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## The Pennsylvania Commission on Sentencing

# Research Bulletin

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## The Impact of Aftercare on the Recidivism of Pennsylvania's Boot Camp Graduates: A Summary of the 2004 Legislative Report

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In 1990, the Pennsylvania Legislature passed Act 215, which established Pennsylvania's Motivational Boot Camp Program. This Act also mandated the Sentencing Commission to report annually to the House and Senate Judiciary Committees on the progress of the Boot Camp Program. This edition of the *Research Bulletin* presents the findings from a recidivism study that examined the impact of a mandatory 90-day aftercare program on the recidivism of Boot Camp graduates, which was the focus of this year's *2004 Legislative Report*.

### What is the Motivational Boot Camp Program?

The Motivational Boot Camp, which is located in Quehanna, Clearfield County, serves as an alternative to traditional state prison, and allows eligible inmates to serve a reduced six-month sentence if they successfully complete the program. The impetus behind the legislation was the recognition of the severe prison overcrowding situation. Further, there was legislative interest in offering an alternative to prison that would provide a more intense rehabilitative setting conducive to achieving the goal of crime reduction. The Boot Camp opened in June 1992, with 39 offenders being admitted into the program that year. Since that time, the program has grown, with 513 offenders being admitted into the Boot Camp during 2002.

The Boot Camp is designed to instill discipline and structure through regimented sixteen-hour days consisting of work and program activities. A typical day begins at 5:30 a.m. with reveille, followed by an hour of physical training. The remainder of the day is tightly scheduled with education, counseling, and work. Offenders who have not graduated from high school attend mandatory education classes, while those who have a degree are assigned to work duties. About 81% of offenders educated at the Boot Camp receive their GED.

To be accepted into the Boot Camp Program, potential candidates must meet the statutory eligibility criteria and be recommended by the sentencing judge, with the Department of Corrections making the final determination concerning admissions. The program is voluntary and has a high graduation rate, with about 88% successfully graduating from

### MAJOR FINDINGS

- ◆ Overall, during a two-year tracking period, about 28% of the Boot Camp graduates in the recidivism study were arrested for a new crime. However, offenders who participated in a 90-day aftercare program were significantly less likely to be re-arrested [23%] than those who did not [33%].
- ◆ Most of the aftercare facilities did not have special programs for Boot Camp graduates, but all offered a variety of services, such as job placement, education classes, anger management, and relapse prevention. No specific type of service was found to be significantly related to recidivism.
- ◆ In addition to aftercare, the other predictors of recidivism were race, number of prior arrests, and temper. Offenders who were non-white, had a greater number of prior arrests, and indicated difficulty with controlling their tempers were more likely to be re-arrested for a new crime.

the program. Offenders who voluntarily or involuntarily withdraw from the program return to prison for the remainder of their minimum sentence prior to being reviewed by the Parole Board for release. Those who graduate from the program are automatically released to parole supervision until the expiration of their maximum sentence.

### Recidivism Study

A major purpose behind the creation of Pennsylvania's Motivational Boot Camp Program was to implement a program to reduce criminal behavior. In our previous research on the Boot Camp graduates, we have consistently found that when offenders are employed, they are less likely to commit crime. Additionally, after graduating from Boot Camp, offenders report being less likely to use drugs and alcohol and having less association

Table 1. Services Provided by Aftercare Facilities.

PROGRAM	OFFER PROGRAM				FREQUENCY of PROGRAMS							
	NO		YES		Daily		Serveral Times		Weekly		Less Than	
							Per Week				Weekley	
	N	%	N	%	N	%	N	%	N	%	N	%
Education classes (GED prep)		0%	23	100%	3	13%	7	30%	5	22%	2	9%
Life skills counseling		0%	23	100%	10	43%	4	17%	8	35%		0%
Job training	2	9%	21	91%	6	26%	4	17%	5	22%	3	13%
Job placement		0%	23	100%	5	22%	4	17%	2	9%	6	26%
Transportation to work	9	39%	14	61%	7	30%	1	4%		0%		0%
Legal counseling	7	30%	16	70%		0%	1	4%		0%	5	22%
Social services (food, housing)	1	4%	21	91%	14	61%		0%	4	17%	1	4%
Parenting classes	2	9%	21	91%	1	4%	2	9%	12	52%	4	17%
Problem solving skills		0%	23	100%	12	52%	3	13%	5	22%		0%
Anger management		0%	23	100%	2	9%	5	22%	8	35%	2	9%
Antisocial attitudes		0%	23	100%	8	35%	2	9%	5	22%	3	13%
Antisocial peer associations	1	4%	22	96%	8	35%	3	13%	4	17%	2	9%
Other psychological services		0%	23	100%		0%	3	13%	3	13%	3	13%
Therapeutic community for substance abuse	6	26%	17	74%	9	39%	1	4%	1	4%	1	4%
Relapse prevention		0%	23	100%	7	30%	4	17%	7	30%	2	9%
Other substance abuse	1	4%	22	96%	5	22%	7	30%	2	9%	2	9%
Psychiatric services		0%	23	100%	2	9%	1	4%	5	22%	3	13%
Medical Services	1	4%	22	96%	4	17%	2	9%	3	13%	3	13%

with delinquent friends, factors that other research has found to reduce criminal behavior.<sup>1</sup> Numerous studies have suggested that the continued success of maintaining employment, avoiding substance abuse, and associating with 'law-abiding' friends is bolstered by an aftercare program that provides services and support for positive behaviors that are related to decreased criminal activity.

