THE JUVENILE COURT AND VIOLENT YOUTH: DETERMINANTS OF THE TRANSFER DECISION

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ABSTRACT

In response to the increasing rate of violent crime committed by juveniles and the growing dissatisfaction with the traditional juvenile justice system, states are using with greater frequency transfer laws designed to prosecute juveniles in adult (criminal) court. Little research has been done on the nature and determinants of the transfer decision. This study analyzes the decision to transfer youth in four urban juvenile courts. The best predictors of transfer for the combined sample were age at offense (that is, youth approaching maximum age of juvenile court jurisdiction were more likely to be transferred) and number of victims in the offense. However, there was great variation in determinants among the four sites. The results suggest that formal standards should be adopted to promote equity and fairness in the transfer decision.
INTRODUCTION

For nearly a century, the juvenile justice system in America has operated on a different premise from the criminal justice system. Juvenile crime came to be viewed as resulting from external forces or gaps in "moral" development (Platt, 1977), not the deliberate exercise of an individual's free will. Juvenile delinquency was thus seen as a problem in adolescent development. Because of their lack of social and moral development, juveniles did not possess the maturity to appreciate fully the wrongfulness of their actions.

The juvenile justice system was designed to reflect the fundamentally different nature of juvenile criminality. Rather than punish, deter, or express moral condemnation, as the criminal court was supposed to do, the juvenile court emphasized rehabilitation, doing whatever was in "the best interests of the child." The juvenile court's goal was to resolve the wayward youth's family, social, and personal problems and prepare the youth to be a healthy, productive, and law abiding adult. The juvenile court assumed the role of parent--protecting the youth from the stigma of adult conviction while providing appropriate treatment services. Age was, from the beginning, the primary criterion for juvenile court jurisdiction. Youth falling below a certain age--18 in most states--were subject to juvenile court jurisdiction. It is important to note, however, that from the start of the juvenile court movement, juvenile court judges retained the authority to transfer specific types of youth to criminal court for prosecution.

Changes in Juvenile Justice

In the past decade, the juvenile justice system has been challenged on a variety of fronts (Forst et al., 1985). Some critics believe the sanctions meted out for serious offenders are too lenient, and some believe the sanctions given minor offenders (including status offenders) are too harsh. Other critics decry the inconsistent and inequitable decision-making by juvenile justice officials. One of the most damaging criticisms, however, is that the rehabilitative ideal of the juvenile court has not been realized. Surveys of treatment evaluations found that, in general, it is difficult to determine the effectiveness of treatment or services. Surveys of treatment research have found few instances of treatment impacts on delinquent behaviors (Bailey, 1966; Lipton et al., 1975; Wright and Dixon, 1977). To some, implementing effective treatment programs has proven unfeasible, thereby negating the purpose of the juvenile court (Feld, 1978). The loss of public
confidence in rehabilitation—and the juvenile court in general—arguably is related to increases over the past decade in chronic, serious, and violent juvenile crime (Weiner and Wolfgang, 1985).

As a response to mounting criticism, the traditional concern for the "best interests of the child" has been replaced by concern for community protection, punishment and deterrence (Miller and Ohlin, 1984). Feld (1983) argues that offender age does not mitigate the harm to the victim, and that society's needs for retribution may conflict with rehabilitative policy. Van den Haag (1975) expresses a similar view: "The victim of a 15-year-old mugger is as much mugged as the victim of a 20-year-old mugger, the victim of a 14-year-old murderer or rapist if as dead or as raped as the victim of an older one" (p. 174). Accordingly, this view holds that the nature of the offense, not the age or needs of the offender, should determine the court's response.

Delinquency policy has begun to shift from a purely rehabilitative approach to a hybrid rehabilitation/just deserts model predicated on fairness, punishment and individual responsibility (Forst et al., 1985). Some find the shift to be a "reform," while others view this change as the beginning of the elimination of the juvenile court. What is clear is the change of focus with respect to chronic, serious and violent juvenile offenders. Whether by special statutes aimed at violent and chronic delinquents or by legislative or administrative determinate sentencing guidelines, state legislatures and juvenile correctional agencies are dealing more harshly with such offenders within the context of the juvenile justice system. However, despite the "criminalization" of the juvenile justice system and the philosophical, procedural and policy re-orientation, there is still public concern because the juvenile justice system must operate within jurisdictional limits that constrain the amount of time serious juvenile offenders can be incarcerated (Juvenile Court Law Revision Commission, 1984).

Mechanisms for Change

Nationally, states have developed a variety of methods to ensure that "tough, sophisticated juveniles are treated differently from other juvenile delinquents" (Hamparian et al., 1982). In many states, delinquency statutes now recognize punishment as an equal partner with treatment in the response to youth crime (Fagan and Hartstone, 1984; Feld, 1986). Several states have recently amended the statutory purpose clauses in their juvenile codes to
include "preservation of public safety," where previously the "best interests" or "rehabilitation" of the child had been the sole purpose of the juvenile court (Flicker, 1981). Among the stated purposes of Washington state's new juvenile court law, for example, are to "protect the citizenry from criminal behavior," "make the juvenile offender accountable for his or her criminal behavior," and "provide punishment commensurate with the age, crime, and criminal history of the juvenile offender."\footnote{1}

The shift in delinquency policy is being accomplished in other ways. Some states (e.g., Arizona, Colorado, Washington) have developed either legislative or administrative guidelines mandating length and type of confinement for the most violent and chronic juvenile offenders. In other states (e.g., New York, Illinois), the jurisdiction of the juvenile court has been statutorily redefined to exclude certain offenders, usually those charged with violent offenses or having lengthy juvenile records. Some states have lowered the minimum age of criminal court jurisdiction to 16 years (Hamparian et al., 1982), and in one state (Vermont) to 10 years of age. In effect, these states have said that rehabilitation is inappropriate for these youth, and that parens patriae should be replaced by the principles of punishment, "just deserts," and deterrence.

**Transfer to Criminal Court**

One of the most extreme responses to serious juvenile crime involves the transfer\footnote{2} of juveniles to adult (criminal) court for prosecution. In all but three states\footnote{3}, statutes empower a juvenile court judge to decide, with varying degrees of statutory guidance, whether or not to transfer certain juveniles charged with specified offenses to adult court for prosecution (Hamparian, et al., 1982). The judicial decision to waive a youth to criminal court recognizes that for certain offenses and offenders, juvenile justice system sanctions may--because of jurisdictional limitations--be insufficient to accomplish the twin goals of punishment and rehabilitation. Waiver statutes assume, moreover, that some youth are simply beyond rehabilitation--that is, not amenable to treatment in the juvenile justice system.

