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AN EVALUATION OF THE LOS ANGELES COUNTY JUVENILE DRUG TREATMENT BOOT CAMP

Final Report

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FOREWORD

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ABSTRACT

This report presents findings from an evaluation of a well-established juvenile drug treatment boot camp in Los Angeles County. In an effort to overcome common methodological problems of earlier studies, this project used a combination of official and self-report measures to assess the effectiveness of the program with data gathered at different points in time. While this study found some significant improvement in a few outcome measures based on self-report data, it is difficult to attribute any of the progress to the boot camp treatment program. Instead, most of the important outcomes could be explained by such non-programmatic variables as prior delinquency involvement, substance abuse activities, positive family relationships and attitudes.

The boot camp graduates in this study were almost identical to those of the comparison group in re-arrests or convictions. The only significant difference on official measures was that boot camp participants were more likely to have probation revocations than the comparison. Implications for future research strategies and correctional policy were also discussed.

STATEMENT OF THE PROBLEM

Background and Current Knowledge of Juvenile Boot Camps

Since their inception in 1983 in Georgia and Oklahoma (MacKenzie, 1993), the idea of "shocking" criminal offenders into conformity with regimented activities resembling those of military basic training has been embraced by many politicians and practitioners across the nation (Cronin, 1994; MacKenzie et al., 1995; Morash and Rucker, 1990; Hunter et al., 1992). Despite the paucity of empirical data supportive of their effectiveness, boot camps have spread across the nation. Most states, if not all, have some forms of regimented paramilitary treatment programs designed to accommodate young adult or juvenile offenders (Gransky et al. 1995; Souryal and MacKenzie, 1995; Cronin, 1994; MacKenzie, 1993).

Gransky et al. (1995) attributed their popularity largely to the images created by the media. The public likes the image of rigid, military-style operations being applied to young adult offenders who are made to work hard, behave obediently, and display good manners and respect for authority (Polsky and Fast, 1993). For the first time in the lives of many of the participants, collective goals have to precede individual needs and desires. Boot camps not only appeal to conservatives who favor punishment and discipline, but also to liberals who are attracted to the many rehabilitative components that many program administrators touted (Anderson et al., 1999).

Most boot camps are for young adults convicted of non-violent crimes (MacKenzie, 1993). While in the camp, they are divided into platoons and follow the orders of the drill instructor. Those who complete the programs go through formal graduation ceremonies designed to give them a sense of accomplishment and confidence to start their lives anew. However, beyond the military atmosphere characterized by its drills, physical training and work, boot

camps differ considerably in their eligibility criteria, size, lengths of confinement terms, intensity of post-program supervision, and type of aftercare.

Nevertheless most boot camps appear to share similar system-level goals--rehabilitating offenders, providing alternatives (as an intermediate sanction) to long-term incarceration, and reducing prison/jail crowding. In a survey of boot camp administrators (MacKenzie and Souryal, 1991), rehabilitation, recidivism reduction, and drug education were ranked the most highly as program goals, followed by reducing crowding, developing work skills and providing a safe prison environment. Deterrence, education and drug treatment were judged as somewhat less important, while the least important goals included punishment and vocational training.

In a more recent survey of juvenile boot camps, MacKenzie and her team also found that many camps also shared similar external dimensions, such as structure and control (Gover et al., 1998; Styve, et al., 1998; Mitchell et al., 1998). Based on interviews with administrators and data extracted from official documents, MacKenzie and her team found the juvenile boot camps to be more structured and with more military types of physical training. While few differences were found in therapeutic resources, juveniles in boot camps participated in more physically oriented activities (Gover et al., 1998). Program participants reportedly perceived boot camp conditions as more structured, controlled, and safer than those of traditional juvenile camps. Boot camp juveniles also perceived their environment as providing more therapeutic programming and transitional programming (Styve, et al., 1998).

While there was some regional variation, in comparison to traditional juvenile institutions, boot camp staff perceived the paramilitary environment as having more activity, control, structure, caring, treatment options, and a higher quality of life (Mitchell et al., 1998). Furthermore, boot camp staff perceived their facilities as having less danger for the youngsters

and staff, as well as having less general environmental danger and risks to residents. Additionally, boot camp staff perceived their work as more satisfying and supportive, with better communication between staff and administrators, and experienced less stress than staff from comparison facilities. In short, from the perceptions of staff, the conditions of confinement in boot camps were more favorable than that of traditional facilities.

Despite these structural and thematical differences between boot camps and traditional correctional programs, the findings on their treatment efficacy from the empirical studies (those available in published literature) have not been promising. Although boot camp graduates have been found to have favorable changes in their attitudes and generally describe their program experience as positive (MacKenzie and Shaw, 1990; Ransom and Mastrorilli, 1993; Hunter et al., 1992), few programs have produced "hard" evidence of effectiveness on the variable that all correctional agencies are most concerned with, that is, reduction in re-offending. According to the most comprehensive study to date by MacKenzie et al. (1995), a comparative analysis of boot camps in eight states, the outcomes and their possible explanations are far more complex and muddled than any practitioner or policy maker would want to know. In summary, boot camp graduates do not perform better or worse than their counterparts in the conventional facilities; and judgment of boot camp effectiveness has to be made by examining individual programs and their components (MacKenzie et al., 1995). About the only summarizing statement one can make about boot camps is their lack of any clear consistent effect whatsoever. These findings are akin to those of many other intermediate sanctions (such as electronic monitoring or intensive probation supervision that were once popular in the 80s and early 90s), which revealed no appreciable impact on recidivism (Zhang et al., 1994; Petersilia and Turner, 1990).

Boot camps have drawn criticism from several fronts. Some contend that those who have bought into the idea of "shock" incarceration are more interested in the potential benefits of early release and additional funds for treatment programs, the so-called "Machiavellian" point of view (MacKenzie and Souryal, 1995). As long as there are no obvious dangers, agency administrators will operate boot camps to accomplish two things: 1) early release to alleviate the overcrowding situation; 2) to attract government funding for treatment, which would otherwise not be available. Whether the program is effective is secondary to their political pragmatism. Therefore few program administrators are concerned about if their program can reach the goals and objectives that they set out to accomplish. In fact, Gover et al. (1998) found in their national survey that few institutions with boot camp programs had access to any outcome information.

Other scholars suspect that the harsh and confrontational environment prevents the formation of any positive interpersonal relationships, thus reducing the likelihood of positive change (Morash and Rucker 1990). Many psychologists, experienced in both corrections and behavioral change believe that the paramilitary atmosphere may actually be detrimental to treatment (Styve et al., 1998). To them, positive interpersonal relationships, which are considered a necessary condition to any positive behavioral change, are not likely to form in a confrontational environment (Andrew et al., 1990).

Issues of Earlier Studies

While much of the published literature debates the efficacy of boot camps as a treatment option from various philosophical as well as empirical orientations, few have raised questions on whether the methods employed in most evaluation studies can adequately assess boot camp effectiveness (Zhang, 1998). For instance, several studies were descriptive in nature and based on

rather brief personal observations or inmate anecdotes (see Polsky and Fast, 1993; Ransom and Mastrorilli, 1993). None thus far have employed a true experimental design, which allows randomized assignment of subjects to treatment and control groups. There was a failed attempt by the California Youth Authority (Bottcher, 1995), in which the original random assignment design was compromised by such factors as a lack of consensus on screening criteria, inadequate screening to generate cases for the control group, incomplete official records, and incomparable observation periods between treatment and control groups. Although researchers have attempted to overcome the experimental design issue by using matching samples and multivariate statistics to compensate for the lack of random assignment, the results are always vulnerable to alternative interpretations.

Several other issues are associated with early studies on boot camp programs that warrant further discussion. First, most boot camp studies were based on state-run programs funded by temporary legislative mechanisms or federal grants. Most of these programs were short lived and tended to fold soon after the funding was exhausted. Although there have been a few boot camps run by local jurisdictions (MacKenzie, 1993), there is little empirical information on how county-operated programs have fared.

Second, most studies relied solely on official measures to assess program effectiveness (i.e., arrests, convictions, and probation/parole violations). It is commonly known that official statistics only reflect the activities of the police or other justice agencies, and do not fully measure the real level of crime, which is considerably higher than the official level. Few attempts have been made to gather recidivism information by using alternative methods, such as self-reports, which in comparison are more difficult and costly to carry out.

Third, according to MacKenzie (1993), all programs operating in 1992 (30 states and 10 local jurisdictions and the Federal Bureau of Prisons) reported incorporating drug education or a combination of drug education and treatment in their camp schedules. However, hardly any studies addressed this aspect of boot camp activities and assessed its impact in reducing drug use among program participants.

Fourth, although rehabilitation has been ranked as a major goal in most programs, (MacKenzie and Souryal, 1991), efforts to help offenders adjust back to the community were rarely examined. While some reported positive attitudinal changes at graduation (MacKenzie and Shaw, 1990; Hunter et al., 1992), most studies failed to examine post-program reintegration in the community in terms of employment, education, vocational training, or other types of pro-social activities, thus leaving the impression that the success or failure of a boot camp program entirely hinges upon how many offenders are re-arrested. It is not clear, except for data on recidivism, how offenders who have not failed during the observation period have fared otherwise.

Finally, few studies provided policy relevant or practical guidance to corrections agency administrators as to what types of offenders are likely to succeed in a boot camp--the characteristics associated with successful graduates. In other words, instead of just telling policy makers and practitioners whether their boot camps have worked as a whole, perhaps researchers should come up with more specific suggestions as to where improvements can be made or what type of offenders may benefit for the treatment.

Overview of the Los Angeles Juvenile Boot Camp

The present study was an evaluation of the Los Angeles County Drug Treatment Boot Camp (DTBC). The selection of this boot camp in Los Angeles County was based on several factors. First, as one of the earliest boot camps in the nation designed specifically for juvenile offenders, the DTBC has been in continuous operation since October 1990, with more than 2,000 youngsters having graduated when this evaluation was commenced. Its long history helped minimize such possible interfering factors as program start-up inconsistencies, staff turnover (either due to over-zealous or demoralized staff), and unstable services often associated with short-term boot camps.

Second, the Los Angeles DTBC was (and still is) an integral part of the Los Angeles County Probation Department's existing juvenile institutions. Its funding was tied to the overall budgetary concern of the Probation Department, therefore it was designed and operated for the long haul.

Third, unlike the majority of the boot camps in the existing literature, the Los Angeles DTBC had a well-developed aftercare component combined with intensive supervision including drug education and individual/parental counseling. Services in the aftercare were provided based on the risk and needs assessment that every boot camp youngster received soon after their entry into the program. These features permitted research on the impact of the comprehensive aftercare effort in curbing the erosion of positive attitudes evidenced elsewhere by boot camp participants at graduation.

The Los Angeles DTBC consisted of two physically separate sites adjacent to one another, Camp John Munz and Camp William Mendenhall. The program was located in a rural setting of open, rolling foothills, approximately 60 miles north of downtown Los Angeles. Each

site was a separate, self-contained facility with a 105-bed barracks, kitchen, mess hall, gymnasium, school, administration building, nurse's office, staff quarters, basketball courts, athletic field, and obstacle course.

The DTBC emphasized discipline and obedience. Routine activities included individual counseling, drilling, marching and physical training. The paramilitary structure was intended to provide an environment that would minimize negative peer pressure (in-camp gang culture) and allow positive change. It was hoped that the camp experience would stimulate participants to redirect their physical, social and emotional energies into constructive channels, and that youngsters would return to the community with increased self-discipline, self-confidence, and a sense of pride and accomplishment for having met the boot camp challenges.

A major difference between the Los Angeles juvenile boot camp and most other boot camps in the literature was that the DTBC was created neither to alleviate institutional overcrowding, nor to attract state or federal program funding. The management of the Los Angeles County Probation Department was willing to institutionalize the paramilitary environment to deal with its substance- abusing youngsters. The Department converted two adjacent senior camps (for youngsters ages 16 and older) into the boot camp program. In essence, these two camps were not any different physically from any other senior camps in the county, except for its paramilitary program. With donated military surplus clothing and camp staff with prior military experience plus additional training from former military personnel, the Probation Department was able to lunch the program in October 1990 with much fanfare from the local media.

The program enrolled only male offenders between the ages of 16-18, who were either documented or alleged drug users with sustained petitions by the juvenile courts for non-violent

and non-sex offenses.[1] All potential recruits were medically cleared for work and rigorous physical exercise. Every other weekday, they attended a full academic high school program provided by the Los Angeles County Office of Education. On alternate weekdays, "cadets" participated in a work program with contracted agencies. Work projects included brush clearance, basic landscaping, road repair, and graffiti removal. Funds earned from the work were used to pay for court ordered fines and restitutions.

While in camp, these youngsters attended a 15-week drug education program provided by the Inter-Agency Drug Abuse Recovery Program (I-ADARP), a non-profit agency that had been providing chemical dependency treatment services since 1973. Two full time counselors were assigned to each camp. The agency also conducted drug education training for the probation staff in the program to ensure their competence in working with drug using offenders.

After completing the 24-week (six months) program, youngsters were released to intensive aftercare supervised by seven probation officers who worked exclusively on DTBC cases. Small, specialized caseloads of 35-50 (compared to an average 150 cases per officer in the department) were established to allow the aftercare staff to provide close supervision, personal counseling, and coordination of services from other community based organizations. The emphasis of the aftercare phase was on education, employment opportunities and vocational guidance. After six months of intensive supervision, those successfully adjusting to home and community, and participating in treatment and academic or vocational plans, would have their probation terminated.

Parental involvement was touted as a major feature of the program by the Probation Department since its inception. During boot camp, parents were invited to visit the camp and to talk to the staff about their concerns. They were also invited to attend the graduation ceremony.

The aftercare component would begin while the ward was still in camp. Within the first six weeks upon camp entry, the aftercare probation officer would begin to review the participant's file, to interview him, and to prepare the aftercare plan. The youngster would then be informed of his aftercare plan, and his parent(s)/guardian(s) would also be invited to attend ten weeks of classes conducted by the community based I-ADARP counselors. These parents would gain knowledge of street drugs and the drug culture, and acquire parenting skills in dealing with their delinquent children. The drug counselors and the probation officers would work closely during the aftercare phase and continue to provide support to the parents.

Programmatic Changes over Time

As time passed, the original boot camp went through several major changes, mostly due to Departmental management decisions that affected the entire camp system in the county. Because the DTBC was part of the Bureau of Juvenile Institutions, any decision to overhaul or modify the existing camp system bore direct impact on the structure and programmatic integrity of the boot camp program. No departmental efforts were made to spare the boot camp program from any changes that affected the rest of the camp system. In other words, the boot camp program was treated much the same way as the other juvenile camps in the county. While some of the changes reflected the efforts of the management to improve the effectiveness of treatment on youth offenders, most were in response to the demands of the juvenile court. The following were the main changes that affected the boot camp program.