In an effort to provide more structured aftercare, a new mandatory 90-day aftercare policy was implemented in March 2002 for Boot Camp graduates. This structured re-entry program was designed to provide for a smoother transition to the community by offering offenders assistance with job readiness skills, job acquisition, and substance abuse follow-up while living in a supervised, residential facility. The focus of our current study was to examine the impact of this 90-day mandatory aftercare policy on reducing the crime.

**Survey of Aftercare Facilities.** In order to obtain a better understanding about the type of aftercare offered to Boot Camp graduates, we sent a survey to the 23 facilities that accommodated graduates during the time period that the 90-day aftercare was in effect. The instructions to the survey included a statement that responses should be made with the time period of the mandatory aftercare in mind, though we also asked that any differences in the program after the removal of this mandate should be noted on the survey. We received a 100% response rate.

As shown in Table 1, all of the facilities offered services relevant to: education, life skills counseling, job placement, prob-

lem solving skills, anger management, antisocial attitudes, psychiatric services, and substance abuse relapse prevention. Further, all of the programs were licensed or accredited, with most receiving their accreditation through the American Correctional Association. The length of time the facilities had been in operation varied a great deal with a range of 1.5 to 36 years, with the average length of time being 17 years.

All but two of the facilities had fewer than 25% of their clients coming from Boot Camp, with five of the facilities providing special programming for Boot Camp offenders, involving a focus on job readiness and finding employment. All of the facilities had rules requiring urine testing and curfews, with most removing an offender from the program for a positive urine or failure to return to the program. Most facilities indicated that they provided more intense structure in the beginning and provided for a gradual decrease in supervision based upon such factors as securing employment, displaying good behavior, or nearing discharge. All of the facilities reported that offenders had the opportunity to gain more privileges over time, such as more leisure time, extended curfews, and home passes. Most facilities reported that over 75% of their clients successfully complete the aftercare program and that less than 25% have parole revoked for a technical violation.

**Study Sample.** The current study employs a quasi-experimental research design that compares the recidivism rates of offenders who graduated from Boot Camp prior to the implementation of the mandatory 90-day aftercare with those who graduated after the implementation of this policy. The sample consists of a total of 720 offenders, with 383 offenders in the pre 90-day aftercare group [graduated from Boot Camp between April 2001 and February 2002] and 337 offenders in the 90-day aftercare group [graduated from Boot

<sup>1</sup> It should be noted that offenders might be reluctant to admit to their involvement in criminal activity and substance abuse while on parole for fear of having their parole officer finding out and having their parole revoked.

**Table 2. Re-arrest Rates for Boot Camp Offenders**  
[N=720]

Variable	Arrest	No Arrest
OVERALL	28%	72%
Aftercare Group **		
Pre 90-day aftercare	33%	67%
90-day aftercare	23%	77%
Race ***		
White	17%	83%
Non-white	33%	67%
Employment		
Prior to Boot Camp		
Employed	24%	76%
Unemployed	33%	67%
On Parole		
Employed	22%	79%
Unemployed	38%	62%
Major Source of Income		
Illegal	33%	67%
Job	22%	78%
Prior Arrests		
Yes	32%	68%
No	13%	87%
Number of Prior Arrests ***		
Mean	3.9	2.5
Age at First Arrest		
Mean	17 years	18 years
Mean Scores on Scales		
Expectations of Boot Camp	29.6	30.3
Temper **	10.3	9.4
Impulsivity	7.2	6.8
Completing Tasks	6.7	6.1
Self-Centered	9.7	8.8
Family Warmth	32.4	33.9
Friends-in-Trouble	18.7	17.8

\*\* significant at .01 level                      \*\*\* significant at .001 level.  
Note: percentages may not equal 100% due to rounding.  
Numbers do not equal 720 for all factors due to missing information.

Camp between March 2002 and December 2002].<sup>2</sup>

**Measuring recidivism.** For the purposes of this study, we used 're-arrest for a new crime' as our measure of recidivism, information that we obtained from the Pennsylvania State Police. We used a two-year tracking period for each offender in order to equalize the 'time on the street' exposure time. Since the people in the 90-day aftercare program were 'quasi-free' during that time period, we looked at exposure time in two ways: 1) starting with the offender's release from Boot Camp and 2) starting with the offender's release from aftercare. We received data from the Department of Corrections that provided information on the offender's incarceration status due to a technical violation so we could take that into account when determining 'exposure time'.

