AN EXAMINATION OF THE EFFECTS OF RACE ON THE ASSIGNMENT OF AFTERCARE SERVICES AND THE EFFECTS OF AFTERCARE SERVICES ON RECIDIVISM FOR JUVENILE OFFENDERS

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AN EXAMINATION OF THE EFFECTS OF RACE ON THE ASSIGNMENT OF AFTERCARE SERVICES
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Abstract

About 100,000 youth return to their communities from correctional facilities each year. Among these youth, it is estimated that two-thirds have drug dependency and abuse problems. In recent years advocates have called for intensive aftercare services to better facilitate transitions back into the community and reduce the probability of the youth reoffending. Barriers to the implementation of aftercare services include the untested nature of most current programs, as well as small sample sizes available to conduct studies. In addition, the racial disproportionality within the juvenile justice system is well documented. This study attempts to examine the effects the provisions of aftercare services had on recidivism in a particular substance abuse facility in Virginia, and the effect race played in the assignment of aftercare services. This study found that the assignment rates of Black youth and White youth to aftercare varies with Black youth receiving aftercare less frequently than Whites. However, after controlling for a number of characteristics of the youths, the difference in the assignment to
aftercare does not differ significantly by race. This study also found that Black youth were more likely to be declared “severely delinquent” which appears to have systematically disqualified them from receiving aftercare services. Unfortunately, results regarding the effects of aftercare services on recidivism are inconclusive, mostly due to the small sample size.
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I. INTRODUCTION

Through my study I evaluate two questions regarding the program decisions made for a specific group of drug addicted youth offenders. The two questions are the following:

1. For similar offenders, when the choice is made to provide aftercare services following the completion their sentence, are aftercare services effective in reducing recidivism?

2. Since assignment to aftercare services is not randomly assigned, but based on a decision made by authorities, does race play a role in assignment of aftercare services?

The purpose of this study is to investigate if race influences decisions made regarding offering juvenile offenders in a substance abuse treatment facility aftercare services upon completion of their sentence. This study also investigates the effect that receiving aftercare services has on recidivism by looking at whether the youth was rearrested within six months and one year of being released. I control for the characteristics of juveniles admitted to this particular treatment center, in particular their age at admittance, the number of prior convictions, and their “degree of delinquency” as determined by their parole officers. In addition, I control for a variety of other individual and delinquency history controls.

If race is systematically related to alternative and aftercare program assignment, especially after controlling for other possible contributing factors, then this would be evidence of disparate treatment of juvenile offenders. This is a problem especially in terms of recidivism if it
is shown that race is a statistically significant factor in the placement of juveniles in alternative and aftercare programs which could decrease their chances of recidivism. If this is the case, then this would be a major failing in the juvenile justice system and necessitate reform.

To evaluate the influence of race on these key decision points I use a dataset compiled by Jill A. Gordon titled *Assessment of a Single-Purpose Substance Abuse Facility for Committed Juvenile Offenders in Virginia, 1995-1997*. These data were collected from Barrett Juvenile Correctional Center in Virginia, which began operating as an all-male juvenile substance abuse treatment facility in 1993. The Barrett Juvenile Correctional Center was a medium level secure facility that housed between 100 and 130 male offenders between the ages 11 and 18 who had been recommended for or ordered to participate in drug treatment. This facility was immensely different from the other six juvenile facilities being run at the time in that it offered a highly structured program focused on therapy and drug rehabilitation. The other six facilities in Virginia focused primarily on discipline and public safety.¹

Advocates in the juvenile justice community argue that, in general, alternative programs like the substance abuse program provided by Barrett Juvenile Correctional Center provide better recidivism outcomes for youth than large traditional training schools and in addition, that the provision of aftercare services also greatly reduces the chances of a youth re-offending.

This study found that Black youth were assigned aftercare services less frequently than White youth. However, after controlling for delinquency history and certain individual characteristics, the difference in the assignment to aftercare does not differ significantly by race.

However, the data show that Black youth were more likely to be deemed “severely delinquent” which appears to systematically disqualified them from receiving aftercare services. No youth given this designation was also given aftercare services. Unfortunately, results regarding the effects of aftercare services on recidivism are inconclusive, mostly due to the small sample size.

II. LITERATURE REVIEW

Disproportionate Minority Contact (DMC)

A 1997 report on Disproportionate Minority Contact (DMC) found that in many juvenile justice systems, racial overrepresentation increases as youth move past the point of arrest and further into the system. While there is a lot of information on the disproportionality of youth of color in the justice system overall, there is little research on the potential disproportionality in assignments to alternative programs and aftercare services.

From 1983 to 1997 the overall number of youth in the United States held in secure detention increased by 47%. During this same time period, the absolute number of White youth in detention dropped while the number of youth of color increased. By 1997, in 30 out of 50 states, youth of color represented the majority of youth in detention. Youth of color represent about one-third of the youth population in the United States, but two-thirds of youth in detention.

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2 As defined by the Office of Juvenile Justice and Delinquency Prevention, Disproportionate Minority Contact (DMC) refers to the disproportionate number of minority youth who come into contact with the juvenile justice system.
confinement. In addition, when youth of color are confined, they spend more time behind bars. The study found that in 1993, Black youth were held in confinement for 61 days more than White youth, and Latino youth were held 112 more days than White youth.

This widely accepted evaluation of DMC is representative of the Differential Treatment Thesis as described by Engen, Steen and Bridges. Their thesis states that DMC exists because youth of color are subjected to more formal and more severe forms of punishment than comparable White youth at all stages of the juvenile justice system.

Research has shown this to be true. Youth of color are treated more harshly than white youth, even when they are charged with the same type of offense. A study conducted by the Youth Law Center’s Building Blocks for Youth project showed that when White youth and Black youth with no prior admissions to public facilities were charged with the same offenses, Black youth were six times more likely than White youth to be incarcerated. Latino youth were three times more likely to be incarcerated. While White youth represented 73% of youth adjudicated delinquent for drug offenses, they represented only 58% of youth sent away to residential placement. Black youth, who represented 25% of the youth adjudicated for drug offenses, were 40% of the youth sent to residential placement.

Because of inconsistent race and ethnicity data collection, disproportionality may be a larger problem than it appears. Because most systems fail to separate race from ethnicity, Latino

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youth are often counted as “White”. In the dataset I use, there is a race category for Hispanic, but not a separate ethnicity question. Theoretically this might be a concern because of the lack of ethnicity data, however because the number of you Hispanic youth counted in this facility is consistent with the number of Hispanic youth counted in the general population I do not believe it will have a large impact on the outcomes. In future studies it is essential that ethnicity is added to the data collected, especially as the Hispanic population in Virginia grows.