First, since its inception in 1990, the directorship at the DTBC changed many times. The change of the directorship, which happened about once every two years system-wide, also brought about changes to the regimented environment, as the management and operation of each

juvenile camp more or less reflected the personal style of the director.[2] One noticeable change was the gradual relaxation of the paramilitary atmosphere. With each succession, the new director became less and less "tough," thus deviating farther and farther away from the original program design. There was noticeable decline in personal confrontation and in the drill-sergeant-style marching commands. The original gung-ho directors, with high hopes of instilling respect for authority and discipline in these young souls through harsh military basic training, were replaced by moderate and perhaps more realistic managers who preferred to run the DTBC with lower decibels and more interpersonal skills. While camp youngsters were still grouped in "platoons," housed in "barracks," and clothed in donated fatigues, the military atmosphere was ostensibly lessened as years went by.

Second, since the inauguration of the DTBC in October 1990, Los Angeles Probation Department had gone through several budget crises and structural rearrangement, which affected significantly the auxiliary services. Outside services were significantly reduced due to budgetary constraints. For instance, at the time of the data collection for the present study, drug counseling was provided by the camp staff, whose qualifications consisted of an eight-hour training course from a Probation Department internal substance abuse "expert," who in turn provided an eight-week course (one-hour a week) for the boot camp youngsters. The boot camp program, which used to receive special counseling services from the outside contracted agency, I-ADAARP, was no longer able to receive any special treatment.

Third, a major reorganization of the juvenile camp system, called regionalization, took place in the early 1996, which significantly affected the treatment population. Previously boot camp participants were recruited from the entire county, in which court orders were first referred to the camp headquarters where the eligibility screening took place. However, the Probation

Department decided to adopt a regionalized model in 1997 to assign camp orders according to their residential locations. Each juvenile camp was assigned to absorb all court-ordered youngsters from a specific catchment area. This realignment of camp referrals was said to combat street gang culture with a head-on strategy, forcing camp-bound gang members to face their rivals in a correctional environment and to learn to live with each other in peace. For years, the traditional way of handling rival gang members or members of the same gang was to disperse them throughout the camp system to reduce their interactions while under camp supervision or to prevent the strengthening of any camaraderie among gang members during their stay in a camp. As a result of the regionalization, the ethnic composition of the original boot camp program shifted from representing more or less the population makeup of the entire county to that of its designated area, which significantly interfered with the present study to draw comparable subjects (as discussed later in the sampling section).

Finally, at the time of regionalization, the length of stay in all camps was also shortened to accommodate more youth offenders sentenced to camps. At the time of the data collection, the DTBC was shortened from the initial six months to 10 weeks. Later the 10-week program was further shortened to eight weeks. In response to the increasing demand from the juvenile courts, the Probation Department overhauled the old camp structure and implemented a 3-phase camp program designed to move as many youngsters and as quickly through the system as possible. The 3-phase program included a 2-week so-called stabilization phase, in which youngsters awaiting their camp assignment in the juvenile halls would learn the basic rules of a camp life and prepare for the new incarcerated environment. The second phase was 8-week long, during which youngsters were transferred to a secure camp designated for their geographical area. During the second phase, youngsters would continue to correct their negative behaviors and learn

new skills to live with one another in a closed community. For Phase Three, the youngsters would be transferred to the open camps (that include the two camps of the DTBC program), where youngsters supposedly would learn the skills necessary to reintegrate into the home community. After this phase, youngsters would be furloughed (i.e., conditional release) back into the community with a set of probation conditions and supervised by probation officers on smaller caseloads. Offenders on furlough could be sent back to the camp without a court order for any violation of the probation conditions.

OBJECTIVES

The main goal of the present study was to use a combination of official and self-report measures to assess the effectiveness of the DTBC as a correctional model for juvenile offenders with a focus on their substance abusing behavior.

Juvenile boot camps have been relatively few (Austin et al., 1993; Cronin, 1994; Toby and Pearson, 1992). Even fewer studies have been published on the effectiveness of these programs in juvenile corrections. The few available publications are based either on fleeting personal observation and anecdotes (Polsky and Fast, 1993) or programs that were so poorly implemented that results yielded little useful information (Bottcher, 1995). In addition to the general scarcity of research on juvenile boot camps, the behavioral impact of drug education and counseling in these boot camps have rarely been addressed in any evaluation studies. This is mainly because such information is not readily available in official records. With the exception of mandatory urinalysis by court orders, there is no reliable official venue to collect information on offenders' drug use.

Therefore, program "effectiveness" in this study extended beyond traditional official recidivism (e.g., arrests, convictions, or probation/parole violations) to include measures of involvement in drug use and sale, attitudinal changes, and reintegration to the community. The main goal of the present study consisted of four specific objectives.

First, this study examined official recidivism over a much longer period than most published studies to increase our overall understanding of the long-term impact of juvenile boot camps on recidivism. A particular issue was the extent to which the various risk factors at intake would influence program outcomes. Although all boot camp programs have screening procedures, they are often vague and loose enough to accommodate a wide variety of offenders who might meet some or all of the criteria, such as age, sex, and the nature of the sustained offense (drug offenses in the case of the DTBC). Beyond these characteristics, these youngsters may have little in common. Other background factors, such as the number of prior arrests or the age of onset, may put individuals at different risk levels, which become relevant once they return to the community.

Investigators frequently set the follow-up period at 12 months, such as the study by MacKenzie et al. (1995). Some studies have used even shorter follow-up periods (Bottcher, 1995). Longer observation periods for follow-up purposes are always desirable, but are often restricted by such factors as funding, access to official records, and the length of the program in existence. Because of DTBC's long history of continuous operation, this study was able to track graduates for up to five years after they left the program, an observation period much longer than most published studies.

Second, this study used the self-report method to examine the impact of the boot camp program on subsequent delinquency involvement, which few published studies have done. It is

commonly accepted that few delinquent acts are ever detected or acted upon by anyone in authority (see discussion in Empey and Stafford, 1992:101). Even when serious crimes are involved (such as armed robbery, burglary, and auto theft) chances of ever being detected are still slim, about 2 out of every 10 violations (Erickson and Empey, 1963:462; Williams and Gold, 1972: 219).

The fraction of crimes ever recorded by authority might have contributed to the lack of significant findings thus far. The purpose of this discussion is not to discredit the use of official data, but to point out the importance of including self-report measures to complement official statistics. Self-report data can provide additional information on the spread and frequency of criminal behavior among the offender population. The self-report method has also been shown to be robust and reliable (Zhang et al., 2000). A number of studies found a remarkable degree of uniformity between self-reported answers and official data (Erickson and Empey, 1963; Gibson et al., 1970; Blackmore, 1974). Another study of drug dealers that traced self-reports of arrests from interviews through criminal records found an 80% match between the two data sources (Reuter et al., 1990).

However, self-reports rely on offenders' memories, which fade over time. Therefore, it was not possible in this study to have as long an observation period as that for the official records. Since evaluation studies on recidivism are mostly concerned with the period immediately after treatment, this study proposed a 12-month post-camp observation period for gathering self-report data.

Third, this study examined, again using self-report measures, the effectiveness of boot camp in reducing participants' subsequent involvement in drug use and sale. Understandably, such information is usually not available in official files, which is probably why most evaluation

studies chose not to deal with this aspect of their boot camps. It is hard to ignore the importance of this issue since all boot camps seem to claim drug education and treatment to be a key component of their programmatic planning (MacKenzie, 1993).

This study used two different ways to examine the effectiveness of the DTBC on substance abuse—(1) a cross-sectional component (to compare boot camp participants against those from the traditional juvenile camps), and (2) a longitudinal approach (to follow a group of camp participants through a pre-and-post design to examine the change over time in their drug offenses). The pre-and-post design, while time consuming and costly, was justified for methodological reasons. As MacKenzie (1993) reported, all programs operating in 1992 emphasized drug education and counseling. For instance, participants in the New York program received drug counseling and education daily throughout the entire 180-day program (MacKenzie, 1993: 24). The heavy emphasis on drug counseling and education indicates a high concentration of drug using offenders in these boot camps, which makes it difficult to find comparable subjects elsewhere. The same was true with the DTBC in Los Angeles County, which supposedly was recruiting drug-abusing offenders. Although elaborate case matching methods and statistical procedures can control for many variables including race, age, and prior offenses, the unique nature of drug use and the lack of relevant official data can raise comparability problems in a quasi-experimental design by using so-called "legally eligible subjects" (see MacKenzie et al., 1995). Therefore, to complement a cross-sectional comparison between the DTBC and the traditional camp in their effectiveness in reducing juvenile offenders' involvement in drug use and sale, this study included a pre-and-post test component.

Fourth, this study examined the level of participation of camp graduates in conventional activities (i.e., pro-social activities) and, in particular, the role of parental involvement in

fostering successful return of participants to the community. A distinct feature of the juvenile boot camp in Los Angeles County was its requirement for parental involvement during and after the program, which was supposedly not emphasized as much in the rest of the camp system. This feature would allow this study to examine the extent to which these parents may help improve the offenders' subsequent behavior.

PROJECT DESIGN

This study consisted of three independent data collection components, as shown in Figure 1, --(1) a comparison of official recidivism rates between matched boot camp graduates and non-boot camp graduates over a five-year observation period (hereafter the matched samples); (2) a cross-sectional comparison of self-reports between boot camp and non-boot camp graduates over a 12-month observation period (hereafter the 12-month self-report samples); and (3) a pre-and-post test of a boot camp cohort over a 6-month observation period (hereafter the pre-and-post cohort).

"Figure 1 about here"

The Case Matching Method

This study used the case matching technique to locate a group of comparable subjects from four other juvenile camps who were matched against the sampled boot camp participants on major descriptive variables (i.e., socio-demographic and criminal history characteristics). Prior to the implementation of the boot camp program, there were six so-called senior camps in Los Angeles County, enrolling youngsters who were at least 15 years of age. These camps were

equivalent to one another in terms of their levels of confinement and programmatic services. Two of the six senior camps were converted to be the boot camp; the remaining four were thus selected to be the comparison camps.

The case-matching technique has its limitations because a sample becomes exceedingly difficult to draw as the number of descriptive variables increases. Therefore, the number of descriptive variables selected for the case matching process was rather arbitrary and limited to the ones that were thought to be conceptually important. This study used the following matching criteria: gender (all males), ethnicity (White, Hispanic, and African American), age, and prior arrest history. To achieve a better understanding of the effectiveness of the boot camp and its aftercare component, this study also limited the sampling match to first-time camp-order youngsters for both groups. Presumably, those with prior camp experience were likely to be more serious and chronic offenders, which may confound the results.

This study did not use boot camp dropouts for comparison purposes. MacKenzie et al. (1995) used boot camp dropouts to form comparison groups in five of the eight states they evaluated (see also MacKenzie and Shaw, 1993). These dropouts were enrolled but failed to complete the programs for various reasons (not reported in the study). While legally eligible, most who dropped out boot camps were due to disciplinary problems or uncooperativeness. Therefore, their very failure to complete the program made them a self-selected group and rendered the comparison problematic.

It is important to point out that elaborate case matching and statistical manipulation can not make up for a true experimental design with random assignment because it is difficult to assess just how comparable the "matched" or "legally eligible" subjects are to the boot camp participants. Legally eligible subjects are indeed different from those who actually were assigned

to boot camp, as any administrator can attest to the fact that the screening process at each camp ensures that the most eligible candidates are recruited. Intake officers usually have written selection criteria, which means those who do not get in the treatment program are somewhat less eligible. The same was true for the DTBC in Los Angeles. The initial screening protocol was designed to seek out documented or alleged drug users, thus making it hard to find comparable subjects in the larger camp system.

Sampling and Data Collection

For the matched samples, the sampling frame included youngsters who completed the boot camp between April 1992 and December 1993, to minimize possible treatment inconsistencies and programmatic/staff adjustment during the start-up phase. A complete roster of the boot camp graduates from this sampling period was obtained from the camp headquarters, from which 427 graduates with no prior camp experience were randomly selected. Frequency tables were compiled for the DTBC graduates to provide ethnic descriptions, which then served as guides to stratify for selecting the comparison graduates. Subsequently, a complete roster of the four comparison camps was also obtained and used to select 427 youngsters who matched on the pre-determined descriptive variables. The sample size for either group was sufficient to achieve a 95% level of confidence in the results with a tolerated error margin of 5% (Backstrom and Hursh, 1963:33).

In the end, the two samples of subjects were matched on the following aspects: gender (all males), between the ages 16-18 at the time of camp entry, number of prior arrests, no prior camp experience, non-violent and non-sex offenses, and out of the camp during the same period as the boot camp graduates. In addition, these two samples were also matched on the ethnic

composition (i.e., White, Hispanic, and African American). For pragmatic reasons, other ethnic minorities were excluded.

The access to official records (both juvenile and adult) was granted through the approval of a petition to the Los Angeles County Probation Department prior to the initiation of the project and of a motion to the Los Angeles County Juvenile Court. Complete records of arrests and dispositions were obtained for the matched samples, and keyed into an SPSS data file for analysis.

For the 12-month self-report samples, a complete list of all camp graduates who exited the boot camp program and the four comparison camps in 1996 was obtained from the Los Angeles County Probation Department camp headquarters. To ensure a sufficiently large pool of eligible candidates, the sampling time frame was extended to December of 1995 and the first three months of 1997. The original plan was to match the two samples on the same descriptive variables, however the effort was aborted after the selective interview process turned out to be prohibitively expensive and impractical. As a direct result of the regionalization in juvenile camp system (which affected the sampling period for this component, but not the matched samples), about 70% of the daily population at the two DTBC camps became Hispanic. It also drew slightly more Caucasians but far fewer African Americans than the rest of the camp system.

It was originally planned that since the sampling frame for the comparison group was much larger than that of the boot camp subjects, interview activities on the comparison group would revolve around the interviews of boot camp subjects for the matching purpose. In other words, age and ethnicity distributions of the boot camp interviews would be used to determine the interviews with the comparison subjects. As it turned out in the data collection process, significant human resources (hence expense) were spent to complete these matches between the

boot camp and comparison subjects on the descriptive variables. It soon became obvious that the resource implication of such a matching process was prohibitive. Furthermore, to avoid the time lag effect, interviews for both groups of subjects were to take place approximately at the same time to ensure equivalency in their exposure to the treatment environment and to risk (time out of camp. The selective process was terminated and interview activities proceeded irrespective of their matching criteria. As a result, there were significant differences between the two groups of subjects on two main descriptive variables--ethnicity and age (as shown later in the sample descriptions).

