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The Illusory Death Penalty: Why America's Death Penalty Process Fails to Support the Economic Theories of Criminal Sanctions and Deterrence

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Notes

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by
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Introduction

In 1972, the United States Supreme Court dealt a blow to America's criminal justice system by deciding in *Furman v. Georgia* \(^1\) that the death penalty, as applied in three Georgia capital cases, was cruel and unusual punishment and violative of the Eighth and Fourteenth Amendments. \(^2\) The death sentences of all 633 inmates in the nation's death rows suddenly became invalid and state lawmakers scurried to write new death penalty laws that would pass constitutional muster. \(^3\) Only four years later, Georgia was again

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1. 408 U.S. 238 (1972) (per curiam).
2. *Id.* at 239-40.

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before the Supreme Court, arguing in *Gregg v. Georgia*\(^4\) that its new death penalty statute was constitutional.\(^5\) This time, Georgia succeeded in convincing the Court that its death penalty procedure was constitutional because it met the stricter constitutional parameters of capital punishment as defined in *Furman*.\(^6\)

Death penalty proponents, and most of America, breathed a great sigh of relief as the four-year moratorium on imposition of the death penalty was lifted.\(^7\) Soon after Gregg, thirty-seven states\(^8\) passed new statutes mirroring Georgia's new scheme of bifurcating the guilt and sentencing phases of trial and requiring judges and juries to consider "aggravating" and "mitigating" factors in determining the appropriateness of capital punishment in each case.\(^9\) While the new standards reduced the likelihood of arbitrary or erroneous death sentences,\(^10\) they introduced a new complex system of death penalty appeals at both the state and federal levels.\(^11\) This has created a "stalemate"\(^12\) where the number of death penalty convictions in the nation far exceed the number of executions.\(^13\) Thus, America's death penalty has been turned into merely an illusion,\(^14\) serving as little or no deterrent to crime.

The economic approach to criminal law provides a useful tool to analyze the theoretical justifications of capital punishment. From an economic view, the death penalty is a logical extension of the criminal

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5. Id. at 162-63.
6. Id. at 206-07.
7. The vast majority of Americans support the death penalty. See infra note 203.
10. Cf. id. ("No longer can a jury wantonly and freakishly impose the death sentence; it is always circumscribed by the legislative guidelines.").
13. Kozinski & Gallagher, *supra* note 11, at 4. Before Furman, executions occurred much more frequently, and the average length of stay on death row was much shorter. For example, from 1900 to 1960, New York State executed an average of more than one person per month, and the average death row inmate was executed within eight months after conviction. *Lawbreakers: Death Row Diaries* (THE HISTORY CHANNEL television broadcast, Dec. 9, 2000).
justice system's primary goal of deterrence. Nevertheless, the way in which the death penalty process is actually carried out in this country defeats the underlying economic justifications for having the death penalty as an available sanction for heinous crimes. Thus, from an economic standpoint, reform is needed to close the gap between the theoretical and actual deterrent effects of the death penalty in America.

Part I of this Note discusses the economic approach to criminal law and its logical emphasis on the deterrence value of criminal sanctions. Part II applies this economic reasoning to capital punishment and illustrates that the death penalty may serve a useful purpose for the economic theory of criminal law. Part III discusses the current empirical research on the death penalty as a deterrent in America and shows that the current death penalty appeals process defeats any theoretical deterrent effect of capital punishment. Finally, Part IV suggests a few ways in which America could reform its death penalty appeals process to allow capital punishment to serve as a greater deterrent, including the possibility that the most efficient solution may be to abolish the death penalty.

I. The Economic Approach to Criminal Law

The central tenet of the economic approach to criminal law is deterrence. Capitalist societies use criminal sanctions to deter people from "bypassing the system of voluntary, compensated exchange." This "system" is what economists generally refer to as the "market." Since transaction costs are low in coerced exchanges (e.g., robbery), criminals would always choose to bypass the market if it were not for the risk of monetary or nonmonetary sanctions. The market is a more efficient method of allocating resources than forced

15. To be sure, there are many other possible justifications for the death penalty than merely deterrence (e.g., retribution). Nevertheless, since this Note seeks a justification for the death penalty from a "law and economics" viewpoint, I limit my discussion to capital punishment's value as a deterrent. Cf. Frank H. Easterbrook, Criminal Procedure as a Market System, 12 J. LEGAL STUD. 289, 291 (1983) ("[D]eterrence may appear at odds with other approaches to criminal law that rest on goals in addition to or other than deterrence. I do not disregard these goals; I simply put them to one side because my purpose in this paper is to establish that many existing features of criminal procedure are understandable, and desirable, if deterrence is the goal of criminal law.").

16. Id. at 292.


18. Id.

19. Id.
exchanges, so market bypassing is inefficient in a wealth-maximization sense no matter how much utility the wrongdoer may receive as fruits of his crime.\textsuperscript{20} It is in this manner that crime can be seen as essentially an externality, "and the maintenance of law and order . . . essentially a public good."\textsuperscript{221}

Like all economic analysis, this approach to criminal law assumes that offenders will behave in accordance with the rules of optimizing behavior.\textsuperscript{22} This theory posits that an individual will rationally want to maximize his gains\textsuperscript{23} and will want to minimize his losses or risk of painful experiences (such as imprisonment).\textsuperscript{24} The basic model of criminal behavior, then, is that a person commits a crime because he expects the benefits of the crime to exceed its costs.\textsuperscript{25} The potential benefits include both tangible and intangible gains from the crime. Tangible benefits are the expected illegitimate payoffs from the crime (e.g., stolen money) while intangible benefits may include factors such as the personal satisfactions realized through harming a particular person (e.g., "crimes of passion").\textsuperscript{26} The costs of a criminal's act include out-of-pocket expenses (e.g., burglary tools, costs of self-protection to escape punishment), the opportunity cost of the criminal's time (including the forgone wages that could be gained through a legitimate occupation), and the expected costs (including risk) of criminal punishment.\textsuperscript{27} It is this last cost that the criminal law attempts to increase through sanctions.
Hence, criminal law is primarily focused on setting "prices" to increase the criminal's overall expected costs of his wrongful activity. A potential criminal will only commit a wrongful act if he perceives the expected criminal sanction as less severe than his expected private benefits from the act. Therefore, if the price (i.e., sanction) is set at the optimal level of severity, the rational criminal will decide that committing the crime is not worth the expected sanction. In this situation, the criminal will not commit the act and "he will be said to be deterred."  

The optimal sanction for a crime must be high enough so that the offender is worse off by committing the act. Thus, the sanction must not only consider the cost of the criminal's act itself, but it must also include some extra amount designed as a punitive damage to deter the person from bypassing the market. Hence, the correct sanction for a "pure coercive transfer such as theft is something greater than the law's estimate of the victim's loss." Simply applying the level of sanction to equal the amount of loss would be inadequate as a deterrent since the criminal would always commit the low-transaction-cost crime, even if he had to pay the market value after every criminal act.

28. Easterbrook, supra note 15, at 292. The word "price" as used in criminal law is a misnomer because it implies that society is willing to permit criminal behavior as long as the criminal is made to compensate society for its loss. Robert Cooter, Prices and Sanctions, 84 Colum. L. Rev. 1523, 1524-25 (1984). Society, however, wants to eradicate crime, not ration it. Posner, supra note 20, at 251. Professor Cooter argues that the term "price" should only be used to refer to the payment of money that is required in order to do what is permitted, such as paying the seller's price in order to buy goods in the marketplace. Cooter, supra, at 1525. In contrast, the word "sanction" means "a detriment for doing what is forbidden." Id. at 1524. Criminal law is concerned with imposing a detriment to induce conformity with the law, not to permit criminal behavior through a pricing system. Therefore, the word "sanction" is more appropriate than "price" when discussing criminal law.


