

**THE JUVENILE PENALTY:
A COMPARISON
OF JUVENILE AND YOUNG ADULT
SENTENCING OUTCOMES
IN CRIMINAL COURT***

MEGAN C. KURLYCHEK

University of South Carolina

BRIAN D. JOHNSON

University of Maryland

KEYWORDS: juvenile transfer, sentencing disparity, adult criminal court

This study uses criminal court data from the Pennsylvania Commission on Sentencing (PCS) to investigate the sentencing of juvenile offenders processed in adult criminal court by comparing their sentencing outcomes to those of young adult offenders in similar situations. Because the expanded juvenile exclusion and transfer policies of the 1990s have led to an increase in the number of juveniles convicted in adult courts, we argue that it is critical to better understand the judicial decision making processes involved. We introduce competitive hypotheses on the relative leniency or severity of sentencing outcomes for transferred juveniles and interpret our results with the focal concerns theoretical perspective on sentencing. Our findings indicate that juvenile offenders in adult court are sentenced more severely than their young adult counterparts. Moreover, findings suggest that juvenile status interacts with and conditions the effects of other important sentencing factors including offense type, offense severity and prior criminal record. We discuss these results as they relate to immediate outcomes for transferred juveniles, criminal court

* An earlier version of this paper was presented at the 2002 American Society of Criminology meetings in Chicago, Illinois, and received the American Sociological Association's student paper award for Crime, Law and Deviance and the American Society of Criminology Gene Carte Award. The authors would like to acknowledge the many helpful comments they received on earlier versions of this paper from D. Wayne Osgood, Thomas Bernard, John Kramer, and Darrell Steffensmeier.

processes in general and the broader social implications for juvenile justice policy concerning the transfer of juveniles to criminal court.

"If you're old enough to do the crime, you're old enough to do the time." Slogans such as this graced media headlines and dominated political campaigns across the nation during the 1990s (Zimring, 1998). Sparked by an increase in juvenile violent crime during a period when other forms of crime were decreasing, legislatures in nearly every state took action to "get tough" on juvenile crime (Torbet, Gable, Hurst, Montgomery, Szymanski and Thomas, 1996). While these changes affected various aspects of the juvenile justice system, such as judicial sentencing authority and the confidentiality of juvenile proceedings, by far the most common and controversial change was to remove increasing numbers of juveniles from the jurisdiction of the juvenile court and to process them as adults (Torbet et al., 1996; Griffin, Torbet and Szymanski, 1998). This study investigates the adult court processing of these transferred juveniles, focusing on the impact that "juvenile status" exerts on judicial sentencing decisions in adult criminal court.

While relying on the adult court to sentence certain juvenile offenders is not a new concept,¹ 49 states and the District of Columbia expanded the provisions by which juveniles could reach adult court during the 1990s (Sickmond, 2003). Incorporating such provisions as statutory exclusion and prosecutorial direct file,² these new laws allow for the transfer of broad classes of juveniles based on consideration of their current offense and prior criminal histories, with limited concern for individual characteristics or circumstances (Torbet et al., 1996; Bishop, 2000; Zatz, 2000). The result of these provisions has been a dramatic increase in the population of juveniles being processed and sentenced in adult court. Indeed, early reports found the use of expanded statutory exclusion provisions alone to have accounted for an additional 218,000 juveniles being tried in adult courts between 1996 and 1999 (Snyder and Sickmund, 1999).

-
1. Juvenile court judges have historically had the power to transfer a juvenile to adult court through a judicial waiver hearing as provided for in *Kent v. United States*, 383 U.S. 541, 86 S.Ct. 1045 9/1966. Also, prior to the 1990's many states excluded certain offenses such as rape or murder from the jurisdiction of the juvenile court if the offender was above a given age (for example over 14).
 2. Statutory exclusion occurs when a law specifically excludes certain offenses and/or types of offenders from juvenile court jurisdiction. Prosecutorial direct file, or concurrent jurisdiction, refers to a situation in which *both* courts are given jurisdiction over certain classifications of offenses thereby allotting the prosecutor the discretion to directly file charges in either juvenile or adult court. For simplification, we refer to all juvenile offenders in adult court as "transferred" juveniles.

With this increase of juveniles in the adult criminal justice system, it has become increasingly important to better understand the criminal processing and sentencing outcomes associated with this unique population. To date, most research on juveniles transferred to adult court has focused on describing the population of transferred juveniles (for example, Fagan, Forst and Vivona, 1987; Poulos and Orchowsky, 1994; Clement, 1997; Klein, 1998; Snyder, Sickmund and Poe-Yamagata, 2000), or comparing the sentencing decisions of adult and juvenile court judges for similar offenders (for example Hamparian, Estep, Muntean, Priestine, Swisher, Wallace and White, 1982; Rudman, Hartstone, Fagan and Moore, 1986; Champion, 1989; Fagan, 1991; Lemmon, 1991). Combined, this research provides a wealth of information regarding the population characteristics of juvenile offenders reaching adult court as well as the potential differences between juvenile and adult court dispositions.

However, an equally important question has received considerably less attention in the literature. It is: "How do the criminal justice outcomes of transferred juveniles compare to those of other young adult offenders?" If the purpose of the transfer policy is to redefine these juveniles as "adults," then an equally important measure of its effectiveness is to determine if transferred juveniles are indeed receiving similar sentences to other adult offenders. In addition to furthering current knowledge on juvenile sentencing outcomes, such a comparison has the added advantage of ensuring equality of the dispositional options available to the judge at the time of sentencing, which better isolates the influence that "juvenile status" exerts on judicial sentencing decisions in criminal court.

To address this question, the current research systematically compares the sentencing of juvenile offenders in adult court to other young adult offenders (ages 18 to 24). By using this alternative comparison group, this study provides an important first look at the potential influence of juvenile status on adult court sentencing outcomes. Because our study focuses on adult court sentencing practices, we frame our analysis using the focal concerns theoretical perspective on adult court sentencing. Before outlining our theoretical framework, though, we first incorporate relevant research on the historical influence juvenile status has held in legal proceedings. We then review previous literature on juvenile transfer to adult court.

THE JUVENILE COURT AND TRANSFER PROCEEDINGS

In considering the processing of juveniles in adult court, it is useful to first understand the historical role juvenile status has played in society and how it has influenced the legal processing of young offenders. The idea

that children are in some way different from adults and therefore worthy of differential treatment before the law, can be traced over 4,000 years to the earliest legal writing in the Hammurabi Code. These laws set forth the legal precedent that children were to be given more lenient treatment than adults—a distinction that has remained prevalent in legal and religious codes (Bernard, 1992). In general, the laws set an age below which all acts are exempt from punishment and a second age below which acts have reduced or “mitigated” consequences (Bernard, 1992).

In the United States, these ideas crystallized in 1899 in Cook County, Illinois with the nation’s first juvenile court. Resting on the notion that “children are more innocent and less guilty of criminal intent” than adults (Empey, Stafford and Hay, 1999), this legislation created an entirely separate system of justice for youths in which the role of the state was to rehabilitate and care for delinquent children rather than to punish them for illegal acts (Platt, 1969; Gettis, 2000).

Given this rationale for a separate system of justice for youths, how are juvenile transfers to adult court justified? Zimring’s (1998) account of youth violence in America provides one plausible explanation, suggesting that an act itself can imply maturity. According to Zimring (1998), children are thought capable of minor transgressions, but when they engage in particularly violent acts, they cross into the domain of adult responsibility. Their juvenile status is revoked and the criminal justice system becomes justified in treating them as adults. Snyder and Sickmond (1999) suggest an alternate explanation, focusing instead on scrutiny of the juvenile court’s ability to deal with serious offenders. As juvenile violence continued to increase during a time when other types of crime and violence were decreasing, blame for the phenomenon was largely placed on the lenient practices of the juvenile court. The retributive focus of the adult criminal justice system was thus seen as a more appropriate alternative.

Whether the focus is on offender culpability or system response, the outcome is the same: A select group of offenders is targeted for transfer to adult court. As such, the majority of research on juvenile transfer policies has been designed to determine if those juveniles reaching adult court are indeed the targeted offenders (Bishop et al., 1989; Bishop and Frazier, 1991; Feld 1987; Lemon, Sontheimer and Saylor, 1991; Poulos and Orchowsky, 1994; Clement, 1997; Bishop, 2000). Research addressing this question has consistently found that those most likely to reach adult court are not necessarily violent offenders, but instead older juveniles with accumulated extensive court histories, primarily for repeat drug and property offenses (Feld, 1987; Bishop, 1989; Champion, 1989; Howell, 1996). Because the frenzy of legislative activity in the 1990s changed transfer provisions to specifically target violent offenders, one could

logically assume that the proportion of violent offenses in this population might be increasing (Bishop, 2000; Zatz, 2000). Surprisingly, though, reviews of the consequences of these new transfer provisions are mixed with some studies suggesting that the new laws provide for the explicit transfer of less-serious property and drug offenders (Klein, 1998) and others showing an increasing proportion of violent offenders reaching adult court (Sickmond, 2003).

