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# Adult Crime, Adult Time: Punishing Violent Youth in the Adult Criminal Justice System

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Running Head: ADULT CRIME, ADULT TIME

“Adult Crime, Adult Time: Punishing Violent Youths  
in the Adult Criminal Justice System” \*

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### Abstract

Contemporary concerns about youth violence and related legislative reforms have resulted in greater numbers of adolescent offenders being handled in the adult criminal justice system. Although some past research suggests that juveniles transferred to adult court often receive somewhat lenient treatment, more recent studies focusing on violent youthful offenders have found the adult system to be more punitive in nature. This study examined this issue for 557 violent youths from Pennsylvania, of which 138 were judicially waived to adult court. Statistical analyses revealed that, in terms of punishment certainty, severity, and swiftness, juveniles transferred to adult court were treated more harshly than were those retained in juvenile court, while juvenile court processing occurred much more quickly. Corresponding policy implications are discussed.

## Adult Crime, Adult Time: Punishing Violent Youths

### In the Adult Criminal Justice System

During the past 30 years, there has been vigorous debate over the juvenile justice system's philosophy, structure, and procedures. Critical attacks have come from a variety of angles, focusing on such issues as insufficient enforcement of due process rights, inadequate treatment and rehabilitation services, abuse of the juvenile court's power, lenient treatment of offenders, and a general lack of direction in dealing with juvenile crime (Feld, 1993; Greenwood, 1995; Krisberg & Austin, 1993; Moore & Wakeling, 1997; Schwartz, 1989). These criticisms, combined with rapid increases in violent juvenile arrest rates from the mid 1980s to the mid 1990s (Sickmund, Snyder, & Poe-Yamagata, 1997), a corresponding surge in firearm use among young people (Blumstein, 1995; Cook & Laub, 1998; Fagan & Wilkinson, 1998), and heavy media attention to adolescent offending (Merlo & Benekos, 2000) have led to an erosion of the traditional juvenile court's philosophy and authority. In contrast to the conventional juvenile court's emphasis on "child-saving" and serving the "best interests" of children, the "get tough" philosophy, which originated in the adult criminal justice system during the 1970s, now extends into the juvenile system as well. A central issue is the transfer or waiver<sup>1</sup> of juveniles to adult court, which often is described as a move toward "criminalizing" delinquent behavior (Fagan, 1995; Feld, 1993; Singer, 1996).

Despite recent national decreases in violent juvenile arrest rates (Snyder & Sickmund, 1999; Snyder, 2001), youth violence continues to receive a considerable amount of public attention. As discussed by Greenwood (1995, p. 105), many commentators have asserted that youthful offenders get off with a "slap on the wrist" in juvenile court, which, in turn, greatly contributes to overall levels of serious juvenile crime. In adult court, it is argued, a message can

be sent that the lenient treatment of the juvenile system is no longer an option. Instead, harsh criminal court sanctions will be imposed, which will increase accountability and public safety, while potentially decreasing motivations to commit future crimes.

All states have provisions that allow juveniles to be tried in adult court, and in modern times, few states have resisted the trend toward amending their juvenile codes to facilitate this process (Feld, 1993; Fritsch & Hemmens, 1995; Griffin, Torbet, & Szymanski, 1998; Sickmund et al., 1997; Snyder & Sickmund, 1999; Torbet et al., 1996). While almost all contemporary juvenile court judges retain the power to transfer certain cases, this authority also has been granted to some prosecutors, and legislatures have increasingly excluded certain types of offenses, offenders, or both from juvenile court jurisdiction. During the 1990s, these reforms resulted in increasing numbers of juveniles being sent to the adult system, particularly for violent offenses<sup>2</sup> (DeFrances & Strom, 1997; Howell, 1997; Sickmund et al., 1997; Snyder & Sickmund, 1999). Furthermore, efforts to increase the number of youths sent to adult court appear to be fueled by strong public support. Survey research in the past 10 years consistently shows a majority of the respondents to favor trying juveniles in adult court for serious felonies, with roughly 75% of the typical adults surveyed believing that violent juvenile offenders should be treated as adults (Feiler & Sheley, 1999; Meddis, 1993; Schwartz, Guo, & Kerbs, 1993; Sprott, 1998).

### The Punishment Process

While many states have amended their juvenile statutes to include the elements of accountability, retribution, and enhanced public safety, it is not entirely clear that the adult criminal justice system can better serve these purposes when handling youthful offenders (see, e.g., the conclusions of Bartol & Bartol, 1998; Binder, Geis, & Bruce, 2001; Elrod & Ryder,

1999). A major expectation in transferring serious and violent juveniles to the adult system is that these youths will receive more certain and severe punishment than they otherwise would have received in juvenile court, and this increase in accountability and punishment will provide both general and specific deterrence, thereby reducing youthful offending.<sup>3</sup> Unfortunately, although case outcomes of juveniles in adult court have been a major concentration in waiver research, the studies discussed below generally have been of uneven quality (many have been purely descriptive in nature, greatly limiting causal inference and the conclusions that can be made), and the findings from different pieces of research sometimes appear contradictory.

Researchers who have examined the certainty of punishment for juveniles transferred to adult court have focused on conviction rates. Most studies do find high conviction rates for waived youths, usually in the range of 75% to 95% (see, e.g., Bishop, Frazier, & Henretta, 1989; Bortner, 1986; Champion, 1989; Clarke, 1996; Eigen, 1981a, 1981b; Gillespie & Norman, 1984; Hamparian et al., 1982; Houghtalin & Mays, 1991; Lemmon, Sontheimer, & Saylor, 1991; Podkopacz & Feld, 1996; Thomas & Bilchik, 1985). However, other research has revealed much lower conviction rates for juveniles in adult court, in some cases as low as 25% (Kinder, Veneziano, Fichter, & Azuma, 1995; Sagatun, McCollum, & Edwards, 1985; Singer 1996). Furthermore, a few comparative studies have found very little difference in conviction rates between the juvenile and adult systems (Fagan, 1990, 1995; Rudman, Hartstone, Fagan, & Moore, 1986). Therefore, it is not entirely clear as to whether juvenile waiver to adult court provides a significant increase in the likelihood of conviction.

With regard to the severity of punishment, studies have examined both incarceration rates and length of incarceration. Some early researchers argued that a “leniency gap” was present in adult court, whereby waived offenders typically were not being imprisoned and appeared to

receive more lenient sentencing than they would have been given in juvenile court (Bortner, 1986; Champion, 1989; Emerson, 1981; Gillespie & Norman, 1984; Hamparian et al., 1982; Royscher & Edelman, 1981; Sagatun et al., 1985). These studies suggested that youths in criminal court were not seen as serious offenders, due to their younger age and lack of experience, as compared to their adult counterparts. However, more recent research has begun to clarify this issue.

Concerning the type of sentence imposed, studies now indicate that youthful property offenders tend to be treated leniently in criminal court, often receiving sentences of probation in lieu of incarceration (Barnes & Franz, 1989; Bishop, Frazier, & Henretta, 1989; Podkopacz & Feld, 1996). On the other hand, juveniles convicted of violent offenses appear to be treated harshly in criminal court, where a jail or prison term is often imposed (Barnes & Franz, 1989; Clarke, 1996; Clemment, 1997; Fagan, 1990, 1995; Houghtalin & Mays, 1991; Podkopacz & Feld, 1996; Rudman et al., 1986). However, as with conviction rates, it is still somewhat unclear if these incarceration rates in criminal court are very different from those of similar offenders in juvenile court, because few studies have employed comparison groups.