30. Id.

31. Posner, supra note 20, at 243; see also Easterbrook, supra note 15, at 292. For the seminal article on optimal sanction levels upon which most modern-day sanction-setting theory is based, see Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169 (1968).

32. Posner, supra note 20, at 240.

33. Id.

34. This assumes that the criminal would have to pay for the loss in every instance. But, as will be discussed, the optimal sanction must also compensate for the reality that the probability of apprehension and conviction for any given criminal act is always less than one. See infra text accompanying notes 47-53.
While this analysis makes theoretical sense in creating a deterrent to crime, it does not explain why a criminal justice system is needed in the first place.\textsuperscript{35} Indeed, many core criminal prohibitions mirror intentional transgressions in tort. For example, murder, larceny, and assault in criminal law mirror wrongful death, conversion, and assault in tort law.\textsuperscript{36} It seems as though this deterrence could be accomplished more efficiently through a series of escalating civil (and thus private) punitive damages to compensate victims of crimes.\textsuperscript{37} Criminal law enforcement, after all, involves a great amount of public resources, including a police force, government prosecutors and defense attorneys, and separate criminal court proceedings. When considering these large enforcement costs, a private system of enforcement through existing tort law would seem more efficient. Nevertheless, this theory ignores some inherent limitations of using tort law as a private criminal law enforcement mechanism.

First, as the optimal level of sanction rises, the ability of a criminal to pay the private damage award becomes less feasible.\textsuperscript{38} Obviously, if the criminal expects the level of monetary sanction to exceed his ability to pay, the sanction will have no deterrent effect. Likewise, crimes that cause death or pose a substantial risk of death involve “astronomical” optimal damages\textsuperscript{39} and virtually no criminal would be able to pay the sanction.\textsuperscript{40} This means that a monetary sanction will have little or no deterrent effect in either of two situations: (1) the criminal has no assets; or (2) the level of expected harm (damages) incurred by the victim is very high.\textsuperscript{41} Therefore, in these two situations, a private tort system of crime enforcement would be inefficient in adequately inducing would-be criminals to remain within the market system; only threats of nonmonetary sanctions, such as imprisonment, would be likely to deter these criminals.

Second, as the probability of harm increases, the optimal level of damages increases at an even greater rate.\textsuperscript{42} This is because the

\begin{itemize}
\item \textsuperscript{35} See Posner, supra note 17, at 1194-95.
\item \textsuperscript{36} POSNER, supra note 20, at 237.
\item \textsuperscript{37} Id. at 240-41.
\item \textsuperscript{38} Id.
\item \textsuperscript{39} Id.
\item \textsuperscript{40} This is especially true considering that most criminals are poor and the motivation for many crimes is to wrongfully obtain money.
\item \textsuperscript{41} Cf. Shavell, supra note 29, at 1236-38 (discussing five factors to consider when determining whether a nonmonetary damage should be imposed); see also infra note 53.
\item \textsuperscript{42} Shavell, supra note 29, at 1237.
\end{itemize}
relationship between risk and compensation is nonlinear.\textsuperscript{43} For example, if A would be willing to accept $1 as compensation for a .0001 chance that he will be accidentally killed by B, it does not necessarily mean that A will only demand $10,000 as compensation to let B murder him.\textsuperscript{44} The risk of a person being accidentally (negligently) killed is randomly distributed throughout the general population, but the risk of being murdered is centered around a relatively small number of people whom murderers want to kill.\textsuperscript{45} This means that in crimes like murder, the optimal level of damages would far exceed the optimal level of damages for a negligent wrongful death.\textsuperscript{46} And, as previously discussed, this high level of optimal damages is unable to deter someone who cannot afford to pay it.

Third, as the probability that a criminal will conceal his crime and escape sanctioning rises, the optimal damages must also rise.\textsuperscript{47} Typical negligent, tortious accidents are not easily concealed.\textsuperscript{48} This is because the non-intentional tort is the unfortunate result of lawful activity. But, when a wrongdoer's entire purpose is to commit an intentional tort and cover it up, he will often succeed at concealing the act.\textsuperscript{49} Crimes typically involve acts where the probability of the wrongdoer escaping punishment is greater than torts. Here again, the expected monetary sanction of a crime is likely to exceed the criminal's ability to pay and hence will provide little deterrence.

A useful formula for illustrating the prohibitive optimal monetary damages of a typical crime is $D = \frac{L}{p}$.\textsuperscript{50} D is the optimal damages award; $L$ is the harm incurred by the victim (which includes the punitive adjustment to discourage the criminal from bypassing the market through coercive transfers); and $p$ is the probability of the criminal being caught and being forced to pay the damages.\textsuperscript{51} This formula illustrates why the optimal sanctions for crimes generally exceed tort damages and a criminal's ability to pay. For example, if criminals are always apprehended and forced to pay damages, $p = 1$ and the tort damages for the injury would equal those of a equivalent

\textsuperscript{43} POSNER, supra note 20, at 240.
\textsuperscript{44} Id. at 241.
\textsuperscript{45} Id.
\textsuperscript{46} Id.
\textsuperscript{47} Shavell, supra note 29, at 1237; POSNER, supra note 20, at 241.
\textsuperscript{48} POSNER, supra note 20, at 241.
\textsuperscript{49} Id.
\textsuperscript{50} Id.
\textsuperscript{51} Id.
crime (L and D are the same). If \( p < 1 \), however, as it always must be (because the police can never catch every criminal), the optimal damages level (D) rises. Thus, if only in 1 out of every 10 specific criminal acts (keeping L constant) the wrongdoer is caught and brought to justice, \( p = .1 \) and the optimal payment jumps to 10 times the amount. Hence, the formula shows that once all factors are considered, including: (1) the punitive damage to induce the criminal's proper behavior (to use the market for transfers), (2) the higher amount due to the nonlinear relationship between risk and compensation, and (3) the lower probability of criminals being apprehended and convicted, the optimal damages in typical crimes can become higher than the wrongdoer can afford to pay.

Since the optimal sanction is usually higher in typical crimes than the tort system could effectively enforce, society invests huge amounts of public resources to deter crime through criminal sanctions. From an economic efficiency viewpoint, these criminal sanctions, whenever possible, should be enforced through fines rather than imprisonment or other forms of nonmonetary sanctions. This is because fines impose disutility upon the criminal while providing a corresponding benefit to society in the form of money.

52. Id.
53. Id. Professor Shavell expresses this same concept by listing five factors to consider when setting monetary sanctions: (1) The size of the wrongdoer's assets; (2) The probability that the wrongdoer will escape apprehension and sanctions; (3) The degree to which the wrongdoer will receive private benefits (tangible and intangible); (4) The probability that the act will cause harm; and (5) The magnitude of the resulting harm. Shavell, supra note 29, at 1236-37. Applying these factors to typical crimes, the size of the optimal sanction is too high for the typical criminal to pay. Id. First, criminals are generally poor and often seek money through crime. Id. at 1238. Second, criminal acts frequently go unpunished. Id. Third, the magnitude of a criminal's private benefits can often exceed the highest monetary sanction (as in crimes of passion). Id. at 1239. Finally, the magnitude and probability of harm is often very high in typical crimes. Id.

54. This is not to say that the criminal justice system should always be utilized to enforce laws. Since the criminal justice system imposes such a high cost on society (in the form of police, prisons, etc.), the tort system should be used whenever it will provide an effective deterrent. POSNER, supra note 20, at 241-42. This means that whenever the optimal sanctions formula or the Shavell factors yield a number that the wrongdoer can afford to pay, the tort remedy will probably provide an effective deterrent. Id. at 242; see also Shavell, supra note 29, at 1235-36. This is why the criminal justice system is often said to be designed for the poor; the tort system is an effective deterrent for the wealthy. POSNER, supra note 20, at 242.