All telephone interviews were conducted at the Social and Behavioral Research Institute (SBRI) at California State University San Marcos, which was equipped with a state-of-the-art computer-aided telephone interviewing (CATI) laboratory capable of conducting large-scale survey research regionally and nationally. The software of the CATI system tracked the scheduled call-backs and monitored progress on completing sample related quotas. Interview questions appeared on the computer screen and the interviewer entered the data directly into the database. Supervisors were present during all interviewing activities and calls were monitored at random to ensure the consistency of the interview protocols and the accuracy of the recorded data. All supervisors had worked as interviewers prior to becoming a supervisor, and received extensive training in telephone interviewing techniques and social science research methods.

To locate potential subjects, probation records were obtained for the pool of eligible subjects, which contained their home addresses and phone numbers. Eliciting cooperation from these youngsters for interviews was aided by a nominal payment ($20 each for a completed interview). Additionally, subjects were assured of confidentiality of their identity, and by conducting interviews over the phone in the subject's choice of location (e.g., his bedroom or a

friend's place). However, because of the high residential mobility among the offender population, the majority of telephone numbers in the official files turned out to be inaccurate by the time first phone contacts were attempted (approximately 12 months after their camp exit). Several techniques were used to achieve the proposed sample size (i.e., 100 completed interviews for each group), including directory assistance, cross street verification, repeated calls to unanswered calls, and reviewing hardcopy probation files to search for additional contact information, such as addresses and phone numbers of subjects' relatives and employers.

The pre-and-post cohort component was designed to interview a group of subjects as soon as they entered the boot camp to obtain self-report data for the six months prior to their current entry into the justice system. The same group of subjects would then be interviewed for a second time six months after leaving the camp. The goal was to gauge changes over time as a result of participation in the boot camp. The first wave of interviews (T1) were conducted over a three-month period and included a cohort of 137 fresh recruits, which was estimated to be sufficient for 100 completed interviews at the second wave (T2). However, the sample attrition was far more severe than anticipated. Upon camp exit, contact information of all subjects interviewed at T1 was gathered. At approximately 5th month after the first few graduates left the camp, the complete list of T1 subjects was forwarded to the Probation Department for verification purposes and also to update any changes in participants' addresses and phone numbers. After the first round of verification conducted by the DTBC staff, only 37 youngsters were located (i.e., with no changes in either telephone number and residence). The rest either had disconnected their telephones or changed their addresses. An immediate request was made to the Probation Department to update on the whereabouts of the "missing" subjects, many of whom, according the program description, were still supposed to be either under intensive probation supervision or

just out of the aftercare program. A formal request from the boot camp director was sent out to all supervising area offices for updated information on the "missing" subjects. The intensive aftercare (i.e., placed on small caseloads of 35 per probation officer) should last 90 days, and then the youngsters would be transferred to regular probation for an additional six months or terminated upon successful review of their probation performance. The process of the follow-ups became protracted; many area offices were simply non-responsive, which substantially increased the time lapse to T2 interviews far beyond the originally planned six months.

Three different strategies were attempted to obtain information about the "missing" subjects. First, boot camp director Robert Polakow issued a request to all area offices that supervised the T1 subjects to update on their most current contact information. A few area offices responded. Many did not, even after repeated requests. As soon as any updated information was forwarded to the research team, phone calls were made immediately to contact the youngsters. Many of the updated records from the supervising offices were again found to be inaccurate and returned for further verification. As this strategy became ineffective in generating accurate information in a timely manner, the research team requested and obtained the names and phone numbers of the supervising officers and directly requested the information. For various reasons, most officers were often away from their desks and reached only through repeated attempts. Messages left at their area offices were seldom returned. Additionally, because of the sensitive nature of the information requested, many officers were unwilling to release any information without written authorization. After all these hurtles, the information forwarded to the research team, which was supposed to be current, often turned out to be still inaccurate. As the search for T1 subjects snailed forward, the number of terminated cases was also rising. As a third strategy, members of the research team went to the Los Angeles County Hall of Records to

search through closed supervision files in a last attempt to search for any clues on the whereabouts of the youngster. Throughout the process in search of the T1 subjects, obtaining timely responses from field offices and especially from the responsible probation officers was most difficult, probably due to their unfamiliarity with the project, unwillingness to release confidential information, or simply work overload. Finally, after the research team chased frustratingly for months after supervising officers, a directive from the bureau chief in charge of the field offices was issued, *ordering* cooperation to submit updated information on the "missing" cases.

Because of the difficulty in locating the subjects, the elapsed time between the camp exit and the second interview was significantly lengthened from the originally planned six months to anywhere between 204 days up to 517 days (with an average of 351 days, a standard deviation of 67.7 days, and a median of 349 days). Therefore, the majority of T2 interviews took place approximately one year after their camp exit. Only 89 subjects were located and interviewed at the second wave (T2), a success rate of 65%.

Measurements

Official data: Recidivism can be defined in different ways, all of which have certain degree of content validity (Maltz, 1984; Schmidt and Witte, 1988). Instead of arguing over which measure is more appropriate, this study adopted multiple criteria: (1) any new arrests, (2) any new sustained petition or conviction, (3) any filing of 777 petition for probation violation. Probation officers at their discretion can file a 777 petition to request the court to revoke or modify the terms of an offender's probation. From an officer's perspective, such petitions are an

indication of probation failure. They usually result from serious probation condition violations or new arrests.

The observation period began on the date a youngster was transferred from the boot camp to the aftercare unit, or a comparison subject from a camp facility to a regular probation unit. Temporal information was recorded on all legal actions. Duration (e.g., time between beginning probation and the first recidivism act) was calculated by taking the difference in days between the date on which post-camp supervision began and the date an incident occurred.

The official data collection instrumentation contained four general categories: (1) demographic information (e.g., age and race), (2) current offense and disposition type, (3) prior arrest history, and (4) post-camp recidivism information. Official data sources used in this study included (1) the Juvenile Automated Index (JAI) maintained by the Probation Department and (2) the California Law Enforcement Telecommunication System (CLETS) maintained by the state agency Bureau of Criminal Statistics. After positive identification of the selected youngsters (through a combination of cross-referencing arrest records and matching vital demographic variables) in the automated system, computer records were printed and then manually coded into the data form.

Self-report data: This study adopted a well-established instrument, the International Self-Report Delinquency questionnaire (ISRD), to assess the youngsters' post-camp delinquent activities. This instrument, originally put together by criminologists from 15 Western countries, went through a series of empirical examinations and found to be reliable and methodologically sound (for a detailed discussion of this instrument, see Junger-Tas et al., 1994 and Zhang et al., 2000). In addition, the ISRD was previously piloted on a sample of detained juvenile offenders in the Los Angeles County Probation Department, which supported its validity and applicability

(see Junger-Tas et al., 1992). The instrument contained measures on (1) the types of crimes committed during a specified time frame, (2) the frequency of these delinquent acts, (3) the onset of each admitted offense, (4) the circumstances of the incidents, and (5) a set of socio-demographic variables including attitudes to school and work, living arrangement, and circle of friends.

There are a total of 44 delinquency measures grouped in five categories. The first group contains questions on problem behaviors (i.e., status offenses and minor infractions); the second group pertains to vandalism; the third contains various kinds of theft behaviors; the fourth asks questions about violent and aggressive behavior; and the fifth group contains questions on alcohol and drug use. A set of filtering questions is put forth before the details of specific delinquent acts are probed, as shown in Figure 2.

"Figure 2 about here"

Following the filtering questions, more specific questions are prompted to gather information on the frequency of the acts, the most recent act, and its circumstances, as shown in Figure 3.

"Figure 3 about here"

Modifications were made to adjust the time frame to suit this study. The following was an example:

> Item 290: You mentioned stealing a car (referring to the screening question).
> Item 292 (**Original**): Did you do it during this last year? <*interviewer: that is, since...*>
> Item 292 (**Revised**): Did you do it during this last year? <*interviewer: that is, since you graduated from the boot camp.*>

Measures on drug offenses: The alcohol and drug related measures in the ISRD instrument were designed to capture a youngster's involvement in both drug use and sale activities, which again were modified to suit this study (Item 450 through Item 499). These measures were designed to capture various aspects of the drug culture (i.e., circumstances of drug use and group activity) and the extent of the respondent's involvement (i.e., frequency and types of drugs used or sold). The instrument also provided extensive measures on a respondent's alcohol and tobacco use. Again, temporal elements were added to specify the time frame and help narrow down the time of first drug use/sale during the observation period. The following was an example:

> Item 450: You mentioned using marijuana, hashish or pot (referring to the screening question).
> Item 452 (**Original**): Did you do it during this last year? <*Interviewer: that is, since...*>
> (1) no (2) yes---> How often this last year? _____ times
> Item 452 (**Revised**): Did you do it during this last six months? (*Interviewer: that is, since you graduated from the boot camp*)?
> (1) no (2) yes---> How often this last six months? _____ times
> (3) When did you do it the first time? _____(*ask to identify the month)* (**added**)
> (4) Approximately what part of the month was it? (**added**)
> 1st-----5th-----10th-----15th-----20th-----25th

To simply analysis and presentation, these 44 types of self-report offenses were grouped into five major offense categories: (1) status offenses, (2) vandalism offenses, (3) theft offenses, (4) violent offenses, and (5) drug offenses. Index scores were computed for each of the five categories. The first four were further separated to form an index of all non-drug related offenses for analysis purposes. Drug offenses in this study were analyzed separately as a group to reflect the emphasis of the DTBC on substance abuse issues.

Measures on social integration: There were two sets of measures on social integration: (1) those on minors' participation in conventional activities, and (2) those on parental involvement in the correctional process. Participation in conventional activities was measured by multiple indicators, including employment, education, organized sports, and other social activities. The ISRD instrument (in its socio-demographic section) contained a set of measures on these activities; only minor revision was made with reference to specified time frames (i.e., since their camp graduation).

Information on parental involvement in the minor's return to the community came from self-report measures that included such variables as camp visits, office visits, and communication with probation officers, and support in the youngster's efforts to engage in law abiding activities (such as school, sports, and paid jobs). The following was an example:

1. Did your parent(s)/guardian(s) ever visit you during your camp stay?
(1) no (2) yes --->How many times? _____ times
2. Did your parent(s)/guardian(s) attend you camp graduation ceremony?
(1) no (2) yes
3. How often did your parent(s)/guardian(s) accompany you to your probation office visits?
(1) always
(2) most of the times
(3) sometimes
(4) occasionally
(5) never

Demographic variables and prior history covered two broad categories: (1) socio-demographic background (e.g., age, race, education, living arrangement, education, general attitudes toward school and work, social network (friends), employment, income; and (2) information about the minor's prior delinquent history including the number of arrests, and the nature of the incident offense.

ANALYSES AND FINDINGS

The project goal of producing findings that can be shared with correctional agencies, program administrators and policy makers led to an emphasis on descriptive analyses. Most of the statistics presented here focused on basic re-offending patterns (based on official as well as self-report data), the prevalence of recidivism and drug use among subjects. Bivariate comparisons were used to establish the degree of similarity (or differences) for these groups of subjects in terms of their recidivism prevalence and frequency. Emphases were placed on the clarity of presentation and direct utility for service providers. More sophisticated analyses were also used when appropriate. For instance, stepwise multivariate regression was used to explore the extent to which various individual and structural variables, life circumstances, and prior history of the subjects combine to affect the program outcomes.

The Matched Samples

Sample description: For the matched samples, 427 boot camp graduates were selected and another 427 subjects from the comparison camps. Both groups were matched on the descriptive variables as shown in Table 1. Two other variables (i.e., male and first-time camp order) were constant as a result of the predetermined sampling frame. The ethnic breakdowns were as follows: 66% Hispanics, 18% African American and 16% Whites. All subjects were at least 16 years of age. The vast majority of these youngsters (more than 90% for both groups) had at least one prior arrest; many of them had multiple contacts with the police prior to their camp entry (with 41% in each group having five or more prior arrests).

Both samples were exposed to the camp environment for approximately the same amount of time, averaging 159 days for the boot camp group (with a median of 155 days and a standard deviation of 29.96) and 155 days for the comparison group (with a median of 145 days and a standard deviation of 46.98). The comparison group on average had been out of the camp system longer than the boot camp sample, 4.28 years compared to 4.21 years.

"Table 1 about here"

Recidivism: Both groups revealed very similar patterns in subsequent arrests and sustained petitions (as juveniles) or convictions (as adults), as shown in Table 2. During the follow-up period (more than four years on average), about 85% of the subjects in both groups were arrested at least once; 33% of the comparison group and 30% of the boot camp sample were arrested for five and more times. Two thirds of both groups had at least one sustained petition or conviction during this period. While the two samples were very similar in their post-camp arrests and adjudications, boot camp graduates had significantly more probation violations (13%), compared to 6% among the comparison group. This was to be expected because of the smaller caseloads and intensive supervision afforded to the boot camp youngsters during their aftercare phase.

"Table 2 about here"

An OLS regression analysis was conducted to examine the effects of available variables in the official data on post-camp arrests and sustained petitions. As shown in Table 3, the most

salient predictor of post-camp arrests and adjudications was the number of prior arrests, which was consistent with most criminology literature. The number of probation violations also had a significant and positive impact on post-camp arrests, but not on adjudications. Those with a high number of post-camp arrests and adjudications (or convictions) were also likely to be arrested soon after they left the camp. Being African American appeared to *decrease* the likelihood of being convicted (or adjudicated) on post-camp offenses. Furthermore, the length of camp stay also had a positive impact on the number of post-camp convictions (or adjudications), but not on arrests.

"Table 3 about here"

Survival analysis (using the Kaplan-Meier method) was also conducted to compare the failure patterns as well as time to failure between the two groups. Survival analysis specifies the proportion of offenders who survived by not recidivating (and, conversely, the proportion who fail) across specified time intervals. The technique allows us to examine the process of failure within a fixed interval of time (such as every month, week, or even day) and provides more precision and specificity than does the fixed-comparison method. Those who did not fail during the observation period were treated as censored (meaning that they still could recidivate in the future). Boot camp graduates and conventional camp graduates were almost identical in their survival (or failure) rates and time to fail. Since no new information was produced from the survival analysis, the findings were omitted here.

The 12-Month Self-Report Samples

Because of the difficulties in locating and interviewing prospective subjects, these two groups were not well matched, as shown in Table 4. There were significantly more African Americans (33%), fewer Hispanic (58%) and White youngsters (9%) in the comparison group than those in the boot camp sample (respectively 11%, 73%, and 16%). The boot camp subjects were slightly older (with an average age of 17 years old) than the comparison subjects (with an average age of 16.54 years old). Both groups spent about the same length of time in camps. At the time of the interviews, both groups of the youngsters had been out of their camps for an average of 385 days, with a median of 366 days.

