

# Do Criminal Laws Deter Crime? Deterrence Theory in Criminal Justice Policy: A Primer



## About this Publication

*This publication discusses the theory of criminal deterrence as a factor in changing criminal justice policy.*

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# Contents

Executive Summary.....	1
Introduction .....	2
The Economic Model of Deterrence.....	3
Broad Policy Changes and Declining National Crime Rates .....	8
Natural Experiments .....	12
Policy Considerations.....	16
Using Deterrence Theory to Develop Policy .....	17
Questions to Ask When Assessing Policy.....	18
Conclusion.....	18

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## Executive Summary

This publication discusses criminal deterrence, which is one theory legislators can use to assess possible changes in criminal justice policy.

When legislators consider changes to criminal justice policy, they often face the question of whether the changes will prevent people from committing crimes. Legislators in Minnesota may look to other states to see if changes there produced any noticeable effect, but that information may not always present a complete picture. Another tool for legislators is deterrence theory.

Deterrence theory was first described in the late 1700s, but received new attention in the 1960s. Academic studies since then have looked at the relationship between the severity of punishment, the certainty that a criminal will be punished, and the speed with which the punishment will be inflicted. Looking at both long-term trends and smaller case studies, research has shed light on behaviors that can be deterred most easily, policy changes that have little deterrent effect, and the types of actions that are most likely to prevent people from committing crimes. For example, research has shown that:

- crimes involving conscious planning can be more easily deterred than those that relate to addiction or sudden emotions;
- increases to prison sentences that are already lengthy have little deterrent effect; and
- policies that increase the likelihood of being caught deter crime more effectively than those that increase punishment.

Deterrence theory can help legislators craft and assess policy proposals.

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## Introduction

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“Among the many objects to which a wise and free people find it necessary to direct their attention, that of providing for their SAFETY seems to be the first.”<sup>1</sup> – John Jay, *Federalist Papers*

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One of the primary responsibilities of a government is to protect its citizens from crime, but preventing crime can take many forms. There is evidence that crime is disproportionately concentrated in economically distressed areas and that reducing poverty can also reduce crime.<sup>2</sup> Addressing mental illness can also lower crime rates.<sup>3</sup> There is an undisputed link between addiction and crime, and providing chemical dependency treatment is particularly effective at reducing property crime rates.<sup>4</sup> The most common method of addressing crime, though, is through enforcement and punishment.

The government identifies actions it wants to prohibit—assault, selling drugs, driving while intoxicated, speeding—and establishes a consequence for people who take those actions. Consequences exist for several reasons: they punish dangerous behavior, require some form of repayment to society, incapacitate individuals who are seen as likely to commit other offenses, and send the message that society has certain values, morals, or expectations.

Several theories of public safety support these policy methods of enforcing laws and punishing offenders. The theory of incapacitation suggests that holding certain individuals in jail or prison will prevent those individuals from committing new crimes. Rehabilitation theories suggest that directing offenders to certain treatment or training programs will change that individual and keep him or her from committing new offenses. Retributive theories suggest that a person who makes an intentional decision to violate the law should be punished for that decision so that the person can pay a debt to society and then return with a blank slate. Denunciation theory combines several other theories and holds that punishing someone publicly will prevent others from committing the offense due to the stigma of the offense, and will also serve as a form of retribution. Each of those theories can support criminal justice policies and serve as a valid lens through which to view policies. But legislators often identify another reason to justify changes to criminal law—deterrence.

Deterrence is the theory that criminal penalties do not just punish violators, but also discourage other people from committing similar offenses. Many people point to the need to deter criminal actions after a high-profile incident in which an offender is seen to have received a light sentence. Some argue that a tougher sentence would have prevented the tragedy and can prevent a similar tragedy from taking place in the future.

But does the creation of a new crime, or the increase in an existing penalty, deter people from committing crimes? The answer is complex. Legislators seeking to prevent or reduce crime through enforcement and punishment have a variety of policy options to consider. Over the last fifty years, academic studies have examined different techniques from a variety of angles. Legislators may choose to draw on this information to craft effective policies, or assess the likely deterrent effect of proposed legislation.

This publication focuses on the theory of general deterrence by explaining the theoretical basis of deterrence theory, reviewing academic studies, and providing a summary of what legislators can consider if deterrence is a goal.

## The Economic Model of Deterrence

“The first objective is to prevent all sorts of offences as far as this is worthwhile; therefore, *the value of the punishment must always be sufficient to outweigh the value of the profit of the offence.*”<sup>5</sup> – Jeremy Bentham, 18th century philosopher

### The Historical Roots of Deterrence Theory

The roots of modern deterrence theory stretch to the time when the United States was coming into existence. An Italian philosopher and economist, Cesare Beccaria, wrote *Essay on Crimes and Punishments* in 1764 and Jeremy Bentham, the English philosopher and reformer, wrote *An Introduction to the Principles of Morals and Legislation (introduction to the Principles)* in 1781.<sup>6</sup>

Beccaria wrote that laws exist to allow a united society, free from the threat of war and chaos. He assumed that each individual member of this society will “always endeavor to take away from the mass, not only his own portion, but to encroach on that of others.”<sup>7</sup> Laws were necessary, therefore, and a violation of laws should result in punishment whose purpose “is no other, than to prevent others from committing the like offence.”<sup>8</sup> He argued that punishment must be proportionate to the crime committed because, if two crimes have an equal punishment, “there is nothing to deter men from committing the greater” when that crime carries a greater advantage.<sup>9</sup> Beccaria also emphasized that punishment should occur as immediately after the commission of a crime as possible and added that crimes “are more effectually prevented by the *certainty*, than the *severity* of punishment.”<sup>10</sup>

Bentham’s theories were similar. He began from the proposition that humans are governed by pain and pleasure.<sup>11</sup> He argued that every action a person takes is to increase happiness. This principle of utility held that people act to either produce advantage or prevent pain or unhappiness.<sup>12</sup> The value of a pleasure or pain depends on its intensity, duration, certainty, and nearness.