55. Shavell, supra note 29, at 1236; Easterbrook, supra note 15, at 293; POSNER, supra note 20, at 246.
56. Easterbrook, supra note 15, at 293.
Imprisonment, on the other hand, is inefficient\(^5\) because it "imposes deadweight losses—losses not received as gains by anyone else in the form of the criminal’s forgone legitimate earnings and the costs of guarding him."\(^6\) Nevertheless, since society has a strong interest in deterring crime, imprisonment is necessary whenever the probability of conviction \(p\) falls significantly or when the magnitude of the harm rises significantly \((L)\).\(^7\) Indeed, as the harmfulness of the crime increases, society places a greater value on deterrence.\(^8\) This means that society should be more willing to bear the costs of nonmonetary sanctions (in the form of police and prisons) when deterrence requires a high sanction on insolvent criminals.\(^9\) Thus, while fines are preferable from an economic standpoint,\(^10\) without nonmonetary sanctions most criminals would go unpunished and the system would fail in its broader goal to create deterrence.

Since effective law enforcement involves great amounts of public resources, the economic approach to criminal law attempts to strike a balance between the severity level of the optimal sanction \((D)\) and the probability of conviction \((p)\).\(^11\) For example, to sustain the probability of apprehension and conviction of criminals \((p)\) at a high level, more expenses are required to maintain a vigilant enforcement system.\(^12\) But, the same level of theoretical deterrence can be achieved by convicting fewer people (reducing \(p\)), but treating each of those convicted more severely (increasing \(D)\).\(^13\) This approach represents a trade-off between conserving scarce police and

\(^{57}\) Nonmonetary sanctions are inefficient because "the disutility experienced by parties punished by nonmonetary sanctions is not balanced in any automatic way by additions to the utility of other parties [such as society]." Shavell, supra note 29, at 1235.

\(^{58}\) Richard A. Posner, Excessive Sanctions for Governmental Misconduct in Criminal Cases, 57 WASH. L. REV. 635, 636 (1982). Current statistics of the nation's penal system show the gravity of this "deadweight loss"—approximately 1.5 million convicted criminals are currently incarcerated in U.S. prisons. Investigative Reports: Nevada's Parole Board (A&E television broadcast, Dec. 6, 2000). Of course, imprisonment does provide one large benefit that a fine cannot: The criminal is unable to commit more crimes while he is in prison. POSNER, supra note 20, at 246-47. Indeed, statistics show that more than 50% of convicted criminals released on parole will commit another crime during the parole period. Investigative Reports: Nevada's Parole Board, supra.

\(^{59}\) Easterbrook, supra note 15, at 293-94.

\(^{60}\) Shavell, supra note 29, at 1244.

\(^{61}\) Id.

\(^{62}\) Posner, supra note 58, at 636.

\(^{63}\) Easterbrook, supra note 15, at 293.

\(^{64}\) Shavell, supra note 29, at 1235-36.

\(^{65}\) Easterbrook, supra note 15, at 293.
prosecution resources and maintaining deterrence at an effective level.\textsuperscript{66}

There are limits, however, to how severe the sanction and how low the probability of apprehension and conviction can become, while still providing an effective deterrent. First, as the probability of apprehension and conviction (p) goes down, the criminal justice system begins to increasingly resemble a lottery.\textsuperscript{67} As the chance of apprehension and conviction goes down, wrongdoers who are actually caught and convicted are not only offenders, but are also incredibly unlucky. This subjects convicted offenders to greater ex post discrimination under the law because each convicted criminal "pays" not only for his own crime but also for the crimes of all those who got away.\textsuperscript{68} Greater ex post discrimination seems unfair from a justice standpoint,\textsuperscript{69} but it also works against the goal of deterrence.

This "luck" factor of conviction works against deterrence in the form of "discounting," which imposes an upper limit on the effectiveness of increasingly severe sanctions.\textsuperscript{70} Discounting means that threatening a sentence of twenty years in jail is not twice as onerous as threatening ten years in jail.\textsuperscript{71} This problem exists because criminals, like all people, discount the future. For example, paying $100 in income taxes now is always more "expensive" than paying $100 in taxes a year from now. This well-known "time value of money" theory reflects the consideration of opportunity costs similar to those measured in discounting. Similar to the taxes example, the threat of spending next year in jail is more serious than the threat of spending one year in jail ten years from now.\textsuperscript{72} Discounting reduces the deterrence level of increasingly severe sanctions because, for most

\textsuperscript{66} Id. at 292.
\textsuperscript{67} Ehrlich, supra note 21, at 64.
\textsuperscript{68} Id.
\textsuperscript{69} The economic analysis of criminal law is not primarily concerned with issues of "justice." Cf. Mattei, supra note 20, at 3 ("[Economic interpretation of the law] should not be guided by justice. It should be guided by efficiency."). Nevertheless, arbitrariness and discrimination in criminal sanctions may invoke "justice" issues and deterrence concerns. Indeed, many jurisdictions have implemented measures, such as criminal sentencing reforms, to decrease ex post discrimination. For example, in 1984 Congress passed the Sentencing Reform Act to reduce ex post discrimination that may result from broad judicial discretion in sentencing. 28 U.S.C. § 991(b)(1)(B) (1993) (stating that the purposes of the Act include providing "certainty and fairness [by] avoiding unwarranted sentencing disparities among defendants with similar records who have been found guilty of similar criminal conduct").
\textsuperscript{70} See Cooter, supra note 28, at 1550 n.60.
\textsuperscript{71} Easterbrook, supra note 15, at 295.
\textsuperscript{72} Id. at 294.
criminals, the opportunities of the present seem more important than those of the future. This is especially true considering that many criminals may believe that the state will let them out of prison early on parole.

Thus, discounting forces society to set the probability of apprehension and conviction \((p)\) and severity of sanction \((D)\) at an efficient level. For example, if “criminals discount their future substantially, say at a 20% rate, then we obtain the same deterrence by incarcerating one person for life or five people for one year each.”

Severity of punishment, therefore, is often traded at the margins for a higher probability of apprehension and conviction.

A second limit on the increasing severity of sanctions is overdeterrence. The threat of a very severe fine or prison term may cause people to avoid socially beneficial activities out of fear of accidentally breaking the law or being falsely accused and convicted. Thus, imposing a sentence of life imprisonment without parole for a speeding violation would overdeter (and be inefficient) in that people would drive too slowly or avoid the socially beneficial act of driving altogether. Sanctions, therefore, must be set at a severity level that considers both the problem of discounting and the social opportunity costs of potential overdeterrence.