Research on the second dimension of sanction severity, length of incarceration, has produced similar results. Various studies have shown that for those transferred youths who are incarcerated, lengthy sentences are common (Bishop et al., 1989; Lemmon et al., 1991; Singer, 1996; Thomas & Bilchik, 1985). This research shows average jail and prison sentences ranging from 1 to 4 years or more, with the longest sentences imposed on violent offenders. However, the next question would be whether or not the periods of incarceration issued in criminal court are longer than those prescribed for similar offenders in juvenile court.

Unfortunately, research findings concerning this matter have been somewhat inconsistent. Several comparative studies have found evidence that lengthier sentences are imposed in adult criminal court than in juvenile court, particularly for violent offenders (Bishop, Frazier, Lanza-Kaduce, & Winner, 1996; Eigen 1981a, 1981b; Fagan, 1990; Podkopacz & Feld, 1996; Rudman et al., 1986). These results might be explained as a consequence of lower levels of funding and resources in the juvenile system or the fact that criminal courts are not limited by the jurisdictional age restrictions present in juvenile court. However, Fagan's (1995) study of robbery and burglary offenders in New York and New Jersey found no difference in sentence lengths for youths charged with either offense and incarcerated by either the criminal or juvenile court. Irrespective of type of offense and court of jurisdiction, average minimum and maximum sentences were very similar. Furthermore, while juveniles waived to adult court generally may receive longer sentences than similar youths retained in juvenile court, those in the adult system may only serve a small portion of their original sentence, thereby eliminating the apparent difference in incarceration length (Fritsch, Caeti, & Hemmens, 1996).

As compared to the certainty and severity of punishment for juveniles transferred to adult court, the swiftness of their punishment has been much less studied. Recently, questions have been raised regarding the speed at which cases are processed within the juvenile justice system, as dispositional times for serious offenders often fail to meet the national standard of 90 days (Butts, 1997). Moreover, case processing time is becoming an emerging point of emphasis in juvenile justice, as "immediate interventions" are being stressed as a response to delinquent behavior (Howell, 1997). A relatively small amount of research indicates that transferred juveniles have their cases processed much more slowly than do similar offenders retained in juvenile court (Fagan, 1995; Kinder et al., 1995; Lemmon et al., 1991; Rudman et al., 1986). If



there is any benefit to be gained from a more rapid response to youthful offending, then more knowledge needs to be generated concerning differences in case processing times between the juvenile and adult systems.

The purpose of the current study was to provide a further examination of case processing outcomes for similar violent youths in juvenile and adult court. Using data from Pennsylvania, jurisdictional differences in punishment certainty, severity, and swiftness were investigated, while controlling for a variety of legal and social factors that could impact on case outcomes. Specific consideration was given to the impact of the various independent variables on the likelihood of conviction and incarceration, as well as on incarceration length and case processing time. The results from this study should be compared to the research findings discussed above, and they should be of interest to policymakers and corrections officials directly involved with juveniles transferred to the adult criminal justice system.

## Methods

### *Sample and Procedure*

In March 1996, legislation (known as “Act 33”) became effective in Pennsylvania that statutorily excludes certain violent youths from juvenile court jurisdiction.<sup>4</sup> Pennsylvania’s legislative waiver law targets two types of juveniles between the ages of 15 and 18: those who commit a violent felony offense<sup>5</sup> with a deadly weapon,<sup>6</sup> and those who commit a violent felony offense after previously having been adjudicated delinquent on a violent felony offense. The current research examined offenders who were formally processed in Pennsylvania in 1994 and would have been excluded from juvenile court jurisdiction, had the recent legislation been in effect at the time.<sup>7</sup>

Specifically, data were analyzed pertaining to a cohort of 557 male juvenile offenders who were arrested for robbery, aggravated assault, or both, and a deadly weapon was involved in their offense.<sup>8</sup> These youths were between the ages of 15 and 18 at the time of the alleged act and received a juvenile court disposition sometime during 1994. Of the 557 offenders, 138 were transferred to adult criminal court by judicial waiver and 419 were retained in juvenile court. The essence of this study was to compare those juveniles transferred to adult court with those youths retained in juvenile court, in terms of their case processing outcomes.

Due to a lack of random assignment into experimental and control groups, this study does not eliminate a potential problem with selection bias. In other words, the waived and retained offenders may be significantly different in terms of more than the type of court system in which they were processed. The overall cohort of offenders was selected on the basis of meeting the current Pennsylvania criteria for exclusion from juvenile court jurisdiction. Those who were transferred to adult court in 1994 were certified by a juvenile court judge as no longer being amenable to treatment in the juvenile justice system, suggesting that these cases were seen as being more serious or a higher risk than those retained in juvenile court. However, as discussed below, a strong effort was made to control for variables that possibly could influence the decision to transfer and subsequent case outcomes (e.g., prior record, type of weapon involved in the offense, demographic variables, family and school status, etc.).

Case information was obtained through The Center for Juvenile Justice Training and Research (CJJT&R), which was established and is managed by the Juvenile Court Judges' Commission (JCJC) of the Commonwealth of Pennsylvania. CJJT&R operates a Statistical Analysis Center that compiles data and publishes an annual report on the activities of all juvenile courts in Pennsylvania. In order to receive funding from JCJC, each county in Pennsylvania must

submit offender and offense information pertaining to every juvenile court disposition handled within its jurisdiction, including all cases in which offenders are judicially waived to adult criminal court. Data for the study were taken directly from the database maintained by CJJT&R and are limited to the information that the agency considers important for its purposes. Consequently, some variables (e.g., socioeconomic status, victim injury, etc.) that may be relevant to a discussion of justice system processing, transfer to adult court, and case outcomes were not available and therefore could not be examined.

### *Measures*

Table 1 presents statistical descriptions of all the variables employed in this study, based on the entire cohort of 557 violent youthful offenders. Because of the non-equivalent group design utilized in this study, it is important to consider differences between the waived and retained youths. Table 2 provides comparative information for the separate transferred and nontransferred offenders. The bivariate significance tests point to the issue of selection bias, as the transferred and nontransferred offenders are significantly different in terms of a number of independent variables, as well as the dependent variables. These findings show the importance of controlling for differences between the groups when examining the possible effect of transfer on case processing outcomes.

INSERT TABLES 1 AND 2 ABOUT HERE

### *Independent variables.*

The central independent variable was *transfer* to adult criminal court. Based on the non-equivalent group research design, this variable does not represent a true manipulation. Rather, it is a “treatment” given to an assigned group that may differ from the comparison group in terms of criminal activity and demographic characteristics (Campbell & Stanley, 1966; Cook &

Campbell, 1979). This variable was coded as 0 if the offender was retained in juvenile court and 1 if the offender was waived to adult criminal court, and 25% of the offenders were transferred.

