

Law and Economics
Session 17
Criminal Law 2

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Crime trends in the USA

- From a peak in the 1930s, crime rates per capita decreased to a low point in the early 1960s.
- From the early 1960s through the late 1970s, crime rates per capita increased.
- Between the early 1980s and the early 1990s, non-violent crime rates decreased.
- Between the early 1990s through today, both violent and non-violent crime rates decreased.

- Rates of non-violent crime are similar in the USA and other nations.
 - Non-violent crimes have been increasing in Europe but decreasing in USA.
 - In the 1980s, burglaries were much lower in Britain than in the USA, but in the 2000s they were higher.
 - The Netherlands has had a higher burglary rate than the USA since the 1980s.
- The USA has the highest rate of violent crime in the industrialized world.
 - e.g., 16,272 homicides in 2008.

- In 1970, the incarceration rate was one in 400.
- By 2008, it was 1 in 100 incarcerated (2.4 million people).
 - 2 in 100 on probation or parole (4.8 million people)
- This is five times the incarceration rate in Britain, nine times the rate in Germany, and 12 times the rate in Japan.
- The prison population is 93 percent male.

What is correlated with the crime rate?

- The rate of violent crimes is 2-7 times higher in cities than in suburbs.
 - But changes in urbanization are not correlated with changes in crime rates.
- Two-thirds of all street crime is committed by males under the age of 25.
- A small number of people are responsible for most convicted crimes: 6 percent of young males commit 50 percent of the crimes.
- Demographic characteristics:
 - From dysfunctional families
 - Have close relatives who are convicted criminals
 - Low IQ
 - Poor educational attainment
 - Higher than average drug and alcohol use

Crime rates and income inequality

- A rational-choice model of crime would predict higher crime rates with higher income inequality:
 - The benefits from non-crime are lower for the poor, while the benefits from property crime against the rich are higher.
- A 2002 World Bank study found using cross-country panel data that:
 - Countries with higher inequality have higher crime rates.
 - Within country, as income inequality goes up, crime rates go up.
 - The effect is observed for both property crime and violent crime.

- One measure of the effectiveness of a criminal justice system is the recidivism rate:
 - That is, the rate at which former prisoners are again arrested and convicted of a crime.
- One recent analysis estimates a USA recidivism rate of 80 percent within 5 years of release.

Significance of Race

- Significance of race in crime victimization:
 - Crime victimization rates among non-black Americans are about the same as non-minority populations in Europe.
 - Blacks and whites have about the same victimization rates for non-violent theft, but for violent theft (burglary, robbery, etc), the rate of black victimization is 33% higher than whites.
 - Blacks are 20 percent of the urban population, but 54 percent of the urban murder victims.
- Significance of race in arrests and prosecutions:
 - The arrest rate for young black males is 5 times higher than the arrest rate for young white males.
 - Blacks account for 20 percent of the urban population but 62 percent of the defendants in murder cases.
- Significance of race in incarceration:
 - 50 percent of state prisoners and 31 percent of federal prisoners are black (but just 13 percent of the population).

- Government spending on the criminal justice system is over \$178 billion annually.
 - One-third on police protection
 - One-third on prisons
 - One-third on prosecutors, public defenders, judges, courts, probation, etc.

Private expenditures on crime

- Private expenditures on crime:
 - Alarms
 - Private guards
 - Security systems
 - Etc.
- Over \$100 billion annually.
- Note that private security expenditures will typically displace crime rather than deter it.

- The social losses due to crime are difficult to estimate.
 - For example, with a theft the criminal gains while the victim loses.
- The best estimates put economic losses at \$15 billion annually.

Estimated costs by type of crime

- The average social costs by offense:
 - Murder, \$9 million
 - Rape, \$240,000
 - Assault , \$107,000
 - Robbery, \$42,000
 - Arson, \$21,000

- Difficult to value the disutility of the fear of being the victim of crime.
- Difficult to value the disutility to convicted criminals of punishment
 - Should we distinguish between the correctly and wrongly convicted?
 - Many prisoners are infected with AIDS – how to value this?
- How to value the costs of reintegrating prisoners into society?
 - In 2007, for example, 700,000 prisoners were released.