The traditional question addressed in the literature has been whether juveniles processed in adult court receive more severe treatment than those in juvenile court. Evidence is mixed. Most research suggests that even in adult court, the historical tendency to treat youths with compassion and clemency might linger (Hamparian et al., 1982; Bortner, 1986; Rudman et al., 1986; Champion, 1989; Fagan, 1991; McNulty, 1996; Clement, 1997). Other findings suggest that the adult system is harder on juvenile offenders than the juvenile system, especially for those juveniles fitting the "targeted" offender profile (Fagan, Forst and Vivona, 1987; Barnes and Franze, 1989; Lemon, 1991; Fagan, 1996).

It is important to note, however, that these studies rely on comparisons of sentences across judicial systems. Inherent in such a comparison is the assumption that judges have before them similar alternatives from which to choose. For example, in the studies cited above it is assumed that a 6-month term in a residential juvenile facility is as severe as the same term in state prison. We suggest that one must consider that the sentences themselves may mean something different, both symbolically and in reality, across systems.

If the purpose of transfer to adult court is to mete out adult punishment, then it is instructive to compare the sentencing outcomes of these juveniles to those of other adult offenders. Such a comparison ensures equivalence of the outcome measures for the two samples and allows for a more direct measurement of the influence that juvenile status exerts on adult court sentencing outcomes.

The limited research addressing this issue offers preliminary evidence that juveniles receive more severe sentencing outcomes than their adult counterparts. A 1996 report released by the U.S. Department of Justice finds that juveniles transferred to adult court are more likely than other adults to be sentenced to prison—particularly for burglary and larceny (Levin, Langan and Brown, 1996). Findings were mixed, though, regarding sentence length, with juveniles receiving longer sentences for weapon-related offenses and shorter sentences for most drug and property offenses (Levin, Langan and Brown, 1996). More recently, Rainville and Smith (2003) reported on juvenile felony defendants from 39 urban counties in 19 states and found that juveniles were as likely as adult offenders to be convicted (about 66 percent) and that once convicted, they were more

likely to receive sentences of incarceration (63.6 percent of juveniles versus 59.6 percent of adults), and to be confined in state prisons (60 percent of juveniles versus 43 percent of adults).

While these studies provided a first look at how juvenile criminal court outcomes compare to those of other adult offenders, they offered no theoretical rationale for the disparities. Furthermore, their analyses relied solely on bivariate descriptive statistics. This is particularly problematic because both studies reported that the juveniles examined differed significantly from the adults on a number of important legal and extralegal characteristics previously found to influence adult court sentencing outcomes. Specifically, juveniles were more likely to be male, minority (black or Hispanic) and convicted of a violent offense. This study therefore advances previous research by conducting the first systematic, multivariate analysis of the impact of juvenile status in adult court, controlling for a multitude of factors associated with adult court criminal sentencing outcomes. The analysis is largely descriptive and is guided by the focal concerns perspective on criminal sentencing, which offers a useful theoretical framework for interpreting the potential effects that juvenile status exerts on adult court sentencing outcomes.

JUVENILE STATUS IN ADULT COURT: A FOCAL CONCERNS PERSPECTIVE

The focal concerns theoretical perspective on sentencing offers a valuable framework to guide our investigation because it recognizes sentencing as a multifaceted and complex process (see Hogarth, 1971) in which judges must simultaneously consider numerous relevant factors and diverse sentencing goals (see Steffensmeier, 1980; Steffensmeier et al., 1998; Steffensmeier and Demuth, 2001 for elaborations). While extant literature on adult court sentencing outcomes generally acknowledges that legal factors, such as the seriousness of the offense and criminal history of the offender, account for the most variation in sentencing outcomes (for example, Kramer and Steffensmeier, 1993), the substantive interest is often on extralegal considerations such as race, gender and age. The focal concerns perspective incorporates many of the diverse and seemingly divergent findings regarding the role of extralegal factors into a coherent framework. In the following section we draw on this perspective to demonstrate various ways that "juvenile status" may be incorporated as an additional extralegal consideration affecting the criminal court decision making process.

According to the focal concerns perspective, judges (and other courtroom actors) assess three primary considerations before making sentencing decisions: offender blameworthiness, protection of the

community and the practical constraints and consequences of their decision.

The first, blameworthiness, is based on the concept of retribution as punishment and emphasizes both offender culpability for the offense committed and the degree of injury caused to any victims. Concerns over blameworthiness are generally tied to the seriousness of the offense and the prior criminality of the offender, and to additional factors such as criminal intent and the offender's role in the crime. More serious crimes and more experienced criminals are perceived as more blameworthy, resulting in increased severity at sentencing.

Courtroom actor concerns with blameworthiness may also be related to specific offender characteristics. To the extent that juvenile status is associated with perceived blameworthiness and culpability, it may then be an important determinant of sentencing outcomes in adult court. Indeed, the very premise of the juvenile justice system is that juvenile offenders are less culpable for their behavior and have more potential for reform (Bernard, 1992; Platt, 1969; Gettis, 2000). Recent research on adult court sentencing appears to support this premise, finding a curvilinear relationship between age and sentencing with leniency being given to very young (age 18–19) and older (over 30) offenders (Steffensmeier, Kramer and Ulmer, 1995). Juvenile status may therefore further serve to mitigate perceived blameworthiness, particularly in adult court where the contrast between juveniles and other, older offenders is most stark.

The second focal concern, protection of the community, is grounded in philosophies of punishment associated with incapacitation and deterrence. It is closely related to the work of Albonetti (1991), who offered an uncertainty avoidance/causal attribution perspective on judicial sentencing emphasizing that judges seldom have complete information about the future behavior of offenders. In this state of "bounded rationality," they must rely on patterned responses tied to causal attributions about the likelihood of future crime. These attributions are the product of various considerations, including the nature of the offense, case information and the offender's criminal history. A long criminal history, for instance, may serve as an indicator of an internal criminal propensity and result in increased concern over community protection and more severe sentences.

In contrast to blameworthiness, courtroom actor concerns with community protection, may suggest harsher sentencing outcomes for juveniles processed in adult court. First, as noted, the majority of juveniles processed in adult court have already accumulated long prior records in the juvenile system, thus demonstrating the propensity to recidivate. Second, prior research suggests that judicial sentencing outcomes are influenced by prior decision making stages in the criminal justice system. For example, numerous studies have found that pretrial detention

increases sentencing severity (for example, Lizotte, 1978; Zatz, 1985). Similarly, we suggest that judges may use the decision to process a juvenile in adult court as an independent and important indicator of increased community risk.

The third focal concern, practical constraints and consequences, has two components. The first is organizational and includes the impact of workgroup relations, caseload concerns and availability of criminal justice resources. It addresses the ways in which sentencing decisions are influenced by practical limitations within the criminal justice system. The second pertains to the individual offender. It emphasizes judicial constraints tied to specific offenders, such as the offender's ability to do time, his or her physical and/or health needs, family responsibilities, and other special needs. It also incorporates the impact of an individual offender on the criminal justice system and practical concerns related to the reputation of the court in the community.

For juveniles being sentenced in adult court, this third focal concern may be especially salient. Issues such as appropriate facilities for confining juvenile offenders and public perception of undue leniency or severity toward this population may be especially important. On the one hand, judges may be reluctant to sentence juveniles to serve time with older, more hardened criminals because research shows that juveniles are perceived as especially vulnerable targets in the adult criminal justice system (Forst, Fagan and Vivona, 1989; Reddington and Sapp, 1997). Juveniles are also traditionally seen as having special psychological or rehabilitative needs that may not be adequately addressed in an adult correctional setting (Redding, 1999). When sentencing a juvenile to an adult facility, judges may therefore consider such practical concerns as the increased potential for victimization and the need for specialized schooling and programming. However, the court's reputation in the community may also be an important practical consideration. That is, if the judge sentences leniently and the individual re-offends, the court's standing in the community suffers. To the degree that the juvenile justice reforms of the 1990s reflect a heightened concern with juvenile violence and crime, judges may be reluctant to show leniency towards transferred juveniles regardless of the availability of appropriate facilities.

As these various focal concerns demonstrate, the impact of juvenile status on adult court decision making is not straightforward. As judges and other courtroom actors balance multiple considerations, an offender's "juvenile status" may introduce new and complex dynamics into their deliberations. Some focal concerns suggest leniency toward juveniles and others suggest severity. We therefore use the framework to suggest several competitive research hypotheses about the influence of juvenile status in adult court:

Null Hypothesis: Juvenile offenders in the adult system will receive sentences similar to young adult offenders (ages 18 to 24). The American criminal justice system is premised on strong ideals of impartiality and equality under the law. Therefore, it is possible that few differences will exist between juvenile and young adults sentenced within the criminal justice system.