Numerous other variables were utilized to control for any influence they might have on the decision to transfer, case outcomes, or both. To begin, harsher penalties tend to be associated with older offenders rather than with younger offenders who are starting their delinquent careers (Wolfgang, Figlio, & Sellin, 1972), and an older age at the time of offense has been found to predict judicial waiver to adult criminal court (Eigen, 1981a, 1981b; Fagan & Deschenes, 1990; Podkopacz & Feld, 1996; Poulos & Orchowsky, 1994). Therefore, *age* at referral was included as a continuous variable, measured in years. While the average age of the offenders was slightly greater than 16 years, the transferred youths were significantly older (by about 8 months) than those retained in juvenile court.

*Race* also was used as an offender characteristic. Although recent research has failed to find direct racial bias in the transfer process (Fagan & Deschenes, 1990; Fagan, Forst, & Vivona, 1987; Myers, in press; Podkopacz & Feld, 1996; Poulos & Orchowsky, 1994), racial characteristics are hypothesized by labeling theory to influence justice system outcomes (Paternoster & Iovanni, 1989). Because of the way race originally was coded in the data, only whites and nonwhites could be distinguished. However, the nonwhite category was made up almost entirely of African Americans. This variable was coded as 0 for white and 1 for nonwhite. Eighty-one percent of the youths were nonwhite, and race did not significantly differ by transfer status.

Research shows that juvenile justice processing and case outcomes often depend on whether the offender was handled in a rural, suburban, or urban setting (Feld, 1993; Smith & Paternoster, 1990), and location has been found to have a significant influence on the transfer

decision, as urban offenders generally are less likely to be waived than similar rural and suburban youths (Feld, 1989; Poulos & Orchowsky, 1994). With this in mind, *county* of jurisdiction was coded as 1 for urban and 0 for suburban/rural.<sup>9</sup> Eighty-six percent of the offenders were from urban counties. Consistent with prior research, the retained youths were significantly more likely to come from an urban county as compared to the waived offenders.

Two other important social factors pertain to the youth's family and school situations. Traditionally, home and school environments have received strong consideration by the juvenile court, and both may have a significant influence on the transfer decision (Podkopacz & Feld, 1996; Singer, 1993) and future case processing outcomes. To control for these factors, *school* status, at the time of referral, was coded as 0 for not enrolled and 1 for enrolled, graduated, or GED. *Family* status, also at the time of the referral, was coded as 0 for living with two parents and 1 for other living arrangements (e.g., one parent, relative, in placement, living independently). Seventy-six percent of the offenders were living in something other than a two-parent household, and nearly the same percentage was enrolled in school, had graduated, or received a GED. While the transferred offenders were significantly less likely to be enrolled in school than were the retained youths, little difference existed in terms of family status.

While the current research is limited to those offenders charged with robbery, aggravated assault, or both, use of a deadly weapon was also present as an offense characteristic. According to Pennsylvania law, use of a deadly weapon can encompass a wide variety of devices (e.g., firearms, clubs, knives, etc.). Therefore, *weapon* type was used as a control variable, coded as 1 for firearm and 0 for any other deadly weapon. Eighty-six percent of the youths employed a firearm. Somewhat surprisingly, those retained in juvenile court were significantly more likely to have used a gun than were the transferred offenders. This might be explained as a consequence

of an inability to account for victim injury, as it seems possible that a large majority of gun offenses did not produce an injury to the victim, while many of the nonfirearm offenses could have involved a serious victim injury.

It was imperative to consider the prior offense history of the offenders in the study, in order to account for differences in past delinquent behavior between those youths who were transferred to adult court and those who remained in juvenile court. First, because of the known strong relationship that exists between early onset and subsequent serious, violent, and chronic offending (Blumstein, Cohen, Roth, & Visher, 1986; Farrington, 1986; 1998), age at *first referral* to juvenile court was included as a continuous variable, measured in years. While the overall average age of first referral was slightly less than 15 years, those retained in juvenile court had a significantly older age of first referral as compared to the waived offenders.

Next, in order to control for the extent of each offender's delinquent history, three variables (prior referrals, prior adjudications, and prior placements) were combined into a composite measure (alpha = .8694) of each offender's delinquent history. Prior referrals represented the total number of times a youth was previously referred to the juvenile court, regardless of offense. Prior adjudications represented the total number of times a youth was previously adjudicated delinquent, again regardless of offense. Prior placements represented the total number of times a youth was placed in a juvenile correctional facility as a result of a juvenile court disposition. In order to obtain a comprehensive measure of the extent of prior offending and to prevent the problem of multicollinearity that would have existed if each would have been used separately in the analysis as independent variables, these three scores were added together to produce a continuous *prior record* variable. While the average score for this variable

was slightly more than 3, the transferred offenders had a significantly greater prior record score than did the youths retained in juvenile court.

To provide an additional consideration of the seriousness of prior offending, a dichotomous variable was used to identify those juveniles who were previously adjudicated delinquent on one of the violent felonies targeted by the recently enacted legislative waiver law in Pennsylvania. The *prior violent* felony variable was coded as 1 if a prior violent felony targeted by Pennsylvania's legislative waiver law was substantiated and 0 if no prior adjudication of delinquency on a violent felony occurred. Fifteen percent of the offenders were previously adjudicated delinquent on a violent felony, and the waived youths were significantly more likely to possess this prior adjudication as compared to the retained offenders.

Finally, prior research suggests that youths who are held in detention during the adjudicatory and dispositional court stages also receive harsher case outcomes as compared to nondetained offenders (Bortner & Reed, 1985; Clarke & Koch, 1980; Dannefer, 1984; Feld, 1988; Frazier & Cochran, 1986). To examine the impact of detention, *release* from custody prior to final disposition refers to whether the offender was released from detention or secure custody either prior to sentencing (if the case resulted in a finding of guilt in either juvenile or adult court) or adjudication (if the case resulted in a dismissal or acquittal in either juvenile or adult court). This variable was coded as 0 if the offender remained in custody during this time period and 1 if the youth was released. Overall, 40% of the offenders were released prior to disposition. A much larger and significantly greater percentage of the transferred offenders were released prior to final disposition, as compared to the retained youths.<sup>10</sup>

*Dependent variables.*

Two aspects of punishment certainty were measured, conviction and conviction on a targeted offense of robbery or aggravated assault. *Conviction* was coded as 0 if the case resulted in a dismissal or acquittal and 1 if any charges were substantiated in juvenile or adult court. Sixty-eight percent of the offenders were convicted in one court or the other, and a significantly higher percentage of the transferred youths were convicted as compared to those retained in juvenile court. *Target convict* was coded as 1 if the offender was convicted of robbery or aggravated assault and 0 if neither of these charges were substantiated. Of the 378 youths convicted in either juvenile or adult court, 78% were convicted on a targeted offense. A significantly greater percentage of the transferred and convicted offenders were convicted on a targeted offense as compared to the retained and convicted youths in juvenile court.

Two aspects of punishment severity were also measured, incarceration and incarceration length. As with the *target convict* variable, *incarceration* pertains only to the 378 offenders who were convicted in either juvenile or adult court, while *incarceration length* pertains only to the 280 offenders who were incarcerated. Incarceration was defined as being sentenced to either a state or county prison by an adult court, or being placed in a state-run Youth Development Center or private juvenile correctional facility by a juvenile court (i.e., intermediate punishments and residential drug and alcohol treatment were not considered to be incarceration). This variable was coded as 1 if a sentence of secure confinement was imposed and 0 if the sentence did not involve incarceration. Of the convicted offenders, 74% were incarcerated. A much larger percentage of the convicted, transferred offenders were incarcerated, as compared to the nontransferred and convicted youths.