Transfer is itself a severe sanction, with potentially harsh consequences: an extended detention in jail, a protracted adjudicatory process, a felony conviction resulting in social and legal sanctions, and a lengthy sentence at a secure correctional institution (Rudman et al., 1986). Accordingly, the transfer decision does more than choose a judicial forum for
an accused youth. It invokes a jurisprudential philosophy that governs the nature of the proceedings as well as the purpose and severity of the sanctions. It also raises the important issue of when a child is no longer a child, specifically whether factors other than age are relevant for removing some youth from juvenile court jurisdiction.

Most of the early juvenile court statutes contained some reference to waiver of jurisdiction (Whitebread and Batey, 1981). Certain youth, described as "chronic," "serious," "violent," "sophisticated," "mature" or "persistent" were thought to be out of the purview of the rehabilitative-oriented juvenile court (Feld, 1984; Flicker, 1981). Early statutes gave the juvenile court absolute discretion to dismiss a delinquency petition and transfer a youth to the criminal justice system (Flicker, 1981). Most statutes did not prescribe substantive criteria or procedures for the waiver process, thereby allowing waiver decisions to be made in an informal and subjective manner and predicated on unfettered discretion (Feld, 1978, 1983).

In 1966, the United States Supreme Court, in Kent v. United States, struck down the arbitrary procedures implicit in the District of Columbia waiver provision and held that a juvenile was entitled to a waiver hearing, representation by counsel, access to information upon which the waiver decision was based, and, a statement of reasons upon which the waiver decision can be supported. In a non-binding memorandum attached to the opinion in Kent, the majority indicated eight factors which a waiver decision-maker might consider. However, the court did not, and to this day has not, struck down legislation providing for judicial waiver based on such inherently general phrases as: "amenability to treatment," "dangerousness," "protection of the public," "best interests of the public welfare," or, the nature of a youth's "family, school and social history."

Over the past seven years, half of the state legislatures have amended their juvenile codes to simplify and expedite the transfer of juveniles to criminal court for trial as adults (Hamparian, et al., 1982). Legislative bodies at both the state and federal levels have redefined previous criteria for the age of juvenile jurisdiction, and changed the assignment of discretionary authority to determine the court before which certain types of juvenile cases will appear. A few states have assigned discretion to prosecutors to determine whether a complaint originates in juvenile or criminal court. But waiver by the juvenile court remains as the primary mechanism for referring youth to the criminal court: 47 states, the District of Columbia, and all federal jurisdictions authorize the
juvenile court judge to make the transfer decision. The judge must identify, often within vague statutory guidelines, those juvenile offenders amenable to the rehabilitative ministrations of the juvenile justice system and those whose behaviors require the punitive sanction of the criminal justice system. Irrespective of the Kent memorandum and the descriptive criteria found in the majority of statutory provisions on judicial waiver, broad discretion surrounds the transfer decision (Rudman et al., 1986). The important issue this raises is whether this type of discretion results in decisions that are inequitable, discriminatory, or inconsistent.

Few empirical studies have been conducted examining the determinants of the judicial transfer decision for violent juvenile offenders. Specifically, there has been little research to understand the types of offenses or offenders that meet judicial perceptions of the "dangerousness" or "amenability to treatment" standards found in transfer statutes. Hamparian et al. (1982) analyzed the application of judicial waiver statutes and found little explanation for the high degree of variation in transfer decisions. Keiter (1973) studied characteristics of youth transferred to criminal court in Cook County, Illinois. Keiter's study, a retrospective analysis, suggests that lack of decision-making criteria "invites abuse" in the transfer decision. Eigen (1981) examined the determinants of waiver in Pennsylvania for homicide and robbery. For interracial offenses, race carried significant weight in the outcome of the transfer decision, as did the prior incarceration history of the accused youth.

This paper contributes to the empirical literature on determinants of transfer. It examines the judicial transfer decision in four urban juvenile courts for youth charged with violent offenses and, more generally, it addresses the issue of criteria for transfer--what is the threshold of adolescence, or when is a child no longer a child. The research and policy questions include:

- Which offense and offender attributes influence the judicial decision to transfer?
- Is there consistency in the application of such variables in the transfer decision?
- Can models be constructed to predict whether youths, within and across sites, will be transferred?
- What are the legal and policy implications of differential determinants of transfer?
DATA AND METHODS

This study is part of an evaluation\(^6\) of an experimental intervention program designed to treat violent juvenile offenders\(^7\) (Fagan et al., 1984). Data were collected from 1981-1984 in four urban juvenile courts (Boston, Detroit, Newark, and Phoenix\(^8\)) for a sample of youth (N=201) against whom prosecutors filed petitions for transfer. In each court, the judge decided on the motions. Analyses compared characteristics of those youth transferred to the criminal court with those youth retained by the juvenile court to identify the determinants of the transfer decision. Less than half of those youth considered (76, or 38\%) were transferred to criminal court, whereas 125 (62\%) were retained by the juvenile court for adjudication.

Prior empirical research on transfer (Hamparian, 1982; Rudman et al., 1986; Keiter, 1973; Eigen, 1981), together with current statutory criteria, were used to identify the factors which represent the concepts of "amenability to treatment," "dangerousness," and other attributes of the offense and offender. Data were abstracted from juvenile court records, police arrest reports, and court histories. Information was recorded on: the date of offense, the charges filed at apprehension and at conviction, the dates of various hearings and court appearances, the date of the transfer decision, and, the date of conviction, as well as the final transfer decision. Information about the offense (e.g., number of victims, age and race of victims, number of co-participants) and information about the offender (e.g., race, age, mental health history, offense record and placement history) also were recorded.

Preliminary, descriptive analyses were conducted to examine the relationships between the transfer decision and characteristics of the offenses and offenders.\(^9\) Both two- and three-dimensional contingency tables were analyzed using odds ratios to examine associations between variables. Although desirable, log-linear analysis was not used due to small cell sizes in the multidimensional tables. Secondly, a t-test procedure was used to compare the mean number of prior offenses and prior adjudications for the transferred and non-transferred youths. Finally, logistic regression was conducted to determine criteria predictive of the transfer decision.