The assignment of a youth to an alternative program or aftercare services greatly reduces their probability of re-offending. Research conducted by Harry K. Wexler, Ph.D in the 1990’s found that prison-based substance abuse treatment is effective in reducing recidivism when combined with aftercare. Wexler’s 1999 study of 478 prisoners in California found that after three years only 27% of prisoners given substance abuse treatment combined with aftercare services returned to prison. This is significant when compared with the 75% recidivism rate for those who did not participate in the program. It is important to look for signs of disproportionality in the assignment of these services to youth because of the important role alternative programs and aftercare services play in the reduction of re-offending. There is currently little research or evaluation of the potential disproportionality in the assignment to these specialized programs. Because the decisions are not made randomly, there is the potential that either consciously or unconsciously race plays a part in the decision making process. If this is the case, discovering the role race may play provides a means to provide more equitable

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9 Poe-Yamagata and Jones.
services to youth, as well as a means to prevent further crimes committed by these youth. Youth who are diverted though alternative programs are more likely to receive more attention and necessary services than youth sent to prison-like training schools, and are less likely to re-offend. This could have a huge effect on their future direction in life and their potential to continue on a path of criminal activity.

Alternative Programs

In the past few years there has been much discussion on the use of alternative detention programs and the extent of their effect on juvenile rehabilitation. A study conducted by Michael Fendrich\(^\text{12}\) studies whether or not alternative programs were effective in reducing recidivism rates by estimating a proportional-hazard model of the length of time until a youth is re-arrested as a function of individual characteristics, criminal history, family factors, program placement, and delinquency risk. Sixty-nine percent of youth in Fendrich’s study were rearrested during the twelve year follow-up period conducted from 1983 to 1995. He found that youth placed in an alternative program had significantly longer times between re-arrests than youth who had been in more traditional training institutions. These effects were greatest for the youngest offenders. He concludes that an important benefit of alternative programs is that they lengthen the window of opportunity for additional rehabilitative efforts and interventions during parole. It is at this point that the provision of aftercare services could have a significant impact on the future re-offending of a juvenile.

**Aftercare Programs**

About 100,000 juvenile offenders are released from secure correctional facilities and back into their communities each year.\(^{13}\) While the transition from a secure environment back to the community is often hard for adult offenders, for youth it is even harder. Recent brain development research has shown that youth attempting to rejoin society have the additional burden of the developmental challenges of adolescence itself.\(^{14}\) In addition, youth have less choice in choosing the environment to which they return. In many cases, youth are returned to the same environmental factors which put them at risk for committing the offense in the first place. Many youth released from custody are not at an age-appropriate level of education, come from high crime communities, have mental health or substance abuse problems or both, and lack many of the kinds of supports typically needed to transition successfully into adulthood and/or back into the community.\(^{15}\) These factors along with high average recidivism rates for youth nationally (currently estimated at 55%)\(^{16}\), support the arguments for increased and intensive aftercare services. These supportive services are especially important for youth with substance abuse problems. A 1997 survey of juvenile correctional facilities\(^{17}\) revealed that only one-third of youth in residential facilities receive substance abuse treatment, and for youth who do receive treatment while in facilities, once released the dramatic decrease in structure and services greatly increases the likelihood they will resume using upon their release.\(^{18}\)

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\(^{13}\) Snyder, 2004  
\(^{14}\) Barton, 2006, pg. 50  
\(^{15}\) Mears & Travis 2004  
\(^{16}\) Barton, 2006, pg. 48  
\(^{17}\) SAMHSA, 2000  
\(^{18}\) Gaes, Glanagan Motiuk & Stewart, 1999
Aftercare is described by Department of Justice’s Office of Juvenile Justice and Delinquency Prevention (OJJDP) as being a “promising program concept designed to minimize recidivism among youth released from out-of-home placement.”\textsuperscript{19} Though still in the initial implementation stages, aftercare is seen as the next wave of juvenile justice reform advancements.

The theory behind aftercare services is to prepare youth offenders for reentry back into their communities with the necessary support in the hopes of preventing them from reoffending in the future. Currently one of the most widely advocated forms of aftercare is the Intensive Aftercare Program (IAP) model, initiated by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) within the Department of Justice (DOJ) in 1987 and developed by Drs. Altschuler and Armstrong. The IAP model was specifically designed to reduce recidivism among high-risk parolees by better preparing them to reintegrate back into society. The IAP model is based on the premise that: “serious, chronic delinquency is related to (1) weak controls produced by inadequate socialization, social disorganization, and strain, (2) strain, which can have a direct effect on delinquency independent of weak controls and which is also produced by social disorganization, and (3) peer group influences that intervene as a social force between a youth with weak bonds and/or strain on the one hand and delinquent behavior on the other.”\textsuperscript{20} They hypothesize that in order to achieve long-term behavioral changes for youth offenders and to help them successfully integrate back into society, communities must use “increased surveillance and supervision with enhanced and more specialized treatment and services.” They

\begin{footnotesize}

\textsuperscript{20} Altschuler and Armstrong, (1994a)
\end{footnotesize}
argue that an emphasis on treatment and rehabilitation is just as important as the current emphasis on surveillance and social control.\textsuperscript{21}

The IAP model proposed by Altschuler and Armstrong stressed the importance of the need for intense supervision and services both before and after release and reintegration back into society. This is particularly important for youth with substance abuse dependencies. For this group of youth, access to treatment both before and after release has been shown to strongly reduce recidivism by as much as 60\%.\textsuperscript{22}

While the provision of aftercare is still a new concept, advocates argue that aftercare programs will reduce recidivism among youth by providing essential supportive services. They believe that placing more emphasis on aftercare services, as opposed to increased incarceration is the best way to reduce delinquent activity for those who have already committed offenses. They argue that aftercare services reduce out-of-home placements, and this reduction saves money, keeps youth out of overcrowded and dangerous institutions and works towards correcting delinquent behavior instead of warehousing kids. Most youth will be released back into the community at some point, and most will return to the same environment, which in some cases led to the delinquent behavior in the first place. The provision of aftercare services helps to make the transition easier, while ensuring the gains made while in residential treatment centers are not erased.\textsuperscript{23}

Currently very few jurisdictions provide aftercare services for youth offenders and because of this, there is very little evaluative research on the effectiveness of implemented

\textsuperscript{21} Altschuler and Armstrong, (1999)  
\textsuperscript{22} Barton, (2006)  
aftercare programs. The concept of aftercare is relatively new approach to addressing youth offender re-integration and often calls for changes to a state’s current juvenile justice system. Currently, most State’s compartmentalize the stages of a youth’s path through the juvenile justice system, providing few links between being incarcerated and services provided once released back into the community. Part of the reason aftercare has not been widely implemented is because not only is there a need for change to the currently ineffective systems but there is also a need for change in the way most people think about rehabilitation services. This is hard to do quickly on a wide-scale basis and many fear any changes to the current system will be costly and possible ineffective. Therefore, in many cases the implementation of comprehensive and aggressive aftercare has been met with skepticism.