Costs of Imprisonment

- Recent estimates of the cost of imprisoning one person: \$40,000 per year (\$110 per day)
- The state of Texas incarcerates about 240,000 prison inmates at a cost of \$3 billion annually
 - This is up from 180,000 inmates at a cost of \$600 million in the 1980s.
- Twenty-six states have a “Three Strikes Law” which gives a huge sentence for a third felony offense.
 - This often will put a 25-year-old in jail for life, at a cost of well over \$1 million.
- Inmates over the age of 55 have annual medical costs of over \$100,000, although the recidivism rate for this age cohort is 2 percent.
- In many states, prison spending has replaced health care spending as the fastest-growing component of the state budget.

How do inmates spend their time?

- “Inmates in most U.S. prisons spend the bulk of their time making highway signs, doing one another’s laundry, preparing meals, and the like.”
- In North Carolina, female prisoners serve as call center workers.
- In Illinois, prisoners make marching band uniforms.

- Fines are the obvious alternative to prison, but they are ineffective for reasons we discussed previously.
 - European countries have a “day fine” system where the fine is scaled to the offender’s income. For example, a traffic offense would be punished by one day’s wages, whereas a serious crime would be punished by four months’ wages.
- Ankle bracelets with GPS systems cost about \$10 per day.

- The best estimates are that a 1 percent increase in prison spending reduces crime by 0.15 percent.
- Alternatives that are known to have better elasticities:
 - More police
 - More preschools
- Reallocating money away from prisons toward more police and more preschools would probably reduce crime.

The Deterrence Hypothesis

- The deterrence hypothesis is that increasing the expected cost of punishment should reduce crime.
- There are a lot of studies on deterrence, but many of them are not credible:
 - For example, studies comparing the crime rate to the number of police would be biased, since the government may increase the number of police in response to a higher crime rate.
 - Similarly, judges/prosecutors may increase penalties in response to the perception of a higher crime rate.

TABLE 13.1

Criminal and Legitimate Earnings per Year (1988 Dollars)

Crime type	High-Rate		Mid-Rate	
	Crime	Work	Crime	Work
Burglary/theft	\$5,711	\$5,540	\$2,368	\$7,931
Robbery	6,541	3,766	2,814	5,816
Swindling	14,801	6,245	6,816	8,113
Auto theft	26,043	2,308	15,008	5,457
Mixed	6,915	5,086	5,626	6,956

Source: Wilson & Abrahamse, *Does Crime Pay?*, 9 JUSTICE Q. 359, 367 (1992).

- These estimates don't include the expected cost of prison time.

- In July 2006, the Italian parliament unexpectedly released 40 percent of the Italian prison population.
- But if convicted of another crime, an inmate had to serve the remainder of his previous sentence.
- This meant that some released prisoners faced arbitrarily higher expected penalties than others for recidivism.
- This paper estimates an elasticity of recidivism with respect to expected prison sentence of -0.74 :
 - A one percent increase in prison sentence meant a 0.74 percent decrease in the probability of recidivism.

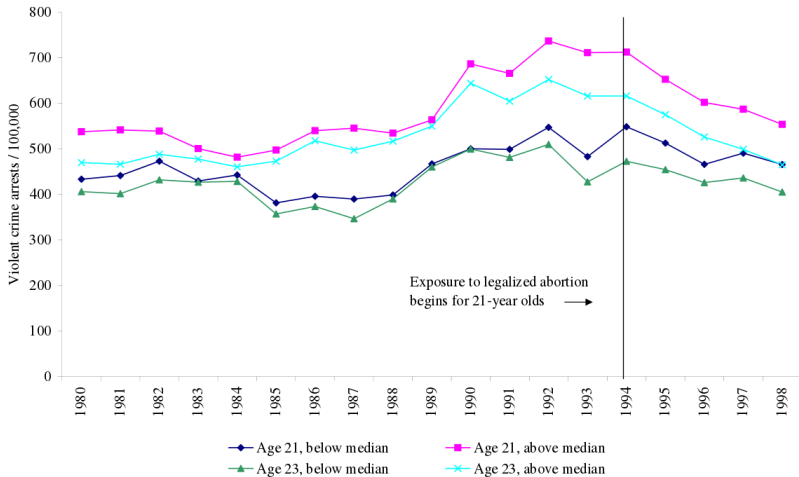
- Another clever study used the fact that criminal penalties increase sharply on an offender's 18th birthday:
 - The day of majority, after which he can be tried as an adult.
- Lee and McCrary find that there is no difference in crime rates in the days before and after the 18th birthday.
- 18-year-olds must be impatient, myopic, or both.
- This justifies more expenditure on police rather than prisons.

