verdict. But, in most cases, guilt was not the issue. The pardon was based on character evidence about the defendant, offered either during the trial or in later petitions.¹⁴⁹ In some cases, petitions came from people who knew the defendant and could provide information on how likely he was, if pardoned, to reform. In others, what qualified the petitioner seems to have been not his personal knowledge of the defendant but his influence over the officials who decided which defendants were to receive royal pardons.¹⁵⁰

There are at least three different, but not inconsistent, functions that the system of pardons may have served. The most obvious is as a device for avoiding unnecessary punishment costs. If the experience of being jailed, tried, convicted, and almost hanged is sufficient to discourage this particular defendant from any future crimes, then execution serves no incapacitative function. If the defendant is unlikely to reform in England but has better prospects in the harsher environment of the New World, then transportation may be a better punishment than execution. And if most potential criminals who are similar to this defendant can be deterred by something less than a certainty of being executed if convicted, then by pardoning some of them, with or without transportation, the state reduces punishment cost substantially at only a small price in deterrence.¹⁵¹ Similar arguments can be used to justify judicial discretion in sentencing in a modern court system.

A second function that such a system might serve is to measure and take account of the negative externalities imposed by execution. Hanging almost always imposes a large cost on the person most directly affected—that is one of the reasons for hanging people. It may also impose substantial costs on others: friends, relatives, employers, and taxpayers potentially responsible for supporting

147. See text accompanying note 37.

148. See text accompanying notes 48-53.

149. Beattie, *Crime and the Courts in England* at 439-40 (cited in note 1).

150. For a detailed analysis of the arguments that judges offered for and against pardons, and the source of character testimony in favor of pardons, see King, 27 *Hist J* at 25 (cited in note 97).

151. For a more detailed discussion of price discrimination in punishment, see Friedman, 3 *Res L & Econ* at 185 (cited in note 117).

the criminal's dependents. Those costs serve little deterrent function. If many such people are willing to go to some trouble to testify in favor of the criminal at trial or petition for a pardon, that is evidence that such costs are substantial, which is an argument in favor of avoiding them by pardoning the convict.

So far I have assumed that pardons are based on information the court system receives about the prisoner. An alternative way of looking at them is as a good sold on a market. A petition from a convict's employer might provide information about the character or productivity of the convict. A petition from a politically influential nobleman, who might never have met the convict and was most unlikely to know him well, provided no such information, at least not directly. Yet such a petition would probably have more effect on the outcome of the case than one from the convict's closest friends.

Imagine that you are an ordinary Englishman who wishes to save the life of a friend convicted of a capital felony—say sheep stealing. One way you may do so is to go to some high-status person you know, perhaps the local squire, and ask him to intervene on your friend's behalf. If the squire does so, it will be part of an exchange of favors. Low-status people sometimes have opportunities to benefit high-status people, and you have implicitly committed yourself to do so—whether by being suitably deferential to the squire in public or by supporting the parliamentary candidate he recommends.

The local squire has more influence with the authorities than you do, but not enough to save a convict from the gallows. He accordingly writes to a politically influential local peer, requesting him to intervene in behalf of one of the squire's people, a worthy young man led astray by bad companions. Here again, the exchange is not primarily of information but of services. One of the things that makes local peers politically influential is the support of local squires.

The court, by considering and acting on such petitions, is implicitly offering the convicted felon a choice between a fine and execution. The fine is paid not by the felon but by his friends¹⁵² and takes the form not of money but of favors. It is paid, possibly through intermediaries, to people who can influence the granting of pardons. To the extent that those paying the fine are in a position to prevent their friends from committing felonies, such a system gives them an incentive to do so. It then functions as a collective punishment, similar to those observed in some primitive legal systems, where fines are paid not by the offender alone but by other members of his kinship group as well.¹⁵³

Pardons procured in this way substitute an efficient punishment—a fine—for a less efficient punishment—execution. In doing so, they provide resources to the state and those who control it. Officials who give out pardons are selling them for non-pecuniary payments. Thus the legal system, in addition to providing a mechanism to reduce crime, also increases the ability of the state to maintain its authority. Considered from the standpoint of public relations, it is an elegant

152. Of course, the felon's friends may expect to be repaid by the felon in future favors.

153. Richard A. Posner, *The Economics of Justice* 193-95 (Harvard, 1981).

way of doing so. Nobody is threatened save the guilty convict. The squire is not oppressing his tenants but doing them a favor, at their request. The knowledge that such favors may occasionally be needed gives everyone in the village an incentive to be polite to the squire.¹⁵⁴

VI. Conclusions

I have attempted to show that the institutions used in eighteenth-century England to discourage serious crime may have been well adapted to that purpose. The preference for extreme punishments reflected the greater cost of the obvious intermediate punishment, and was relaxed as the society became richer, permitting a shift to the more flexible but also more costly alternative of imprisonment.¹⁵⁵ The system of private enforcement worked both because deterrence could be produced as a private good and because compounding provided an incentive to prosecutors and a punishment for criminals. We do not know enough about the available alternatives to say whether the institutions chosen were the best possible. But there is evidence that they functioned reasonably well, or at least better than one would expect from the arguments usually offered against them.