The few studies that have been conducted up to this point do not have enough data to conclusively determine the effectiveness of aftercare services. This is a consistent problem in the evaluation of this policy recommendation by advocates, but because the concept is still new and not widely implemented there is hope that future studies will eventually show positive effects on the reduction of juvenile recidivism as the numbers of youth receiving aftercare services increase.

III. DATA AND SAMPLE DESCRIPTION

This study uses data from a study conducted by Jill Gordon titled “Assessment of a Single-Purpose Substance Abuse Facility for Committed Juvenile Offenders in Virginia, 1995-
The purpose of Gordon’s study was to provide a preliminary assessment of the effectiveness of treatment offered at the Barrett Juvenile Correctional Center, a substance abuse treatment facility in Virginia for convicted male offenders that began operation in late 1993. To be admitted to the facility, a youth had to meet the following criteria: (a) male, (b) between the ages of 13-18, (c) have a mandatory or recommended need for substance abuse treatment, (d) have a length of stay of no less than six months, (e) no major mental illness or severely limited cognitive ability, and (f) not have committed a major offense (defined as murder, rape, forcible sodomy, or arson). The substance abuse program supplied by the Barret Juvenile Correctional Center provided a highly structured program that used a therapeutic community approach to treat the offender. This approach emphasized personal growth and responsibility.

The center uses a holistic approach in the treatment of youth to identify the triggers for substance abuse and to investigate the relationship between substance abuse and delinquent behavior. For the facility assessment, various types of data from the Virginia Department of Juvenile Justice were gathered. Baseline data on each juvenile were obtained from the department's Reception and Diagnostic Center and consist of demographic information, I.Q. scores, criminal history, and substance abuse history. Demographic variables include the youth's race, last grade placement, and with whom the youth lived. Youths' scores on standardized tests were also compiled, including verbal I.Q., performance I.Q., and full-scale I.Q. scores. Criminal histories include whether the committing offense was a felony or misdemeanor, the type of committing offense, the total number of committing offenses, whether a prior offense was a felony or a misdemeanor, the type of prior offense, the total number of prior offenses, the age at first criminal adjudication, age at commitment, and degree of delinquency. Another source of
information is the youths' parole officers, who provided data on youths' criminal offending status and substance abuse at three, six, and twelve months after release from the center. Data obtained from parole officers assessing youths' improvement after leaving the center include whether they were rearrested, the type of offense if rearrested, the total number of offenses rearrested for, disposition, most serious offense overall, and youths' overall drug use.

As shown in Table A, the total population of male youth in Virginia in 1995 was comprised of approximately 72.6% White youth comprise, 23.5% Black youth and 3.9% Hispanic youth. In residential placement facilities in 1997 White youth comprised about 33% of the population throughout the state, Black youth comprised 61% and Hispanic youth 4%. The racial breakdown of the youth in the facility examined in this study is also contained in Table A. White youth comprised 45.8% of all youth in the facility, Black youth comprised 50.9% and Hispanic youth comprised 1.7% of youth.

Overall, for youth in residential placement in Virginia during the years in which this study was conducted, there is a clear overrepresentation of Black youth and an underrepresentation of White youth in comparison to the same aged group in the general population. In this specialized substance abuse focused treatment facility, White youth are overrepresented at 45.8% when compared to their percentage make-up of 33% in residential placement facilities in Virginia and Black youth are underrepresented at 50.9% when compared to their percentage make-up of 61% in residential placement facilities in Virginia. This difference is statistically significant at the 1 percent level. Though assignment to this facility cannot be studies here, it is important to note the disparity between the racial composition of this facility and that of all youth in residential facilities in Virginia because it suggests a potential
racial bias in assignment to this alternative program when compared to overall residential placement. It is also important to note that this facility was the only one of its kind in the state of Virginia during this time period.

IV. Methodology

In order to determine whether a potential racial bias exists in aftercare program assignment, I estimate probit regressions. I use Additional Aftercare Services as a dependent variable to measure whether or not race had an influence on those decisions. I also use Six Month Youth Arrested and One Year Youth Arrested as dependent variables and estimate the recidivism of those youth who were given aftercare services compared to those who were not given aftercare services. For these two variables, the variable is equal to 1 if the youth was arrested within the timeframe and zero if the youth was not.

I also define a series of dummy variables that indicate the race of the youth. The coefficient estimates on these variables show if there are differences in outcomes for the different races for which data is collected. I use a variety of additional variables as independent variables to eliminate other possible reasons for differences in results for different racial groups. For the purposes of my study, I use the variables listed in Table G.

I will estimate the following equations:
To Estimate Relationship between Rearrest and Aftercare:

Six Months (w/ and w/o race dummy variables):

\[ Y_{P6MA2} = \beta_0 + \beta_1 \text{AFTERCAR} + \beta_2 \text{TOPRIOR} + \beta_3 \text{DEGDELIN} + \beta_4 \text{AGECOMYR} + \beta_5 \text{AGEADJ} + \beta_6 \text{LIVEWITH} + \beta_7 \text{FSIQ} + \beta_8 \text{SUBUSE} + \epsilon \]

\[ Y_{P6MA2} = \beta_0 + \beta_1 \text{AFTERCAR} + \beta_2 \text{TOPRIOR} + \beta_3 \text{DEGDELIN} + \beta_4 \text{AGECOMYR} + \beta_5 \text{AGEADJ} + \beta_6 \text{LIVEWITH} + \beta_7 \text{FSIQ} + \beta_8 \text{SUBUSE} + \beta_9 \text{RACE} + \epsilon \]