**Factors considered.** One of the advantages to this study is that we were able to examine the impact of individual versus programmatic characteristics on criminal behavior. We have a great deal of information about the offenders through the Self-Report Survey given at the time of admission to the Boot Camp, including demographics [e.g., race, age, marital status], background [e.g., living arrangements growing up, education, employment history], criminal history [e.g., type of previous crime, victim of crime], and substance abuse history [e.g., type and extent of abuse, previous treatment]. From a Boot

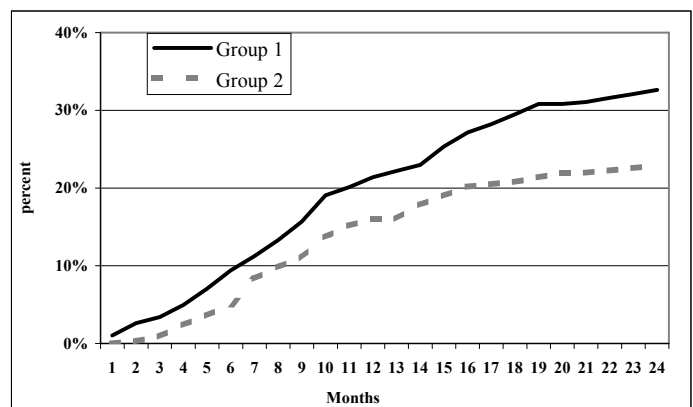
Camp Evaluation Survey given at admission and graduation we were able to measure attitudinal changes that might occur among offenders in areas such as impulsiveness, temper, and decision-making. Finally, with respect to aftercare, we were able to examine whether there were qualitative differences [e.g., type and frequency of services] among the aftercare programs that contribute to the success of offenders.

**Findings.** We conducted our analysis in three ways. First, we conducted a bivariate analysis that indicates which factors are significantly related to recidivism when examined individually. Second, we conducted a multivariate [logistic regression] analysis that indicates which factors are significantly related to recidivism while controlling for all factors simultaneously. Third, a survival analysis was employed to help determine if the relationship between aftercare and recidivism is stable while taking into consideration those offenders who are removed from being 'at risk' for arrest because they are incarcerated for a parole violation. In our analysis of the re-arrest rate in relation to both graduation from Boot Camp and release from aftercare, we found the findings to be consistent.

Table 2 shows those variables found to significant at the bivariate level and indicates [with asterisks] which of these variables holds at the multivariate level as well. Most notable is the finding that Boot Camp graduates who were placed in a 90-day aftercare program were significantly less likely to be re-arrested than those who graduated from Boot Camp prior to this 90-day aftercare requirement [23% vs. 33%]. The multivariate analysis indicated that the odds of recidivating increase by 72% for offenders who did not receive the 90 days of aftercare. Other factors found to be predictive of re-arrest were race, prior arrests, and temper. Offenders who were non-white, had a more extensive prior record, and indicated that they had more difficulty controlling their temper had an increased likelihood of re-arrest. We found that none of the differences among the programs were significantly related to an offender committing crime.

Chart A shows the results of the survival analysis and pro-

**Chart A: Cumulative Percent Re-Arrested OverTime\***



\* Group 1 represents offenders who were not in 90-day aftercare group.  
Group 2 represents offenders who were in 90-day aftercare group.

<sup>2</sup> In statistical tests examining differences between the two groups, we found that offenders who participated in the 90-day aftercare program were more impulsive, had a more difficult time with decision-making, and preferred less complicated tasks. Thus, we controlled for these factors in our analysis.

<sup>3</sup> The information concerning employment status on parole was missing for 48% of our current study sample and thus, we did not include this in our multivariate analysis.

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vides the cumulative percent re-arrested over the two year tracking period. This graph shows that offenders who did not participate in the mandatory 90-day aftercare program had a higher cumulative recidivism rate at all time periods. This analysis supports our findings that the impact of aftercare is not merely a reduction in recidivism during the 90 days of aftercare, but rather is a lasting effect over time.

**Summary and Conclusion.** In our recidivism study, we examined the impact of the 90-day mandatory aftercare program that was in effect from March 2002 through December 2002. Consistent with other research, we found that aftercare did make a difference — those offenders who participated in the 90-day aftercare program were significantly less likely to be re-arrested. Additionally, we found that offenders who were non-white, had a more extensive prior record, and who indicated that they had more

difficulty controlling their temper were also more likely to be re-arrested.

The fact that the effect of aftercare is consistent and significant in the variety of statistical techniques employed in our analysis increases the confidence in our finding that providing the 90 days of aftercare to Boot Camp graduates appears to result in a reduction in their criminal activity. What is unknown at this point is whether the success of aftercare is dependent upon the length of time the offender is in aftercare. As the mandatory aftercare component was reduced to 30 days in January 2003, the next question to be examined is whether the positive effects of aftercare found in this study can be achieved in a shorter aftercare period. Our next study will examine that issue.

**Full Report Available.** The entire *2004 Legislative Report, Pennsylvania's Motivational Boot Camp: The Impact of Aftercare on Recidivism*, by Cynthia Kempinen and Megan Kurlychek, can be found on the Commission's website <http://pcs.la.psu.edu> or obtained by contacting Cathy Dittman at the Pennsylvania Commission on Sentencing at [814] 863-2797, ext. 1 or [cwd2@psu.edu](mailto:cwd2@psu.edu).