U.S. Department of Justice
Office of Justice Programs
National Institute of Justice

National Institute of Justice

Research Report

Multisite Evaluation of Shock Incarceration

Evaluation Report

Multisite Evaluation of Shock Incarceration

Doris Layton MacKenzie
Claire Souryal
University of Maryland

A Final Summary Report Presented to the National Institute of Justice
September 1994

U.S. Department of Justice
Office of Justice Programs

National Institute of Justice
Jeremy Travis
Director

Winifred L. Reed
Acting Director
Evaluation Division

Voncile Gowdy
Project Monitor

This investigation was supported in part by Grant #90–DD–CX–0061 from the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice to the University of Maryland. Points of view in this document are those of the authors and do not necessarily represent the official position of the U.S. Department of Justice. Requests for copies should be sent to the senior author at the University of Maryland, Department of Criminal Justice and Criminology, 2220 LeFrak Hall, College Park, MD 20742.

NCJ 142462

The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, Bureau of Justice Statistics, Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime.

Acknowledgments

The authors would like to thank the State programs for their participation in the evaluation. Researchers in each State were supportive at every stage of the process. The results of the evaluation—even if not favorable—will further scientific knowledge and, as a result, facilitate the development of programs that better accomplish the Nation's correctional goals. Thus, correctional administrators and staff are owed a debt of thanks for their willingness to help in this research project.

Research Team

Researchers from each State involved in the multisite study of shock incarceration met in the summer of 1990 to plan the evaluation. The research design and instruments utilized are a result of this collaborative effort. State researchers were responsible for data collection and, in some States, data analysis. Multisite researchers include the following:

Doris Layton MacKenzie, Principal Investigator
Claire Souryal, Research Associate
Robert Brame, Jr., Research Associate
James Shaw, Research Associate
Alex Piquero, Research Assistant
Lori Elis, Research Assistant
Stacy Skroban, Research Assistant
Melissa Bamba, Research Assistant
University of Maryland

Robert Kreigner, Research Administrator
Kenneth Baugh, Jr., Research Associate
Florida Department of Corrections

Judy Schiff, Senior Operations Analyst
Judith Hadley, Advanced Programmer Analyst
Charlotte Beard, Associate Operations Analyst
Gerald Flowers, Senior Operations Analyst
Georgia Department of Corrections

Robert J. Jones, Research Scientist III
Steven P. Karr, Research Scientist III
Illinois Department of Corrections

Jean S. Wall, Corrections Executive Officer
Louisiana Department of Public Safety and Corrections

Cheryl Clark, Director of Shock Development
David Aziz, Program Research Specialist III
New York State Department of Correctional Services

Thomas J. Herzog, Program Research Specialist III
New York State Division of Parole

Francis Ferrari, Director, Statistical Analysis Center
Michelle Minietta, Statistical Analyst II
Kelly Menifee Lindley, Statistical Analyst II
Oklahoma Department of Corrections

Robert McManus, Coordinator of Planning and Research
South Carolina Department of Probation, Parole, and Pardon Services

Sammie Brown, Director of Division of Classification
South Carolina Department of Corrections

Anthony Fabelo, Executive Director
Nancy Arrigona, Planner
Lisa Riechers, Research Specialist
Texas Criminal Justice Policy Council

Table of Contents

Introduction 1

Shock Incarceration Program Characteristics 1
Multisite Evaluation Research Design 3
Program Goals and Implementation 6
Georgia 6
New York 6
Program Contrasts 7
Program Comparisons 8
Interviews 9
Correctional Officers 9
Boot Camp Inmates 10
Probation/Parole Officers 11

Changing Offenders: Deterrence and Rehabilitation 12

Military Basic Training Model 12
Shock Incarceration as a Catalyst for Change 13
Rehabilitative Programming 13
Discussion 15

Attitude Change 16

Methodology 16
Subjects 16
Procedure 17
Instruments 17
Results 17
Discussion 17

Impact on Recidivism 20

Methodology 24
Subjects 24
Instruments 24
Statistical Analyses 26
Results 26
Florida 26
Georgia 26
Illinois 27
Louisiana 27
New York 27
Oklahoma 28
South Carolina 28
Texas 28
Discussion 28

Table of Contents (continued)

Positive Activities During Community Supervision 30
Methodology 32
Subjects 32
Procedure 32
Index 32
Results 32
Summary of Positive Adjustment Study 33
Reducing Prison Crowding 33
Entry Decisionmaking 34
Eligibility and Suitability Criteria 35
Program Length 35
Program Size 36
Graduation Rates 36
Discussion 36
Estimating Prison Bedspace Savings 37
Results 37
Florida, Louisiana, and New York 37
Georgia and South Carolina 40
Discussion 40
Summary 40
Program Characteristics 40
Inmate Attitudes During Incarceration 41
Offender Recidivism 41
Adjustment During Community Supervision 42
Prison Bedspace Reduction 42
Conclusion 43
Notes 43
Additional References 45

Introduction

Since their inception in 1983, shock incarceration programs (also known as boot camps, the terms are used interchangeably throughout this document) have enjoyed considerable popular support. Like other intermediate sanctions, the programs are intended to alleviate prison crowding and to reduce recidivism. But, because they are additionally perceived as being "tough" on crime (in contrast to some other intermediate sanctions), they have been enthusiastically embraced as a viable correctional option.

Indeed, the presumed combination of cost savings and punitiveness has proven irresistible to politicians. Witness the remarkable growth of boot camp prison programs nationwide (see exhibits 1 and 2). At the beginning of calendar year 1984, just two States operated boot camp programs. Less than 10 years later, a survey completed in March 1992 revealed that 25 States and the Federal Bureau of Prisons were operating a total of 41 programs.[1] Two additional States were planning to implement programs later that year. Not only had the number of State jurisdictions operating boot camp programs increased, but the capacity of existing programs had increased as well. Georgia's program capacity, for example, was slated to expand from 250 beds to approximately 3,000 beds by 1994. Note that these figures do not take into account the programs developed at the county level or programs developed for juveniles.

Shock Incarceration Program Characteristics

As the name suggests, boot camp programs are modeled after military boot camp training. Participation in military drill and ceremony, physical training, and hard labor is mandatory. Inmates begin their day before dawn and are involved in structured activities until "lights out," approximately 16 hours later.

The military-style regime is generally supplemented with rehabilitative programming such as drug treatment/education or academic education, although the emphasis placed on such programming varies. In New York, for example, the program is structured as a therapeutic community. Rehabilitative programming, therefore, plays a central role in the program. In other States, though, such programming is clearly peripheral to the boot camp experience.

As the boot camp program concept has developed over the years, however, rehabilitative programming has come to play a more prominent role in the day-to-day routine. The earliest boot camp models devoted very little time to such programming. Many of those pioneering programs have since been enhanced with additional therapeutic services. Programs developed in recent years seemed to place a greater emphasis on rehabilitative programming from the outset.

By and large, boot camp programs have been designed for young, male offenders convicted of nonviolent offenses. Eligibility and suitability criteria were developed to restrict participation to this type of offender. For example, the March 1992 survey of shock incarceration programs revealed that the majority of programs (61.5 percent) then in operation limited participation to individuals convicted of nonviolent offenses (see exhibit 3). Fifty percent of the programs further restricted participation to individuals serving their first felony sentence as an adult. Minimum and maximum age limits were also the norm. The minimum age limit generally fell somewhere between 16 and 18 years of age, while maximum age limits most commonly ranged between 23 and 25 years of age (although two programs allowed offenders older than 30 years of age to participate and five programs had not established a maximum age limit). Female offenders were permitted to participate in roughly 50 percent of the States, although the number of beds available to female inmates was generally limited.

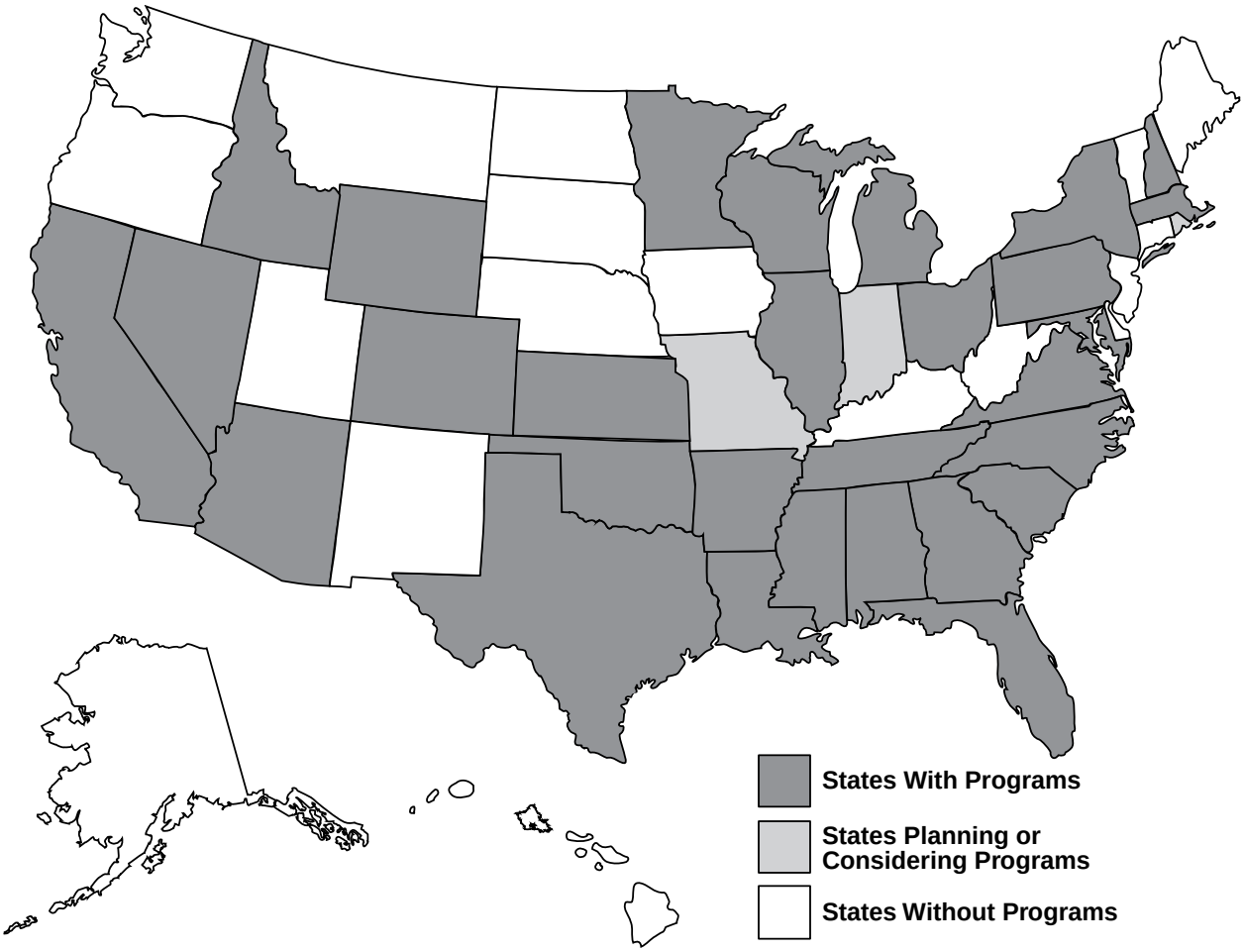
Exhibit 1. **State Shock Incarceration Programs for Adults as of March 1992**

Date	State	Number of Programs	Number of Participants/ Capacity
1983	Georgia	5	800/800
	Oklahoma	4	415/438
1984			
1985	Mississippi	1	223/263
1986			
1987	Florida	1	93/100
	Louisiana	1	64/136
	New York	5	1500/1500
	South Carolina	2	198/216
1988	Alabama	1	140/180
	Arizona	1	92/150
	Michigan	3	160/600[1]
1989	Idaho	1	236/250
	North Carolina	1	82/90
	Tennessee	1	103/150
	Texas	2	329/400
1990	Illinois	1	215/230
	Maryland	1	332/448
	New Hampshire	1	32/65
	Wyoming	1	23/24
1991	Arkansas	1	150/150
	Bureau of Prisons	1	192/192
	Colorado	1	114/100
	Kansas	1	66/104
	Nevada	1	60/60
	Ohio	1	76/94
	Virginia	1	79/100
	Wisconsin	1	40/40
Total		**41**	**5,814/6,880**

1992 Programs planned—Massachusetts and Pennsylvania
1992 Considering beginning programs—California, Indiana, Missouri, and Rhode Island

[1]Was to begin taking inmates again in approximately mid-May.

Exhibit 2. **Shock Incarceration Programs In the United States as of April 1993**



Multisite Evaluation Research Design

To examine the efficacy of shock incarceration programs, the evaluation effort was guided by the following research questions: (1) Are shock incarceration programs successful in fulfilling stated program goals? and (2) What particular components of shock incarceration programs lead to success or failure in fulfilling program goals? The study consisted of five major components: (1) a qualitative description of the eight programs based on staff and inmate interviews, official program materials, and observation; (2) a study of inmate attitudinal change during incarceration; (3) a study of offender recidivism; (4) a study of positive adjustment during community supervision as measured by indicators such as employment and educational status; and (5) a study of prison bedspace savings.

Prior research examining the effectiveness of shock incarceration programs had been limited to one location.[2] Given the large differences among programs, generalization could not easily be drawn from research examining one program and then another. The multisite evaluation was designed to fill this gap. Seven sites were initially selected to participate in the evaluation. An eighth site (Illinois) was added during the evaluation's second year. The eight State-level programs selected for participation in the evaluation were Florida, Georgia, Illinois, Louisiana, New York, Oklahoma, South Carolina, and Texas.

Exhibit 3. **Shock Incarceration Program Characteristics as of March 1992**

Eligibility Criteria	**%Yes (N=26)**
Convicted of Nonviolent Offense Only	61.5% (16)
Convicted of Nonviolent or Violent Offense	38.5% (10)
Serving Time:	
1st Felony (adult)	50.0% (13)
1st in State Prison	73.1% (19)
Age Minimum (in years)	
Less Than 16?	11.5% (3)
16 to 18?	76.9% (20)
Over 19?	3.8% (1)
No Minimum?	7.7% (2)
Age Maximum (in years)	
23 to 25?	50.0% (13)
26 to 30?	23.1% (6)
Over 30?	7.7% (2)
No maximum?	19.2% (5)
Entry Voluntary	69.2% (18)
Dropout Voluntary	65.4% (17)
Release Supervision	
Intensive	42.3% (11)
Moderate	7.7% (2)
Varies	50.0% (13)
Entry Decisionmaking	
Judge Recommends, DOC Approves	19.2% (5)
Judge Sentences, DOC has no veto	23.1% (6)
Judge Sentences to DOC, DOC Selects	26.9% (7)
DOC Selects, Judge Approves	12.0% (3)
Combination	12.0% (3)[1]

[1] Programs that utilize a combination of entry decisionmaking methods:
Bureau of Prisons: 1) Judge recommends, DOC approves; 2) Judge sentences, DOC selects; 3) DOC selects, Judge approves.
Colorado: 1) Judge recommends, DOC approves; 2) DOC selects.
Oklahoma: 1) Judge sentences, DOC cannot veto; 2) Judge sentences, DOC selects.

Exhibit 4. **Program Characteristics of the Eight Shock Incarceration Programs Participating in the Multisite Evaluation (1989).**

Selection Decisions	
Primary Entry Decisionmaking Responsibility:	
Judge:	GA, SC "Old", TX
DOC:	NY (16-25 yrs), IL, LA
DOC + Judge's Approval:	FL, NY (26-29 yrs)
Both Judge & DOC:	SC "New", OK
Program Characteristics	
Rehabilitative Focus	
High:	LA, OK, NY, IL
Low:	SC, FL, GA, TX
Voluntary Entry	
Yes:	SC, LA, NY, GA, IL
No:	OK, FL, TX
Voluntary Dropout	
Yes:	LA, SC, NY, IL
No:	OK, FL, TX, GA
Release Supervision	
Level of Supervision	
Intensive:	LA, NY, IL
Moderate or Mixed:	SC, OK, FL, GA, TX
Program Location	
Located in Larger Prison	
Yes:	LA, SC, OK, FL, GA, TX
No:	NY, IL

Selection of the participating sites began in 1989 with a survey of State correctional systems. In the survey, shock incarceration programs were defined by the following core components: strict rules, discipline, and boot camp-like atmosphere; mandatory participation in military drills and physical training; and separation of program participants from other prison inmates. The participating sites were selected because they incorporated the core elements of shock incarceration programs and because they varied on several dimensions hypothesized to influence the realization of program goals. The participating programs were selected to differ on the following dimensions: decision-making authority, supervision intensity upon release, program components, and program location (see exhibit 4).