One year (w/ and w/o race dummy variables):

\[ Y_{P1YA2} = \beta_0 + \beta_1 \text{AFTERCAR} + \beta_2 \text{TOPRIOR} + \beta_3 \text{DEGDELIN} + \beta_4 \text{AGECOMYR} + \beta_5 \text{AGEADJ} + \beta_6 \text{LIVEWITH} + \beta_7 \text{FSIQ} + \beta_8 \text{SUBUSE} + \epsilon \]

\[ Y_{P1YA2} = \beta_0 + \beta_1 \text{AFTERCAR} + \beta_2 \text{TOPRIOR} + \beta_3 \text{DEGDELIN} + \beta_4 \text{AGECOMYR} + \beta_5 \text{AGEADJ} + \beta_6 \text{LIVEWITH} + \beta_7 \text{FSIQ} + \beta_8 \text{SUBUSE} + \beta_9 \text{RACE} + \epsilon \]

To Estimate a possible racial disparity on Aftercare services assigned:

\[ Y_{\text{AFTERCAR}} = \beta_0 + \beta_1 \text{RACE} + \epsilon \]

\[ Y_{\text{AFTERCAR}} = \beta_0 + \beta_1 \text{RACE} + \beta_2 \text{TOPRIOR} + \beta_3 \text{DEGDELIN} + \beta_4 \text{AGECOMYR} + \beta_5 \text{AGEADJ} + \beta_6 \text{LIVEWITH} + \beta_7 \text{FSIQ} + \epsilon \]

\[ Y_{\text{AFTERCAR}} = \beta_0 + \beta_1 \text{RACE} + \beta_2 \text{TOPRIOR} + \beta_3 \text{DEGDELIN} + \beta_4 \text{AGECOMYR} + \beta_5 \text{AGEADJ} + \beta_6 \text{LIVEWITH} + \beta_7 \text{FSIQ} + \beta_8 \text{SUBUSE} + \epsilon \]

\[ \text{Race is left out of the initial estimates on recidivism to try and get a clear measure of the effect of aftercare on recidivism without the influence of race. These regressions are also estimated with the Race dummy variables included, although the R-squared is only increased by .02 percentage points.} \]
V. RESULTS

A. What factors determined if a youth received aftercare services?

An important factor in answering this question is that fact that decisions made regarding the receipt of aftercare services for youth in this facility were not made at random, but after a determination by supervising individuals. According to Altchuster and Armstrong’s IAP model, some of the factors which make a youth stand out as far as need for aftercare services are a previous history of frequent and/or serious delinquency, and a history of drug dependency. While this study is focused on a facility that specializes in youth receiving drug treatment, a distinction is made in the data between youth who are considered “red-flag” cases and youth for who no further assessment is needed. Youth considered “red-flag” cases are youth who were determined to have a very serious drug dependency. These two groups are broken down by race in Table C. According to the data, 78.7% of youth in this facility were designated as “red-flag” drug dependency cases. This “red-flag” group is comprised of 219 White youth (about 48% of the “red-flag” group, and 37% of the overall facility population), 223 Black youth (about 48% of the “red-flag” group, and 38% of the overall facility population) and 19 identified as Other (about 4% of the “red-flag” group, and 3% of the overall facility population). Of this “red-flag” group, 92% were not assigned aftercare services upon their release. As shown in Table 1, when the dummy variable SUBUSERED was added to a probit regression estimating assignment of aftercare services as the dependent variable, SUBUSERED was found to be statistically significant (at the 10% level) relative to the omitted “unknown” variable. This

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27 I was unable to find the official definition used for “red-flag” for this study. This is the definition I choose to use in order to analyze the results.
28 Please refer to Table E in Appendix
29 SUBUSERED refers to Substance Abuse/Use Red Flag”. Also noted in Table G of Appendix
provides some indication that while not an overwhelming influence, the degree of substance abuse played some role in the assignment of aftercare services.

Altchuster and Armstrong is that the most delinquent offenders would benefit most from aftercare services. However, the data shows that at this facility, being labeled “seriously delinquent” did not have an effect on the assignment of aftercare services. In fact, of the 40 youth who were labeled severely delinquent, none were assigned aftercare services upon their release.

Table 1 contains coefficient estimates for three probit regressions of the receipt of aftercare services as the dependent variable. The first two columns examine the effects race has on the assignment of aftercare absent all other controls. The White category is the omitted variable. When race is the only control, Black youth are 25.9% less likely to be assigned aftercare services when compared to White youth. This is significant at the 10% level. However, this significance disappears once other factors are controlled for, as is the case in columns two and three of Table 1.

Additional factors controlled for in the second probit regression in Table 1 include delinquency history and individual characteristics. The results of the second regression show evidence of a statistically significant negative correlation at the 10% level between receiving aftercare services and having committed between 6 to 9 total prior offenses. These youth are 4.8 percentage points less likely to be assigned aftercare services compared to youth who had only 2-5 prior offenses. There is also a statistically significant negative correlation at the 10% level for youth who were first adjudicated between the ages of 13 and 14 relative to youth who were first adjudicated at or below the age of 12. After controlling for factors other than race, only 5% of
the variation in aftercare services assignment can be explained. The addition of the degrees of severity of substance abuse/use by youth in Table 1 only increases this amount by 2 percentage points to 7%. Race alone accounted for 0.9% of the variation in the receipt of aftercare.

The estimates so far do not explain much of the variation in the assignment of aftercare services. Given the literature on the impact of Disproportionate Minority Contact at major decision points in the juvenile justice system, it is essential to examine further whether a racial bias existed when aftercare services were assigned. At this point, it is important to note the context in which we are examining the potential racial bias in the assignment of aftercare services in this facility. As previously discussed, evidence suggests that the racial make-up of the youth in this facility does not mirror the population of overall youth in juvenile residential facilities throughout Virginia. The White youth population is overrepresented in this facility and the Black youth population is underrepresented when compared to the overall youth population in juvenile residential facilities in Virginia. This is shown in Tables A, and discussed further in the Data Description section of this paper.

Given this background, it is important to examine the influence race may have had, not only directly on the yes or no decision to assign aftercare services, but also on other key decision points which might also result an eventual determination to deny aftercare services. Of particular interest is the assignment of the term “severely delinquent” to youth as they enter the facility.

