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## Effects of Correctional Boot-Camps on Offending



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Correctional boot-camps exist in federal, state, and local juvenile and adult jurisdictions in the United States.

Introduction

## Introduction

Correctional boot-camps are an alternative to traditional incarceration and are modeled after the military boot-camp. They were first opened in adult correctional systems in Georgia and Oklahoma in 1983. They grew rapidly throughout the 1980s and 1990s, first within adult systems and later in juvenile corrections and were supported in part by the federal Violent Offender Incarceration and Truth-In-Sentencing Incentive Formula Grant Program (Bureau of Justice Programs 2005).

Correctional boot-camps exist in federal, state, and local juvenile and adult jurisdictions in the United States. The initial popularity of boot-camps has been attributed to their common sense appeal and “notion that boot-camps strip away a recruit’s youthful immaturity, slovenliness, and general disrespect for authority” (Cullen et al. 2005, p. 60). The popularity of boot-camps has waned during the past decade, driven in part by media reports of abuse and death in juvenile boot-camps (e.g., Cullen et al. 2005; Leary 2006) and evidence, such as that presented in this report, that they are ineffective (Cullen et al. 2005).

In the typical boot-camp, participants are required to arise early each morning and follow a rigorous daily schedule of activities, including drill and ceremony and physical training. Correctional officers are given military titles and participants are required to use these titles when addressing them. Staff and inmates are required to wear uniforms. Punishment for misbehavior is immediate and swift and usually involves some type of physical activity such as push-ups. Frequently, groups of inmates enter the boot-camps as squads or platoons. There is often an elaborate intake ceremony where inmates are immediately required to follow the rules, respond to staff in an appropriate way, stand at attention, and have their heads shaved. Many boot-camps have graduation ceremonies for those who successfully complete the program, and family members and others from the outside public frequently attend this event. The typical boot-camp program is 3 months, although some run for 6 months or are part of a longer split sentence.

The camps for adjudicated juveniles differ somewhat from the adult camps. Less emphasis is placed on hard labor and, as required by law, the camps provide juveniles with academic education. Juvenile camps are also apt to provide more therapeutic components. However, in many other aspects the juvenile camps are similar to adult camps described above.

While there are some basic similarities among the correctional boot-camps, the programs differ greatly in other aspects (MacKenzie and Hebert 1996). For example, the camps differ in the amount of focus given to the physical training and hard labor aspects of the program versus therapeutic programming such as academic education, drug treatment, or cognitive skills. Some camps emphasize therapeutic programming while others focus on discipline and rigorous physical training. Programs also differ in whether they are designed to be an alternative to probation or to prison. In some jurisdictions, judges sentence participants to the camps; in others, participants are identified by department of corrections personnel from those serving terms of incarceration. Another difference among programs is whether the residential phase is followed by an aftercare or re-entry program designed to assist the participants with adjustment back into the community.

The purpose of this review is to systematically synthesize the extant empirical evidence on the effects of boot-camps and similar programs on the criminal behavior (recidivism) of convicted adult and juvenile offenders. This review did not examine research on the cost effectiveness of these programs, nor did it review the potential secondary effects on outcomes such as antisocial attitudes.







...the study evaluated a correctional boot-camp, shock incarceration, or intensive incarceration program...

Summary of Systematic  
Review Methods

## Summary of Systematic Review Methods

This review used experimental and quasi-experimental evaluations of boot-camp and boot-camp-like programs for juvenile and adult offenders that utilized a comparison group. The eligibility criteria were: (a) that the study evaluated a correctional boot-camp, shock incarceration, or intensive incarceration program; (b) that the study included a comparison group that received either probation or incarceration in an alternative facility, such as jail or prison; (c) that the study participants were exclusively under the supervision of the criminal or juvenile justice system; and (d) that the study reported a post-program measure of criminal behavior, such as arrest or conviction.

Several strategies were used to identify studies, published or otherwise, that met the above criteria, including a keyword search of computerized databases, contact with authors working in this area, and examination of study registries. The final search of these sources was completed in early December 2003. We also contacted U.S. and non-U.S. researchers working in this area to request assistance in locating additional studies.