Both theories of human behavior suggested that the desire to seek pleasure and increase one’s own position by taking more than a fair share drives human actions. But, under the theory that action is rational, people can be deterred from harming others by establishing punishments for certain acts. Beccaria and Bentham expected potential criminals to compare the expected benefit of committing a crime with the benefit of not committing a crime.<sup>13</sup> In short, the theory held that if you increase the cost of committing a crime enough, people will not commit the crime.

### A Modern Makeover

“The approach taken here follows the economists’ usual analysis of choice and assumes that a person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources at other activities.”<sup>14</sup> – Gary Becker, economist and sociologist

Deterrence theory received a modern makeover in 1968 when Gary Becker published *Crime and Punishment: An Economic Approach*.<sup>15</sup> Becker, a professor of economics and sociology at the University of Chicago, argued that understanding criminal behavior did not depend on whether individuals had properly developed social standards, psychological inadequacies, or special inherited traits. Rather, he

suggested, criminal behavior came down to an economic theory of choice: some individuals become criminals because their individual benefits and costs are different from those of the noncriminal, and not because the person has different basic motivations. Becker emphasized that an increase in the likelihood of apprehension would have a greater impact on the number of offenses than an increase in punishment. He also noted that making legal activities more attractive, such as an increase in legal income, would shift the balance and make it more likely that a person would not commit a crime.

This model of deterrence is known as the “economic model of rational deterrence.”<sup>16</sup> Under the theory, since criminal acts are the result of a rational, conscious decision, preventing crime involves finding the balance between increasing the cost of crime and creating an expensive police state that eliminates personal freedom. Once the cost of committing an offense is too high, criminals will not commit the offense. The theory assumes that there is no difference between criminal and noncriminals, other than their assessment of the costs and benefits of committing crimes.<sup>17</sup>

## **The Three Components of Deterrence Theory: Certainty, Celerity, and Severity**

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“Many public officials in the United States have advocated the use of more severe penal sanctions as a means of deterring crime. Unfortunately, very little research has been conducted to ascertain the deterrent effect of criminal sanctions, or to determine the possible impact of longer prison sentences on levels of serious crime.”<sup>18</sup> – George Antunes and A. Lee Hunt, professors

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The works of Beccaria, Bentham, and Becker led to a theory of criminal deterrence involving a three-pronged approach in which certainty, celerity, and severity of punishment work together to increase the cost of an action so that a rational person will determine that the cost outweighs the benefit.

**Certainty** applies to the likelihood of being caught. The threat of a severe punishment is not effective if there is no possibility of ever being caught.

**Celerity** applies to the speed of a consequence. A punishment imposed immediately after an offense is more effective than one that is imposed years after the offense.

**Severity** of punishment is a necessary component since a rational person might commit a crime that brings a benefit even if punishment is swift and sure when the punishment is insignificant. In addition, the punishment serves as an example to others in society so that everyone is aware that a certain action is unacceptable.

Under the economic theory of deterrence, an increase in the cost of crime should deter people from committing the crime, and there is evidence that individuals who believe they are likely to be arrested and punished are less likely to commit a crime than those who do not expect to be captured or punished.<sup>19</sup> To increase the cost, the government can increase the likelihood that a person will be caught, the speed with which a person receives a punishment, or the severity of that punishment. Determining the extent to which these changes actually deter crime involves testing the assumption that the crime rate will be lower if there is an increase in the certainty, celerity, or severity of legal punishment.<sup>20</sup>

It is easiest to change the severity of punishment. Increasing the certainty that an offender will be caught requires more enforcement efforts or a change in police practices. Attempts to increase the speed of a consequence face constitutional challenges related to the right of due process, and also must address the realities of a busy court system. Increasing the level of punishment, however, simply requires legislation that strikes an existing penalty and replaces it with a greater penalty.

But are the three components equal?

## **Severity**

Severity of punishment was long thought to be the key component in deterring criminal behavior.<sup>21</sup> As a result, lawmakers relied on the use of severe sanctions to deter crime.<sup>22</sup> However, little research examined the deterrent effect of severe punishments until the 1960s.

Initial research supported the theory that severe punishments deter crime. A series of studies examining homicide rates found that the severity of punishment for homicide had a deterrent effect.<sup>23</sup> However, when the examination expanded beyond homicide, there was a surprise: the severity of the penalty had a positive effect on the crimes of rape, assault, larceny, robbery, burglary, and auto theft.<sup>24</sup> That is, severity of punishment did not deter crime. If anything, it had the opposite effect.

Severe penalties may serve other valuable purposes in criminal justice policy. They may incapacitate particular individuals and prevent those individuals from committing crimes for a period of time, they may publicly denounce certain actions, or they may provide an opportunity to provide rehabilitative treatment. However, as will be discussed in more detail below, multiple studies have found that severe penalties rarely, if ever, have a deterrent effect. There are a few possible explanations for this fact.

### ***Not all crimes involve a rational decision***

Criminal acts may be driven by many factors. Many crimes take place when the offender is under the influence of drugs or alcohol.<sup>25</sup> Others occur in the “heat of passion” when a person experiences a strong emotion. It makes logical sense that a model assuming criminals engage in a rational cost-benefit analysis before committing a crime would not accurately predict conduct by people with an impaired ability to think rationally. But this does not explain why the severity of punishment did not deter economic crimes like theft or burglary.

### ***Subjective beliefs about severity do not match the likely sentence***

On its face, severity of punishment appears to be an objective fact—a person commits an offense and receives a known consequence. However, actual consequences may differ based on multiple factors and a potential offender may not have accurate information about a likely sanction.<sup>26</sup> The state can raise the maximum penalty for an offense, but that does not necessarily change the expectations of someone who might be considering committing a crime.

If a person is weighing the benefits of committing a crime against the potential consequences of that act, it is the potential offender’s actual belief about a likely sanction that matters.<sup>27</sup> The majority of offenders who have been interviewed report that they did not know what potential sentence they faced.<sup>28</sup> Not surprisingly, then, many reported that they did not consider the

potential sentence at all before acting.<sup>29</sup> Increasing penalties cannot have any effect if potential offenders are not aware of the change.