The assignment of the term “severely delinquent” is especially important because no youth given this title were also assigned aftercare services upon their release from the facility. As shown in Table 4, in a probit regression holding being labeled as “severely delinquent” as the
dependent variable and controlling for delinquency and individual characteristics, White youth are 4.6 percentage points less likely than Black youth to be labeled as “severely delinquent”. This is statistically significant at the 5% level. Table D contains a racial break-down of the youth determined to be “severely delinquent” upon their arrival at the facility. While only 6.8% of all youth in the facility were labeled as “severely delinquent,” 70% of those who received this label were Black compared to 27.5% of White youth. This is highly disproportionate to their proportions in this facility.30 This must be taken into account when trying to determine what role, if any race played in making aftercare assignment decisions.

B. What effect did aftercare have on recidivism?

The second important question which must be addressed is whether once applied, does aftercare play a role in reducing recidivism. Using information on re-arrest at both 6-months after release and 1 year after release, recidivism is evaluated in Tables 2 and 3. Table 2 examines re-arrest rates 6 months after a youth is released from the facility. The first two columns include race dummy variables and control for delinquency history, individual characteristics and aftercare services assigned. The second two columns omit the race dummy variables. Table 3 shows estimates from the same specification, at the 1 year point.

As displayed in Table 2, where we look at recidivism at the 6-month point, in the second column, where the race dummy variables are not controlled for, youth who were adjudicated for the first time at ages 13-14 were about 18 percentage points less likely to reoffend in comparison

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30 White youth represent 45.8% of the facilities population while Black youth represent 50.9%. Please refer to Table A.
to youth who were first adjudicated at 12 years or younger. This is significant at the 5% level. In addition, youth who were first adjudicated at 15 were also less likely to reoffend by 19.4 percentage points. This number was also significant at the 5% level. Also significant is the coefficient on youth designated as “red-flag” substance abusers. These youth were 21 percentage points more likely to reoffend at 6 months, and this number was significant at the 5% level.

Once the race dummy variables are included, all three variables remain significant and in the same direction, only the coefficient for youth first adjudicated at 13-14 and age 15 is not only significant at the 10% level. What is surprising is that at six months, the data shows a slightly increased probability for re-arrest if the youth had received aftercare services. This figure, however, is also not statistically significant. It is interesting to note that adding race to the equation only explains an additional 0.19% of rearrest at six months.

Table 3 shows the recidivism of the same group of youth after 1 year of being released from the program. As in Table 2, recidivism at 1 year is estimated both with and without the race dummy variables. Looking at recidivism at the 1 year mark without the race dummy variable, youth first adjudicated at the age of 15 are 20 percentage points less likely to be re-arrested in comparison to youth first adjudicated at 12 or younger. At the one year mark, youth designated as having a “red-flag” substance abuse problem are 27 percentage points more likely to be re-arrested in comparison with youth who were designated as needing “no further follow-up”. When the race dummy variables are added, there variables remain consistent in strength of validity and direction. As at 6-months, at 1-year there is a slight positive correlation between re-arrest and receiving aftercare services, however, it is not significant at any acceptable level.
VI. DISCUSSION

Statistical Significance

The results of this study do not permit a clear cut evaluation of the effect that aftercare had on those youth who received it. Moreover, they do not indicate a racial bias in the assignment of those aftercare services after controlling for other characteristics of the youth. I believe the lack of significance for many of these estimates is due to the small number of youth who received aftercare services. In this facility only 7.5% of youth were assigned aftercare, making it difficult to evaluate the effect aftercare might have on a larger scale. Because of the low number of actual youth who received aftercare services, the creation of interaction variables interacting aftercare services received with race, were uninformative.

However, a review of the currently available literature on aftercare shows that this lack of data is a consistent problem due to the lack of implemented aftercare programs in juvenile correctional facilities. The results of this study are comparable to other recent studies attempting to evaluate the effectiveness of the provision of aftercare services to youth on reducing recidivism.

One of the primary barriers to effectively measuring the effects of aftercare, and consequently whether or not a racial bias exists in the assignment of aftercare services is the small numbers of youth who actually receive services. Even within this residential treatment center, representing about 25% of all youth in residential treatment in the state of Virginia during this time period, only 7.5% were assigned aftercare services.
However, despite the small numbers involved in this actual study, there are a few observations suggestive of a racial bias that are worth noting:

1) **White Youth were assigned Aftercare Disproportionately**

   Absent controls for delinquency history and individual characteristics, Black youth were significantly less likely to be assigned aftercare services than White youth in a multivariate regression. However, once additional controls were introduced the results were no longer significant.

2) **Severely Delinquent Youth**

   Not only were none of the 40 youth who were deemed severely delinquent assigned aftercare services, but Black youth were more likely to be considered severely delinquent than White youth severely decreasing their likelihood of being assigned aftercare services.

*Policy Implications*

While some research has been done on alternative programs and their effect on re-offending, little has been done on whether race predicts assignment to these programs. It is clear that more research and data collection needs to be done to not only determine the effect that aftercare has on recidivism, but to determine if there is a racial bias in the assignment of aftercare services. It is not clear from these results, mostly due the small number of youth who received aftercare services, however there is some evidence of a possible racial bias if not at the
assignment of aftercare services possibly in the selection of youth assigned to this alternative
drug abuse program and in the intake process where youth are given the difficult to measureable
label of “severely delinquent.”