The results of each portion of the evaluation are summarized in this document. The review begins with an examination of the development and implementation of the eight programs selected for participation in the multisite study with special emphasis on the programs developed in Georgia and New York.

The answers to the following questions have a profound effect on the ability of programs to achieve their stated goals:

- What are their program goals?
- What types of offenders are targeted for participation in the programs?
- How are offenders selected for participation?
- How much of the daily routine is devoted to rehabilitative activities?
- What percentage of program entrants graduate from the program?
- How intensely are offenders supervised upon release?

Program Goals and Implementation

An inquiry into the efficacy of any program must begin with an understanding of what the program is trying to achieve—its goals and objectives. Examination of written reports and program materials, coupled with interviews with decisionmakers in each State, led to the identification of two overarching program goals.

First, at the system level, the programs were expected to provide an alternative to incarceration that would reduce prison crowding (and related costs). Secondly, at the individual level, such programs were intended to reduce recidivism. Individual level goals were couched in terms of either deterrence or rehabilitation. Other goals set forth by programs included promoting community relations (e.g., increasing public safety or providing incarceration alternatives deemed acceptable by the public) and improving prison control and management.

As the following descriptions of the programs developed in Georgia and New York illustrate, program structure and content varied considerably among programs.[3]

Georgia. To avert a Federal takeover of its extremely crowded prison system, Georgia developed an array of sentencing options throughout the 1980's aimed at saving costly prison space. Implemented in November 1983, Georgia's 90-day boot camp program was one such option.

When the program was selected for participation in this study, program capacity was 250. Legal eligibility criteria restricted participation to 17 to 25-year-old males who were convicted of a felony, sentenced to at least 1 year, and had not been previously incarcerated. Offenders were placed in the program by the judiciary as a condition of probation. The sentencing judge retained case control until offenders were terminated from probation.

Although initial participation was voluntary, inmates were not permitted to drop out of the program voluntarily. Inmates did leave the program though for medical or disciplinary reasons prior to graduation. These offenders were discharged through a revocation process and served the remainder of their sentence in prison. During calendar year 1989, approximately 91 percent of the offenders who entered the program graduated.

The focus of the program in 1989 and 1990 was on work detail. Inmates were required to work approximately 7 hours per day (5 days per week). Two hours per week were devoted to rehabilitative activities that consisted mainly of life-skills classes. Upon release, offenders received regular probation.

Interviews with correctional officers and judges revealed that they strongly supported the program. In general, correctional officers were proud to be associated with the program and judges believed that it was one of the best programs for young offenders. Probation officers were more skeptical. Boot camp participants reported improved physical conditioning as one positive aspect of the program. Some inmates reported that they had been verbally abused.

New York. Established in 1987 as part of an Omnibus Prison Crowding Bill, the program was the largest in the Nation at the time of multisite

data collection. In 1990, New York State operated 5 shock incarceration facilities with a total capacity of 1,500, including approximately 100 beds for female inmates. Program length was 180 days.

Offenders were selected for participation in the program from a pool of offenders already sentenced to the New York Department of Correctional Services (NYDOCS). Primary placement authority rested with NYDOCS with one exception (placement of offenders between the ages of 26 and 29 had to be approved by the sentencing judge). Eligible offenders had to be between the ages of 16 and 30, sentenced to an indeterminate term, and eligible for parole within 3 years. (A recent legislative change raised the age limit to 34 years of age and younger, effective April 14, 1992.) Conviction of felony violent offenses rendered an offender ineligible. Offenders could also be deemed ineligible based on medical or psychiatric conditions, security classification, and criminal history.

Participation in the program was voluntary. Inmates retained the right to drop out of the program at any time. In this event, they were returned to prison to serve the remainder of their sentence. During calendar year 1988, approximately 69 percent of the offenders who entered the program graduated.

Beyond the common core of military-style discipline, training, and hard work, New York's program was noteworthy because it was structured as a therapeutic community and because it heavily emphasized substance abuse treatment. Participants spent approximately 4 hours per day involved in therapeutic programming and 1.6 hours per day in academic education. For example, each platoon formed a small "community" and met daily to problem solve and discuss their progress in the program. Inmates also learned decision-making skills (called the Five Steps to Decision-making) as well as life-skills. A total of 200 hours were additionally devoted to Alcohol and Substance Abuse Treatment (ASAT) program activities.

During the in-prison phase, parole staff worked closely with the inmate and the inmate's family to develop a residence and employment plan for implementation upon release from prison to a 6-month intensive community supervision program. High supervision standards included increased home visits, mandatory substance abuse counseling, weekly curfew checks, and random urinalysis. Other supervision objectives included enrollment in an academic or vocational program within 2 weeks of release and employment (at least part-time) within 1 week.

Interviews with corrections officers revealed that they considered working in the boot camp to be a rewarding experience because they believed they were accomplishing something worthwhile. Boot camp participants reported learning the most from the ASAT program and were most concerned about finding a job upon release from the program. Parole officers were aware of the difficult family/community environments to which many boot camp parolees were forced to return. They believed that the smaller caseloads and more intensive supervision allowed them to do a better job.

Program Contrasts. To summarize, Georgia's program capacity was 250, and program length was 90 days. Participation in the program was limited to young, first-time incarcerated offenders sentenced to the program as a condition of probation. Case control remained with the sentencing judge. Approximately 91 percent of the offenders who entered the program graduated.

In contrast, New York's program capacity was 1,500, and program length was 180 days. Eligibility criteria permitted offenders up to 30 years of age to participate. Participants were chosen from a pool of prison-bound offenders already sentenced to NYDOCS. Participation in the program was

completely voluntary. Approximately 69 percent of the offenders who entered the program graduated.

Offenders in Georgia spent 2 hours per week involved in rehabilitative activities as compared to offenders in New York who spent 5.6 hours per day involved in rehabilitative activities. Upon release, program graduates in Georgia received regular community supervision, while graduates in New York began a 6-month period of intensive community supervision.

Georgia's and New York's programs were selected for illustration because they provided the most extreme contrast among the eight programs.

Program Comparisons. The other six programs in the multisite evaluation tended to resemble one of the programs more than the other. For example, programs most similar to the model developed in New York included Illinois, Louisiana, and Oklahoma. Like the program developed in New York, program length in Illinois, Louisiana, and Oklahoma was longer than 90 days. Program length ranged between 120 and 180 days in Illinois and between 90 and 180 days in Louisiana and Oklahoma. During the in-prison phase of the program, these programs also devoted relatively more time to counseling and educational programs. Illinois incorporated a total of 3 hours per day of rehabilitational activities (1.5 hours of counseling and 1.5 hours of education). Similarly, Louisiana allotted 3.5 hours per day to rehabilitational activities (2 hours of counseling and 1.5 hours of education), and Oklahoma allotted 3.29 hours per day to rehabilitational activities (0.29 hours of counseling and 3 hours of education). New York incorporated 5.6 hours per day of rehabilitational activities. Further, Illinois, Louisiana, and New York developed a 6-month intensive community supervision phase of the program. Oklahoma's program can be distinguished from the programs developed in New York, Louisiana, and Illinois, because it did not develop an intensive community supervision phase of the program.

The programs developed in Florida, South Carolina, and Texas more closely resembled Georgia's program than New York's. Program length was 90 days in each, as it was in Georgia. The four

Exhibit 5. **Program Legal Eligibility and Suitability Criteria Based on Individual Characteristics**

	Gender	Age	Mental Health Requirements	Physical Health Requirements	Free From Contagious Disease	Prohibition Against Homosexuality
Florida	Male[1]	18 to 25[1]	Yes	Yes	No	No
Georgia	Male[1]	17 to 25	Yes	Yes	Yes	No
Illinois	Male/Female	17 to 29	Yes	Yes	No	No
Louisiana	Male/Female	up to 39[1]	Yes[1]	Yes[1]	No	Yes[1]
Oklahoma	Male	17 to 25	No	No	No	No
New York	Male/Female	16[2] to 29[1]	Yes[1]	Yes[1]	No	No
South Carolina	Male/Female	17 to 24	Yes	Yes	Yes	No
Texas	Male	17 to 25	Yes	Yes	No	No

[1] Signifies all criteria not mandated by the legislature but imposed by DOC.
[2] No younger than 16 at the time the crime was committed.

programs also did not devote as much time to rehabilitation. The number of hours per day allotted to rehabilitation ranged from .29 hours in Georgia to 1.8 hours per day in Florida. Furthermore, none of the programs developed an intensive community supervision phase of the program.

Programs differed in other characteristics as well. For example, four of the eight boot camp programs permitted females to participate in the program at the time of the study (Illinois, Louisiana, New York, and South Carolina). In Illinois and Louisiana, female offenders were housed in the same location as male inmates and participated in many of the same activities. In New York and South Carolina, separate programs were developed for female inmates. Most boot camp programs required offenders to be physically and mentally healthy, although this was not true in Oklahoma. In Oklahoma, inmates with physical or mental problems were placed in separate squads. Louisiana was the only program that prohibited homosexual offenders from participation.

Exhibits 5 through 8 provide a summary of program characteristics. These program characteristics will be examined as they relate to the program goals of changing offenders (by means of deterrence or rehabilitation) and reducing prison crowding.

Interviews

Interviews were conducted with correctional officers, boot camp inmates, and probation/parole agents supervising boot camp graduates. The interviews were designed to capture the views of the employees toward the boot camp programs as well as their attitudes toward boot camp participants. Interviews with boot camp participants focused on their experience in the program and what they perceived as the positive and negative elements of the program.

Correctional officers. Correctional officers generally reported that they thought boot camp programs were beneficial. In their opinion, these programs offered young offenders a second chance and segregated them from the general prison

Exhibit 6. **Program Legal Eligibility and Suitability Criteria Based on Criminal History**

	No Previous Prison Incarceration	No Prior Felony Conviction	No Pending Charges	No History of Sex Offenses	No History of Violent or Assaultive Behavior	No Previous Abscond or Escape Offense
Florida	Yes	Yes	No	No	No	No
Georgia	Yes[1]	Yes	No	No	No	No
Illinois	Yes[2]	No	No	No	No	No
Louisiana	Yes	No	Yes[1]	Yes[1]	Yes[1]	No
Oklahoma	No	No	No	No	No	No
New York	Yes[1]	No	No	Yes[1]	Yes[1]	Yes[1]
South Carolina	Yes[1]	No	No	No	No	No
Texas	Yes	No	Yes[1]	No	Yes[1]	Yes[1]

[1] Signifies all criteria not mandated by the legislature but imposed by DOC.
[2] No previous adult felony incarceration.

population. Other program benefits included serving less time, getting off drugs, improving work habits, and developing self-esteem and discipline. Correctional officers were often proud to be associated with the program, reporting that their job provided a sense of accomplishment.

In New York, officers stated that their work entailed more than simply demanding obedience and control. They viewed their role as being supportive and helpful. Similarly, in Illinois, staff reported that they were more concerned with the process of rehabilitating inmates than they were with traditional custodial duties. In Texas, officers believed that teaching responsibility, discipline, and teamwork were the primary goals of the program. In Florida, discipline and effective staff were cited as the major program strengths.

However, there were reports of staff members who had difficulty maintaining a supportive role. Program administrators in Louisiana, for example, removed several overzealous drill instructors from the program. One problem noted specifically by drill instructors in Louisiana was stress resulting from working so closely with boot camp inmates. In Oklahoma, too, staff expressed concern over the stressful nature of their work environment, noting that the potential for abuse was exacerbated due to feelings of stress. Another problem noted by correctional officers was that of inadequate drill instructor selection and the consequent high turnover rate. Apparently, guards were sometimes chosen for the drill instructor position because of their military background, not their correctional experience.

Boot camp inmates. In two States, boot camp participants reported being somewhat surprised by the intensity of the program, particularly the amount of physical exercise, yelling and screaming, and work. In New York, inmates found the discipline and structured routine difficult to handle. In Illinois and New York, inmates reported that they opted to participate in the program because it meant serving a shorter sentence. In several States, boot camp participants stated that

Exhibit 7. **Program Legal Eligibility and Suitability Criteria Based on Offense-Related Characteristics.**

	Length of Sentence	Eligible for:	Type of Offense
Florida	6 yrs or less	NA	No capital or life felony
Georgia	5 yrs or less[2]	Probation	NA
Illinois	5 yrs or less	NA	No Class X felony[3]
Louisiana	7 yrs or less	Parole	NA
Oklahoma	None	NA	Nonviolent
New York	Indeterminate	Parole (3 yrs)	Nonviolent[1]
South Carolina	5 yrs or more	NA	Nonviolent
Texas	10 yrs or less	Probation	NA

[1] Signifies all criteria not mandated by the legislature but imposed by DOC.
[2] Sentenced to 5 years or less of probation.
[3] Class X felonies include 1st or 2nd degree murder, armed violence, aggravated kidnapping, criminal sexual assault, aggravated criminal abuse or a subsequent conviction for criminal sexual abuse, forcible detention, or arson.

Exhibit 8. **Number of Inmates Entering and Exiting Multisite Evaluation Shock Incarceration Programs**

State	FL	GA	IL	LA	OK	NY	SC "Old"	TX
Capacity	100	250	230	120	150	1,500	120	200
Total Entered (Dates)	1,141[1] (10/87-1/91)	932 (1/89-12/89)	832[1] (10/90-10/91)	298 (2/87-2/88)	573[1] (1/89-12/89)	2,993 (1/90-12/90)	473[1] (7/89-7/90	479[1] 10/89-10/90)
Graduated (%)	519 (48.46)	849[2] (91.06)	363 (58.7)	169 (56.7)	424 (89.8)	1,907 (63.7)	395 (84.0)	338 (89.89)
Time in Days	100.5	89	121.3	125.7	104.6	180	84.23	81.1
Dismissed (%)	(51.54)	(9.01)	(41.3)	(43.3)	(10.17)	(36.3)	(15.96)	(10.11)
Reason for Dismissal								
Discipline	427	84[2]	52	22	48	219	39	6
Medical	92	144[2]	—	11	—	39	36	27
Voluntary	—	—	203[3]	82	—	369	—	—
Other	33	—	—	14	—	459	—	5

[1] In Florida, N=1,141 entered the program. Calculations are based on N=1,071, the number who exited the program between 10/87 and 01/91. In Illinois, N=832 entered the program. Calculations are based on N=618, the number who exited the program between 10/90 and 10/91. In Oklahoma, N=573 entered the program. Calculations are based on N=472, the number who exited between 1/89 and 12/89. In South Carolina, N=473 entered the program. Calculations are based on N=470. In Texas, N=479 entered the program. Calculations are based on N=376.

[2] There were problems with the data in obtaining dropout rates. These estimates were based on percentages from actual data for 1984 to 1989. The estimates of dropout rates may therefore be high.

[3] Inmates who leave the program for medical reasons fall into the "quit" category but cannot be distinguished from others. Illinois DOC officials estimate that a large number of inmates who leave voluntarily leave for medical reasons.

they preferred the program over serving time in a conventional prison due to shorter sentences, personal safety, and better living conditions.

Inmates noted both positive and negative aspects of the program. Positive aspects generally included improving physical conditioning (i.e, getting in good shape); learning to live without cigarettes and drugs; improving education levels through opportunities offered; learning discipline, perseverance, and self-control; and improving self-esteem and self-confidence. In Louisiana, inmates reported enjoying exercise, marching, and military drill in part because it helped the time to pass more quickly, and because they thought their time was being put to good use. On the negative side, inmates reported the following: verbal abuse or negative verbal communications, the inferior quality and sometimes small quantity of the food, harsh treatment by staff, lack of control over time, and too little sleep.

In South Carolina, boot camp dropouts reported that they dropped out because they could not accept the authority and control of the correctional officers. In Louisiana, dropouts reported that they left the program because of what they perceived as inhumane treatment. They also stated they did not see any value in the required marching and drills. However, they reported that they would recommend the program to all first-time offenders who faced 5 or more years in prison.

Probation/parole officers. Probation/parole officers were generally more skeptical about boot camp programs. According to supervising officers in Georgia, real changes in respect for authority

and behavior varied. Officers in Georgia and Louisiana believed, though, that improved appearance and training were helpful in obtaining employment. In Illinois, parole officers reported that boot camp graduates tended to follow orders better than regular parolees and were more ambitious in seeking employment and referrals to substance abuse agencies. Parole officers in New York similarly stated that they enjoyed working with young, more enthusiastic offenders. Probation/parole officers, though, were more aware of the sometimes devastating home/community environments to which boot camp graduates returned. As one long-standing parole officer in New York replied: "While they are in the boot camp they are told, 'You are somebody. It's important to us that you do well, that you are fed well, and that you are clothed well'...Then they go back to utter depravity. It's like throwing them down a well."

Changing Offenders: Deterrence and Rehabilitation

As mentioned at the outset, a major program goal was to reduce recidivism by means of rehabilitation or deterrence. In fact, six States listed offender rehabilitation as a goal (Florida, Illinois, Louisiana, New York, Oklahoma, Texas).[4] Specific rehabilitative strategies included teaching accountability or responsibility, developing self-worth or self-esteem, or providing education or substance abuse education or treatment.