All studies were coded using a structured protocol that captured information about the nature of the boot-camp, the research design, and the study results. Meta-analytic methods were used to analyze and synthesize the recidivism results across studies.

“...a review which ignores pre-post studies without control groups would miss a large number of problem-oriented policing evaluations.”

Findings

## Findings

We identified 32 unique research studies reported in 43 documents. These 32 research studies evaluated the effectiveness of 43 independent boot-camp programs. Most of these studies evaluated boot-camps in the United States. One evaluated a Canadian program and another evaluated two separate programs in Great Britain. A complete listing of these studies can be found in the full Campbell Collaboration review ([www.campbellcollaboration.org](http://www.campbellcollaboration.org)).

All of these studies reported the recidivism rates for the boot-camp group and a comparison group at some point following release. The typical comparison condition was prison or jail or some other form of residential placement in the case of juveniles. Recidivism was typically measured at 12 months. For example, a study might report the percentage of the offenders released from the boot-camp and prison who were arrested within 1 year of release. These data were used to compute an odds-ratio effect size used to compare results across studies and perform the meta-analysis. An odds-ratio greater than 1 reflects a lower recidivism rate among the boot-camp offenders, and an odds-ratio less than 1 reflects a higher recidivism rate among the boot-camp offenders, related to the comparison condition.

We examined the results in several ways, and each approach yielded highly similar results. First, we selected the most general measure of recidivism reported in each study. Second, we computed an average odds-ratio for each study using all reported results. Third, we examined results separately for odds-ratios based on arrest, reconviction, and reinstitutionalization. The mean odds-ratio across studies for each of these methods is reported in Table 1 on page 22. The results indicate that on average the recidivism rates for offenders, including both adults and juveniles, released from boot-camps were highly similar to the recidivism rates for offenders released from prison or jail (that is, the mean odds-ratios were near 1). In short, the evidence suggests that boot-camps, in general, do not produce a reduction in future offending relative to the typical criminal justice system sanctions.

Figure 1, on page 23, is a graphic depiction (forest plot) of the distribution of odds-ratios across the studies. The diamond represents the odds-ratio for each study and the horizontal line represents the 95 percent confidence interval (range in which we are 95 percent sure the true effect of that particular program resides). Some studies found that boot-camp participants recidivated at a lower rate than comparable offenders, whereas other studies found just the opposite. This variability in effectiveness across studies is substantial—some boot-camp programs may be effective, whereas others may be harmful.



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Analysis of Variability in  
Effectiveness Across Studies

## Analysis of Variability in Effectiveness Across Studies

One potential source of the variability in results across studies is differences in methodological rigor. We examined several important methodological differences across studies and the results revealed no meaningful relationships between method features and study findings. The four studies that used random assignment to the boot-camp and comparison conditions observed results that slightly favored the comparison condition, but not statistically significantly so. Several other methodological quality variables slightly favored the boot-camp group but taken together, these analyses suggest that the finding of the ineffectiveness of boot-camps at reducing recidivism is robust to methodological differences across studies.

Another source of variability across studies was in the nature of the offenders in the study. Most of the samples were exclusively male, with only two studies examining the effects of female-only boot-camps, and seven studies evaluating mixed gender boot-camps. Overall, the studies that evaluated female-only boot-camp programs had slightly negative effects, albeit not meaningfully so. Similarly, evaluations of juvenile boot-camps observed slightly lower effects (and slightly negative) than evaluations of adult boot-camps. No single group of offenders appeared to benefit from boot-camps relative to traditional sentences. In particular, the effects did not vary by gender.