VII. CONCLUSIONS

While juvenile offenders in general face many challenges once they attempt to re-enter
their communities, these challenges are multiplied for youth with substance abuse problems.
The implementation of aftercare services is still a new and largely untested development in its
application to juvenile offenders. Currently, while there is some conceptual discussion about
how aftercare services should be implemented, and what those aftercare services should consist
of, the JJ community is still in the early stages of producing a model that can be successfully and
consistently implemented. Alschuster and Armstrong’s IAP model, while both promoted by
OJJDP and many advocates has yet to be successfully implemented and tested in the field.
VIII. TABLES
<table>
<thead>
<tr>
<th></th>
<th>w/Race only</th>
<th>w/Controls for Delinquency and Individual Characteristics</th>
<th>w/Substance Abuse Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient Estimates</td>
<td>Marginal Effects</td>
<td>Coefficient Estimates</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-.259 (.158)***</td>
<td>-.036 (.022)***</td>
<td>-.156 (.185)</td>
</tr>
<tr>
<td>Other</td>
<td>.039 (.397)</td>
<td>.006 (.058)</td>
<td>.059 (.418)</td>
</tr>
<tr>
<td><strong>Delinquency History</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topriorlow</td>
<td>--</td>
<td>--</td>
<td>-.175 (.204)</td>
</tr>
<tr>
<td>Topriorhigmid</td>
<td>--</td>
<td>--</td>
<td>-.475 (.259)***</td>
</tr>
<tr>
<td>Topriorhigh</td>
<td>--</td>
<td>--</td>
<td>-.166 (.280)</td>
</tr>
<tr>
<td>degdelmod_ser</td>
<td>--</td>
<td>--</td>
<td>-.404 (.268)***</td>
</tr>
<tr>
<td>Agecomyr15</td>
<td>--</td>
<td>--</td>
<td>.100 (.328)</td>
</tr>
<tr>
<td>Agecomyr16</td>
<td>--</td>
<td>--</td>
<td>.106 (.321)</td>
</tr>
<tr>
<td>Agecomyr17_18</td>
<td>--</td>
<td>--</td>
<td>-.185 (.336)</td>
</tr>
<tr>
<td>Ageedyoung</td>
<td>--</td>
<td>--</td>
<td>-.416 (.256)***</td>
</tr>
<tr>
<td>Ageadolder</td>
<td>--</td>
<td>--</td>
<td>-.400 (.300)</td>
</tr>
<tr>
<td>Ageadoldest</td>
<td>--</td>
<td>--</td>
<td>-.313 (.315)</td>
</tr>
<tr>
<td><strong>Individual Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live2par</td>
<td>--</td>
<td>--</td>
<td>-.175 (.287)</td>
</tr>
<tr>
<td>Live1par</td>
<td>--</td>
<td>--</td>
<td>.084 (.231)</td>
</tr>
<tr>
<td>FSIQ</td>
<td>--</td>
<td>--</td>
<td>.009 (.008)</td>
</tr>
<tr>
<td>Subusered</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Subuseno</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>R-Squared</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0092</td>
<td></td>
<td>0.0570</td>
</tr>
<tr>
<td><strong>Cons</strong></td>
<td>1.321 (.107) *</td>
<td></td>
<td>1.42 (.860)***</td>
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</tbody>
</table>

Number of Observations = 586
*signifies statistical significance at the 1-percent level
**signifies statistical significance at the 5-percent level
***signifies statistical significance at the 10-percent level
(Standard Errors are in parentheses)
Table 2: Probit Regressions on Recidivism (at 6 Months)

<table>
<thead>
<tr>
<th></th>
<th>6 MONTHS (w/Race Dummy Variables)</th>
<th>6 MONTHS (w/o Race Dummy Variables)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient Estimates</td>
<td>Marginal Effects</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-.111(.170)</td>
<td>-.044(.067)</td>
</tr>
<tr>
<td>Other</td>
<td>-.723(.473)***</td>
<td>-.253(.134)***</td>
</tr>
<tr>
<td>Delinquency History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toppriorlowmid</td>
<td>-.135(.166)</td>
<td>-.053(.065)</td>
</tr>
<tr>
<td>Toppriorhigmid</td>
<td>-.181(.222)</td>
<td>-.071(.086)</td>
</tr>
<tr>
<td>Degdelmod_ser</td>
<td>-.106(.259)</td>
<td>-.042(.103)</td>
</tr>
<tr>
<td>Agecomyr15</td>
<td>.058(.322)</td>
<td>.023(.128)</td>
</tr>
<tr>
<td>Agecomyr16</td>
<td>.043(.304)</td>
<td>.017(.120)</td>
</tr>
<tr>
<td>Agecomyr17_18</td>
<td>-.222(.313)</td>
<td>-.087(.122)</td>
</tr>
<tr>
<td>Ageadjyoung</td>
<td>-.444(.238)***</td>
<td>-.173(.090)***</td>
</tr>
<tr>
<td>Ageadjolder</td>
<td>-.486(.270)***</td>
<td>-.185(.097)***</td>
</tr>
<tr>
<td>Ageadjoldest</td>
<td>-.375(.276)</td>
<td>-.144(.103)</td>
</tr>
<tr>
<td>Individual Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live2par</td>
<td>-.252(.261)</td>
<td>-.098(.099)</td>
</tr>
<tr>
<td>Live1par</td>
<td>-.318(.224)</td>
<td>-.126(.088)</td>
</tr>
<tr>
<td>Fsiq</td>
<td>-.001(.007)</td>
<td>-.001(.003)</td>
</tr>
<tr>
<td>Subusered</td>
<td>.576(.308)***</td>
<td>.216(.106)**</td>
</tr>
<tr>
<td>Subuseno</td>
<td>.508(.370)</td>
<td>.200(.141)</td>
</tr>
<tr>
<td>Received Aftercare Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aftercar</td>
<td>.230(.277)</td>
<td>.092(.110)</td>
</tr>
<tr>
<td>_Cons</td>
<td>.411(.855)</td>
<td>--</td>
</tr>
<tr>
<td>R-Squared = 0.0431</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Observations = 304</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
*signifies statistical significance at the 1-percent level
**signifies statistical significance at the 5-percent level
***signifies statistical significance at the 10-percent level
(Standard Errors are in parentheses)
<table>
<thead>
<tr>
<th></th>
<th>1 Year (w/Race Dummy Variables)</th>
<th>1 Year (w/o Race Dummy Variables)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient Estimates</td>
<td>Marginal Effects</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-.152 (.243)</td>
<td>-.060 (.097)</td>
</tr>
<tr>
<td>Other</td>
<td>.226 (.543)</td>
<td>.090 (.214)</td>
</tr>
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<td><strong>Delinquency History</strong></td>
<td></td>
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</tr>
<tr>
<td>Topriorlowmid</td>
<td>-.008 (.238)</td>
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<tr>
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<td>.242 (.314)</td>
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</tr>
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<td>.102 (.135)</td>
</tr>
<tr>
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<td>-.077 (.168)</td>
</tr>
<tr>
<td>Agecomyr16</td>
<td>.456 (.406)</td>
<td>.180 (.158)</td>
</tr>
<tr>
<td>Agecomyr17-18</td>
<td>-.083 (.433)</td>
<td>-.033 (.172)</td>
</tr>
<tr>
<td>Ageadjyoung</td>
<td>-.439 (.319)</td>
<td>-.173 (.123)</td>
</tr>
<tr>
<td>Ageadjolder</td>
<td>-.575 (.370)</td>
<td>-.221 (.134)***</td>
</tr>
<tr>
<td>Ageadjoldest</td>
<td>-.437 (.387)</td>
<td>-.170 (.146)</td>
</tr>
<tr>
<td><strong>Individual Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live2par</td>
<td>.103 (.390)</td>
<td>.041 (.155)</td>
</tr>
<tr>
<td>Live1par</td>
<td>.091 (.348)</td>
<td>.036 (.138)</td>
</tr>
<tr>
<td>Fsiq</td>
<td>-.009 (.010)</td>
<td>-.004 (.004)</td>
</tr>
<tr>
<td>Subusered</td>
<td>.723 (.442)***</td>
<td>.272 (.149)***</td>
</tr>
<tr>
<td>Subuseno</td>
<td>.688 (.533)</td>
<td>.264 (.187)</td>
</tr>
<tr>
<td><strong>Received Aftercare Services</strong></td>
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<td></td>
</tr>
<tr>
<td>Aftercar</td>
<td>.080 (.335)</td>
<td>.032 (.134)</td>
</tr>
<tr>
<td><strong>R-Squared</strong></td>
<td>0.0735</td>
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</tr>
<tr>
<td>Cons</td>
<td>.074 (.170)</td>
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Number of Observations = 167
*signifies statistical significance at the 1-percent level
**signifies statistical significance at the 5-percent level
***signifies statistical significance at the 10-percent level
(Standard Errors are in parentheses)
<table>
<thead>
<tr>
<th>Table 4: Probit Regression on Being Labeled Severely Delinquent</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td><strong>Race</strong></td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td><strong>Delinquency History</strong></td>
</tr>
<tr>
<td>Topriorlow</td>
</tr>
<tr>
<td>Topriorhigmid</td>
</tr>
<tr>
<td>Topriorhigh</td>
</tr>
<tr>
<td>Agecomyr15</td>
</tr>
<tr>
<td>Agecomyr16</td>
</tr>
<tr>
<td>Agecomyr17 18</td>
</tr>
<tr>
<td>Ageadjyoung</td>
</tr>
<tr>
<td>Ageadjolder</td>
</tr>
<tr>
<td>Ageadjoldest</td>
</tr>
<tr>
<td>Subusered</td>
</tr>
<tr>
<td><strong>R-Squared</strong></td>
</tr>
<tr>
<td><strong>Cons</strong></td>
</tr>
</tbody>
</table>