- Survey data suggest that incarcerated prisoners adapt to prison:
 - In particular, prisoners return to the same level of subjective well-being they had before prison within six months of incarceration.
 - This suggests that prison sentences longer than six months probably don't make that much difference for specific deterrence.

- Joyce (2009) tries to replicate the Donohue and Levitt (2006) result on abortion and crime.
 - Using a simpler diffs-in-diffs strategy (rather than instrumental variables) and with corrected standard errors, he cannot replicate the effect.

Abortion-crime trends

Figure 1. Violent Crime Arrest Rates among 21 and 23-Year Olds in 45 States that Legalized Abortion after Roe, Stratified by States with Above and Below Median Increases in the Abortion Rate from 1971-1974



- Between 1976 and 2008, only 37 executions per year.
 - Oklahoma and Texas responsible for half the recent executions.
- In recent years, almost all by lethal injection
 - In 2009, one execution by electric chair
 - In 2010, one execution by firing squad
- While 65 percent of Americans support the death penalty, its use is declining.

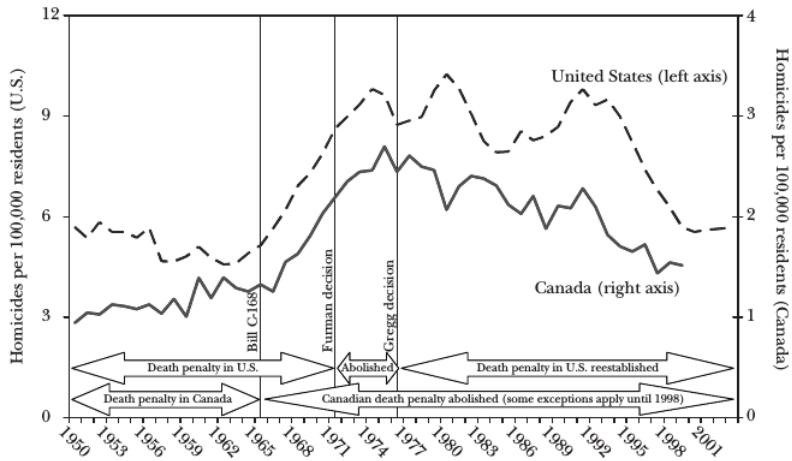
Death Penalty and Sentencing Discretion

- Some studies suggest that if conviction will result in the death penalty, juries will find guilty of a lesser charge.
- After the abolition of the death penalty in Britain in 1965, the number of murderers found to be insane fell dramatically.
 - Judges were using the insanity defense to avoid sentencing people to death.

Death Penalty Incentives

Figure 1

Homicide Rates and the Death Penalty in the United States and Canada
(U.S. and Canada rates on the left and right y-axes, respectively)



Source: Donohue and Wolfers (2005).

Administrative costs of the death penalty

- In death penalty (capital) cases, there is more discretion to challenge jurors during jury selection;
 - Jury selection in capital cases takes 13 days on average, compared to 3 days in non-capital cases.
- Capital cases cost the prosecution \$2 million on average.
- Oftentimes two separate trials: one for guilt, and another for sentencing.
- Automatic appellate review by the state supreme court.
- Death-row inmates require more security and higher mental-health costs – at least twice as expensive as regular inmates.