"Table 4 about here"

Despite the obvious differences in demographics, their patterns of pre-camp involvement in delinquency were similar. Both groups of subjects had about the same number of prior arrests and the number of self-reported non-drug related offenses. There were also similar in their self-reported pre-camp delinquency involvement. However, the boot camp subjects had a significantly higher number of self-reported drug offenses than that of the comparison group, as was to be expected for the DTBC population. In sum, these two groups of subjects had significant differences in their ethnic and age compositions, but not in their levels of pre-camp delinquency involvement, as shown in Table 5.

"Table 5 about here"

During the post-camp phase, the boot camp subjects reported to have engaged in more delinquent activities than the comparison group, particularly on theft related offenses, as shown in Table 6. The differences on overall non-drug offenses between the two groups were significant, with t=1.95 and p<.05. Measures on drug related offenses consisted of (1) four items on usage (i.e., smoking cigarettes, drinking alcohol, smoking pot, and use hard drugs) and (2) two on drug dealings (i.e. selling pot and selling hard drugs). The differences between the groups on drug related offenses became less pronounced, compared to their pre-camp comparison. In fact, the two groups were not different in their drug sale activities (with t=1.11 and p<.27), while the boot camp subjects still used significantly more drugs in the post-camp period than the comparison group (with t=2.25 and p<.03). However, when their pre-camp differences were taken into consideration, the post-camp differences, based on the self-report data, between the two groups were probably due to the residual effects of their prior delinquency involvement in both non-drug as well as drug-related offenses.

"Table 6 about here"

Official recidivism data were also collected for these two groups of subjects. Both groups exhibited very similar re-offending patterns with no significant differences on post-camp arrests, post-camp sustained petitions (or convictions), and post-camp probation violations, as shown in Table 7. As far as returning to the justice system was concerned, the two groups of subjects were not much different from one another.

"Table 7 about here"

The two groups were also much alike on most community integration measures, such as school attendance, involvement in gangs, employment, and participation in organized sports, as shown in Table 8. On the school measure, more comparison subjects (68%) were attending school at the time of the interviews, compared to 51% of the boot camp youngsters. The difference was significant (with X^2= 6.00 and p<.03), which probably was caused by the age difference between the groups. There were more youngsters in the boot camp with 71% aged 17 and older at the time of their camp entry, compared to only 52% among the comparison group. Understandably, at the time of the interviews these older youngsters either were more likely to have completed high schools or were no longer required to attend school.

"Table 8 about here"

Besides behavioral measures, psychometric scales were incorporated in the instrument to measure changes in attitudes along four dimensions: self-esteem, perceived future prospect, mastery of one's own destiny, and attitudes towards authority. All scales met acceptable internal consistency tests (Cronbach's alpha), as shown in Table 9. Self-esteem measures consisted of three subscales with the higher score representing a more positive sense of self: (1) relations with peers (10 items, Cronbach's alpha=.66), relations with one's parents (12 items, Cronbach's alpha=.89), and relations with school teachers (11 items, Cronbach's alpha=.80). Perceived future prospect consisted of 12 items (Cronbach's alpha=.76); the higher the score the more positive one felt about one's future. Mastery of one's own destiny consisted of seven items

(Cronbach's alpha=.76); the higher the score the more one was in control of one's destiny. Attitudes towards authority were measured by 17 items (Cronbach's alpha=.69); a higher score represented a higher tendency to respect a hierarchical order in life and agree with authority figures.

As shown in Table 9, despite the paramilitary drills and regimented camp life, boot camp youngsters did not score much differently from the comparison subjects on any of the attitudinal measures. These two groups of youngsters were essentially the same on these four sets of scales.

"Table 9 about here"

Based on the program design, boot camp youngsters were to receive individually planned aftercare plan and be placed on intensive supervision, in which the probation officer would tailor services according to each youngster's needs. Such an elaborate aftercare component was not available to youngsters from the comparison camps. In an attempt to assess the differences in the amount of post-camp services received by the two groups of subjects, this study collected data on five different activities: (1) tutoring, (2) recreation, (3) job training, (4) personal and family counseling, and (5) drug and alcohol counseling.

This study found that the boot camp youngsters received significantly more drug and alcohol counseling than the comparison, probably due to the emphasis of the DTBC on substance abuse issues. Other than that, the boot camp subjects received no more services than their counterparts in the comparison group. Instead, significantly more comparison youngsters participated in organized recreation activities through community agencies, as shown in Table 10. It appeared that despite the rhetoric, the elaborate aftercare plan and intensive supervision did

not materialize to provide more or different services to the boot camp youngsters (with the exception of drug and alcohol counseling), which was problematic to the integrity of the boot camp program design.

"Table 10 about here"

Despite the lack of any consistent improvement in behavioral as well as attitudinal outcomes, this study found that significantly more boot camp subjects reportedly enjoyed their camp experience than those of the comparison group, as shown in Table 11. While about half of each group (49% each) did not feel strongly about the camp one way or the other, 34% of the boot camp youngsters found their camp experience to be pleasant, compared to 14% among the comparison group. While statistically non-significant, more boot camp subjects (84%) also considered that the camp experience made them a better person, compared to 76% among the comparison. Based on self-reports, both groups of subjects received about the same number of disciplinary actions for conduct problems while in camp. However, when official data were compared, the boot camp subjects were significantly more likely to be sent to locked-down or more restricted facilities for disciplinary problems (26%), compared to zero among the comparison group.

"Table 11 about here"

Because of this study's goal to search for profile characteristics associated with recidivism, Pearson correlations analyses were conducted on conceptually relevant variables and

four behavioral outcome measures—(1) post-camp self-report delinquency (non-drug related), (2) post-camp self-report drug offenses, (3) post-camp arrests, and (4) post-camp sustained petitions (or convictions). To save space, only significantly correlated variables were presented here.

(1) Post-camp self-report delinquency: While a large number of variables were significantly correlated with the two indices of post-camp delinquency measures, only a few have substantially meaningful relations, as shown in Table 12. In line with the existing literature, a respondent's post-camp delinquency involvement was most significantly correlated with his pre-camp delinquency (*r=.54 and p<.000)*. This study also found a high correlation between post-camp non-drug related delinquency activities and post-camp drug offenses (*r=.53 and p<.000)*. Other significant but moderate correlations were found with prior exposure to substance abusing environment (*r=.31 and p<.000),* school failure/frustration (*r=.30 and p*<.001), and stress (*r=.38 and p<.000*).

"Table 12 about here"

(2) Post-camp self-report substance abuse: As discussed above, post-camp drug offenses were significantly correlated with non-drug related delinquency activities, as shown in Table 13. More importantly, post-camp drug offenses were most significantly correlated with pre-camp drug offenses (*r=.62 and p<.000)*, which is in line with the existing literature. Other significant but moderate correlations were found with prior exposure to substance abusing environment (*r=.30 and p<.000)* and pre-camp involvement in non-drug related delinquency offense (*r=.43 and p<.000)*.

"Table 13 about here"

(3) Post-camp arrests and (4) post-camp sustained petitions (or convictions) were found to have far fewer significant correlates compared to the self-report measures, as shown in Table 14 and Table 15. Furthermore, the correlation between prior arrests (pre-camp) and post-camp arrests was not only weak but also marginally significant ($r=.12$ *and* $p<.10$), which was somewhat inconsistent with the existing literature. Neither prior arrests nor prior sustained petitions were significantly correlated with post-camp sustained petitions. Subjects living with both of their mothers and fathers were less likely to be arrested after camp exit ($r=-.23$ *and* $p<.001$). There was also a moderate and negative correlation between post-camp arrests and perceived parental support in times of trouble ($r=-.25$ *and* $p<.001$). Being African-American was more likely to have post-camp sustained petitions ($r=.25$ *and* $p<.000$).

"Table 14 and Table 15 about here"

Multiple regression analyses were carried out to further explore variables that were influential on both self-report and official recidivism measures. With inference from the bivariate correlations, this study conducted stepwise regression to search for variables that could best predict the outcomes. All significant correlates of individual outcome measures were included in their respective stepwise regression models.

For post-camp self-report delinquency, seven variables were found to have significant predicting effects—pre-camp delinquency, prior exposure to substance abusing environment,

perception of future opportunities, perception of control over one's destiny, cumulative stress factors, pre-camp substance abuse, post-camp substance abuse, and perception of school failure and frustrations. These seven variables together combined to explain more than 50% of the variance in the dependent variables (adjusted R^2=.52), as shown in Table 16.

For post-camp self-report drug offenses, four variables were found to have significant predicting effects—pre-camp drug offenses, post-camp non-drug delinquency, enrollment in school, and parental knowledge of subjects' friends and whereabouts. These variables combined to explain more than 50% of the variance in the dependent variable (adjusted R^2=.56), as shown in Table 16.

"Table 16 about here"

For post-camp arrests, four variables were found to have significant predicting effects—perceived support from parents in times of troubles, both parents living with the respondent, being a gang member, and having a job. However, these four variables, while significant in their beta values, could only explain a small amount of variance of the dependent variable (adjusted R^2=.16), as shown in Table 17. Similar finding was also true of post-camp sustained petitions. Being African American, perceived parental support in times of troubles, the number of times being disciplined while in the juvenile camp, and the number of days the respondent had to care for himself were found to be significant predictors. Again, these independent variables combined to explain only a small amount of the variance in the dependent variable (adjusted R^2=.10), as shown in Table 17.

"Table 17 about here"

It appeared that both official outcome measures (i.e., post-camp arrests and post-camp sustained petitions) were not very explainable by the self-report measures included in this study, both in the bivariate correlation analyses as well as in the regressional analyses. Self-report outcome measures were far better explained by the variables in the instrument. However, being in the boot camp (coded as a dummy variable) did not appear to have any significant correlation or predicting effect with any of the four outcome measures.

The Pre-and-Post Cohort

Because of the significant reduction in sample size, an attrition analysis was conducted to compare the differences between the lost cases and the final sample. The ethnic composition was visibly different (although statistically the differences were marginally significant). There were also visible differences in the age categories, although at the group level both the final sample and lost cases were similar. It appeared that attrition occurred mostly among Hispanic subjects and those who were 18 years of age or older at the time of the interviews. In terms of their length of stay in the boot camp, pre-camp self-report delinquency and pre-camp self-report drug offenses, there were no significant differences between the final sample and the lost cases, as shown in Table 18.

"Table 18 about here"

Because of the structural change as discussed earlier (i.e., regionalization), the pre-and-post cohort spent far less time in the boot camp than the subjects in the other two components, with an average of about 78 days (with a median of 70 days). Over the years, there was a steady decline in the average length of camp stay in the entire juvenile camp system in Los Angeles County due to various efforts to respond to the juvenile court pressure to accommodate the increase of camp orders. For subjects of the matched samples (who were enrolled during the prime time of the program and left the camps in 1992 and 1993), the average length of camp stay was around 155 days, as shown in Table 1. For the 12-month self-report samples (who left their respective camps between 1995 and 1997), the average camp stay was around 130 days, as shown in Table 4. By the time the pre-and-post cohort entered the boot camp program, their time in camp was reduced by half.

In comparing the changes over the two observation periods, significant improvement was found on almost all self-report measures, as shown in Table 19, despite the fact that the post-camp observation period was much longer than that of the pre-camp. On post-camp self-report delinquency (i.e., non-drug offenses), the average number of offenses was 3.67 during the post camp observation period, compared to 6.10 in the pre-camp period ($t=3.84$ *and* $p<.000$). The improvement was significantly evident across all four categories that made up the index—status offenses, vandalism, theft, and violent offenses. For post-camp self-report drug offenses, the improvement was also remarkable with a mean score of 3.90 compared to the pre-camp average of 4.32 ($t=1.88$ *and* $p<.07$). However, much of the significance was due to improvement over drug sale activities; there was no statistically significant improvement in drug use between the two observation periods.

"Table 19 about here"

On measures of social activities, no significant differences were found on school attendance, employment and involvement in gangs, as shown in Table 20. However, the subjects participated in organized sports more during the pre-camp period than in the post-camp period ($X^2=4.10$ *and* $p<.05$).

"Table 20 about here"

Using the same psychometric scales as those for the 12-month self-report samples, this study also measured on the attitudinal changes over the two periods for this group of subjects. All scales met acceptable internal consistency tests (Cronbach's alpha), as shown in Table 21. Overall, few differences were found over the two periods; the boot camp treatment did not appear to have any impact on their attitudes towards authority, on their perceptions of future prospect, or on their perceived mastery of their own destiny. However, significant improvement was found on two sub-scales that made up the self-esteem measures. The subjects' perceptions of their relationships with their parents (or caretakers) were improved significantly ($t=2.16$ *and* $p<.04$) and the perceptions of their school relationships (with teachers and classmates) were also significantly improved ($t=2.40$ *and* $p<.02$).

"Table 21 about here"

Same as the 12-month self-report component, Pearson correlations were sought between conceptually relevant variables and the four behavioral outcome measures—(1) post-camp self-report delinquency (non-drug related), (2) post-camp self-report drug offenses, (3) post-camp arrests, and (4) post-camp sustained petitions (or convictions). Only significantly correlated variables were presented here.

(1) Post-camp self-report delinquency: The most significant correlates were pre-camp delinquency (*r=.43 and p<.000)* and post-camp drug offenses (*r=.41 and p<.000)*, as shown in Table 22. Interestingly, a subject's intention to want his relationship with his girlfriend to last appeared to reduce his post-camp delinquency (*r=-.31 and p<.02)*.

"Table 22 about here"

(2) Post-camp self-report drug offenses were found to be most significantly correlated with pre-camp drug offenses (*r=.43 and p<.000)* and other post-camp delinquency involvement (*r=.41 and p<.000)*, as shown in Table 23. Other significant but moderate correlates included pre-camp delinquency involvement (*r=.33 and p<.002)* and perceived support from parents in times of trouble (*r=.30 and p<.004)*.

"Table 23 about here"

(3) Post-camp arrests and (4) post-camp sustained petitions (or convictions) were also found to have far fewer significant correlates compared to those of the self-report measures, as shown in Table 24 and Table 25. The three leading variables significantly correlated with post-

camp arrests were post-camp self-report delinquency (non-drug related) (*r=.29 and p<.005)*, pre-camp arrests (*r=.27 and p<.012)*, and the level of cultural assimilation (i.e., Spanish speaking families) (*r=.27 and p<.013)*. Even fewer variables were significantly correlated with post-camp sustained petitions. The three leading correlates were the level of cultural assimilation (*r=.45 and p<.000)*, parental knowledge of the respondent's friends and whereabouts (*r=-.24 and p<.024)*, and the number of years the respondent lived in the neighborhood (*r=-.24 and p<.026)*. It appeared that respondents with limited level of cultural assimilation (who were born outside the U.S. and whose primary language at home was Spanish) were more likely to be associated with sustained petitions.

