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By

CHRISTOPHER MICHAEL HILL Norman, Oklahoma 2004 UMI Number: 3122292

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## AN ANALYSIS OF JUVENILE JUSTICE DECISION-MAKING AND ITS EFFECT ON DISPROPORTIONATE MINORITY CONTACT

A Dissertation APPROVED FOR THE DEPARTMENT OF SOCIOLOGY

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### **CHAPTER I – INTRODUCTION**

#### "SHOCKING"

#### **Unanswered Questions Regarding Disproportionate Minority Contact**

In 2002, the Supreme Court of Florida established the Steering Committee on Families and Children in the Court (In re Steering Committee on Families and Children in the Court, AOSC02-31 [Fla. 2002]), which was to propose policy positions on a variety of judicial issues impacting Florida's families, including juvenile delinquency. Members of the committee's Delinquency Subcommittee met in February 2003 to establish a research agenda focusing on critical delinquency issues. Upon reviewing Florida's Juvenile Delinquency Court Assessment (2003), the subcommittee discussed the possibility of addressing the disproportionate contact of minorities with the state's juvenile justice system. Several members remarked that the research community knew all it needed to know about this topic; they argued that study after study had demonstrated why minorities are overrepresented. After a closer examination of the literature, however, the members concluded that research had not addressed all the reasons why minorities have disproportionate contact with the juvenile justice system. The subcommittee therefore decided to examine how racial disparities in the dependent population (abused, neglected, and abandoned children) might affect minority overrepresentation in the delinquent population. Members of the subcommittee ultimately recognized that the research literature leaves many unanswered questions regarding disproportionate minority contact.

#### Juvenile Justice Decision-Making and Minority Overrepresentation

The problem I address in this dissertation is the overrepresentation of minorities in the juvenile justice system. I use data from the Oklahoma Office of Juvenile Affairs to conduct my examination. My goal is to determine the extent to which a juvenile's race influences juvenile justice decisions regarding detention, filing, adjudication, and custody. To achieve this goal, my objective is to use multivariate analyses to measure the effects that race and other extralegal, legal, and contextual factors have on these juvenile justice decisions.

I begin this dissertation by establishing the following premises: First, racial and ethnic minorities are overrepresented at nearly every stage of juvenile case processing. Second, this overrepresentation may be due to racial differences in offending behavior, but it may also be due to the decisions made by actors within the juvenile justice system, decisions that are often based on the actors' own discretion. Several scholars pose that these discretionary decisions involve racial bias and discrimination.

While I do address the research regarding racial differences in offending behavior, my dissertation focuses on the decisions that occur once a juvenile has formal contact with the justice system. These decisions, which involve detention, filing, adjudication, and custody, may be influenced by factors that result in the disproportionate contact of minorities. To the extent that I find race to be one of those factors, my dissertation will lend support to the argument that racial bias and discrimination exist in the Oklahoma juvenile justice system. To the extent that racial

differences do not independently affect these decisions and outcomes in my analysis, my dissertation will offer an alternative explanation for why minority juveniles have disproportionate contact with the Oklahoma juvenile justice system.

Legal, extralegal, and contextual factors. Race is one of several factors that may influence decision-making in the processing of juvenile cases; these factors may be categorized as legal, extralegal, and contextual. Research has demonstrated that legal variables, such as a juvenile's prior history and severity of the current offense, are significant factors that influence decisions regarding detention, adjudication, and commitment (Akers 1997; McGuire 2002; O'Neill 2002). Research also indicates that extralegal variables, which include age, gender, and race, may also affect outcomes for juveniles (Bishop and Frazier 1996; McGuire 2002; Pope and Feyerherm 1982). Contextual factors, such as the poverty rate and type of community in which a juvenile lives, may also influence the likelihood that a juvenile has formal contact with or is confined in the juvenile justice system (National Research Council and Institute of Medicine 2001; O'Neill 2002). In my analysis, I account for a variety of legal, extralegal, and contextual variables to address whether or not racial bias and discrimination contribute to minority overrepresentation in Oklahoma's juvenile justice system.

*Why focus on minority overrepresentation?* The fundamental rationale for my research is the same as that of the delinquency subcommittee: The research literature does not have all the answers to this serious and timely social problem. The

National Research Council and Institute of Medicine provide the following argument

for increased attention to minority overrepresentation:

Overrepresentation of blacks, Hispanics, and American Indians in the juvenile justice system requires immediate attention. The existence of disproportional racial representation in the juvenile justice system raises concerns about differential exposure to risks and the fairness and equal treatment of youth by the police, courts, and other players in the juvenile justice system. Given the importance of the problem of race, crime, and juvenile justice in the United States, the scant research attention that has been paid to understanding the factors contributing to racial disparities in the juvenile justice system is shocking. (2001:258)

#### **RESEARCH QUESTIONS**

In this dissertation, I pose three research questions, which stem from recommendations made by the National Research Council and Institute of Medicine (2001). For each research question, I ask whether or not there is a statistical race effect, which means "minority status...has an impact on what happens to youth as they are processed through the juvenile justice system" (Pope, Lovell, and Hsia 2002:10). A statistical race effect is potential evidence that racial bias and discrimination exist in the processing of juvenile cases.

First, is there a race effect when accounting or controlling for legal, contextual, and other extralegal variables? Second, if there is a race effect, does it exist at all decision points, or is it limited to discrete stages in the processing of juvenile cases? Third, if there is a race effect, do individuals of different minority groups experience the same race effect, or does this effect differ by minority group?

In order to empirically address these research questions, I begin by providing an operational definition of disproportionate minority contact, and I discuss the growing concern, on a national basis, with the overrepresentation of minorities in the juvenile justice system. I then discuss research that pertains to how juvenile justice decisions and outcomes are influenced by a variety of legal, extralegal, and contextual factors. I also provide a theoretical framework for why these factors influence juvenile justice decisions. Finally, I address some key recommendations regarding the establishment of a research agenda for the study of disproportionate minority contact. These recommendations, proposed by the National Research Council and Institute of Medicine (2001), form the basis of my research questions and the resulting analysis.

#### **CHAPTER II – REVIEW OF THE LITERATURE**

#### WHAT IS DISPROPORTIONATE MINORITY CONTACT (DMC)?

#### 1988: Confinement in Secure Facilities

Until recently, the concept known as DMC referred to disproportionate minority confinement. According to Hsia and Hamparian (1998), the Coalition for Juvenile Justice first brought the problem of disproportionate minority confinement to national attention in 1988 through *A Delicate Balance*, its annual report to Congress. In that report, the Coalition for Juvenile Justice stressed how minority juveniles were overrepresented in our nation's secure facilities, and that their disproportionate confinement was produced by a combination of social and economic forces and the decisions made within the juvenile justice system (Harp 2001).

That same year, Congress formally recognized the problem of minority overrepresentation in amendments to the Juvenile Justice and Delinquency Prevention (JJDP) Act of 1974. In those amendments, Congress required states to "address efforts to reduce the proportion of juveniles detained or confined in secure detention facilities, secure correctional facilities, jails, and lockups who are members of minority groups if such proportion exceeds the proportion such groups represent in the general population" (Juvenile Justice and Delinquency Prevention Act of 1974, 42 U.S.C. § 5601(a)(23) [1988]). Congress placed this requirement in the Formula Grants Program of the JJDP Act, tying it to the ability of states to receive federal funds (Hsia and Hamparian 1998). Based on this definition, states were required to assess disproportionate minority confinement on the basis of their confined juvenile populations – those juveniles who resided in detention and commitment centers and other secure facilities. For the purpose of analyzing decision points, this operational definition would generally limit a researcher to examine detention and custody decisions, since these determine whether or not a juvenile is actually confined or incarcerated.

#### 2002: Contact with the Juvenile Justice System

In the JJDP Act of 2002, Congress significantly broadened the definition of DMC to include minority overrepresentation in any contact with the juvenile justice system. According to the new law, states are now required to "address juvenile delinquency prevention efforts and system improvement efforts designed to reduce, without establishing or requiring numerical standards or quotas, the disproportionate number of juvenile members of minority groups, who come into contact with the juvenile justice system" (Juvenile Justice and Delinquency Prevention Act of 2002, 42 U.S.C. § 5633(a)(22) [2002]). In a report of its priorities for 2003, the Office of Juvenile Justice and Delinquency Prevention (2003) stated that arrest to reentry was now the range of decision points for addressing DMC. This expanded definition necessitates that analyses of DMC at various decision points be as comprehensive as possible. Thus the term DMC has begun to shift from disproportionate minority contact.

#### A GROWING CONCERN WITH A GROWING SOCIAL PROBLEM

#### The Extent of Disproportionate Minority Contact

Given the current definition of DMC, to what extent are minorities overrepresented in the juvenile justice system? Several sources of data indicate that minorities are overrepresented at nearly every stage of juvenile case processing, from arrest to incarceration. According to the National Research Council and Institute of Medicine:

> Although black youth represented approximately 15 percent of the U.S. population ages 10-17 in 1997, they represented 26 percent of all juvenile arrests, 30 percent of delinquency referrals to juvenile court, 45 percent of preadjudication decisions, 33 percent of petitioned delinquency cases, 46 percent of cases judicially waived to adult criminal court, and 40 percent of juveniles in public long-term institutions. (2001:231)

States certainly vary in regard to the racial composition of their confined juvenile populations, but they almost uniformly report an overrepresentation of minorities in their juvenile justice systems. Snyder and Sickmund (1999), for example, report that in 1997, the residential placement centers in almost all states held a disproportionate number of committed and detained minority juveniles. In Florida, minorities were 40 percent of the 1997 juvenile population, but represented 64 percent of all detained juveniles in the state. Worse yet, minorities were 26 percent of Oklahoma's juvenile population in 1997, while they were <u>60</u> percent of the detained population and <u>50</u> percent of all juveniles committed to public and private facilities in Oklahoma. In Illinois, about one-third of the juvenile population were

minorities, but more than three-fourths of the juveniles in custody were minorities. (Illinois Criminal Justice Information Authority 2003). There is a clear nationwide pattern of minority overrepresentation, which has led some scholars and policymakers to question the treatment of minority youth by our judicial system.