Although the dominant features of boot-camps are physical exercise and military drill and ceremony, both carried out in the context of strict discipline, the boot-camps evaluated by the studies in this review often incorporated other traditional rehabilitative programs such as drug abuse treatment, vocational education, and aftercare transition assistance. These expressly rehabilitative components may add value to a boot-camp program, producing a beneficial effect for the offenders. Analyses suggested that boot-camps with a stronger rehabilitative focus produced more positive outcomes than those with a lesser rehabilitative focus. In particular, evaluations of boot-camps that integrated some form of counseling had larger, and positive, effects than evaluations of boot-camps without counseling, particularly for juvenile boot-camps. Additionally, slight differences favored boot-camps that incorporated an aftercare component, drug treatment, and academic programming. When we categorized boot-camps as having a strong or weak rehabilitative focus, the overall mean odds-ratio for those programs with a strong rehabilitative is only slightly positive and not statistically significant. Thus, even with a strong rehabilitative focus, the evidence suggests that boot-camps are no more effective than more traditional correctional alternatives.



The interventions covered a variety of problems, demonstrating the wide applicability of problem-oriented policing.

Conclusions

## Conclusions

This systematic review addressed the question: Are correctional boot-camps effective at reducing criminal behavior? It should be clear from the discussion thus far that boot-camp is a general term for a category of correctional programs that varies between programs. All boot-camps, however, do have a common set of features that include the militaristic atmosphere, a rigorous and rigid daily schedule that includes physical training or labor, and strict discipline.

Both advocates and critics of boot-camps are likely to be disappointed by the findings of this review. Advocates expect the programs to successfully reduce the future criminal activities of adults and juveniles. Critics argue that boot-camps are poorly conceived programs that will not reduce recidivism and may actually have the opposite effect by causing psychological harm and even increasing criminal activities. Our results do not support either side of this argument. Correctional boot-camps are neither as good as the advocates expect nor as bad as the critics hypothesize.

Although the overall effect appears to be that of “no difference,” some studies found that boot-camp participants did better than the comparison, while others found that comparison samples did better. Our analyses found few variables that reliably explain these differences in results across studies. Programs with a stronger rehabilitative focus did, however, fair slightly better than strictly military drill and ceremony type boot-camps.

What do these findings mean? All of these studies had the common element of a militaristic boot-camp program for offenders. We reason that if this common component across studies is truly effective at reducing the future criminal behavior of offenders, then we would expect to see a distribution of effects that is positive, on average. That is, if a militaristic atmosphere, strict discipline, and rigorous physical exercise are beneficial, then the boot-camp samples would have shown lower rates of recidivism than the comparison samples (e.g., prison, jail, and probation), even though the effects may have varied substantially because of other programmatic elements incorporated into the boot-camp programs. This is not what we found. Thus, the extant evidence suggests that the military component of boot-camps is not effective in reducing post boot-camp offending.



Should boot-camps be abolished? Although this review questions the effectiveness of boot-camps as a correctional practice, the evidence also suggests that they are no worse than the alternatives examined in these studies (e.g., jail and prison time). The large variation in the distribution of effects suggests that effective treatment components such as those identified by other meta-analyses (Andrews et al. 1990; Gendreau and Ross 1987; Lipsey 1992; Lipsey and Wilson 1998) may be added to boot-camps, resulting in an effective program. We do not know whether effective correctional programming is more (or less) effective within the boot-camp environment than when provided within a prison or as an adjunct to probation. Furthermore, boot-camps may have other benefits such as reduced need for prison beds (e.g., MacKenzie and Piquero 1994; MacKenzie and Parent 1991) or improved prosocial attitudes, attachment to community or reduced impulsivity (MacKenzie et al. 2001; MacKenzie and Shaw 1990; MacKenzie and Souryal 1995). Justifying the adoption or continued use of boot-camps should not, however, be made on claims of their potential to reduce crime within a community.