While I have offered a defense for these institutions, some puzzles still remain. One is the difference between France and England. While England depended heavily on capital punishment for serious offenses, France made much larger use of imprisonment. It is tempting to see this difference in punishment as somehow associated with the different systems of criminal prosecution: private prosecution in England and public prosecution in France. Perhaps in England the role of intermediate punishment was being filled by the out-of-court settlement. The exploration of such a conjecture would require both a better analysis of the underlying theory and a better analysis of the data than I have provided. It would be interesting to compare crime rates and conviction rates in the two countries, insofar as they can be extracted from very imperfect data.

Another puzzle worth exploring is the use of imprisonment in England for minor offenses—the relation between the existence of the workhouse and the bridewell and the non-existence of the penitentiary.¹⁵⁶ One possibility is that such imprisonment was at positive cost but that communities were willing to bear such costs in order to deal with people whom they were unwilling, for moral or legal reasons, to execute. Another is that the cost of guarding vagrants

154. This point is made in Hay, *Property, Authority and the Criminal Law* at 48-49 (cited in note 26).

155. The shift to imprisonment as the usual punishment for serious offenses was accompanied by ideological changes, from a penology of deterring and incapacitating criminals to a penology of reforming them. George Fisher, *Making Sense of English Law Enforcement in the Eighteenth Century: A Response*, 2 *U Chi L Sch Roundtable* 509 (1995). These might be interpreted either as an additional and independent cause for the shift to imprisonment or as a justification for a shift occurring for other reasons.

156. See Langbein, 5 *J Legal Stud* 35 (cited in note 75).

was lower than the cost of guarding potentially violent criminals by enough to reduce or eliminate the net cost of imprisonment.

VII. Appendix

A. IS PRIVATE PROSECUTION EFFICIENT?

Does the production of deterrence as a private good lead to an efficient level, a more than efficient level, or a less than efficient level of deterrence?¹⁵⁷ When I commit myself to prosecute those who commit crimes against me, do I on net make other people better off (positive externality), worse off (negative externality), or leave them on net unaffected (no externality)?

It is useful to start by considering the nature of the supply curve for offenses—the rate at which offenses are committed as a function of the expected punishment. Assume, initially, that the supply of offenders is perfectly elastic: If offenders can make an expected wage, net of punishment cost, of more than some critical value W there will be an unlimited number willing to take up a life of crime; if they make less than W , there will be none.

Does such a perfectly elastic supply of offenders imply a perfectly elastic supply of offenses? It does not. Even with an unlimited supply of thieves, there is still a limited supply of targets—objects worth stealing and inadequately guarded. If there are only a few thieves, they can limit themselves to stealing from unlocked houses with piles of gold coins visible through the window. As the number of thieves increases,¹⁵⁸ the attractiveness of the marginal target decreases. The gold is either well-hidden and protected by a stout door or already stolen. The amount of theft will increase until each thief is making a net wage of W , at which point the market for theft will be in equilibrium. Targets whose attractiveness to thieves is above some cutoff A_0 get stolen from; those below that level do not.

Imagine, in this world, that some of the targets disappear—perhaps because their owners have constructed very high walls. With fewer targets and the same number of thieves, the average wage from theft declines. Since the supply of thieves is perfectly elastic, individuals leave the profession until the wage is back up to its old level. At that point they are again stealing from all targets with attractiveness greater than A_0 and only such targets. So the protection of one set of targets neither benefits nor harms the owners of other potential targets of theft.

157. Throughout this discussion, I am considering the optimal level of prosecution while holding fixed other relevant features of the system, such as the schedule of penalties and the rules of evidence. By the optimal level of deterrence, I mean the level that is optimal given the rest of the system as it was; I am not suggesting that even the best system of private deterrence would make the entire system optimal.

158. It is not important at this point in the analysis whether we think of the supply as a number of people and assume they are all full-time thieves, or whether we think of supply in terms of man-hours of theft per year, some or all of which may be provided on a part-time basis.