Incarceration *length* was the length of time ordered by the court for secure confinement, measured in months. Due to this variable being positively skewed, the natural log of incarceration *length* was used as the dependent variable. For youths retained and incarcerated by the juvenile court, this variable represented the actual time served in a juvenile correctional facility.<sup>11</sup> For offenders waived to adult court, this variable represents the minimum sentence imposed, as data limitations precluded use of actual time served (see Fritsch et al., 1996). However, because of Pennsylvania's adult court sentencing procedures, minimum sentences and actual time served tend to be similar.<sup>12</sup> For the entire group of 280 incarcerated offenders, the mean of the natural log of incarceration *length* was 2.80 (a little over 16 months). Transferred and incarcerated offenders received significantly longer sentences than did retained and incarcerated youths in the juvenile system.

Last, case processing time was measured in days to examine the swiftness of punishment in juvenile and adult court. Again, due to this variable being positively skewed, the natural log of case processing time was used as the dependent variable. For nontransferred youths, *process* represented the total amount of time from initial juvenile court referral until final disposition (i.e., either the date of sentencing, if previously convicted, or the date of case dismissal or acquittal). For waived offenders, *process* represented the total amount of time from the date of transfer until final disposition. The mean for the natural log of case processing time for all 557 offenders was 4.21 (about 67 days). Youths in adult court experienced much longer periods of case processing time than did those retained in juvenile court.<sup>13</sup>

## Results

*Statistical Analyses*

The estimated zero-order correlations between all variables are presented in Table 3. The bivariate correlations among the independent variables suggested that multicollinearity was not a problem. Only two of the correlations were greater than  $|.50|$ , and both were less than  $|.65|$ . However, further tests also were conducted, through the use of a linear probability model (Aldrich & Nelson, 1984). Tolerance statistics and variance inflation factors both confirmed that multicollinearity would not pose a threat, as all tolerances were greater than  $.40$  and all variance inflation factors were less than  $2.5$  (see Menard, 1995; Neter, Wasserman, & Kutner, 1989).

INSERT TABLE 3 ABOUT HERE

Three of the dependent variables, *convict*, *target convict*, and *incarceration*, were coded as a dichotomy, therefore logistic regression was chosen as the method of estimation. Since logistic regression coefficients are not easily interpreted, the results of the model were used to predict the probability of release for a “typical” or “average” offender in juvenile court (i.e., *transfer* is equal to 0) versus a typical or average offender in adult court (i.e., *transfer* is equal to 1), with all other independent variables set at their mean. As recommended by Bachman and Paternoster (1997) and Menard (1995), the following equation was utilized:

$$\hat{p} = \frac{e^{a_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k}}{1 + e^{a_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k}} \quad (1)$$

where  $a_0$  represents the constant and the other subscripts identify each independent variable and the corresponding slope estimate.

The other two dependent variables, *length* and *process*, were measured continuously and normally distributed, so ordinary least squares (OLS) regression was employed. To further

examine differences in otherwise typical or average offenders in juvenile versus adult court, the following equation was employed, with all independent variables but *transfer* set at their mean:

$$\hat{y} = a_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 + \dots + b_k x_k \quad (2)$$

where  $a_0$  is the constant and the subscripts identify each independent variable and the corresponding slope estimate (Bachman & Paternoster, 1997; Lewis-Beck, 1980).

### *Multivariate Results*

The logistic regression estimates for the determinants of *convict* are presented in Table 4. The pseudo  $R^2$ s suggest that the model explains roughly 20% of the “variation” in the dependent variable. The effect of *transfer* was positive and highly significant ( $b = 1.726$ ;  $p < .01$ ), indicating that waived juveniles were more likely to be convicted of a charge than were their counterparts in juvenile court. In fact, the odds ratio (exponentiated coefficient) of 5.618 shows that the simple odds of conviction for a transferred youth were over 5 times greater than for a similar retained offender, while controlling for the other factors. Moreover, Equation 1 was used to predict the probability of conviction for “typical” transferred and nontransferred youths, with all other explanatory variables set at their mean. The estimated probability of conviction for a waived offender was .907, while for a retained juvenile it was .635, a difference of over 27 percentage points.

INSERT TABLE 4 ABOUT HERE

Along with the positive transfer effect, *age* at referral ( $b = -.366$ ;  $p < .01$ ), *race* ( $b = -.612$ ;  $p < .05$ ), *county* of jurisdiction ( $b = -1.466$ ;  $p < .01$ ), *family* status ( $b = -.454$ ;  $p < .05$ ), and *release* ( $b = -.900$ ;  $p < .01$ ) from pre-dispositional secure custody all were found to have a significant, negative impact on the likelihood of conviction. In other words, while the transferred offenders were more likely to be convicted, older youths, nonwhites, those from urban counties,

those not living with two parents, and those released from pre-dispositional secure custody were less likely to be convicted. These findings suggest an initial filtering process whereby older, nonwhite, and urban youths, as well as those with nontraditional family backgrounds and those released from pre-dispositional secure custody, were more likely to be either “cut loose” by the juvenile court or receive less specific consideration in adult court. On the other hand, among this group of violent youthful offenders, those who were younger, white, rural or suburban, from a traditional family background, and not released from pre-dispositional secure custody seemed to garner greater prosecutorial attention, while controlling for court of jurisdiction and other factors. It is noteworthy and somewhat surprising that none of the prior offending variables were significant, and firearm use also appeared to have little or no effect on the likelihood of conviction.

The logistic regression estimates for the determinants of conviction on a targeted offense of robbery or aggravated assault are listed in Table 5. The pseudo  $R^2$ s indicate that the model has fairly weak explanatory power, as approximately 90% of the “variation” in the dependent variable is left unexplained. Still, *transfer* again had a positive and significant effect ( $b = 1.158$ ;  $p < .01$ ). This means that of the 378 youths who were convicted, those in adult court were more likely to be convicted of robbery or aggravated assault, suggesting a lesser amount of charge reduction in adult court. The odds ratio (3.183) shows that while controlling for the other factors, the simple odds of a convicted offender being convicted on a targeted offense were three times greater for youths in adult court than for comparable offenders in juvenile court. Finally, using Equation 1, the estimated probability of an “average” convicted youth being convicted of robbery or aggravated assault in adult court was .898, while in juvenile court it was .735, a difference of over 16 percentage points.

## INSERT TABLE 5 ABOUT HERE

Two other significant effects also were revealed. The positive coefficient for *weapon* ( $b = .910$ ;  $p < .05$ ) shows that among convicted youths, those who had employed a firearm during the commission of their offense were more likely to be convicted of robbery or aggravated assault than were those who used some other type of weapon. Similarly, the positive effect of *prior violent* ( $b = 1.046$ ;  $p < .05$ ) indicates that among convicted youths, those with a prior substantiated violent felony were more likely to be convicted of robbery or aggravated assault than were those without a prior violent felony conviction. Therefore, while these variables did not have an initial impact on the likelihood of conviction on any charges (see Table 4), for the 378 youths who were convicted, using a gun and having a prior violent felony conviction did increase the odds of being convicted on charges of robbery or aggravated assault.<sup>14</sup>

The next step was to consider whether offenders convicted in adult court had a greater likelihood of incarceration than did those who were convicted in juvenile court. The logistic regression estimates for the determinants of *incarceration* are presented in Table 6. The pseudo  $R^2$ s indicate that approximately 25% of the “variation” in the dependent variable was explained by this model. Once again, *transfer* had a strong, positive effect ( $b = 2.728$ ;  $p < .01$ ), meaning that of the offenders who were convicted, those in adult court were more likely to receive a sentence of incarceration than were similar youths in juvenile court. Indeed, the odds ratio (15.303) shows that while controlling for the other factors, the simple odds of incarceration were 15 times greater for transferred and convicted offenders than for retained and convicted youths. Furthermore, using Equation 1, the estimated probability of incarceration was much greater for transferred youths than for those retained in juvenile court. With all other explanatory variables set at their mean, the probability of incarceration for convicted offenders in adult court was .967.

For those retained and convicted in juvenile court, the estimated probability was .659, a difference of nearly 31 percentage points.

INSERT TABLE 6 ABOUT HERE

Only one other significant effect was found, as *release* had a negative and fairly strong impact on the likelihood of incarceration ( $b = -.808$ ;  $p < .01$ ). Consistent with previous research, offenders who were released from pre-dispositional secure custody were less likely later to be incarcerated than were those who continued to be detained. Again, it is interesting that none of the prior offending variables or firearm use had a significant effect on the odds of incarceration, although *weapon* type did come close ( $b = .740$ ;  $p < .10$ ).

Next, incarceration length among those offenders who were both convicted and incarcerated was examined. The OLS regression estimates for the determinants of the natural log of incarceration length may be found in Table 7. The adjusted  $R^2$  reveals that 33% of the variation in *length* was explained by the model. *Transfer* was again highly significant ( $b = 1.090$ ;  $p < .01$ ), with a standardized coefficient (Beta = .596) more than two times greater than that of any other independent variable. This means that of the 280 incarcerated offenders, those sentenced in adult court experienced significantly longer periods of confinement than did those retained and incarcerated by the juvenile court. To illustrate, using Equation 2, for otherwise “typical” offenders, the estimated natural log of incarceration length for transferred youths was 3.46 (31.82 months), while for retained offenders it was 2.37 (10.70 months).

INSERT TABLE 7 ABOUT HERE

Among the other explanatory variables, only *weapon* ( $b = .654$ ;  $p < .01$ ) exerted a significant influence on the natural log of incarceration length. The positive coefficient indicates that among the incarcerated offenders, those who had employed a firearm were confined longer

than those who had used another deadly weapon.<sup>15</sup> Similar to two of the previous models, while controlling for other explanatory factors, unexpectedly none of the prior offending variables significantly impacted on incarceration length. Moreover, neither did any of the personal or social offender characteristics.

A final analysis examined case processing time, in order to investigate whether violent youths in adult court experienced longer periods of case processing than did those in juvenile court. The OLS regression estimates are presented in Table 8. Here, the adjusted  $R^2$  reveals that the model explains nearly 40% of the variation in *process*. The effect of *transfer* was positive and highly significant ( $b = 1.457$ ;  $p < .01$ ), showing that offenders processed in adult court experienced longer periods of case processing than did those who were handled in juvenile court. Using Equation 2, for youths in adult court, the estimated natural log of case processing time was 5.31 (202.34 days), whereas for the retained offenders it was 3.85 (46.99 days).

#### INSERT TABLE 8 ABOUT HERE

Two other significant effects also were revealed. Age at *first referral* had a positive impact ( $b = .088$ ;  $p < .01$ ), indicating that youths with an older age at first referral experienced longer case processing times. A possible explanation for this finding is that youths with an older age at first referral may be seen as less serious offenders with shorter offending histories, causing their cases to be "put on the backburner."<sup>16</sup> Finally, *release* also had a positive effect ( $b = .733$ ;  $p < .01$ ), meaning offenders released from pre-dispositional secure custody experienced longer periods of case processing than did those who remained detained.<sup>17</sup>

#### Discussion and Conclusions

In recent years, most states have moved to strengthen the sanctions available for responding to serious and violent youthful offending. Although a variety of "get tough"

mechanisms have been adopted, treating juvenile offenders as adults has been very popular. Proponents of transferring juveniles to adult court generally emphasize two perceived advantages with this approach: stronger punishment and greater public safety. Although the waived offenders in this study initially were more likely to be released from pre-dispositional secure custody than were the youths retained in juvenile court (see also Myers, 2001; Myers & Kiehl, 2001), the subsequent treatment received by the offenders in adult court was consistently of a harsher nature. The transferred juveniles were more likely to be convicted, and of those who were convicted, youths in adult court were more likely to be convicted of a targeted offense of robbery or aggravated assault. Of the convicted offenders, those who were waived were also more likely to be incarcerated. Of those who were incarcerated, the transferred juveniles experienced longer periods of confinement. Finally, the youths in adult court encountered much longer periods of case processing, thereby delaying final resolution of case outcomes.

The findings of this study contrast with those of earlier studies that found evidence of a "leniency gap" for youths waived to adult court (see Bortner, 1986; Champion, 1989; Emerson, 1981; Gillespie & Norman, 1984; Hamparian et al., 1982; Royscher & Edelman, 1981; Sagatun et al., 1985). However, the results are fairly consistent with those of more recent research that has focused on violent youthful offenders and found that those in adult court experience higher conviction rates (Fagan, 1990; Podkopacz & Feld, 1996; but see also Fagan, 1995; Rudman et al., 1986), greater incarceration rates (Barnes & Franz, 1989; Bishop et al., 1996; Fagan, 1990, 1995; Podkopacz & Feld, 1996; Rudman et al., 1986), lengthier periods of confinement (Bishop et al., 1996; Fagan, 1990; Podkopacz & Feld, 1996; Rudman et al., 1986; but see also Fagan, 1995; Fritsch et al., 1996), and longer case processing times (Fagan, 1995; Kinder et al., 1995; Lemmon et al., 1991; Rudman et al., 1986). The fact that violent youths can be, and seemingly



are, punished more severely in adult criminal court may be seen by some as enough reason to justify the expanded use of treating juveniles as adults. With the continued popularity of the "get tough" philosophy, there is strong support for harsher sanctions, particularly if they appear to increase community safety. Because violent youths in adult court seem to be held more accountable and are subjected to greater and lengthier incapacitation (including both incarceration and additional time on parole, which can be revoked), politicians and the public alike may continue to back transfer provisions.

However, the limits of this approach should also be noted. Although the transferred offenders in this study were more likely to be incarcerated and experienced longer periods of incarceration than did their juvenile court counterparts, 57% of the waived youths had their cases disposed and were returned to the community within 4 years of their initial arrest. In other words, a majority of the transferred juveniles were released from incarceration while they were still in their late teens or early twenties, the known peak years of violent offending. Undoubtedly, many more were and will be released while they are still relatively young. Although these offenders may (or may not) undergo strict parole supervision, a central issue is whether the somewhat short-term incapacitative benefit achieved through juvenile transfer is offset by further criminal behavior once waived youths are released from confinement. In fact, recent research shows this to be the case, as various studies have found greater, more serious, and faster recidivism on the part of waived youths, as compared to similar offenders retained in the juvenile system (Bishop et al., 1996; Fagan, 1995; Myers, 2001, in press; Myers & Kiehl, 2001; Podkopacz & Feld, 1996; Winner, Lanza-Kaduce, Bishop, & Frazier, 1997).

A second major issue concerns what should be done with juveniles who are to be housed in the adult criminal justice system. The main advantage that adult prisons appear to offer over

juvenile correctional facilities is the longer period of incarceration that can be provided. Lengthier incarceration not only increases incapacitation, but it also has been found to be associated with lesser recidivism on the part of serious and violent adolescent offenders (Gottfredson & Barton, 1993; Murray & Cox, 1979; Myers 2001, in press; but see also Schneider & Ervin, 1990, for contradictory findings). However, studies also suggest that as compared to similar youths in juvenile institutions, young offenders in adult prisons experience greater victimization by both inmates and staff (Forst, Fagan, & Vivona, 1989), exhibit higher suicide rates (Flaherty, 1980), and receive inferior treatment services (Forst et al., 1989; Reddington & Sapp, 1997). In addition, a number of scholars have discussed the developmental differences between juveniles and adults and have questioned the ability of the adult criminal system to deal with immature and disadvantaged adolescents (see, e.g., Geraghty, 1998; Morse, 1998; Scott & Grisso, 1998). When these findings and arguments are considered along with the previously mentioned findings of greater recidivism among transferred youth, there is reason for caution in simply adopting an “adult crime, adult time” approach.

One final point should be made. Perhaps in response to various research findings, some states have moved to provide specific facilities and services for juveniles transferred to the adult system. For example, in Pennsylvania, a new prison was built specifically for violent youths transferred to adult court and subsequently convicted and sentenced to a state prison. At a price of over \$70 million, the Pine Grove State Correctional Institute (SCI Pine Grove) was planned to house 500 violent juvenile offenders, offer education and behavioral modification treatment in a therapeutic community environment, and include a strong research emphasis and presence (Myers, 2003; Zimmerman et al., 2000). In general, the facility appeared to be unique in terms of its target population, treatment philosophy, and accessibility for researchers.

Several things are now worth noting about SCI Pine Grove. First, it did not open until nearly five years after Pennsylvania's legislative waiver law went into effect in 1996. This exemplifies how legislation often is passed without the proper planning and resources in place for it to be effective. Second, the influx of juvenile inmates that was anticipated did not occur. After operating for a number of months at below 33% of the total capacity (White Stack, 2001), the facility began accepting adult inmates from the rest of the state system in order to fill bed space and reduce overcrowding in other prisons (Erdley, 2002; Wells, 2002). This has produced an adult to juvenile inmate ratio of 2 to 1, as well as concerns among policymakers about cost (an estimated \$53,000 per inmate) and overall effectiveness (White Stack, 2001). Finally, originally planned research efforts stalled soon after the facility was opened, and little or no sound evaluation evidence exists that would provide an indication of the value of this facility in treating violent young offenders.

There are several possible reasons for the unexpected low number of juvenile inmates housed at SCI Pine Grove. First, although sound statewide figures are not available, it appears that corrections officials underestimated how many offenders originally excluded from juvenile court under Pennsylvania's 1996 waiver law would be "decertified" or "reverse waived" back to juvenile court by adult court judges. Rather than eliminating discretion in the transfer process, legislative waiver laws like Pennsylvania's may merely turn judicial discretion in the opposite direction, and not greatly increase the final probability of adult court processing. This is an area in need of further research. Second, like the rest of the nation, Pennsylvania experienced a sharp decline in youth violence during the past 7 years (Erdley, 2002; Wells, 2002), resulting in fewer violent offenders entering the system. Third, in light of research findings and their own perceptions, adult court judges may be reluctant to send all but the most serious and violent

youths to state prison. Instead, shorter sentences may be imposed that allow the offender to remain in a county facility. To the extent that this is true, the level of educational and treatment services available to juveniles in county jails and prisons could be cause for concern.

The results of this study and several others indicate that violent juvenile offenders are punished more harshly in the adult criminal justice system, as compared to similar youths retained in juvenile court. However, other research findings and recent events (such as those in Pennsylvania) suggest reason for caution in adopting a widespread approach to waiving violent adolescents to adult court. Instead, more selective strategies seem warranted, in which only the most violent youths (e.g., those employing firearms and chronic violent offenders) are targeted for criminal court processing. This appears to provide the best chance for accountability and punishment, as well as for short and long term public safety.

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## Footnotes

<sup>1</sup> Much has been written about the various mechanisms used to place youthful offenders in the adult criminal justice system. To obtain further information on methods of transfer, patterns of use, trends, and the historical development of the transfer process, readers may consult Bishop (2000), Feld (1987, 1993), Forst and Blomquist (1991), Griffin, Torbet, and Szymanski (1998), Howell (1996, 1997), Myers (2001), Snyder and Sickmund (1999), and Thomas and Bilchik (1985).

<sup>2</sup> Due to diversity in state laws and reporting procedures, solid national estimates of juvenile transfers are available only for judicially waived cases. The total number of cases waived to adult court by juvenile court judges rose from 7,000 to 12,300 between 1988 and 1994, a rise of 75%. Since 1994, with the increased use of legislative and prosecutorial waiver, national judicial waivers have dropped to approximately 10,000 per year (Snyder and Sickmund, 1999). However, as a reflection of the expanded use of legislative waiver, police adult court referrals of juveniles increased from less than 47,000 (4.7% of total police dispositions of juveniles) in 1988 to more than 91,000 (6.6% of total police dispositions of juveniles) in 1997 (Federal Bureau of Investigation, 1988-1997).

<sup>3</sup> Although not the focus of this article, the deterrent effect of juvenile transfer has been examined in several studies, and it is, at best, very questionable. Readers should consult Bishop et al. (1996), Fagan (1995), Myers (2001, in press), Myers and Kiehl (2001), Podkopacz and Feld (1996), and Winner et al. (1997).

<sup>4</sup> A full discussion of modern juvenile justice legislative changes in Pennsylvania and the data employed in this study has been previously presented elsewhere (Myers, 2001; Myers, in press; Myers & Kiehl, 2001).



<sup>5</sup> The specified violent felony offenses include rape, involuntary deviate sexual intercourse, aggravated assault, robbery, robbery of a motor vehicle, aggravated indecent assault, kidnapping, voluntary manslaughter, and attempt, conspiracy, or solicitation to commit murder or any of the other listed offenses (Pennsylvania Juvenile Court Judges Commission, 1996).

<sup>6</sup> Defined by 18 PA C.S. Sec. 2301 as “any firearm, whether loaded or unloaded, or any device designed as a weapon and capable of producing death or serious bodily injury, or any other device or instrumentality which, in the manner in which it is used or intended to be used, is calculated or likely to produce death or serious bodily injury” (Crimes Code of Pennsylvania, 2000, p. 35).