At the same time, however, shock incarceration programs were designed to serve as specific deterrents. The majority of programs in the multisite evaluation listed deterrence as a goal of the program (Florida, Georgia, Louisiana, Oklahoma, South Carolina, Texas). Specifically, it was posited that either the difficult nature of the program or the harsh reality of prison life would deter participants from future offending, also reducing recidivism.

Military Basic Training Model

Examination of the program's impact at the individual level begins with an exploration of its core elements—the elements that distinguish it from other correctional options. Rooted in military basic training, these core components include military drill and ceremony, physical training, strict discipline, and physical labor. Is there any value to this regimented military routine in and of itself? Clearly, it is these elements of the program in addition to incarceration itself that are expected to serve as deterrents.

Research on specific deterrence has not been promising, however. For example, researchers have previously reported limited or no deterrent effect as a result of incarceration in a training school.[5] Similarly, research on the Scared Straight program failed to find evidence of a deterrent effect.[6] Realistically, it is unlikely that the boot camp experience will lead to increased perceptions of either the certainty or severity of punishment. Further, in terms of general deterrence, there is no reason to believe that individuals on the street will be deterred by the threat of serving time in a boot camp prison. In fact, interviews with camp participants revealed that prior to arriving at the boot camp, they did not believe that they would have trouble meeting program requirements.

Aside from deterrence, however, the experience of leading a structured, day-to-day routine may have some beneficial by-products. Political support for these programs seems, in part, to be based on the idea that the regimented lifestyle and discipline of the boot camp will be transferred to life on the outside.[7] Completing the highly structured and demanding program is further expected to inspire a sense of accomplishment that may generalize to other activities. This sense of accomplishment is

reinforced in many programs by graduation ceremonies that are attended by family and friends.

Former shock incarceration participants reported that the program helped them to "get free" of drugs and to become physically fit. Other advantages mentioned by offenders included learning to get up early in the morning and being active all day. Thus, the military regimen program appeared to promote physical health by ensuring a drug-free environment, balanced diet, and sufficient exercise.

Contrary to popular opinion, however, it is unlikely that the long hours of hard labor characteristic of shock incarceration will improve work skills or habits. The labor that is often required of shock incarceration participants is largely menial, consisting of picking up trash along highways, cleaning the facility, or maintaining grounds. Researchers have noted that for work programs to be successful (i.e., promote rehabilitation) they must "enhance practical skills, develop interpersonal skills, minimize prisonization, and ensure that work is not punishment alone."[8] Considering the type of work generally required of shock inmates, it appears unlikely that it will be of much value in and of itself.

In short, the basic shock incarceration model may have some merit independent of rehabilitative programming. To summarize, positive by-products attributed to the core elements of shock incarceration alone may include physical fitness, drug-free existence, the experience of structured life-style, and a sense of accomplishment.

Shock Incarceration as a Catalyst for Change

The basic shock incarceration experience is designed to induce stress. Incarceration, too, by its very nature, produces stress. Stress levels peak early during a period of incarceration and gradually taper off.[9] Research has revealed that prison inmates were most receptive to personal change (e.g., self-improvement classes, education, or training) during this period of high emotional stress. Within a period of several months, as stress levels tapered off, however, desire to change did also. Inmates who, for example, had enrolled in self-improvement classes dropped out in favor of institutional jobs. In one study, the researchers concluded that the desire for change was related to the emotional distress experienced at the onset of the prison term. They argued further that treatment programs should begin as early in the prison term as possible to take advantage of the motivation to change.[10]

These research findings may be relevant to shock incarceration. Not only are inmates incarcerated, but they are forced to participate in a physically demanding and stressful program. At the same time, most programs require participation in rehabilitative programming ranging from academic education, to drug treatment, to individual counseling. Generalizing from the findings then, the basic shock incarceration experience may make participants particularly receptive to the rehabilitative programming that is required of them. The program experience may initiate a period of self-evaluation and change.

The implications of this approach are twofold. First, the basic program may function predominantly as a catalyst for change. Therefore, shock incarceration programs that do not also offer rehabilitative programming will have no effect other than those previously discussed. Secondly, if shock incarceration programs by definition function primarily as catalysts due simply to the stress-inducing nature of the program, attention then must shift to the adequacy of rehabilitative programming.

Rehabilitative Programming

Almost 20 years have passed since a researcher, referring to correctional treatment, appeared to

suggest that "nothing works."[11] In response, prominent researchers in the field of corrections reviewed the extant literature on the effectiveness of treatment programs and concluded, on the contrary, that effective treatment existed and that on average appropriate treatment reduced recidivism by 50 percent.[12] The key, of course, was the word "appropriate."

Appropriate treatment was defined as treatment guided by three psychological principles: (1) intensive treatment should be matched with high-risk offenders; (2) treatment should address "criminogenic needs"; and (3) treatment should follow general strategies of effective treatment (e.g., anti-criminal modeling, warm and supportive interpersonal relations) and match type of treatment (e.g., cognitive or behavioral) to individual characteristics.[13] On the other hand, intervention strategies that have generally been found to be ineffective are those that are nondirective, use behavior modification techniques that focus on incorrect targets, and emphasize punishment.[14]

The first principle suggests that more intensive treatment should be reserved for offenders who are considered higher risks. This is because high-risk offenders respond more positively to intensive treatment than do lower risk cases who perform just as well or better in less intensive treatment.[15] Examination of the types of offenders targeted by this study's multisite programs reveals that participants tended to be young, male, first-felony offenders. Many of these offenders were drug-involved as well. Therefore, by virtue of age and gender as well as the fact that many shock incarceration participants are drug-involved and would otherwise serve prison time, they appear to be relatively high-risk offenders.

The second principle requires that treatment programs target the criminogenic needs of offenders. Criminogenic needs are dynamic needs of offenders that when addressed reduce the likelihood of recidivism.[16] Criminogenic needs may vary from individual to individual. Important criminogenic needs include substance abuse treatment, prosocial skill development, interpersonal problem-solving skills, and prosocial sentiment.

By and large, shock incarceration programs attempt to address criminogenic needs. Seven States incorporated substance abuse education/treatment; six States provided job preparedness training; six States included academic education; and four States taught problem-solving or decisionmaking skills. Three States (Illinois, Louisiana, New York) also provided intensive supervision upon release, which extended treatment/education to the community and sometimes provided job training and opportunities.

There are, however, additional program characteristics that may influence the effectiveness of programming. The length of the program itself is one such example. Four of the programs in the multisite evaluation were 90 days long (Florida, Georgia, South Carolina, Texas). Louisiana and Oklahoma ranged from 90 to 180 days; Illinois ranged from 120 to 180 days; and in New York the minimum length of stay was 180 days. It would appear that 6 months of substance abuse treatment and/or education is more likely to have a positive outcome than 3 months. In fact, researchers have reported that length of drug treatment is related to successful outcome.[17] This may be true of other program components as well. Furthermore, programs such as Illinois, Louisiana, and New York that provided intensive supervision upon release as well as continued educational, employment, and treatment opportunities may more effectively address criminogenic needs.

Another important component that may influence programming is the voluntary nature of the program. In some programs participation was completely voluntary (Illinois, Louisiana, New York). Offenders must have volunteered to participate and could drop out of the program at any time. In

others (Florida, Oklahoma, South Carolina "old," Texas), participation was entirely involuntary. Offenders were forced to participate and were not permitted to drop out voluntarily. It has been hypothesized that offenders who volunteer to participate in shock incarceration possess a greater sense of control than those for whom participation is mandatory.[18] A sense of control may consequently lead to higher levels of commitment to the program.

The third principle, responsivity, outlines styles or modes of effective treatment that are components of effective treatment programs. Effective styles of treatment use firm but fair approaches to discipline, anti-criminal modeling, and concrete problem solving.[19] Workers in these programs "relate to offenders in interpersonally warm, flexible, and enthusiastic ways while also being clearly supportive of anti-criminal attitudinal and behavioral patterns."[20] Furthermore, effective programs must be cognizant of the fact that individual characteristics may interact with treatment style or mode of delivery. For example, highly anxious individuals are not as likely to benefit from stressful, interpersonal confrontation as would less anxious individuals.[21]

What is most evident from the media reports and visits to boot camp prisons, though, is confrontation (e.g., drill sergeants screaming at inmates). Although staff and inmates directly involved in the program say the discipline and staff authority is firm and relatively fair, outsiders who view the program and some program dropouts accuse the staff of domination and abusive behavior. Program staff generally attempt to act as anti-criminal models, reinforcing anti-criminal styles of thinking, feeling, and acting. However, few programs hire psychologists or others experienced in behavior modification techniques who are intimately involved in the training of staff.

Discussion

Shock incarceration programs provide a combination of punitive and rehabilitative program elements that are expected (in many programs) to both deter and to rehabilitate. The basic program model contains the more punitive elements including hard work, physical training, and military drill and ceremony. These elements may have some positive value. For example, they may promote physical health, a drug-free environment, and a sense of accomplishment. However, it is unlikely that any of the individual program components will lead to increased discipline, accountability, or improved work habits as frequently hypothesized. Based on previous research on deterrence, it is also unlikely that they will have a deterrent effect.

Rehabilitative programming in shock incarceration programs has received increased emphasis over the years. If the basic military model is viewed primarily as a catalyst for personal change, rehabilitative programming is of great importance because the other benefits of the program are minimal and, most importantly, are not related to recidivism.

Examination of the three guiding principles of effective treatment, however, reveals that shock incarceration programs probably do not maximize their treatment potential. Although rehabilitative programming attempts to target criminogenic needs, the effect of such programming is mediated by the responsivity principle, which stipulates that treatment is most effective when counselors relate to offenders in a warm and supportive manner and provide anti-criminal modeling and problem solving. Thus, although staff may try to provide anti-criminal modeling, the authoritarian atmosphere may not be conducive to effective treatment.

In the following sections, the effectiveness of boot camp programs in changing inmate attitudes, recidivism, and positive activities in the community upon release is examined. For the programs to

be deemed successful, positive changes in attitudes, reduced recidivism, and increased positive activities would be observed. However, since major differences exist among programs, some programs may be successful while others are not. In these cases, differences among programs will be examined to identify characteristics that may be associated with success.

Attitude Change

A frequent assumption that is made regarding incarceration is that the pains of imprisonment will be accompanied by the harms of imprisonment. That is, it is assumed that the pains of imprisonment lead to negative attitudes toward the prison, staff, and programs (i.e., prisonization) and thus prison will have a detrimental impact on offenders.

Inmates are hypothesized to form a "society of captives" characterized by anti-staff attitudes. As a consequence, offenders reject constructive aspects of the prison such as treatment or educational programs that may give them the skills needed to succeed when they return to the community.

An equally destructive influence of incarceration may be the development (or exacerbation) of general antisocial attitudes. Reviews of the evaluation literature indicate a positive association between antisocial attitudes and criminal activities.[22] Most theories of crime also recognize the significance of criminal cognitions or attitudes.[23]

The impact of shock incarceration on inmate attitudes has not yet been fully explored. It has been hypothesized that the boot camp environment with its strict rules, discipline, and regimentation may increase the pains of imprisonment and as a result promote the development of increased antistaff, anti-program, and antisocial attitudes. According to this view, the regimented routine may have a negative impact on participants. Offenders may leave the boot camp prison angry, disillusioned, and more negative than they would have been had they served time in a traditional prison.

On the other hand, the negative effect of the regimented routine may be offset or mediated by the rehabilitative programming required of inmates. As discussed earlier, though, the amount of rehabilitative programming incorporated into the daily routine varied among programs in this study. In New York's, with its emphasis on rehabilitation, inmates may have developed more antisocial or anti-program/staff attitudes. Changes in inmate attitudes, then, may vary as a function of the type of program. Offenders graduating from more treatment-oriented programs may not change at all or may change in a positive direction, while offenders graduating from programs that emphasize work and physical training may develop more negative attitudes over time.

The impact of boot camp prisons on inmate attitudes during incarceration (attitudes toward the program/staff and antisocial attitudes) was assessed in this phase of the evaluation. Six States participated in the study (Florida, Georgia, Louisiana, New York, South Carolina, Texas). The attitudes of offenders serving time in the shock incarceration programs were compared to the attitudes of demographically similar offenders serving time in "traditional" prisons. Attitudes toward the shock incarceration program (or prison) and antisocial attitudes were assessed once after offenders arrived at the boot camp (or prison) and again 3 to 6 months later, depending upon the length of the shock incarceration program. Programs differed on critical dimensions such as the emphasis placed on rehabilitation, the voluntary nature of the program, and program difficulty—dimensions that might be expected to influence attitudinal change.

Methodology

Subjects. A sample of "regular" prison inmates was compared to a sample of shock incarceration

inmates in Florida, Georgia, Louisiana, New York, and South Carolina. While four of these States selected one sample of prisoners as a comparison group, New York selected two samples of prisoners: (1) offenders who refused to enter shock incarceration, and (2) offenders who were legally eligible but were deemed unacceptable at the reception center. Texas did not select a prison comparison sample but instead selected two shock incarceration samples: (1) a sample selected prior to the implementation of the enhanced substance abuse treatment, and (2) a sample selected after the implementation of the treatment program. Researchers in Texas were particularly interested in examining the effect of the enhanced program by comparing it to the earlier shock incarceration program that did not include an enhanced treatment component.

Procedure. Data were collected from institutional records and inmate self-report questionnaires. The inmate self-report questionnaire was administered to both samples once at the beginning of the offenders' period of incarceration and a second time approximately 90 days later (or 180 days later in New York).

Instruments. The self-report questionnaire consisted of two scales: (1) the Jesness Antisocial Attitudes Scale and (2) a program attitudes scale. The Antisocial Attitudes Scale was developed to measure antisocial attitudes, specifically attitudes towards police or authority, level of maturity, and degree of social deviance. The scale has been found to be associated with recidivism and short-term change in behavior.

The second scale consisted of 12 items that measured the degree to which offenders expected their period of incarceration to motivate them to change in a positive manner (e.g, "I am becoming more mature here."), and the belief that the program/prison will help them make positive changes (e.g., "This place will help me learn self-discipline."). Note that the questions were written to apply to either shock incarceration or prison inmates.

Results

Boot camp entrants became more positive about the boot camp experience over the course of the program as measured by the program attitudes scale in Florida, Georgia, Louisiana, New York, and South Carolina (see exhibit 9). In contrast, prison inmates either did not change or developed more negative attitudes toward their prison experience.[24] Since both Texas samples were composed of shock incarceration inmates, both samples became more positive about the program over time. There was no evidence that attitudinal change varied as a function of the type of boot camp.

When antisocial attitudes were measured, there were no differences between boot camp inmates and prison inmates. As shown in exhibit 10, both boot camp inmates and prison inmates became less antisocial during their time in prison.

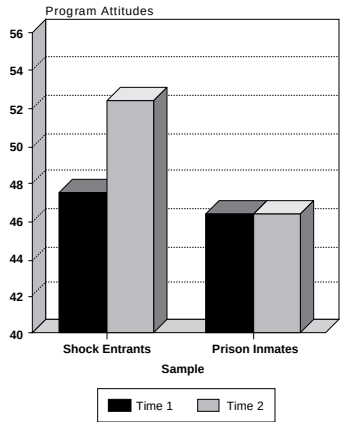
Changes in attitudes may also be related to characteristics of the program, such as the amount of time devoted to rehabilitation versus work and physical training, the number of offenders dismissed from the program, and the voluntary nature of the program. Neither time devoted to rehabilitation nor voluntary exit was significantly related to program attitude difference scores. However, time devoted to rehabilitation, program rigor, and voluntariness appeared to lead to greater reductions in antisocial attitudes.