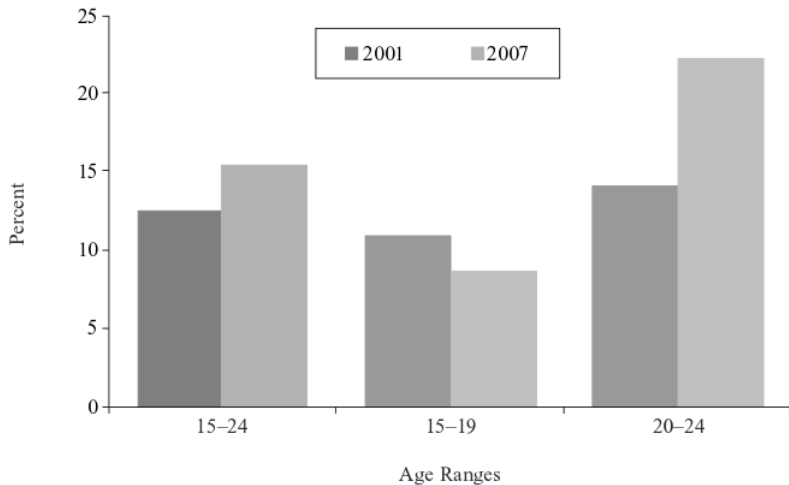
War on Drugs Statistics

- Federal and state governments spend an estimated \$51 billion per year on the war on drugs.
 - Legalizing drugs and taxing them would generate \$50 billion in revenue, so the net cost is over \$100 billion.
- About 1.6 million people arrested annually, with 80% of these for possession.
 - Nearly half were for possession of small amounts of marijuana.
- Almost 20% of inmates in state prison, and 50% of inmates in federal prison, are there on drug charges.
- Drug use is similar across races, although 61 percent of people incarcerated for drug use are black or hispanic.

- The price of a gram of cocaine is 74 percent cheaper than it was 30 years ago.
- About 40 percent of high school seniors say they have used illegal drugs, up from 30 percent 20 years ago.
- A drug charge for possession will prevent you from getting student loans, credit cards, or public housing.
- Employers and landlords can also see your criminal record, so you may have trouble getting a job or an apartment.

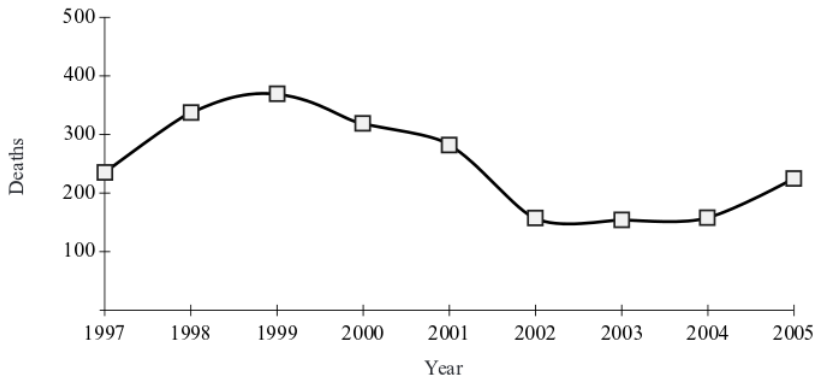
2001 De-criminalization in Portugal

Portugal, 2001 and 2007, General Population (15–24 years old), Lifetime Prevalence (any illicit drug)



2001 De-criminalization in Portugal

Deaths,* According to Year



- * Cases of death with positive results on drug toxicological exams.

- The United States has higher rates of violent crime than other developed countries, as well as higher rates of gun ownership:
 - Does gun control cause crime?
- Economic theory is ambiguous on this point:
 - Gun ownership makes crime easier and apprehension more difficult, which would increase crime
 - Gun ownership would allow potential victims to defend themselves, which would decrease crime
- There is also a reverse causality problem:
 - More crime would increase the number of criminals that need guns, which would increase rates of gun ownership
 - More crime would make victims want to purchase more guns, which would increase the rate of gun ownership

- There are 200 million firearms in private possession in the United States.
 - 67 million are handguns.
 - 50 percent of U.S. households own guns; the average number of guns per household is 4.5
- Number of homicides by handgun in 1992:
 - Japan: 87
 - Great Britain: 22
 - Australia: 10
 - United States: 11,000

Gun Ownership and Crime Rates

- Switzerland and Israel have high gun ownership but lower murder rates
- Mexico and South Africa have strict gun control laws but high murder rates.
- USA, Canada, and Britain have roughly equal burglary rates.
 - But burglaries where the homeowner is present are much lower in the United States (about 10 percent of burglaries, compared to 50 percent in Britain and Canada).
- On the other hand, laws that implemented stricter gun control measures have had no discernible effect on homicide rates.