<sup>7</sup> The data employed in this study were collected as part of a larger research project (Myers, 2001) soon after the 1996 legislation went into effect. Therefore, cases actually processed under the new law could not be utilized, as most of the excluded cases were still being processed by the criminal justice system. While this study cannot be considered a direct examination of the impact of Pennsylvania’s revised juvenile code, the new law was instrumental in defining the population to be studied and creating the research design.

<sup>8</sup> The study was limited to male offenders because of the extremely small number of female offenders who met the offense criteria. Only 2 transferred female offenders from 1994 were identified, and less than 15 were identified that were retained in juvenile court. The study was confined to robberies and aggravated assaults, both involving a deadly weapon, for several other reasons. First, these offenses are the typical violent juvenile acts that have evoked concern, fear, and legislative action over the past 15 years. Second, a preliminary analysis of the data uncovered an extremely small number (less than 10) of other violent offenses with a deadly weapon that would have been excluded from juvenile court jurisdiction under Pennsylvania's

recent legislation. Third, aggravated assault was not included under the provisions of the legislative waiver law that excludes repeat violent offenses that do not involve a deadly weapon. Finally, author contacts with justice system officials revealed that a very high percentage (approximately 95%) of all cases actually excluded since the new law went into effect in 1996 consist of robberies and aggravated assaults with a deadly weapon.

<sup>9</sup> This variable was coded based on a county classification system existing in Pennsylvania and obtained from The Center for Juvenile Justice Training and Research. The small number of offenders processed in rural counties (n=22) precluded a separation of rural and suburban counties.

<sup>10</sup> This finding suggests the presence of an initial “custody gap” for juveniles waived to adult criminal court, as transferred youths (who have a greater right to bail than nontransferred offenders) were more likely to be released prior to disposition than were offenders retained in juvenile court. For further analysis and discussion of this finding, as well as an examination of the pre-dispositional recidivism of the released youths, readers should consult Myers (2001) and Myers and Kiehl (2001).

<sup>11</sup> Juvenile courts in Pennsylvania employ indeterminate sentencing, meaning that offenders placed in secure correctional facilities remain incarcerated until they are deemed suitable for release by a juvenile court judge, up to the maximum age of juvenile court jurisdiction of 21. At the time the data were collected, four youths who had been placed in a correctional facility were still incarcerated. For these offenders, it was assumed that they would remain in placement until the age of 21, which in all four cases amounted to less than an additional 12 months from the time of data collection.

<sup>12</sup> Pennsylvania criminal court judges impose both a minimum and maximum period of incarceration, with the minimum being no more than half the maximum. Sentences with a maximum term of less than 2 years are considered county-level and are served in a county prison. Sentences with a maximum term of 2 years or more are considered state-level and generally are served in a state prison. For state-level sentences, the inmate must serve at least the minimum term prior to parole by the state parole board (i.e., there is no “earned time” or “good time”). However, for county-level sentences, individual counties may establish early release programs, and county judges can order parole prior to the completion of minimum sentences.

<sup>13</sup> An argument could be made that analysis of case processing time should be limited to only those offenders who were convicted, as longer case processing time for waived youth could be due to retained youth being more likely to have their cases dismissed. However, this possibility was explored, and among only those 378 offenders who were convicted, the transferred offenders still experienced much longer case processing times. This was revealed at both the bivariate level and in a subsequent multivariate model that controlled for other factors beyond transfer to adult court.

<sup>14</sup> A separate analysis revealed that *weapon* actually interacted with *transfer*. Although use of a firearm increased the likelihood of being convicted on a targeted offense in both juvenile and adult court, firearm use had a significantly greater positive effect in adult court than in juvenile court.

<sup>15</sup> Once again, a separate analysis showed that *weapon* actually interacted with *transfer*. In adult court, using a firearm had a strong positive impact on incarceration length, but in juvenile court the effect was insignificant (in fact, the coefficient was negative). This finding is not particularly surprising, as Pennsylvania law provides for a mandatory 5 year minimum sentence for violent

crimes committed with a firearm (see McDowall, Loftin, and Wiersema, 1992). Author contacts with prosecutors and public defenders revealed that this 5 year minimum is often “plea bargained away,” but the law no doubt had some influence on lengthening adult court prison sentences.

<sup>16</sup> Another analysis revealed that age at *first referral* interacted with *transfer*. For youths in juvenile court, the impact of this variable was positive and significant, while for waived offenders, it was negative and insignificant. This finding suggests that age at first referral was given greater attention in juvenile court than in adult court.

<sup>17</sup> A final interaction effect also was revealed, as *release* was found to interact with *transfer*. Although release from pre-dispositional secure custody was, as would be expected, associated with longer case processing times for both transferred and nontransferred offenders, the positive effect of *release* was significantly greater for those retained in juvenile court. This is probably explained by the fact that Pennsylvania juvenile law provides fairly strict standards for the timely processing of youths held in detention, thereby reducing case processing time.

Table 1

*Descriptive Statistics for All Variables*

Variable	<i>M</i>	<i>SD</i>	Min	Max	N
Transfer	0.25	0.43	0.00	1.00	557
Age	16.20	0.85	15.00	18.00	557
Race	0.81	0.39	0.00	1.00	557
County	0.86	0.34	0.00	1.00	557
School	0.71	0.45	0.00	1.00	557
Family	0.76	0.43	0.00	1.00	557
Weapon	0.86	0.34	0.00	1.00	557
First Referral	14.76	1.72	10.00	18.00	557
Prior Record	3.23	4.00	0.00	29.00	557
Prior Violent	0.15	0.35	0.00	1.00	557
Release	0.40	0.49	0.00	1.00	557
Convict	0.68	0.47	0.00	1.00	557
Target Convict	0.78	0.41	0.00	1.00	378
Incarceration	0.74	0.44	0.00	1.00	378
Length	2.80	0.90	0.00	5.26	280
Process	4.21	1.19	0.00	6.72	557

Table 2

*Descriptive Statistics by Transfer Status*

Variable	<i>M</i>	<i>SD</i>	Min	Max	N
<i>Transferred Offenders</i>					
Age	16.70	0.67	15.00	18.00	138
Race	0.78	0.42	0.00	1.00	138
County	0.79	0.41	0.00	1.00	138
School	0.60	0.49	0.00	1.00	138
Family	0.78	0.41	0.00	1.00	138
Weapon	0.75	0.43	0.00	1.00	138
First Referral	14.13	2.10	10.00	17.00	138
Prior Record	6.38	5.45	0.00	29.00	138
Prior Violent	0.30	0.46	0.00	1.00	138
Release	0.55	0.50	0.00	1.00	138
Convict	0.87	0.34	0.00	1.00	138
Target Convict	0.85	0.36	0.00	1.00	120
Incarceration	0.96	0.20	0.00	1.00	120
Length	3.31	0.95	0.00	5.26	115
Process	5.32	0.97	0.00	6.72	138
<i>Nontransferred Offenders</i>					
Age	16.04**	0.83	15.00	18.00	419
Race	0.82	0.38	0.00	1.00	419
County	0.89**	0.32	0.00	1.00	419
School	0.74**	0.44	0.00	1.00	419
Family	0.75	0.43	0.00	1.00	419
Weapon	0.90**	0.30	0.00	1.00	419
First Referral	14.96**	1.52	10.00	18.00	419
Prior Record	2.19**	2.69	0.00	17.00	419
Prior Violent	0.10**	0.29	0.00	1.00	419
Release	0.35**	0.48	0.00	1.00	419
Convict	0.62**	0.49	0.00	1.00	419
Target Convict	0.75*	0.43	0.00	1.00	258
Incarceration	0.64**	0.48	0.00	1.00	258
Length	2.45**	0.67	0.00	3.89	165
Process	3.84**	1.01	0.00	6.66	419

