

The Cost of Crime: Methods and Findings from Past & Recent Research



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Outline of Today's Talk


- ◆ Why estimate the “cost of crime?”
- ◆ Theory behind “cost of crime” estimates.
- ◆ Methodologies for estimating costs.
- ◆ Recent Estimates in U.S.
- ◆ Where are we?





I. Why estimate “cost of crime?”

- ◆ Assessing Effectiveness Of Various CJS Programs
- ◆ Tracking Progress In Crime Costs Over Time
- ◆ Identifying Geographic ‘Hot Spots’
- ◆ Identifying Segments Of Society That Are Especially Affected By Crime
- ◆ Comparing ‘Crime’ To Other Social Ills



II. Theory behind Cost of Crime: Goal of Criminal Justice Policy

◆ MAXIMIZING SOCIAL WELFARE

- Equivalent To Minimizing **Sum Of All Costs** Of Crime
- If “Costs” Are Eliminated Then Society “Benefits”
- But We Need To Include All Costs Of Crime...



What are the Costs of Crime?

- ACTUAL CRIME VICTIMIZATION ITSELF
 - Dollar Losses to Victims
 - Medical Costs
 - Pain & Suffering
- EXPENDITURES BY THE GOVERNMENT TO REDUCE/CONTROL CRIME
 - Police
 - Prisons
 - Probation Service
 - Community Prevention Programs
 - Drug Rehabilitation for Offenders

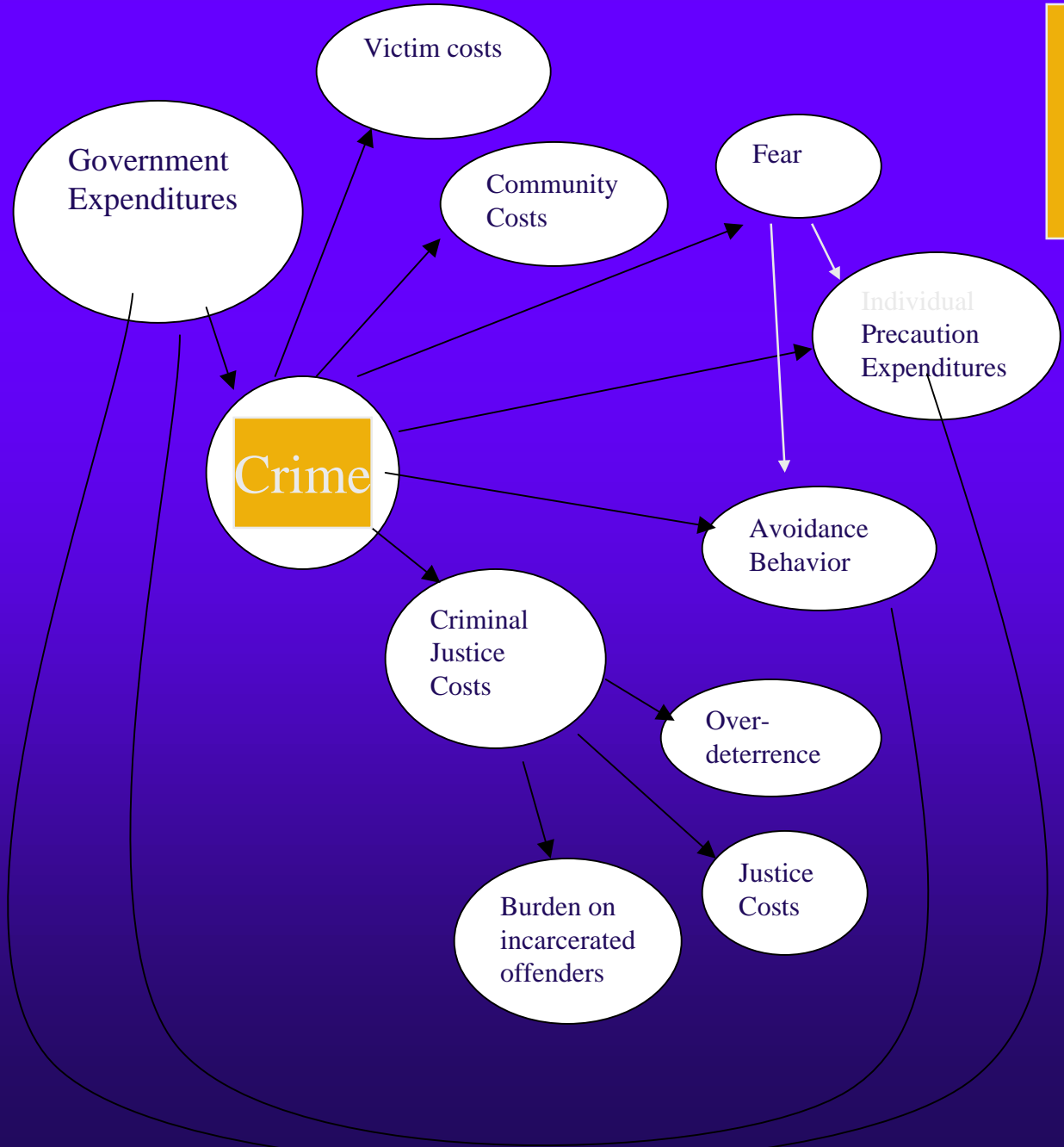


Costs of crime (that's not all!)

- Measures Taken by Public to Their Reduce Risk of Crime (“Avoidance Costs/Avoidance Behaviors”)
 - Burglar Alarms
 - Neighborhood Watch Programs
 - Taking Taxis Instead of Walking Home at Night
 - Avoiding Certain Areas of Town
- Residual Effect on Members of the Public (“Fear”)
- Residual Effect on the Community (e.g. Lack of Community Development, Social Cohesion)
- Effect of Sanctions on Offenders & Their Families




Interactions
Between
Cost of Crime
Components





Important Digression: Whose Costs Should be Measured?

- ◆ “Social Costs”
- ◆ Victims
- ◆ Taxpayers
- ◆ Potential Victims
- ◆ Community
- ◆ Offender?



- Methodologies for Estimating Costs...

- ◆ Types of Costs:

- Tangible

- Medical costs, lost wages, car stolen
- Government expenditures
- Preventive expenditures

- Intangible

- Pain, suffering, reduced quality of life
- Fear
- Justice, Freedom, etc.

- ◆ Methods of Estimation

- Direct/Primary Sources

- Victim survey, CJS budgets, etc.

- Indirect/Secondary Sources

- Property values, jury awards, etc.



Tangible Crime Costs

- ◆ Direct Survey Method for Victims
 - Victims often don't know medical costs
 - Some victim populations difficult to locate
 - Some victim populations don't know they are victimized (e.g. white collar/corporate crime)
- ◆ Direct Survey Method for CJS
 - In theory should be straightforward...
 - fixed vs. variable costs vs. opportunity costs
- ◆ Direct Survey Method for Potential Victims



Intangible Crime Costs

- ◆ Indirect Method: Property Values
 - Data limitations make this difficult to use for individual crime types.
- ◆ Indirect Method: Infer from WTP for Safety
 - Not based on actual crime/victimization
- ◆ Indirect Method: Infer from Jury Awards
 - *Ex Post* not *Ex Ante*
- ◆ Direct Method: WTP for Crime Control
 - Approach used in Environment & Health



Evolution of “Cost of Crime...”

◆ Tangible Costs of Victimization

- Problem: Misleading if used for Policy Analysis (example: Early Release Program)

◆ Intangible Costs of Victimization

- WTP for risk of death
- Jury awards for non-fatal injuries
- Ignores cost to community (potential offenders, social degradation)

◆ “External Costs” of Crime

- Comprehensive approach including all costs of crime
- Contingent valuation methodology
- Other hybrid approaches
- Note difference between “external” and “social” costs



Brief History of Estimates in U.S.

- ◆ Aggregate crime measures
 - Property value studies (Thaler, 1978)

- ◆ Individual Crimes:
 - Victim Cost Approach
 - Tangible & Intangible Victim Costs (Cohen, 1988; Miller, Cohen, & Wiersema, 1996)
 - WTP Approach
 - Social/external costs including non-victims (Cohen, et al., 2004)

WTP Method: Recent Study for NIJ

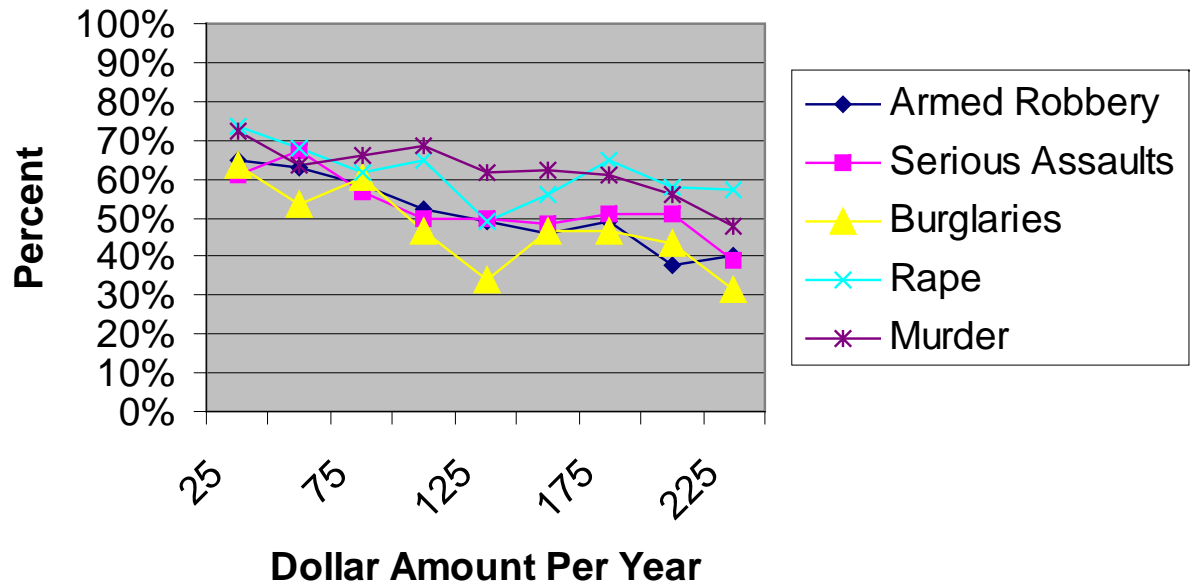
- ◆ *Now I want to ask you how much of your own money you would be willing to pay to reduce certain crimes. In each case, I am going to ask you to vote “yes” or “no” to a proposal that would require your household and each household in your community to pay money to prevent crime in your community.*
- ◆ *Remember that any money you agree to spend on crime prevention is your money that could otherwise be used for your own food, clothing, or whatever you need....I want you to think about actually taking more money out of your pocket.*
- ◆ *Last year, a new crime prevention program supported by your community successfully prevented one in every ten [INSERT CRIME] from occurring in your community. Would you be willing to pay [INSERT AMOUNT] per year to continue this program?*



Downward sloping demand curve...



Figure 1
Percent Willing to Pay \$X to Reduce Crime by 10%



Willingness-to-pay to reduce crime by 10% ...

	Mean	Confidence Interval	
Burglary	\$111	\$105	\$118
Armed robbery	\$122	\$114	\$129
Serious Assault	\$126	\$119	\$133
Rape	\$147	\$141	\$153
Murder	\$147	\$140	\$154



Implied Willingness-to-pay per crime....

	10% Crime Reduction	WTP	Implied WTP \$ per crime	Confidence Interval	
Burglary	426,113	\$104	\$29,000	\$21,000	\$30,000
Armed robbery	48,681	\$110	\$232,000	\$174,000	\$314,000
Serious Assaults	177,836	\$121	\$70,000	\$57,000	\$86,000
Rape and Sexual Assaults	54,747	\$126	\$237,000	\$185,000	\$313,000
Murder	1,553	\$146	\$9.7 mil.	\$8.5 mil.	\$11.0 mil.

Relative Odds of Victimization and the Demand for Crime Reduction...

	Armed robbery	Assault	Burglary	Rape/ Sexual Assault	Murder
Male vs. Female	2.2	2.6	---	0.05	3.3
- Coefficient	+0.1	-0.03	-0.25	-0.067	-0.007
Black versus White	2.7	1.4	1.6	1.1	5.9
- Coefficient	0.556*	0.489	0.798***	0.054	0.333
Hispanic versus Non	1.7	0.98	1.3	0.4	---
- Coefficient	0.294	0.851**	-0.035	-0.013	0.031
Below vs. Above \$35,000	1.7	1.7	1.5	3.2	---
- Coefficient	-0.446**	-0.37*	-0.458**	-0.049	-0.389**



Comparison of WTP Estimates to Previous Cost Estimates...

	Prior Estimates	Current Study		Ratio (Current to Prior)	
		Victim & CJS Costs	Low	High	Low
Burglary	\$4,360	\$21,000	\$30,000	4.8	6.9
Armed robbery	\$31,800	\$174,000	\$314,000	5.5	9.9
Serious Assaults	\$35,600	\$57,000	\$86,000	1.6	2.4
Rape and Sexual Assaults	\$114,000	\$185,000	\$313,000	1.6	2.7
Murder	\$3.9 mil.	\$8.5 mil.	\$11.0 mil.	2.2	2.8





V. State of “Cost of Crime” Research Around the World...

◆ U.S.

- Direct costs only from victim surveys (annual)
- Federal Government funded methodological studies & new estimates (1991, 1995, 1999)
- Requesting c/b analysis of grantees
- Some States have begun serious c/b analysis
 - Oregon, Washington: “require” cost-effective programs



“Cost of Crime” Around the World...

◆ United Kingdom

- BCS survey includes victimization data, prevention, avoidance behavior, quality of life questions (ongoing)
- Home Office reports on cost of crime
 - Includes some intangible/quality of life costs
 - Plans to update & fill in gaps
- Funded Contingent Valuation study

◆ Other significant studies:

- Australia
- Canada
- France
- Netherlands
- Elsewhere?



“Cost of Crime” Around the World...

◆ International Collaboration

- Centre for Criminal Justice Economics & Psychology, Univ. of York (UK)
 - CBA_JUSTICE
- Development of Methodological Handbook
 - Discussions w/Home Office (UK) and NIJ (US)
- This conference



“Cost of Crime” Around the World

◆ Where are We?

- Variation in cost categories included
 - Only some include intangibles
 - Few go beyond victim costs to include fear, etc.
- Consensus on theory & methodology?
- Crime categories
 - Most work has been on Street Crime
 - Need more development of fraud, computer crime, etc.
 - Some work has been done on victimless crimes – seldom by the same researchers
- Need for Collaboration & Standardization...



- ◆ END OF PRESENTATION...
- ◆ TWO EXTRA SLIDES IF TIME:

Tax Rebate vs. Crime Control/Prevention

Once again, you have [\$100/\$1,000] per household to allocate to these programs or to rebate to local residents....

- Random order for four options
- Choice of \$ or %
- Responses read back & opportunity to change answers

Percent of Tax Dollars Allocated to Crime Prevention/Control

	Mean	Median	Implied Value
Prison	8.4%	0.0%	\$0.71
Drug Treatment	22.1%	25.0%	\$1.86
Police	21.0%	20.0%	\$1.76
Prevention	36.6%	33.3%	\$3.07
Tax Rebate	11.9%	0.0%	\$1.00
Sample size	1234	1234	1234

Comparison of Spending Priorities

	Gender Comparison		Race/Ethnicity Comparisons (White vs. Black & White vs. Latino)		
	Male	Female	White	Black	Latino
Prison	8.5%	8.3%	9.0%	4.4%***	10.0%
Drug Treatment	20.7%	23.5%***	22.0%	23.8%	20.0%
Police	21.0%	21.0%	21.6%	18.1%**	19.50
Prevention	36.0%	37.2%	35.7%	44.3%***	32.3%
Tax Rebate	13.8%	10.1%***	11.8%	9.4%	18.4%
Sample size	596	638	1003	144	58