"Table 24 and Table 25 about here"

Multiple regression analyses were also carried out to further explore variables that were influential on both self-report and official recidivism outcomes. With inference from the bivariate correlations, this study conducted stepwise regression and found few variables bearing significant impact on any of the four outcome measures, as shown in Table 26. All significant Pearson correlates of individual outcome measures were included in their respective stepwise regression models.

For post-camp delinquency, only two variables were found to have significant predicting effects—pre-camp delinquency and perceived parental support in times of trouble. Higher pre-camp delinquency would predict higher post-camp delinquency involvement. However, perceived parental support in times of trouble appeared to reduce post-camp delinquency. These two exogenous variables combined to explain 38% of the variance in the model.

"Table 26 about here"

For post-camp substance abuse, only two variables were found to have significant predicting effects—pre-camp substance abuse and post-camp delinquency. High levels of pre-camp substance abuse as well as post-camp delinquency involvement were predictive of high levels of post-camp substance abuse. Both independent variables combined to explain 30% of the variance in the dependent variable in the model, as shown in Table 26.

For post-camp arrests, four variables were found to have significant predicting effects—post-camp delinquency involvement, levels of cultural assimilation, pre-camp arrests, and employment. High levels of post-camp delinquency involvement and the number of pre-camp arrests would more likely to bring about higher numbers of post-camp arrests. Participants who were foreign born and whose primary family language was Spanish were also likely to be arrested. Employment, on other hand, appeared to reduce subsequent re-arrests. These independent variables combined to explain 26% of the variance in the dependent variable, as shown in Table 26.

For post-camp sustained petitions, only one variable was found to have significant predicting power—levels of cultural assimilation, explaining 19% of the variance. Respondents who were born outside the U.S. and whose family primary language was Spanish were significantly more likely to receive sustained petitions, as shown in Table 26. Conversely, respondents who were born in the U.S. or/and whose primary language at home was English were less likely to be adjudicated by the juvenile court after leaving the boot camp.

DISCUSSION

This study utilized official and self-report measures in three separate components to gather data in an attempt to assess from different angles the effectiveness of the Drug Treatment Boot Camp program in Los Angeles County Probation Department. The statistical findings presented above were designed to provide a straightforward picture on the similarities (or differences) between youngsters who participated in the boot camp program and those who did not. More sophisticated multivariate analyses were also conducted to explore various protective as well as risk factors as they were related to treatment outcomes. For the most part, or at least among subjects of the matched samples and those of the 12-month samples, about the only major finding was the lack of any clear and consistent improvement among boot camp participants over those of the traditional juvenile camps. This was particular true of official recidivism (i.e., re-arrests and adjudications).

Self-report measures, however, yielded more interesting findings. There was evidence to suggest that boot camp participants fared better than the comparison youngsters on drug related offenses, which was the main focus of the DTBC program. This improvement was evident among 12-month self-report samples and more pronounced in the pre-and-post cohort. In most other aspects of this evaluation, both boot camp youngsters and their counterparts in the traditional camps were very similar. The following is a list of the main summary findings.

First, despite the elaborative case matching procedure and the resulting comparable samples, the official data did not reveal any significant differences in arrests or adjudications between the boot camp participants and the youngsters from the traditional juvenile camp facilities. The only significant difference between the two groups was found on their post-camp probation violations. Because the boot camp participants were placed on smaller caseloads after

camp exit, their technical violations were presumably more likely to be detected and acted upon. Overall, the boot camp program did not appear to have any effect on official recidivism in comparison to the traditional camp system.

Second, for the 12-month self-report samples, the case matching attempt for this component was aborted due to time constraints and difficulties in locating eligible and comparable subjects. The two samples, while comparable in their levels of pre-camp delinquency involvement (official as well as self-reported), were not as well matched on major demographic attributes (i.e., age and ethnicity). Despite their pre-camp comparability on non-drug related delinquency, the boot camp participants were significantly more involved in drug offenses; however, the significant differences were less pronounced in the post-camp period, an indication of the program effectiveness. In terms of post-camp arrests, adjudications (i.e., sustained petitions), and probation violations, these two groups were very similar. Both groups were also very much alike on measures of self-esteem, perceptions of future prospect, mastery of one's destiny, as well as attitudes towards authority. Even with more sophisticated statistical procedures, this study failed to link most post-camp changes to the DTBC program.

Third, for the pre-and-post cohort, this study sustained heavy subject attritions; about one third of the T1 subjects were lost. The lost subjects tended to be older and Hispanic. It was in this sample that this study found the most positive signs of improvement. Despite the fact that the post-camp observation period was substantially longer than that of the pre-camp, a comparison of the subjects' involvement in delinquency and drug offenses over these two time periods revealed consistent and across-the-board improvement. The only exception was drug usage, in which there was no difference over the pre-camp and post-camp periods. On attitudinal measures, the cohort appeared to have improved their relationships with their parents and school teachers.

While the findings from the pre-and-post cohort revealed the most consistently positive improvement after the youngsters left the boot camp, it would be difficult to draw a definitive connection between these changes and the DTBC program in light of the findings from the other two components. Because of the limited funding, this study was unable to obtain a comparison group from the traditional camps for the same longitudinal design.

It was speculated that some methodological issues might have contributed to the significant differences revealed in this longitudinal component of the study. The T1 interviews were conducted while the juvenile offenders just entered the boot camp. It was the impression of the interviewers that many youngsters considered it a break from the demanding physical drills to talk to the interviewers on the phone. They did not seem to care much about the financial incentive so long as they could be away from everyone else in a quiet semi-private room for a while. These interviews lasted anywhere between 50 minutes to 1.5 hours depending on the extensiveness of their pre-camp delinquency involvement. The implicit incentive in the avoidance of confrontations from the "drill sergeants" and the physical exercises could lead to increased reports of delinquent behaviors. The T2 interviews were conducted when the youngsters were at home or somewhere outside the camp. By this time, the subjects had also been sensitized to the types of questions and structure of the interview. There could be a negative reaction based on their prior knowledge of the instrument on the part of the respondent who would deny having committed any offenses to cut short the interview. Additionally, there was the fatigue factor. The respondents could simply be tired of doing the interview again and chose an easy way out of the task based on their familiarity with the process.

However when the average length of the interview was calculated for both waves of data collection, there was inadequate evidence to suggest any noise that had been introduced by the

fatigue or the sensitization factor. Both waves of data collection were very similar in their median length of interview (59.77 minutes for T1 interviews and 58.57 minutes for T2 interviews). The average length of interviews was actually longer for T2 (mean=69.43; std. deviation=49.43) than for T1 interviews (mean=55.07; std. deviation=30.52). In other words, subjects at the T2 interviews in general spent as much time as they did at T1.

Besides methodological issues, it may also be possible that juvenile offenders had indeed benefited from a period of incarceration and shock treatment in the juvenile camp. On the other hand, it may also be possible that the Los Angeles juvenile boot camp, now left alone by the news media and out of the public limelight, came to focus on the substance rather than on the image, and the positive outcomes were products of a more sober-minded staff realistic about what they were able to accomplish. Furthermore, the organizational changes, resulting in a much shorter boot camp program, may have inadvertently produced positive results, by reducing their exposure to the labeling justice environment. Unfortunately the current design was not able to reconcile the different findings between the first two components with the last one.

Obviously the role of boot camp in juvenile corrections is not likely to be swayed by this or other studies. Whether boot camps continue to remain a viable alternative for adult and juvenile offenders depends mostly on what the program administrator attempts to achieve. It is fair to say that the boot camp program, as implemented and administered in Los Angeles County, was no more effective than its other juvenile facilities in reducing official recidivism.

Since boot camps appeared some 15 years ago, many studies have been conducted and the findings have consistently pointed to their ineffectiveness as a correctional model. Whether boot camps are used to alleviate jail/prison overcrowding, divert prison-bound offenders, or to provide intermediate or alternative sanctions, one finding remains consistent from most studies up to

date, that is, they are not effective in reducing official recidivism or increasing pro-social activities.

In an attempt to identify what variables that appeared to bear significant impact on the program outcomes, this study was able to identify several, most important among which were pre-camp delinquency involvement or pre-camp drug offenses. While other variables such as the subjects' perceptions of future opportunities and general levels of stress were also found to be predictive of the outcomes, none of the boot camp program measures were found to be related to any of the behavioral outcomes.

Several factors may have affected the outcomes of this study. First, significant programmatic changes took place during the study. The most important one was the shortened program (from six months down to about 10 weeks). The selection of program participants changed from a countywide pool screened by the central Camp Placement Unit to that of regional mandatory placement from the local juvenile court. Significant staff turnover occurred, mostly at the director's level, making it difficult to maintain the same management style or program integrity over time. Although these meddling factors may have affected the integrity or consistency of the program, this study attempted to overcome these interfering factors by gathering data from multiple sources and at different points in time to gauge the effectiveness of the DTBC program. By and large, the findings from this study were consistent with the existing literature.

The present study made an argument on using alternative approaches and analytical strategies to improve our understanding of boot camps as a treatment modality, such as the use of self-report data and assessment of non-programmatic factors as related to offenders' change. Needless to say, results from the self-report data in the present study probably have added

additional confusion to the pool of findings that are already complex and difficult to interpret. However, the self-report data appeared to have yielded more interesting findings between the boot camp subjects and their counterparts in the traditional camps or before and after their participation in the program. Similar findings have not been reported elsewhere in the literature.

The search for information to explicate the functions of different program components and explain why some offenders succeed while others fail requires researchers to resist the temptation to address the simple question: "Does boot camp work?" Such a blanket question increases the chances of drawing misleading and simplistic conclusions, which will in turn lead either to summarily dismissing or to unduly extolling boot camps as a correctional option. Although the present study built its rationale on methodological issues, it would be unfair to suggest that the lack of consistent findings thus far was due to inadequate research designs. It may very well be true that boot camps as currently designed and implemented are indeed ineffective.

Based on site visits and conversations with boot camp participants, staff and administrators, the Drug Treatment Boot Camp did appear very different from the traditional camps, such as the paramilitary organization, rituals (i.e., salutations and roll calls), ceremonies, uniforms, drills, and summary punishments. However, these were superficial differences. The present study did not find the DTBC to be much different from the traditional camps in counseling, parental involvement, and educational activities. Similar results were also found in other studies, in which comparison was made on boot camp and traditional camp participants, their daily activities, structural and therapeutic environments (Gover et. al., 1998; Lutze, 1998). These studies found differences in the use of summary punishments, client screening, militaristic rituals, but not in therapeutic activities.

The lack of therapeutic activities or the lack of a combination of therapeutic and regimented environment may account for the lack of differences in outcomes between boot camps and traditional camps. Future studies should examine non-programmatic factors and conditions, which are capable of influencing program outcomes irrespective of the particular treatment approach (Palmer 1995). For example, using the same self-report index developed by MacKenzie and Shaw (1990), McCorkle (1995) found that both boot camp participants and their prison comparison inmates became more pro-social, which raised doubts about the necessity of the military atmosphere to improve behavior and suggested that the attitudinal improvement was likely due to factors extraneous to the boot camp program (e.g., staff competence and commitment, program integrity, and the timing of intervention).

These non-programmatic factors may help explain why some programs had a positive influence on certain offenders while others did not. Palmer (1995) classified these factors into four categories: (1) staff characteristics (e.g., personal styles, volunteers/professionals, commitment, and competence), (2) quality of staff/client interactions (e.g., surveillance, control, and self-expression), (3) individual differences among offenders (personalities and maturity levels), and (4) program settings (e.g., institutional, non-institutional, and direct parole). For instance, Jesness (1975) found that positive changes occurred more often when the delinquents felt positive toward the staff, while Kelly and Baer (1971) found that delinquents reacting to situational stress associated with their developmental stage (e.g., identity crisis) were more responsive to a wilderness program than those who were immature and/or emotionally disturbed.

Boot camps are operated by staff of varying personalities and professional qualifications. The program's goals and strategies as well as non-programmatic factors all interact with the characteristics of the delinquents to produce certain outcomes. The effectiveness of boot camp

treatment is thus mediated by two sets of variables--individual differences and non-programmatic factors. On the one hand, a boot camp with a high level of program integrity (i.e., least disruption and high consistence in treatment activities) is more likely to produce successful outcomes, when the involved staff are well trained and motivated, and when the staff-client interactions are positive. The non-programmatic factors can be further divided into two parts--in-camp and aftercare. The aftercare phase involves factors slightly different from the in-camp ones, in which family interactions, social support network, and community environment may play an important role in treatment effectiveness. On the other hand, offenders' individual factors such as prior history, substance abuse, and the age of onset will combine to influence the effectiveness of boot camp treatment. Neither set of variables (individual and non-programmatic) can function independently of the other; instead they are expected to have interactive effects on program outcomes.

Most boot camp studies, including the present one, examined only programmatic components and their connections with certain outcomes. To this end, Palmer's review (1995) offered an excellent guide for future studies on specific programmatic and non-programmatic factors to be included in a systematic manner. The task of identifying effective combinations of treatment components and non-programmatic factors is formidable. Aside from the many treatment strategies, the four areas of non-programmatic factors each consist of numerous features or variables. The complexities involved in the search for successful combinations require researchers to develop clear and precise conceptual frameworks on which systematic data items and assessment strategies can be plotted. As Palmer (1995) pointed out, a holistic approach in an evaluation strategy would require long-term, multi-study research projects focusing on non-

programmatic as well as programmatic factors in an effort to determine the specific combinations of treatment modalities that lead to the most successful outcomes.

At a policy level, the lack of positive effects in most studies begs all of those in the position to make programming decisions to think through the issue of why anyone should expect boot camp to be effective. There is a significant gap (or clear linkage) between the conceptualization of a treatment model and its intended outcomes. The question for policymakers here is not why boot camps have failed to produce successful outcomes, but why we should expect them to be effective in the first place. Lacking a clear conceptualization of what effects different components of boot camp programs are supposed to produce and how they are supposed to produce them, most policy makers thus far have relied on their political convictions or "common-sense" to plan treatment programs for youth as well as adult offenders. In an ideal world, decision makers in correctional agencies should converse with evaluators first before any significant financial and human resources are invested in a treatment program. Unfortunately, in reality political pragmatism usually takes precedence.

Lessons learned from this project

Several lessons can be drawn from this project. First and foremost, the integrity of a project depends on the agency commitment to the project, not only at the management level, but also at the line officer level. In a sense, it is more important to secure commitment from the line officers who eventually supply the detailed information about the individual subjects in the study. When tracking and locating subjects must take place, these officers can either facilitate data collection in a timely manner, or insist on following the "proper" procedure to stall the progress of the project. In this study, while the management of the Los Angeles County Department, from

the boot camp director to the bureau chief, was more than helpful in answering the investigator's inquiries and providing all necessary administrative assistance, the responses from the line officers were often slow, and the follow-up information was often incomplete or outdated.