*Note.* Mean (or proportional) differences were tested between groups.  
2-tailed significance: \*  $p < .05$ ; \*\*  $p < .01$

Table 3

*Estimated Correlations among All Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Transfer (1)	1.00															
Age (2)	.34**	1.00														
Race (3)	-.05	-.02	1.00													
County (4)	-.12**	-.05	.23**	1.00												
School (5)	-.14**	-.17**	-.09*	.08	1.00											
Family (6)	.03	.01	.23**	.03	.02	1.00										
Weapon (7)	-.18**	-.08*	.38**	.28**	-.01	.08	1.00									
First Referral (8)	-.21**	.18**	-.12**	-.01	.01	-.12**	.01	1.00								
Prior Record (9)	.45**	.25**	.12**	-.03	-.12**	.12**	-.05	-.60**	1.00							
Prior Violent (10)	.25**	.07	.07	.02	-.03	.07	.01	-.31**	.45**	1.00						
Release (11)	.17**	.13**	-.11*	.08	-.07	-.06	-.14**	.03	.02	.04	1.00					
Convict (12)	.23**	-.04	-.13**	-.21**	-.09*	-.09*	-.12**	-.06	.09*	.07	-.13**	1.00				
Target Convict (13)	.11*	-.05	.10*	.05	.01	.07	.17**	-.05	.03	.13*	-.06	.	1.00			
Incarceration (14)	.34**	.14**	.16**	-.04	-.05	.13*	.13*	-.17**	.25**	.16**	-.08	.	.32**	1.00		
Length (15)	.47**	.11	.14**	.11	-.03	.03	.20**	-.16**	.20**	.22**	.05	.	.28**	.	1.00	
Process (16)	.54**	.21**	-.06	-.02	-.12**	-.03	-.13**	.03	.16**	.07	.40**	.15**	.05	.18**	.26**	1.00

*Note.* N = 557. Coefficients for Target Convict and Incarceration were based on the 378 offenders who were convicted. Coefficients for Length were based on the 280 offenders who were incarcerated. “.” is printed if the coefficient could not be computed.

2-tailed significance: \* p < .05; \*\* p < .01

Table 4

*Logistic Regression Estimates for the Determinants of Convict (N=557)*

Variable	<i>B</i>	<i>SE</i>	Wald	Exp (B)
Transfer	1.726	.330	27.428**	5.618
Age	-.366	.137	7.186**	.693
Race	-.612	.312	3.854*	.542
County	-1.466	.457	10.290**	.231
School	-.454	.235	3.736	.635
Family	-.503	.251	4.022*	.605
Weapon	-.251	.368	.467	.778
First Referral	.033	.080	.167	1.033
Prior Record	.012	.043	.079	1.012
Prior Violent	.117	.332	.124	1.124
Release	-.900	.214	17.706**	.407
Constant	8.975	2.159	17.276**	
-2 Log-likelihood	603.766			
Model Chi-Square	95.708**	( <i>df</i> = 11)		
Cox & Snell R <sup>2</sup>	.158			
Nagelkerke R <sup>2</sup>	.221			

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2-tailed significance: \*  $p < .05$ ; \*\*  $p < .01$



Table 5

*Logistic Regression Estimates for the Determinants of Target Convict (N=378)*

Variable	<i>B</i>	<i>SE</i>	Wald	Exp (B)
Transfer	1.158	.384	9.112**	3.183
Age	-.309	.196	2.474	.734
Race	.203	.344	.351	1.226
County	.068	.345	.039	1.070
School	.140	.289	.234	1.150
Family	.158	.296	.284	1.171
Weapon	.910	.362	6.324*	2.483
First Referral	-.007	.104	.005	.993
Prior Record	-.060	.046	1.696	.942
Prior Violent	1.046	.503	4.327*	2.846
Release	-.366	.279	1.718	.693
Constant	5.150	3.08	2.803	
-2 Log-likelihood	366.715			
Model Chi-Square	28.670** ( <i>df</i> = 11)			
Cox & Snell R <sup>2</sup>	.073			
Nagelkerke R <sup>2</sup>	.113			

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2-tailed significance: \*  $p < .05$ ; \*\*  $p < .01$

Table 6

*Logistic Regression Estimates for the Determinants of Incarceration (N=378)*

Variable	<i>B</i>	<i>SE</i>	Wald	Exp (B)
Transfer	2.728	.541	25.443**	15.303
Age	.009	.202	.002	1.009
Race	.446	.347	1.648	1.562
County	.228	.372	.376	1.256
School	.063	.305	.043	1.065
Family	.266	.301	.779	1.304
Weapon	.740	.405	3.336	2.096
First Referral	-.082	.126	.423	.922
Prior Record	.074	.071	1.083	1.077
Prior Violent	.231	.526	.192	1.260
Release	-.808	.287	7.921**	.446
Constant	.334	3.00	.012	
-2 Log-likelihood	346.023			
Model Chi-Square	86.621** ( <i>df</i> = 11)			
Cox & Snell R <sup>2</sup>	.205			
Nagelkerke R <sup>2</sup>	.300			

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2-tailed significance: \*  $p < .05$ ; \*\*  $p < .01$

Table 7

*OLS Regression Estimates for the Determinants of Incarceration Length (N=280)*

Variable	<i>B</i>	<i>SE</i>	<i>T</i>	<i>Beta</i>
Transfer	1.090	.112	9.763**	.596
Age	-.023	.065	.358	.021
Race	.174	.130	1.336	.075
County	.240	.126	1.900	.101
School	.113	.098	1.154	.059
Family	-.015	.107	.143	.007
Weapon	.654	.144	4.530**	.249
First Referral	-.034	.034	1.014	.068
Prior Record	-.020	.015	1.381	.100
Prior Violent	.226	.123	1.841	.100
Release	-.189	.100	1.897	.099
Constant	2.368	1.03	2.287*	
F-value	13.545**	( <i>df</i> = 11)		
Adjusted R <sup>2</sup>	.331			

2-tailed significance: \*  $p < .05$ ; \*\*  $p < .01$

Table 8

*OLS Regression Estimates for the Determinants of Process (N=557)*

Variable	<i>B</i>	<i>SE</i>	<i>T</i>	<i>Beta</i>
Transfer	1.457	.109	13.422**	.531
Age	-.052	.055	.952	.037
Race	.007	.113	.063	.002
County	.091	.122	.742	.026
School	-.097	.089	1.091	.037
Family	-.053	.094	.567	.019
Weapon	.017	.129	.132	.005
First Referral	.088	.032	2.787**	.128
Prior Record	.003	.015	.225	.012
Prior Violent	-.115	.125	.924	.034
Release	.733	.083	8.797**	.303
Constant	3.115	.841	3.703**	
F-value	34.043** ( <i>df</i> = 11)			
Adjusted R <sup>2</sup>	.395			

2-tailed significance: \*  $p < .05$ ; \*\*  $p < .01$