### A Question of Fairness and Equality

The disproportionate contact of minorities with the juvenile justice system has been consistently documented in studies throughout the United States, and it is widely acknowledged by scholars and juvenile justice practitioners (McGuire 2002; O'Neill 2002; Roscoe and Morton 1994). In 1991, the Office of Juvenile Justice and Delinquency Prevention established the Disproportionate Minority Confinement Initiative, in which five states received grant funds and technical assistance to assess the extent of DMC in their states, and to create corrective action plans to reduce the overrepresentation of minorities (Devine, Coolbaugh, and Jenkins 1998; Leiber 2002). Along with actions by Congress to institutionalize efforts to reduce DMC, these studies and initiatives indicate that a serious social problem exists. What is it that makes this such a troubling condition?

One answer might be that the documented overrepresentation of minorities is contrary to the basic tenets of our justice system. In September 1998, Shay Bilchik, then-Administrator of the Office of Juvenile Justice and Delinquency Prevention, offered the following commentary on the treatment of juvenile offenders:

A prerequisite of an effective juvenile justice system is to treat every offender as an individual and provide needed services to all. There are troubling indications that the system is not meeting this standard. As one reflection of this problem, we find that the percentage of minority youth in secure confinement is more than double their representation in the general juvenile population – comprising nearly 7 out of 10 juveniles in such environments. (Hsia and Hamparian 1998:1)

As the National Research Council and Institute of Medicine explain, "The existence of disproportionate racial representation in the juvenile justice system raises questions about fundamental fairness and equality of treatment of these youth by the police, courts, and other personnel connected with the juvenile justice system" (2001:228). When basic rights of liberty and due process are perceived to be threatened, individuals and groups may feel sufficiently agitated to initiate social movement activity to correct the problem.

#### FACTORS INFLUENCING JUVENILE JUSTICE DECISION-MAKING

#### **Theoretical Framework: The Use of Discretion**

Police officers, prosecutors, and judges are called upon daily to make decisions regarding whether or not a juvenile should be arrested, detained, formally charged, adjudicated, and committed. While these actors rely upon a large variety of laws, rules, and policies to guide their decisions, they must also rely heavily on their own discretion as they engage in particular cases and situations. As Walker (1993) argues, the use of discretion, and how discretion is controlled or limited, are the key issues in examining how the criminal justice system functions. Police evaluate a multitude of factors in deciding whether to arrest a suspect. Prosecutors weigh the evidence, severity and number of charges, and the likelihood of conviction in deciding whether to formally charge a suspect or to seek a plea bargain. Judges also evaluate a variety of factors when they make rulings or determine sentences for individual cases. Walker discusses the advantages and the dangers that accompany a system of justice based on discretion, and he stresses that it is one of the fundamental ways in which justice decisions are made.

The use of discretion is the theoretical framework for my dissertation. If race does in fact have a direct effect on decisions regarding detention, filing, adjudication, and custody, then it does so because actors within the juvenile justice system use race as one discretionary criterion for their decisions. This argument applies to the impact of not only race, but to all extralegal, legal, and contextual factors that actors in the juvenile justice system take into account in making decisions. In the following sections, I discuss some of the factors that researchers have empirically shown to impact justice decisions.

## Legal Factors as a Basis for Juvenile Justice Decision-Making

Research on criminal justice decision-making suggests that decisions regarding arrest, detention, and other actions taken by agents of the criminal justice system are often influenced by legal factors. In his review of research on justice decision-making, Akers wrote that "When legal variables (e.g., seriousness of the offense, prior criminal record, and aggravating circumstances) are controlled, differences in arrests, court outcomes, and the severity of sentencing by race, class, sex, age, and ethnicity either disappear or are reduced to small, statistically insignificant levels" (1997:149). Research has also shown that even when extralegal factors do influence decisions, their effects are often less than the effects of legal variables (Bishop and Frazier 1988). These legal variables include prior criminal history, severity of the current offense, and being held in detention prior to adjudication.

*Prior criminal history*. Consistent with Akers' (1997) assertion, several studies indicate that prior criminal history is a significant determinant in justice decisions. In their review of DMC literature, Engen, Steen, and Bridges (2002) conclude that studies are less likely to report direct race effects when they control for the prior history of juveniles. Two early articles found prior history to be the primary determinant of pre-adjudication detention decisions. In a 1979 article, Cohen and Kluegel found that prior history was a significant predictor of detention for a sample of juveniles from Denver and Memphis, and in 1981, Bailey reported that prior history was the strongest predictor of detention for juveniles from a large metropolitan court. More recently, McGuire (2002) and O'Neill (2002) both found prior delinquency records to be independent predictors of juvenile detention.

Severity of the current offense. In her recent article on how racial disparities can accumulate as juveniles progress through the justice system, McGuire (2002) operationalized offense seriousness through two variables. Her first variable was an offense variable, which simply measured the most serious offense for which a juvenile was referred to the court. Her second variable, concurrent delinquency, measured all the other acts of delinquency with which a juvenile was charged for a

particular referral. In her analysis, both variables had significant effects on detention, adjudication, and commitment decisions. While race continued to have a significant effect on these decisions, McGuire found that for the adjudication and commitment decisions, both the offense and concurrent delinquency variables made larger contributions to the proportion of explained variance than did race. McGuire's findings are in general agreement with Akers' (1997) claim that as the severity of the offense increases, the effects of extralegal variables are generally reduced. In contrast, Engen, Steen, and Bridges (2002) argue that controlling for the severity of the current offense does not affect the likelihood that a study will find a direct race effect.

*Pre-adjudication detention*. Research suggests that the secure detention of a juvenile prior to adjudication becomes an important legal factor in and of itself, independent of other legal characteristics that may have led to detention, such as prior history and the severity of the current offense (Frazier and Bishop 1985; Frazier and Cochran 1986; McGuire 2002). In its assessment of juvenile delinquency case processing, Florida's Office of the State Courts Administrator (2003) found that secure detention was a significant predictor of adjudication and commitment, after controlling for other relevant variables. The National Research Council and Institute of Medicine (2001) reported that published research consistently demonstrates a relationship between being placed in detention and receiving more punitive dispositions, after accounting for other legal variables, including prior history and severity of the current offense.

As I interpret these findings, secure detention is a legal variable that should be included in the analysis of other stages of juvenile case processing. Its inclusion should not be based on the assumption that secure detention is merely a composite measure of prior history and severity of the current offense. Rather, I consider preadjudication detention to be a legally relevant variable for its own empirical significance.

In summary, empirical studies generally support the hypothesis that legal factors are a significant influence on discretionary decisions made by juvenile justice system actors. Factors such as prior history, severity of the current offense, and pre-adjudication detention can influence whether or not a juvenile is adjudicated delinquent or committed. According to Akers (1997), legal variables have the strongest effects on justice decisions. Given that legal factors may be those with the strongest effects, the literature does suggest that extralegal factors also influence discretionary decisions. I now turn to a discussion of these factors.

## Extralegal Factors as a Basis for Juvenile Justice Decision-Making

Age, gender, and race are three social characteristics full of cultural meaning and consequences for our life chances. The empirical literature suggests that each of these extralegal factors can influence juvenile justice decisions and outcomes. In the following section, I describe the impact of age as an extralegal factor. I then discuss the importance of gender and the methodological reason I am analyzing a sample of males only. Finally, I address the extralegal factor at the heart of most DMC research: race. Age. According to 1996 statistics presented by Snyder and Sickmund (1999:147), juveniles ages 15 to 17 accounted for a greater proportion of cases in the nation's juvenile courts than did juveniles ages 13 to 14 and ages 10 to 12. This pattern was consistent for person offenses, property offenses, drug offenses, and public order offenses. Snyder and Sickmund also noted that while delinquency case rates generally rose for all three age groups between 1987 and 1996, the pattern of higher case rates among older juveniles remained the same throughout the decade.

There is some evidence to suggest that age is a significant extralegal factor in juvenile justice decision-making. Stahl et al. (1999) report that in 1996, juveniles 16 and older were more likely to be formally processed, through the filing of a delinquency petition, than juveniles 15 and younger. Once a petition was filed, however, younger juveniles were slightly more likely to be adjudicated delinquent than older juveniles. These findings were based on a comparison of percentages, without controlling for possible covariates. A study by Florida's Office of the State Courts Administrator (2003) examined the effects of age on the likelihood of adjudication and commitment using logistic regression analyses, and it found that the odds of adjudication and commitment increased with age. Regardless of the direction of the findings, these studies suggest that age is an important extralegal factor that can influence juvenile justice decision-making.