Hypothesis 1: Juvenile offenders in the adult system will be sentenced more leniently than young adult offenders (ages 18 to 24). The historical treatment of juveniles in the legal system suggests that youth below a certain age are generally viewed as less blameworthy for their behavior than adults. Courtroom actors may also focus on the potential for rehabilitation and consider the detrimental impact of adult incarceration on a juvenile rather than on punishment for the offense committed.

Hypothesis 2: Juvenile offenders in the adult system will be sentenced more severely than young adult offenders (ages 18 to 24). Alternatively, juvenile status in adult court may be interpreted as an aggravating factor if courtroom actors are swayed by the fact that juvenile offenders were so hopelessly incorrigible that they required transfer to the adult system. The judges may thus use the transfer decision itself as an indicator of the increased dangerousness to the community and reduced potential for rehabilitation.

Hypothesis 3: Juvenile offenders in the adult system convicted of personal (for example, violent) crimes will be sentenced more severely. Recent juvenile justice reforms have emphasized increasing concern over young, violent offenders (Torbet et al., 1996, Griffin et al., 1998). Zimring (1998) argued that society has created an image of these offenders as different from other juveniles. The focal concerns perspective suggests that courtroom actors are aware of, and responsive to, community perceptions. Court room actors may therefore symbolically separate these youths from other juveniles and attribute increased blameworthiness and/or dangerousness to this class of offender.

METHODS

DATA

To test these hypotheses, we examine the sentencing outcomes of juveniles and young adults processed in Pennsylvania's adult criminal justice system over a 3-year period (1997–1999). Pennsylvania was selected for both substantive and practical purposes. Recent legislative changes have expanded the scope and number of juveniles prosecuted in adult

court in that state, making it a useful and appropriate research site.³ Also, Pennsylvania's Sentencing Commission systematically collects detailed information regarding criminal sentencing outcomes. Since the implementation of sentencing guidelines in 1982, judges have been statutorily required to report information on every sentencing proceeding to the Pennsylvania Commission on Sentencing (PCS).

This data collection process has led to the accumulation of a rich data set that, in addition to information on guideline conformity, includes offender demographics (age, race/ethnicity and gender), current offense severity, prior criminal history and details of the conviction mechanism and final sentences.

Because legislation took effect in mid-1996 that altered the mechanisms through which juveniles can be processed in adult court in Pennsylvania, 1997 was selected as the base year for the study.⁴ Data was then collected through 1999, the most recent year for which the PCS data were available. From this data set, the sample was further restricted to only the most serious offense per judicial transaction and to all cases that fell under the auspices of the 1997 revised sentencing guidelines.

Because our primary research question focuses on the influence of juvenile status on adult court sentencing outcomes, we selected all cases involving offenders under the age of 18 at the time of their offense.⁵ We also selected a group of adult offenders, composed of their most direct counterparts—young adults ages 18 to 24.⁶ The study was limited to these age groups to make the adult sample as comparable to the juvenile as possible, and to account for previous research that finds a curvilinear relationship for age and sentencing with probability of incarceration increasing through the mid-20s, but then decreasing (Steffensmeier, et al., 1995).

The adult sample was further constrained by selecting only those cases for which offenses were similar to those represented within the juvenile

-
3. See Appendix A for a detailed description of Pennsylvania's transfer policies.
 4. See Appendix A for a description of the changes implemented via Act 33 of 1995 that took effect in March of 1996.
 5. We additionally analyzed juvenile offenders who were under 18 at the *time of sentencing*, but found no substantive differences in our results. Because these two measures of age (age at offense and age at sentencing) were highly collinear, it was not possible to include a measure of age at sentencing. Supplementary analyses including a dummy variable for offenders over 18 at the time of sentencing found this variable to have no significant effects.
 6. Alternative models were also run on a sample including only adults up to age 21. All findings were replicated in this alternative, restricted sample.

sample⁷ (for example, some offenses such as corruption of minors do not apply to juveniles and many broad classes of offenses such as theft by extortion and the sale of large amounts of illegal drugs were not represented in the juvenile sample).⁸ A full list of offenses included in the sample is provided in Appendix B. The final sample consists of 1,042 juvenile offenders (ages 14 to 17 at the time of the offense) and 33,962 adult offenders (age 18 to 24 at the time of the offense).

MEASURES

The dependent variable, severity of sentence, reflects the length of incarceration ordered ranging from 0 (for no incarceration) to 240 months. Due to the skewed and limited nature of this distribution, we use the natural logarithm of the incarceration sentence as our dependent variable, (Osgood and Rowe, 1994; Osgood, Finken and McMorris, 2002). This transformation focuses our analysis on the proportional increase in sentence length. This is useful because traditional additive models assume that a 1-month increase in sentence length carries the same meaning for any sentence, but prior research demonstrates that this assumption is problematic (Mustard, 2001; Engen and Gainey, 2000). Adding 1 or 2 months to a very short sentence (that is, 3 months) dramatically increases the time incarcerated, but is much less significant to a long sentence (Sellin and Wolfgang, 1964). Discussing a percent increase/decrease in sentence length better represents the relative nature of the sentencing decision.

The primary independent variable of interest is "juvenile status." For this study juvenile status is defined as an individual being under the age of 18 at the time of the offense. We determined this by subtracting the offender's date of birth from the date of offense. We also include linear and curvilinear continuous indicators of offender age, measured in years, in order to distinguish the impact of juvenile status from the overall impact of offender age.⁹

Several other important control variables are also included in our models of sentence severity. These include legally relevant variables and

7. Because juveniles were represented across all offense gravity and prior record score categories the sample was not restricted on this basis.

8. All traffic violations were excluded from the sample except for Homicide by Vehicle.

9. For this limited age range, juvenile status and offender age are only modestly correlated ($r = .316$), suggesting that multicollinearity with these variables is not a problem. We also tested alternative age specifications, including dummy variables for each age group, to ensure that our juvenile effect was not the result of poor or inappropriate age controls. In no alternative specifications were the effects of juvenile status significantly reduced.

extralegal offender characteristics. The first are the severity of the current offense, the prior criminality of the offender, the type of offense and the application of mandatory sentences.

Offense severity is measured according to the offense gravity score (OGS) defined by Pennsylvania's sentencing guidelines. This is a 14-point scale ranging from 1, least serious, to 14, most serious. It is particularly useful because it offers a detailed breakdown of offenses into subcategories that reflect the actual impact and harm from the crime. For example, the score for an "aggravated assault" can range from 6 to 11 based on the specific conditions of the offense including the age of the victim, the location of the offense, the use of a weapon and the amount of bodily harm inflicted.

The prior criminality of the offender is measured by the prior record score (PRS), and is determined by all prior adult convictions for felonies and misdemeanors as well as juvenile adjudications for felony offenses and certain misdemeanors. It takes into account both the number and severity of prior convictions, and consists of eight categories, ranging from 0, least serious, to 7, most serious. Together, the offense gravity score and prior record score control for the most important legally relevant variables and capture the presumptive sentence recommendations of Pennsylvania's sentencing guidelines.¹⁰

We also include measures for the legally relevant factors of offense type (three dummy indicators of property offenses, personal offenses and drug offenses, each coded 1, with "other" offenses serving as the reference category—see Appendix B), and legislatively required mandatory sentences (a dichotomous variable coded 1 for cases involving a mandatory sentence and 0 for cases not involving a mandatory sentence).

The extralegal offender characteristics examined include the race/ethnicity and gender of the offender. Race/ethnicity is measured by two dummy variables, black and Hispanic, with white offenders serving as the reference category. Because "other" racial/ethnic groups constituted only about 3 percent of our total sample, and because their sentencing outcomes were not significantly different from white offenders, they are also included in the reference category. The gender of the offender is

10. The prior record score ranges from 0 to 5 for most offenders. A prior record score of 6 is reserved for repeat felons and a prior record score of 8 is reserved for repeat violent offenders. We recoded prior record scores of 8 to equal 7 making the scale linear in form, but this change did not affect any of our results. We also examined additional legal controls, including the presumptive sentence recommendation (Engen and Gainey, 2000), which also failed to alter our substantive findings. The specifics of how the prior record score and offense gravity score are calculated are detailed in 204 Pa. Code §§303.3-303.7.

measured with a dichotomous variable, coded 1 for male offenders and 0 for female offenders.

Finally, we include a measure of court case processing indicating the mode of conviction for each offender. Research consistently finds strong effects for mode of conviction such that offenders convicted through trials receive increased severity at sentencing (LaFree, 1985; Engen and Steen, 2000; Johnson, 2003). We control for this effect with four dummy variables—nonnegotiated pleas, negotiated pleas, bench trials and jury trials. The first represents open guilty pleas and the third those cases tried in front of a sentencing judge. The second and fourth are self defined. This four-category distinction offers an advantage over many previous studies that combine types of pleas and trials (Johnson, 2003). Collectively, these control variables provide for a wide range of potentially important sentencing factors, allowing us to effectively isolate the impact of juvenile status in the adult criminal justice system.