Even if offenders know what potential penalties they face, their assessment of those penalties may be different than what lawmakers intend. Interviews with offenders show that longer sentences have diminishing returns. That is, a potential offender does not view a sentence that has been doubled as being twice as severe. Sentences of five years were seen to be only twice as severe as a one-year sentence, and sentences of ten years were seen as four times as severe as a sentence of a single year.<sup>30</sup> Longer sentences continued that trend. A sentence of 20 years was perceived as only six times harsher than a sentence of one year, and less than half again as harsh as a ten-year sentence.<sup>31</sup>

### ***Offenders who serve long sentences are more likely to reoffend***

Studies indicate that individuals punished more severely commit more crimes in the future.<sup>32</sup> A review of 50 studies dating as far back as 1958 showed that inmates who served longer prison sentences, those with an average of about 30 months, had a higher recidivism rate than those who served sentences with an average length of 12.9 months.<sup>33</sup> While there is some evidence of specific deterrence related to shorter sentences, there is no such finding for longer sentences.<sup>34</sup> That is, studies have shown that offenders who serve shorter sentences are less likely to reoffend while those who serve longer sentences are not.

Research has not shown prison to be the best method of preventing offenders from reoffending. Individuals serving any prison time reoffended at a higher rate than those who remain in the community.<sup>35</sup> This is true both in the United States and in Finland.<sup>36</sup> Several theories exist to explain this result. Some inmates may learn new criminal skills while incarcerated.<sup>37</sup> Others may feel additional resentment to society, losing any positive connections to work, family, and noncriminal friends.<sup>38</sup> In addition, while the studies attempt to control for the seriousness of an offense, offenders sent to prison have often shown a propensity toward criminal activities by establishing a longer criminal history or failing to succeed while supervised on the community. Prison may be a factor in increasing the likelihood that an individual will reoffend, but differences between individuals sent to prison and those placed under supervision and kept in the community make it difficult to determine how significant a role imprisonment plays.

### ***Changes in severity have little effect if offenders do not expect to be caught***

In addition, the severity of punishment only deters crime when the certainty of being caught and punished is high enough.<sup>39</sup> In other words, severity of punishment, independent of the certainty of that punishment, is not associated with lower rates of crime.<sup>40</sup> If an offender does not expect to be caught, the severity of the punishment does not factor into any decisions.

## **Certainty**

Certainty of punishment is generally considered to be more important than the severity of that punishment.<sup>41</sup> Indeed, studies suggest that the deterrent effect of certainty is far stronger than that of severity.<sup>42</sup>

In certainty, subjective certainty is more important than objective certainty.<sup>43</sup> That is, an individual's belief about whether punishment is likely is more important than the fact that punishment is, or is not, actually likely. That subjective belief can come from publicity, but more



often comes either from personal experience or anecdotal information from others in the community.<sup>44</sup> The first perception that individuals form tends to be unreasonably high.<sup>45</sup> Individuals who commit offenses and successfully avoid punishment often increase their offending behaviors based, in part, on the belief that avoiding arrest once suggests that punishment remains unlikely.<sup>46</sup> Perception of risk can also be influenced by substance use, the presence of peers, and other situations that influence a person's emotional responses.<sup>47</sup>

Like severity, increasing the certainty of punishment appears to produce diminishing returns. There is evidence that the perceived probability of arrest must exceed 30 percent to have a meaningful deterrent effect, and that the deterrent effect increases until the perceived probability reaches about 70 percent.<sup>48</sup> But a probability above 70 percent offers only slightly more deterrence than the 70 percent probability.<sup>49</sup> As Becker noted, there is a balance to be found in certainty.<sup>50</sup> Raising the probability of arrest and conviction to 100 percent would involve significant social costs, including paying for a vast police force and surrendering individual privacy and liberty.

### **Celerity**

Celerity, the speed with which a person receives a consequence for violating the law, has received the least amount of attention in scholarly literature.<sup>51</sup> Studies suggest that the speed of punishment may not have any deterrent effect.<sup>52</sup> At least one study suggests that individuals prefer to get their punishment over as quickly as possible.<sup>53</sup> If correct, delayed punishment could actually be perceived as a worse consequence than immediate punishment.

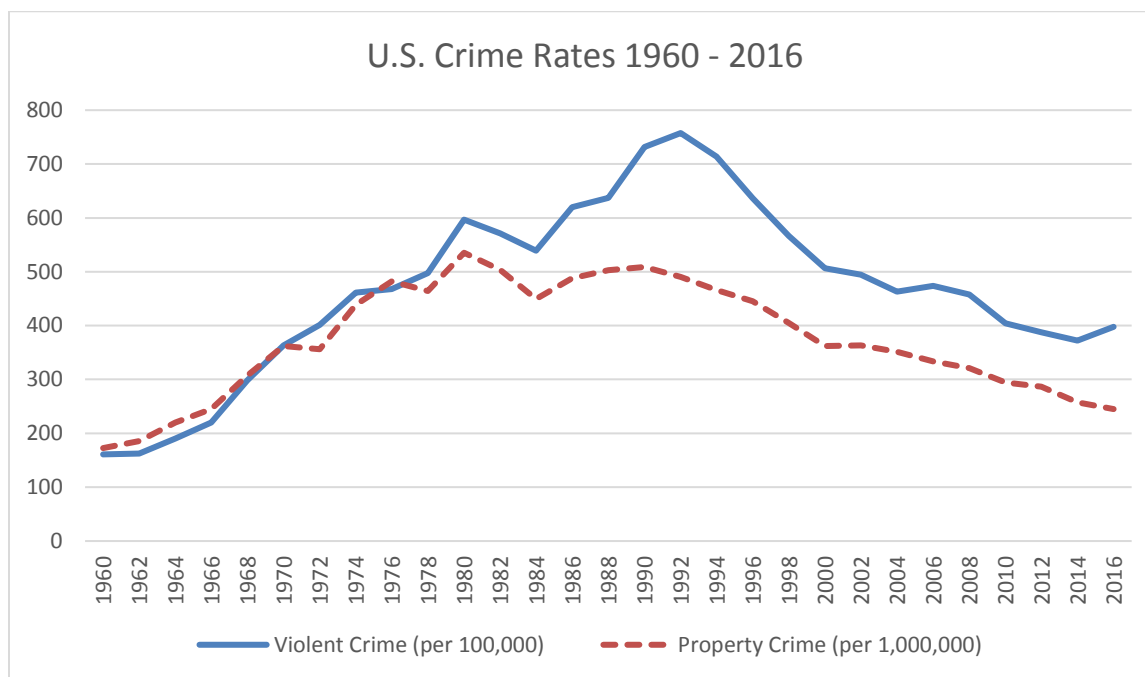
In summary, the economic model of deterrence suggests that most crimes are committed by rational people who consider whether committing a crime is worth the risk of potential punishment. The theory assumes more people would commit crimes if there was no risk of punishment, and that increasing the risk will decrease crime. Risk could be increased primarily by increasing the penalty a person might face or by increasing the likelihood that a person would be punished. Both components must exist, but those that support the theory believe that increasing the certainty of punishment is more effective than increasing the penalty for a violation.