In this dissertation, I will not be addressing arguments regarding the effects of age on delinquent activity. Gottfredson and Hirschi (1990) address this issue at length by describing how both crime and criminality decline with age. Rather than examining age as a means for distinguishing delinquent from non-delinquent juveniles, this dissertation will analyze whether age is applied in discretionary decisions regarding detention, filing, adjudication, and custody.

*Gender*. It is in the study of gender that one can find the most glaring evidence of an extralegal influence on juvenile justice decision-making. Including gender as a variable in my analysis, however, poses a particular methodological challenge for this dissertation. I first turn to the influence of gender as an extralegal variable, and I conclude by explaining why my sample will only include males.

In her development of a feminist theory of delinquency, Chesney-Lind (1994) argues that delinquency theories typically focus exclusively on male delinquency, and these theories are therefore inadequate to explain female behavior. According to Chesney-Lind, the patriarchal structure of society in general, and of the juvenile justice system in particular, influences how actors in the justice system treat male and female offenders differently, particularly based on the type of offense. For many years, females have been disproportionately arrested and formally processed for status offenses, such as running away and violating curfew. These differential arrest and processing rates were taken as evidence that females and males committed different types of offenses; in other words, there was male delinquency and female delinquency, which were qualitatively different from one another.

As Chesney-Lind noted, this assumption of different types of delinquency was misguided by the official statistics: "self-report studies of male and female delinquency do not reflect the dramatic differences in misbehavior found in official

statistics. Specifically, it appears that girls charged with these noncriminal status offenses have been and continue to be significantly overrepresented in court populations" (1994:573). For status offense cases, females are overrepresented in various juvenile justice outcomes, including detention and custody. For delinquent offense cases, however, females are not generally overrepresented in these outcomes, and there is research to suggest that this is because gender interacts with offense in producing different outcomes for males and females.

Bishop and Frazier (1992:1183), for example, found evidence of a significant interaction between gender and contempt charges in the likelihood of incarceration for juveniles. They found that "the typical male offender who is not in contempt has a 3.9 percent probability of incarceration. The risk is increased only slightly, to 4.4 percent, when he is found in contempt. In sharp contrast, the typical female offender not in contempt has a 1.8 percent probability of incarceration, which increases markedly to 63.2 percent if she is held in contempt."

The implication of this finding is that analyses that include gender as an independent variable should examine potential statistical interactions with offense. For this particular project, I am choosing to take as a given that my findings may be different for males than for females. In order to provide the most empirically valid analysis with the most parsimonious interpretation, I am choosing to include only males in my analysis. To include gender without an interaction term would potentially mask a significant statistical interaction and a substantively meaningful relationship. By including gender as a covariate and as part of an interaction term,

however, I would be complicating the interpretation of the analysis, when my primary focus is whether or not a race effect exists in juvenile justice decision-making. Given that this analysis will not include gender as a covariate, I stress that future studies should build on previous research to examine how gender interacts with offense to produce differential outcomes for males and females in the juvenile justice system.

*Race.* Researchers are generally in agreement regarding the extent of disproportionate minority contact; there is a consensus that in most places, minority juveniles are substantially overrepresented in contacts with the juvenile justice system. And while several scholars have produced outstanding reviews of published DMC literature (National Research Council and Institute of Medicine 2001; Pope and Feyerherm 1990a, 1990b, 1995; Pope, Lovell, and Hsia 2002), "the causes of disproportionate minority confinement are hotly debated" (McGuire 2002:1). Explanations for disproportionate minority contact are generally categorized into those that focus on racial differences in offending behavior, and those that emphasize bias and discrimination in the criminal and juvenile justice systems (National Research Council and Institute of Medicine 2001). The research literature contains empirical evidence to support both sets of explanations. In the next section, I address the argument that disproportionate minority contact is produced by racial differences in offending behavior. I then discuss the body of literature that suggests racial bias and discrimination exist in the juvenile justice system.

Racial differences in offending behavior. If racial differences existed in criminal and delinquent behavior, and if the criminal and juvenile justice systems

policed and prosecuted offenders in a non-biased fashion, simply arresting and charging individuals who have offended, we would expect differences in the relative contact with racial groups. Several criminological works cite evidence that racial differences in offending behavior do in fact exist, at least for some types of crimes (Blumstein 1993; Elliott 1994; Gottfredson and Hirschi 1990; Hindelang, Hirschi, and Weis 1981; Wilson and Herrnstein 1985). According to Wilson and Herrnstein (1985), research demonstrates that blacks have higher rates of crime than other racial groups, even if bias and discrimination exist in the criminal justice system. In support of their assertion, Wilson and Herrnstein argued that "every study of crime using official data shows blacks to be overrepresented among persons arrested, convicted, and imprisoned for street crimes" (1985:461). Gottfredson and Hirschi (1990) used an additional source of data to support this position: victimization data. These data provide a picture of offending almost identical to that of official data, which means that racial differences in official crime rates are consistent with racial differences reported by victims of crime.

Criminal and delinquent behavior is most commonly measured through official statistics, victimization surveys, and self-reports (Gove, Hughes, and Geerken 1985; Hindelang, Hirschi, and Weis 1981). In their review of studies that measured delinquent behavior using these various methods, the National Research Council and Institute of Medicine (2001) concluded that most of these studies did find racial differences in offending behavior, though they disagreed as to the magnitude of the differences. In particular, black juveniles tended to be overrepresented in robbery and aggravated assault crimes, according to statistics from the National Crime Victimization Survey and Uniform Crime Reports (National Research Council and Institute of Medicine 2001:236), but it is important to note that the overrepresentation of minority juveniles was not uniform across all categories of crime.

The counter argument to this explanation is that system bias and discrimination are largely responsible for the overrepresentation of minority juveniles, even if minority juveniles do commit a disproportionate number of crimes. One element of the counter argument is that police may discriminate against blacks and other minority juveniles in their arrest decisions. Arrests are the first point of contact with the juvenile justice system, and the use of discretion by police in their arrest decisions has important implications for the racial distribution of the juvenile delinquent population. In general, the empirical literature does not find evidence of bias and discrimination in arrests. Pope and Snyder (2003), for example, examined National Incident-Based Reporting System (NIBRS) data from 17 states, and using a series of logistic regression equations, they found the odds of being arrested for black juveniles were equal to the odds for white juveniles. Pope and Snyder concluded that the NIBRS data provided no evidence of a direct race effect in arrest decisions. The researchers found, however, that minority juveniles were more likely to be arrested when the victim was white.

Pope and Snyder's (2003) analysis is consistent with the review of policing studies by the National Research Council Research and Institute of Medicine: "Research has not consistently shown that minorities are treated more harshly than whites in terms of arrest" (2001:244). Arrest is but one stage of the juvenile justice process, however, and researchers have found evidence of system bias and discrimination in other stages. I address this evidence in the following section, but I will summarize it at this point by suggesting that the evidence is mixed, inconclusive, and leaves many questions unanswered.

Finally, one should certainly not infer from the findings in this section that being nonwhite in and of itself causes or predisposes a person to criminality. As I will discuss in the section on contextual factors, minority groups are often situated within disadvantaged pockets of our society's stratification system, which places them in a "Context of Risk" (National Research Council and Institute of Medicine 2001:238). That context of risk includes poverty, joblessness, and a lack of community-level formal and informal social controls. I address some of these risks in the section titled, "Contextual Factors as a Basis for Juvenile Justice Decision-Making."

*Race effects in the juvenile justice system*. As described above, there is substantial evidence that racial differences in offending behavior exist. What does the research record indicate regarding the existence of bias and discrimination in the juvenile justice system? In general, the research on disproportionate minority contact provides mixed support for the argument that minorities are overrepresented because of juvenile justice system bias and discrimination (McGuire 2002). Pope, Lovell, and Hsia (2002), for example, reviewed 34 DMC studies published from 1989 through 2001. Of the 34 studies in their sample, a majority identified a race effect, but the race effect was not at all consistent. Only eight of the studies contained evidence of direct

or indirect effects in various stages of the juvenile justice process. Half of the studies "revealed mixed results (i.e., race effects were present at some decision points yet not present at others, or race effects were apparent for certain types of offenders or certain offenses but not for others)" (2002:5). In eight of the studies, empirical data were not analyzed to test for statistical race effects, but were included in the review because of useful information regarding disproportionate minority contact. A final study in the review, by Fagan and Deschenes (1990), examined minority overrepresentation in waivers to adult criminal court, and they found no evidence of a race effect.

Included in the eight studies that documented a direct or indirect race effect were Bridges et al. (1995), Frazier and Bishop (1995) and Poupart (1995). Bridges et al. (1995) compared confinement rates for whites and nonwhites from communities in Washington with high crime rates, and they found that after controlling for differences in referral rates, nonwhites were more likely to be confined that whites. Using a white/nonwhite comparison with a sample of juvenile delinquency cases from Florida, Frazier and Bishop (1995) used logistic regression analyses and found direct race effects in detention and filing decisions. Poupart (1995) conducted one of the few studies using American Indian juveniles, and she found race effects at multiple stages of juvenile case processing, although the race effect was strongest at the intake stage.

The studies with mixed results were similar to the first eight in that they represented a variety of time periods, data collection methods, and analytic models. In

general, those with mixed results did find evidence of racial bias, but the identified race effects occurred at very discrete stages and in a non-uniform manner. Leiber and Jamieson (1995), for example, found racial differences at disposition, but not in other stages of juvenile case processing, including intake and adjudication. Likewise, Wu, Cernkovich, and Dunn (1997) examined a sample of court cases in Ohio, and they found a direct race effect at detention, but no effect at disposition. Wu et al. also found that white juveniles had greater odds of being adjudicated guilty than did black juveniles.