ANALYTIC STRATEGY

We begin our analysis by briefly discussing the descriptive statistics for our juvenile and adult samples, as presented in Table 1. We then turn to our multivariate analyses in which we employ Tobit regression for left-censored data. Tobit regression was selected based on the limited and left-censored distribution of the dependent variable, sentence length (Tobin, 1958). Although we initially addressed the issue of positively skewed data by performing a logarithmic function on the dependent variable, a strong floor effect still remained; that is, for a significant portion of the observations (53 percent) no sentence of incarceration was ordered. This poses significant problems in applying ordinary least squares regression including biased estimations of the slope and the impossibility of predicted negative periods of incarceration (Long, 1997).

One approach to this problem has been to separate from the analysis those cases without incarceration (Wheeler et al., 1982). However, this method may result in unintentional biases if these cases differ significantly on measures of the independent variables of interest (Long, 1997; Osgood et al., 2002). Thus numerous recent studies suggest that Tobit analysis is a superior alternative (Bushway and Piehl, 2000; Albonetti, 1997; Helms and Jacobs, 2002). Tobit regression avoids such bias by retaining all cases in the model while censoring those observations that fall above or below a threshold value (Tobin, 1958; McDonald and Moffitt, 1980; Long, 1997; Breen, 1996). For example, in our models of sentence severity all cases with a sentence of zero incarceration are censored. The resulting Tobit coefficient provides an assessment of a latent variable (y) that represents the effects of the independent variables on the probability of receiving a

sentence of incarceration, as well as the length of confinement for those receiving an incarceration sentence. In addition, we decompose the Tobit coefficient into: (1) the probability of falling above or below the censoring value (for example the probability of receiving a sentence of incarceration), and (2) the magnitude of the effect on sentence length for those falling above the censoring value.¹¹

RESULTS

THE MAIN EFFECT OF JUVENILE STATUS

There are statistically significant differences in the mean sentence length for young adult and juvenile offenders sentenced in adult court (see Table 1). Specifically, juveniles receive an average sentence of 18 months while young adults receive an average incarceration sentence of only 6 months. Further investigation of the results in Table 1, however, demonstrates important sample differences on other key legal and extralegal characteristics associated with sentencing severity. For instance, the juvenile sample has significantly higher mean scores than the young adult sample for both offense gravity and prior record scores—the primary factors determining recommended sentence lengths under Pennsylvania's sentencing guidelines. In addition, juveniles are more likely to have committed an offense against the person, be convicted at jury trial, have a mandatory sentence applied, and be black and male. In sum, the juvenile sample significantly differs from the adult sample on several key variables. It is therefore necessary to control for these differences in the multivariate analyses to further investigate the relationship between juvenile status and adult court criminal sentencing outcomes.

Model 1 in Table 2 presents the preliminary Tobit model exploring only the impact of juvenile status and age on sentencing severity. Results indicate that being juvenile is strongly associated with sentence severity. Although the model does not control for other relevant sentencing factors, it does suggest that juvenile status is an important factor in judicial sentencing, above and beyond the expected effects of offender age. As illustrated by Figure 1, sentence severity tends to increase with age over

11. The formula for these calculations is as follows: $P(Y = c) = \Phi(c - \hat{y}_i / \sigma)$ where Φ indicates the standard normal cumulative distribution, c equals the censoring value, \hat{y}_i equals the predicted value and σ equals the standard error of the model. The average sentence length for juveniles and adults is calculated: $E(y_i | y_i > c, x_i) = \hat{y}_i + \sigma \frac{\phi((\hat{y}_i - c) / \sigma)}{\Phi((\hat{y}_i - c) / \sigma)}$ where ϕ indicates the standardized normal density function (see Osgood, Finken and Morris, 2002, for a useful elaboration).

this limited range; however, there is a distinct break in the regression line as the offender crosses from juvenile to adult.

Table 1: Sample Descriptive Statistics for Juveniles and Adults Sentenced in Adult Court

Variables	Adults (N=33,962)		Juveniles (N=1,042)	
	Mean	Std.Dev.	Mean	Std.Dev.
Independent Variables				
Offense Severity*	4.05	2.37	6.15	3.05
Prior Criminality*	0.94	1.55	1.25	1.79
Age*	20.37	1.94	16.62	0.66
	Frequency	Percent	Frequency	Percent
Mandatory	592	1.7	62	6.0
No Mandatory*	33,370	98.3	980	94.0
Offense Type^a				
Property*	13,079	38.5	306	29.4
Personal*	6,659	19.6	479	46.0
Drug*	9,736	28.7	168	16.1
Other*	4,488	13.2	89	8.5
Race^b				
White*	19,325	56.9	498	47.8
Black*	11,768	34.7	447	42.9
Hispanic*	2,869	8.4	97	9.3
Gender				
Male*	30,148	88.8	982	94.2
Female*	3,814	11.2	60	5.8
Conviction Mode^c				
Non-negotiated Plea	5,461	16.1	154	14.8
Negotiated Plea	22,556	66.4	681	65.4
Bench Trial	1,193	3.5	45	4.3
Jury Trial*	427	1.3	41	3.0
	Mean	Std.Dev	Mean	Std.Dev
Dependent Variable				
Sentence Length ^{d*}	5.71	14.4	18.42	30.96

^a Other crimes = reference category

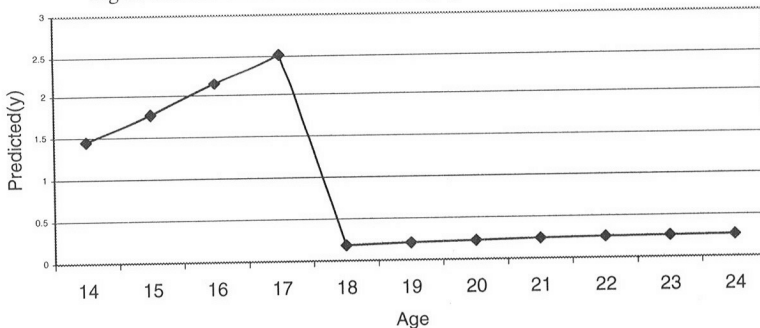
^b White offenders = reference category; includes "other" races which account for less than 3% of total.

^c Negotiated pleas = reference category

^d Means and standard deviations reported for total sample. Removing censored values results in the following adjustments: Juveniles (mean=25.52; SD=33.87) Adults (Mn=12.41; SD=19.17).

* Indicates statistically significant differences between adult and juvenile samples (p<.001)

Figure 1: Effect of Juvenile Status on Age-graded Sentencing Trend



Model 2 in Table 2 introduces controls for the various legal factors found to affect sentencing decisions. Although type of offense is not significant in this model, the remaining variables are. Their effects are also consistent with prior studies of sentencing outcomes in Pennsylvania (for example, Kramer and Steffensmeier, 1993; Steffensmeier et al., 1993; Ulmer, 1997). That is, those offenders with higher offense gravity scores, with higher levels of prior criminal activity, and who have a mandatory sentence applied at the time of sentencing receive more severe sentences. Specifically, a one-unit increase in offense gravity score translates into a 107-percent increase in length of sentence, a one-unit increase in the prior record score increases it by 73 percent, and having a mandatory sentence applied increases severity of sentence by approximately 159 percent.¹² Although the introduction of these variables significantly reduces the impact of juvenile status on sentence severity, the relationship remains strong and statistically significant. That is, being juvenile continues to be associated with an average sentence length that is 81 percent longer, even after controlling for all of the legally relevant sentencing factors.

The final model in Table 2, Model 3, further introduces extralegal offender characteristics into the analysis. Consistent with prior research, these results indicate that being male, Hispanic and going to jury trial significantly increase sentence severity (Steffensmeier et al., 1993; Steffensmeier and Demuth, 2001; Johnson, 2003). Although many of the extralegal offender characteristics were significantly related to sentence severity, their being included did not reduce the effect of juvenile status, which remained significant and essentially unchanged.¹³

Overall, these models offer preliminary evidence that juvenile status is an important determinant of sentencing outcomes in adult courts, allowing us to reject our null hypothesis. Furthermore, the findings appear to contradict the expectation that juveniles receive more lenient sentencing treatment (hypothesis 1) and support the expectation that they are sentenced more severely than comparable young adult offenders (hypothesis 2). Even after controlling for a host of legal and extralegal sentencing factors, transferred juveniles appear to receive sentences that are 83 percent more severe. While these results are largely descriptive,

12. For positive coefficients this percentage is calculated by (odds ratio -1). For negative coefficients it is calculated by ((1/odds ratio) -1). This adjustment is necessary to remove the floor effect inherent in the odds ratio.