73. Id.
74. Cf. id.
75. Id. at 295.
76. Ehrlich, supra note 21, at 64. Results of empirical studies have suggested that the theory of discounting is sound. Many studies show that an increase in the probability of apprehension and conviction is more effective as a deterrent than an increase in the severity level of the sanction. Easterbrook, supra note 15, at 295 & n.7 (citing several empirical studies supporting the proposition); see also Brian E. Forst, The Deterrent Effect of Capital Punishment: A Cross-State Analysis of the 1960s, in CAPITAL PUNISHMENT: A READER 59, 66 (Glen H. Stassen ed., 1998) (finding support through empirical study for the theory that certainty of punishment is a more effective deterrent than severity of punishment).
77. Posner, supra note 58, at 637.
78. Id.
79. Id. There is a possibility that an unreasonable sanction (such as life imprisonment for speeding) would create a problem of underdeterrence. This is because a typical person will conform his behavior to “a reasonable obligation backed by a reasonable sanction.” Cooter, supra note 28, at 1549 (emphasis added). If the sanction is unreasonable, it could potentially cause no one to take the law seriously and thus provide no deterrence to the unwanted act.
II. The Economic Approach as Applied to Capital Punishment

As was shown, criminal law "has an impressive economic logic." The justification for capital punishment from an economic standpoint is a simple, logical extension of the theory of optimal deterrence. First, by applying the basic optimal sanctions formula, \( D = \frac{L}{p} \), it follows that as the degree of harm (\( L \)) approaches an infinitely high level and the probability of apprehension and conviction (\( p \)) approaches an infinitely low level, the required sanction (\( D \)) will have to be incredibly severe in order to provide an effective deterrent. An example of this would be a particularly heinous, premeditated, multiple-victim murder. In this case, the degree of harm (\( L \)) is very high because the death of several people is involved. In addition, a premeditated murder involves a great amount of planning on the part of the murderer; the more a criminal plans in advance of the crime, the more likely the crime will go unpunished (decreasing \( p \)). Therefore, the highest non-lethal, non-monetary sanction (such as life imprisonment without parole) may not impose a high enough cost on the criminal (in comparison to the level of harm and probability of conviction) to serve as an adequate deterrent. Thus, a more severe sanction may be required for these uniquely heinous crimes. Since criminals "fear death more than life imprisonment" and "[w]hat is feared most deters most," it follows that the sanction of death may be the only effective deterrent for some crimes.

The second justification for the death penalty from an economic standpoint involves the problem of discounting. Without considering discounting, life imprisonment would seem to always provide a deterrent because the threat of going to prison for the rest of one's life would seem to always impose higher costs on a potential murderer than any private utility he could gain from killing the victim. Nevertheless, since a potential murderer will discount the future years of imprisonment, even life imprisonment without parole may not be an adequate deterrent for a few very shocking crimes.

Lastly, capital punishment serves another goal of criminal law: marginal deterrence. This concept rests on the principle that if a crime is going to occur, society has an interest in providing an

80. Posner, supra note 17, at 1230.
81. POSNER, supra note 20, at 248.
83. POSNER, supra note 20, at 248.
incentive to criminals to substitute more serious crimes with less serious crimes. For example, robbery is punished less severely than murder. This is because society views the harm of taking money by force to be less than the harm produced by killing another human being. If all robbers were punished as severely as all murderers, robbers would have no disincentive from killing their victims to eliminate all witnesses to the crime. Thus, less serious crimes are punished less severely to encourage a criminal to commit the least serious crime possible (and inflict the least amount of relative societal harm).

Applying the theory of marginal deterrence to very serious crimes like murder shows that capital punishment may be necessary to induce certain criminals to commit lesser crimes. For example, if a murderer is going to kill someone, society would prefer that the murderer kill only one victim rather than two or three. Thus, if life imprisonment without parole is the punishment required to deter a single murder, something greater is needed to discourage the murderer from killing one victim and also all the witnesses in the room. Also, criminals who are already serving a life sentence have no disincentive from murdering other inmates while in prison unless there is a greater threat available. In these situations, the only punishment greater than life imprisonment without parole is the death penalty.

Indeed, this explains from a deterrence viewpoint why the death penalty is not imposed on all murderers. Historically, however, the death penalty was imposed for several felonies besides murder. For example, in colonial America, rape, kidnapping, witchcraft, adultery, sodomy, treason, grand larceny, and arson were all punishable by death. Reasons for this are that people in that time were more religious, life spans were shorter, and virtually everyone believed in the better afterlife. Death, therefore, was not viewed as the severe punishment it is seen as today.

84. Id. at 245.
85. Id.
86. Id. at 248.
87. Id.
89. POSNER, supra note 20, at 249.
90. Id.
Nevertheless, colonial America, and other societies that had similar criminal codes, still had to solve the problem of marginal deterrence. Since all serious crimes were punished with equal severity (after all, death is death), there were no incentives for criminals to trade more harmful crimes for relatively less harmful ones. The solution devised was to impose increasingly severe forms of capital punishment on increasingly harmful crimes.91 Thus, since policing and forensic science were not as sophisticated or effective as they are today, the most horrible ways to die were reserved for either the most harmful crimes or crimes with the lowest probability of apprehension and conviction.92 For example, murdering someone by poison yielded a severe method of execution because poisoners were the most difficult type of murderer to catch.93 Therefore, poisoners were executed by boiling them in oil, which society considered as one of the more horrible ways to die.94

In contrast, modern statutes do not impose the death penalty even on most murderers. "Aggravating circumstances" are required in addition to murder to qualify for the death penalty. Typical aggravating factors in death penalty statutes include: (1) murdering a victim while committing another serious felony such as armed robbery, rape, or kidnapping; (2) murdering a police officer or judge; (3) murdering a victim in a particularly heinous manner, such as through torture; (4) the murder was committed by someone in, or who has escaped from, prison; and (5) murdering a potential witness in a court proceeding.95 Thus, modern death penalty statutes reflect society's interest in marginal deterrence by only imposing the

91. Id.
92. Id.
93. Id.
94. Id. Executions in colonial America were also performed in public to further increase deterrence. Information Plus, supra note 88, at 109-10. Nevertheless, the "circus atmosphere" surrounding public executions led most states by the 1930s to conduct executions only in private to satisfy the outcry of those wanting to abolish capital punishment. Id.
95. See, e.g., Gregg v. Georgia, 428 U.S. 153, 165 n.9 (1976) (listing the ten aggravating circumstances in Georgia's death penalty statute); CAL. PENAL CODE § 190.2 (West 1999) (authorizing death penalty for murders committed with "special circumstances," including: murders committed by bombs; murders committed to avoid arrest; the murder victim was a witness to a crime and was intentionally killed to prevent the witness from testifying; the murder victim was a police officer, firefighter, judge, or prosecutor; murders committed in a particularly heinous fashion; murders committed while engaging in a serious felony or through "drive-by shootings"); CAL. PENAL CODE § 4500 (West 1999) (authorizing death penalty for murders committed by anyone currently serving a life sentence).
ultimate sanction on those whom society considers to be the worst offenders (i.e., those who need the highest threat to be deterred). 96

While the economic approach to criminal law provides a logical justification for the death penalty, many criminologists have challenged the applicability of deterrence theory to murder. These scholars contend that most murders are not premeditated, but are rather “emotionally charged” and “spontaneous” events—“acts of passion.” 97 Under such emotional conditions, they argue, it is unlikely that potential murderers will be the rational optimizers that the deterrence theory presumes them to be. 98 Thus, capital punishment could not provide a deterrent to most murders. There are, however, a couple of responses to this argument. First, while some criminal behavior is “random,” enough of it is calculated that changes in criminal penalties affect the level of crime. 99 Indeed, empirical literature supports the theory that criminals respond to changes in opportunity costs, in the probability of apprehension, and in the severity of punishment, “as if they were rational calculators of the economic model.” 100

Second, the deterrence theory already takes spontaneous acts into account in setting the optimal sanction. Spontaneous acts committed in the heat of passion are unlikely to be premeditated. This generally means that concealment will be more difficult for the murderer and the probability of apprehension and conviction goes up. 101 Thus, the optimal sanction will be less severe for these less-planned and easier-to-detect crimes. 102 In contrast, a criminal who

96. Of course, the death penalty is subject to constitutional limitations, including the Eighth Amendment’s “cruel and unusual punishment” clause. In addition to furthering the goals of marginal deterrence, aggravating factors ensure that the death penalty is not an unconstitutional punishment for a given crime. See, e.g., Enmund v. Florida, 458 U.S. 782, 797, 801 (1982) (stating that it would be unconstitutional to make robbery punishable by the death penalty and holding that the death penalty is unconstitutional if imposed on certain types of felony murder); Coker v. Georgia, 433 U.S. 584, 592 (1977) (holding that the death penalty “is grossly disproportionate and excessive punishment for the crime of rape and is therefore forbidden by the Eighth Amendment as cruel and unusual punishment”).