Qualitative methods were also used to complement the quantitative analysis. Observations were made of transfer hearings in all four sites and interviews were conducted with key actors in the transfer process--juvenile court judges, prosecutors and defense counsel.
actors in the transfer process—juvenile court judges, prosecutors and defense counsel. Detailed interview schedules were administered to the respondents covering the criteria, procedure, and intent of transfer, as well as an assessment of impact. Finally, a statutory analysis was conducted of the transfer provisions in each site. The specific provisions, as might be assumed, have a direct impact on transfer practices.

RESULTS

Statutory Analysis

The juvenile court's authority to implement judicial waiver is derived from state statutes. In order to understand the determinants of transfer among the sites, it is first necessary to outline each state's statutory structure. In all four study sites, statutes provide age, offense and "other" criteria to guide the judicial waiver decision. Table 1 describes such criteria for Massachusetts, Michigan, New Jersey, and Arizona.

INSERT TABLE 1 HERE

The four statutes provide a mix of specific and non-specific criteria which serve as the only "official" guidelines to enable the juvenile court judge to make the transfer decision. While the age of initial criminal court jurisdiction is precise, as is the minimum age for which judicial waiver is allowed (in all states but Arizona), offense restriction criteria contain vague terminology. Such vagueness, however, is tempered by interpretations found in case law. The range of legal criteria is broad, from any offense (in Arizona) to specific lists of violent offenses (in New Jersey and Massachusetts). Massachusetts further qualifies this restriction by including a prior juvenile corrections commitment. Still other qualifiers include attributions of intent or malice. Such provisions may increase the burden of proof to prosecutors by encompassing extra-legal factors. Nevertheless, "legal" meaning may be attributed to such phrases as: "threat of bodily harm" or offenses committed in an "aggressive, violent or willful manner."

It is when the statutes attempt to set out "general" criteria such as "amenability to treatment" and "dangerousness" that the degree of judicial discretion is revealed. Two
states include in their statutes the seriousness of the alleged offense, despite concurrent committing offense restrictions. Though all states mention "amenability," only two operationalize the concept. These operational definitions are vague, however, with language such as "maturity," "patterns of living," and "character." Two states include an assessment of the appropriateness of available placements for rehabilitation of the offender. Past treatment efforts and public safety are also mentioned, though not consistently, as statutory criteria. Thus, states vary extensively in the breadth, specificity, and generality of extra-legal as well as legal criteria for the transfer decision.

Not only are the criteria discretionary, but so is the manner in which the judges are to consider such criteria (see Table 1). For example, in Massachusetts the court shall consider but "shall not be limited to ..." a list of criteria. In Michigan the court must only "consider" certain criteria. The same element of discretion is in the New Jersey statute which mandates that the court must be "satisfied" that certain determinants are met; and, in Arizona, the court "may" transfer a youth if "reasonable grounds" are present to "believe" that specified elements are present. The extent to which these criteria must be met differs depending on whether the court merely "considers" them versus when the court is "satisfied" on "reasonable grounds." In turn, the disparities in burden of proof may lead to differing procedures for transfer and judicial interpretations of criteria.

Characteristics of Transferred Youth: Applying the Statutory Criteria

The application of the statutory criteria was analyzed by comparing the characteristics of transferred offenders with those retained in juvenile court. The statutory and discretionary clauses from Table 1 were operationalized to include the following factors: age at offense, type of violent offense, and prior offense history. Also included was ethnicity, a factor associated with disparity in judicial decision-making (Thornberry, 1973, 1979). Other factors associated with decision-making in the juvenile court (McCarthy and Smith, 1986) were included as candidate determinants of the transfer decision: age at onset (first offense), and the number of co-participants and victims in the committing offense.

Because the statutory age of jurisdiction differed among the states, we dichotomized age at offense as one year or less and more than one year before the end of juvenile court jurisdiction. It was assumed that the closer to the age limit for criminal court
jurisdiction, the greater the number of youths who would be transferred. This hypothesis resulted from interview data with prosecutors in each site, who stated quite clearly that one purpose of the transfer decision was to obtain longer sentences in secure care than could be obtained in the juvenile justice system (Rudman et al., 1986). In Boston and Detroit, where the age limit is 17, age at offense was categorized as 15 or under, i.e., more than one year prior to court jurisdiction, and age 16, or one year or less. In Newark and Phoenix with a court age-jurisdiction of 18, age at offense was categorized as 16 or under, i.e., more than one year prior, and 17, or one year or less prior to criminal court jurisdiction.

Age at onset was similarly dichotomized, based on the general consensus of the predictive relationship between early psychosocial development, age at onset of delinquency, and subsequent delinquency and aggression (see, for example, Loeber and Dishion, 1983). Official crime statistics show an increase in criminal activity starting at age 13 (Weiner and Wolfgang, 1985). In longitudinal research, age at onset has been shown to be related to severity and chronicity of delinquency and adult criminality; juveniles who begin their criminal careers at earlier ages are more likely to commit serious or violent offenses and to be frequent offenders (Hamparian et al., 1978; Wolfgang et al., 1972; Farrington, 1973; Hamparian et al., 1984). Therefore, age at onset was dichotomized as 13 or younger or 14 and older.

Statutory criteria limit the transfer decision to a specific subset of offense types. This study's sample further limits the subset of offenses, since only violent offenses have been examined. However, the offense categories include several types of violent offenses, including aggravated assault, sexual assault, instrumental violence against persons (e.g., robbery), and capital offenses. The variability in these offenses suggests possible differentials in decision-making. The analyses therefore examine differences by type of offense.

The two other characteristics of the offense--number of co-participants and number of victims--are hypothesized to affect the transfer decision. A greater number of offenders may increase the desire to transfer for a deterrent effect, whereas a greater number of victims may increase the desire for retributive justice or public protection. Both these variables were dichotomized; co-participants as none or some and victims one or multiple.
Table 2 shows the number and percent of youth transferred on these factors across sites. The rate of youth transferred varies widely. In Boston (21%), Detroit (31%) and Newark (41%), less than half considered for transfer were eventually transferred. In Phoenix (71%), the majority of violent delinquents considered for transfer were judicially waived to the criminal court. Several factors may explain the differences in decision patterns by site. Certainly, prevailing philosophy and crime control policy will determine the rate of transfer. However, the comparative characteristics of the justice systems may also bear on the transfer decision. For example, the statutory limitations in Phoenix constrain the dispositional options of juvenile court judges, specifically in the length of incarceration. In other sites, the availability of secure treatment or long-term incarceration in the juvenile system may afford options within the juvenile system. There may be varying operationalization of extra-legal factors such as "amenability to treatment." Also, there may be differences in the offenders across sites, despite the fact that all youth in the sample were adjudicated for violent offenses.