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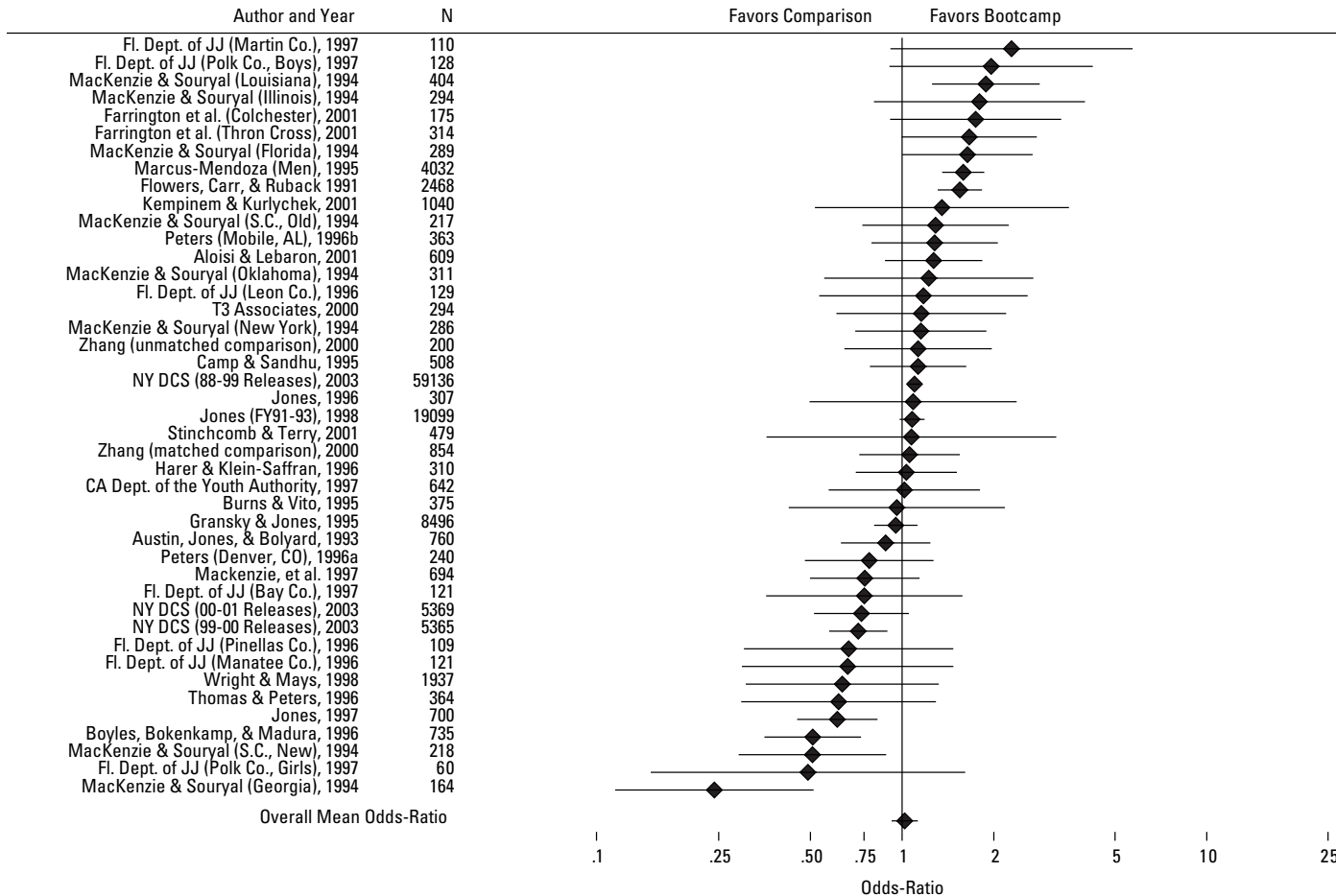
Tables

Table 1: Overall Mean Odds-Ratio by Outcome Type

| Selected Outcome              | Mean Odds-Ratio | 95% Confidence Interval |       | Number of Odds-Ratio |
|-------------------------------|-----------------|-------------------------|-------|----------------------|
|                               |                 | Lower                   | Upper |                      |
| Any Recidivism (most general) | 1.02            | 0.90                    | 1.14  | 43                   |
| All Crime Outcomes            | 1.00            | 0.85                    | 1.18  | 43                   |
| Selected Outcome              |                 |                         |       |                      |
| Arrest                        | 0.96            | 0.82                    | 1.14  | 23                   |
| Reconviction                  | 1.10            | 0.96                    | 1.26  | 35                   |
| Reinstitutionalization        | 1.11            | 0.93                    | 1.32  | 19                   |



Figure 1: Graphic Illustration of the Odds-Ratio (Most General Effect) and 95% Confidence Interval for Each Study









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