## Broad Policy Changes and Declining National Crime Rates

### *Do national increases in police presence or increased penalties explain the drop in crime since the 1990s?*

"...it is very difficult to isolate and measure a deterrent effect precisely because a great many things must happen before deterrence can occur."<sup>54</sup> – Raymond Paternoster, criminologist

Deterrence theory is difficult to test because there can be many different causes for changes in the crime rate. However, the increases in crime from the early 1960s until the early 1990s, and the subsequent drop, provides an opportunity to assess whether policy changes enacted in the 1990s had a deterrent effect. Crime rates in the United States rose dramatically from the early 1960s until about 1980.<sup>55</sup> They fell for a few years before spiking again in the early 1990s.<sup>56</sup> After that peak, crime rates fell steadily for over a decade.<sup>57</sup> Indeed, with a few exceptions, crime rates have continued to fall. Violent crime rates rose slightly in 2015 and again in 2016 while property crime rates continued to fall during those years.<sup>58</sup>



Source: FBI UCS Annual Crime Reports<sup>59</sup>

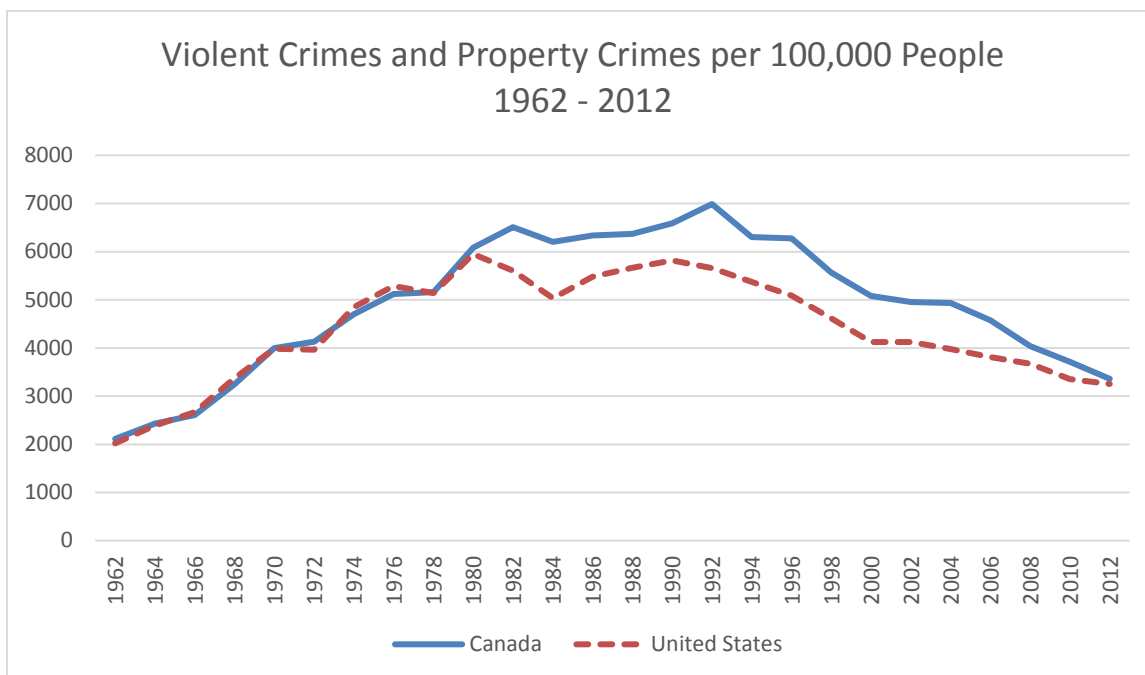
Minnesota's crime rate closely tracked the national averages. In 2016, crime in Minnesota reached its lowest rate in 50 years.<sup>60</sup> While it fluctuated from year to year, the rate maintained a sustained peak from 1975 to 1997 before beginning a steep decline.<sup>61</sup>

While the drop in the crime rate is not disputed, there is no consensus about why the rate dropped. In 1994, the federal government passed the Violent Crime Control and Law Enforcement Act, which

included tougher sentencing laws, money for additional police officers, and an increase in firearm restrictions.<sup>62</sup> Several studies have attempted to determine which, if any, of these policies contributed to the reduction in crime, but the results are unclear. Many of the studies fail to evaluate the interaction of different policy changes, making their conclusions unreliable.<sup>63</sup>

## The Number of Police Officers Increased

The number of police officers in the United States increased in the 1990s.<sup>64</sup> The New York Police Department increased its uniformed strength from 25,909 in 1990 to 40,285 by 2000.<sup>65</sup> Minnesota had 7,365 sworn officers in 1992,<sup>66</sup> 7,994 in 1994,<sup>67</sup> and 8,606 in 2000.<sup>68</sup> But there is no consensus about what impact the increased police presence had. There is some support for the conclusion that areas with increased police presence and aggressive policing techniques saw a reduction in crimes like robbery and burglary.<sup>69</sup> But many of those studies have been criticized for failing to account for other factors, including the evidence that crime actually increased in areas just outside the targeted neighborhoods.<sup>70</sup> In addition, that period of time saw changes in policing techniques, which may have had more of an impact than simply increasing the number of officers. Significantly, the crime rates in Canada fell at nearly the same rate as those in the United States while the number of police officers per capita fell.<sup>71</sup>