98. Id.


100. POSNER, supra note 20, at 243 (citing empirical studies that support the proposition).

101. Id. at 257.

102. Id.
has planned in advance is likely to be more thoughtful about weighing the costs and benefits of the illegal act, including the expected punishment. These "thoughtful" criminals are more deterrable, therefore, because they are performing at least some of the rational optimizing thought process. Society punishes impulsive, less "thoughtful" criminals less harshly because they are less deterrable (and a harsh punishment on these criminals would be less efficacious). Therefore, the death penalty will not be imposed on less deterrable criminals because such a harsh sentence is unlikely to be a deterrent anyway. Indeed, this policy is reflected in modern death penalty statutes in that impulsive, "heat of passion" murders are not punished by the death penalty; the death penalty is only imposed upon the murderers who are most deterrable—those who premeditate and choose to commit the crime in a more heinous manner.

In summary, the logical application of the economic analysis of criminal law supports the death penalty as a justifiable (and possibly necessary) sanction for certain high-harmfulness, low-probability-of-conviction crimes. Given the severity and finality of the death penalty as the highest conceivable threat, it follows that empirical research should demonstrate that capital punishment provides a great amount of deterrence to murder. Nevertheless, the vast majority of empirical studies shows that the death penalty is at best a mild deterrent, and at worst no deterrent at all.

III. The Current State of Capital Punishment in America

A. Empirical Studies of Capital Punishment in America

Since the early twentieth century, social scientists have been examining the general deterrent effect of capital punishment. Many of the early studies compared mean homicide rates for death-penalty states with the rates for non-death-penalty (abolitionist) states. Other studies compared homicide rates for death-penalty states with rates for neighboring abolitionist states. Still others compared homicide rates for an individual state before and after the

103. Id.
104. Id.
105. See supra note 95 and accompanying text.
107. Peterson & Bailey, supra note 97, at 159.
108. Id.
death penalty was either enacted or abolished. None of these early studies could show that the death penalty had any significant deterrent effect on murder rates. Nevertheless, these studies were of limited value because they failed to consider many other factors besides capital punishment that may affect the homicide rate in a given jurisdiction. For example, statistics show that homicide rates are higher in jurisdictions with large urban, black, youthful, and poor populations. If these "socio-demographic conditions" are more common in death-penalty jurisdictions, then these factors may mask the actual deterrent effect of the death penalty.

Later, in the mid-1970s, Isaac Ehrlich, a statistician, looked at the national homicide rates between 1930 and 1970. Ehrlich's study was revolutionary in that it introduced "multivariate regression analysis" to empirical studies of the deterrent effect of capital punishment. By using this technique, Ehrlich was able to isolate the effects of the death penalty on deterrence from the effects of several other socio-demographic factors. In stark contrast to earlier studies, Ehrlich announced that his study proved that between 1933 and 1969, each execution deterred seven or eight murders in the United States.

While Ehrlich showed a significant deterrent effect of capital punishment on murder rates, scholars have heavily criticized his research. Some have criticized Ehrlich for ignoring some key variables in his study, such as the increased availability of guns and the decline in time served in prison for homicide. Others have pointed out that Ehrlich's results are skewed because he looked at murder rates for the nation as a whole without considering death-penalty and abolitionist states separately. The most compelling

109. Id.
110. Schonebaum, supra note 106, at 7.
111. Peterson & Bailey, supra note 97, at 160.
112. Id.
114. Peterson & Bailey, supra note 97, at 166.
115. Id.
116. Id. at 165.
118. Schonebaum, supra note 106, at 7.
119. Peterson & Bailey, supra note 97, at 165. This problem is illustrated by the fact that during 1933-1969, the murder rate for death-penalty states was higher than the rate for abolitionist states. Id. Ehrlich's study, however, compared the national murder rate to the national execution rate. Since abolitionist states will always have an execution rate of
criticism of Ehrlich's study, however, is the fact that no scholar has been able to replicate his results.\textsuperscript{120}

Most modern empirical studies using Ehrlich's multivariate regression analysis have found that the death penalty has virtually the same effect on murder rates as long-term imprisonment.\textsuperscript{121} On the edges, however, studies have shown widely differing results. For example, one 1985 statistical study showed that every execution deters an average of eighteen murders.\textsuperscript{122} On the other hand, other studies have shown that the death penalty may increase the murder rate. For example, one study that looked at homicide rates in New York State between 1907 and 1963 found that the murder rate actually increased slightly following each execution.\textsuperscript{123} To explain this phenomenon, scholars created the "brutilization theory," which posits that state-sanctioned executions brutalize the "sensibilities of society," making potential murderers less inhibited.\textsuperscript{124}

In an attempt to explain why empirical studies looking at the same data can yield such varying results, Professor McManus looked at the research methodology of existing deterrence studies.\textsuperscript{125} He found that the conflicts among studies stem from the different interpretation each researcher performs on the raw statistics.\textsuperscript{126} Each study is subject to great discretion by the individual researcher because he may choose to include or ignore certain variables that will affect the end result based on his own interpretation of the significance of the variables.\textsuperscript{127} By focusing on the discretionary choices that researchers make in conducting their studies, Professor McManus was able to show that the same raw statistics can prove zero, a national study that ignores the different execution and murder rates in particular states will have deceiving results. Id.  

\textsuperscript{120} Id.  

\textsuperscript{121} Radelet & Akers, \textit{supra} note 117, at 3. For example, one recent study that attempted to replicate Ehrlich's methods, while isolating additional factors that Ehrlich ignored, showed that the death penalty has no significant deterrent effect on murder rates. Forst, \textit{supra} note 76, at 66.  

\textsuperscript{122} van den Haag, \textit{supra} note 82, at 53.  

\textsuperscript{123} Schonebaum, \textit{supra} note 106, at 8.  

\textsuperscript{124} Id. For a more recent study that illustrates the same phenomenon by focusing on California's homicide rates, see Michael J. Godfrey & Vincent Schiraldi, \textit{The Death Penalty May Increase Homicide Rates, in DOES CAPITAL PUNISHMENT DETER CRIME?} 47, 50 (Stephen E. Schonebaum ed., 1998) (arguing that by using the death penalty, the state may "lead by example" and increase homicide rates following executions).  


\textsuperscript{126} Id.  