*Inconsistent yet persistent evidence of bias*. The 34 published studies reviewed by Pope, Lovell, and Hsia focused on "the official processing of minority youth" (2002:2), and they encompassed a wide array of decision points in the juvenile justice system. As a result, they provide meaningful evidence as to whether or not bias and discrimination exist in the juvenile justice system. As a group, they highlight McGuire's (2002) earlier point that the research record on system bias is inconsistent.

Several other sources of data point to the inconsistent nature of the research. Pope and Feyerherm (1990a, 1990b) conducted a similar review of DMC studies published between January 1969 and February 1989. They identified 46 studies for their review, and as a group, these 46 articles revealed the same mixture of support for the hypothesis that a race effect exists. In summarizing these findings in a later article, Pope and Feyerherm noted the following: "Most of the literature suggests both direct and indirect race effects or a mixed pattern – racial effects are present at some stages and not at others. Roughly a third of the studies found no evidence of disparity" (1995:2).

In their review of literature on bias in policing and transfer of juveniles to adult criminal court, the National Research Council and Institute of Medicine (2001) found evidence of bias in encounters between police and juveniles, although there were inconsistencies in the evidence. The research on minority overrepresentation in waivers to adult court was similarly mixed. Furthermore, there was inconsistent support for the "cumulative disadvantage hypothesis" (McGuire 2002:2), which suggests that the disparate treatment of racial minorities accumulates as they progress through the juvenile justice system. The National Research Council and Institute of Medicine (2001) and McGuire (2002) cited studies with evidence of accumulated disadvantage. Pope, Lovell, and Hsia (2002) did not find evidence of cumulative disadvantage in their review and in her own empirical analysis, McGuire (2002) concluded that her findings did not present a clear pattern of cumulative disadvantage.

Despite the mixed nature of these findings, minority juveniles continue to have disproportionate contact with the juvenile justice system, and as discussed, several studies do in fact find direct or indirect race effects, meaning that racial differences produce an independent effect on at least some decisions and outcomes in the juvenile justice system. This body of literature has moved us beyond the question of whether bias exists in the juvenile justice system; there is some evidence to suggest that it does. Rather, we now address the extent to which judges and other justice
system actors employ race as an extralegal variable in their decision-making, relative to other extralegal, legal, and contextual factors.

*Strengths and weaknesses of the race effect literature*. The published studies of whether or not a race effect exists in the juvenile justice system have several strengths. First, they use a variety of data sets, which encompass many locations and timeframes for data collection. Second, the studies examine multiple decision points in the juvenile justice process, including arrest, detention, intake, adjudication, and disposition. Third, they make use of several techniques of analysis, from qualitative methods and bivariate correlations to more complex logistic regression analyses.

As a group the studies possess a few weaknesses. First, almost all of the studies use a strict comparison of black and white juveniles. Only 4 of the 34 studies reviewed by Pope, Lovell, and Hsia (2002) included American Indians, and very few addressed the overrepresentation of Asian American and Hispanic juveniles (2 and 11, respectively). Second, the data sets could not always encompass a more complete range of variables that could contribute to disproportionate minority contact. These include variables that place minority juveniles at risk, such as poverty, family structure, and location of residence. These risk variables measure characteristics of juveniles' lives that are outside both the juvenile justice system and the juveniles themselves. I now turn to a discussion of some of these variables, known as contextual factors.

## Contextual Factors as a Basis for Juvenile Justice Decision-Making

The preceding sections on race suggest that minority juveniles are overrepresented in the juvenile justice system because they commit a disproportionate number of crimes, and because bias and discrimination exist to some extent in various stages of juvenile case processing. I stressed earlier that one should not infer that being nonwhite in and of itself causes or predisposes a person to criminality. Likewise, one should not infer that racial bias exists in the juvenile justice system simply on the basis that minorities are overrepresented at most stages of juvenile case processing. Rather, one should examine how race is related to a variety of contextual factors that may place minorities at greater risk for involvement in delinquent behavior and the juvenile justice system. Social scientists increasingly recognize that minority groups are disproportionately affected by a variety of contextual risk factors (Levine and Rosich 1996). In the empirical literature, these risk factors are primarily socioeconomic in nature. In this section I identify some of these risk factors, and I discuss how they may impact juvenile justice decision-making.

A "Context of Risk." William Julius Wilson has documented the dramatic changes that have occurred in several of the nation's inner cities, changes that have disproportionately affected the black individuals and families that are concentrated in these areas. Wilson has labeled these deleterious changes as "social dislocations" (1987:18), and they include increasing rates of joblessness, teenage pregnancy, and welfare dependency, as well as a higher incidence of female-headed families and out-of-wedlock births. According to the National Research Council and Institute of

Medicine (2001), minority children are more likely than white children to experience poverty, to have problems with poor health care, and they are also more likely to live in isolated areas of concentrated poverty. In a recent study of perceptions regarding disproportionate minority contact (Devine, Coolbaugh, and Jenkins 1998), participants identified a variety of contextual factors, including education, family, and socioeconomic conditions, that may influence the contact of minorities with the juvenile justice system. Taken together, the disparate conditions minority juveniles face with regard to poverty, joblessness, and other conditions of their communities and families place them in a "Context of Risk" (National Research Council and Institute of Medicine 2001:238). Delinquent behavior and contact with the juvenile justice system are two consequences of this risk.

*Contextual factors and delinquent behavior*. Research using official statistics has found contextual factors to be related to rates of various delinquent behaviors, including assault and burglary (Warner and Pierce 1993). Studies using victimization survey data have also found a relationship between social dislocations and delinquency at the community level (Sampson 1986). Wilson (1996) has argued that neighborhoods with high concentrations of jobless males experience higher rates of violent crime than other urban neighborhoods. Levine and Rosich made the following argument regarding contextual factors:

Differences in the White/Black victimization rates virtually disappear in higher income neighborhoods. Thus, what may appear to be race effects are more a function of conditions emanating from economic deprivation and lack of employment opportunities and from the quality of life and social circumstances in low-income communities. (1996:9)

*Contextual factors and contact with the juvenile justice system*. In studies that examine how contextual factors influence juvenile justice decision-making, researchers have found that simply living in an urban area affects a juvenile's outcome. In his study of juvenile detention decisions, O'Neill (2002) found that minority and white juveniles were equally likely to be detained when controlling for differences in residence. Juveniles living in urban areas had increased odds of detention, and since most of the minorities in the sample were concentrated in urban communities, black and Hispanic juveniles were overrepresented in the detention population. Similarly, Feld (1999) found urban residence to be significantly related to formal processing. Despite what is known about the relationships among race, social dislocations, and delinquent behavior, the National Research Council and Institute of Medicine (2001:241) argue that "There is scant research that examines the extent to which risk factors explain racial disparity."

Social class and crime at the individual and contextual levels. I wish to stress that the research demonstrating how income, joblessness, and poverty affect crime are generally based on community level data, not individual level data. When discussing the relationships among race, social class, and crime, one common explanation is that minority individuals are more likely to be of a lower social class than are majority individuals, and that individuals of lower social classes are more likely to commit crime. Under this explanation, social class would have a direct effect on crime, and race would have an indirect effect on crime at best.

I caution against using this explanation, however, as several decades of empirical research have failed to find a consistent relationship between class and crime when individuals are the unit of analysis. The idea that individuals of lower social classes are more likely to commit crime is rooted in Merton's theory of strain and anomie (1938), which focuses on the disjunction between culturally approved goals and means, and in the subcultural theories of Cohen (1955) and Cloward and Ohlin (1960). In general, tests of these theories have failed to provide consistent evidence that individuals' social class and criminal behavior are correlated (Kornhauser 1978). Nye's (1958) early study of self-reported delinquency provided little evidence of a relationship between class and delinquency, and both Hirschi ([1969] 2002) and Akers (1997) have argued that the bulk of the research since the 1950s has consistently demonstrated that the relationship between social class and crime (and delinquency) is very weak or nonexistent. In a recent study, Weis (1987:90) analyzed data from the Seattle Youth Study, and his "findings support the general conclusion that there is a systematically weak relationship between social class, measured by a number of different indicators, and variety of self-reported delinquency incidence scales, a number of official crime indexes, and a large number of self-reported crime items, all at the individual level of measurement."

A preferable interpretation is to focus on the contextual nature of social class, with an emphasis on the characteristics of the communities and neighborhoods in which individuals live. Contrary to studies of the class-crime relationship at the individual level, contextual level studies have demonstrated consistent support for the hypothesis that poor neighborhoods and disadvantaged communities have higher rates of criminal and delinquent behavior. I have discussed some of these studies in the previous sections, and in this dissertation, I focus on the contextual nature of social class.

## A RESEARCH AGENDA FOR DISPROPORTIONATE MINORITY

## CONTACT

In their book, *Juvenile Crime, Juvenile Justice*, the National Research Council and Institute of Medicine (2001) provided several recommendations to improve the juvenile justice system, including recommendations that address prevention programs and transfers to adult criminal court. In their discussion of disproportionate minority contact, the National Research Council and Institute of Medicine provided the following recommendation:

> The panel recommends that a comprehensive, systematic, and long-term agenda for acquiring empirical knowledge to understand and meaningfully reduce problems of unwarranted racial disparity in the juvenile justice system is a critical priority and that new funding should be set aside for this effort. (2001:259)

> > 30

This recommendation is an appeal to policymakers to identify disproportionate minority contact as a social problem worthy of expanded programmatic and budgetary resources. The federal government in general, and the Office of Juvenile Justice and Delinquency Prevention in particular, have to some extent heeded this call through legislative actions, policy decisions, and funding for targeted attention to this problem. The National Research Council and Institute of Medicine specify six directions in which research should embark to achieve this comprehensive, systematic, and long-term agenda. In this section I present each of these proposals, three of which have formed the basis for the research questions in my dissertation.