Second, the timing of project implementation is crucial. Often, researchers working with justice agencies find it difficult to control or even anticipate changes to the program under evaluation. A portion of the present study was caught in the middle of restructuring, consequently the original design was compromised and the subjects included in this study did not receive the treatment as the program was originally designed. The subjects in the pre-and-post cohort in this study received far less exposure to the boot camp environment and there was also significant change in the ethnic composition as a result of the camp regionalization, thus making findings from this component less comparable to those of the other two components.

Third, alternative methods or contingency plans must integrated into any evaluation design as well as corresponding budgetary concerns. By the time the principal investigator of this study realized the scope and significance of the programmatic changes, there was no budget to support any salvaging strategies. While it may be unreasonable to add contingency budgetary items as a part of the evaluation proposal, in practice it may be imperative since few programs are ever carried out as they were originally designed. When a treatment program is drastically changed, the evaluator is often forced to compromise the original research design or to compensate with statistical manipulation, both of which can only be considered handicaps from a methodological point of view.

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Figure 1. An Overview of an Evaluation of the Los Angeles County Juvenile Drug Treatment Boot Camp

Components:	Matched Samples	12-Month Self-Report Samples	Pre-and-Post Cohort
Sources of data:	Official records from Los Angeles County and California State Criminal justice files	Telephone interview and official records from Los Angeles County and California State justice files	Telephone interviews and official records from Los Angeles County and California State justice files
Type of data	Official arrest, petition, and disposition records prior and post camp; basic demographic information	Self-report delinquency, demographic, social and academic information; arrest and disposition information	Self-report delinquency, demographic, social and academic information; arrest and disposition information
Cohorts' range of dates of release for inclusion	4/92-12/93	12/95-3/97	3/97 – 10/97
Construction of comparison groups	Case matching on ethnicity, age, and prior arrests (with gender as a constant).	Unsuccessful match on ethnicity and age (with gender as a constant).	Panel design, with pre-and-post comparison of the same group of boot camp participants.
Sample size	Boot camp: 427 Comparison: 427	Boot camp: 100 Comparison: 100	Pre: 137 (at T1) Post: 89 (at T2)
Differences found between boot camp participants vs. comparison	None in re-arrests and sustained petitions; more probation violations	None in re-arrests, sustained petitions, and probation violations; overall decline in self-report delinquency but few differences between the groups.	Significant decline in self-report delinquency; more school enrolment; mixed in attitude measures.

Figure 2. An Example of ISRD Filtering Questions

INTERVIEWER:
Many young people do things that are not usually permitted. We would like to know if you have done some of these things. Remember that all your answers are confidential and no one except the researchers will ever see them. Now I will read to you a number of activities and you can tell me then if you ever did these things, yes or no.

(1)no (2)yes 010. Did you ever stay away from school for at least a whole day without a legitimate excuse?

(1)no (2)yes 020. Did you ever run away from home to stay somewhere else for one or more nights without your parents or guardian's permission?

(1)no (2)yes 040. Did you ever travel on a bus without paying?

(1)no (2)yes 060. Did you ever drive a car, a motorcycle or a moped without a license or insurance?

(1)no (2)yes 070. Did you ever write or spray graffiti on walls, buses, bus seats, shelters, etc.?

Figure 3. An Example of ISRD Detailed Questions Following the Filtering Questions

INTERVIEWER:
You mentioned staying away from school for at least a whole day, without a legitimate excuse.

011. At what age did you do it for the first time?
___ years old

012 Did the police ever find out that you did it?
(1) no (2) yes (3) don't know

013. Did you do it during this last year?
(1) no ---> next specific subject (2) yes ---> How often this last year?
___ times

014. Speaking about the last time, how many days did you stay away?
___ days

016. Where did you spend most of the time?

(1) at home or the place you live, or within a 10 minute walk from your home or the place you live
(2) at a shopping center/shopping mall
(3) downtown or in the city center
(4) somewhere else, namely: _____

017. Did you do this alone or with others, then?
(1) alone
(2) with (approx.) ___ others

018. Were you caught?
(1) no ( ) yes ----------> by whom?
(2) parents
(3) store staff
(4) teachers/school staff
(5) public transport staff
(6) accidental witness(es)
(7) police
(8) other namely: _____

019. What happened to you when you were caught?

_____

❍ Does not apply (was never caught)

Table 1. Descriptive Statistics for Matched Samples

	Comparison Camps		Boot Camps	
	Frequency	Percent[a]	Frequency	Percent
Ethnicity				
African American	76	18	76	18
Hispanic	282	66	282	66
White	69	16	69	16
Age				
16-year-old	123	29	123	29
17-year-old	195	46	195	46
18-year-old	109	25	109	25
Prior arrests				
0-1 arrests	72	17	72	17
2-4 arrests	179	42	179	42
5 or more	176	41	176	41
(Total)[b]	(427)	(100)	(427)	(100)
Length of camp stay (days)				
Mean	155.98		159.29	
Median	145.00		155.00	
Std. Dev.	46.98		29.96	
Max.~Min.	100~358		103~318	
Time out of camp (years)				
Mean[c]	4.28		4.21	
Median	4.29		4.20	
Std. Dev.	.43		.42	
Max.~Min.	3.50~5.07		3.50~5.19	

[a] Percentages were rounded in this and all subsequent tables.

[b] Gender was a constant in this study (males only).

[c] Significant differences were found between the two groups in the years since they left their respective camps; $t = 2.32$, $df = 852$, $p < .05$ (two-tailed).

Table 2. Outcomes of Matched Samples

	Comparison Camps		Boot Camps	
	Frequency	Percent	Frequency	Percent
Post Camp Arrests				
No arrest	61	14	64	15
1-2 arrests	120	28	127	30
3-4 arrests	105	25	106	25
5 or more arrests	141	33	130	30
Mean	3.78		3.54	
Std. Dev.	3.47		3.05	
Post Camp Sustained Petitions:				
No sus. petition	139	33	141	33
1-2 sus. petitions	197	46	209	49
3 or more sus. petitions	91	21	77	18
Mean	1.53		1.41	
Std. Dev.	1.59		1.52	
Post Camp Probation Violations:				
No violation	401	93.9	370	86.7
1 or more violations	26	6.1	57	13.3
Mean[a]	.10		.16	
Std. Dev.	.50		.44	
(Total)	(427)	(100)	(427)	(100)

[a] t=2.03, df=852, p<.05 (two-tailed).

Table 3. OLS Regression Analysis of Matched Samples

Dependent Variables:	Postcamp Arrests			Postcamp Sus. Petitions		
Independent Variables:	**Beta**	**t-ratio**	**Sig.**	**Beta**	**t-ratio**	**Sig.**
(Constant)		2.62	.01		1.26	.21
Number of probation violations	.13	4.25	**.00**	-.01	-.43	.67
African American (dummy var.)	-.02	-.59	.55	-.11	-2.56	**.01**
Type of Camp (dummy var.)	-.04	-1.4	.15	-.04	-1.37	.17
Hispanic (dummy var.)	-.01	-.11	.91	-.03	-.70	.48
Length of camp stay (days)	-.01	-.04	.96	.07	2.07	**.04**
Prior arrests to camp instant	.13	3.89	**.00**	.13	3.66	**.00**
Lapsed time from camp exit to 1st arrest	-.47	-15.66	**.00**	-.41	-12.78	**.00**
Age at camp exit	-.02	-.59	.55	.01	.08	.93
Age of first official arrest	-.04	-1.16	.24	-.02	-.69	.49
	R^2=.30; Adj. R^2=.29			R^2=.21; Adj. R^2=.20		

Table 4. Descriptive Statistics of 12-Month Self-Report Samples

	Comparison (N=100)	Boot Camp (N=100)
	Percent	Percent
Ethnicity:[a]		
African American	33	11
Hispanic	58	73
White	9	16
Age (at camp entry):[b]		
15 or younger	15	2
16	33	27
17	27	37
18	25	34
Mean	16.54	17.03
Median	17.00	17.00
Std. Dev.	1.18	.83
Length of camp stay:		
Mean	130.34	125.90
Median	121.00	126.50
Std. Dev.	54.83	44.80
Prior arrests		
0-1 arrests	20	22
2-4 arrests	47	48
5 or more	33	30
Mean	3.57	3.32
Median	3.00	3.00
Std. Dev.	2.58	2.03
Pre-camp self-report delinquency		
Non-drug offenses	9.65	10.72
Mean	10.00	11.00
Median	4.62	4.36
Std. Dev.		
Drug offenses[c]	3.36	4.23
Mean	3.00	4.00
Median	1.63	1.18
Std. Dev.		

[a] X^2=14.68; df=2; p<.001 (two tailed).
[b] t=3.38; df=198; p<.001 (two tailed).
[c] t=4.32; df=198; p<.001 (two tailed).

Table 5. Descriptive Statistics of Pre-Camp Self-Report Delinquency among 12-Month Samples

Self-Report Offenses	Camp Type	Mean	Std. Dev.	*t*	Sig. (2-tailed)[a]
Status offenses	Comparison	2.76	.98	-1.32	.18
	Boot camp	2.94	.95		
Vandalism	Comparison	.99	.87	-2.02	**.04**
	Boot camp	1.23	.82		
Theft	Comparison	3.97	2.61	-2.36	**.02**
	Boot camp	4.82	2.48		
Violent offenses	Comparison	1.93	1.57	.88	.38
	Boot camp	1.74	1.46		
All non-drug offenses	Comparison	9.65	4.62	-1.68	.09
	Boot camp	10.72	4.36		
Drug use	Comparison	2.80	1.19	-4.49	**.00**
	Boot camp	3.44	.78		
Drug sale	Comparison	.56	.76	-2.07	**.04**
	Boot camp	.79	.81		
All drug offenses	Comparison	3.36	1.63	-4.32	**.00**
	Boot camp	4.23	1.18		

Table 6. Descriptive Statistics of Post Camp Self-Report Delinquency among 12-Month Sample

Offenses	Camp Type	Mean	Std. Dev.	*t*	Sig. (2-tailed)
Status offenses	Comparison	1.02	1.03	-1.32	.19
	Boot camp	1.22	1.11		
Vandalism	Comparison	.18	.50	-.84	.40
	Boot camp	.24	.51		
Theft	Comparison	.61	1.15	-2.02	**.05**
	Boot camp	1.02	1.67		
Violent offenses	Comparison	.50	.79	-1.13	.26
	Boot camp	.65	1.07		
All non-drug offenses	Comparison	2.31	2.54	-1.95	**.05**
	Boot camp	3.13	3.35		
Drug use	Comparison	1.35	1.05	-2.25	**.03**
	Boot camp	1.68	1.02		
Drug sale	Comparison	.13	.42	-1.11	.27
	Boot camp	.20	.47		
All drug offenses	Comparison	1.48	1.23	-2.26	**.03**
	Boot camp	1.88	1.27		

Table 7. Post Camp Official Delinquency Outcomes among 12-Month Sample

	Comparison (N=100)		Boot Camp (N=100)	
Post camp arrests	Frequency		Frequency	
No arrest	44		47	
1-2 arrests	35		25	
3 or more	21		18	
Mean		1.37		1.05
Median		1.00		1.00
Std. Dev.		1.68		1.31
Post camp sustained petitions				
No sustained petition	70		77	
1-2	30		23	
Mean		.36		.26
Median		.00		.00
Std. Dev.		.59		.50
Probation Violations				
No Violations	88		88	
1-2 Violations	12		12	
Mean		.18		.18
Median		.00		.00
Std. Dev.		.59		.52

Note: No significant differences were detected on any of the measures.

Table 8. Post Camp Social Activity Measures (In Percent)

	Comparison (N=100)	Boot Camp (N=100)
1. **Attending School at the Time of Interview**[a]		
(1) No	32	49
(2) Yes	68	51
2. **Working**		
(1) No	58	61
(2) Yes	42	39
3. **Participation in Organized Sports**		
(1) No	60	72
(2) Yes	40	28
4. **Involvement in Gangs**		
(1) No	76	77
(2) Yes	24	23

a. $X^2 = 6.00$; $df=1$; $p<.03$.

Table 9. Post Camp Attitudinal Measures among 12-Month Sample

		Comparison (N=100)	Boot Camp (N=100)
1. **Self-esteem Measures**			
(1) Peer Related Measures	Mean	28.19	28.24
(Cronbach's alpha=0.66)	Std. Dev.	3.69	3.44
(2) Family Related Measures	Mean	34.71	34.44
(Cronbach's alpha =0.89)	Std. Dev.	4.87	6.29
(3) School Related Measures	Mean	24.44	23.92
(Cronbach's alpha = 0.80)	Std. Dev.	3.87	4.19
2. **Perceived Future Prospect**			
(Cronbach's alpha = 0.76)	Mean	33.91	34.20
	Std. Dev.	4.23	4.56
3. **Mastery of One's Future**			
(Cronbach's alpha = 0.76)	Mean	14.67	14.24
	Std. Dev.	2.85	3.42
4. **Attitudes towards Authority**			
(Cronbach's alpha = 0.69)	Mean	44.97	44.86
	Std. Dev.	4.05	3.84

Note: No significant differences were detected on any of the measures.

Table 10. Post-Camp Services Received among 12-Month Sample

		Comparison	Boot Camp
1. **Tutoring (Separate from Regular Sch. Classes)**	No	77	83
	Yes	23	17
	(N)	*(98)*	*(97)*
2. **Recreation /Sports through an Agency** [a]	No	82	92
	Yes	18	8
	(N)	*(98)*	*(99)*
3. **Job Training or Placement**	No	62	60
	Yes	38	40
	(N)	*(100)*	*(99)*
4. **Personal and Family Counseling**	No	78	80
	Yes	22	20
	(N)	*(100)*	*(100)*
5. **Drug and Alcohol Education /Counseling** [b]	No	74	41
	Yes	26	59
	(N)	*(100)*	*(97)*

a. $X^2 = 4.55$; $df=1$; $p<.04$.
b. $X^2 = 21.68$; $df=1$; $p<.001$.

Table 11. Camp Experience among 12-Month Sample

	Comparison	Boot Camp
1. **The camp experience was** [a]		
a. Awful and I hated it	37.0	17.0
b. Okay	49.0	49.0
c. Pleasant and I enjoyed	14.0	34.0
(*N*)	(*100*)	(*100*)
2. **The camp experience**		
a. was a waste of time/made me a worse person	23.5	16.0
b. made me a better person	76.5	84.0
(*N*)	(*98*)	(*100*)
3. **Self-Report Camp Disciplinary Actions**		
a. 0	33.7	37.4
b. 1-3 Times	36.7	41.4
c. 4 or More	29.6	21.2
(*N*)	(*98*)	(*99*)
4. **Official Disciplinary Actions** [b]		
a. No	100	74
b. 1-3 Times	0	26
(*N*)	(*100*)	(*100*)

a. $X^2 = 15.74$; $df=2$; $p<.001$..

b. $X^2 = 29.89$; $df=1$; $p<.001$.