\textsuperscript{127} Id.
either that capital punishment is a significant deterrent or not.\textsuperscript{128} Professor McManus argues, therefore, that the most significant variable in a deterrence study is the researcher's prior beliefs about the death penalty since those beliefs will affect how the researcher uses his discretionary choosing of variables and their relative significance.\textsuperscript{129}

Thus, given the varying results of empirical studies on capital punishment's deterrent effect, the research may result in a net gain of zero—supporters and opponents of the death penalty "can select either position and cite only those studies that support their position."\textsuperscript{130}

It is for this reason, despite the majority of scholars who believe the death penalty does not provide a significant deterrent,\textsuperscript{131} that many scholars argue that it is impossible to measure its true deterrent through statistics.\textsuperscript{132} Indeed, given the infinite number of variables that may potentially affect the murder rate,\textsuperscript{133} empirical research may never be able to provide a conclusive answer as to whether the death penalty provides a significant deterrent to murder.\textsuperscript{134}

\begin{footnotesize}
\begin{enumerate}
\item[128.] Id. at 425.
\item[129.] Id.
\item[130.] Radelet & Akers, \textit{supra} note 117, at 4.
\item[131.] In a 1996 study that sent questionnaires to 70 "experts" in the field of criminology, 87.5\% replied that, based on their review of the available empirical studies and literature, the death penalty provides no deterrent effect. \textit{Id.} at 7. Looking at the available research in criminology, 94\% of respondents believed that the deterrent effect had weak or no empirical support. \textit{Id.} at 9.
\item[132.] \textit{See, e.g.,} van den Haag, \textit{supra} note 82, at 54; van den Haag, \textit{supra} note 24, at 132 ("\[L\]ack of evidence for deterrence is [not] evidence of nondeterrence... It means that deterrence has not been demonstrated statistically—not that nondeterrence has been [proven].... It is entirely possible... that the statistics used, though the best available, are nonetheless too slender a reed to rest conclusions on.").
\item[133.] The complexity of choosing variables in a deterrence study is exemplified by Professor Forst's cross-state analysis of capital punishment in the 1960s. \textit{See} Forst, \textit{supra} note 76, at 60. This study posited that the homicide rate is potentially influenced by: (1) the rate at which persons convicted of murder are executed; (2) the rate at which murders result in conviction; (3) the average prison term served by convicted murderers; (4) social and demographic characteristics (including age, race, sex, urbanization, school enrollment rate, resident population, divorce rate); and (5) economic variables (including median family income, proportion of families in poverty, employment). \textit{Id.} Indeed, it very well may be impossible to include every possible variable—there are probably other variables that have not yet been discovered that affect the murder rate. \textit{Cf.} van den Haag, \textit{supra} note 82, at 54.
\item[134.] \textit{Cf.} Schonebaum, \textit{supra} note 106, at 7 ("In the end, social science has been unable to either conclusively support or disprove the theory that capital punishment deters crime.").
\end{enumerate}
\end{footnotesize}
Nevertheless, the fact that most research has shown that capital punishment provides very little deterrence to murder undermines the economic approach’s rationale for the death penalty. After all, if the central purpose of punishment is deterrence, as the economic approach posits, then any punishment that does not provide an effective (and efficient) deterrent should be eliminated. To bridge this gap between the death penalty’s theoretical deterrence (and economic justification) and the death penalty’s lack of deterrence in actual practice, the cause of the reduced deterrent effect must be determined. The most likely culprit is the delay between sentencing and the actual execution that is caused by an excessively long appeals process.

B. The Inefficient Death Penalty Appeals Process

The main objective of the criminal procedural system, viewed from an economic standpoint, is to minimize the sum of two types of costs: the cost of erroneous judicial decisions and the cost of operating the procedural system. The criminal procedural system is concerned about convicting an innocent person because an erroneous criminal conviction reduces the expected punishment costs of potential criminals. After all, the greater the number of innocent people that are convicted, the less the criminal’s actual conduct affects whether he will be found guilty and sanctioned—this decreases the would-be criminal’s expected punishment costs. And, as the expected punishment costs decrease, it becomes more likely that a would-be criminal will believe that the expected benefits of the wrongful act will exceed its costs, thereby reducing deterrence. Inadvertently convicting innocent persons, then, can work to defeat the criminal system’s main goal of deterring crime. Thus, criminal procedure builds in safeguards to reduce the probability of wrongful convictions, such as the proof beyond a reasonable doubt standard and appellate courts to correct erroneous trial court decisions. The very complex and costly procedures of the criminal justice system “reflect the high costs of erroneous convictions.”

In a case where the death penalty may be imposed as a sanction, the costs of an erroneous conviction increase drastically. After

135. Posner, supra note 20, at 599.
136. Id. at 605.
137. Id. at 605 n.1.
139. Id. at 328.
Furman, capital cases must be treated differently than other criminal cases because the death penalty is "an usually severe punishment, unusual in its pain, in its finality, and in its enormity."140 Sentencing an innocent person to death would not only inflict an unjust (and unconstitutional) punishment, it would also greatly reduce the deterrence value (if any) of the death penalty.141 Therefore, heightened procedural safeguards exist in death penalty cases to dramatically curtail the possibility of executing the wrong person.142

While the American criminal justice system has created a meticulous death penalty appeals process that is effective in reducing the potential cost of erroneous convictions,143 it has failed to provide these assurances in an efficient manner.144 This inefficiency is illustrated by the fact that there are now over 3,000 inmates on America's death rows.145 This exists because the rate at which criminals are sentenced to death (about 250 nationally per year) far exceeds the rate at which they are executed.146 For example, California has over 400 death row inmates147 and sentences about three criminals to death per month, but has only executed nine people

140. Furman v. Georgia, 408 U.S. 238, 287 (1972) (per curiam) (Brennan, J., concurring). Even modern-day executions (thought to be more humane than historical, Draconian methods) can be incredibly painful and dreadful. See, e.g., Denno, supra note 8, app. at 572-76 (recounting the heinous details of "botched" executions since 1976).

141. Indeed, if the death penalty were randomly distributed between guilty and innocent persons, then this severe punishment would yield no deterrence to serious crimes. Cf. Posner, supra note 20, at 605 n.1. In this "random distribution" situation, the expected cost of punishment to the potential criminal is unaffected by whether the criminal commits the crime or not. Id.; see also supra text accompanying notes 136-138.

142. See Denno, supra note 8, at 550 (explaining why heightened procedural requirements are needed for the death penalty to remain constitutional); but cf. Posner, supra note 58, at 645 (discussing that if a person is rightfully found guilty of a crime, then a too-liberal appellate process will impose more deadweight losses on the criminal justice system).

143. The error rate of the current system is rather low. It is estimated that about 87 people sentenced to death since 1976 have been later exonerated and freed. Benjamin Soskis, Alive and Kicking, THE NEW REPUBLIC, Apr. 17, 2000, available at 2000 WL 4661954. Approximately 5,000 people have been sentenced to death since 1972. Kozinski & Gallagher, supra note 11, at 25. This puts the error rate (87/5000) at slightly over 1%.

144. See Dwight Arons, Getting Out of this Mess: Steps Toward Addressing and Avoiding Inordinate Delay in Capital Cases, 89 J. CRIM L. & CRIMINOLOGY 1, 2 (1998) ("Despite a firm commitment to capital prosecutions, the states have not established effective and efficient capital case processing systems.").

145. Kozinski & Gallagher, supra note 11, at 19.

146. Id. The national conviction-to-execution ratio in 1993 was eight to one. Id. at 4 n.14.

147. Id. at 13.
The gap between death penalty convictions and executions is widening each year because the appeals process is very complex and creates long delay. Most of the delay in a capital case occurs between the sentencing and the execution. While the defendant in a capital case may wait up to two years to be convicted, sentenced, and sent to death row, the convicted criminal will remain on death row for an average of ten years. This long wait on death row is mainly due to the large number of mandatory death penalty appeals that a state supreme court has to process each year, which causes a backlog of cases. For example, the California Supreme Court is able to process, at most, only 75% of the mandatory death penalty appeals it receives each year. In the typical term, however, the court processes only 10% of the total appeals pending. And when the court does hear an appeal, it rarely overturns a conviction or sentence in a capital case.