## **Proposal #1: Examine the Entire Juvenile Justice System**

"Research should focus on the entirety of the juvenile justice system by examining multiple decision-making points and processing stages. This report demonstrates how small biases in one part of the system may have an unforeseen and dramatic outcome at later points in the juvenile justice system process. The links across each of the decision-making points, as well as the decisions themselves, should be scrutinized" (National Research Council and Institute of Medicine 2001:259).

The data for this dissertation will allow me to account for a wide range of decisions in the processing of juvenile cases. The decision points include detention, intake, adjudication, and disposition. In accordance with my second research question, my analysis will identify whether a race effect exists at all decision points, or if it is limited to discrete stages in the processing of juvenile cases.

## **Proposal #2: Examine Organizational Policy and Practice**

"Research is needed to examine the role of organizational policy and practice in the production of juvenile arrest, adjudication, and confinement rates and the organizational policy/practice and the decisions of individual officials. Research should especially target police-juvenile encounters, prosecutorial practices, and correctional processes. Challenges to the research community should be issued to develop creative ways to overcome methodological limitations of much existing research" (National Research Council and Institute of Medicine 2001:259).

My dissertation does not directly address this issue, but the same theoretical framework could be applied to the study of organizational policy and practice. In what ways do police, prosecutors, and correctional officials structure their internal policies to allow for discretion in their decisions? How is discretion controlled or limited in their policies and practices? The use of discretion is again fundamental to any analysis of the criminal and juvenile justice systems.

## Proposal #3: Examine Multiple Levels of Analysis

"Research on bias should take into account the fact that problems appear on a local level that do not show up when state-aggregated data provide the only source of information. We need information about private as well as public facilities. Research should also take into account sample selection biases as the screening process operates to filter youth in different directions within the system" (National Research Council and Institute of Medicine 2001:259).

My research questions and the data I have available do not address the concerns of this proposal. I am using statewide data on juvenile offenders who have been referred to the Oklahoma Office of Juvenile Affairs. There is no distinction between public and private facilities in the dataset. While the dataset does identify the county and district for each juvenile, I would want to first develop a theoretically meaningful reason to perform the analysis by splitting the sample by county or district.

#### **Proposal #4: Examine Juveniles' Communities**

"Research is needed to examine how juvenile justice system decisions are influenced by the characteristics of the communities in which different youth live" (National Research Council and Institute of Medicine 2001:259). This is a significant proposal for my dissertation. My first research question asks whether a race effect exists once legal, contextual, and other extralegal variables are controlled. The dataset contains several contextual variables, including the poverty status for each juvenile's zip code and the type of community (urban/town/rural) in which each juvenile lives.

## **Proposal #5: Examine a Diverse Group of Racial and Ethnic Minorities**

"Research should move beyond traditional emphasis on black-white differences to include other minorities and should recognize the diversity within racial and ethnic groups" (National Research Council and Institute of Medicine 2001:259). One of the weaknesses of the race effect literature is the typical comparison between black and white juveniles, without examining a broader range of minority juveniles. One of the greatest strengths of the dataset for this research is its inclusion of American Indian juveniles. Proportionally, Oklahoma has one of the largest populations of American Indians of any state, and this dissertation is a unique opportunity to examine if and how a race effect differs for American Indians than for blacks and other racial minorities. This proposal formed the basis for my third research question.

## **Proposal #6: Examine Urban and Rural Jurisdictions**

"Research should move beyond the traditional focus on urban jurisdictions to include rural and suburban jurisdictions as well" (National Research Council and Institute of Medicine 2001:259). According to Feld (1999) and O'Neill (2002), type of jurisdiction can influence various juvenile justice outcomes, including formal processing and detention. The data available for this dissertation distinguish the type of jurisdiction for each juvenile. Therefore, I have the opportunity to control for variation between rural and urban jurisdictions.

## SUMMARY

The theoretical framework for my dissertation is that discretion is a fundamental component of the juvenile justice process; police, prosecutors, and judges typically exercise great discretion in their decisions. This allows for the introduction of a variety of legal, extralegal, and contextual factors to enter into their decisions. The empirical framework for my dissertation is the evidence in the literature that legal, extralegal, and contextual factors do affect juvenile justice decision-making. The methodological framework for my dissertation is the set of proposals by the National Research Council and Institute of Medicine (2001), which calls for examining multiple decision points, the community context, and a diverse group of minorities. I apply these frameworks to the question of whether a race effect exists in decisions made in Oklahoma's juvenile justice system. In the next section, I reiterate my three research questions, and I provide a testable hypothesis for each.

## **RESEARCH QUESTIONS AND HYPOTHESES**

Decisions regarding detention, filing, and adjudication and custody are made by different actors at various stages of juvenile case processing. This variation may be responsible for the mixed nature of the race effect literature. Based on the mixed findings in the research, I expect the effects of race in this analysis to differ both by decision point and by minority group. For this dissertation, I have chosen research questions that respond to specific needs identified by the National Research Council and Institute of Medicine (2001), and I have developed a testable hypothesis for each question. In the following table, I present each research question and its related hypothesis. I test these hypotheses in my analysis, which begins in Chapter IV. Table 1. Research Questions and Hypotheses

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Research Question	Hypothesis				
#1	#1				
Is there a race effect when accounting or	After controlling for relevant legal,				
controlling for legal, contextual, and	extralegal, and contextual variables, the				
other extralegal variables?	data will show evidence of a race effect.				
#2	#2				
If there is a race effect, does it exist at all	The race effect will differ by decision				
decision points, or is it limited to discrete	point; race will have a direct effect on				
stages in the processing of juvenile	some decisions and not on others.				
cases?					
#3	#3				
If there is a race effect, do individuals of	At some decision points, different				
different minority groups experience the	minority groups will experience the same				
same race effect, or does this effect differ	race effect. At other decision points, the				
by minority group?	race effect will differ by minority group.				

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## **CHAPTER III – RESEARCH DESIGN**

## DATA

#### Source of Data

The Oklahoma Office of Juvenile Affairs (OJA) provided the data for this research. The OJA maintains a management information system known as the Judicial On-Line Tracking System, or JOLTS. The JOLTS database maintains information on juveniles who are referred to the juvenile justice system as they progress through the various stages of juvenile case processing, including detention, intake, adjudication, and disposition. The system is designed as a network that "links the judiciary, district attorneys, juvenile detention centers, youth services agencies and shelters, juvenile institutions/groups homes, Juvenile Bureaus and Office of Juvenile Affairs personnel" (Office of Juvenile Affairs 2001). The system allows these groups to enter and access information in this statewide database.

## Sample Information

The JOLTS data used for this research are based on juveniles referred to Oklahoma's juvenile justice system between July 1, 1999 and June 30, 2001. For each juvenile, the most recent referral in that two-year period is included in the database for this analysis. Researchers in the Department of Sociology at the University of Oklahoma have painstakingly selected, arranged, and cleaned these data so that a flat file exits, in which each row of the database reflects information related to the most recent referral for each juvenile. The original database contained 25,511 juveniles. As

I explained in Chapter II, I am limiting my analysis to males, which reduces the total sample size available for analysis to 17,473 juveniles. In the following sections I identify the dependent and independent variables I am using in the analysis.

## VARIABLES USED IN THE ANALYSIS

### **Dependent Variables**

The data for this analysis allow me to examine juvenile justice decisionmaking at four stages of juvenile case processing: detention, intake, adjudication, and disposition. For each stage, I am using a dichotomous dummy variable to indicate whether or not a juvenile received a specified outcome. In this dissertation, I will be analyzing the extent to which a race effect exists at each of these four stages. In addition to this section, I have specified the operational definition, codes, and univariate descriptive statistics for each dependent variable in Table 2.

*Detained*. Detention personnel from the Office of Juvenile Affairs are responsible for detention decisions. When police arrest a juvenile, they take him or her to a secure detention facility. Detention personnel typically conduct a screening process, during which they determine the need for detention until the juvenile's first appearance in court. Detention personnel have discretion in their decisions, but they are also guided by standard assessments of risk. In the JOLTS database, this type of detention is referred to as an arrest-related detention.

## **Operational Definition and Codes for Each Dependent Variable**

## Detained

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Did juvenile justice detention personnel detain the juvenile for the current referral through an arrest related detention?

1 = Yes

0 = No

## Filed

Did the district attorney file a petition for delinquency with the courts?

1 = Yes0 = No

## Adjudicated

Did the judge adjudicate the juvenile as guilty?

1 = Yes0 = No

## Custody

Did the judge place the adjudicated delinquent juvenile under custody?