The relationship between race and transfer is also explored in Table 2. No white youth were considered for transfer in Newark. In two out of the three other sites, a higher proportion of minorities considered for transfer were actually transferred than were whites. This hints broadly at racial discrimination. There are competing explanations for these initial findings, however. It is possible, for example, that black youth are more likely to have committed specific crimes or possess some other personal characteristics that are more closely associated with transfer. This issue will be explored in the multivariate analysis.

The interval from age at offense to the juvenile corrections jurisdiction limit does appear to be related to the transfer decision in three of four sites. Previous analyses (Rudman et al., 1986) show that age at offense by itself was associated with the transfer decision in only one site. However, when examined as a function of the time interval from offense to jurisdiction limit, Table 2 shows that age influences the transfer decision. In Boston, Detroit and Phoenix, a greater percentage of youths within one year of the court jurisdictional limit were transferred to adult court. In Newark, however, age made no difference. In comparison, 100% of the 17-year-olds in Phoenix were transferred.
Table 2 suggests that factors other than age and race may explain the judicial waiver decision. The type of violent offense in the petition to transfer may also be a determinant. One might assume that the frequency of transfer would increase with the severity of the committing offense. That is, the more heinous the offense or the greater the injury to the victim, the more likely the decision to transfer. However, as found earlier, the patterns vary. For example, none of the youth charged with murder in Boston were transferred. In Detroit, 40% of youth charged with murder were transferred compared to 67% in Newark and 80% in Phoenix.11

Other committing offenses showed similar variability. None of the eight youth in Boston charged with armed robbery were transferred; in comparison, 29% were in Detroit, 59% in Newark, and 86% in Phoenix. The same varied pattern exists for youth charged with aggravated assault. In Newark, few youth (6%) charged with aggravated assault were transferred. But in Boston, 25% were transferred; 23% in Detroit, and 67% in Phoenix (where nearly all were 17 years).

Accordingly, the juvenile courts appear to view violent juvenile crime as a heterogeneous category with respect to its bearing on the limits of juvenile jurisdiction. While for some cases the type or consequence of the offense determines the transfer decision, for others, the age at offense mediates that decision. The trends for homicide are particularly noteworthy for understanding the age-crime relationship to the transfer decision: murder, the most serious offense and a capital crime, resulted in extreme variation.

Two situational factors were examined that surround the instant offense. First, the presence of co-participants may influence the decision to transfer in one of two ways. Juvenile offending is often viewed as a group or "wolfpack" phenomenon (Piper, 1985), and a large number of co-participants may induce the juvenile courts to effect a transfer because of the perceived public threat of group criminal activity. On the other hand, the absence of accomplices may be viewed by the juvenile courts as a sign of a shift from juvenile to adult behavior patterns, indicating the lone offender is a fit candidate for transfer. However, as is shown in Table 2, the number of co-participants was not an important factor in most sites.

The second situational factor was the number of victims in the incident. If the alleged offense involved multiple victims, the youth may be more likely to be transferred, since
the numbers of victims may be viewed as a measure of the severity of the offense and the implied threat to public safety. Table 2 shows that there is, in fact, a significant association between the number of victims and the likelihood of transfer in three of the four sites. In Newark, 70% of the offenders with multiple victims were transferred, compared to 34% of those with one victim. In Boston, 16% of the youth were waived when the instant offense involved one victim, 30% when there were two or more victims. In Detroit, 28% were waived with only one victim, 40% with two or more. But in Phoenix, a reverse pattern was found: 80% with one victim were waived, compared to 62% with two or more victims.

The age at onset of delinquency is thought to be a predictor of adult criminality (see, for example, Greenwood, 1982). Table 2 shows that in three of four sites, age at onset is associated with the transfer decision. In Newark, 67% of those who began their criminal careers at an early age were transferred, compared to 31% of those who began at age 13 or older. In Boston and Detroit, 40% of youth with a younger age at onset were more likely to be transferred than youth with later initiation into delinquency (11% and 30% respectively). Phoenix again offers a different trend from the other sites. These results suggest that juvenile court judges apparently regard the length of the delinquent career (and accordingly, the number of prior offenses) as an important manifestation of the statutory guidelines for determining transfer.

Interactions

The effects of age (age at onset, age at committing offense, age interval to juvenile jurisdiction) in combination with other factors suggest a more complex process underlying the transfer decision. Table 3 shows that the relationship between age at offense and transfer decision is weak in all sites except Phoenix, when type of offense is considered. In Boston, of youths charged with aggravated assault, none of the younger offenders were transferred, compared to 33% of the older offenders. For all offenses except aggravated assault in Detroit, a greater percentage of older youths than younger youths were transferred. In Newark, where age had no independent effect irrespective of offense, age differences were noted only in robbery offenses (71% of older in comparison to 50% of younger offenders). However, there was a reverse pattern for murder and kidnapping. Thus, in Newark, type of offense is more important than age at offense. In Phoenix, type of offense made no difference with respect to age and transfer.
The results suggest that juvenile court judges may consider age to be important in the transfer decision, but only for certain violent offenses and in relation to the maximum age of juvenile jurisdiction. Comparing Tables 2 and 3, it appears that age at offense is a salient factor in the transfer decision only when viewed in the context of the age limits of juvenile jurisdiction.

**INSERT TABLE 3 HERE**

Table 4 examines the delinquent histories of youth considered for transfer by three variables which showed univariate differences in the transfer decision. A direct relationship between the mean number of prior offenses and the percentage of youth transferred exists in three of the four sites. Overall, in Boston, Detroit, and Newark, the higher the mean number of prior offenses, the more likely was a transfer, but the opposite was true in Phoenix.

Regarding race, in Boston, Detroit, and Newark, a greater number of prior offenses is related to the transfer decision. In Phoenix whereas whites with a greater number of prior offenses were less likely to be transferred, the number of priors made no difference among non-whites.

**INSERT TABLE 4 HERE**

The age at offense also seems to have an effect on the transfer decision, independent of the mean number of prior offenses. In all sites and especially in Phoenix, age at offense rather than mean number of priors seems to dictate the transfer decision. Youths with a greater number of priors at earlier ages were less likely to be transferred, but at later ages youth with a greater number of priors were more likely to be transferred.

The relationship between mean number of priors, type of offense, and the transfer decision varies from one site to the next. In Boston for aggravated assault it appears that a greater number of priors leads to a transfer. There is little difference in Detroit, except for murder in which youth transferred had longer delinquency records. In Newark with
the exception of aggravated assault cases which seem to be treated similarly, offenders who had a greater number of priors were more likely to be transferred. Phoenix, again, is dissimilar in that type of offense and mean number of priors appear to be unrelated to the transfer decision.

A final glimpse at the transfer decision is shown in Figure 1. The mean number of prior petitions and adjudications is instructive for a multijurisdictional view of juvenile justice processing of youth considered for transfer. Clearly, the Newark youth have overwhelmingly more prior petitions and prior adjudications than similar youth in the other sites. Whether the lengthier prior histories in Newark are products of criminal activity, intensive police activity, or prosecutorial focus is impossible to discern from data sources available to the study. In Boston and Detroit, there appears, on simple observation, to be much less prior offense activity than in Newark.

Phoenix differs here as elsewhere in these analyses. It is the only site where the youth transferred to criminal court have fewer prior offenses and adjudications than those retained by the juvenile court. The "automatic" prosecutorial transfer policy offers a salient explanation of the Phoenix phenomena, where the age limits on juvenile jurisdiction eclipses other factors in explaining the transfer decision. Such prosecutorial aggressiveness may also explain Phoenix's higher rate of adjudication relative the number of prior petitions. In other sites, the ratio of adjudications to petitions is considerably lower. The varying rates across sites reflect the unique aspects of the norms and social organization of juvenile justice processing across jurisdictions. Ito and Stapleton (1982) and Rudman et al. (1986) have shown the contributions to court decisions of factors such as the formality of system processing and the standards of documentation required to enter a court petition. Such discrepant practices contribute to divergent case outcomes for both violent and non-serious offenses.
Prediction and Classification

As shown above, there is a great variation across jurisdictions in the factors which explain the transfer decision. To what extent can those same variables be used to predict the transfer decision, site by site?

Logistic regression analyses for each site individually and for all sites combined show modest explanatory power for these variables (see Table 5). In Boston, the only variable entered was type of offense. The model chi-square is very low and indicates a poor fit. Correspondingly, the false positive and false negative rates are high, even though a large percentage of cases appear to be correctly classified. While one might conclude that the transfer decision in Boston is dependent on the type of offense, there are other important criteria which have not been included in the model. The results for Detroit show none of the variables met the significance level of entry into a model. This suggests it is impossible to predict the transfer decision in Detroit based on the type of offense, age at offense or number of prior offenses. The chi-square for the logistic regression model for Newark indicates a poor fit to the data. Although number of victims has a high chi-square Q statistic, it is not significant enough to stay in the model, so the cases are classified based on a model fitting age at onset. Whereas 69% of the cases are correctly classified, the false positive and false negative rates are much too high for accuracy. In Phoenix, the model's power to predict is weak and insignificant. The age at offense is the determining factor in this model, and 78% of the cases are correctly classified. However, as in Boston, the false positive and false negative rates are fairly high.

INSERT TABLE 5 HERE

Combining all sites into one analysis is advantageous because it increases the sample size and consequently should increase the explanatory power of the variables. The chi-square shows the model is a fairly good fit, and the false positive and false negative rates are modest. The variables entered into the model correctly classify 72% of the cases. The strongest contributor is age at offense. Since the independent variables are correlated, one possible explanation lies in career length. The earlier one begins a criminal career, the greater the number of prior offenses and/or adjudications, and perhaps, the greater the likelihood of the commission of a violent offense. For younger offenders, though,
career length and severity are insufficient to explain why judges deem them inappropriate for the rehabilitative ministrations of the juvenile justice system. The decrease in percent variance explained for the cross-site model suggests that site variation is extensive. Moreover, if the strongest models explain only 36% of the variance, the transfer process is further explained by variables not included in these analyses.

Note, also, that race was not predictive of the transfer decision in any of the multivariate analyses. However, the significance of race in the univariate models hints that race may be interacting with other variables in the predictive model and indirectly influencing the transfer decision. For example, prior record may act as a suppressor in race in a linear model.

DISCUSSION

Children have traditionally been given special consideration in our society. Yet the boundaries of childhood are at best artificial (Conrad, 1981). Society has varying definitions of the end of childhood for different purposes or responsibilities: the right to vote (18), the authority to drive an automobile unaccompanied by an adult (as young as 16 years in some states), the right to drink alcohol (21 in most states), and so forth. Obviously, the debate is unending as to when the notion of childhood as a "state of unreadiness" ends and the age threshold when sanction sensitivity is sufficient to merit criminal, or punitive, responses (Greenwood et al, 1980).

The changes in court jurisdiction and transfer practices in delinquency matters signal shifts in the philosophical and theoretical underpinnings of juvenile justice policy. This in turn suggests changes in society's views of adolescence and the limits of the state's power to affect moral development. At its core is a debate over who is a child, and therefore, deserving of special consideration. The once clear demarcation at age 18 between the juvenile and criminal justice systems is moving steadily toward a more varied approach encompassing features both of the offense and the offender. The general trend is a lower age of criminal jurisdiction, especially for serious and chronic juvenile offenders (Feld, 1986).
The downward trend in the age of adult responsibility for criminal acts and the increasing use of transfers suggest that there are a variety of behaviors and personal attributes that may signal an end to adolescence, and that efforts aimed at moral or social development are no longer appropriate. Furthermore, the variation in ideas about the end of adolescence is reflected in a variety of statutory schemes regarding transfer criteria. In some states, policies to operationalize these new social concerns are keyed to the offender (in terms of age, prior crimes, and earlier attempts to rectify delinquency). In other states, the limits of juvenile jurisdiction are defined by the offense: those charged with certain offenses are deemed beyond rehabilitation. In these states, transfer to criminal court may serve the goals of retributive justice, deterrence, or incapacitation (Thomas and Bilchik, 1985). Still other states have chosen to combine age, background, and crime in a "flexible" policy that embraces parts of both systems. These discretionary policies suggest that there is an age-crime relationship which can inform decisions as to whether rehabilitation or punishment is most likely to reduce crime for certain offenders.

There are important questions regarding the threshold of adolescence. To the extent that the correlates of crime are unrelated to age, it may matter little at what age we choose to punish an offender rather than to provide assistance. We know that age alone is not an efficient predictor of sustained involvement in crime (Hirschi and Gottfredson, 1983). Why then should policy be linked to age thresholds that appear to be unrelated to crime? There is little empirical justification for age-based definitions of juvenile jurisdiction. Similarly, imposing behavior-specific limits on juvenile jurisdiction suggests that there are salient etiological distinctions between juveniles and adults. Such policies rely on an age-behavior relationship which indicates when rehabilitative intervention becomes extraneous to the causes of crime. Accordingly, some 16 year old offenders may be less amenable to treatment than others based either on extra-legal factors or patterns of prior delinquency.

The operationalization of age, offense, and amenability criteria pose further complex questions. The burden of proof remains on the state to provide convincing evidence that processing a juvenile in juvenile court would be either ineffective or pose a threat to the community (Thomas and Bilchik, 1985). What is the age threshold when certain behaviors signify that character is formed beyond the intervention of contemporary treatment programs? How have the juvenile courts and the legislatures codified these empirical questions? And what have been the consequences in consistency of decision-making from the current statutes which define the legal limits of adolescence?
This paper has examined the judicial transfer decision for violent youth in four urban juvenile courts. Violent youth account for less than one-third of all youth transferred, yet they are a central focus of juvenile justice attention. Accordingly, our initial expectation was that virtually all of our sample youth would be transferred. We were wrong. The percentage of youth transferred varied from a low of 21% in Boston to a high of 71% in Phoenix.

In order to test the variance in judicial decision-making, seven offense and offender variables associated with amenability to treatment and dangerousness were tested to identify determinants of the transfer decision. Neither multivariate analysis nor simple explorations identified strong or consistent determinants of the judicial transfer decision. Except for a relationship between extensive prior offense history and the transfer decision, none of the identified variables could significantly describe differences between youth who were or were not transferred. Furthermore, classification and prediction models of the transfer decision were not successful. Large differences in transfer criteria were found across sites.

The absence of uniform criteria used by juvenile court judges in making the transfer decision is, itself, a finding. A number of possible explanations might apply. First, because of the small number of cases at each site, the wide variation in the proportion of cases transferred and the lack of variation in the explanatory variables, our analytic efforts may have been biased. We examined only violent offenders, yet they are not a homogeneous group, with great diversity in age, delinquent careers, prior interventions, and contexts surrounding their offenses. Second, it is likely that juvenile court judges used additional criteria (not measured in this research)—factors that may or may not be legally justified. Probation reports, family histories and psychological evaluations, may contribute to the transfer decision. Outcomes of previous court interventions also weigh on judges. It is difficult to measure empirically the extent to which the nature and type of such reports, histories, and evaluations, may have influenced the judicial waiver decision. Other factors that may be related to the transfer decision, such as the youth's dress or demeanor in court, are difficult to assess quantitatively.

This study does challenge some pre-existing notions. The assumption that judicial transfer decisions may be biased by age at offense was not borne out by the data, except for a prosecutorial policy in Phoenix toward 17-year-olds. More importantly, unless there was
prosecutorial racial selection, the decision whether to transfer youth in Boston, Detroit, Newark and Phoenix was not motivated by race. Additionally, circumstances surrounding the offense, co-participation and victimization were not determinative of which youth were retained by the juvenile court and which youth were transferred. Prior offense history and proximity to the ceiling of juvenile jurisdiction appear to have the strongest relationship to the transfer decision. For violent delinquents, these factors appear to be independent of age, race, or instant offense in determining transfer.

Judicial waiver statutes empower the juvenile court judge to make a transfer decision without applying objective criteria. This is not surprising for a system of justice that has traditionally individualized its decisions. The question remains: what are the effects of "individualized justice" on violent youth considered for transfer? For those youth subject to transfer consideration, the data show that judicial decisions were not discriminatory toward retaining a youth within the juvenile justice system or waiving him to the criminal justice system. We found no bias with respect to race. However, neither did we find a strong relationship between transfer and most offense related variables, including the nature of the instant offense, number of co-participants or number of victims. What we found was a rash of inconsistent judicial waiver decisions, both within and across sites. Inconsistent and standardless decisions for youth retained in the juvenile court are not surprising in a judicial context which cherishes individualized justice, although even this notion is increasingly subject to challenge (Forst et al., 1985). But for youth who may be tried and convicted in criminal court and subjected to years of imprisonment in a secure institution, such subjective decision-making is no longer justified. This is not to suggest that there should be no variation in decision-making criteria and practices among states. Each state has, naturally, lawful authority to decide which offense and offender characteristics and relevant to the transfer decision. Within states, however, the doctrines of fundamental "fairness" and "equal protection" suggest that formal, articulated criteria should be established to promote equitable and consistent transfer decision-making.
FOOTNOTES

1. RCW Sec. 13.40.010

2. Transfer, bindover, certify, remand, refer and waive are all words used interchangeably to describe the process whereby a youth, through a petition filed in the juvenile court ends up in the criminal justice system to be tried as an adult.

3. Arkansas, Nebraska and New York.

4. 383 U.S. 541 (1966)

5. Ibid at 566-62

6. The URSA Institute has been evaluating the Office of Juvenile Justice and Delinquency Prevention's Violent Juvenile Offender Research and Development Program since January 1982. Four sites were initially selected to implement the intervention model: Boston, Memphis, Newark, and Phoenix. Detroit was added in the Spring of 1983.

7. The criteria for being defined as a violent juvenile offender were that a youth must: (1) have a presenting violent adjudication (murder/attempted murder, rape/attempted rape, aggravated assault, armed robbery, arson of an occupied dwelling, kidnapping) and (2) a prior adjudication for a felonious person or property offense. Only youth possessing a presented adjudication of murder 1st degree did not require prior adjudication.

8. As a result of differences in record keeping across sites, data were collected and analyzed for different years across sites. Specifically, data presented in this paper represent youths considered for transfer in: 1981-82, Boston; 1981-July, 1983, Phoenix; 1983-1984, Newark and Detroit.

9. In cross-classification analyses, the independent variables were dichotomized not only to simplify analyses, but also to increase cell sizes.


11. In Phoenix, two of the youth charged with murder were 17 years of age, and as discussed above, were subject to virtually automatic transfer policy.

12. The violent offenses used in this study were divided into three categories, ranked ordinally, and given numerical values: instrumental (e.g., robbery) = 1; aggression (e.g., rape and aggravated assault) = 2; and capital crimes (e.g., murder and kidnapping) = 3. This approach is consistent with prior research (Rossi, 1974).
REFERENCES


### Table 1

#### Statutory Judicial Waiver Provisions

<table>
<thead>
<tr>
<th>State</th>
<th>Age of Initial Criminal Court Jurisdiction</th>
<th>Minimum Age for Which Judicial Waiver Is Allowed</th>
<th>Offense Restrictions</th>
<th>Other Statutory Criteria</th>
</tr>
</thead>
</table>
| Massachusetts       | 17                                        | 14                                              | Previously committed to DYS as delinquent and present offense punishable by imprisonment or present offense involved infliction or threat of serious bodily harm | If the court finds probable cause, it shall then consider, but shall not be limited to, evidence of the following factors:  
  - Seriousness of the alleged offense  
  - The child's family, school and social history, including his court and juvenile delinquency record  
  - Adequate protection of the public  
  - The nature of any past treatment efforts for the child  
  - The likelihood of rehabilitation of the child |
| Michigan            | 17                                        | 15                                              | Any felony                                                                          | If the court finds probable cause, it shall consider the following criteria:  
  - The prior record and character of the child, his physical and mental maturity and his pattern of living  
  - The seriousness of the offense  
  - Whether the offense, even if less serious, is part of a repetitive pattern of offenses which would lead to a determination that the child may be beyond rehabilitation under existing juvenile programs and statutory procedures  
  - The relative suitability of programs and facilities available to the juvenile and criminal courts for the child  
  - Best interests of the public welfare and protection of the public security |
| New Jersey          | 18                                        | 14                                              | Homicide; treason; offense against the person; attempted murder; or violation of the Controlled Dangerous Substances Act  
  - or  
  - Juvenile charged with delinquency may elect to be tried as an adult | If the court finds probable cause, and is satisfied that:  
  - Adequate protection of the public requires waiver, and  
  - There are no reasonable prospects for rehabilitation of the juvenile prior to his attaining the age of majority by use of the procedures, services and facilities available to the court |
| Arizona             | 18                                        | Not specified, presumably any age                | Any offense                                                                          | The court may transfer the action to criminal court, if it finds probable cause and reasonable grounds to believe that:  
  - The child is not amenable to rehabilitation through available facilities, and  
  - The child is not amenable to an institution for mentally deficient, defective or ill persons, and  
  - The safety or interest of the public requires transfer |
# TABLE 2
BIVARIATE TRANSFER RATES BY SITE

<table>
<thead>
<tr>
<th></th>
<th>Boston</th>
<th>Detroit</th>
<th>Newark</th>
<th>Phoenix</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (N)</td>
<td>% (N)</td>
<td>% (N)</td>
<td>% (N)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20.7 (6)</td>
<td>31.2 (29)</td>
<td>41.2 (21)</td>
<td>71.4 (20)</td>
</tr>
<tr>
<td><strong>RACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>22.2 (2)</td>
<td>12.5 (1)</td>
<td>-- (0)</td>
<td>60.0 (3)</td>
</tr>
<tr>
<td>Non-White</td>
<td>20.0 (4)</td>
<td>32.9 (28)</td>
<td>41.2 (21)</td>
<td>73.9 (17)</td>
</tr>
<tr>
<td><strong>AGE AT ONSET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤12</td>
<td>11.1 (1)</td>
<td>21.9 (9)</td>
<td>40.0 (8)</td>
<td>42.9 (6)</td>
</tr>
<tr>
<td>&gt;13</td>
<td>25.0 (5)</td>
<td>38.5 (20)</td>
<td>41.9 (13)</td>
<td>100.0 (14)</td>
</tr>
<tr>
<td><strong>OFFENSE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murder</td>
<td>-- (0)</td>
<td>39.4 (13)</td>
<td>50.0 (1)</td>
<td>73.5 (12)</td>
</tr>
<tr>
<td>Rape</td>
<td>100.0 (1)</td>
<td>25.0 (3)</td>
<td>-- (0)</td>
<td>-- (0)</td>
</tr>
<tr>
<td>Robbery</td>
<td>-- (0)</td>
<td>28.6 (4)</td>
<td>58.8 (1)</td>
<td>85.7 (6)</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>25.0 (5)</td>
<td>22.6 (7)</td>
<td>5.9 (1)</td>
<td>66.7 (8)</td>
</tr>
<tr>
<td>Kidnap</td>
<td>-- (0)</td>
<td>66.7 (2)</td>
<td>66.7 (4)</td>
<td>50.0 (2)</td>
</tr>
<tr>
<td><strong>NUMBER OF VICTIMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>15.8 (3)</td>
<td>27.9 (19)</td>
<td>34.1 (14)</td>
<td>80.0 (12)</td>
</tr>
<tr>
<td>≥2</td>
<td>30.0 (3)</td>
<td>40.0 (10)</td>
<td>70.0 (7)</td>
<td>61.5 (8)</td>
</tr>
<tr>
<td><strong>NUMBER OF CO-PARTICIPANTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>25.0 (2)</td>
<td>27.6 (8)</td>
<td>25.0 (3)</td>
<td>63.6 (7)</td>
</tr>
<tr>
<td>≥1</td>
<td>19.0 (4)</td>
<td>32.8 (21)</td>
<td>46.2 (18)</td>
<td>75.0 (12)</td>
</tr>
<tr>
<td><strong>AGE AT ONSET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤12</td>
<td>40.0 (4)</td>
<td>40.0 (6)</td>
<td>66.7 (10)</td>
<td>50.0 (1)</td>
</tr>
<tr>
<td>&gt;13</td>
<td>10.5 (2)</td>
<td>29.5 (23)</td>
<td>30.5 (11)</td>
<td>75.1 (19)</td>
</tr>
<tr>
<td><strong>α</strong></td>
<td>1.81</td>
<td>1.72</td>
<td>4.50</td>
<td>2.5</td>
</tr>
</tbody>
</table>