The attentive reader will realize that I have made a number of implicit assumptions in reaching this result. One is that thieves know which targets are no longer available and need not waste time checking them out. If that is not the case, the new walls confer a benefit on other targets by making it more costly to find them. This assumption is appropriate for the form of protection I am considering—joining an association for the prosecution of felons. The membership of the association is published in the local newspaper. As long as thieves read their local papers, they can cheaply and easily cross off their list targets owned by members of the association.

Joining such an association does not reduce theft to zero. Occasionally a member's property will present a target attractive enough to be worth robbing despite the risk. Imagine that such a theft occurs, and the perpetrator is caught, convicted, and executed. One consequence is that he will never steal from anyone else. It seems that in this case, at least, the potential victim who committed himself to prosecute has provided an external benefit to other potential victims.

But I have been assuming, so far in the argument, a perfectly elastic supply of thieves. If that is the case, incapacitation is of no value. If one thief disappears, to be hanged at Tyburn or transported to Georgia, another will take his place. Thus prosecution provides no external benefit.

What about the effect of such private deterrence on the welfare of thieves? One might expect an increase in the probability that thieves will be convicted, or a decrease in the number of attractive targets of theft, to make thieves worse off. But, under our present assumptions, that conclusion would be mistaken. A service in perfectly elastic supply earns no rents. Potential thieves face an opportunity cost of W for their services; that is why they are willing to become thieves only if their net wage is at least W . When some victims commit themselves to prosecute, some thieves switch to their (equally attractive) alternate profession, and the remaining thieves earn the same wage (net of expected punishment costs) as before. So, if the supply of thieves is perfectly elastic, deterrence produced as a private good through associations for the prosecution of felons results in neither positive nor negative externalities and is therefore produced in the optimal quantity.

Now suppose we drop the assumption of a perfectly elastic supply of thieves. Our result changes in three ways. When one owner protects his property, the reduction in the number of attractive targets means that some of the thieves least well qualified for the profession leave it. The new marginal thief is now better qualified for theft than the old, either because he is more skilled or because his other alternatives are worse. Since the marginal thief is better, he is willing to accept less attractive targets, so the attractiveness of the marginal target, the target just worth stealing, is lower than before. Other property owners are worse off as a result since more of their property is now sufficiently attractive a target to be at risk. The thieves are worse off as well since the gain to the inframarginal thieves is lower than before. The effects on both other property owners and thieves are negative externalities from private deterrence.

On the other hand, if the supply of thieves is not perfectly elastic, incapacitation matters. All the best potential thieves are already stealing; so when some of

them are hanged or transported, their replacements are less skilled or have higher opportunity costs. Private deterrence now produces a positive externality in the form of incapacitation. With both positive and negative externalities of unknown magnitude, the net effect is indeterminate.

How plausible is the assumption that the supply of offenders is perfectly, or at least highly, elastic? One argument in favor might be that theft is not a very skilled profession, that there were a lot of unskilled workers in eighteenth-century England, and that most of them were not thieves. One argument against might be that many of those workers had consciences, and the lack of a conscience was an important qualification for being a thief. An alternative argument against might be that many of those workers had reputations and were therefore subject to substantial reputational penalties if caught.

Do we have any evidence? I doubt that the data necessary to produce an econometric estimate of the elasticity of supply exists. But we can deduce from the behavior of contemporaries something about their beliefs on the subject.

Some, but not all, associations for the prosecution of felons had rules permitting them to prosecute offenses against non-members. Occasionally, although not often, they did so.¹⁵⁹ One would expect such prosecutions to be on behalf of non-members too poor either to prosecute on their own behalf or to be potential members, and that seems to have been the case.¹⁶⁰ By limiting itself to such cases, the association avoided undercutting its own effort to recruit members. At the same time, it took advantage of an opportunity to eliminate a criminal who might commit his next crime against one of their members.

How valuable that opportunity was depended on the local elasticity of supply for offenders. If it was high, the criminal would probably be replaced by another. If it was low, eliminating a criminal provided a benefit. On the other hand, if the elasticity is low a policy of providing free protection (via prosecution) to some non-members may induce criminals who would have committed crimes against those non-members to commit crimes against members instead. So an inelastic supply of offenders permits the possibility that prosecuting crimes against non-members may occasionally benefit members, but in no way guarantees it. That such prosecutions were rare suggests, but only suggests, that the elasticity may have been believed to be high. Of course, a high local elasticity does not necessarily imply a high national elasticity—that depends on how mobile thieves are.

So far I have presented the analysis in an imprecise verbal form. Subsection B provides two formal models. One corresponds to the verbal analysis above; the second embodies a different set of assumptions yielding somewhat different results.

159. Philips, *Good Men to Associate* at 139 (cited in note 81).

160. *Id.* at 139-40.

B. TWO MODELS OF THEFT

The issue of whether precautions by one potential victim injure or benefit other potential victims has been noted before in the literature, most recently by Hui-Wen and Png.¹⁶¹ So far as I know, however, there has been no formal modeling of the total supply curve for offenses as due to the interaction of heterogeneity of potential criminals and heterogeneity of targets or of the implications of that relation for the effect of individual protection. In this subsection, I present two such models, designed to bring out two different features of the interaction between criminals and victims.

1. Model 1: Casing the joint.

A criminal opportunity has a location in time and space. The door of a particular building happens to be unlocked from 1:00 P.M. to 2:30 P.M. It has a net value, a return that a thief may expect to make by exploiting the opportunity. The value depends on what is available to steal, the barriers that must be overcome, the probability of detection during or after the commission of the theft, and the expected consequences. I assume that, for a given location, the starting time, duration, and value of opportunities are random variables with publicly known distributions. For simplicity, I assume that no opportunity has a duration of more than twenty-four hours.

A potential criminal c may case a joint—check to see whether a criminal opportunity is currently available—at a cost C_c , which depends on the characteristics of the criminal. A single criminal can case only a fixed number N of joints per day due to time constraints.¹⁶² If there is only one criminal and he is casing a joint j no more than once a day, he receives an expected return from doing so of R_j^{\max} . By making his visits at least twenty-four hours apart, he guarantees that he will never discover an opportunity that he himself has already exploited on a previous visit. More generally, his return will be $R_j(t_j)$, where t_j is the interval in hours between visits; $R_j^{\max}=R_j(24 \text{ hours})$. For $t_j < 24$, $R_j(t_j)$ is an increasing function of t_j . The more often the target is visited, the more likely it is that an opportunity that would otherwise be available has already been exploited.

Now assume a population of such criminals. A criminal has no property rights to his target—a competitor who cases the same joint may find and exploit a criminal opportunity first. The average time between visits for a particular target, t_j , will depend on decisions by all criminals, not just one. As long as $R_j(t_j)$ is higher for one target than for another, it pays criminals to shift their attention to the more attractive alternative. So in equilibrium, all targets that are being cased yield the same return, R . Any target j for which $R_j^{\max} < R$ will be left alone.

161. David D. Friedman, *Efficient Institutions for the Private Enforcement of Law*, 13 *J Legal Stud* 379 (1984); Koo Hui-Wen and I. P. L. Png, *Private Security: Deterrent or Diversion?* 14 *Intl Rev L & Econ* 87 (1994).

162. Alternatively, casing a joint takes a fixed length of time, and the criminal has a declining marginal utility for leisure.

Any target for which $R_j^{\max} > R$ will be visited with a frequency t_j , such that $R_j(t_j) = R$.

An individual criminal c will case N joints per day, producing an expected return NR at a cost NC_c , for a net return of $N(R - C_c)$. In equilibrium, all potential thieves for whom $R > C_c$ will be actual thieves; all for whom $R < C_c$ will not. We thus have a supply curve for casing, $S(R)$, showing how many joints will be cased as a function of R . There is a demand curve for casing, $D(R)$, which represents the number of casings that must occur in order that the expected return will be R .¹⁶³ Just as in a normal market, equilibrium occurs at that value of R for which $S(R) = D(R)$. The marginal thief has $C_c = R$, and earns no rent from theft; the superior thief has $C_c < R$ and earns rent of $N(R - C_c)/\text{day}$.

Suppose, as in subsection A above, that we assume a perfectly elastic supply of criminals: $C_c = C$ for all c . We then have $R = C$. The expected return does not depend on the distribution of targets. Just as in an ordinary market, a perfectly elastic supply curve makes the market price independent of the demand curve. The argument of subsection A above then goes through. An individual who lowers $R_j(t_j)$ for his target j , whether by building a wall or joining an association for the prosecution of felons, neither increases nor decreases the risk to the owners of other targets. For the reasons given earlier, incapacitation provides no benefit under these assumptions; criminals receive no rents from their activities so their welfare is unaffected by the reduction in the number of targets.

Dropping the assumption of a perfectly elastic supply of criminals alters the results as already described. The owner of a target who makes it less attractive shifts $D(R)$ to the left. R falls to some $R' < R$. If fewer casings occur, marginal thieves leave the market, and the quality of the thieves now just on the margin between stealing and going straight is higher. All targets for which $R_j^{\max} > R'$ get cased, with a frequency sufficient to make $R_j(t_j) = R'$. So some targets that were previously safe are now being cased, and targets that were already being cased are now cased more often. Protective actions by one owner make other owners worse off. In addition, the remaining thieves receive lower rents than before, so they too are worse off.

If, as in the case we have been considering, the owner protects his property by committing himself to prosecute, there is now a positive externality from incapacitation. Crimes are committed by criminals for whom $C_c < R$. Every time such a criminal is removed from the market, the supply curve $S(R)$ is shifted left, raising the equilibrium value of R .

In subsection A, I provided a verbal sketch of the logic of private deterrence. I have now filled that sketch out with a formal model.¹⁶⁴ Next I will show how

163. I refer to $D(R)$ as a demand curve because it plays the same role in determining the equilibrium level of casing that an ordinary demand curve plays in determining the equilibrium level of output. It differs from an ordinary demand curve in other respects. Since the transaction between thief and victim is not a voluntary one, the demand curve is not derived from a marginal value curve and the area under it is not consumer surplus.

164. I have not given a complete account of the assumptions underlying the model. In particular, I have assumed without comment that the cost of casing one joint does not

a different, and perhaps equally plausible, model of theft can produce somewhat different results.

2. Model 2: Theft as a byproduct.

In the model I have just presented, theft is a full-time activity conducted by professional thieves. But, from the standpoint of economic theory, we are all potential thieves—we differ only in C_c , the lowest return for which we are willing to steal. Since each of us, in the course of his daily activities, has a chance to observe and exploit criminal opportunities, it may not be necessary to devote time to casing out potential targets.

Each individual is presented in his daily life with occasional opportunities to steal. Each such opportunity has a return R_o and a cost C_c , dependent on the characteristics of the potential thief. If $R_o > C_c$, I take the opportunity; otherwise I remain honest. For simplicity, assume that the net return to theft is small enough so that such opportunities have a negligible effect on my ordinary activities. I do not spend fifteen minutes lingering by the front door of a bank on my way back from lunch in the hope that someone will leave a pile of gold temporarily unguarded; nor do I work late in the hope of finding profitable opportunities to gain at my employer's expense. Criminal opportunities represent rare but attractive windfalls.

In this world, one opportunity to steal does not compete with another. When the owner of one target protects it, the risk to other targets is unaffected. There is, however, an effect on the welfare of the criminals—the owner's gain is (net of the cost C_c) their loss.

Whether this is an external loss depends on the relationship between criminal and victim. The situation I have described frequently involves employees and employers. If so, the wage that the employer must pay to secure workers will depend, among other things, on the expected return from illicit opportunities. This is the situation generally associated with “perks” and disputes over what they are. The costs and benefits involved are all internal to the employing firm and, assuming away complications of imperfect information, opportunistic appropriation of sunk costs, and the like, will lead to efficient decisions.

That will not be true if criminal and victim have no voluntary relationship with each other. In such a situation, the precautions of the victim impose a cost on the criminal, so the victim will, in the absence of other externalities with the opposite sign, take a greater than optimal level of precaution.

What about externalities associated with incapacitation, in the case where victims protect themselves by committing to prosecute? In this model such externalities exist but their sign is indeterminate. The reason the sign is indeter-

depend on the availability of other, nearby, joints to be cased. That is a plausible assumption if we imagine that the cost of going to and from the target is a negligible part of the cost of casing it, either because looking for opportunities is costly or because targets are dense enough so that it is only a short distance from one to another. If I drop that assumption, an owner who makes his target less attractive confers an external benefit on other owners, by raising the cost to criminals of casing their targets.

minate is that we do not know whether those who are incapacitated are more or less likely to commit theft than those who will replace them in the positions that provide criminal opportunities. On average, those who commit thefts are more inclined to do so—have a lower value of C_c —than those who do not. But incapacitation selects out not merely those who commit crimes but those among them who are caught and convicted. One of the things determining C_c is how good the criminal is at not being caught.

So the criminals who are removed from the market are, on average, the less competent among those who commit crimes. Considered as a sample from those with an opportunity to commit crimes, the set of convicted criminals is weighted toward low values of C_c by the fact that they committed the crime—the lower the value, the higher the probability of finding an opportunity worth taking—but toward high values by the fact that they were caught. The net effect depends on detailed assumptions about the distributions of criminal talents and criminal opportunities.