1 = Yes0 = No

## Univariate Descriptive Statistics for Each Dependent Variable

Dependent Variable	Sample Size for Each Stage	Percent Coded as 1 = Yes, with N	Percent Coded as 0 = No, with N
Detained	17,473	11.4 (1,993)	88.6 (15, 480)
Filed	17,113	33.5 (5,726)	66.5 (11,387)
Adjudicated	5,587	73.9 (4,130)	26.1 (1,457)
Custody	4,130	31.4 (1,298)	68.6 (2,832)

For this analysis, my first dependent variable, *Detained*, indicates whether or not OJA personnel detained a juvenile for the current referral through an arrestrelated detention. Juveniles that were detained receive a score of 1, and juveniles not detained are coded as 0. As Table 2 indicates, 11.4 percent of the 17,473 juveniles in the sample were detained for the current referral.

*Filed.* The intake stage involves the decision of how to handle a referral. According to the Oklahoma state profile from the National Center for Juvenile Justice (2003), "the District Attorney's Office receives referrals from law enforcement and recommendations from duly authorized intake staff to file a petition. The District Attorneys screen referrals for legal sufficiency, and have the final decision on whether cases can be handled informally or will be petitioned to the courts for adjudication." As this statement implies, district attorneys exercise discretion in their intake decisions.

My second dependent variable measures whether or not the district attorney filed a petition of delinquency with the courts. The JOLTS database maintains information on several intake decisions: filed; filed with a motion to certify the juvenile as an adult; filed as a youthful offender; informal probation; diverted; declined or dismissed; and no action taken. My intent is to compare cases that were filed to those that were either handled informally (informal probation and diverted) or were dismissed. For the purposes of this analysis, I am excluding cases that were filed with a motion to certify the juvenile as an adult or as a youthful offender. In these cases, district attorneys are applying a different set of discretionary criteria, which suggests that these cases are being filed for different reasons than those cases that are categorized as filed. I am also excluding those cases in which no action was taken. These exclusions reduce the sample size by 360. The *Filed* dummy variable is coded as 1 if a filing occurs, and it is coded as 0 if informal probation, diversion, or dismissal occurs. As indicated in Table 2, district attorneys filed petitions for delinquency in 33.5 percent of these referrals (N=5,726). The remaining 11,387 referrals were dismissed, diverted, or given informal probation.

*Adjudicated.* Being adjudicated guilty in juvenile delinquency court is analogous to being convicted in adult criminal court. This discretionary decision rests with the judge. When the district attorney decides to file a petition for delinquency, the court is then responsible for adjudicating the case, which means that the judge will determine if the juvenile is guilty of the alleged charges specified in the petition.

In the JOLTS database, several possible adjudication decisions are recorded. A juvenile may be adjudicated guilty or adjudicated guilty as a youthful offender. A judge may withhold adjudication and order informal probation. A judge may dismiss the petition altogether, and if necessary, the judge may transfer the juvenile to adult criminal court. For purposes of analysis, I am interested in comparing those juveniles who were adjudicated guilty to those who received informal probation or who had their petitions dismissed. Consistent with my decisions for the variable *Filed*, I am excluding those juveniles who were adjudicated guilty as youthful offenders and those who were transferred to adult criminal court. The third dependent variable, *Adjudicated*, is a dichotomous variable coded as 1 if the judge adjudicated a juvenile as guilty, and as 0 if the judge granted informal probation or dismissed the petition. My analysis of adjudicatory decisions is limited to those cases in which the district attorney filed a petition for delinquency. Of the 5,587 cases with available data, judges adjudicated juveniles as guilty in 4,130 cases, or 73.9 percent of the total (see Table 2).

*Custody*. During the disposition decision point, a judge sentences a juvenile. For those juveniles who have been adjudicated guilty, judges typically impose probation or custody as the disposition. Probation can involve a host of sanctions, including curfews, community service, and restitution, but the juvenile is not physically confined in a secure commitment facility. At her discretion, a judge may grant probation to juveniles, particularly if they have committed less serious offenses or have no prior history. Custody, on the other hand, involves juveniles who are deemed to be a greater risk or who committed more serious offenses. Custody placements range from group homes to secure institutions.

A judge may also dispose of cases where the juveniles are <u>not</u> adjudicated guilty. In these cases, a variety of dispositions are available at the judge's discretion. These include fines, diversion programs, and dismissals. In this analysis, I am particularly interested in custody as the most serious disposition. The original focus of DMC was confinement, and it is in the decision of whether or not to confine a juvenile that a race effect is most salient. Therefore, in my analyses where *Custody* is the dependent variable, I am excluding all cases that were not filed and adjudicated as guilty. My fourth dependent variable is coded as 1 when judges imposed custody on a juvenile, and as 0 when any other outcome, primarily probation, was granted. As shown in Table 2, for the 4,130 juveniles adjudicated as guilty, judges ordered custody for 31.4 percent of the group (N=1,298). For the 2,832 juveniles not ordered into custody, judges placed 91.1 percent of the juveniles on probation; the remaining juveniles received a fine, a miscellaneous disposition, or a dismissal (analysis not shown).

#### Independent Variables

I have categorized my independent variables into three groups, consistent with my discussion of these concepts in the literature review. These groups are legal, extralegal, and contextual variables. In the following sections I identify the specific variables I use to measure these concepts. In addition, in Table 3 I have included these variables, along with the means and standard deviations for interval-level variables, and the percent distributions for nominal-level dummy variables.

Legal variables: prior history. My first measure of prior history is the total number of prior counts for a juvenile, which is an interval-level variable. My second measure of prior history is the average severity for all prior counts. The Office of Juvenile Affairs assigns a severity score to each type of offense. This variable is created by summing the severity scores for all prior counts, and then dividing by the number of prior counts. These two variables allow me to measure both the extent and severity of a juvenile's prior offending behavior.

Variable	Mean <sup>a</sup>	S.D. <sup>b</sup>
Legal Variables		
Prior History		
Total prior counts	2.16	3.85
Average severity of prior counts	18.92	20.66
Severity of the Current Offense		
Total current counts	1.42	1.23
Average severity of current counts	38.17	14.49
<b>Pre-Adjudication Detention</b>		
Arrest related detention	1 = Yes (11.4%)	0 = No (88.6%)
Extralegal Variables		
Age		
Age at time of referral, in years	15.09	2.01
Race		
Black	1 = Yes (17.7%)	0 = No (82.3%)
Hispanic	1 = Yes (05.7%)	0 = No (94.3%)
American Indian	1 = Yes (12.4%)	0 = No (87.6%)
(White is reference category)		
Contextual Variables		
Poverty Status		
Percent of families below poverty, by zip	12.91	6.46
Type of Community		
Metropolitan area	1 = Yes (33.7%)	0 = No (66.3%)
City/town area	1 = Yes (22.9%)	0 = No(77.1%)
(Rural area is reference category)	· · ·	

## Table 3. Independent Variables Used in the Analysis

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Note: Number of cases equals 17,473 for all variables.
<sup>a</sup> Codes and percent distributions are presented for dichotomous variables.
<sup>b</sup> S.D. is the standard deviation for each interval-level variable.

*Legal variables: severity of the current offense*. The two variables I use to measure severity of the current offense are similar to the variables for prior history. First, I use an interval-level variable that measures the total number of counts in the most current referral. Second, I use the average severity of all current counts, which is created by summing the severity scores for all current counts and dividing by the number of current counts.

Legal variables: pre-adjudication detention. For my analyses of Filed, Adjudicated, and Custody, I include a measure of arrest-related detention as a covariate. This is a dummy variable for which juveniles who were detained receive a score of 1, and juveniles not detained are coded as 0.

*Extralegal variables: age*. My age variable is an interval-level measure of a juvenile's age, in years, at the time of the current referral.

*Extralegal variables: race.* The following racial categories are identified in the data for this research: white, black, Hispanic, and American Indian. Asians and other minority juveniles have been excluded from the analysis because of small sample sizes. Based on this nominal-level variable, I use three dummy variables for the black, Hispanic, and American Indian categories. White serves as the reference category for these dummy variables.

*Contextual variables: poverty status*. This variable presents the percent of families living below the poverty level in 1999 in each juvenile's zip code.

*Contextual variables: type of community.* I use two dummy variables to measure variation in type of community. Based on a nominal-level jurisdiction

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variable, I use a metropolitan area dummy variable and a city/town dummy variable. The reference category for each variable is rural area.

## ANALYTIC TECHNIQUE

## The Problem: OLS Regression and Dichotomous Dependent Variables

In explaining the effects of multiple variables on variation in a dependent variable, ordinary least squares (OLS) regression is commonly used. OLS techniques allow a researcher to estimate the average effect of an independent variable on variation in a dependent variable, after accounting or controlling for the effects of other covariates. One assumption of OLS regression is that the dependent variable is measured at the interval level. Each of the four dependent variables in my analysis is a dichotomous nominal-level variable, which poses a substantial challenge to the use of standard multiple regression techniques.

## The Solution: Binary Logistic Regression

Fortunately, this challenge can be met by employing an alternative regression technique: binary logistic regression. In logistic regression, the dependent variable is typically a binary categorical variable, although ordinal-level measures can be analyzed with this procedure. The regression analysis transforms the dependent variable into a number referred to as a logit, which is the natural logarithm of the odds of a case being coded as 1. The dependent variable's value can now be expressed within the range of plus-or-minus infinity, rather than being restricted to a value between 0 and 1 (DeMaris 1992, 1995).