13. At the suggestion of one reviewer, alternative models also explored whether the juvenile effect might be a result of county level variation in sentencing outcomes. While we found county to be a significant independent predictor of sentence severity, the inclusion of county level control variables did not alter the significance or the magnitude of the juvenile effect.

they may suggest that courtroom actors are influenced more strongly by concern about increased dangerousness and reduced rehabilitative potential than they are by decreased blameworthiness or practical constraints associated with incarcerating juveniles in the adult system.¹⁴

Table 2: Tobit Coefficients of Sentence Severity for Pooled Sample of Juveniles and Adults

	Model 1			Model 2			Model 3		
	b	S.E	Exp	b	S.E	Exp	b	S.E	Exp
Constant	-7.69	2.60	.00**	-9.77	1.76	.00***	-10.35	1.75	.00***
Independent Variables									
JUVENILE STATUS									
Juvenile Status	2.75	.15	15.64***	.60	.10	1.81***	.60	.10	1.83***
Age	.54	.25	1.72**	.49	.17	1.64**	.47	.17	1.59**
Age Squared	-.01	.01	.99*	-.01	.00	.99**	-.01	.00	.99**
LEGAL FACTORS									
Offense Severity				.73	.01	2.07***	.71	.01	2.04***
Prior Record				.55	.01	1.73***	.52	.01	1.69***
Mandatory Applied				.95	.10	2.59***	.88	.10	2.40***
Offense Type									
Personal				-.02	.06	.98	.00	.05	1.00
Drug				-.01	.05	.99	-.02	.05	.98
Property				.00	.05	1.00	.09	.05	1.09
EXTRALEGAL FACTORS									
Gender									
Male							.87	.05	2.39***
Race									
Black							.07	.03	1.07
Hispanic							.32	.05	1.38***
Conviction Mode									
Nonnegotiated Plea							-.05	.04	.95
Bench Trial							.14	.08	1.14*
Jury Trial							.54	.12	1.72***
Sigma	3.49			2.33			2.31		
R ²	.01			.34			.34		

*p<.05 **<.01 ***p<.001

Note: R-squared values are calculated as the proportion reduction in error variance comparing the full models to a model with only a constant. The formula for this calculation is: (1 - (error variance for full model/error variance for null model))

To further our understanding of these findings, we decomposed the Tobit coefficient for juvenile status to specify expected differences between juvenile and young adult offenders on both the probability and length of incarceration. Setting age to 18, and holding all other variables at

14. It is also possible that different focal concerns exert age-specific effects on sentencing decisions. For instance, judicial assessments of offender blameworthiness may vary according to the age of the offender, with some acts being viewed as more or less blameworthy if committed by a juvenile.

their mean, the decomposition suggests that for the average offender in our sample, "being juvenile" results in a 10-percent greater likelihood of incarceration and a 29-percent increase in sentence length, from 1.69 months for an adult to 2.18 months for a juvenile (see Table 3). Additional examination of this coefficient indicates that at lower levels of offense severity and prior record, juveniles are particularly more likely to receive incarceration than adults, while at higher levels of offense severity and prior record, they tend to receive increasingly longer sentence lengths. For example, if we increase the offense gravity score to 6 and the prior record score to 1.25 (the means for the juvenile portion of the sample) and hold all other variables stable, this effect changes to a 7-percent greater chance of incarceration for juveniles and a 43-percent increase in sentence length (from 3.5 months for an adult to 5 months for a juvenile). Similarly, if we move to an even more serious offense such as robbery (Offense Gravity Score=11) and increase prior record to 3 to indicate a more chronic offender, we find a convicted juvenile has a 99-percent chance of receiving incarceration and a predicted sentence length of about 230 months. A similar adult would have an equal chance of incarceration, but a predicted sentence length of only 128 months. Overall, juveniles appear to be more likely than young adults to be incarcerated for lesser offenses and they tend to receive considerably longer sentence lengths for more serious offenses.

Table 3: Decomposition of Tobit Coefficient: Select Values of Offense Gravity and Prior Record Score

OGS	PRS	Juvenile		Adult	
		Probability of Incarceration	Predicted Sent. Length	Probability of Incarceration	Predicted Sent. Length
4.10	0.95	63.4%	2.18 months	53.3%	1.69 months
6.15	1.25	85.7%	5.38 months	78.9%	3.73 months
11.00	3.00	99.0%	229 months	99.0%	127 months

To ensure that our findings for juvenile status are robust across methodologies, we also performed parallel analyses using logistic regression for the decision to incarcerate and ordinary least squares (OLS) regression for the length of sentence (Wheeler et al., 1982). Results from these alternative analyses supported our conclusions and demonstrated that, after controlling for all relevant variables, juvenile status was significantly related to both outcomes (juvenile odds ratio for probability of incarceration = 1.68 and OLS coefficient for juvenile sentence length = 1.6 months). The fact that our findings are consistent across methodologies increases confidence in the current results and suggests that the observed influence of juvenile status is not an artifact of our estimation procedure.

Overall, these results may indicate that courtroom actors view juvenile status in the adult system as an important consideration, especially when assessing particular focal concerns and meting out criminal sentences.

THE INTERACTION OF JUVENILE STATUS WITH OTHER SENTENCING FACTORS

In addition to testing the main effect of juvenile status in adult court, we also explored the possibility that juvenile status would interact with other legal and extralegal factors. The results from these partitioned models, with the adult and juvenile samples examined separately, are presented in Table 4. In particular, we were interested in whether the type of offense exerted unique effects for juveniles and adults. As specified by hypothesis 3, our expectation was that juveniles sentenced for personal (that is, violent) crimes would be more severely sentenced. Results of these analyses strongly support this. Although the effect of personal crimes is negligible for adults (decreasing sentence length by about 2 percent), it is substantial for juveniles, increasing their sentence length by 97 percent. Being convicted of a personal offense appears to significantly disadvantage juveniles sentenced in adult court. This finding is consistent with recent legislation targeting a "new breed" of violent juvenile offender (Zimring, 1998).

Despite the fact that most youths are transferred to adult court for nonviolent, property and drug crimes (Feld, 1987; Bishop, 1989; Champion 1989; Howell, 1996), our findings suggest that those convicted of violent crimes receive especially harsh sentences. Courtroom actor concerns over serious juvenile violence seem evident in the sentencing of juvenile offenders in adult court. If judges and other courtroom actors are influenced by focal concerns regarding both dangerousness and community protection, then the intersection of these two may be most prominent for juveniles transferred for violent crimes. For example, the transfer process may indicate a lack of rehabilitative potential whereas conviction for a crime of violence indicates increased dangerousness and blameworthiness.

Table 4 also provides preliminary evidence that some legally relevant sentencing variables may operate in distinct ways for adults and juveniles processed in the adult system. Specifically, we note that while offense gravity score and prior record score are significant in both models, their impact is less in the juvenile sample. This suggests that while legal factors are important for both samples, there may be additional extralegal considerations that explain the difference. To further explore this possibility, supplemental analyses were examined comparing the relative explanatory power of offense severity and criminal history in the separate

juvenile and adult models. The resulting R^2 statistics show that these variables accounted for only 26 percent of the variance in the juvenile sample, compared to 33 percent in the adult model. These results support, then, the notion that juvenile status itself is an important determinant in sentencing, which may be partially responsible for the lesser effects of traditional legal variables in the partitioned juvenile model.¹⁵

Table 4: Tobit Coefficients for Individual Models of Juvenile and Adult Sentence Severity

	Adults			Juvéniles			Z-Tests
	b	S.E	Exp	b	S.E	Exp	
Constant	-9.84	1.88	.00 ***	-6.32	29.18	.00	.12
Independent Variables							
Age	.41	.18	1.51 *	.32	3.65	1.38	-.02
Age Squared	-.01	.00	.99 *	-.01	.11	.99	.02
LEGAL FACTORS							
OGS	.73	.01	2.07 ***	.42	.03	1.52 ***	-11.04 ***
PRS	.54	.01	1.71 ***	.26	.04	1.30 ***	-7.64 ***
Mandatory Applied	.89	.10	2.44 ***	.94	.28	2.55 ***	.15
Property Offense	.83	.05	2.29	.17	.26	1.18	-2.48 ***
Personal Offense	-.02	.06	.98 *	.68	.27	1.97 **	2.54 ***
Drug Offense	-.03	.05	.97 **	.07	.28	1.07	.34
EXTRALEGAL FACTORS							
Gender							
Male	.86	.05	2.37 ***	.86	.29	2.36 **	-.01
Race							
Black	.06	.03	1.07	.20	.15	1.22	.88
Hispanic	.32	.05	1.37 ****	.21	.23	1.23	-.48
Conviction Mode							
Negotiated Plea	-.04	.04	.96	-.16	.19	.85	-.64
Bench Trial	.11	.08	1.11	.68	.32	1.97 *	1.76 *
Jury Trial	.53	.12	1.70 ***	.43	.37	1.53	-.26
R-Squared	.34			.33			
N	33,692			1042			
Sigma	2.33			1.96			

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: Z-scores calculated using $Z = (b_1 - b_2) / \sqrt{(SEb_1^2 + SEb_2^2)}$ (See Paternoster et al. 1998)

Z-scores reported with statistical significance determined by 2-tailed tests.

DISCUSSION

Juvenile transfer policies are designed to target specific offenders for processing in the adult criminal justice system and to subject them to adult

15. Conclusions drawn from these model comparisons should be viewed cautiously because the relatively small number of juvenile offenders in our sample results in large standard errors and low power to detect significant relationships both within the juvenile sample and in comparisons with our adult sample.

penalties. Although research suggests that juveniles receive shorter sentences in adult court, little is known about how juvenile status affects sentencing decisions in adult court or how juvenile outcomes in criminal court compare to those of young adults. This study explicitly addressed this question by comparing the sentencing outcomes of transferred juveniles to similar young adults processed in criminal court.

Contrary to the null hypothesis, which stressed the American criminal justice system's valued ideals of equality before the law, we find strong evidence that juveniles and adults are sentenced differently. These findings contradict the first hypothesis, that juveniles will be treated with leniency, and support the second, that they are sentenced more harshly than their adult counterparts. This is particularly interesting given common expectations that juveniles in adult court will be sentenced more leniently (Bernard, 1992; Hamparian et al., 1982; Bortner, 1986; Rudman et al., 1986).

In the context of the focal concerns perspective, these findings may indicate that concerns about decreased blameworthiness and culpability of juveniles (Empey, Stafford and Hay, 1999) and practical constraints regarding victimization and the special needs of incarcerated juveniles (Forst, Fagan and Vivona, 1989; Reddington and Sapp, 1997; Redding, 1999) are outweighed by other sentencing concerns. The findings suggest that judges may assign greater levels of culpability and dangerousness to transferred juveniles than to young adult offenders. If judges are aware of and influenced by decision making points in the criminal justice system (for example, Lizotte, 1978; Zatz, 1985), it may be that the transfer decision itself is used as an indicator of incorrigibility, threat to the community, and/or lack of potential for rehabilitation, resulting in a considerable "juvenile penalty."

The focal concerns perspective also suggests that courtroom decision making may be influenced by public perceptions. Negative judicial attributions related to transferred juveniles may be related to recent publicity depicting a coming storm of "juvenile super-predators" (Zimring, 1998). The interaction between juvenile status and violent offending offers some preliminary support for this notion. Furthermore, certain types of offending may be viewed as outside the realm of juvenile capability. Thus any perception of reduced blameworthiness that may have historically been attached to juvenile status may be negated. Indeed, our research suggests that a juvenile who crosses this boundary is then viewed as a more serious offender, relative to other juveniles and young adults.

Interestingly, our findings also provide some preliminary evidence that judges may attribute less importance to traditional legal variables when sentencing juveniles in adult court. Our results indicate that the impact of both offense severity and prior record are significantly less for juvenile

offenders than for young adult offenders. While this finding may suggest that juvenile status overshadows other traditional sentencing considerations typically found to impact sentencing in adult court, future research is needed to substantiate this claim. We suggest this decreased reliance on legal criteria may be related to the overt salience of juvenile status in adult court. That is, while all other legal and extra legal factors included in this analysis are typical considerations before the adult court judge, juvenile status is a unique identifier for this category of offender that is not present in the majority of sentencing decisions. As such, courtroom actors may afford it more weight relative to other sentencing considerations.

CONCLUSIONS

As the legislative trends of the 1990s continue to influence the present and future by relying more heavily on juvenile transfer, it is imperative that we understand the implications of transfer policies, for both the individual youths affected and society. This study begins to address the issue in asking a neglected question: "Are juveniles processed in adult court sentenced as other adults are or does their juvenile status in some way mitigate or aggravate the outcome?" Our results from comparing sentencing outcomes indicate that juvenile status does exert a significant influence on courtroom decision making, resulting in a substantial juvenile penalty.

Courtroom actors are willing not only to apply adult punishments to these transferred juveniles, but also to do so more severely than to adult offenders. This tendency appears to override general age effects and provides an influence above and beyond traditional legal and extralegal sentencing considerations. Moreover, our findings suggest that juvenile status may interact with other crucial variables to determine sentencing outcomes for transferred juveniles. In particular, we find that juvenile offenders convicted of personal crimes in adult court receive an additional violent juvenile penalty.

The considerable weight exerted by juvenile status in adult court has several important implications for the ongoing debate on juvenile transfer policies. First is the dimension of unwarranted disparity. Although the intended purpose of juvenile transfer policies is to apply adult punishments to certain juvenile offenders, few would argue that transferred juveniles deserve more severe treatment than comparable adult offenders. Yet our findings suggest that being a juvenile in adult court holds a penalty all its own.¹⁶

16. As one reviewer suggested, part of the observed juvenile effect may be the result of a failure of our legal variables to fully capture differences in the seriousness of the

While all unwarranted sentencing disparities are cause for alarm, evidence of disparities disadvantaging juvenile offenders may be especially troubling given their historical status. The implications are especially noteworthy given that the juvenile court, and the protections provided by it, were premised on the notion that those under a certain age are still developing and warrant different treatment. Indeed, early findings suggest that transferred youths are more likely to recidivate compared to those within the juvenile system (Fagan, 1996; Winner et al., 1997; Bishop et al., 1997). Future discussions on juvenile transfer policies must therefore be expanded to consider the symbolic stigma associated with transfer, its immediate impact on adult court processing and sentencing decisions, and its potential for long-term detrimental effects experienced by transferred offenders.

Second, we believe that our findings, given prior research that juveniles in juvenile courts are sentenced more severely than those in adult courts, suggest that comparing sentencing outcomes across systems may be more problematic than previously believed. We therefore suggest that more research is needed before conclusions can be drawn regarding the relative leniency or severity of either system.

It is important to emphasize that few prior studies have compared juvenile and young adult sentencing outcomes in adult court. Before our "juvenile penalty" can be generalized, then, future research is needed to replicate these findings. In particular, it is critical that future research implement additional controls for legal variables so that any observed disparities between juveniles and adults can be attributed solely to juvenile status. Similarly, future work should attempt to incorporate additional offender information, such as socioeconomic status, which is absent from the majority of research on state-level sentencing outcomes (Zatz, 2000). Another productive avenue would be to further delineate juvenile effects in different types of sentencing outcomes. While the present study suggests juvenile disparities in incarceration and sentence length decisions, little is known about potential disparities in other sentencing decisions, such as departure and probation sentences or intermediate sanctions.

Our study was also unable to capture pre-sentencing processes such as the mode of transfer itself and pre-trial decision making. For example, our data do not offer information on the specific type of transfer to adult court. It is possible that different types of juvenile transfer processes (for example, judicial waiver, statutory exclusion, prosecutorial direct file) may

offender in our juvenile and adult samples. Still, this finding was robust across alternative model specifications and with additional and alternative legal controls. Ultimately, future research is required to substantiate the strong juvenile penalty we find in these data.

result in greater or lesser "juvenile penalties." This too should be studied. In addition, because our data pertain explicitly to juveniles sentenced in adult court, we cannot offer information on those transferred juveniles who are not convicted or otherwise have their charges dismissed before conviction. Our findings of increased severity for juveniles are therefore specific to the sentencing phase of adult court processing and may miss leniency—such as the decisions to grant bail, reduce charges, or dismiss cases altogether—applied earlier in the process. Finally, because we examine data for a single state over a specific time period, it is important for future research to attempt to replicate our results across time and place.

Despite these limitations, this study fills an important void in the literature and is a useful foundation for future work. If transfer of juveniles to adult court does result in increased sentencing disparities, and the nation is relying increasingly on juvenile transfer policies to address juvenile offending, the implications for society are far reaching and problematic. Future research should therefore continue to investigate the impact of juvenile transfer on adult court processes to better inform the policy debate surrounding the potentially unhealthy marriage of juvenile offending and adult criminal sanctions.

REFERENCES

Albonetti, Celeste

1991 "An integration of theories to explain judicial discretion." *Social Problems*, 38(2): 247–266.

1997 "Sentencing under the federal sentencing guidelines: Effects of defendant characteristics, guilty plea and departures on sentence outcomes for drug offenses, 1991–1992." *Law and Society Review*, 31(4): 789–822.

Barnes, Carole and Randal S. Franze

1989 "Questionably Adult: Determinants and Effects of the Juveniles Waiver Decision." *Justice Quarterly*, 6: 227–135.

Bernard, Thomas J.

1992 *The Cycle of Juvenile Justice*. New York: Oxford University Press.

Bishop, Donna M.

2000 "Juvenile offenders in the adult criminal justice system." in *Crime and Justice: A Review of Research* (edited by M. Tonry.) Chicago: University of Chicago Press. 81–167.

- Bishop, Donna M., and Charles E. Frazier
 1991 "Transfer of Juveniles to Criminal Courts: A Case Study and Analysis of Prosecutorial Waiver." *Notre Dame Journal of Law, Ethics and Public Policy*, 5: 281-302.
- Bishop, Donna M., Charles E. Frazier and John C. Henretta
 1989 "Prosecutorial Waiver: Case Study of a Questionable Reform." *Crime and Delinquency*, 35: 179-201.
- Bishop, Donna M., Charles E. Frazier, Lon Lanza-Kaduce and Lawrence Winner
 1996 "The transfer of juveniles to criminal court: does it make a difference?" *Crime and Delinquency*, 42(2): 171-191.
- Breen, Richard
 1996 *Regression Models: Censored, Sample Selected, or Truncated Data*. Thousand Oaks California: Sage.
- Bridges, G. S. and Sara Steen
 1998 "Racial disparities in official assessments of juvenile offenders: Attributional stereotypes as mediating mechanisms." *American Sociological Review*, 63: 554-570.
- Bortner, M.A.
 1986 "Traditional rhetoric, organizational realities: Remand of juveniles to adult court." *Crime and Delinquency*, 32(1): 53-73.
- Bushway, Shawn and Anne Piehl
 2001. Judging judicial discretion: Legal factors and racial discrimination in sentencing" *Law and Society Review* 35(4): 733-67.
- Champion, Dean J.
 1989 "Teenage felons and waiver hearings: some recent trends, 1980-1988." *Crime and Delinquency*, 35(4): 577-585.
- Clement, Mary J.
 1997 "A Five-Year Study of Juvenile Waiver and Adult Sentences: Implications for Policy." *Criminal Justice Policy Review*, 8(2-3): 201-219.
- Dixon, Joe
 1995 "The organizational context of criminal sentencing." *American Journal of Sociology*, 100(5): 1157-1198.
- Engen, Rodney and R. Gainey
 2000 "Modeling the Effects of Legally Relevant and Extralegal Factors Under Sentencing Guidelines: The Rules Have Changed." *Criminology*, 38(4).

- Engen, Rodney and Sara Steen
2000 "The Power to Punish: Discretion and Sentencing Reform in the War on Drugs." *American Journal of Sociology*, 105: 1357-1395.
- Empey, Lamar, M. Stafford and C. Hay
1999 *American Delinquency*. Fourth Edition. Belmont California: Wadsworth Publishing Company.
- Fagan, Jeffrey
1991 *The Comparative Impacts of Juvenile and Criminal Court Sanctions on Adolescent Offenders*. Report. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
1996 *The Comparative Advantage of Juvenile Versus Criminal Court Sanctions on Recidivism among Adolescent Felony Offenders*. *Law and Policy* 18: 77-114.
- Fagan, Jeffrey, Martin Forst and T. Scott Vivona
1987 "Racial determinants of the judicial transfer decision: prosecuting violent youth in criminal court." *Crime and Delinquency*, 33: 259-286.
- Feld, Barry
1987 "The juvenile court meets the principle of the offense: Legislative changes in juvenile waiver statutes." *Journal of Criminal Law and Criminology*, 78(3): 471- 533.
- Forst, Martin, Jeffrey Fagan and T. Scott Vivona
1989 "Youth in prisons and training schools: perceptions and consequences of the treatment-custody dichotomy." *Juvenile and Family Court Journal*, 40: 1-14.
- Gettis, Victoria
2000 *Juvenile Court and the Progressives*. Chicago: University of Chicago Press.
- Griffin, Patrick, Patricia McCall Torbet and Linda Szymanski
1998 *Trying Juveniles as Adults in Criminal Court: An Analysis of State Transfer Provisions*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Hamparian, Donna M., Linda K. Estep, Susan Muntean, Ramon R. Priestine, Robert G. Swisher, Paul L. Wallace and Joseph L. White
1982 *Major Issues in Juvenile Justice Information and Training: Youth in Adult Courts—Between Two Worlds*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Harris, Paul

- 1988 "Juvenile sentence reform and its evaluation: A demonstration of the need for more precise measures of offense seriousness in juvenile justice research." *Evaluation Review*, 12(6): 655-666.

Helms, Ronald and David Jacobs

- 2002 "The political context of sentencing: An analysis of community and individual determinants." *Social Forces* 81(2): 577-604.

Hogarth, J.

- 1971 *Sentencing as a Human Process*. Toronto: University of Toronto Press in Association with the Centre of Criminology.

Howell, James

- 1996 "Juvenile transfers to the criminal justice system: State of the art." *Law and Policy*, 18: 17-60.

Johnson, Brian D.

- 2003 "Racial and Ethnic Disparities in Judicial Departures Across Modes of Conviction." *Criminology*, 41(2): 449-490.

Kleck, Gary

- 1981 "Racial Discrimination in Criminal Sentencing: A Critical Evaluation of the Evidence with Additional Evidence on the Death Penalty." *American Sociological Review*, 46(6): 783-805.

Klein, E.K.

- 1998 "Dennis the Menace or Billy the Kid: An analysis of the role of transfer to criminal court in juvenile justice." *The American Criminal Law Review*, 371-410.

Kramer, John and Darrell Steffensmeier

- 1993 "Race and imprisonment decisions." *The Sociological Quarterly*, 34(2): 357-376.

LaFree, Gary

- 1985 "Adversarial and nonadversarial justice: A comparison of guilty plea and trials." *Criminology*, 23: 289-312.

Lemmon, John, Henry Sontheimer and Keith Saylor

- 1991 *A Study of Pennsylvania Juveniles Transferred to Criminal Court in 1986*. Unpublished manuscript prepared for the Pennsylvania Juvenile court Judges' Commission. Harrisburg, Pennsylvania.

Levin, David J., Patrick A. Langan and Jodi M. Brown

- 1996 "State Court Sentencing of Convicted Felons, 1996." Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.

Lizotte., A

- 1978 "Extralegal factors in Chicago's criminal courts: Testing the conflict model of criminal justice." *Social Problems*, 25: 564-580.

Long, John

- 1997 *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, California: Sage.

McDonald J.F. and Moffit R. F.

- 1980 "The uses of Tobit Analysis." *Review of Economics and Statistics*, 62: 318-321.

Mustard, David

- 2001 "Racial, ethnic, and gender disparities in sentencing: Evidence from the U.S. federal courts." *Journal of Law and Economics*, 44(1): 285-315.

Osgood, Wayne and David Rowe

- 1994 "Bridging criminal careers, theory, and policy through latent variable models of individual offending." *Criminology*, 32(4): 517-538.

Osgood, D. Wayne, Laura L. Finken and Barbara J. McMorris

- 2002 "Analyzing Multiple-Item Measures of Crime and Deviance II: Tobit Regression Analysis of Transformed Scores." *Journal of Quantitative Criminology*, 18(4): 319-347.

Paternoster, Raymond, Robert Brame and Alex Piquero

- 1998 "Using the Correct Statistical Test for the Equality of Regression Coefficients." *Criminology* 36(4): 859-866.

Platt, Anthony

- 1969 *The Childsavers: The Invention of Delinquency*. Chicago: The University of Chicago Press.

Podkopacz, M.R. and Barry Feld

- 1995 "Judicial wavier policy and practice: Persistence, seriousness and race." *Law and Inequality: A Journal of Theory and Practice*, 14: 73-178.

Poulos, Tammy M. and Stan Orchowsky

- 1994 "Serious juvenile offenders: Predicting the probability of transfer to criminal court." *Crime and Delinquency*, 40(1): 3-17.

Rainville, G. A. and Steven K. Smith

- 2003 "Juvenile Felony Defendants in Criminal Courts." Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington DC.

Redding, Richard

- 1999 "Examining legal issues: Juvenile offenders in criminal court and adult prison." *Corrections Today*, 92-124.

Reddington, F.P. and A.D. Sapp

- 1997 "Juveniles in adult prisons: problems and prospects." *Journal of Crime and Justice*, 20: 139-152.

Rudman, Cary, Elliot Hartston, Jeffrey Fagan and Melinda Moore

- 1986 "Violent youth in adult court: processes and punishment." *Crime and Delinquency*, 32: 75-96.

Sellin, J. and Marvin Wolfgang

- 1964 *The Measurements of Delinquency*. Wiley: New York.

Sickmond, Melissa

- 2003 *Juveniles in Court*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Snyder, Howard, Melissa Sickmund and Eileen Poe-Yamagata

- 2000 *Juvenile Transfers to Criminal Court in the 1990s: Lessons Learned from Four Studies*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Snyder, Howard and Melissa Sickmund

- 1999 *Juvenile Offenders and Victims: A National Report*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Spohn, Cassia and D. Holleran

- 2000 "The imprisonment penalty paid by young, unemployed, black and hispanic male offenders." *Criminology*, 38(1): 281-306.

Steffensmeier, Darrell and Steven Demuth

- 2001 "Ethnicity and judges' sentencing decisions: Hispanic-black-white comparisons." *Criminology*, 39: 145-178.

Steffensmeier, Darrel, John Kramer and J. Striefel

- 1993 "Gender and imprisonment decisions." *Criminology*, 31: 411-46.

Steffensmeier, Darrell, Jeffrey Ulmer, and John Kramer.

- 1998 "The interaction of race, gender, and age in criminal sentencing: The punishment cost of being young, black and male." *Criminology*, 36(4); 763-797.

- Steffensmeier, Darrell, John Kramer and Jeffery Ulmer
 1995 "Age differences in sentencing." *Justice Quarterly*, 12(3): 583-602.
- Steffensmeier, Darrell
 1980 "Assessing the Impact of the Women's Movement on Sex-Based Differences in the Handling of Adult Criminal Defendants." *Crime and Delinquency* 26: 344-357.
- Tobin, J.
 1958 "Estimation of relationships for limited dependent variables." *Econometrica*, 26: 24-36.
- Tonry, Michael
 1996 *Sentencing Matters*. New York: Oxford University Press.
- Torbet, Patricia, Richard Gable, Hunter Hurst, Imogene Montgomery, Linda Szymanski and Doug Thomas
 1996 *State Responses to Serious and Violent Juvenile Crime*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Ulmer, Jeffery
 1997 *Social Worlds of Sentencing: Court Communities Under Sentencing Guidelines*. SUNY Press: Albany, New York.
- Von Hirsch, Andrew, Michael Tonry and Kay Knapp
 1987. *The Sentencing Commission and its Guidelines*. Boston: Northeastern University Press.
- Wheeler, Stanton, David Weisburd and Nancy Bode
 1982 "Sentencing the White Collar Offender: Rhetoric and Reality." *American Sociological Review* 47(5): 641-659.
- Winner, Lawrence, Lonn Lanza-Kaduce, Donna M. Bishop and Charles E. Frazier
 1997 "The transfer of juveniles to criminal court: Reexamining recidivism over the long term." *Crime and Delinquency*, 43(4): 548-563
- Zatz, M.
 1985 "Los Cholos: Legal processing of Chicano gang members." *Social Problems*, 33: 13-30.
 2000 "The Convergence of Race, Ethnicity, Gender, and Class on Court Decision making: Looking Toward the 21st Century" (From *Policies, Processes, and Decisions of the Criminal Justice*)

System; *Criminal Justice* 2000, V 3, P 503–552, 2000, Julie Horney, ed.

Zimring, Franklin E.

1998 *American Youth Violence*. New York: Oxford University Press.

Megan C. Kurlychek is a doctoral candidate in the crime, law and justice program at Penn State University and has accepted a position as assistant professor of criminology and criminal justice at the University of South Carolina. Megan has previously worked for the Pennsylvania Commission on Sentencing, the National Center for Juvenile Justice and the Pennsylvania State Senate and published many reports on issues of juvenile justice and policy. She has received awards from the American Society of Criminology, the American Sociological Association, the Pennsylvania State University and the American Educational Research Association for her research as a graduate student. Her current research interests include juvenile justice and delinquency, school crime, statistics and research methods, and policy evaluation.

Brian D. Johnson is an assistant professor of criminology and criminal justice at the University of Maryland. He received his Ph.D. in Crime, Law & Justice in 2003 from the Pennsylvania State University. Dr. Johnson has since published in *Criminology*, and he has received awards for his scholarship from both the American Society of Criminology and the American Sociological Association. His current research interests include racial and ethnic disparities in criminal justice case processing, contextual effects in criminal sentencing, and the use of advanced statistical techniques to study courtroom decision making processes.

APPENDIX A: PENNSYLVANIA'S JUVENILE TRANSFER CRITERIA

Pennsylvania has two primary mechanisms by which a juvenile can reach adult court: (1) judicial waiver and (2) statutory exclusion.

Waiver: Judicial waiver in Pennsylvania is governed by 42 Pa.C.S. section 6355 which states that a juvenile court judge may waive a case to adult court if:

- (1) The child was 14 or more years of age at the time of the alleged conduct.
- (2) A hearing on whether the transfer should be made is held in conformity with law.
- (3) Notice in writing of the time, place and purpose of the hearing is given to the child and his parents at least three days before the hearing.
- (4) The court finds:
 - (i) There is a prima facie case that the child committed the alleged act
 - (ii) The act would be considered a felony if committed by an adult
 - (iii) There are reasonable grounds to believe that the public interest is served by the transfer of the case for criminal prosecution. In determining whether the public interest can be served, the court shall consider the following factors:
 - a. the impact of the offense on the victim or victims;
 - b. the impact of the offense on the community;
 - c. the threat to the safety of the public or any given individual posed by the child;
 - d. the nature and circumstances of the offense allegedly committed by the child;
 - e. the degree of the child's culpability;
 - f. the adequacy and duration of dispositional alternative available under the juvenile system;
 - g. whether the child is amenable to treatment, supervision or rehabilitation as a juvenile based on consideration of a variety of factors including, but not limited to, age, mental capacity, maturity, criminal history and sophistication, and prior rehabilitative efforts of the juvenile court.

Statutory Exclusion: Laws excluding certain offenses from the jurisdiction of juvenile court in Pennsylvania have been incorporated into the legal definition of "delinquent act" found in 42 Pa.C.S. Section 6302. According to this section, the crime of Murder has historically been excluded from the jurisdiction of the juvenile court in Pennsylvania. Act 33 of 1995 then added the following statutory exclusions:

(1) Any of the following if the child was 15 years of age or older at the time of the alleged conduct, and a deadly weapon was used during the commission of the offenses, which, if committed by an adult, would be classified as:

Rape, involuntary deviant sexual intercourse, aggravated assault, robbery, robbery of a motor vehicle, aggravated indecent assault, kidnapping, voluntary manslaughter, or any attempt conspiracy or solicitation to commit murder or any of these crimes.

(2) Any of the following if the child was 15 years of age or older at the time of the alleged conduct and has been previously adjudicated delinquency of any of the following prohibited conduct, which if committed by an adult would be classified as: Rape, involuntary deviant sexual intercourse, robbery, robbery of a motor vehicle, aggravated indecent assault, kidnapping, voluntary manslaughter, or any attempt conspiracy or solicitation to commit murder or any of these crimes.

Appendix B: Distribution of Offenses for Juvenile and Adult Samples

Personal	J	A	Drug	J	A
Murder of the Third Degree	33	155	Simple Possession	23	2062
Voluntary/Involuntary Manslaughter	1	50	Possession: Small Amount Marijuana	9	1244
Simple Assault	66	3011	Possession: Drug Paraphernalia	4	998
Aggravated Assault	141	919	Possession with Intent to Deliver:		
Assault by a Prisoner	1	12	Unknown Drug	68	2919
Reckless Endangerment	15	543	Heroin	4	263
Stalking	1	45	Marijuana	13	5988
Rape	7	47	Cocaine	47	1724
Sexual Assault	2	229	Illegal Sale of Noncontrolled Substance	2	50
Involuntary Deviant Sexual Intercourse	3	29			
Aggravated Indecent Assault	2	22	Other		
Indecent Assault	5	189	Possess Instrument of Crime	5	202
Robbery	205	1440	Possess Prohibited Offensive Weapon	2	106
Robbery of a Motor Vehicle	5	39	Corrupt Organization	1	8
Intimidation of a Witness	1	45	Terroristic Threats	8	425
Abuse of a Corpse	1	2	Un-sworn Falsification to Authorities	4	260
Homicide by Vehicle	1	21	False Reports to Law Enforcement	5	325
			Resisting Arrest	6	383
			Disorderly Conduct	4	561
			Harassment by Communication	1	87
Property			Loitering or Prowling at Night	1	108
Arson	4	141	Hindering Apprehension	1	69
Burglary	82	2237	Escape	8	379
Criminal Trespass	19	927	Propulsion of Missiles onto a Roadway	1	15
Theft by Taking	108	3572	Causing a Catastrophe	2	24
Theft by Deception	6	970	Criminal Mischief	7	491
Receiving Stolen Property	60	2384	Possession of a Weapon: School Property	1	20
Theft of Services	1	33	Firearms: Possession by Former Convict	1	41
Unauthorized Use of an Automobile	7	1444	Firearms: Carried w/o License	24	949
Retail theft	11	741	Firearms: Carried in Philadelphia	2	88
Forgery	2	199	Firearms: Possessed/Delivered to Minor	8	3
Credit Card Fraud	308	13327	Firearms: Altering Identification	1	18