Discussion

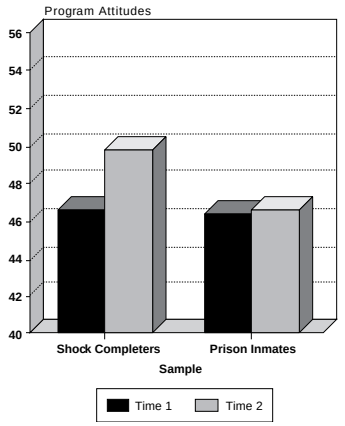
Despite differences among the programs in content and implementation, the results of this study were surprisingly consistent. Boot camp inmates became more positive about the program over time, while offenders serving time in prison did not develop more positive attitudes. Both groups reflected less antisocial attitudes over time. This was true of

Exhibit 9. **Program Attitude Scale Scores at Time 1 and Time 2 by State and Sample**

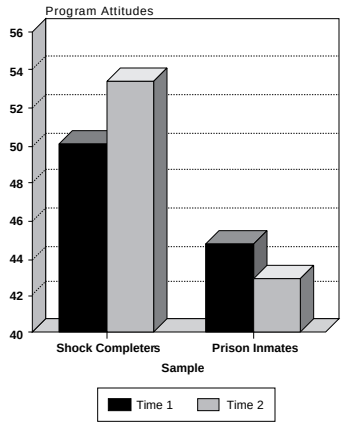
FLORIDA



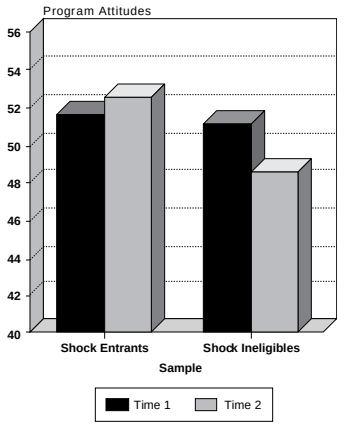
GEORGIA



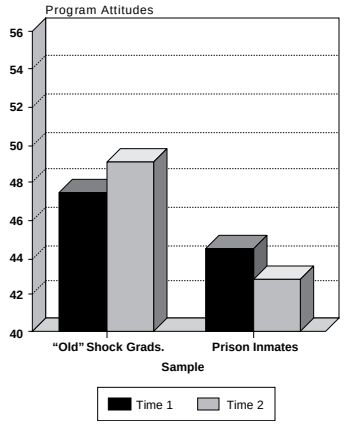
LOUISIANA



NEW YORK



SOUTH CAROLINA



TEXAS

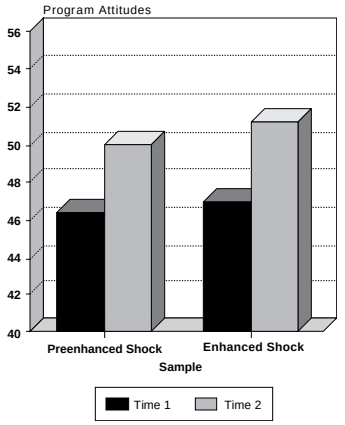
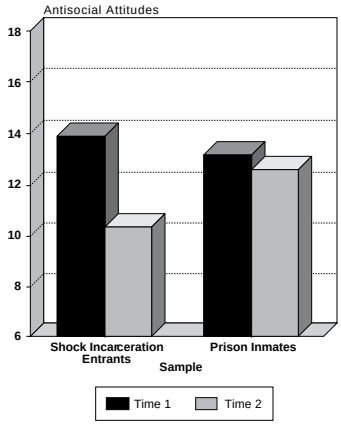
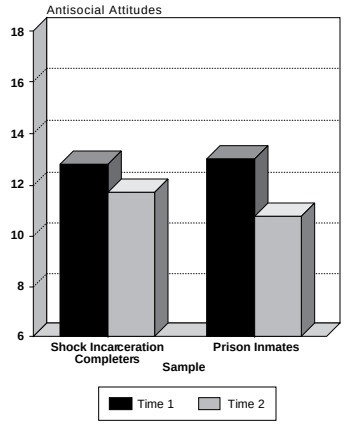


Exhibit 10. **Antisocial Attitude Scale Scores at Time 1 and Time 2 by State and Sample**

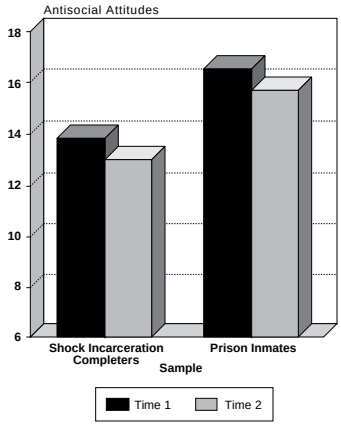
FLORIDA



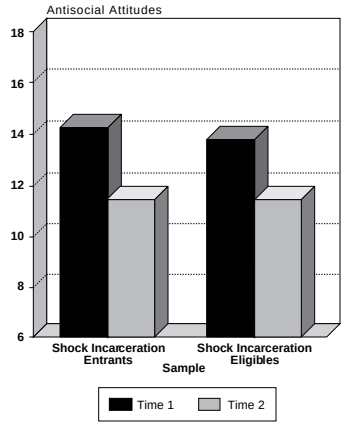
GEORGIA



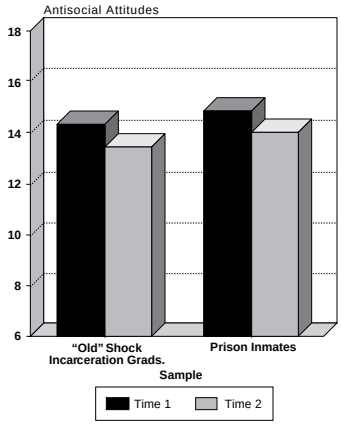
LOUISIANA



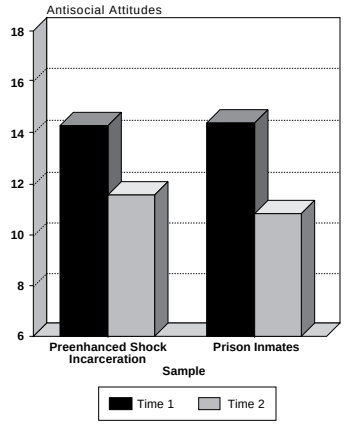
NEW YORK



SOUTH CAROLINA



TEXAS



"enhanced" boot camp programs that emphasized treatment as well as programs that emphasized military training, hard labor, and discipline. However, inmates in the programs that were voluntary, had more rehabilitation, and higher dismissal rates had a greater impact in reducing antisocial attitudes.

Thus, the results did not support the contention that the boot camp experience leads to the development of more negative attitudes. Offenders did not leave the boot camps more alienated or antisocial than the average offender entering prison. In fact, during the boot camp program, they developed more positive attitudes toward the program and their future.

The finding that both boot camp inmates and prison inmates become less antisocial during incarceration supports some current research indicating that prison may have some positive influence on some inmates. However, it is important to remember that these offenders were different from the general prison population. By and large, they were convicted of nonviolent crimes and had less serious criminal histories. In fact, in several States, it is likely that many of the offenders would have received probation if the boot camp had not been in operation. As a consequence, their prison experience may have been very different from that of a more "typical" offender. For example, those relatively low-risk offenders may have had opportunities to enter prison programs or to move to minimum security prison or halfway houses where additional opportunities were available. Such opportunities may have had a positive impact on their attitudes.

Impact on Recidivism

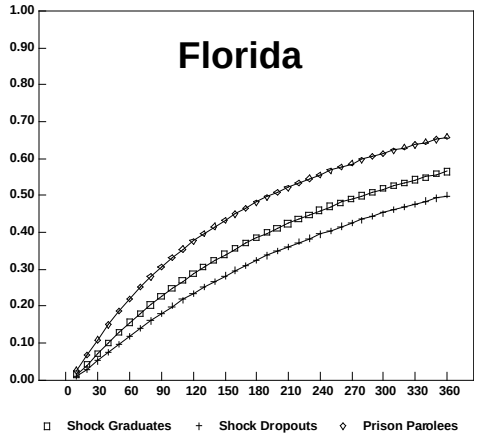
One of the first questions asked about boot camp prisons is "Are they successful?" By successful, many people mean "Do they reduce the criminal activity of offenders subsequent to release?" The simplicity of the question belies the complexity of any research endeavor intended to address it.

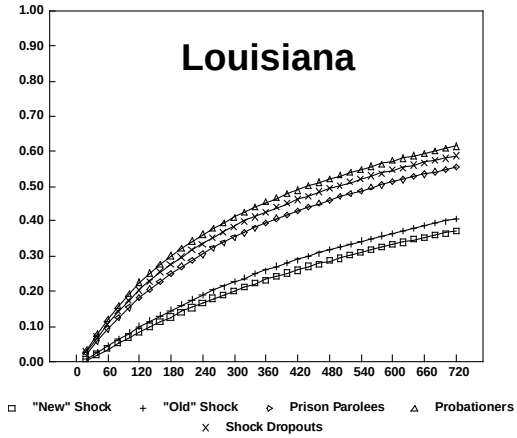
Studies of recidivism require consideration of several important factors. First, any study of recidivism must take into account the length of time offenders have been free in the community to commit crimes. An examination of exhibit 11 shows, for example, that at the end of the first month, less than 10 percent of the samples in each State had been arrested. In contrast, after 12 months of community supervision between 30 and 60 percent of the samples had been arrested. Obviously, time in the community makes a difference in comparing recidivism rates. In this evaluation, offenders were followed in the community for a period of either 1 or 2 years beginning from the first day of community supervision.

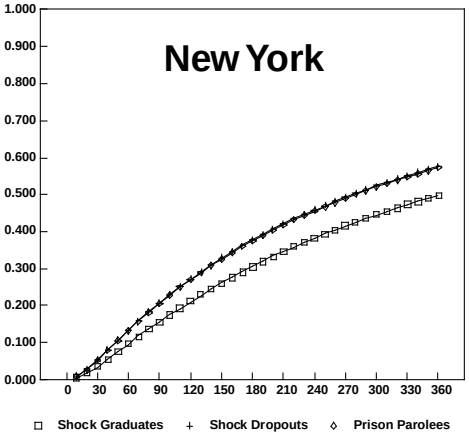
The selection of a particular measure of recidivism is also consequential. Different measures of recidivism are likely to produce different "failure" rates due to the influence of criminal justice system-related factors (e.g., compare exhibits 12 and 13). For this same reason, it is difficult to make comparisons across States even when the same measure of recidivism is used. For example, after 12 months of community supervision, estimates of arrest rates ranged from approximately 23 percent in Louisiana (shock incarceration graduate sample) to a high of 66 percent in Florida (prison parolee sample). In comparison, estimates of new crime revocations ranged from a low of less than 2 percent in South Carolina (shock incarceration graduate sample) to a high of more than 22 percent in Florida (prison releasee sample). Therefore, in this study the following three measures of recidivism were analyzed on a State-by-State basis: (1) arrest, (2) return to prison (revocation) for a new crime, and (3) return to prison (revocation) for a technical violation.

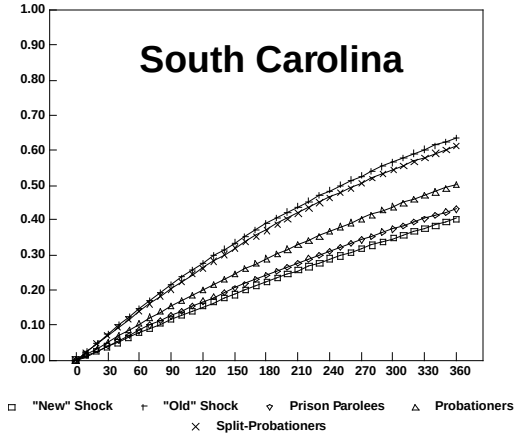
Of singular importance to the research question addressed here, however, is the selection of comparison samples. Most shock incarceration

Exhibit 11. **Estimated Proportion of Offenders Arrested by Number of Days Following Release**









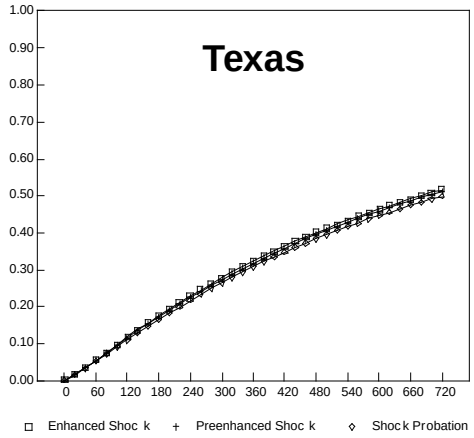
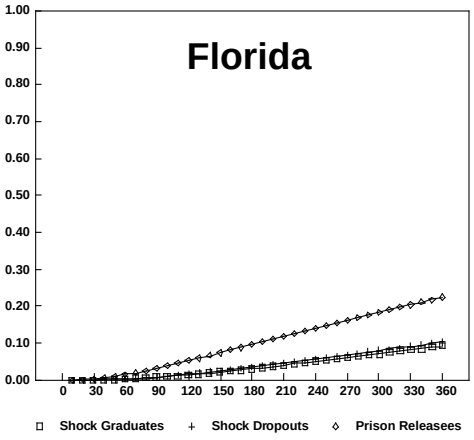
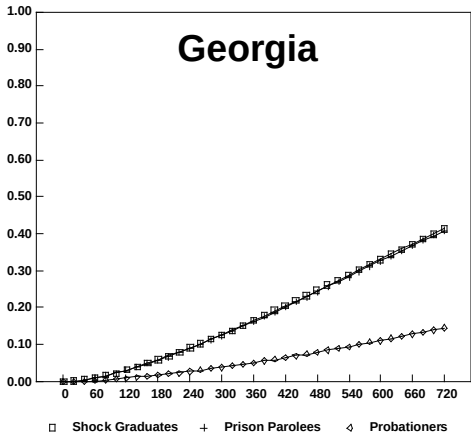
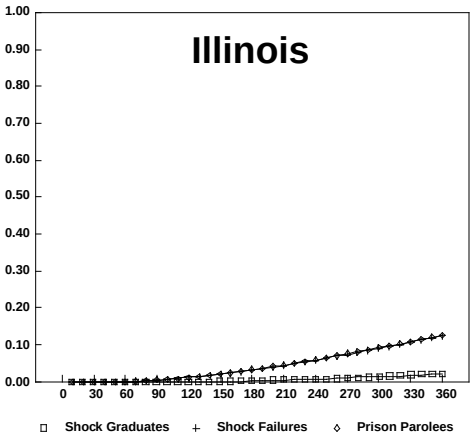
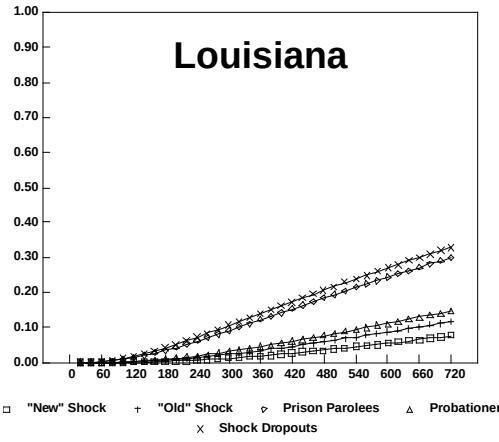


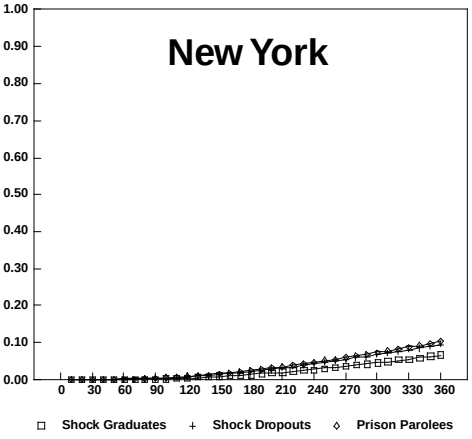
Exhibit 12. **Estimated Proportion of Offenders Revoked for a New Crime by Number of Days Following Release**











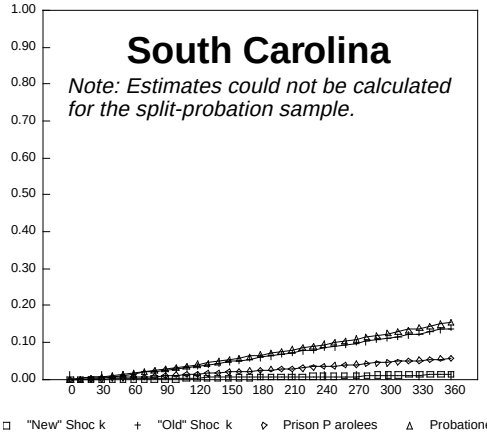
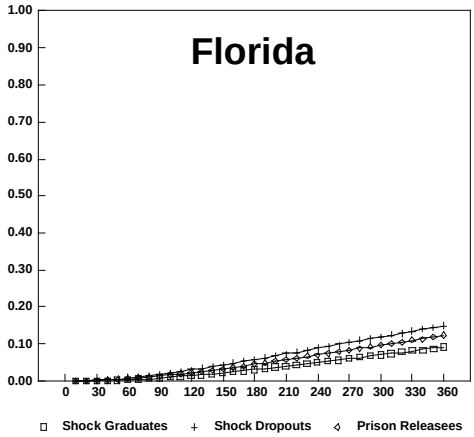
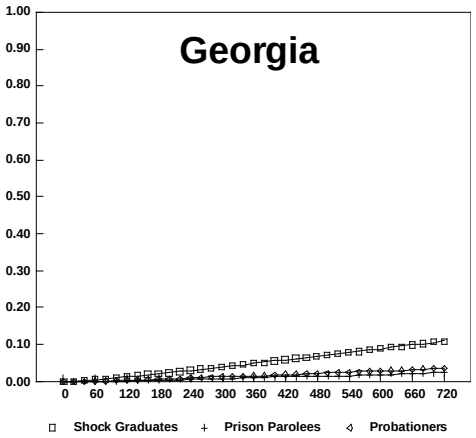
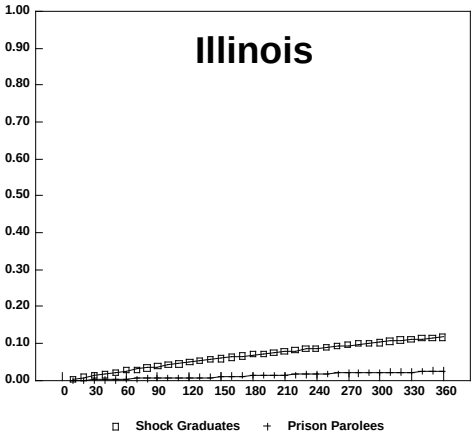
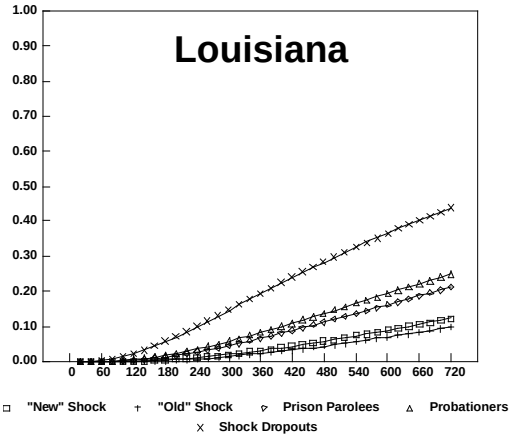


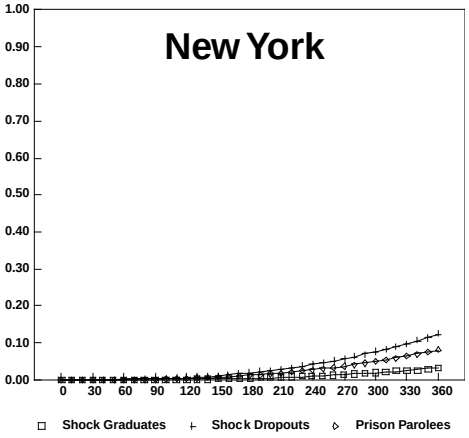
Exhibit 13. **Estimated Proportion of Offenders Revoked for a Technical Violation by Number of Days Following Release**











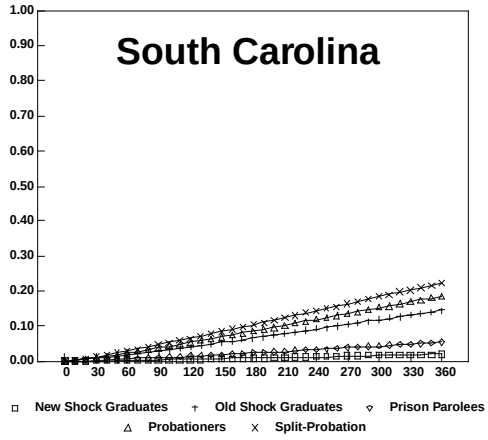
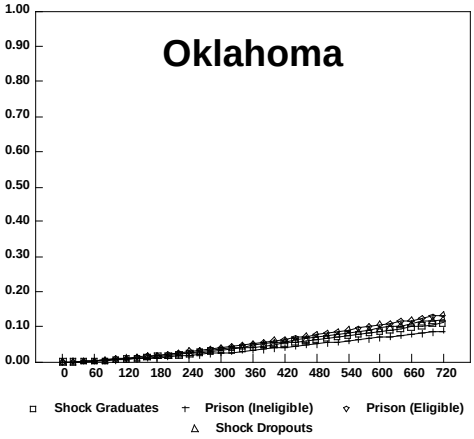
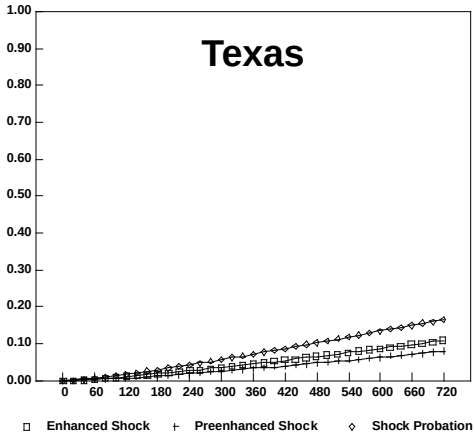


Exhibit 14. **Estimated Proportion of Offenders Revoked for Any Reason by Number of Days Following Release**





participants are convicted of nonviolent crimes and do not have a serious criminal history. Ideally, these shock incarceration participants should be compared to similarly situated offenders—offenders who although they received a different criminal sanction have similar characteristics that can be related to recidivism, such as age or criminal history. In this study, comparison groups were selected to minimize possible sample differences. Comparison groups, for example, had to meet the legal eligibility criteria of the shock incarceration program. Nevertheless, due to lack of random assignment to treatment conditions (boot camp versus some other correctional sanction), the possibility of critical sample differences could not be ruled out. As a consequence, demographic, criminal history, and supervision intensity variables were controlled statistically in the recidivism analyses.

An additional issue related to sample selection was the appropriate treatment of offenders who dropped out or were dismissed from the shock incarceration programs. In four States (Florida, Illinois, Louisiana, New York), the percentage of noncompleters was quite high. In those States, shock incarceration noncompleters were analyzed as separate samples because they generally spent very little time in the shock incarceration programs.

Methodology

Eight programs took part in this portion of the multisite evaluation (Florida, Georgia, Illinois, Louisiana, New York, Oklahoma, South Carolina, and Texas). This section provides an overview of the research design.

Subjects. By and large, performance under community supervision of samples of shock incarceration graduates is compared to performance under community supervision of comparison samples of prison parolees, probationers, and shock incarceration dropouts. Comparison samples were selected to be as similar as possible to shock incarceration samples in terms of demographic, offense-related, and criminal history variables. They were required to meet the legal eligibility criteria of the shock incarceration program. Samples were followed in the community for a period of either 1 or 2 years.

Instruments. Data were collected on demographics (e.g., age and race), offense-related characteristics (e.g., offense type and sentence length), and criminal history (e.g., prior arrests and prior convictions).

Either the Offender Adjustment to Community Supervision instrument or the State department of corrections data base was used to collect recidivism data. The Offender Adjustment to Commu-

Exhibit 15. **Estimated Failure Rates (%) at 12 and 24 Months by State and Treatment Sample Controlling for Age, Race, Criminal History, and Supervision Intensity (when available)[1]**

State and Sample	Arrest	New Crime[2]	Technical Violation
Florida (12 Months)			
Shock Graduates (N=112)	56.5%	9.3%	9.2%
Shock Dropouts (N=68)	50.0%	10.4%	15.0%
Prison Releasees (N=109)	65.8%	22.4%	12.3%
Georgia (12 Months/24 Months)			
Shock Graduates (N=79)	Not Available	16.6%/ 41.4%	5.0%/ 11.0%
Prison Releasees (N=98)		16.3% /40.9%	1.1% / 2.5%
Probationers (N=85)		5.2% /14.6%	1.6% / 3.7%
Illinois (12 Months)			
Shock Graduates (N=98)	Not Available	2.3%	11.8%
Shock Dropouts (N=98)		12.5%	——
Prison Releasees (N=98)		12.7%	2.6%
Louisiana (12 Months/24 Months)			
"New" Shock Graduates (N=117)	23.3% / 37.3%	2.0% / 7.7%	3.1% /12.4%
"Old" Shock Graduates (N=102)	26.0% / 40.6%	3.4% /11.8%	2.3% / 9.9%
Prison Releasees (N=143)	39.4% / 55.5%	12.3% /29.9%	6.6% / 21.2%
Probationers (N=108)	45.6% / 61.6%	4.6% /14.7%	8.3% /24.9%
Shock Dropouts (N=72)	42.8% / 58.9%	14.0% /32.9%	19.4% /43.8%
New York (12 Months)			
Shock Graduates (N=94)	49.5%	6.6%	3.3%
Shock Dropouts (N=97)	57.3%	9.6%	12.4%
Prison Releasees (N=95)	57.0%	10.3%	8.2%
Oklahoma (12 Months/24 Months)			
Shock Graduates (N=210)	Not Available	4.4% /11.3%	
Prison (Ineligible) (N=34)		3.4% / 9.0%	
Prison (Eligible) (N=70)		5.3% /13.6%	
Shock Dropouts (N=31)		4.8% /12.4%	
South Carolina (12 Months)			
"New" Shock Graduates (N=84)	40.3%	1.3%	2.1%
"Old" Shock Graduates (N=85)	63.4%	13.8%	14.5%
Prison Releasees (N=64)	43.2%	5.7%	5.5%
Probationers (N=69)	50.1%	15.4%	18.6%
Split-Probationers (N=24)	61.2%	_____	22.3%
Texas (12 Months/24 Months)			
Enhanced Shock (N=330)	32.2% / 51.7%	4.5% /10.8%	
Preenhanced Shock (N=224)	31.7% / 51.1%	3.3% / 8.0%	
Shock Probationers (N=115)	30.7% / 49.9%	7.2% /16.5%	

[1]Comparing rates across States presents problems due to differences in analyses and in programs.
[2] In Oklahoma and Texas, column refers to revocation for any reason (either new crime or technical violation).

nity Supervision instrument is a 19-item questionnaire that provides information on contacts with the criminal justice system, including whether an offender has been arrested or jailed, has probation or parole supervision status revoked for a new crime or a technical violation, or has absconded. The date of each measure of recidivism is provided as well.

Statistical analyses. Community supervision performance was analyzed using survival time models. Survival time models are unique in that they analyze the length of time until an event occurs (e.g., recidivism), rather than simply whether or not that event took place. Such models have been widely used in the operations research literature (e.g., to investigate time until an electronic piece of equipment fails) and the biostatistical literature.[25] Analyzing "time-to-failure" is generally considered preferable because as a criterion variable it contains valuable information that from a statistical standpoint would be inefficient to ignore.[26] Survival time analysis also considers the fact that the actual number of offenders "at risk" in the community changes over time. Offenders exit caseloads by means other than "failure," e.g., legal release from supervision.

Parametric regression-based models permit the inclusion of explanatory variables, allowing the examination of "time until failure" conditional on the values of these variables. Demographic, criminal history, and supervision intensity variables were added to these models as control variables in each State. The results from these models are reported in this paper. Exhibits 11 through 14 present the results of the analyses. Estimated failure rates are shown in exhibit 15.

Results

Florida. Florida Department of Corrections boot camp program graduates were compared to samples of prison releasees and program "failures" during 1 year of community supervision. Boot camp program "failures" were required to complete their sentence in prison until eligible for parole. Analyses revealed that the boot camp graduate sample did not differ significantly from the comparison samples when arrest rates or revocation rates for a technical violation was examined. Boot camp graduates, though, were less likely than the prison releasees to have had their supervision status revoked as a result of a new crime.

In interpreting the results, however, it is critical to note that the boot camp graduate and failure samples were arrested and revoked at similar rates. Because boot camp failures were generally dismissed during the first 2 weeks of the program, such results suggest the operation of a selection effect. In other words, offenders who were selected for the boot camp program—regardless of whether they graduated—probably differed in some unmeasured way from those who were sentenced to prison. Community supervision performance, then, appears to have been a reflection of these differences and not a function of correctional treatment.

Georgia. New crime and technical revocation rates (arrest data were not available) of graduates from Georgia's boot camp program (called the Special Alternative Incarceration Program) were compared to the rates of prison parolees and probationers over a period of 2 years. (Because of the small percentage of offenders dismissed from the program [less than 10 percent], a sample of program dismissals was not analyzed.) The boot camp graduate and the prison parolee samples did not differ on any measure of recidivism. In comparison to the probation sample, however, the boot camp graduate sample was more likely to have had its community supervision status revoked as a result of a new crime.

Whether the prison or the probation sample served as a better comparison to the boot camp graduate sample is difficult to judge. However, since boot camp graduates were admitted to the boot camp by

means of a judicial order, the probation sample may have been the better comparison sample. Notably, then, the boot camp graduate sample was "outperformed" by the probation sample in the analysis of new crime revocations.

However, it should be emphasized that criminal history and supervision intensity were not controlled in the analysis. In addition, Georgia's program offered almost no rehabilitative or therapeutic programming (e.g., counseling, drug treatment, academic education). The lack of programming may have contributed to a more negative program experience and may therefore explain why boot camp graduates appeared to fare worse during community supervision than probationers.

Illinois. Samples of boot camp graduates, boot camp failures, and prison parolees were compared in Illinois over the course of 1 year of community supervision. The boot camp graduate sample was intensively supervised for 6 months. Three months of electronic monitoring followed by 3 months of intensive supervision was mandatory. The two comparison samples were not intensively supervised. Supervision intensity was not controlled in the analyses. Measures of recidivism included revocation as a result of a new crime and revocation as a result of a technical violation. Analyses revealed that the shock incarceration graduate sample was significantly more likely to have had their supervision status revoked as a result of a technical violation than both comparison samples, but significantly less likely to have had their supervision status revoked as a result of a new crime.

Louisiana. The community supervision performance of two samples of graduates from Louisiana's boot camp program, called IMPACT (Intensive Motivational Program of Alternative Correctional Treatment) was compared with the performance of samples of probationers, prison parolees, and shock incarceration dropouts during 2 years of community supervision. Two samples of shock incarceration graduates were evaluated to examine the impact of changes in the admission criteria used to select program participants. The "old" and "new" boot camp graduate samples did not differ on any measure of recidivism. In general, the boot camp graduate samples ("old" and "new") had more technical revocations than the prison and probation samples and fewer new crime revocations than the prison sample.

When an attempt was made to control for supervision intensity, the results changed dramatically. Once supervision intensity was controlled, boot camp graduates had fewer arrests than the parolee, probation, and dropout samples. They also had fewer new crime revocations than the parole and shock incarceration dropout samples and fewer technical revocations than the shock incarceration dropout sample. However, due to the difficulty involved in statistically controlling for supervision intensity, these results should be interpreted very cautiously.

New York. Recidivism rates of New York shock incarceration graduates were compared to those of offenders who had dropped out of the program and to prison parolees. In New York, revocations do not necessarily result in a return to prison. Only revocations that resulted in a return to prison were considered here. In brief, the shock incarceration graduate sample did not differ from either comparison sample in the analysis of arrests or returns to prison as a result of a new crime during 1 year of community supervision. The shock incarceration graduate sample was less likely to be returned to prison for a technical violation, however. This result is somewhat surprising given the fact that the shock incarceration graduate sample was intensively supervised during community supervision and the comparison samples were not. Prior research indicates that more intense supervision is frequently associated with higher rates of revocation due to technical violations (data were not

available on supervision intensity). However, the shock incarceration graduate sample in New York also received greater aftercare opportunities (e.g., vocational programs, substance abuse treatment, and counseling) as part of the community supervision phase of the program, perhaps facilitating their adjustment during community supervision.

Oklahoma. Offenders who graduated from Oklahoma's Regimented Inmate Discipline (RID) Program were compared to the following three samples of offenders: (1) shock incarceration dropouts, (2) parolees who were ineligible for the shock incarceration program, and (3) parolees who had been judged eligible for the shock incarceration program but had not been admitted due to lack of bedspace at the time of sentencing. The recidivism rate of the shock incarceration graduate sample did not differ significantly from the rates of any of the comparison samples as measured by any revocation (arrest data were unavailable).

South Carolina. Two samples of shock incarceration program graduates were compared to probationers, parolees, and split probationers in South Carolina over a period of 1 year. One shock incarceration graduate sample ("old") was selected when shock incarceration participants were screened and referred to the program by the South Carolina Department of Probation, Parole, and Pardon Services (SCDPPS). The other shock incarceration graduate sample ("new") was selected after responsibility for screening offenders for the program shifted to the South Carolina Department of Corrections (DOC). The new shock incarceration sample members had been sentenced to prison and were subsequently sent to the program by the DOC as an alternative to prison.

In general, the new shock incarceration graduate and prison samples had lower recidivism rates than the old shock incarceration graduate, the split-probation, and probation samples. The new shock incarceration graduates were less likely than the old shock incarceration graduates to be arrested or revoked for either a new crime or a technical violation. They were also less likely than the split probationers and probationers to have had their supervision status revoked. The new shock incarceration graduate and prison samples did not differ significantly on any measure of recidivism. The old shock incarceration graduate and probation samples also did not differ significantly.