α = odds ratio
### Table 3

Transfer by Type of Offense and Age at Offense

<table>
<thead>
<tr>
<th></th>
<th>Boston</th>
<th>Detroit</th>
<th>Newark</th>
<th>Phoenix</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (N)</td>
<td>% (N)</td>
<td>% (N)</td>
<td>% (N)</td>
</tr>
<tr>
<td><strong>Murder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>-- (0)</td>
<td>23.5 (17)</td>
<td>83.0 (5)</td>
<td>66.7 (2)</td>
</tr>
<tr>
<td>&lt;1</td>
<td>-- (0)</td>
<td>56.2 (19)</td>
<td>33.3 (1)</td>
<td>100.0 (2)</td>
</tr>
<tr>
<td>Total</td>
<td>0.0 (0)</td>
<td>39.4 (33)</td>
<td>67.0 (6)</td>
<td>80.0 (4)</td>
</tr>
<tr>
<td><strong>Rape</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>100.0 (1)</td>
<td>12.5 (8)</td>
<td>-- (0)</td>
<td>-- (0)</td>
</tr>
<tr>
<td>&lt;1</td>
<td>-- (0)</td>
<td>50.0 (4)</td>
<td>-- (0)</td>
<td>-- (0)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (1)</td>
<td>25.0 (12)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td><strong>Robbery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>-- (0)</td>
<td>20.0 (15)</td>
<td>50.0 (5)</td>
<td>66.7 (3)</td>
</tr>
<tr>
<td>&lt;1</td>
<td>-- (0)</td>
<td>33.3 (9)</td>
<td>71.0 (5)</td>
<td>100.0 (4)</td>
</tr>
<tr>
<td>Total</td>
<td>0.0 (0)</td>
<td>28.6 (14)</td>
<td>59.0 (10)</td>
<td>85.7 (7)</td>
</tr>
<tr>
<td><strong>Aggravated Assult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>-- (0)</td>
<td>27.3 (11)</td>
<td>-- (0)</td>
<td>20.0 (1)</td>
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<tr>
<td>&lt;1</td>
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<td>20.0 (20)</td>
<td>8.0 (1)</td>
<td>100.0 (7)</td>
</tr>
<tr>
<td>Total</td>
<td>25.0 (15)</td>
<td>22.6 (31)</td>
<td>6.0 (1)</td>
<td>66.7 (8)</td>
</tr>
<tr>
<td><strong>Kidnap</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>-- (0)</td>
<td>-- (0)</td>
<td>100.0 (2)</td>
<td>33.3 (3)</td>
</tr>
<tr>
<td>&lt;1</td>
<td>-- (0)</td>
<td>66.7 (3)</td>
<td>50.0 (2)</td>
<td>100.0 (1)</td>
</tr>
<tr>
<td>Total</td>
<td>-- (0)</td>
<td>66.7 (3)</td>
<td>66.7 (4)</td>
<td>50.0 (4)</td>
</tr>
<tr>
<td></td>
<td>Retained</td>
<td>Waived</td>
<td>Retained</td>
<td>Waived</td>
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<tr>
<td>------------------</td>
<td>----------</td>
<td>--------</td>
<td>----------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4.96 (23)</td>
<td>6.33 (6)</td>
<td>2.80 (64)</td>
<td>3.17 (29)</td>
</tr>
<tr>
<td><strong>RACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>4.14 (7)</td>
<td>5.50 (2)*</td>
<td>4.00 (7)</td>
<td>5.00 (1)</td>
</tr>
<tr>
<td>Nonwhite</td>
<td>5.31 (16)</td>
<td>6.75 (4)</td>
<td>2.65 (57)</td>
<td>3.11 (28)</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>4.50 (8)</td>
<td>3.00 (1)</td>
<td>2.90 (32)</td>
<td>2.89 (9)</td>
</tr>
<tr>
<td>≤1</td>
<td>5.20 (15)</td>
<td>7.00 (5)</td>
<td>2.69 (32)</td>
<td>3.30 (20)</td>
</tr>
<tr>
<td><strong>OFFENSE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murder</td>
<td>---</td>
<td>---</td>
<td>0.90 (20)</td>
<td>2.46 (13)*</td>
</tr>
<tr>
<td>Rape</td>
<td>---</td>
<td>3.00 (1)</td>
<td>3.78 (9)</td>
<td>2.33 (3)</td>
</tr>
<tr>
<td>Robbery</td>
<td>6.12 (8)</td>
<td>---</td>
<td>4.80 (10)</td>
<td>4.00 (4)</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>4.33 (15)</td>
<td>7.00 (5)*</td>
<td>3.17 (24)</td>
<td>3.71 (7)</td>
</tr>
<tr>
<td>Kidnap</td>
<td>---</td>
<td>---</td>
<td>3.00 (1)</td>
<td>5.50 (2)</td>
</tr>
</tbody>
</table>

*t-test significant at .05 level.
Figure 1
Transfer Decision

Prior Adjudications/Petitions

Site/Status

Prior Adjudications

Prior Petitions

B-Boston D-Detroit N-Newark P-Phoenix
R-Released T-Transferred
TABLE 5
CHI SQUARE & STATISTICS AND UNSTANDARDIZED REGRESSION COEFFICIENTS
FOR LOGISTIC REGRESSION MODELS OF TRANSFER DECISION

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>BOSTON</th>
<th>DETROIT</th>
<th>NEWARK</th>
<th>PHOENIX</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Q</td>
<td>Beta</td>
<td>Q</td>
<td>Beta</td>
<td>Q</td>
</tr>
<tr>
<td>Age at Onset</td>
<td>0.62</td>
<td>0.38</td>
<td>7.33**</td>
<td>-0.312</td>
<td>0.57</td>
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<tr>
<td>Age at Offense</td>
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<td>2.91</td>
<td>0.03</td>
<td>5.99**</td>
<td>1.151</td>
</tr>
<tr>
<td>Type of Offense</td>
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<td>-8.202</td>
<td>2.06</td>
<td>1.37</td>
<td>0.13</td>
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<td>Number of Victims</td>
<td>2.24</td>
<td>2.98</td>
<td>3.50</td>
<td>0.18</td>
<td>3.72*</td>
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<td>Number of Priors</td>
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<td>0.54</td>
<td>2.93</td>
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<td>2.57</td>
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<tr>
<td>INTERCEPT</td>
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<td>-0.792</td>
<td>3.946</td>
<td>-17.606</td>
<td>-10.197</td>
</tr>
</tbody>
</table>

Chi Square
df
Percent Correct
False Positive Rate
False Negative Rate

<table>
<thead>
<tr>
<th></th>
<th>BOSTON</th>
<th>DETROIT</th>
<th>NEWARK</th>
<th>PHOENIX</th>
<th>TOTAL</th>
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</thead>
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<tr>
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<td>--</td>
<td>7.33</td>
<td>5.95</td>
<td>24.97</td>
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<td>df</td>
<td>1</td>
<td>--</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Percent Correct</td>
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<td>68.6%</td>
<td>68.6%</td>
<td>77.8%</td>
<td>70.0%</td>
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<tr>
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<td>--</td>
<td>33.3%</td>
<td>19.0%</td>
<td>31.7%</td>
</tr>
<tr>
<td>False Negative Rate</td>
<td>17.9%</td>
<td>31.2%</td>
<td>30.6%</td>
<td>33.3%</td>
<td>29.6%</td>
</tr>
</tbody>
</table>

* p<.05
**p<.01