Once the death row inmate clears the lengthy state-level appellate process, further delay is introduced by numerous habeas corpus appeals to federal courts. Capital defendants can obtain federal habeas corpus review of their convictions and sentences by arguing that their imprisonment and pending execution violate the U.S. Constitution. If the federal court concludes that the defendant’s constitutional due process rights were violated, it may issue an order to the state court to conduct additional proceedings or to release the defendant within a certain time limit. Recent federal

149. Kozinski & Gallagher, supra note 11, at 25. It is estimated that to eliminate the backlog of convicted murderers on death row, there would have to be one execution every day for the next 26 years. Id. at 19.
150. Aarons, supra note 144, at 2.
151. Kozinski & Gallagher, supra note 11, at 6, 10. For a comparison to pre-Furman execution rates, see supra note 13.
152. Kozinski & Gallagher, supra note 11, at 6.
153. Id.
154. Id. at 7.
156. Id. at 23. The federal habeas corpus appeals process is incredibly complex. Therefore, I present only a limited discussion here. For a more thorough analysis of the details of habeas appeals and their impact on the death penalty process, see id. at 23-46.
157. Id. at 23.
158. Id.
legislation has curtailed many of the delays associated with habeas corpus appeals by imposing time limits on when the defendant may file a petition and how quickly the federal courts must issue a decision. Nevertheless, the "exhaustion doctrine" prohibits a defendant from filing a habeas corpus appeal until after all state appeals have concluded. This increases delay because: (1) defendants cannot file state and federal appeals concurrently and (2) whether a defendant has truly "exhausted" his state remedies often becomes a separately litigated issue in federal court.

Given the long length of delays and the relatively small number of executions that are performed each year, it is easy to see why empirical research cannot conclusively support the deterrence theory of the death penalty. A sanction, after all, provides deterrence only on someone contemplating a crime. But once the crime has been committed, the actual penalty must be imposed to "maintain the credibility of the deterrent." Only about 300 people out of over 5,000 sentenced have actually been put to death since 1976. The credibility of the death penalty cannot possibly be maintained when so few persons who are sentenced eventually receive the punishment.

Ironically, one of the economic justifications for capital punishment—discounting—is actually working against the deterrent effect of the death penalty. Indeed, in most states, more inmates die on death row of old age than are executed. This means that to be executed, a criminal must not only be "a truly nasty person, but also very, very unlucky." When a sanction is imposed "infrequently and freakishly" it cannot possibly serve as a deterrent because potential criminals will discount the severity of the punishment by the infinitely small probability of actually being subjected to it.

161. Arlen Specter, A Swifter Death Penalty Would Be an Effective Deterrent, in DOES CAPITAL PUNISHMENT DETER CRIME? 17, 20 (Stephen E. Schonebaum ed., 1998). Whether all of a habeas petitioner's claims are exhausted is an often litigated issue, particularly because of the "total exhaustion rule." This rule requires a federal district court to dismiss all of a petitioner's habeas claims if any of those claims are found to be unexhausted. See Rose v. Lundy, 455 U.S. 509, 522 (1982).
163. POSNER, supra note 20, at 250.
164. Kozinski & Gallagher, supra note 11, at 25.
165. Id. at 18.
166. Id. at 25.
167. Id.
168. Cf. Skipper v. South Carolina, 476 U.S. 1, 14 n.2 (1986) (Powell, J., concurring) (stating that society's "important interest" in deterrence "is diluted when defendants are
In addition to reducing the death penalty's deterrent effect through delays, the complex appellate system surrounding capital cases exacts huge deadweight losses on society. One conservative estimate is that a capital case costs an extra one million dollars as compared to murder cases that are punished with life imprisonment. The additional cost of death penalty cases may actually be much higher. In Florida, for example, the cost of death penalty cases is estimated at $3.2 million per case as compared to $600,000 for life imprisonment cases. In Texas, death penalty cases cost $2.3 million compared to $750,000 for cases where the sentence is forty years imprisonment. California spends approximately $90 million per year on death penalty cases; that averages over $200,000 per death row inmate per year.

The true cost of death penalty appeals can be seen when considering the opportunity costs of state and federal courts. For example, the Florida Supreme Court spends one-third of its time on death penalty appeals. Between 1987 and 1994, an average of 28.6% of the California Supreme Court's opinions were death penalty appeals. The U.S. Supreme Court, even in its limited role in the death penalty process, also spends a considerable portion of its time on death penalty appeals. All of this time spent on death penalty appeals represents a social cost in that the courts could have used this time on other cases.

Following the logical reasoning of the economic approach and its emphasis on efficiency, if the death penalty only provides a minimal amount of marginal deterrence over long prison terms, then the additional social costs of implementing the death penalty are...
unjustified and the death penalty as a punishment is inefficient. Given the empirical research that has been conducted, it is hard (if not impossible) to argue that the death penalty, as currently administered, could possibly provide a significant enough marginal deterrent over life imprisonment without parole to outweigh the death penalty's exorbitant deadweight losses.

This problem has led several otherwise pro-death-penalty judges to speak out against the nation's death penalty process. For example, in 1980, then-Justice Rehnquist filed a rare dissenting opinion against the denial of certiorari in a death penalty case to express his frustration:

It seems to me that we have thus reached a stalemate in the administration of federal constitutional law. Although this Court has determined that capital punishment statutes do not violate the Constitution, and although 30-odd States have enacted such statutes, apparently in the belief that they constitute sound policy, the existence of the death penalty in this country is virtually an illusion. Since 1976, hundreds of juries have sentenced hundreds of persons to death, presumably in the belief that the death penalty in those circumstances is warranted, yet virtually nothing happens except endlessly drawn out legal proceedings. . . . Of the hundreds of prisoners condemned to die who languish on the various "death rows," few of them appear to face any imminent prospect of their sentence being executed.

Likewise, Judge Kozinski of the United States Court of Appeals for the Ninth Circuit has likened the judicial appeals process to a large snake:

It feeds largely on field mice, an occasional squirrel, maybe a game hen here and there. Then, one day, it sees a moose, and ravenously swallows it. For a long time thereafter, it lies immobilized, as the bulge slowly works its way toward the part of the snake opposite its mouth. In this metaphor, our capital cases are a herd of caribou.

IV. Suggestions for Change

The current state of the death penalty in America does not support the economic approach's theory of deterrence and emphasis on efficiency. The severe sanction is imposed too infrequently to serve as an effective deterrent and any marginal deterrence that it

177. See Posner, supra note 17, at 1210.
179. Kozinski & Gallagher, supra note 11, at 5.
does provide cannot outweigh the added costs as compared to the sanction of life imprisonment without parole. Therefore, from an economic standpoint, if society wishes to keep the death penalty as an available sanction, it must overhaul the process so that it may be a stronger deterrent and impose fewer costs on society.

A. Shorten the Appeals Process in Select Cases

One way to shorten the delay between sentencing and execution is to reduce the number of appeals available to capital defendants. Of course, death-penalty opponents and proponents alike are likely to argue that speeding up the appellate process will lead to a greater chance of erroneous death penalty convictions.\textsuperscript{180} Also, as previously discussed, any increase in the rate of erroneous death penalty convictions would work against the deterrent effect of the death penalty.\textsuperscript{181} Therefore, the length of appeals can only be reduced to the extent that it will not increase the number of erroneous convictions.

An obvious way to shorten the appeals process without increasing erroneous convictions would be to repeal the federal habeas corpus “exhaustion” requirement.\textsuperscript{182} This would allow capital defendants to file their federal appeals concurrently with their state appeals. Also, the time involved in many habeas appeals would decrease since exhaustion would no longer be a litigated issue and federal district courts would only spend time on substantive issues of the habeas appeal.\textsuperscript{183}

Another way to shorten the appeals process would be to limit the defendant to one consolidated and expedited state appeal in cases where evidence of guilt is overwhelming. This could be achieved through the increased use of DNA tests to prove or disprove the identity of the murderer. DNA testing is virtually 100\% effective in eliminating someone accused of a crime if performed correctly.\textsuperscript{184} Indeed, an increasing number of convicted criminals are being exonerated and freed through the use of DNA.\textsuperscript{185} Currently, 82

\textsuperscript{180} Aarons, \textit{supra} note 144, at 72.