The values associated with covariates also change when using logistic regression. Using OLS regression, each covariate has an unstandardized regression coefficient, which can be interpreted as the average change in the dependent variable for every one-unit change in the independent variable. When using logistic regression, the unstandardized logit coefficient refers to the average change in the log of the odds of a case being coded as 1 on the dependent variable, for every one-unit change in the covariate (Menard 1995). This interpretation is not as intuitive as the coefficient's meaning in OLS regression. Fortunately, logistic regression also produces a statistic known as an odds ratio, which is computed as the exponential form of the unstandardized logit coefficient. The odds ratio compares the relative odds of each category of the independent variable being coded as 1 on the dependent variable. While the odds ratio tells us nothing more about the relationship than does the regression coefficient, it does have a more intuitive meaning.

The summary statistics I present for each model in the analyses are the -2 Log Likelihood, the Nagelkerke R-Square, and the sample size, N. The SPSS output for logistic regression does not contain a summary statistic completely analogous to the R-Square for multiple linear regression. SPSS does produce a few pseudo R-Squares, including the Cox and Snell R-Square and the Nagelkerke R-Square. The Nagelkerke R-Square (Nagelkerke 1991) modifies the Cox and Snell statistic by making 1.0 the maximum possible value. It is a less conservative measure than the Cox and Snell statistic, but it has a more intuitive meaning as a measure of strength of relationship.

## **CHAPTER IV – ANALYSIS AND RESULTS**

The following analyses are presented in seven parts. First, I compare the racial distributions of the Oklahoma juvenile population and the sample of juveniles referred to the Oklahoma Office of Juvenile Affairs (OJA). Second, I discuss a selection of bivariate correlations that are meaningful to the present analysis. The next four sections represent the primary objective of this analysis, which is to measure the effects that race and other extralegal, legal, and contextual variables have on juvenile justice decisions at detention, intake, adjudication, and disposition. In the final section, I summarize how the data support or fail to support my three hypotheses.

## **RACIAL DISTRIBUTIONS FOR THE POPULATION AND SAMPLE**

As a starting point for examining race effects, it is useful to note the extent to which minorities are overrepresented in Oklahoma's juvenile justice system, relative to their proportion in the general juvenile population. Puzzanchera et al. (2002) report that in 1999, Oklahoma's population contained 882,066 juveniles ages 0 to 17. Of these juveniles, 411,257 ranged in age from 10 to 17; the sample of juveniles referred to the Office of Juvenile Affairs had an age range of 8 to 18. Therefore, I will compare the OJA sample with the juvenile population ranging in age from 10 to 17.

In 1999, white juveniles represented 78.1 percent of the juvenile population age 10 to 17. Black juveniles comprised 10 percent of the juvenile population, and American Indians comprised 10.6 percent. Hispanic juveniles represented 5.4 percent of Oklahoma's juvenile population in 1999, but it is important to note that in these data, Hispanic juveniles may be of any race, so these racial categories are not mutually exclusive.

How does this percentage distribution compare to that of the OJA sample? As I show in Table 3, of the 17,473 juveniles in the analysis, 17.7 percent are black, 5.7 percent are Hispanic, and 12.4 percent are American Indian. The remaining 64.2 percent of the OJA sample is white. A comparison of these two percentage distributions indicates that each of these minority groups is overrepresented in Oklahoma's juvenile justice system (see Figure 1 below). Black juveniles appear to have the greatest degree of overrepresentation.



As I discussed in Chapter II, minority overrepresentation may be due to a variety of factors. These factors include racial differences in offending behavior, and bias and discrimination in the juvenile justice system. In the remaining analyses, I examine the extent to which bias and discrimination exist by measuring statistical race effects at each stage of juvenile case processing.

## **BIVARIATE CORRELATION ANALYSIS**

Table 4 presents the Pearson product-moment correlation coefficients for all variable pairs in the analysis. Technically, a correlation coefficient (symbolized as r) is a measure of association between two interval-level variables (Loether and McTavish 1993). With values ranging from -1.0 to 1.0, it refers to the covariance between two variables, relative to the maximum possible covariance (Blalock 1979). Many of the variables in Table 4 are dichotomous nominal-level variables, and while caution should be used in interpreting correlation coefficients for nominal-level variables, these statistics are a useful starting point for measuring race effects.

First, I examine the <u>extralegal</u> variables. To assess whether a race effect exists at the bivariate level, I have included *White* as a variable in Table 4. White juveniles are the reference category for *Black*, *Hispanic*, and *American Indian* in the logistic regression equations. Table 4 indicates that at the bivariate level, there is a race effect at three stages of juvenile case processing. Compared to minorities as a group, white juveniles are less likely to be detained (r = -.115), less likely to have delinquency petitions filed (r = -.087), and less likely to be ordered into custody (r = -.066). The correlation coefficient for the *White-Adjudicated* variable pair is positive, but not statistically significant (r = .011). Age, the other extralegal variable, is significantly correlated with *Detained*, *Filed*, and *Custody*, but not *Adjudicated*.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1) Detained	1.000																
(2) Filed	.285***	1.000															_
(3) Adjudicated	.132***	.a	1.000										_				
(4) Custody	.176***	.a	.a	1.000									_				_
(5) White <sup>b</sup>	115***	087***	.011	066***	1.000								_				
(6) Black	.140***	.110***	040**	.033*	622***	1.000				<u></u>			_				
(7) Hispanic	.023**	.020**	026*	011	329***	114***	1.000										<u> </u>
(8) American Indian	010	014	.056***	.063***	504***	174***	092***	1.000				—	_				
(9) Age	.100***	.099***	008	037*	.023**	029***	.008	005	1.000				_		_		_
(10) Poverty Status	.119***	.080***	.001	.055***	327***	.293***	.076***	.082***	031***	1.000							
(11) Metro	.198***	.211***	122***	184***	147***	.293***	.041***	155***	.028***	.100***	1.000			_		_	
(12) City/Town	052***	068***	.080***	.065***	.072***	036***	044***	032***	.001	17 <b>9***</b>	389***	1.000				_	
(13) Rural	144***	144***	.062***	.136***	.079***	249***	002	.175***	027***	.056***	624***	477***	1.000				
(14) Total Prior Counts	.266***	.215***	.012	.326***	129***	.132***	008	.040***	.234***	.094***	.082***	018*	063***	1.000			
(15) Prior Average Score	.219***	.287***	.064***	.188***	111***	.110***	.002	.033***	.255***	.078***	.068***	020**	048***	.518***	1.000		
(16) Total Current Counts	.099***	.169***	.089***	.054***	.002	035***	.015*	.027***	.064***	004	020**	017*	.034***	.054***	.059***	1.000	
(17) Current Average Score	.146***	.270***	.097***	.058***	032***	.050***	.018*	023**	028***	.023**	.055***	041***	017*	.008	.035***	.068***	1.000

Table 4. Pearson Correlation Coefficients for All Variable Pairs in the Analysis

\* Correlation cannot be computed because at least one of the variables is constant. <sup>b</sup> The dummy variable *White* is included here for comparison purposes but is the reference category for *Black*, *Hispanic*, and *American Indian* in the logistic regression equations.

\* $p \le .05$  \*\* $p \le .01$  \*\*\* $p \le .001$  (two-tailed tests)

The <u>contextual</u> variables are also significantly correlated with the dependent variables. Poverty status is positively associated with *Detained*, *Filed*, and *Custody*. *Metro* is positively correlated with *Detained* and *Filed*, but is negatively correlated with *Adjudicated* and *Custody*. In contrast, *City/Town* and *Rural* are negatively correlated with *Detained* and *Filed*, but are positively associated with *Adjudicated* and *Custody*.

The jurisdiction variables are also associated with the four race variables. White juveniles are less likely to live in metro areas and more likely to reside in cities/towns and rural areas. Blacks and Hispanics, in contrast, are more likely to live in metro areas and less likely to live in cities/towns and rural areas. Table 4 also indicates that American Indians are less likely to live in metropolitan jurisdictions and cities/towns, and they are more likely to live in rural areas. Finally, white juveniles are less likely to live in high poverty areas, while *Black*, *Hispanic*, and *American Indian* are all positively correlated with *Poverty Status*.

I had originally planned to include median family income in each juvenile's zip code as a covariate. However, the bivariate correlation between median family income and poverty status was -.824, which suggested that multicollinearity could be a problem in the analysis. This problem was evidenced in preliminary regression equations, where median family income had significant coefficients of .000. Therefore, I chose to exclude median family income in my final analyses.

With the exception of one coefficient, each of the <u>legal</u> variables is positively and significantly correlated with the four dependent variables. Juveniles who have

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more prior counts and higher prior average scores are more likely to be detained, filed, and placed in custody. Juveniles with higher prior average scores are also more likely to be adjudicated guilty. Similarly, juveniles who have more current counts and higher current average scores are more likely to be detained, filed, adjudicated, and placed in custody. Juveniles with an arrest-related detention are more likely to have delinquency petitions filed, more likely to be adjudicated guilty, and more likely to be placed in custody.

Compared to minorities, white juveniles have fewer prior counts, lower prior average scores, and lower current average scores. Older juveniles have more prior and current counts, as well as higher prior average scores. *Age* is inversely correlated with *Current Average Score*, however. Juveniles from higher poverty areas have more prior counts and higher average scores for both prior and current counts. Juveniles from metropolitan areas have more prior counts and higher average scores for prior and current counts. Metropolitan juveniles have fewer current counts, however, relative to juveniles from cities/towns and rural areas. Juveniles from cities and towns have fewer prior and current counts, and lower average scores for prior and current counts. Juveniles living in rural areas have fewer prior counts and lower average scores for prior and current counts, but they have more current counts, relative to juveniles in other jurisdictions.