Sources: FBI UCS Annual Crime Reports and Canadian Centre for Justice Statistics, Uniform Crime Reporting Survey<sup>72</sup>

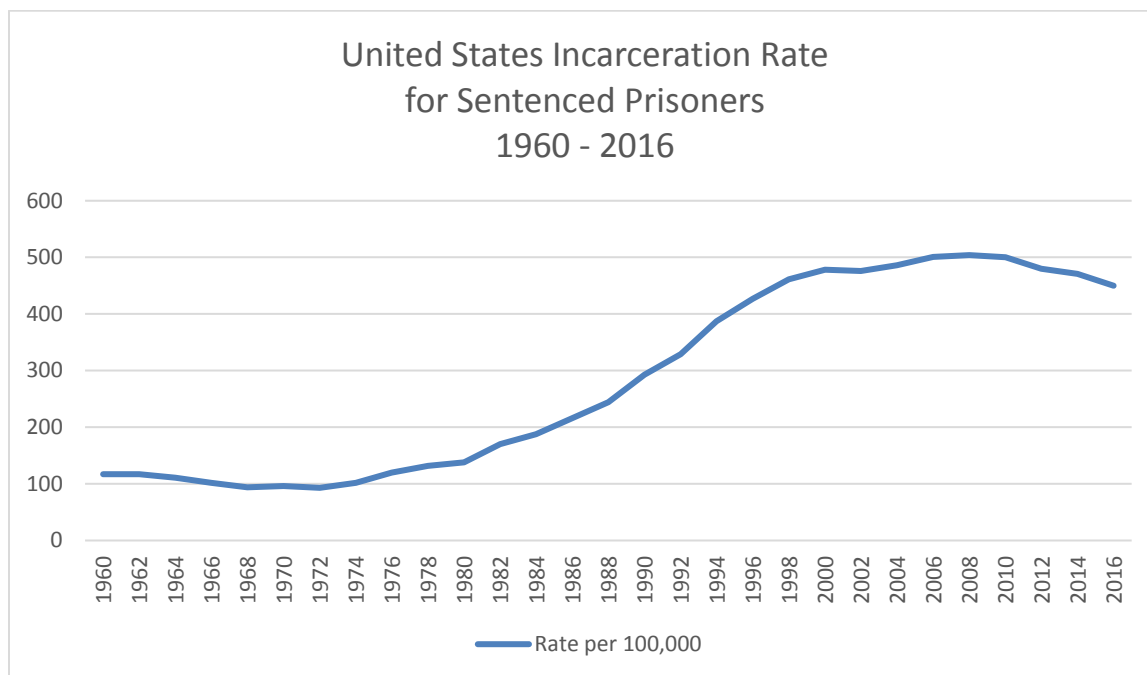
While there is some general support for the theory that increasing the number of police officers reduces crime, there is no evidence to support the conclusion that a shift in the policy focus to certainty is efficient.<sup>73</sup>

## Incarceration Increased

In addition to increasing the number of police officers, policy changes in the 1990s also increased the number of individuals sent to prison nationwide.<sup>74</sup> Incarceration in Minnesota followed a similar trend. The Bureau of Justice Statistics shows that Minnesota's incarceration rate per 100,000 residents began

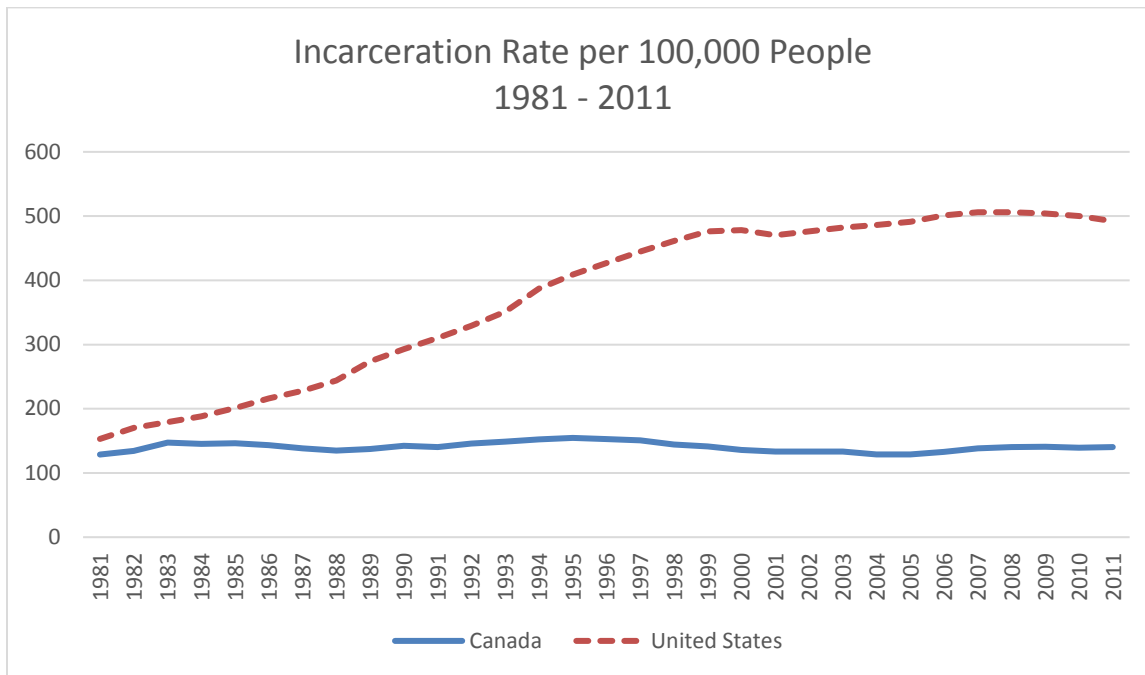
to grow steadily in the mid-1980s and peaked in 2015, at a level more than four times what it was in 1978.<sup>75</sup> There is support for the conclusion that the increased rate of incarceration reduced crime, but the cause of that reduction remains unclear.<sup>76</sup> The underlying assumptions come under attack for failing to account for the difficulty in determining the proper cause and effect relationship between incarceration and crime rates.<sup>77</sup> That is, if incarceration is claimed to affect the crime rate, then the crime rate should also affect the rate of incarceration.<sup>78</sup> While the threat of a prison sentence may have a deterrent effect, incarcerating people also has an incapacitating effect. A person placed in prison is incapacitated and does not have the opportunity to commit a new offense, so a reduction in crime could be explained by the larger number of people who were incapacitated at a particular time. However, even the assumption that higher rates of incarceration result in lower crime can be challenged.