Table 12. Significant Correlates of Post-Camp Delinquency among 12-Month Self-Report Samples*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.INDXALL	1.000[a]																		
	.[b]																		
	200[c]																		
2.POSDRUG	.529	1.000																	
	.000	.																	
	200	200																	
3.P1Q4	.177	.018	1.000																
	.012	.799	.																
	200	200	200																
4.DUOPARN1	-.150	-.100	.194	1.000															
	.033	.159	.006	.															
	200	200	200	200															
5.PRNKNOW	-.170	-.272	-.066	-.048	1.000														
	.017	.000	.354	.508	.														
	196	196	196	196	196														
6.SUBEXPO	.313	.302	.102	-.185	-.019	1.000													
	.000	.000	.150	.009	.795	.													
	199	199	199	199	195	199													
7.P1Q17	.208	.195	.045	-.333	.017	.202	1.000												
	.003	.006	.524	.000	.810	.004	.												
	199	199	199	199	195	198	199												
8.ESTEEM3	.303	.127	-.032	-.063	-.045	.175	.115	1.000											
	.001	.169	.731	.498	.630	.060	.218	.											
	118	118	118	118	116	117	117	118											
9.P4Q6B	.249	.113	.114	-.120	-.056	.147	.031	.269	1.000										
	.000	.112	.107	.090	.432	.039	.661	.003	.										
	200	200	200	200	196	199	199	118	200										
10.FUTURE	-.195	-.087	-.095	.128	.198	-.011	.016	-.475	-.249	1.000									
	.006	.223	.179	.071	.005	.880	.827	.000	.000	.									
	200	200	200	200	196	199	199	118	200	200									
11.SELFEST1	.252	.119	.099	-.012	-.242	.091	-.041	.565	.092	-.573	1.000								
	.000	.094	.164	.867	.001	.202	.562	.000	.194	.000	.								
	199	199	199	199	195	198	198	118	199	199	199								
12.MASTERY	.186	.075	.070	-.068	-.267	.082	.007	.581	.130	-.578	.659	1.000							
	.008	.293	.322	.339	.000	.252	.927	.000	.067	.000	.000	.							
	200	200	200	200	196	199	199	118	200	200	199	200							
13.PRIDRUG1	.289	.619	.032	-.120	-.188	.303	.217	.144	.156	-.014	.125	.059	1.000						
	.000	.000	.657	.091	.008	.000	.002	.120	.027	.847	.080	.409	.						
	200	200	200	200	196	199	199	118	200	200	199	200	200						
14.PRISELF	.542	.431	.071	-.161	-.155	.288	.220	.266	.203	-.069	.244	.161	.510	1.000					
	.000	.000	.316	.023	.030	.000	.002	.004	.004	.330	.001	.023	.000	.					
	200	200	200	200	196	199	199	118	200	200	199	200	200	200					
15.P9Q4	-.177	-.098	-.101	.008	.090	-.020	-.108	-.163	-.116	.194	-.127	-.117	-.026	-.081	1.000				
	.013	.168	.158	.916	.210	.781	.129	.078	.104	.006	.075	.100	.713	.255	.				
	198	198	198	198	194	197	197	118	198	198	197	198	198	198	198				
16.P9Q5A	.188	.118	.110	-.061	-.091	.003	.210	.111	.150	-.039	.013	.060	.129	.239	-.174	1.000			
	.008	.097	.122	.395	.209	.963	.003	.236	.035	.589	.854	.405	.071	.001	.015	.			
	197	197	197	197	193	197	196	116	197	197	196	197	197	197	196	197			
17.NHOOD	-.163	-.115	-.193	.025	.127	-.049	-.121	-.284	-.153	.205	-.154	-.187	-.073	-.166	.268	-.120	1.000		
	.021	.106	.006	.731	.077	.492	.089	.002	.031	.004	.031	.008	.308	.019	.000	.095	.		
	199	199	199	199	195	198	198	117	199	199	198	199	199	199	197	196	199		
18.STRESS	.379	.276	.086	-.183	-.119	.323	.244	.316	.122	-.132	.148	.263	.275	.340	-.116	.301	-.227	1.000	
	.000	.000	.225	.009	.097	.000	.001	.001	.086	.063	.037	.000	.000	.000	.106	.000	.001	.	
	199	199	199	199	195	198	198	117	199	199	198	199	199	199	197	196	199	199	
19.DEPRESS	.199	.110	.189	.024	-.119	.130	.064	.394	.043	-.258	.423	.330	.122	.163	-.096	.164	-.221	.311	1.000
	.005	.124	.008	.732	.099	.069	.374	.000	.551	.000	.000	.000	.086	.022	.177	.022	.002	.000	.
	198	198	198	198	194	197	197	117	198	198	197	198	198	198	197	196	198	198	198

* See Appendix A for variable names; a. Pearson Correlation Coefficient; b. Significance level (two-tailed); c. Effective sample size.

Table 13. Significant Correlates of Post-Camp Drug Offenses among 12-Month Self-Report Samples*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[redacted]SDRUG	1.000[a]															
	.[b]															
	200[c]															
2.INDXALL	.529	1.000														
	.000	.														
	200	200														
3.WHITE	.180	.046	1.000													
	.011	.522	.													
	200	200	200													
4.P1Q9	-.141	-.113	.016	1.000												
	.048	.113	.822	.												
	199	199	199	199												
5.PRNKNOW	-.272	-.170	.081	.203	1.000											
	.000	.017	.261	.004	.											
	196	196	196	195	196											
6.SUBEXPO	.302	.313	.090	-.024	-.019	1.000										
	.000	.000	.208	.734	.795	.										
	199	199	199	198	195	199										
7.P1Q17	.195	.208	.025	-.040	.017	.202	1.000									
	.006	.003	.730	.575	.810	.004	.									
	199	199	199	198	195	198	199									
8.ESTEEM2	-.177	-.125	.002	.212	.247	-.062	-.002	1.000								
	.012	.078	.981	.003	.000	.387	.974	.								
	200	200	200	199	196	199	199	200								
9.P1Q19	-.266	-.074	.004	.054	.107	-.092	.041	.007	1.000							
	.000	.298	.957	.446	.137	.195	.563	.927	.							
	200	200	200	199	196	199	199	200	200							
[redacted]Q30	.168	.044	-.120	-.009	.025	-.021	.048	.048	-.136	1.000						
	.018	.540	.091	.900	.728	.770	.506	.503	.057	.						
	198	198	198	197	194	197	197	198	198	198						
11.BOOT	.159	.137	.106	.018	-.118	.155	.086	-.024	-.173	-.074	1.000					
	.025	.052	.136	.803	.099	.029	.230	.735	.014	.300	.					
	200	200	200	199	196	199	199	200	200	198	200					
12.PRIDRUG1	.619	.289	.144	-.104	-.188	.303	.217	-.074	-.217	.150	.294	1.000				
	.000	.000	.042	.144	.008	.000	.002	.295	.002	.035	.000	.				
	200	200	200	199	196	199	199	200	200	198	200	200				
13.PRISELF	.431	.542	.139	-.118	-.155	.288	.220	-.109	-.048	.102	.119	.510	1.000			
	.000	.000	.050	.097	.030	.000	.002	.125	.504	.151	.094	.000	.			
	200	200	200	199	196	199	199	200	200	198	200	200	200			
14.P9Q3	.212	.113	.101	-.032	-.001	.143	.069	-.067	-.149	.150	.280	.297	.175	1.000		
	.003	.110	.156	.649	.985	.043	.333	.346	.035	.035	.000	.000	.013	.		
	200	200	200	199	196	199	199	200	200	198	200	200	200	200		
15.DRS	.167	.189	.032	-.065	-.011	.013	.022	-.005	-.106	-.014	.345	.167	.040	.144	1.000	
	.018	.007	.654	.360	.876	.857	.753	.940	.135	.840	.000	.018	.570	.042	.	
	200	200	200	199	196	199	199	200	200	198	200	200	200	200	200	
16.STRESS	.276	.379	.049	-.060	-.119	.323	.244	-.172	-.036	-.085	.063	.275	.340	.038	.057	1.000
	.000	.000	.489	.397	.097	.000	.001	.015	.615	.233	.380	.000	.000	.591	.420	.
	199	199	199	198	195	198	198	199	199	197	199	199	199	199	199	199

* See Appendix A for variable names.

a. Pearson Correlation Coefficient;

b. Significance level (two-tailed);

c. Effective sample size.

Table 14. Significant Correlates of Post-Camp Arrests among 12-Month Self-Report Samples*

	1	2	3	4	5	6	7	8	9
1.POSTARR	**1.000**[a]								
	.[b]								
	200[c]								
2.POSTSUS	**.596**	1.000							
	.000	.							
	200	200							
3.BLACK	**.183**	.249	1.000						
	.010	.000	.						
	200	200	200						
4.DUOPAREN	**-.226**	-.160	-.217	1.000					
	.001	.024	.002	.					
	200	200	200	200					
5.DUOPARN1	**-.170**	-.140	-.233	.612	1.000				
	.016	.049	.001	.000	.				
	200	200	200	200	200				
6.P1Q38B	**-.245**	-.167	-.063	-.031	-.080	1.000			
	.001	.019	.379	.671	.265	.			
	196	196	196	196	196	196			
7.P4Q6B	**.189**	.095	-.010	-.045	-.120	-.081	1.000		
	.007	.182	.892	.525	.090	.257	.		
	200	200	200	200	200	196	200		
8.P1Q29	**-.149**	-.094	-.168	.131	.169	-.091	-.193	1.000	
	.035	.184	.018	.065	.017	.205	.006	.	
	200	200	200	200	200	196	200	200	
9.P8Q7	**.151**	.165	.208	-.237	-.198	-.095	-.124	-.069	1.000
	.037	.022	.004	.001	.006	.191	.087	.344	.
	192	192	192	192	192	191	192	192	192

* See Appendix A for variable names.

a. Pearson Correlation Coefficient;

b. Significance level (two-tailed);

c. Effective sample size.

Table 15. Significant Correlates of Post-Camp Sustained Petitions among 12-Month Self-Report Samples*

	1	2	3	4	5	6	7	8	9	10	11
1.POSTSUS	**1.000**[a]										
	.[b]										
	200[c]										
2.POSTARR	**.596**	1.000									
	.000	.									
	200	200									
3.HISPANIC	**-.145**	-.115	1.000								
	.040	.104	.								
	200	200	200								
4.BLACK	**.249**	.183	-.732	1.000							
	.000	.010	.000	.							
	200	200	200	200							
5.DUOPAREN	**-.160**	-.226	.286	-.217	1.000						
	.024	.001	.000	.002	.						
	200	200	200	200	200						
6.DUOPARN1	**-.140**	-.170	.232	-.233	.612	1.000					
	.049	.016	.001	.001	.000	.					
	200	200	200	200	200	200					
7.P1Q10	**-.158**	-.092	.024	-.101	-.048	.004	1.000				
	.026	.197	.739	.154	.497	.957	.				
	200	200	200	200	200	200	200				
8.P1Q38B	**-.167**	-.245	.105	-.063	-.031	-.080	-.005	1.000			
	.019	.001	.144	.379	.671	.265	.939	.			
	196	196	196	196	196	196	196	196			
9.PRIDRUG1	**-.143**	-.014	.155	-.293	-.114	-.120	-.020	.052	1.000		
	.044	.840	.028	.000	.107	.091	.782	.469	.		
	200	200	200	200	200	200	200	196	200		
10.P8Q7	**.165**	.151	-.204	.208	-.237	-.198	.066	-.095	-.055	1.000	
	.022	.037	.005	.004	.001	.006	.366	.191	.451	.	
	192	192	192	192	192	192	192	191	192	192	
11.P9Q5A	**.146**	.137	.001	-.008	-.046	-.061	.081	.002	.129	-.013	1.000
	.041	.055	.985	.907	.523	.395	.255	.977	.071	.856	.
	197	197	197	197	197	197	197	194	197	190	197

* See Appendix A for variable names.

a. Pearson Correlation Coefficient;

b. Significance level (two-tailed);

c. Effective sample size.

Table 16. Stepwise Regression Analysis of Self-Report Outcomes among 12-Month Sample

	Dependent Variable: Post Camp Non-Drug Offenses				
Best predictors[a]	R	Adj. R^2	Beta	*t*-ratio	Sig.
(Constant)				2.38	.02
PRISELF	.31	.31	.47	5.79	.00
SUBEXPO	.36	.35	.19	2.52	.01
FUTURE	.39	.38	-.27	-3.07	.00
MASTERY	.43	.41	-.38	-3.76	.00
STRESS	.46	.44	.23	2.79	.00
PRIDRUG1	.49	.47	-.35	-3.87	.00
POSDRUG	.53	.50	.27	3.04	.00
ESTEEM3	.55	.52	.18	2.12	.04
	Dependent Variable: Post Camp Drug Offenses				
Best predictors	R	Adj. R^2	Beta	t-ratio	Sig.
(Constant)				1.67	.09
PRIDRUG1	.39	.39	.46	8.77	.00
INDXALL	.53	.53	.37	7.30	.00
P1Q19	.55	.55	-.14	-2.78	.01
PRNKNOW	.57	.56	-.13	-2.52	.01

a. Variable Names:
ESTEEM3—self-esteem on school related failure and frustrations
FUTURE—perception of future opportunities
HISPANIC—ethnicity (Hispanic 1, non-Hispanic 0)
INDXALL—post-camp self-report delinquency (excluding drug offenses)
MASTERY—perceived ability to control one's future destiny
P1Q19—Attending school
POSDRUG—post-camp self-report drug offenses
PRIDRUG1—self-report pre-camp drug offenses
PRNKNOW—parental knowledge of respondents' friends and whereabouts
PRISELF—pre-camp delinquency (excluding drug offenses)
STRESS—stress factors in the past year
SUBEXPO—pre-camp exposure to substance abuse

Table 17. Stepwise Regression Analysis on Official Outcomes among 12-Month Sample

Dependent Variable: Post Camp Arrests					
Best predictors	R^2	Adj. R^2	Beta	*t*-ratio	Sig.[a]
(Constant)				7.32	.00
P1Q38B	.07	.07	-.28	-4.22	.00
DUOPAREN	.13	.12	-.19	-2.87	.01
GANGEVER	.16	.15	.18	2.62	.01
P1Q29	.18	.16	-.14	-2.02	.05
Dependent Variable: Post Camp Sustained Petitions					
Best predictors	R^2	Adj. R^2	Beta	t-ratio	Sig.
(Constant)				3.90	.00
BLACK	.06	.05	.21	3.00	.00
P1Q38B	.08	.07	-.16	-2.22	.03
P9Q5A	.10	.09	.16	2.20	.03
P1Q10	.12	.10	-.15	-2.08	.04

a. Variable Names:
P1Q38B—perceived support from parents in times of troubles
DUOPAREN—live with both parents at the time of interview
GANGEVER—ever being a gang member (dummy variable)
P1Q29—currently being employed
BLACK—ethnicity (Black 1 and non-Black 0)
P9Q5A—number of times being disciplined for conduct problems while in the camp
P1Q10—number of days in a week respondent had to care for himself

Table 18. Comparison of Attrition Cases and Final Sample of Pre-and-Post Cohort

	Attrition Cases (N=48)	Final Sample (N=89)
Ethnicity[a]	Percent	Percent
African American	13	18
Hispanic	81	64
White	6	18
Age (at interview)		
15 and younger	19	18
16	8	25
17	31	30
18	42	27
Mean	16.89	16.60
Median	17.33	16.81
Std. Dev.	1.24	1.21
Length of camp stay		
Mean	84.57	77.21
Median	70.00	70.00
Std. Dev.	28.62	25.43
Self-report pre-camp delinquency[b]		
Mean	5.42	6.10
Median	4.50	5.00
Std. Dev.	4.70	4.17
Self-report pre-camp drug offenses		
Mean	4.04	4.31
Median	4.00	5.00
Std. Dev.	1.66	1.47

a. Marginal significant differences were found between groups, with X^2=4.99; *df*=2; p<.09

b. Excluding drug offenses.