\textsuperscript{181} See \textit{supra} note 141 and accompanying text.

\textsuperscript{182} See \textit{supra} notes 156-161 and accompanying text.

\textsuperscript{183} Specter, \textit{supra} note 161, at 20.


\textsuperscript{185} See, e.g., Harvey Rice, \textit{Justice Deferred}, \textit{HOUSTON CHRON.}, Nov. 26, 2000 (Texas Magazine), at 6, \textit{available at} 2000 WL 24529566 (discussing a man convicted of murder and sentenced to 99 years in a Texas prison who was released after serving 10 years when two DNA tests cleared him of guilt); Brooke A. Masters, \textit{Missteps on the Road to Injustice},
inmates have been freed from prison based on DNA evidence, ten of whom were on death row.\textsuperscript{186} Also, forensic gathering of DNA evidence has advanced; investigators can now retrieve DNA from dried saliva on a licked postage stamp.\textsuperscript{187} As DNA testing and forensics become more advanced, it will undoubtedly clear more innocent people (or incriminate more guilty people) of crimes.

Of course, DNA has its limitations. DNA evidence can only make guilt (or innocence) more certain when the identity of the criminal is an issue at trial.\textsuperscript{188} Therefore, if the main issue in a murder trial is a murderer's state of mind or whether a certain aggravating factor was present, DNA will not be very useful. Nevertheless, in those select cases where identity is the main issue and DNA evidence exists to show the overwhelming guilt of the murderer, lengthy appeals are unnecessary to further ensure that an innocent man will not be executed.\textsuperscript{189}

This suggestion would mean that society would have to invest greater resources into DNA evidence. DNA testing is not cheap; it costs between $3,000 and $5,000 per test.\textsuperscript{190} Only nine states currently have laws mandating post-conviction DNA testing.\textsuperscript{191} All death-penalty states would need to pass laws to guarantee DNA testing for convicted capital defendants. In cases where the defendant is indigent, the state would have to pay the testing costs as part of its public defense funding. Only New York currently guarantees such free DNA testing for indigent defendants.\textsuperscript{192}

The increased costs of mandatory DNA testing would undoubtedly be recouped by the amount of money saved through reduced appeals. Furthermore, since studies have shown that most erroneous convictions stem from inaccurate eyewitness
identification, the increased use of the more-accurate DNA tests in identity cases will yield fewer erroneous convictions. Also, by expediting cases where DNA evidence has provided an adequate level of assurance of the defendant's guilt, delays will be reduced in many cases, increasing the level of potential deterrence.

B. Reduce the Number of Cases that Qualify for the Death Penalty

While an increased use of DNA evidence may be helpful in reducing delay in many death penalty cases, several cases do not hinge on identity of the murderer. Also, the source of delay in death penalty appeals is not always the defendant. For example, in California the greatest cause of delay is the state's inability to secure enough attorneys to represent indigent capital defendants in their mandatory state supreme court appeals. California sentences about three defendants to death per month, but can only find about two attorneys for indigent defendants per month. This causes some death row inmates to wait up to four years just to start their state appeals.

For these situations, it seems the only way to improve the death penalty appeals process is to reduce the supply of capital cases going through the system. By reducing the number of capital cases, the appellate process would be better able to handle death penalty appeals efficiently and timely. To reduce the number of capital cases, society will need to decide exactly how many capital cases it is able and willing to process each year. If a given state can (or is willing to) only execute five convicted criminals per year, then the death penalty should only be sought in a number of cases that will likely yield five sentences of death.

This would mean that society would have to seek the death penalty in only the most heinous cases, which in itself may further the goal of marginal deterrence. This could be accomplished by the

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193. Hugo Adam Bedau & Michael L. Radelet, Miscarriages of Justice in Potentially Capital Cases, 40 STAN. L. REV. 21, 57 (1987). This study also showed that in most erroneous conviction cases, the error was found within five years. Id. at 71. This suggests that shortening the death penalty process to even half its current length (10 years), see Kozinski & Gallagher, supra note 11, at 10, would have little negative impact on the possibility of executing innocent people.


196. Id.

197. Id.

198. See Aarons, supra note 144, at 67; Kozinski & Gallagher, supra note 11, at 30-31.

199. Kozinski & Gallagher, supra note 11, at 31.
legislature limiting the list of aggravating factors that qualify for the death penalty, or simply increasing the number of aggravating factors required for the death penalty in any given case.\textsuperscript{200} The other way society could limit the death penalty to the most heinous crimes is by relying on the prosecutor's discretion to only seek the death penalty in the worst cases each year.\textsuperscript{201} If prosecutors cannot be trusted to use their charging discretion wisely, prosecutors could be required to obtain approval from the state attorney general's office before proceeding with a death penalty charge. This would vest discretion in a central state authority that could determine, based on state-wide resources, which cases should seek the death penalty.\textsuperscript{202}

C. Abolish the Death Penalty

The last solution to the current death penalty problem is to simply abolish the death penalty altogether. Attempts to create an efficient and workable death penalty system may be futile. Indeed, society may decide that the death penalty, even after being overhauled to reduce the number of appeals, is simply not worth the effort. From an economic analysis, it may be impossible to create an efficient system whereby the death penalty is imposed accurately and still provides enough marginal deterrence to justify its use instead of life imprisonment without parole.

Nevertheless, society is unlikely to abolish the death penalty in the near future. Despite its imposition of huge deadweight losses and its failure to provide an adequate deterrent, the death penalty still receives the overwhelming support of Americans.\textsuperscript{203} Furthermore, abolition would lead to marginal deterrence problems in states that already impose life imprisonment sentences for murder. In these states, legislatures would have to change the sentencing structure of serious crimes to maintain a schedule of sanctions that increase in severity, culminating with life imprisonment without parole for the most serious crimes. This may represent a significant undertaking of

\textsuperscript{200} See supra note 95 and accompanying text.
\textsuperscript{201} Cf. Aarons, supra note 144, at 22-23.
\textsuperscript{202} Cf. id.
\textsuperscript{203} Since 1976, Gallup Polls have consistently shown that the vast majority of Americans support the death penalty. Radelet & Akers, supra note 117, at 1. This majority reached a high of 80% in 1994. Id. While recent polls suggest that the level of support may be declining, death penalty proponents still maintain a significant majority. Soskis, supra note 143. In addition to public support, the Supreme Court is unlikely to impose another Furman-like moratorium in the near future. Since the retirement of Justice Blackmun, no sitting Justice has expressed a view that capital punishment is unconstitutional. Kozinski & Gallagher, supra note 11, at 2.
time and effort on the part of legislators. Hence, these politicians are unlikely to advocate for abolition if it increases their own workload.

Therefore, on balance, the best solution from the economic approach to criminal law seems to be to overhaul the death penalty system to shorten appellate delays by increasing the use of DNA and decreasing the number of death-penalty-eligible crimes.

Conclusion

The severe sanction of death is theoretically justifiable through the economic approach's emphasis on deterrence. Nevertheless, the abysmal way in which America is currently carrying out the death penalty destroys any deterrent effect and undermines the economic approach's logic. Where the pendulum had swung too far before Furman by allowing too high a risk of erroneous and arbitrary convictions, the pendulum has now swung too far the other way, wiping out the very justifications for the ultimate criminal sanction. Therefore, the time is ripe for another evaluation and major overhaul of the nation's death penalty process. If society cannot devise an affordable system that provides both a low rate of erroneous convictions and faster, deterrence-increasing executions, perhaps the only rational and efficient solution is abolition.