Incarceration rates did increase across the country in the 1990s, but, similar to the rates in Minnesota, the national incarceration rate also increased in the 1980s.<sup>79</sup> However, instead of declining, the crime rate doubled.<sup>80</sup>



Source: Bureau of Justice Statistics<sup>81</sup>

Comparisons with Canada again suggest that the situation is complicated. Admissions to Canadian provincial, territorial, and federal prisons peaked in the early 1990s, but all admissions fell over the following decade.<sup>82</sup> Incarceration rates in Canada actually declined while the country's crime rate fell at a rate nearly identical to the rate in the United States.<sup>83</sup>



Sources: Adult Correction Statistics Canada and Bureau of Justice Statistics<sup>84</sup>

While the changes in the incarceration rate in Canada were relatively minimal, they stand in stark contrast to the changes in the United States.

## Other Factors

In addition to changes in the criminal justice system, the 1990s saw other changes. The Cold War came to an end, unemployment was low, the economy grew, and household income peaked in 1999. Cities also gained population, a change in the trend of increased suburban population.<sup>85</sup> As a result, it is difficult to identify any single factor as being most responsible for the reduction in the crime rate from the peak in the early 1990s.

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## Natural Experiments

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### ***A focus on specific crimes and locations sheds additional light on the deterrent effect of various policies***

“Fortunately, direct and strong evidence with respect to severity and certainty effects can be found in targeted studies of particular policy changes.”<sup>86</sup> – Steven Durlauf, economist, and Daniel Nagin, criminologist

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Examining changes in penalties, incarceration rates, and the number of police officers at the national level, or within Minnesota, shows some correlation between policy changes and crime rates, but does not provide clarity on the specific effect of a particular change. However, other studies have taken a narrower focus in an attempt to gather more specific information. This section reviews some of the studies that help illuminate the deterrent effect of criminal justice policies.

### **Dismissal of the Denmark Police Resulted in an Increase in Crime**

One early study used a unique situation in Denmark during World War II. With unrest and resistance growing in the country, the occupying German army arrested the Danish police force late in 1944. Street crimes, like robbery, rose sharply while the rate of other offenses that take place in less public areas did not change dramatically.<sup>87</sup> The study suggests that police presence, which increases the likelihood of punishment, deters some crime but does not deter offenses like domestic violence, which often take place within a home.

### **Interviews with Burglars Highlight the Importance of Individual Perception**

A study of residential burglars in St. Louis focused on information from 105 criminals.<sup>88</sup> Of those 105 burglars, 21 were on probation, parole, or serving a suspended sentence. While 72 percent of the subjects had been arrested for any offense, only 25 percent had been arrested and convicted of burglary. The total lifetime burglaries of those who had never been arrested was twice that of those who had been arrested for any offense. Those statistics provide support for the theory that there is a connection between subjective belief of the certainty of being arrested and the likelihood that a person will commit a crime. Those who had never been arrested likely believed that there was a very low likelihood of being apprehended, and they committed burglary at twice the rate of those who had been apprehended.

### **Studies of Three Strikes Laws Have Inconsistent Findings**

California’s “three strikes” laws provided an opportunity to examine the effect of increased penalties on repeat offenders. That law provided a dramatically increased penalty for a person’s third offense of certain types of crime.<sup>89</sup> Proponents of the law touted the assumed deterrent effects that the law would have and, in upholding the law, the Supreme Court cited deterrence as a valid justification for the policy.<sup>90</sup> However, studies assessing the law are conflicted. While some studies suggest that individuals with two strikes are less likely to reoffend, others found little, if any deterrent effect from the law.<sup>91</sup>

## **Administrative Sanctions Deter First-time Drinking and Driving Offenders**

Laws increasing penalties for driving under the influence of alcohol have received significant attention. Individuals who drive while intoxicated face a variety of consequences including criminal sanctions like fines or jail time, and administrative sanctions like the loss of a driver's license. Studies suggest that increased criminal penalties have little or no effect on recidivism.<sup>92</sup>

Some states imposed mandatory jail sentences for drunk drivers, but individuals convicted under those laws actually had higher rates of accidents or repeat offenses than those convicted before the mandatory jail sentences went into effect.<sup>93</sup> Interviews with inmates suggested that individuals in prison were actually more likely to drink and drive after their release.<sup>94</sup> In short, greater punishment in the form of severe sentences is correlated with an increase in recidivism.<sup>95</sup>

In Minnesota, the penalty for driving under the influence increases based primarily on the number of prior offenses an individual has. Offenders with one offense, who faced the least significant consequences for reoffending, committed repeat offenses at the lowest level while repeat offenders, particularly those with five or more prior offenses, were the most likely to reoffend.<sup>96</sup> Several jurisdictions, including Minnesota, increased penalties for first offenders by requiring an arrest for someone with a first DWI or imposing mandatory jail sentences on those offenders. Some jurisdictions found that a reduction in nighttime crashes that resulted in fatalities followed the increase in penalties.<sup>97</sup> Of note, Arizona was an exception. There was no significant change in the number of fatalities after the state increased penalties for first-time offenders.<sup>98</sup> In general, license suspensions and revocations were found to have a greater deterrent effect.<sup>99</sup> The same was true for policies that increased the certainty of detection, even in a study that found no effect from increased penalties.<sup>100</sup> In summary, first-time offenders can be deterred from committing another DWI offense, but that deterrence appears to be connected to an awareness of the likelihood of being caught and the specific deterrent effect of short periods spent in jail and the loss of a driver's license.