Number of Observations = 545

*signifies statistical significance at the 1-percent level
**signifies statistical significance at the 5-percent level
***signifies statistical significance at the 10-percent level

(Standard Errors are in parentheses)
### Table A: Descriptive Statistics for Male Youth in Virginia

<table>
<thead>
<tr>
<th></th>
<th>All Male Youth in Virginia, 1995</th>
<th>All Male Youth in Residential Placement in Virginia, 1997</th>
<th>All Male Youth in Gordon Study, 1995-1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Youth</td>
<td>227,136</td>
<td>2,354</td>
<td>585</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>164,820</td>
<td>789</td>
<td>268</td>
</tr>
<tr>
<td></td>
<td>72.6%*</td>
<td>33%*</td>
<td>45.8%</td>
</tr>
<tr>
<td>Black</td>
<td>53,458</td>
<td>1,455</td>
<td>298</td>
</tr>
<tr>
<td></td>
<td>23.5%*</td>
<td>61%*</td>
<td>50.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8,858</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>3.9%</td>
<td>4%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Asian</td>
<td>--</td>
<td>36</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>--</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Note: “–“ denotes information not available. It’s also important to note that while these statistics are gathered from a variety of years, there is not likely to be any significant different in numbers of youth.

*signifies a statistically significant difference from the Gordon study at the 1-percent level  
**signifies a statistically significant difference from the Gordon study at the 5-percent level  
***signifies a statistically significant difference at the 1 from the Gordon study 10-percent level

---

31 Ages 13-17  
**Table B: Additional Descriptive Statistics for Youth in Gordon Study**

**Additional Aftercare Services Assigned**

<table>
<thead>
<tr>
<th></th>
<th># No</th>
<th>% No</th>
<th># Yes</th>
<th>% Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>243</td>
<td>41.5</td>
<td>25</td>
<td>4.3</td>
<td>268</td>
</tr>
<tr>
<td>Black</td>
<td>281</td>
<td>48.0</td>
<td>17</td>
<td>2.9</td>
<td>298</td>
</tr>
<tr>
<td>Other (incl. Hispanic, Asian, Other)</td>
<td>18</td>
<td>3.1</td>
<td>2</td>
<td>0.3</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>542</td>
<td>92.5%</td>
<td>44</td>
<td>7.5%</td>
<td>585</td>
</tr>
</tbody>
</table>

**Six Months: Youth Rearrested?**

<table>
<thead>
<tr>
<th></th>
<th># Rearrested</th>
<th>% of Youth Rearrested</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>81</td>
<td>48.2</td>
<td>116</td>
</tr>
<tr>
<td>Black</td>
<td>79</td>
<td>47.0</td>
<td>156</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>4.8</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>168</td>
<td>59.6</td>
<td>282</td>
</tr>
</tbody>
</table>

**One Year: Youth Rearrested?**

<table>
<thead>
<tr>
<th></th>
<th># Rearrested</th>
<th>% of Youth Rearrested</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>47</td>
<td>54.0</td>
<td>180</td>
</tr>
<tr>
<td>Black</td>
<td>37</td>
<td>42.5</td>
<td>226</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3.4</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>87</td>
<td>--</td>
<td>419</td>
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</tbody>
</table>
### Table C: Substance Abuse & Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Red Flag</th>
<th>% of Red Flag Group</th>
<th>% of All Youth</th>
<th>No Further Assessment Needed</th>
<th>% of All Youth</th>
<th>Unknown</th>
<th>% of All Youth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>219</td>
<td>47.5%*</td>
<td>37.4%</td>
<td>20</td>
<td>3.4%</td>
<td>29</td>
<td>4.9%</td>
<td>268</td>
</tr>
<tr>
<td>Black</td>
<td>223</td>
<td>48.4%*</td>
<td>38.1%</td>
<td>45</td>
<td>7.7%</td>
<td>30</td>
<td>5.1%</td>
<td>298</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>4.1%</td>
<td>3.2%</td>
<td>1</td>
<td>0.2%</td>
<td>0</td>
<td>0%</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>461</td>
<td>100%</td>
<td>78.7%</td>
<td>66</td>
<td>11.3%</td>
<td>59</td>
<td>10.1%</td>
<td>586</td>
</tr>
</tbody>
</table>