Thus, the old shock incarceration graduate sample—the sample most likely to have been selected from a pool of probation-bound offenders—performed most similarly to the probation-based samples. Further, the new shock incarceration graduate sample—the sample most likely to have been selected from a pool of prison-bound offenders—performed most similarly to the prison sample. Differences among samples therefore cannot be attributed to the effect of the shock incarceration program.

Texas. A sample of releasees from the Texas Special Alternative Incarceration Program (SAIP) who had participated in the program prior to the implementation of an enhanced drug treatment program ("preenhanced" shock) was compared to a sample of SAIP releasees who had access to the drug treatment program ("enhanced" shock) and a sample of boot camp probationers. Samples did not differ significantly on any measure of recidivism.

Discussion

The impact of boot camp programs on offender recidivism is at best negligible. In Texas and Oklahoma, for example, there were no significant differences between boot camp releasees and comparison samples on any measure of recidivism. In Georgia, boot camp graduates were more likely to have had their supervision status revoked for the commission of a new crime than the probation comparison sample. The boot camp graduate sample, however, did not differ significantly from the prison comparison sample.

In Florida and South Carolina, differences among samples appeared to stem from preexisting differences in the characteristics of boot camp participants and comparison sample members that were related to recidivism. In Florida, the similarity in recidivism rates of boot camp graduates and failures (who spent only a very short period of time in the boot camp), for example, provides strong evidence of such a selection effect. Furthermore, in South Carolina, the sample of boot camp graduates most likely to have been selected from a pool of probation-bound offenders performed most similarly to the probation-based comparison samples. However, the boot camp graduate sample most likely to have been selected from a pool of prison-bound offenders performed most similarly to a comparison sample of prison inmates. Thus, in five of the eight boot camp programs evaluated, the boot camp program did not have a positive impact on offender recidivism.

In Illinois, Louisiana, and New York, there is some evidence—though not unambiguous—that boot camp graduates may have had lower rates of recidivism on some, but not all, measures of recidivism. In Illinois and Louisiana, boot camp graduates had fewer new crime revocations than prison parolees, but more technical revocations. The increased rate of revocations as a result of a technical violation may have been due to the fact that boot camp graduates were intensively supervised upon release (including 3 months of electronic monitoring in Illinois). Supervision intensity does not necessarily explain the lower rate of new crime revocations, although intensive supervision may delay the onset of new crime revocations. The Illinois Department of Corrections reports, for example, that the new crime revocation rate of boot camp graduates increased considerably during the second year of community supervision.[27]

New York boot camp graduates were less likely to be returned to prison as a result of a technical violation. No differences existed among samples in recidivism when arrests or returns to prison for new crimes were examined. Individual-level data on the level of supervision intensity were not available in New York. It is known, though, that program graduates were intensively supervised for 6 months upon release and were involved in an aftercare program. The reduced rate of returns to prison for technical violations may have been a result of the enhanced aftercare phase of the program.

In any case, Illinois, Louisiana, and New York were the only States in which any evidence was found that the boot camp program reduced recidivism. In New York, the reduction in recidivism was limited to technical violations. In Illinois and Louisiana, graduates were more likely to be revoked as a result of a technical violation but less likely to be revoked as a result of a new crime. These three programs also stand out as the only three programs that instituted an intensive supervision phase of the program. Importantly, in all three programs, the possibility that these differences stemmed from the intensive community supervision phase and not the in-prison phase of the boot camp program cannot be ruled out. In other words, it is very likely that differences in recidivism rates were due to the type of community supervision and not the in-prison phase of the program.

In sum, although there were significant sample differences that appeared to favor the boot camp graduate sample on some measures of recidivism, it cannot be concluded that their superior performance during community supervision was due to the effect of the in-prison phase of the program. Supervision intensity appeared to be a confounding factor, making it difficult to draw definitive conclusions.

Some critics of boot camp prisons have suggested that boot camp graduates may “go wild” in the community once they are free from the rigid structure and rules of the program. The evidence

from this multisite study does not support this assertion with the possible exception of Georgia. In Georgia, boot camp graduates were more likely to have their supervision status revoked for a new crime than a comparison group of probationers. On balance, however, boot camp graduates performed as well as similarly situated offenders who had served time in prison or had been placed on probation.

Georgia's program may be distinguished from programs such as the ones developed in New York, Louisiana, and Illinois by the amount of time devoted to therapeutic programming. Boot camp participants in Georgia received very little treatment while they were in the boot camp perhaps explaining their increased rate of recidivism when compared to probationers. The program experience may have had a negative effect. Offenders in New York, Louisiana, and Illinois spent at least 3 hours per day involved in treatment-related activities. This may explain why they did better than the comparison groups on some measures of recidivism. While clearly speculative at this point, the hypothesis fails to explain why the enhanced drug treatment program in Texas appeared to have no effect on offender recidivism. Oklahoma's program, too, devoted a considerable amount of time to rehabilitative programming with no demonstrable effect on recidivism. It should be noted again, however, that both Texas' and Oklahoma's programs had not instituted intensive community supervision phases.

Thus, after careful examination of the results, there is very little evidence that the shock incarceration experience leads to a reduction in offender recidivism. The results suggest, however, that offenders who are released from shock incarceration programs appear to perform just as well as those who serve longer prison terms. A longer term of incarceration does not serve as an additional deterrent. Furthermore, the estimated rates of new crime revocations of boot camp graduates controlling for demographic, criminal history, and supervision intensity variables were relatively low (ranging from 1.3 to 22 percent) in 1 year. Thus, they may be appropriate candidates for early release from prison.

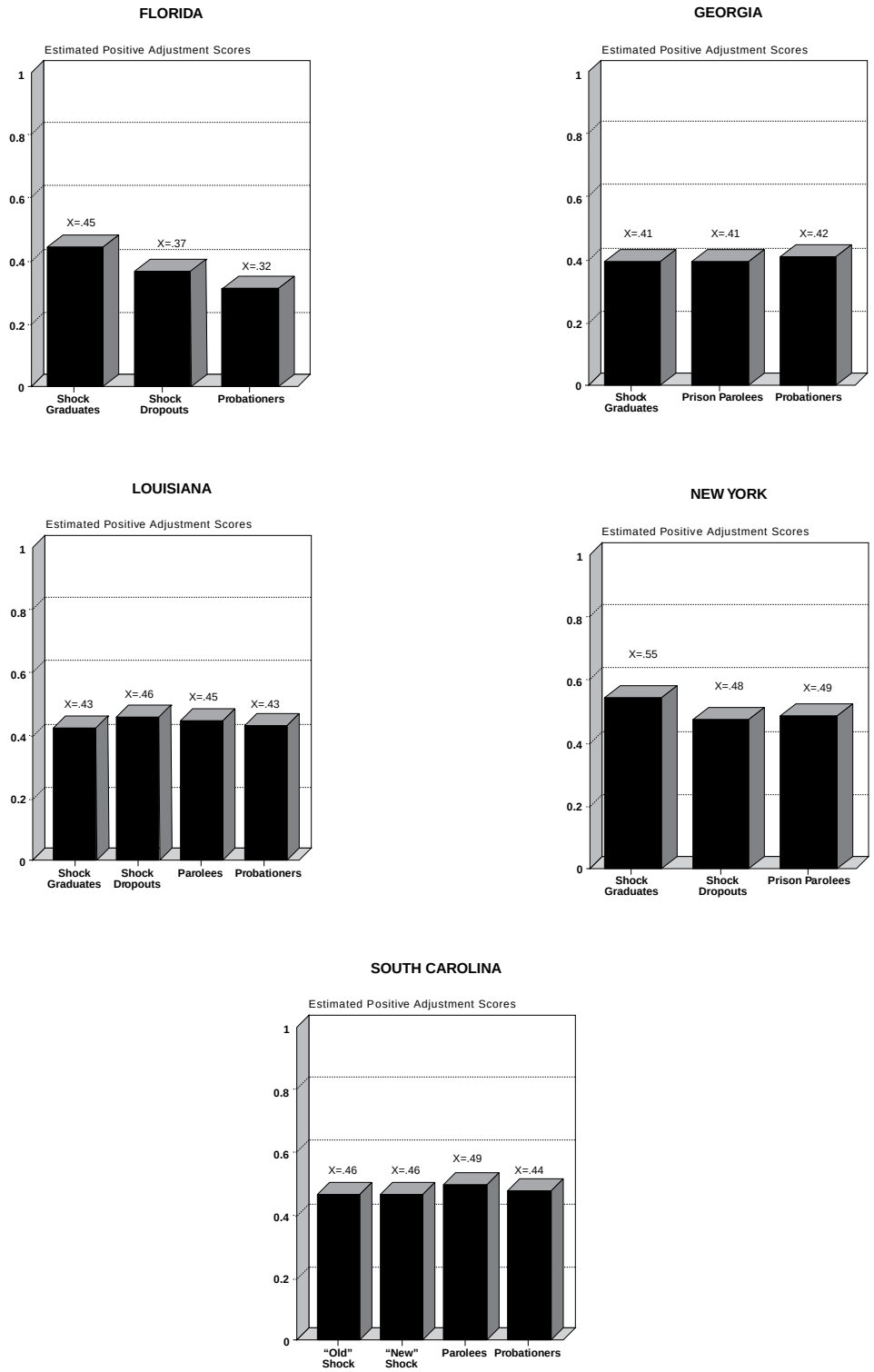
Future studies of recidivism must employ random assignment to either a shock incarceration program or a control group. In addition, evaluation efforts would greatly improve if treatment and control groups receive equal levels of supervision upon release to the community. Shock incarceration programs are still experimental. It would be irresponsible to continue placing offenders (particularly juveniles) in such programs without more carefully monitoring their effect at both the individual- and system-level. If success is measured in terms of recidivism alone, there is little evidence that the in-prison phase of boot camp programs have been successful.

Positive Activities During Community Supervision

One of the presumed advantages of shock incarceration programs is that they engender a heightened sense of personal responsibility, accountability, confidence, and self-discipline. As a result, the programs are posited to increase the capability of offenders to adjust successfully to the day-to-day requirements of community living. This aspect of the study examined community adjustment of boot camp prison graduates in five States (Florida, Georgia, Louisiana, New York, South Carolina).

Community adjustment was measured in terms of success in pursuing employment, education, residential and financial stability, and treatment.[28] Supervising probation or parole agents were asked to respond to a 10-item index at 3-month intervals during 1 year of community supervision.

Exhibit 16. **Estimated Positive Adjustment Scores by Sample and State**



Note: Scores are adjusted for sample differences on measured variables. In Florida, shock graduates were significantly different from both shock dropouts and prison releasees ($p<.05$). In New York, shock graduates differed from shock dropouts ($p<.09$). Supervision intensity was not controlled in New York.

Methodology

Subjects. The community adjustment of male boot camp program graduates was compared to the adjustment of prison parolees, probationers, and boot camp program dropouts. The comparison samples met the legal eligibility requirements of the boot camp program in the respective State. Offenders were not randomly assigned to correctional sanction.

Procedure. Subjects were followed during community supervision for a maximum of 12 months. Due to revocation of supervision status or legal release, however, some offenders did not complete the full 12-month followup period.

Index. The 10-item index required probation and parole agents to indicate whether during the previous 3-month period the offender met the following conditions:

- Employment or enrollment in school.
- Continued employment or participation in educational or vocational programs for more than a 3-month period.
- Participation in self-improvement programs (e.g., educational, counseling).
- Attainment of financial stability.
- Satisfactory progression in following the requirements of supervision
- Attainment of upward mobility in employment, education, or training.
- Attainment of stability in residency and employment.
- Avoidance of critical incidents that showed instability or immaturity.
- Demonstration of an inability to solve problems.
- Avoidance of involvement in illegal activities.

Responses were summed and averaged over the 1-year period. Scores ranged from 0 to 1. A score of 1 indicated that the offender was adjusting perfectly to community supervision as measured by the index.

In three States (Florida, Georgia, South Carolina), a measure of supervision intensity was also available. Probation/parole agents reported the number of offender contacts during community supervision on a monthly basis. The average number of contacts was used as an indicator of supervision intensity.

Results

The results of the analyses are shown in exhibit 16. In Georgia, Louisiana, and South Carolina, there were no differences between the shock incarceration graduate samples and the comparison samples. The shock incarceration graduate sample, however, outperformed both the prison parolee and the shock incarceration dropout samples in Florida. In New York, the shock incarceration graduate sample adjusted marginally better than the shock incarceration dropout sample, but not better than the prison parolee sample. In general, offenders who were younger, nonwhite, serving a sentence for a property offense, and who had a criminal history adjusted less well during community supervision.

Analyses examining changes over time indicated that both positive adjustment and supervision intensity tended to decline slightly over time during the 1-year period of community supervision. In addition, offenders who were supervised more intensely adjusted more positively than offenders who were supervised at lower levels of intensity. However, the effect of supervision intensity on positive adjustment leveled off at about two contacts per month. Increases in supervision intensity beyond two contacts per month failed to lead to significant increases in positive adjustment until contacts reached extremely high levels (e.g., 15 to 20 monthly contacts).

Summary of Positive Adjustment Study

Shock incarceration graduates did not adjust more positively to community supervision as is commonly hypothesized. The adjustment to community supervision of boot camp graduates did not differ from comparison samples of offenders with the exception of graduates in Florida. Demographic and offense-related characteristics as well as criminal history were important determinants of positive adjustment in each of the States. Supervision intensity was also a key predictor of positive adjustment, suggesting that intensive supervision may serve to coerce participation in positive activities.

The boot camp graduate sample in Florida adjusted significantly more positively to community supervision than both the shock incarceration dropout and prison parolee samples. How did Florida's program differ from the programs in the other States to produce this result? Certainly more information is needed to address this question adequately, so the researchers can only speculate.

Perhaps, for example, Florida's shock incarceration program uniquely equipped its graduates with the skills, abilities, and motivation to perform well during community supervision. Florida's program, however, did not incorporate as much treatment or counseling as the programs developed in Louisiana or New York, although it did devote more time to such programming than did Georgia. Thus, although Florida's program did not stand out in terms of time devoted to rehabilitative programming, the content of its rehabilitative programming may have distinguished it from the other programs. This is an issue that should be investigated in greater depth.

Alternatively, the relatively high termination rate characteristic of Florida's program may explain the superior performance of the shock incarceration graduate sample. Over the course of 3 years, for example, approximately 50 percent of its participants were dismissed for disciplinary, medical, or emotional difficulties. This rate was substantially higher than the dismissal rates observed in other States. Thus, participants who succeeded in the in-prison phase of the program may have adjusted more positively to community supervision for the same reasons that they successfully graduated from the program.

In the other States, the evidence did not support the hypothesis that the shock incarceration program participants adjusted more positively than comparison samples. However, the effect of supervision intensity was less ambiguous. In the three States with measures of supervision intensity, positive adjustment increased as supervision intensity increased. Thus, more contact between offenders and correctional officials appeared to lead to more successful adjustment during community supervision. This result is consistent with what has been observed in other studies and suggests that supervision intensity may be a key factor in coercing offenders to participate in positive activities during community supervision.

Reducing Prison Crowding

The use of boot camp prisons as a means of reducing prison crowding requires careful attention to program design. For a program to save prison bedspace and consequently reduce crowding, the sentence length of a sufficiently large number of prison-bound offenders must be reduced. In other words, offenders who complete the program must serve less time in the boot camp than they would have otherwise served in a conventional prison.

For example, an offender who receives a 6-year sentence might be eligible for parole after serving one-half of the sentence (i.e., 3 years). With additional "time-off" for good behavior, he or she might be paroled from prison after serving 2 years. In contrast, an offender sent to the boot camp with the same 6-year sentence would become eligible

for parole after completing the 3-month boot camp program. In the former case, a prison bed would have been needed for 24 months, while in the latter case, the bed would have been needed for only 3 months—a savings of 21 months. Used in this manner, boot camp prisons function as an early release mechanism.

It has also been hypothesized that prison crowding can be alleviated by reducing the recidivism rate of boot camp graduates. A reduction in recidivism translates into fewer offenders being rearrested, convicted, and returned to prison. As a consequence, it is expected that the demand for prison beds will be reduced. Recidivism reduction is posited to occur as a result of either deterrence or rehabilitation. This premise is investigated in the following bedspace analysis.

Entry Decisionmaking

To successfully reduce crowding, programs must first target prison-bound offenders—offenders who would have otherwise served time in prison had the boot camp program not existed. Boot camp offenders are generally drawn from either a pool of probation-bound or prison-bound offenders. Selecting offenders from a pool of probation-bound offenders would widen the net by increasing the number of imprisoned offenders. Instead of alleviating prison crowding, the program would serve only to exacerbate it.

The entry decisionmaking process adopted by a program is critical to the selection of prison-bound offenders. The programs in Georgia and New York (see page number 6) illustrate the two primary ways offenders were selected for participation. In general, responsibility for program selection rested primarily with either the sentencing judge or the department of corrections (although some States used a combination of decisionmakers).

In Georgia (as well as in Texas and South Carolina "old"), the sentencing judge assumed primary decisionmaking power. In other States such as New York, offenders were first sentenced to the department of corrections and then selected for participation in the program by department officials (e.g., Florida, Illinois, Louisiana). In Florida and New York (for offenders 26 years of age and older), the sentencing judge had to approve the department of correction's decision. In two States (Oklahoma and South Carolina "new"), both judge-based and department of corrections-based methods had been put into practice.

When the sentencing judge has control over placement decisions, it is more likely that the program will be used as an alternative to probation rather than to prison because judges often search for a sanction that falls somewhere in severity between probation and prison.[29] While this may not be an unreasonable use of the program, it will have the undesirable side effect of "widening-the-net," rather than shrinking it. By empowering the department of corrections to make placement decisions, the probability of selecting offenders who would have otherwise served time in prison is maximized. States (such as New York) that rely on the latter method of selecting offenders for participation will be more likely to alleviate prison crowding, consistent with their stated goals.

South Carolina provides the best example of the crucial link between program design and program goals. As originally implemented in 1987, placement into the program was solely the responsibility of the court. Evaluation of the program revealed, however, that during its first several years of operation an estimated 10 percent of the offenders placed in the program were actually diverted from serving time in prison. During its second year of operation, approximately 36.7 percent were diverted. The original legislation was then repealed and replaced with legislation that empowered the department of corrections (in addition to the judiciary) to select boot camp participants. The

expressed purpose of the legislation was to maximize the ability of the program to reduce prison crowding.

Eligibility and Suitability Criteria

Differences in the legal eligibility criteria and suitability criteria affect the ability of a program to reduce crowding. To influence prison crowding, a sufficiently large number of offenders must successfully graduate from the program. Many boot camp programs have established fairly rigid eligibility criteria that place restrictions on the type of offender considered "acceptable" for the program. As shown in exhibit 5, program participation has generally been limited to young offenders. As in Georgia, the maximum limit was either 24 or 25 years of age in Florida, Oklahoma, South Carolina, and Texas. In New York, however, the maximum age limit extended to 29, thereby increasing the pool of eligible offenders.

Eligibility criteria further restricted participation to offenders who did not have a serious criminal history. With the exception of Oklahoma, all States permitted only those offenders who were serving their first term of incarceration to participate (see exhibit 6). Georgia and Florida further required that offenders had no prior felony convictions. New York as well as Louisiana and Texas did not permit offenders with a history of violent or assaultive behavior to participate in the program.

Offense type is also pertinent to the placement decision. Three States (Oklahoma, New York, South Carolina) restricted participation to offenders convicted of nonviolent offenses only (see exhibit 7). States such as Florida and Illinois allowed offenders convicted of violent offenses to participate with some restrictions (e.g., no capital or life felony). In four States (Florida, Georgia, Illinois, and Louisiana), sentence length must have been less than between 5 and 7 years (see exhibit 7). Some States further required that offenders be eligible for probation or parole (Georgia, Louisiana, New York, Texas).

The implications of restrictive eligibility and suitability criteria are twofold. First, to affect crowding a sufficient number of offenders must graduate from the program. If eligibility criteria prove too restrictive, program beds may simply not be filled because not enough offenders are deemed eligible to participate. In addition, eligible offenders are likely to have shorter sentences and may therefore refuse to participate in the program. Given the difficulty of completing the boot camp program compared to serving a short sentence in prison, such a rational decision is not surprising.

Secondly, eligibility and suitability criteria generally limit participation to young, nonserious offenders convicted of nonviolent offenses—the type of offender most likely to have otherwise been sentenced to probation. Targeting this type of offender, then, would seem to increase the likelihood of selecting participants from a pool of probation-bound offenders, rather than prison-bound offenders (particularly when the sentencing judge possesses primary entry decisionmaking responsibility).

Program Length

Program length also affects the ability of the program to reduce prison crowding. Remember, to reduce crowding a sufficiently large number of offenders must serve less time in the boot camp than they would have otherwise served in prison. As discussed, program length varies (see exhibit 8). New York's program, for example, is twice as long as Georgia's (180 days as compared to 90 days). Program length can affect prison crowding in two ways. First, it influences the sheer number of individuals who could have served a reduced sentence as a result of the program. Holding all other program characteristics constant (including number of beds), for example, two times as many

offenders could have graduated from Georgia's program during a 1-year period than from New York's.

Secondly, program length is related to the net reduction in time served. For example, an offender who completes Georgia's boot camp program instead of serving a 1-year prison sentence, reduces time served by 9 months. An offender in New York with the same 1-year prison sentence, reduces time served by 6 months. Clearly, the net reduction in time served will have a significant impact on prison crowding. Reducing time served by 1 or 2 months will, however, have a negligible impact on prison crowding.

Program Size

Program size varies tremendously (see exhibit 8). New York's program capacity, for example, was considerably larger than Georgia's at the time of data collection (1,500 beds as compared to 250 beds). Program size obviously affects the number of offenders graduating from the program.

Differences in program size though may offset differences in program length. Once again, consider the programs developed in Georgia and New York. In Georgia, the maximum number of offenders who could have graduated from the program during 1 calendar year (given that the program was operating at capacity and the graduation rate was 100 percent) would have been 1,000 offenders. Under the same conditions, 3,000 offenders would have graduated from New York's program during the same time period. Program size is therefore clearly influential. Small programs will have trouble making a dent in the larger correctional system.

Graduation Rates

The discussion thus far has assumed that all offenders who enter the programs graduate. Recall, for example, that the graduation rate in Georgia was considerably higher than the graduation rate in New York (91 percent as compared to 64 percent; see exhibit 8). In both programs, offenders who failed to graduate from the program were returned to the general prison population to serve the remainder of their sentence. Thus, to reduce time served, offenders must graduate from the program. Graduation rates appeared to be higher in the programs in which the sentencing judge possessed authority over entry decisionmaking (e.g., Georgia and South Carolina "old"), rather than the department of corrections (e.g., Florida, Louisiana, and New York).

Considering program length, program size, and graduation rates concurrently, the actual number of offenders who graduated from Georgia's and New York's programs were 849 (during calendar year 1989) and 1,907 (during calendar year 1990), respectively. Thus, despite the fact that New York's program was six times larger, only slightly more than two times as many offenders graduated from its program than from Georgia's.

Discussion

Program design is critical to the successful reduction of prison crowding. Entry decisionmaking is perhaps the most important consideration. Programs that rely on a department of corrections-based selection process are more likely to influence prison crowding. Programs that select probation-bound offenders will widen the net and increase costs.

Eligibility and suitability criteria limit the number of offenders graduating from the program and influence the selection of probation-bound offenders rather than prison-bound offenders. Targeting more serious offenders with longer sentences increases the probability that they would have otherwise served time in prison had the program not existed. Program size, program length, and graduation rates are factors that affect the number of offenders who could have served reduced

sentences as a result of the program. Program length also affects the net reduction in time served. To maximize prison bedspace savings, each factor must be taken into account. Models examining the actual impact of the boot camp programs on prison crowding in five States are discussed in the next section.

Estimating Prison Bedspace Savings

This phase of the study examined the impact of five boot camp programs on prison bedspace needs. The impact of boot camp programs on prison crowding was assessed using models that yielded estimates of bedspace savings or losses attributable to the program.[30] The model estimated the number of beds saved or lost taking the following factors into consideration: program capacity, duration of imprisonment, recidivism rates, and dismissal rates. The models were run using different estimates of the percentage of offenders who would have otherwise served time in prison had the program not existed (e.g., 0, 25, 50, 75, 100 percent). Program characteristics were also examined to determine whether the programs were being used as an alternative to prison or to probation.

The model estimated the total person-months of confinement saved by determining the difference between the average prison term and the average shock incarceration duration. That difference was then multiplied by the program capacity (or the actual number of offenders admitted in 1 year). The initial months saved were then discounted by the probability that the persons would not have been confined (they would have been on probation) and the time served by those who dropped out (voluntarily dropped out), washed out (dismissed for discipline reasons), or had their supervision status revoked. The model calculated the impact of the program on prison bedspace and on person-months of confinement.

Results

Variations of the model were run to explore how changes in program characteristics would influence prison bedspace needs. For example, models were run using different estimates of recidivism rates, dismissal rates, rates of parolee revocations, and changes in the number of entrants. Exhibit 18 shows estimates of the model using data from each State program. As the chart illustrates, New York's program—the program with the largest capacity—had the greatest potential impact on the larger correctional system. Depending on the percentage of prison-bound offenders admitted, the program could either substantially increase or decrease the need for prison beds. This model predicted somewhat greater bedspace savings if 75 percent to 100 percent of the offenders would have been imprisoned. Exhibit 19 illustrates what would happen if the recidivism rates of boot camp graduates were reduced by 50 percent. A comparison of exhibits 18 and 19 reveals that recidivism reduction had little overall effect on the model.

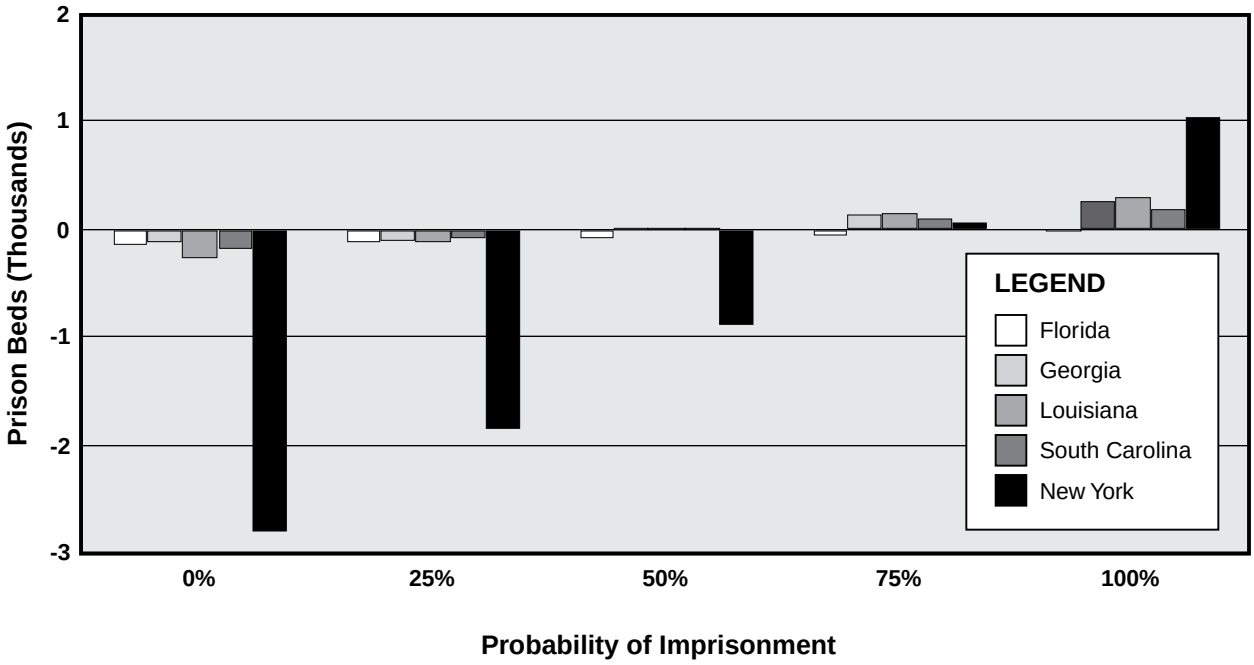
Florida, Louisiana, and New York. Based on a review of the entry decisionmaking process adopted by each State and an examination of program characteristics, in Florida, Louisiana, and New York it was most likely that 75 to 100 percent of the boot camp entrants would have otherwise served time in prison. In each State, boot camp entrants had been sentenced to prison. Furthermore, offenders judged ineligible or unsuitable or offenders who dropped out of the program completed their sentence in a traditional prison. While some offenders may have plea bargained or were sent to prison by the judge because there was a boot camp, this was likely not true in the vast majority of cases.

Exhibit 18. **Average Duration of Imprisonment in Five Shock Incarceration Programs**

	Average Duration of Imprisonment (In Months)				
	FL	GA	LA	NY	SC
Shock Incarceration Graduates	3.3	3.0	4.0	6.0	3.0
Shock Incarceration Dropouts	0[1]	0[1]	13.7	18.1	0[1]
Shock Incarceration Washouts	9.5	2.6	14.5	20.4	12.0
Shock-Eligible Prisoners	8.5	9.6	20.5	17.9	12.4
Shock Graduates Revoked	13.4	13.4	10.7	20.6	13.2

[1] No voluntary dropouts were permitted.

Exhibit 19. **Estimates of the Impact of Boot Camp Prisons on the Need or Loss of Prison Beds When the Probability That Entrants Would Have Been Imprisoned Changes**

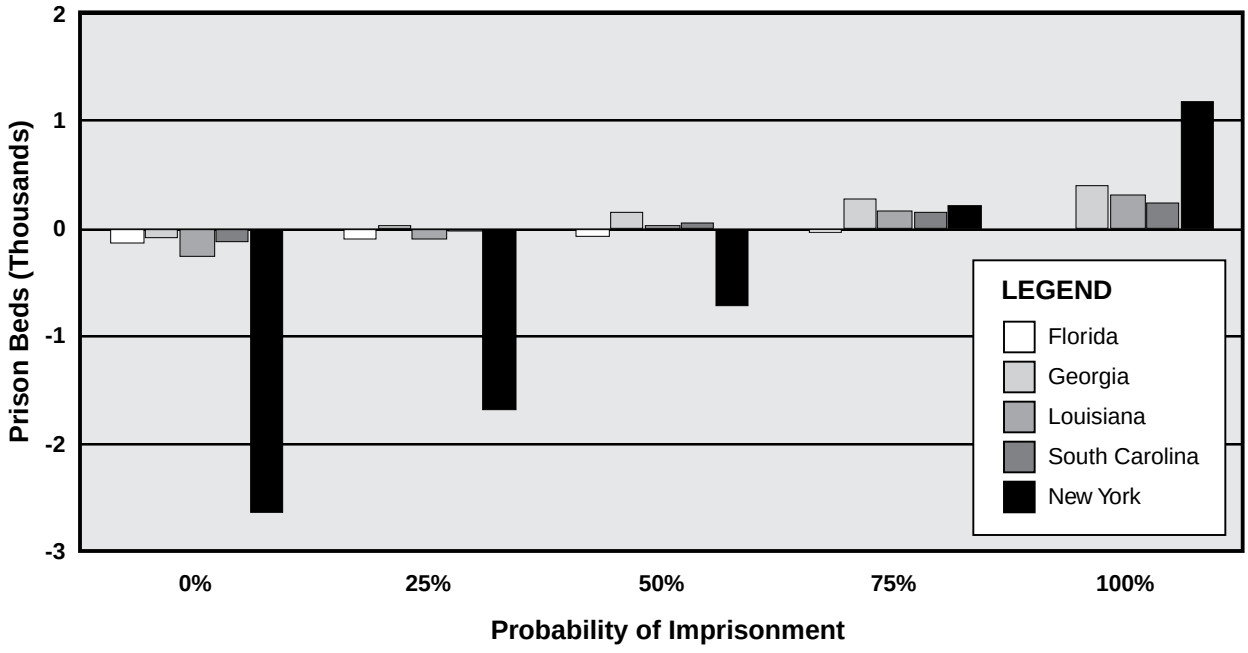


In Louisiana, the models predicted bedspace savings ranging from a low of 129 to a high of 338 depending upon the probability of imprisonment and other factors. The major factor influencing the models was the probability of imprisonment. If most offenders were prison-bound and the size of the program stayed the same, changes in program characteristics did not appear to have a major impact on the prison system. Thus, for Louisiana's program to have had a significant impact on prison bedspace needs, it was critical that participants be selected from those who would have otherwise served time in prison.

Examination of New York's program produced very different results. Due to the size of the program alone, it could have had a significant impact on the prison system. If 100 percent of the participants were prison-bound, for example, between 1,037 and 1,668 beds per year could have been saved as a result of the boot camp program. If 75 percent of the participants were prison-bound, though, only between 76 and 549 beds could have had been saved. Thus, even small changes in the percentage of prison-bound offenders could have a major impact on the prison system. Bedspace savings also depended on other program characteristics. Changes in graduation rates or recidivism rates, for example, had a small effect on bedspace estimates. Reducing the number of dismissals, though, had a much larger effect on prison bedspace savings.

In Florida, the estimates of beds needed or saved if 75 or 100 percent of the offenders had been prison-bound were the main focus. Three of the models predicted that the program would result in an overall need for prison beds, although the need

Exhibit 20. **Estimates From Bedspace Model When Recidivism Is Reduced by 50 Percent Showing Impact on Prison Beds When the Probability That Entrants Would Have Been Imprisoned Changes**



would have been small (ranging from between 8 and 56 additional beds). The results seem to have been driven by the high washout rate and the small difference between time served in the boot camp program and time served in prison by those who were eligible for the boot camp program but served time in prison instead. Thus, even if boot camp graduates were prison-bound, the boot camp program had a minimal effect on prison bedspace savings given the size of Florida's prison population. The goal of reducing prison crowding was therefore not realized.