## **Increasing the Drinking Age Reduced Excessive Drinking by Teens**

Researchers have also focused on issues related to drinking, particularly heavy drinking, by individuals under age 21. Most states moved their minimum legal drinking age to 21 following federal legislation encouraging that change, which passed in 1984.<sup>101</sup> Studies showed that the laws had a dramatic effect, reducing alcohol consumption by those young adults and significantly reducing highway fatalities among those under age 21.<sup>102</sup> However, underage drinking remains a significant public health issue, particularly on college campuses. While colleges have attempted to improve their policies and enforcement, there has not been a significant decline in binge drinking.<sup>103</sup> Indeed, there is some question as to whether the minimum drinking age laws, and related "zero tolerance" policies for drinking and driving by underage individuals actually caused the reduction in drinking and driving by young people. While the laws correspond to a reduction in drinking and driving by those young people, studies do not necessarily show that the laws caused the reduction.<sup>104</sup>

## **Traffic Tickets Deter Some Drivers**

A study of traffic tickets showed that men who received a citation for speeding were more likely to receive subsequent speeding tickets, suggesting that there was no specific deterrent effect from traffic tickets for those drivers.<sup>105</sup> There were noticeable demographic differences, though, showing that, unlike men, women who received a ticket were less likely to be caught speeding again.<sup>106</sup> Increasing the

fine for a speeding ticket was not seen to reduce speeding in Norway, though increasing the fines for failing to wear a seatbelt did correlate with an increase in the number of people who wore seatbelts.<sup>107</sup> Focused enforcement efforts that included both a publicity campaign and increase in ticketing resulted in a reduction in traffic accidents.<sup>108</sup> Banning drivers from using cell phones without a hands-free device resulted in a dramatic reduction in the number of drivers using phones without those devices, but did not result in a significant reduction in accidents.<sup>109</sup> Banning a specific behavior, targeting enforcement, and increasing awareness, appear to change driving behaviors. Imposing traffic tickets, or increasing the fine for a particular driving offense, also appear to deter at least some drivers.

## **Harsh Sentences After the London Riots May Have Contributed to Crime Reduction**

In 2011, there were significant riots that included damage to property and looting in London following a police shooting.<sup>110</sup> Approximately 3,000 people were arrested and received sentences that were harsher than normal.<sup>111</sup> For example, one man received a sentence of six months' imprisonment for stealing a bottle of water and another was sentenced to ten months for stealing two left tennis shoes and leaving them outside the store.<sup>112</sup> Before the riots, the crime rate in the areas where the riots took place was significantly higher than the rate in other parts of London.<sup>113</sup> In the six months following the riots, the overall crime rate in London decreased by about 3 percent compared to the pre-riot rate.<sup>114</sup> Rates in the areas where rioting occurred dropped slightly more than the rate in other areas.<sup>115</sup> Crimes that increased dramatically as part of the riots dropped the most significantly after the riots while there was an increase in other crimes.<sup>116</sup> The authors of one study concluded that these statistics provide support for the theory that the harsher sentences had a deterrent effect.<sup>117</sup>

It is worth noting, though, that the crime rates in all of England and Wales had been declining steadily since 2004.<sup>118</sup> Indeed, recorded crime data for London provided by the United Kingdom's Office for National Statistics shows that, similar to both the United States as a whole and the state of Minnesota, the crime rate in England and Wales peaked in 1995 and has trended downward since.<sup>119</sup> Data focusing only on London shows that the city's total number of reported crime in the year ending March 31, 2011, before the August 2011 riots, was 829,788.<sup>120</sup> Reported crimes in the year ending March 31, 2012, which would include the riots, was 820,744.<sup>121</sup> Taking a slightly longer view, the total number of reported crimes for the four-year period from March 31, 2006, to March 31, 2010, fell nearly 16 percent while the total for the four-year period from March 31, 2011, to March 31, 2015, fell by 15 percent.<sup>122</sup> The increased penalties for offenses during the riot may have had a deterrent effect within the neighborhoods affected by the riots, but it is difficult to connect those sentences to the general trend of reduced crime.

## **Transitions to Adult Court Do Not Change Behavior**

Other studies have explored the transition from juvenile court to adult court. Juveniles can be put in detention, but are not sent to prison unless they are tried as adults. If the threat of a prison sentence has a deterrent effect, then a person who might commit a crime as a juvenile should be less likely to commit the same offense as an adult. However, several studies found that there was no significant change in offenders, even when they perceived that the threat of imprisonment had increased.<sup>123</sup> The dramatic increase in potential punishment did not have a deterrent effect.



## **Intensive Probation with Immediate Consequences Shows Some Promise**

Hawaii's pilot project within its probation system provided an opportunity to examine the effect of certainty and celerity. The program, known as Honest Opportunity Probation with Enforcement (HOPE), attempted to identify probation violations quickly and then provide an immediate consequence for the violation.<sup>124</sup> The consequences involve jail time, but are limited to a few days. The program produced excellent results in a short-term study.<sup>125</sup> A study that looked at the long-term effects still showed positive results, but the difference between probationers in the HOPE program and those in traditional probation was not as significant.<sup>126</sup> However, several jurisdictions received grants to replicate the program. Early results in those jurisdictions show very little difference between participants in the new program and those in traditional probation.<sup>127</sup>

## **Increased Police Presence Reduces Some Crime**

Several studies examine the increase or decrease of police presence in particular areas following specific incidents. When there is a decrease in police presence in a certain area, crime tends to increase.<sup>128</sup> Conversely, when police increase their presence in a particular area, in response to changes in the threat of terrorism, for example, crime in that area decreases.<sup>129</sup>

## **Targeted Policing Has Proven Effective**

Targeted policing, or hot-spot policing, has received significant attention. Studies of several metropolitan areas show that a small number of neighborhoods or locations account for a very high percentage of crime incidents.<sup>130</sup> Law enforcement agencies responded to this evidence by targeting those areas with increased police presence. Following the increase in police presence, there was a reduction in crime.<sup>131</sup> One study showed that doubling police presence produced a reduction in 6 percent to 13 percent of crime calls.<sup>132</sup>

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## Policy Considerations

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Governments strive to prevent crimes from taking place to protect people from physical harm, having their belongings taken, and other dangerous behaviors. There are many paths to improve community safety and stability. For example, changes in education and economic conditions can have a significant effect on crime rates. In addition, the traditional law enforcement activities of detecting and punishing crimes do deter potential offenders. Drawing from the extensive literature related to deterrence, policymakers can assess which types of changes are most likely to have a deterrent effect, and which are less likely to reduce crime.