Table 19. Self-Report Outcome Measures for the Pre-and-Post Cohort

Offenses	Camp Type	Mean	Std. Dev.	*t*	Sig. (2-tailed)
Status offenses	Pre-camp	2.02	1.03	5.52	.000
	Post-camp	1.14	1.08		
Vandalism	Pre-camp	.64	.73	3.11	.002
	Post-camp	.33	.62		
Theft	Pre-camp	2.23	2.24	2.70	.008
	Post-camp	1.34	2.14		
Violent offenses	Pre-camp	1.21	1.28	1.85	.066
	Post-camp	.87	1.24		
All non-drug offenses	Pre-camp	6.10	4.17	3.84	.000
	Post-camp	3.67	4.25		
Drug use	Pre-camp	3.28	.90	.95	.342
	Post-camp	3.15	.98		
Drug sale	Pre-camp	1.03	.85	2.20	.029
	Post-camp	.753	.86		
All drug offenses	Pre-camp	4.32	1.47	1.88	.061
	Post-camp	3.90	1.46		

Table 20. Social Activity Measures among Pre-and-Post Cohort (In Percent)

	Pre Camp (N=89)	**Post Camp (N=89)**
1. Attending School		
(1) No	27	37
(2) Yes	73	63
2. Working		
(1) No	64	65
(2) Yes	36	35
3. Participation in Organized Sports[a]		
(1) No	56	71
(2) Yes	44	29
4. Involvement in Gangs		
(1) No	61	64
(2) Yes	39	36

a. X^2=4.10; *df*=1; p<.05.

Table 21. Attitudinal Changes in Pre-and-Post Cohort

		Pre Camp (N=89)	Post Camp (N=89)
1. Self-esteem Measures:			
(1) Peer Related Measures	Mean	28.62	28.97
(Cronbach's alpha=0.70)	Std. Dev.	3.77	3.25
(2) Family Related Measures[a]	Mean	36.27	34.66
(Cronbach's alpha =0.81)	Std. Dev.	4.49	5.38
(3) School Related Measures[b]	Mean	26.15	24.11
(Cronbach's alpha = 0.82)	Std. Dev.	4.94	4.36
2. Perceived Future Prospect	Mean	34.10	34.21
(Cronbach's alpha = 0.80)	Std. Dev	4.92	4.98
3. Mastery of One's Future	Mean	14.79	14.49
(Cronbach's alpha = 0.73)	Std. Dev.	3.20	3.21
4. Attitudes towards Authority:	Mean	37.89	38.47
(Cronbach's alpha = 0.72)	Std. Dev.	4.39	5.07

a. t=2.16; df=176; p<.04.
b. t=2.40; df=119; p<.02.

Table 22. Significant Correlates of Post-Camp Delinquency among Pre-Post Cohort*

	1	2	3	4	5	6	7	8
1.WINDXALL	**1.000**[a]							
	.[b]							
	89[c]							
2.WPDRUG1	**.410**	1.000						
	.000	.						
	89	89						
3.WPOSTARR	**.293**	.051	1.000					
	.005	.637	.					
	89	89	89					
4.PRNKNOW	**-.241**	-.203	-.186	.121	1.000			
	.023	.056	.081	.268	.			
	89	89	89	86	89			
5.P1Q38B	**.298**	.301	.075	-.113	-.180	1.000		
	.005	.004	.487	.300	.094	.		
	88	88	88	86	88	88		
6.P1Q36	**-.311**	-.079	.000	.169	.302	-.063	1.000	
	.022	.571	1.000	.231	.027	.653	.	
	54	54	54	52	54	53	54	
7.INDXALL	**.431**	.330	.138	.016	-.194	.178	-.188	1.000
	.000	.002	.198	.882	.069	.097	.174	.
	89	89	89	86	89	88	54	89

* See Appendix B for variable names;
a. Pearson Correlation Coefficient;
b. Significance level (two-tailed);
c. Effective sample size.

Table 23. Significant Correlates of Post-Camp Drug Offenses among Pre-and-Post Cohort*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.WPDRUG1	**1.000**[a]												
	.[b]												
	89[c]												
2.WINDXALL	**.410**	1.000											
	.000	.											
	89	89											
3.PRIARRST	**.217**	.036	1.000										
	.041	.736	.										
	89	89	89										
4.P1Q18	**-.243**	-.179	-.367	1.000									
	.022	.093	.000	.									
	89	89	89	89									
5.P1Q38B	**.301**	.298	.270	-.315	1.000								
	.004	.005	.011	.003	.								
	88	88	88	88	88								
6.P1Q38D	**.255**	.182	.074	-.264	.411	1.000							
	.016	.087	.489	.013	.000	.							
	89	89	89	89	88	89							
7.ESTEEM2	**-.299**	-.137	-.133	.231	-.365	-.310	1.000						
	.004	.202	.215	.030	.000	.003	.						
	89	89	89	89	88	89	89						
8.P1Q19	**-.286**	-.071	-.086	-.004	-.067	.026	.230	1.000					
	.007	.510	.422	.968	.536	.809	.030	.					
	89	89	89	89	88	89	89	89					
9.P4Q6B	**.278**	.165	.039	-.082	-.100	.014	-.214	-.185	1.000				
	.008	.121	.717	.445	.354	.895	.044	.083	.				
	89	89	89	89	88	89	89	89	89				
10.P1Q30	**.264**	.064	.199	-.002	.041	.017	-.026	-.274	.170	1.000			
	.013	.550	.062	.982	.704	.873	.806	.009	.112	.			
	89	89	89	89	88	89	89	89	89	89			
11.PDRUG1	**.437**	.203	.223	-.246	.228	.277	-.217	-.267	.314	.203	1.000		
	.000	.056	.036	.020	.033	.009	.041	.011	.003	.056	.		
	89	89	89	89	88	89	89	89	89	89	89		
12.INDXALL	**.330**	.431	.030	-.050	.178	.099	-.079	-.156	.202	.087	.444	1.000	
	.002	.000	.780	.644	.097	.357	.461	.144	.057	.416	.000	.	
	89	89	89	89	88	89	89	89	89	89	89	89	
13.NHOOD	**-.254**	-.143	-.269	.273	-.147	-.068	.146	.147	-.246	-.131	-.245	-.175	1.000
	.016	.182	.011	.010	.171	.528	.173	.169	.020	.220	.021	.100	.
	89	89	89	89	88	89	89	89	89	89	89	89	89

* See Appendix B for variable names;

a. Pearson Correlation Coefficient;

b. Significance level (two-tailed);

c. Effective sample size.

Table 24. Significant Correlates of Post-Camp Arrests among Pre-and-Post Cohort*

	1	2	3	4	5	6	7	8
1.WPOSTARR	**1.000**[a]							
	.[b]							
	89[c]							
2.WINDXALL	**.293**	1.000						
	.005	.						
	89	89						
3.WPOSTSUS	**.584**	.164	1.000					
	.000	.124	.					
	89	89	89					
4.PRIARRST	**.265**	.036	.037	1.000				
	.012	.736	.732	.				
	89	89	89	89				
5.LANGUAG1	**.266**	.013	.446	-.102	1.000			
	.013	.904	.000	.346	.			
	87	87	87	87	87			
6.FUTURE	**-.216**	-.079	-.132	-.142	-.182	1.000		
	.042	.463	.216	.186	.091	.		
	89	89	89	89	87	89		
7.P1Q29	**-.217**	-.025	-.156	.012	.058	-.059	1.000	
	.041	.814	.143	.911	.593	.585	.	
	89	89	89	89	87	89	89	
8.P11Q1	**-.212**	-.129	-.235	.046	-.317	.198	-.021	1.000
	.046	.228	.026	.668	.003	.062	.848	.
	89	89	89	89	87	89	89	89

* See Appendix B for variable names;
a. Pearson Correlation Coefficient;
b. Significance level (two-tailed);
c. Effective sample size.

Table 25. Significant Correlates of Post-Camp Sustained Petitions among Pre-and-Post Cohort*

	1	2	3	4	5	6
1.WPOSTSUS	**1.000**[a]					
	.[b]					
	89[c]					
2.WPOSTARR	**.584**	1.000				
	.000	.				
	89	89				
3.LANGUAG1	**.446**	.266	1.000			
	.000	.013	.			
	87	87	87			
4.P1Q7	**-.219**	-.047	-.299	1.000		
	.039	.662	.005	.		
	89	89	87	89		
5.PRNKNOW	**-.239**	-.186	-.174	-.053	1.000	
	.024	.081	.106	.623	.	
	89	89	87	89	89	
6.P11Q1	**-.235**	-.212	-.317	.021	.173	1.000
	.026	.046	.003	.845	.104	.
	89	89	87	89	89	89

* See Appendix B for variable names;
a. Pearson Correlation Coefficient;
b. Significance level (two-tailed);
c. Effective sample size.

Table 26. Stepwise Regression Analysis on Post Camp Measures (Pre-and-Post Cohort)

	Dependent Variable: Post Camp Self-Report Delinquency				
Best predictors [a]	R^2	Adj. R^2	Beta	t-ratio	Sig.
(Constant)				-1.24	.22
INDXALL	.34	.32	.50	4.45	.00
P1Q38B	.41	.38	.28	-2.46	.02
	Dependent Variable: Post Camp Self-Report Drug Offenses				
Best predictors	R^2	Adj. R^2	Beta	t-ratio	Sig.
(Constant)				4.58	.00
PDRUG1	.20	.19	.37	4.09	.00
WINDXALL	.32	.30	.36	3.89	.00
	Dependent Variable: Post Camp Arrests				
Best predictors	R^2	Adj. R^2	Beta	t-ratio	Sig.
(Constant)				.39	.70
WINDXALL	.09	.08	.29	3.12	.01
LANGUAG1	.16	.14	- .31	-3.26	.01
PRIARRST	.24	.21	.28	3.02	.01
P1Q29	.30	.26	- .24	-2.54	.01
	Dependent Variable: Post Camp Sustained Petitions				
Best predictors	R^2	Adj. R^2	Beta	t-ratio	Sig.
(Constant)				3 .18	.01
LANGUAG1	.20	.19	.45	4.59	.00

a. Variable Names:
INDXALL— pre-camp self-report delinquency (excluding drug offenses)
LANGUAG1— level of cultural assimilation
P1Q38B— perceived support from parents in times of trouble
P1Q29— currently employed
PDRUG1— pre-camp self-report drug offenses
PRIARRST— prior arrests
WINDXALL— post-camp self-report delinquency (excluding drug offenses)
WPOSTARR— post-camp arrests

Appendix A. Correlation Variable Names for 12-Month Self-Report Samples

Variable Name	Label
Outcome Measures:	
INDXALL	post camp self-report delinquency (excluding drug offenses)
POSDRUG	post camp self-report drug offenses
POSTARR	post-camp arrests
POSTSUS	post-camp sustained petitions
Correlates:	
BLACK	binary ethnicity--black vs. non-black
DEPRESS	CDC depression scale index
DUOPAREN	both mother and father currently live in the house
DUOPARN1	both parents raised minor
ESTEEM3	self esteem measures on school failure and frustrations
FUTURE	perception of future opportunities
HISPANIC	binary ethnicity--Hispanic vs. non-Hispanic
MASTERY	perception of control over one's destiny
NHOOD	neighborhood deterioration measures
P1Q4	number of people lived in the same household
P1Q10	Days per week minor has to care for himself
P1Q17	Anyone in family go to jail?
P1Q29	Do you have a job?
P1Q38B	perceived support from parents when in troubble?
P4Q6B	Are you a gang member?
P8Q7	How often have parents called probation officer to tell how you're doing at home or school?
P9Q4	positive camp experience
P9Q5A	number of times disciplined in camp for conduct problems
PRIDRUG1	prior drug use and sale
PRISELF	prior delinquency (excluding drug offenses)
PRNKNOW	parental knowledge of minor's friends and whereabouts
SELFEST1	self esteem (general positive feelings about oneself)
STRESS	cumulative stress factors
SUBEXPO	exposure to substance abuse

Appendix B. Correlation Variable Names for Pre-and-Post Cohort

Variable Name	Label
Outcome Measures:	
WINDXALL	post camp self-report delinquency (excluding drug offenses)
WPDRUG1	post camp self-report drug offenses
WPOSTARR	post-camp arrests
WPOSTSUS	post-camp sustained petitions
Correlates:	
AGEARRST	age of first arrest
CARESELF	hours per week to care for oneself
ESTEEM1	self-esteem measures on peer relations
ESTEEM2	self-esteem measures on family relations
FUTURE	perception of future prospect
INDXALL	prior-to-camp self-report delinquency (excluding drug offenses)
LANGUAG1	level of cultural assimilation
MASTERY	perceived control of one's own future
NHOOD	neighborhood deterioration measures
P1Q7	lived with a lot of adults
P1Q17	anyone in family go to jail?
P1Q18	perception of family closeness
P1Q19	do you go to school?
P1Q29	do you have a job?
P1Q30	spending money per week
P1Q36	want the relationship with girlfriend to last
P1Q38B	perceived support from parents when in trouble
P1Q38D	perceived support from other relatives when in trouble
P4Q6B	are you a gang member?
P11Q1	number of years lived in neighborhood
PDRUG1	prior-to-camp self-report drug offenses
PRIARRST	number of arrests prior to camp entry
PRNKNOW	parents know respondent's friends and whereabouts
SUBEXPO	exposure to substance abuse at home