The Cost-Benefit Analysis of Crime*
The Scope of Criminal Penalties

- There are over 4,450 criminal offenses in the United States Code.
- About 300,000 federal regulations that are enforced with criminal penalties.
- Congress continues to create an average of over 56 new crimes each year.
- Over 2.3 million people in prison
- In year 2009, 1.32 million violent crimes and 9.3 million property crimes were committed in the US, costing over $100 billion in economic losses to direct victims in 2010 dollars.
- Corporate criminal penalties. Virtually non-existent 80 years ago and still very rare 40 years ago. Just like taxes, it is a cost of doing business. "Mens rea" is no longer required. If you have an oil spill, you are going to face criminal penalties. Probably no other country has even close to as extensive corporate criminal penalty as the US.
  - Marginal Deadweight Losses are additive.
Some basic problems

- Few existing cost-benefit analyses of criminal penalties
- There is a large gulf that exists between showing that criminal and civil penalties deter crime and what needs to be done in conducting a cost-benefit analysis.
  - Obviously if there are costly penalties that don’t deter crime, the cost-benefit answer is pretty easy.
- We rarely can answer the question of what the optimal penalty is.
- What form should the penalty take?
- What is the trade-off between the level of penalties and the probabilities of punishment?
- Criminal versus civil procedures and sanctions -- issues of certainty and level of penalties
- Government versus private enforcement
- There are a lot of policies that could impact crime rates: addiction treatment, neighborhood policing, welfare reform programs, and other diverse types of programs and social interventions. What is the least costly method of accomplishing the goal?
Some Considerations on the Penalty Side

- What type of penalty is used
- Prison is normally the only focus of research, but there are many other penalties: Fines, Reputations, Collateral Penalties, and Probation
  - Prison is costly. Foregone legitimate income of criminal. There are huge differences across states in locking up prisoners, and states can always contract out with other states for prison.
  - Discount rates -- Criminals are different. Discount rates of 30 percent or more seem quite plausible for criminals.
  - Deterrence versus incapacitation (reason for three-strike laws)
- Efficiency of fines, but there are limits, primarily the size of the harm may greatly exceed the criminal’s assets.
- At least 32 different types of Collateral Penalties -- just starts with the loss of business and professional licenses and the inability to work for many unions or to work for the government. In many cases, collateral penalties are the most important penalties facing criminals.
<table>
<thead>
<tr>
<th>State</th>
<th>Annual Cost Per Inmate</th>
<th>State</th>
<th>Annual Cost Per Inmate</th>
<th>State</th>
<th>Annual Cost Per Inmate</th>
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<tr>
<td>Alabama</td>
<td>$8,128</td>
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<td>Average by Prisoner</td>
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<td>Average by State</td>
<td>$24,105</td>
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</table>

The case of a bank embezzler and larcenist in California from 1984 to 1986

The Total Monetary Penalty from Committing a Crime
(in July 1984 Dollars)

<table>
<thead>
<tr>
<th>General Crime Category</th>
<th>Level of Income within Category</th>
<th>Income 12 months Prior to Sentencing</th>
<th>Expected Reduction in Postsentence Income*</th>
<th>Expected Fine**</th>
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<tbody>
<tr>
<td>1) Bank Embezzlement</td>
<td>1/2 Mean</td>
<td>$8,406</td>
<td>$1,315.21</td>
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<td>Mean</td>
<td>$16,813</td>
<td>$6,581.12</td>
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<td>Plus 1 Std Dev</td>
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<td>Plus 2 Std Dev</td>
<td>$81,911</td>
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<td>2) Bank Larcenist</td>
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<td>Mean</td>
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<tr>
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<td>Plus 1 Std Dev</td>
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<td>$10,106.95</td>
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<tr>
<td></td>
<td>Plus 2 Std Dev</td>
<td>$21,717</td>
<td>$17,678.32</td>
<td>$391</td>
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</table>
Some Considerations on the Penalty Side -- Continued

- Reputation. As with prison and collateral penalties, reputational penalties can involve the loss of employment.
- Criminals are definitely not homogenous. These different penalties will impose vastly different penalties on different criminals.
  - The Federal Sentencing Guidelines are one case where the exclusive focus on prison may have increased sentencing disparity.
Benefits from reducing crime

- Victims face real costs from crime
- Loss of life and physical and psychological damage are the most important
- But also must include lost earnings, medical care, and the destruction of property.
- Jury awards have been used to put a dollar value to these impacts from crime.
  - Starting with 1996 NIJ study. The estimated total loss from a murder -- $3.9 million in 2007 dollars -- is far greater than the $115,260 average loss from rape, $10,758 average loss from robbery, and $12,640 average loss from aggravated assault.
- Cost of “locks.” Cost of people being afraid to go outside.
- Crime is an unambiguous bad, but we are not trying to drive down crime to zero.
  - Simply too costly
  - Scarce resources mean that we have to compare carefully different methods of reducing crime.
  - Some might argue that there are benefits from some type of crime. Speeding is often put forward as an obvious example.
Even for incapacitation there are diminishing returns
Externalities/Over-deterrence

• Penalties and law enforcement can also cause criminals to commit crimes in other areas.
  – Important to keep in mind when you are looking at estimated benefits from policy changes.

• Penalties that are too high can also result in worse crimes.
  – Death penalty for robbery or rape.
  – You can’t just measure the benefits of the death penalty for robbery by just looking at its impact on robberies.

• Other types of externalities -- broken window hypothesis.
Other considerations

- Cost of catching criminals may vary with the size of the crime
Examples

• Police
  – Changes in arrest rates explain about 16 to 18 percent of the drop in the murder rate.
  – A one percent increase in non-unionized police with arrest powers lowers the murder rate by at least 0.65 percent.
  – With starting police salaries averaging just below $40,000 per year (with benefits costing about $55,000) and a one percent increase in police equaling about 7,000 officers, that comes to about $385 million (not including training costs).
  – Assuming a value of life at $4 million, the value of reduced murders is around $423 million.
  – Looking at jury awards to get an estimate of the costs of other crimes raises the total benefit from reduced crime to around $500 million. About $71,000 per officer for 7,000 more police.
• Alternatives: Concealed carry
  – There are over 6.5 million permit holders in the US as of the beginning of this year.
  – increasing the number of permit holders by about 2.25 million would imply 650 fewer murders in 2008 and the saving from fewer lives lost would equal about $2.6 billion.
  – That comes to a benefit of about $1,156 per permit holder per year.
  • 70 to 80 percent already owned a handgun.
  • Cost of training, an eight hour class could run up to $300. Plus individual’s cost of time.
  • Average state’s cost of running licensing program is about $25 per license over five years.
Government versus Privately imposed penalties -- Reputations

- Not simple substitutes because they can guarantee different things. Many different types of “fraud.”
  - Necessity of proof to a third party.
- Figuring out right level of penalty
- More administrative costs for Government