### **Criminalizing Behavior Appears to Deter that Behavior**

When new laws prohibit actions that were legal, studies suggest that many people change their behavior. The most common examples of this can be found in changes in traffic laws. When laws began requiring that people wear seatbelts and imposing a fine for failing to wear them, more people began to wear seatbelts. In states that have banned the use of cell phones while driving, fewer people drive while talking on their phones. Many people prefer to follow laws and, even if following the law is inconvenient, they will modify their behavior to comply with the law.

### **Increasing Some Fines May Deter Behavior**

Where a fine is relatively low, an increase in that fine may deter some additional individuals. Again, this effect is seen most often in traffic violations. Localized increases, like increasing the fine for speeding in a construction zone, and general increases, like increasing the fine for failing to wear a seatbelt, result in fewer violations.

### **Increasing Certainty of Detection Often Deters Behavior**

Individuals who believe they are likely to be caught are less likely to commit crimes. Drivers slow when approaching a squad car parked on the side of a highway, and crimes like theft or robbery drop when visible police presence in an area increases. However, some increased enforcement efforts result in an increase in crime in surrounding areas.

### **Perception Is Generally More Important than Reality**

When a person weighs the benefits of violating a law against the potential consequences, that individual's belief about those consequences is what matters. Increases in enforcement or penalties will only deter individuals who are aware of those increases. Publicized increases in enforcement, like the "Click It or Ticket" program and increased DWI patrols, have been shown to have a deterrent effect.

### **Increasing Significant Penalties Does Not Appear to Deter Crime**

Multiple studies found that increases in significant penalties did not have a deterrent effect. Interviews with offenders show that they discount sentence increases. A five-year sentence, for example, is seen as twice as severe as a one-year sentence, not five times harsher. A 20-year sentence is seen as six times more severe than a one-year sentence. There may be important policy reasons to increase penalties that are already long, such as removing a particular individual from the community for a longer period of time, but those changes are unlikely to dissuade others from committing the same offense.

## **Short Sentences May Prevent Reoffending, Long Sentences May Not**

People respond to sanctions. Most people convicted of a DWI do not reoffend. Probation models, like Hawaii's HOPE model and drug courts, have shown promising results from a system that uses limited consequences, such as a few days in jail, for violations. However, individuals who spend longer periods of time in prison are more likely to reoffend than those that serve sentences of about a year.

## **Using Deterrence Theory to Develop Policy**

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Legislators seeking to discourage people from taking particular actions can use deterrence theory to inform policy choices. For example, if the goal is to reduce an action that is currently legal, studies suggest that the most effective policies would include criminalizing the behavior, establishing a reasonable consequence, developing an awareness campaign, creating periods of targeted enforcement, and publicizing the results of the enforcement campaign.

In contrast, if the policy seeks to reduce the prevalence of an offense that is currently illegal and subject to a modest fine, legislation that increased the fine combined with publicity about that change can have a deterrent effect.

When the underlying action is a serious crime that can be punished by a prison sentence, increasing the potential maximum sentence for that crime appears to have little deterrent effect. Instead, research suggests that policies that increase the certainty that an offender will be caught are more effective. Legislators may consider increased police focus in certain areas, but can also look for ways to increase the involvement of other public or private institutions. Examples include the policy that requires bars and restaurants to stop serving alcohol to individuals who are obviously intoxicated or the requirement that hotels train employees to recognize the signs of sex trafficking and to properly report suspected trafficking.

## Questions to Ask When Assessing Policy

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Legislators considering policy proposals can use deterrence theory to assess what, if any, deterrent effect the legislation is likely to have. Relevant questions include:

- Is the action currently prohibited in any way?
- Is the general public aware of any prohibition?
- Are people who are likely to commit the offense aware of the consequences?
- Is the offense one that usually involves some amount of planning, or is it something that is more commonly done in the heat of passion or as the result of an addiction or mental health disorder?
- Does an existing penalty understate or exaggerate the seriousness of an offense to the extent that a rational person would choose to commit one crime instead of another?
- Does the offense result in a relatively immediate consequence?
- Can a prohibition be enforced effectively so that a person committing an offense cannot avoid detection?
- Does the policy increase the likelihood that an offender will be identified?
- Does the policy lend itself to targeted enforcement actions?
- Can the policy harness the expertise of community organizations, businesses, and other entities other than law enforcement to increase awareness and influence public perception about a particular action?

Research suggests that there are several paths to deterrence depending on the nature of the offense and the population most likely to commit the offense. For most policies, the answer to some of these questions will be “yes,” and the answer to others will be “no.” Determining the likelihood of a deterrent effect requires more than tallying the number of “yes” or “no” answers, however. Legislators can use questions like these to understand how a policy will be implemented and better predict how a particular prohibition or enforcement is likely to influence particular actions in specific populations.

## Conclusion

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Governments seek to protect citizens in a variety of ways. Regulations like health inspections, license requirements, and building codes exist to assure the general public that businesses, professionals, and buildings meet a basic level of expertise or safety. Criminal laws, in part, exist to create some assurance that people are unlikely to harm one another, or take property that belongs to someone else. When people believe they will be caught and punished, they are less likely to commit crimes. That is, an appropriate level of punishment coupled with a high likelihood of being caught is likely to deter some potential criminals. Legislators can consider those two prongs, certainty and severity of punishment, in crafting legislation to deter crime.

Deterrence is not the only reason for significant penalties. Criminal laws indicate a community’s morals and values, restrain potentially violent offenders, and impose punishment for actions that society finds reprehensible. There may be strong policy justifications for increasing penalties based on those considerations. But, if the goal of a policy change is to deter crime, research suggests that an increase in the likelihood of being caught has a greater deterrent effect than an increase in the potential penalty.

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