*signifies statistical significance at the 1-percent level from percentage of group in general population
**signifies statistical significance at the 5-percent level from percentage of group in general population
***signifies statistical significance at the 10-percent level from percentage of group in general population

### Table D: Severely Delinquent & Race

<table>
<thead>
<tr>
<th>Race</th>
<th># Severely Delinquent</th>
<th>% of Severely Delinquent Group</th>
<th>% of Racial Group</th>
<th>% of Total Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>11</td>
<td>27.5%</td>
<td>4.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Black</td>
<td>28</td>
<td>70%</td>
<td>9.4%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2.5%</td>
<td>5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100%</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

### Table E: Substance Abuse Red Flag & Aftercare

<table>
<thead>
<tr>
<th>Aftercare Assigned</th>
<th>Red Flag</th>
<th>% of Red Flag Group</th>
<th>% of All Youth</th>
<th>No Further Assessment Needed</th>
<th>% of No Further Assessment Needed</th>
<th>% of All Youth</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>8.5%*</td>
<td>6.7%</td>
<td>3</td>
<td>4.6%</td>
<td>0.5%</td>
<td>2</td>
</tr>
<tr>
<td>No</td>
<td>422</td>
<td>91.5%*</td>
<td>72%</td>
<td>62</td>
<td>95.4%</td>
<td>10.6%</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>461</td>
<td>100%</td>
<td>--</td>
<td>65</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*signifies statistical significance at the 1-percent level
**signifies statistical significance at the 5-percent level
***signifies statistical significance at the 10-percent level

### Table F: Aftercare and Re-arrest Data

<table>
<thead>
<tr>
<th>Additional Aftercare Services</th>
<th>6 Month Rearrested</th>
<th>1 Yr Rearrested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>No</td>
<td>157</td>
<td>26.8</td>
</tr>
<tr>
<td>Yes</td>
<td>11</td>
<td>1.9</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Total # of Observations</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>white</td>
<td>Youth Classified as White</td>
<td>268</td>
</tr>
<tr>
<td>black</td>
<td>Youth Classified as Black</td>
<td>298</td>
</tr>
<tr>
<td>other</td>
<td>Youth Classified as Hispanic, Asian and Other</td>
<td>20</td>
</tr>
<tr>
<td><strong>Delinquency History</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topriorlow</td>
<td>0-1 Total Prior Offenses</td>
<td>145</td>
</tr>
<tr>
<td>Topriorlowmid</td>
<td>2-5 Total Prior Offenses</td>
<td>264</td>
</tr>
<tr>
<td>tophighmid</td>
<td>6-9 Total Prior Offenses</td>
<td>115</td>
</tr>
<tr>
<td>tophigh</td>
<td>9-15 Total Prior Offenses</td>
<td>62</td>
</tr>
<tr>
<td>degdelmin</td>
<td>Degree of Delinquency as Coded by the probation officer: Minimum</td>
<td>41</td>
</tr>
<tr>
<td>degdelmod_ser</td>
<td>Degree of Delinquency: Moderate and Serious Combined</td>
<td>545</td>
</tr>
<tr>
<td>degdelmod</td>
<td>Degree of Delinquency: Moderate</td>
<td>505</td>
</tr>
<tr>
<td>degdelser</td>
<td>Degree of Delinquency: Serious</td>
<td>40</td>
</tr>
<tr>
<td>agecomyr11_14</td>
<td>Age at Commitment: 11-14 yrs</td>
<td>50</td>
</tr>
<tr>
<td>agecomyr15</td>
<td>Age at Commitment: 15 yrs</td>
<td>114</td>
</tr>
<tr>
<td>agecomyr16</td>
<td>Age at Commitment: 16 yrs</td>
<td>197</td>
</tr>
<tr>
<td>agecomyr17_18</td>
<td>Age at Commitment: 17-18 yrs</td>
<td>225</td>
</tr>
<tr>
<td>Ageadjveryyoung</td>
<td>Age of First Criminal Adjudication: 12 yrs or under</td>
<td>74</td>
</tr>
<tr>
<td>ageadjyoung</td>
<td>Age of First Criminal Adjudication: 13-14 yrs</td>
<td>241</td>
</tr>
<tr>
<td>ageadjolder</td>
<td>Age of First Criminal Adjudication: 15 yrs</td>
<td>130</td>
</tr>
<tr>
<td>ageadjoldest</td>
<td>Age of First Criminal Adjudication: 16 yrs or older</td>
<td>141</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Total # of Observations</th>
<th>Mean</th>
<th>% youth</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>live1par</td>
<td>Number of youth living in a 1 parent household</td>
<td>366</td>
<td>--</td>
<td>62.5%</td>
<td>--</td>
</tr>
<tr>
<td>live2par</td>
<td>Number of youth living in a 2 parent household</td>
<td>134</td>
<td>--</td>
<td>22.9%</td>
<td>--</td>
</tr>
<tr>
<td>liveother</td>
<td>Number of youth living with someone other than their parents</td>
<td>86</td>
<td>--</td>
<td>14.7%</td>
<td>--</td>
</tr>
<tr>
<td>fsiq</td>
<td>Full Scale I.Q.</td>
<td>586</td>
<td>82.655</td>
<td>--</td>
<td>[0-133]</td>
</tr>
<tr>
<td>subusered</td>
<td>Youth designated as a Red-Flag Concern for Substance abuse/use problem</td>
<td>461</td>
<td>461</td>
<td>78.67%</td>
<td>[0 – 1]</td>
</tr>
<tr>
<td>subuseno</td>
<td>Youth designated as No Further Assessment Needed for Substance abuse/use problem</td>
<td>66</td>
<td>66</td>
<td>11.26%</td>
<td>[0 – 1]</td>
</tr>
<tr>
<td>subuseunknown</td>
<td>Substance abuse/use problem Unknown</td>
<td>59</td>
<td>59</td>
<td>10.07%</td>
<td>[0 – 1]</td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aftercar</td>
<td>Received Additional Aftercare Services</td>
<td>44</td>
<td>--</td>
<td>7.5%</td>
<td>--</td>
</tr>
<tr>
<td>p6ma2</td>
<td>Youth rearrested 6 months after leaving the program?</td>
<td>No: 168 Yes: 136 Unknown: 282</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>p1ya2</td>
<td>Youth rearrested 1 year after leaving the program?</td>
<td>No: 87 Yes: 80 Unknown: 419</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
References:


