Connecticut Results First Model Summary

Dr. Sam Andoh, Southern Connecticut State Univ.
Rob Wysock, Office of Fiscal Analysis
Dr. Ashley Provencher, Siena College
Brian Hill, Judicial Branch, CSSD
Andrew Clark, IMRP at CCSU
Dr. Steve Lize, Consultant, Results First
Sara Dube, Project Manager, Pew

November 15, 2013

The Cost of Crime

- Taxpayers (i.e., policies and services that prevent and respond to crime)
- Society (i.e., victimization)



Results First Approach

- Use the best national research to identify what works
- Predict **impact** in your state
- 3 Calculate long-term costs and benefits



Current Results First states



Focuses on Three Key Questions

- What does it cost to achieve the goal (e.g., reducing crime)?
 - What is achieving that goal worth to taxpayers and citizens?

How do alternative ways to achieve that goal compare as investments?

Criminal Justice System Cost Estimates



Taxpayer Costs

- Police
- Courts
- Adult jail (county)
- Adult probation
- Adult prison (security, health care, etc.)
- Adult parole
- Youth probation/detention
- Youth secure facility commitment

Case Study: Marginal Cost of Adult Incarceration in Connecticut

Per Unit Costs

Focusing on the costs related to <u>incremental</u> change in average daily population

<u>Marginal Cost</u> is the change in the total cost as the number of individuals served increases by one; typically referred to as "the cost to produce one more unit"

Looking at additional cost of change in units served within existing system

Adult Jail & State Prison, \$20,447

- DOC quarterly expenditures and average daily population 2004-2011 per facility
- Personal services, medical, gate money, and operating expenses (food, laundry, communications, fleet, utilities)
- Used statistical analysis, controlling for institutional differences
- Refined first estimates after discussion with DOC & OPM

Per Unit Costs: PRISON EXAMPLE

- When one inmate is added to a prison, certain variable costs increase immediately: food, laundry, medical. Officers would not be added right away, but would be if 100 more inmates were committed
- Appropriate because administration, capital investment, and most utilities are fixed costs
- Estimated by change in total costs divided by change in average daily population

Adult Jail & State Prison, \$20,447

- The Connecticut Dept. of Correction <u>reports</u> its average daily cost of incarceration per inmate, is approximately \$95.16 per inmate, which is \$34,733 annually (~2011)
- The Office of Legislative Research reported the average annual cost of incarceration per inmate is \$44,165 in 2006
- The Vera Institute <u>reported</u> the average annual cost per inmate to be \$50,262 in 2012

Capital Costs for Adult Jail & State Prison

- No new prison construction planned but capital expenditures continue for maintenance, repair, and upgrade for code compliance
- Office of Fiscal Analysis examined bonds for capital expenses from FY 2003-2012
 - Mean allocation: \$9 million (\$452,000 principal + \$237,000 interest over 20 years)
- Provisional estimate: \$423 annually per inmate

Annual Criminal Justice System Costs

Criminal Justice System	Unit Cost	Marginal or Average	Data Source
Police (per arrest)	\$ 815	Marginal	Federal Justice Statistics
Courts (per conviction)	\$ 7,553	Marginal	Judicial Court Operations
Adult Prison & Jail	\$ 20,447	Marginal	Department of Correction
Adult Probation	\$ 666	Marginal	Judicial Branch, CSSD
Adult Parole	\$ 926	Marginal	Department of Correction
Juvenile Probation	\$ 3,076	Average	Judicial Branch, CSSD
Juvenile Detention	\$ 231,981	Average	Judicial Branch, CSSD
Juvenile Training School	\$ 267,707	Marginal	Department of Children & Families

Additional Per Unit Cost Estimates for Connecticut's Criminal & Juvenile Justice System

Victim Costs

	М	urder	Se	lony x imes	Ro	bbery	Aç As	gg. ssault	ony perty	Felony Drug & Misd.
Tangible	\$	737,517	\$	5,556	\$	3,299	\$	8,700	\$ 1,922	\$ 0
Intangible	8	3,442,000	•	198,212		4,976		13,435	0	0

- Tangible costs include medical expenses, cash losses, property theft or damage, and lost earnings from injury
- Intangible costs include pain and suffering from related injury and the value of a statistical life in the case of premature death

Source: McCollister, French & Fang, "The Cost of Crime To Society," Drug and Alcohol Dependence 108 (2010): 98-109.

Other Justice System Marginal Costs

- Cost data narrowed to variable expenses, including personal services and operating expenses by quarter from 2005-2011
 - · Provided by agency or Legislative Fiscal Analysis
- Per-unit data included caseloads or average daily population by quarter from 2005-2011
- · Analysis used statistical techniques
- Adjustments still needed for variation in costs by offense type

Connecticut Recidivism Cohorts and Resource Use

Key Definitions

- Cumulative Conviction Rate: percentage of persons convicted during the seven years of follow-up
- Model calculates the unit change in recidivism related to the effect size of each evidence-based program
- Hazard Rate: when convictions are likely to happen over the follow up period
- Resource Use: the probability of prison or community sanctions and length of sentence for each crime type of those convicted

Contributing Agencies

- Department of Correction
- Department of Emergency Management and Public Protection
- Department of Children and Families
- Judicial Branch

Cohort Analysis

 20 Offender Populations derived from 2004 criminal and juvenile justice records

- Prison: 13,649

- Parole/Community Supervision: 3,982

Adult Probation: 28,505Juvenile Probation: 3,135Juvenile Confinement: 273

 Populations disaggregated by Risk and Offense Type, where available

State Adult Recidivism At 5 Years Compared

State	Prison	Probation	Misdemeanors Included
CT	69 %	56 %	Yes
Α	62 %	56 %	Yes
В	59 %	59 %	Yes
С	59 %	53 %	Yes
D	51 %	32 %	Some
Е	48 %	30 %	Yes
F	40 %	30 %	No

Source: The Pew-MacArthur Results First Initiative.

Cohort Analysis

- Offenders tracked for seven years (2004-2011)
- All convictions over the seven year period were analyzed
- First study of CT offender populations to track recidivism for seven years
- Datasets may provide the foundation for future studies

Connecticut Criminal Justice Programs

Evidence-Based Programs in Connecticut: Adults

- · Cognitive Behavioral Therapy
- Correctional Education
- Correction Industries
- Domestic Violence Perpetrator Treatment Programs
- Drug Courts
- Drug Treatment in the community
- Drug treatment in prison
- Earned Early Release in Prison

- Electronic monitoring
- Employment training/job assistance
- Intensive supervision
- Mental Health Courts
- Supervision with Risk Need and Responsivity Principles
- Vocational Education in prison
- Work Release

Evidence-Based Programs in Connecticut: Juveniles

- Adolescent Diversion Project
- Aggression Replacement Training (ART)
- · Coordination of Services
- Drug Court
- Family Integrated Transitions
- Functional Family Therapy
- Multisystemic Therapy
- Multidimensional Treatment Foster Care
- Scared Straight
- Victim Offender Mediation

Corrections Program Effects on Recidivism

Program	Crime Change	Studies
Cognitive Behavioral Therapy	- 8.9 %	38
Correctional Education	- 16.6 %	11
Correctional Industries	- 5.5 %	9
Domestic Violence Perpetrators (Duluth)	4.0 %	9
Drug Treatment	- 11.7 %	21
Vocational Education	- 15.9 %	3
Work Release	- 5.5 %	7

Adult Probation Program Effects on Recidivism

Program	Crime Change	Studies
Cognitive Behavioral Therapy	- 7.4 %	38
Drug Treatment	- 14.0 %	6
Electronic Monitoring	- 15.2 %	16
Intensive Supervision (surveillance)	0.0 %	14
Intensive Supervision (with treatment)	- 12.2 %	17
Risk Need Responsivity Principles	- 17.7 %	6

Evidence-Based Programs in Connecticut: Adults

Evidence-Based Programs	Programs in Connecticut with Sufficient Data (Agency)
Cognitive Behavioral Therapy	Alternative in the Community (CSSD) Start NOW (DMHAS) Tier Two (DOC)
Correctional Education in Prison	Unified School District #1 (DOC)
Correctional Industries in Prison	Correctional Enterprises in Connecticut (DOC)
Domestic Violence Perpetrator Treatment Programs	EVOLVE (CSSD) Explore (CSSD) Understanding Domestic Violence (DOC)
Drug Treatment in the Community	Adult Behavioral Health Services (CSSD) DUI Home Confinement Program (DOC)
Drug Treatment in Prison	Tier Four (DOC)
Electronic Monitoring	Electronic Monitoring (CSSD)
Employment Training/Job Assistance in the Community	Alternative in the Community (CSSD)
Mental Health Courts	Jail Diversion Program (DMHAS)
Vocational Education in Prison	USD#1 (DOC)
Work Release	Work Release/Halfway House Program (DOC)

Evidence-Based Programs in Connecticut: Juveniles

Evidence-Based Programs	Programs in Connecticut with Sufficient Data (Agency)
Aggression Replacement Training	Youth Equipped for Success (CSSD)
Family Integrated Transitions	Multi-Systemic Therapy – Family Integrated Transitions (DCF)
Functional Family Therapy	Youth Equipped for Success (CSSD) Functional Family Therapy (DCF)
Multisystemic Therapy	Multisystemic Therapy (CSSD) Multisystemic Therapy (DCF)
Multidimensional Treatment Foster Care	Multidimensional Treatment Foster Care (CSSD) Multidimensional Treatment Foster Care (DCF)

Juvenile Program Effects on Recidivism

Program	Crime Change	Studies
PROBATION		
Multidimensional Treatment Foster Care	- 12.2 %	3
Aggression Replacement Therapy	- 17.0 %	4
Functional Family Therapy	- 18.2 %	8
Multisystemic Therapy	- 11.1 %	11
INSTITUTIONAL		
Functional Family Therapy	- 12.4 %	8
Family Integrated Transitions	- 7.8 %	1
Aggression Replacement Training	- 11.5 %	4

DRAFT Juvenile Program Benefit-Cost Analysis (2011 dollars)

Program	Cost	Total Benefits	Taxpayer	Non- Taxpayer	Net Benefits	Benefit to Cost Ratio
Aggression Replacement Fraining (Probation High Risk)	(\$2,858)	\$24,945	\$11,827	\$8,956	\$22,087	\$8.73
Family Integrated Transitions Training School)	(\$8,903)	\$39,940	\$12,374	\$24,829	\$31,037	\$4.49
Functional Family Therapy (Probation)	(\$3,894)	\$32,846	\$12,758	\$15,301	\$28,951	\$8.43
Multisystemic Therapy (Probation)	(\$8,240)	\$16,412	\$7,781	\$5,891	\$8,172	\$1.99

Vocational Education in Prison

Program characteristics:

- Delivered in prison involve instruction for a specific trade, occupation, or vocation such as welding, auto repair, building maintenance, and graphic arts
- Primary goal of the program is to help offenders develop marketable job skills upon release to the community
- Certificates or college credit can be earned for some vocational programs.

Model information:

- · Using national research on effectiveness
- Cost per participate \$2,385 (2011 dollars) [average]
- · Primary participants: Adult prison general

Washington State's Long-term Success

- 15+ years of using approach to help steer budget decisions
- Have achieved better outcomes at lower costs

LOWERED CRIME RATE and achieved \$2.7 BILLION in higher long-term benefits

DRAFT Adult Program Benefit-Cost Analysis (2011 dollars)

Cost	Total Benefits	Taxpayer	Non- Taxpayer	Net Benefits	Benefit to Cost Ratio
(\$512)	\$5,983	\$3,497	\$2,486	\$5,471	\$11.69
(\$826)	\$11,029	\$6,439	\$4,590	\$10,203	\$13.35
(\$1,151)	\$5,512	\$4,324	\$1,188	\$4,361	\$4.79
(\$1,216)	\$4,422	\$1,978	\$2,444	\$3,206	\$3.64
(\$1,400)	(\$4,977)	(\$2,755)	(\$2,222)	(\$6,377)	(\$3.56)
(\$2,386)	\$13,831	\$7,643	\$6,188	\$11,446	\$5.80
(\$2,385)	\$13,114	\$7,247	\$5,867	\$10,729	\$5.50
	(\$512) (\$826) (\$1,151) (\$1,216) (\$1,400) (\$2,386)	(\$512) \$5,983 (\$826) \$11,029 (\$1,151) \$5,512 (\$1,216) \$4,422 (\$1,400) (\$4,977) (\$2,386) \$13,831	(\$512) \$5,983 \$3,497 (\$826) \$11,029 \$6,439 (\$1,151) \$5,512 \$4,324 (\$1,216) \$4,422 \$1,978 (\$1,400) (\$4,977) (\$2,755) (\$2,386) \$13,831 \$7,643	Benefits Taxpayer (\$512) \$5,983 \$3,497 \$2,486 (\$826) \$11,029 \$6,439 \$4,590 (\$1,151) \$5,512 \$4,324 \$1,188 (\$1,216) \$4,422 \$1,978 \$2,444 (\$1,400) (\$4,977) (\$2,755) (\$2,222) (\$2,386) \$13,831 \$7,643 \$6,188	Benefits Taxpayer Benefits (\$512) \$5,983 \$3,497 \$2,486 \$5,471 (\$826) \$11,029 \$6,439 \$4,590 \$10,203 (\$1,151) \$5,512 \$4,324 \$1,188 \$4,361 (\$1,216) \$4,422 \$1,978 \$2,444 \$3,206 (\$1,400) (\$4,977) (\$2,755) (\$2,222) (\$6,377) (\$2,386) \$13,831 \$7,643 \$6,188 \$11,446

Compare Costs and Benefits

ADULT PROGRAMS	COST	LONG-TERM BENEFITS	COST/BENEFIT RATIO
Intensive supervision (only)	\$4,140	-\$578	-\$0.14
Mental health court	\$2,935	\$20,424	\$6.96
Community drug treatment	\$1,602	\$17,711	\$11.05
Correctional education in prison	\$1,128	\$21,426	\$19.00
Work release	\$661	\$7,117	\$10.77
Cognitive behavioral therapy	\$412	\$9,695	\$23.55
Community job training & aid	\$135	\$5,501	\$40.76
JUVENILE PROGRAMS			
Functional Family Therapy	\$3,262	\$70,370	\$21.57
Aggression replacement training	\$1,508	\$62,947	\$41.75
Coordination of services	\$395	\$5,501	\$13.94
Scared Straight	\$65	-\$4,949	-\$76.35

*Washington State 2012 dollars

Juvenile Crime Reduction Benefits