Georgia and South Carolina. It is likely that a much smaller percentage of offenders sentenced to Georgia's and South Carolina's boot camps would have otherwise served time in prison. If less than 50 percent of the offenders would have been imprisoned (e.g., probability of imprisonment equals either 0 or 25 percent) as shown in exhibit 19, these boot camps would have increased the demand for prison beds.

Discussion

Boot camp programs are widely touted as an effective method for reducing prison crowding. The analyses completed here underscore the importance of program design in seeking to reduce prison crowding. While the programs have the potential for reducing prison crowding, the converse is also true.

To reduce prison crowding, boot camp programs must be designed to ensure that participants would have otherwise served time in prison. The larger the program the more important this will be because even if 50 percent of the offenders were prison-bound, the program could substantially increase the need for prison beds. There is no support for the position that boot camp prisons will significantly impact prison crowding by reducing recidivism rates.

Other factors that may influence prison bedspace needs include, for example, dropout and washout rates. Further, even apparently small changes such as increasing the wait between entry to prison and admittance to the boot camp can have a substantial impact on the need for prison beds. However, these factors will not overcome the influence of net widening.

Summary

The multisite evaluation examined the efficacy of eight adult "boot camp" prison programs. The evaluation investigated both the individual- and system-level impact of the programs. It consisted of five major components: (1) a qualitative description of the eight participating programs based on staff and inmate interviews, official program materials, and observation; (2) a study of inmate attitudinal change during incarceration; (3) a study of offender recidivism; (4) a study of positive adjustment during community supervision as measured by indicators such as employment and educational status; and (5) a study of prison bedspace savings.

Program Characteristics

Modeled after military boot camp training, participation in military drill/ceremony, physical training, and hard labor was mandatory in each program. Program length ranged from 90 to 180 days. Program participants were generally young males convicted of nonviolent offenses who did not have an extensive criminal history. Beyond this common core, programs varied on characteristics hypothesized to affect the ability of the program to achieve stated correctional goals. For example, programs differed in the type of therapeutic programming adopted as well as the hours per day devoted to such programming. In addition, programs varied in size, location (whether located within a larger prison or separately), intensity of

release supervision, and type of aftercare during community supervision.

The two major goals of each boot camp program were to reduce prison crowding and to reduce recidivism by means of deterrence or rehabilitation. The core elements of the program (e.g., military drill and ceremony, physical training, hard labor) would be expected to have little value in and of themselves. Although theoretically these elements are expected to have a deterrent effect, it is unlikely that either a specific or general deterrent effect will be realized. The structured routine may promote physical health, a drug-free environment, and a sense of accomplishment, however.

Rehabilitative programming in boot camp programs has received increased emphasis over the years. Although rehabilitative programming in the majority of programs attempts to address "criminogenic" needs (i.e., dynamic needs that reduce the likelihood of recidivism if successfully addressed), the authoritarian atmosphere characteristic of the military may not be conducive to effective treatment. Program characteristics that may influence the effectiveness of rehabilitative programming include program length and voluntary participation.

Inmate Attitudes During Incarceration

All boot camp programs had a similar impact on inmate attitudes as measured by a prisonization scale. Unlike comparison samples of inmates incarcerated in conventional prisons, boot camp participants developed more positive attitudes toward their prison experience over time. These positive changes for prison inmates were supported by interviews with boot camp inmates. They believed that the experience had been positive and that they had changed for the better. Although many of them said they had initially entered because they would spend less time incarcerated, near the end of their time in the boot camp they said that the experience had changed them for the better and that they were proud of themselves for being able to complete such a difficult program. Both samples of boot camp program participants and comparison samples of inmates incarcerated in a conventional prison developed more prosocial attitudes over time as measured by an antisocial attitude scale.

Offender Recidivism

Based on the totality of the evidence, boot camp programs did not reduce offender recidivism. By and large, the recidivism rate of boot camp graduates did not differ from the rates of comparison samples of similarly situated inmates who had served a longer term of incarceration in a conventional prison. When differences in recidivism rates appeared to favor samples of boot camp graduates, their superior performance could not be attributed to the effect of the program.

More specifically, the boot camp experience did not result in a reduction in recidivism in five States. For example, in Oklahoma and Texas, boot camp graduates were no less likely to recidivate than comparison samples. In Georgia, boot camp graduates were more likely to be revoked as a result of a new crime than a sample of probationers. In Florida and South Carolina, analyses revealed that those who were selected for participation in the boot camp programs differed initially in some unmeasured way from those who were selected as comparison group members. Differences in offender recidivism appeared to spring from these preexisting differences and not correctional treatment.

In three States, boot camp graduates had lower recidivism rates on one measure of recidivism. In New York, boot camp graduates were less likely to be returned to prison for a technical violation than the comparison samples. Boot camp graduates in New York, however, were no less likely to be arrested or to be returned to prison for a new crime than the comparison samples. In Illinois and

Louisiana, boot camp graduates had fewer new crime revocations, but more revocations as a result of a technical violation. When we contrast these three programs with the other five, a constellation of characteristics are found that distinguish these programs. Most notably, Illinois, Louisiana, and New York were the only three programs that developed an intensive supervision phase of the program. Individual level data was not available on supervision intensity in either Illinois or New York. The comparison groups were not intensively supervised. Therefore, in the analyses, the impact of the in-prison phase from the community supervision phase of these programs could not be untangled.

Other similarities among these three boot camps were a strong rehabilitative focus, high dropout rates (30 to 50 percent), voluntary participation, and selection from prison-bound entrants. Inmates also spent the longest time in these boot camps (120 to 180 days). Although these similarities are not exclusive to the three boot camps, it is possible that these program characteristics in combination with the intensive supervision phase of the programs have a positive impact on program participants. However, these analyses did not untangle the effects of intensive supervision from the in-prison boot camp phase.

If the military boot camp atmosphere alone had an impact on program participants, boot camp participants in each State would have been expected to have lower recidivism rates than comparison samples. A nonmilitary program with a strong rehabilitative component followed by intensive supervision might be just as effective as one with the boot camp atmosphere.

The evidence that the three programs had a favorable impact on boot camp graduates is weak. Differences in recidivism were limited to only one measure of recidivism. In fact, in two States boot camp graduates were more likely to be revoked for a technical violation. Furthermore, the boot camp graduates from these States did not adjust more positively to community supervision.

Adjustment During Community Supervision

The analyses examining the positive activities of the boot camp graduates during community supervision revealed that with the exception of Florida, boot camp graduates and comparison samples adjusted equivalently to community supervision as measured by indicators such as employment and educational status and financial and emotional stability. Boot camp graduates in Florida performed better than the comparison sample of parolees. However, specific characteristics of the program that clearly explained these results could not be identified.

The performance of both samples declined over time during 1 year of community supervision. In addition, the more intensely offenders were supervised in the community the better they adjusted. However, the improvement in adjustment leveled off after two contacts per month. Thus, there may be an optimal number of contacts that will induce offenders to participate in positive activities beyond which there is no additional gain.

Prison Bedspace Reduction

Program design is critical to the successful reduction of prison crowding. Programs that empower the department of corrections to select boot camp participants are most likely to alleviate prison crowding because they maximize the probability of selecting offenders who would have otherwise been sentenced to prison. Other program characteristics that affect the ability of boot camp programs to reduce prison crowding include restrictive eligibility and suitability criteria, program length, program size, and graduation rates.

The analyses indicate that the boot camps in New York and Louisiana reduced the need for prison beds. This reduction was greater in New York because of the much larger size of the program. Estimates suggest that the Florida program had very little influence on either reducing or increasing the demand for prison beds. South Carolina and Georgia correctional systems would have to increase the number of prison beds to accommodate the program. Sufficient data were not available to examine the impact of the boot camp on prison beds in Illinois, Oklahoma, and Texas.

Thus, the analysis of the impact of the program on prison bedspace savings revealed that carefully designed programs can reduce prison crowding. Clearly, the major factor influencing prison bedsavings is whether the boot camp program targets prison-bound offenders. To reduce prison crowding, a sufficient number of prison-bound offenders must successfully complete the program serving less time than they would have otherwise served in a conventional prison. Operating in this manner, boot camp prisons function as early release mechanisms.

Bedspace savings models examining the effect of the boot camp on prison crowding did not support the idea that prison crowding would be reduced through a reduction in recidivism. Even reducing recidivism rates of boot camp graduates by 50 percent did not result in a substantial savings of prison beds.

Conclusion

Are boot camp prisons successful in achieving their objectives? To answer this question, objectives must be clearly defined. Examination of these eight boot camp programs led the researchers to conclude that the programs had two major objectives—reducing prison crowding and changing offenders. The research examining the effectiveness of the programs in achieving these objectives indicates that some programs reached some of the objectives. Programs can be, and some appear to be, designed to successfully reduce prison crowding. The results examining the effectiveness of the programs in changing offenders is less positive. There is some evidence that some positive things happened during the in-prison phase of the program. However, there is very little evidence that the programs have had the desired effect of reducing recidivism and improving the positive activities of offenders who successfully completed the program.

Jurisdictions considering the development of a boot camp program are strongly advised to explicitly state the goals and objectives of the program prior to its design. A feasibility study should be undertaken to examine whether there are sufficient inmates who would be suitable and eligible for the program. Furthermore, the financial cost of the program must be anticipated particularly if additional beds will be needed, or intensive rehabilitation will be a component of the program. These programs are experimental. This research is a first step in examining the effectiveness of such programs. It is critical that correctional programs such as boot camps be evaluated to identify if they are successful in achieving their goals.

Notes

1. MacKenzie, D.L., and C. Souryal. (1993). *Multisite Study of Shock Incarceration: Process Evaluation.* Unpublished Final Report to the National Institute of Justice. College Park, MD: University of Maryland.

2. MacKenzie, D.L. (1990). “Boot Camp Prisons: Components, Evaluations, and Empirical Issues.” Federal Probation, 54, 44–52.

3. Data collection began in 1990. Program descriptions were based on the characteristics of the programs at the time of data collection. It should be noted that Georgia’s program changed substantially since 1990. Researchers within each State

should be contacted to obtain up-to-date information.

4. In 1990, South Carolina adopted the goal of offender rehabilitation.

5. Lotz, R., Regoli, R., and R. Raymond. (1978). "Delinquency and Special Deterrence." Criminology, 15(4):539–547.

6. Fickenauer, J.O. (1992). Scared Straight! and the Panacea Phenomenon. Englewood Cliffs, NJ: Prentice-Hall.

7. Osler, M.W. (1991). "Shock Incarceration: Hard Realities and Real Possibilities." Federal Probation, 55(1):34–42.

8. Gendreau, P., and R.R. Ross. (1987). "Revivication of Rehabilitation: Evidence From the 1980s." Justice Quarterly, 4, 349–408.

9. See Zamble, E., and F. Porporino. (1990). "Coping, Imprisonment, and Rehabilitation: Some Data and Their Implications." Criminal Justice Behavior, 17(1):53–70. See also MacKenzie, D.L., and L.I. Goodstein. (1985). "Long-Term Incarceration Impacts and Characteristics of Long-Term Offenders: An Empirical Analysis." Criminal Justice and Behavior, 12, 395–414.

10. See Zamble and Porporino (1990), op. cit.

11. Martinson, R. (1974). "What Works? Questions and Answers About Prison Reform." Public Interest, 35, 22–54.

12. See Gendreau and Ross (1987), op. cit. See also Andrews, D.A., Zinger, I., Hoge, R.D., Bonta, J., Gendreau, P., and F.T. Cullen. (1990a). "Does Correctional Treatment Work? A Clinically Relevant and Psychologically Informed Meta-Analysis." Criminology, 28(3):369–404.

13. See Andrews, D.A., Bonta, J., and R.D. Hoge. (1990b). "Classification for Effective Rehabilitation: Rediscovering Psychology." Criminal Justice and Behavior, 17(1):19–52. See also Andrews et al., (1990a), op. cit.

14. Cullen, F., and P. Gendreau. (1989). "The Effectiveness of Correctional Rehabilitation: Reconsidering the 'Nothing Works' Debate." In L. Goodstein and D.L. MacKenzie (Eds.), *The American Prison: Issues in Research and Policy.* New York: Plenum Press.

15. See Andrews et al., (1990b), op. cit.

16. See Andrews et al., (1990b), op. cit.

17. Anglin, M., and Y. Hser. (1990). "Treatment of Drug Abuse." In M. Tonry and J. Wilson (Eds.), *Drugs and Crime.* Chicago: The University of Chicago Press.

18. See Goodstein, L., MacKenzie, D.L., and R.L. Shotland. (1984). "Personal Control and Inmate Adjustment to Prison." *Criminology*, 22, 343–369. See also MacKenzie, D.L., Goodstein, L.I., and D.C. Blouin. (1987). "Personal Control and Prisoner Adjustment: An Empirical Test of a Proposed Model." *Journal of Research in Crime and Delinquency*, 24, 49–68.

19. Andrews, D.A., and J.J. Kiessling. (1980). "Program Structure and Effective Correctional Practices: A Summary of the CaVIC Research." In R.R. Ross and P. Gendreau (Eds.), *Effective Correctional Treatment.* Toronto: Butterworths.

20. See Andrews et al., (1990a), op. cit.

21. See Andrews et al., (1990b), op. cit.

22. See Jesness, C.F. (1983). *The Jesness Inventory* (rev.ed.). Palo Alto, CA: *Consulting Psychologists Press.* See also Jesness, C.F. (1985). Jesness Inventory Classification System. Palo Alto, CA: Consulting Psychologists Press. See also Andrews et al., (1990b), op. cit.

23. See Andrews et al., (1990b), op. cit.

24. Interaction effects were statistically significant in each comparison except when New York shock entrants were compared to the sample that refused to participate in the program. Although

not significant, however, the direction of the change was similar.

25. Schmidt, P., and A.D. Witte. (1988). *Predicting Recidivism Using Survival Models.* New York: Springer-Verlag.

26. See Schmidt and Witte (1988), op. cit.

27. Karr, S. P., and R.J. Jones (1993). *Impact Incarceration Program: 1993 Annual Report to the Governor and the General Assembly*. Springfield, IL: Illinois Department of Corrections.

28. Latessa, E.J., and G.F. Vito. (1988). "The Effects of Intensive Supervision on Shock Probationers." *Journal of Criminal Justice*, 16, 319–330.

29. Morris, N., and M. Tonry. (1990). *Between Prison and Probation: Intermediate Punishments in a Rational Sentencing System.* New York: Oxford University Press.

30. See MacKenzie, D.L., and D. Parent. (1991). "Boot Camp Prisons for Young Offenders." In J.M. Byrne, A.J. Lurigio, and J. Petersilia (Eds.) *Smart Sentencing: The Emergence of Intermediate Sanctions*, pp. 103–119. London: Sage Publications. See also MacKenzie, D.L., and A. Piquero. (1994). "The Impact of Shock Incarceration Programs on Prison Crowding." *Crime and Delinquency*, 40(2):222–249.

Additional References

Florida Department of Corrections, Bureau of Planning, Research, and Statistics. *Research Report: Boot Camp Evaluation.* Tallahassee, Florida, 1989.

Flowers, Gerald T., Carr, T. S., and R. B. Ruback. *Special Alternative Incarceration Evaluation.* Atlanta, Georgia: Georgia Department of Corrections, 1991.

Illinois Bureau of Administration and Planning. *Impact Incarceration Program: 1992 Annual Report to the Governor and the General Assembly.* Springfield, Illinois: Illinois Department of Corrections, 1992.

Louisiana Department of Public Safety and Corrections. *IMPACT: A Program of the Louisiana Department of Public Safety and Corrections.* Baton Rouge, Louisiana, 1992.

New York State Department of Correctional Services and the New York Division of Parole. *The Sixth Annual Shock Legislative Report.* Albany, New York: Unpublished report by the Division of Program Planning, Research and Evaluation and the Office of Policy Analysis and Information, 1994.

New York State Department of Correctional Services and the New York Division of Parole. *The Fifth Annual Shock Legislative Report.* Albany, New York: Unpublished report by the Division of Program Planning, Research and Evaluation and the Office of Policy Analysis and Information, 1993.

State Reorganization Commission (:). *An Evaluation of the Implementation of the South Carolina Department of Corrections' Shock Incarceration Program.* Columbia, South Carolina, 1992.

Texas Department of Corrections, Texas Adult Probation Commission, and Texas Criminal Justice Policy Council. *Special Alternative Incarceration Program: Enhanced Substance Abuse Component.* Austin, Texas, 1989.