## LOGISTIC REGRESSION ANALYSES

I present binary logistic regressions in Tables 5 through 8. For the analysis of each dependent variable, I have entered the covariates in five separate models. I examine the effects of *Black, Hispanic*, and *American Indian* in model I. For model II, I add *Age* as the additional extralegal variable. Model III adds the contextual variables, *Poverty Status, Metro*, and *City/Town*, to the extralegal variables. In model IV, I account for both the extralegal and legal variables (*Total Prior Counts, Prior Average Score, Total Current Counts, and Current Average Score).* Earlier I discussed how pre-adjudication detention can affect subsequent outcomes in the juvenile justice system. Model IV, therefore, also contains *Detention* as a legal variable in Tables 6 through 8. Finally, model V presents regression coefficients for all covariates. In accordance with my research questions and hypotheses, my primary objective as I progress through these models is to assess the extent to which a race effect exists.

## Detained

The dependent variable in Table 5 is *Detained*, or the log of the odds of a case being detained. The odds ratios in model I indicate that relative to white juveniles, blacks (Exp(b) = 2.798), Hispanics (Exp(b) = 1.777), and American Indians (Exp(b) =1.242) are more likely to be detained. Black juveniles are 2.8 times more likely to be detained than whites. Hispanics are 78 percent more likely to be detained, and American Indians are 24 percent more likely to be detained. Consistent with the bivariate correlation in Table 4, this finding suggests that a bivariate race effect exists. Now, in the following models I control for other extralegal, contextual and legal variables.

Variables	Ι	II	III	IV	V
Black	1.029*** (2.798)	1.070*** (2.916)	.498*** (1.645)	.772*** (2.163)	.250*** (1.284)
Hispanic	.575*** (1.777)	.580*** (1.786)	.305** (1.357)	.476*** (1.610)	.249* (1.283)
American Indian	.216** (1.242)	.231** (1.259)	.372*** (1.451)	.033 (1.033)	.210 <b>*</b> (1.233)
Age		.198*** (1.219)	.199*** (1.220)	.085*** (1.089)	.086*** (1.090)
Poverty Status			.031*** (1.032)		.025*** (1.026)
Metro			1.227*** (3.412)		1.246*** (3.476)
City/Town			.392*** (1.480)		.443*** (1.558)
Total Prior Counts				.093*** (1.098)	.091*** (1.096)
Prior Average Score				.020*** (1.020)	.020*** (1.020)
Total Current Counts				.173*** (1.189)	.196*** (1.216)
Current Average Score				.033*** (1.034)	.033*** (1.034)
-2 Log Likelihood	12071.179	11857.401	11324.860	10574.454	10112.485
Nagelkerke R-Square	.037	.061	.118	.196	.242
Ν	17473	17473	17473	17473	17473

# Table 5. Coefficients from Logistic Regression of Detained on Covariates:Detained (1) vs. Not Detained (0)

Note: Numbers in parentheses are odds ratios.

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\* $p \le .05$  \*\* $p \le .01$  \*\*\* $p \le .001$  (two-tailed tests)

I add *Age* in model II, and all four regression coefficients are positive and statistically significant. The odds ratio for *Black* is 2.916, which means that controlling for age, black juveniles are 2.9 times more likely to be detained than white juveniles. Hispanic and American Indian juveniles are also more likely than whites to be detained. Every additional year of age increases the odds of detention by 22 percent.

In model III, I test for a race effect while controlling for age and contextual variables. While the coefficients for age and each of the contextual variables are significant, blacks, Hispanics, and American Indians remain more likely to be detained than whites. Each of the legal variables in model IV is positive and statistically significant, as is age, and a race effect continues to exist for blacks and Hispanics. The coefficient for *American Indian* is not significant in model IV.

The last model in Table 5 suggests that a multivariate race effect does exist in decisions regarding arrest-related detentions. After controlling for all covariates, blacks are 28 percent more likely to be detained than whites, Hispanics are 28 percent more likely to be detained, and American Indians are 23 percent more likely to be detained. Each additional year of age increases the odds of detention by nine percent.

The analysis indicates that each contextual and legal variable is also significantly associated with *Detained*. Juveniles from higher poverty areas are more likely to be detained than juveniles from lower poverty areas. Relative to juveniles living in rural areas, juveniles from metropolitan jurisdictions are 3.5 times more likely to be detained, and those living in cities/towns are 1.6 times more likely to be detained. Coefficients for the legal variables indicate that increased odds of detention are related to increases in prior and current counts and higher average scores for prior and current counts. To summarize the findings from Table 5, the data do suggest that in decisions regarding detention, there is a race effect.

## Filed

The dependent variable in Table 6 is *Filed*, or the log of the odds of a delinquency petition being filed. The regression coefficients for each race variable are positive in model I, but only *Black* (b = .616) and *Hispanic* (b = .311) are statistically significant. The odds ratios indicate that relative to whites, black juveniles are 85 percent more likely to have a delinquency petition filed, and Hispanics are 37 percent more likely to have a petition filed. Without accounting or controlling for covariates, the data suggest that a bivariate race effect exists in filing decisions for black and Hispanic juveniles, but not for American Indian juveniles.

The race effect findings in model II are the same as in model I. After adding *Age* to the equation, the coefficients for *Black* and *Hispanic* remain positive and significant. Increases in age are also associated with increased odds of having a petition filed. After controlling for age and contextual variables in model III, all three race variables are positive and statistically significant. After accounting for legal variables and age in model IV, only black and Hispanic juveniles have greater odds of being filed on than whites. As was the case in models I and II, these data suggest that a race effect exists in filing decisions for black and Hispanic juveniles, but not for American Indian juveniles.

Variables	I	II	III	IV	V
Black	.616*** (1.852)	.644*** (1.905)	.252 <b>***</b> (1.287)	.369*** (1.447)	.031 (1.031)
Hispanic	.311**** (1.365)	.312*** (1.367)	.150* (1.162)	.162* (1.175)	.043 (1.044)
American Indian	.0 <b>5</b> 9 (1.061)	.070 (1.073)	.169** (1.184)	045 (.956)	.065 (1.068)
Age		.116*** (1.123)	.113*** (1.120)	.037 <b>***</b> (1.038)	.035*** (1.035)
Poverty Status		_	.017*** (1.017)		.011*** (1.011)
Metro			.900*** (2.461)	—	.879*** (2.408)
City/Town			.129** (1.137)		.148** (1.160)
Total Prior Counts				.030*** (1.030)	.029*** (1.030)
Prior Average Score	_			.024 <b>***</b> (1.024)	.024*** (1.025)
Total Current Counts				.391*** (1.479)	.421*** (1.523)
Current Average Score				.045*** (1.046)	.045*** (1.046)
Detained				1.186*** (3.275)	1.006*** (2.734)
-2 Log Likelihood	21595.386	21405.564	20797.579	17887.591	17461.484
Nagelkerke R-Square	.018	.033	.080	.285	.312
N	17113	17113	17113	17113	17113

## Table 6: Coefficients from Logistic Regression of Filed on Covariates:Filed (1) vs. Informal Probation, Diversion, Dismissal (0)

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Note: Numbers in parentheses are odds ratios.

\* $p \le .05$  \*\* $p \le .01$  \*\*\* $p \le .001$  (two-tailed tests)

Model V adds all covariates to the regression equation. In this model, older juveniles are more likely to have a delinquency petition filed. Juveniles from higher poverty areas, metropolitan jurisdictions, and cities/towns are also more likely to have delinquency petitions filed. Relative to juveniles from rural areas, juveniles living in metropolitan jurisdictions are 2.4 times more likely to have a petition filed.

Juveniles with more prior and current counts and higher average scores for prior and current counts are more likely to have a petition filed. In addition, those juveniles who had an arrest-related detention are 2.7 times more likely to have a delinquency petition filed than juveniles who were not detained. After controlling for all covariates, however, the race variables are no longer significant. While each race coefficient is positive, none reaches the level of statistical significance. In addition, the odds ratios indicate that each group's odds of having a delinquency petition filed are practically equal to the odds of whites (Exp(b) for Black = 1.031; Exp(b) for Hispanic = 1.044; Exp(b) for American Indian = 1.068). To summarize, the data suggest that once relevant variables are controlled, no race effect exists in the filing decision.

## Adjudicated

The dependent variable in Table 7 is *Adjudicated*, or the log of the odds of being adjudicated guilty. In model I the data suggest that a race effect does exist, but only for black and American Indian juveniles. The race effect for blacks is negative, however (Exp(b) = .835), which means than on average, black juveniles are 16.5

Variables	I	II	III	IV	V
Black	181* (.835)	182* (.834)	053 (.948)	306*** (.736)	147 (.864)
Hispanic	241 (.786)	240 (.787)	176 (.839)	352** (.703)	264* (.768)
American Indian	.371*** (1.449)	.370*** (1.448)	.278 <b>*</b> (1.321)	.358*** (1.431)	.269* (1.308)
Age		011 (.989)	004 (.996)	030 (.970)	027 (.973)
Poverty Status		_	.008 (1.009)		.005 (1.005)
Metro			445*** (.641)		527*** (.590)
City/Town			.241* (1.273)		.248* (1.282)
Total Prior Counts				014 (.986)	014 (.986)
Prior Average Score				.010*** (1.010)	.011*** (1.011)
Total Current Counts		_		.244*** (1.276)	.224*** (1.251)
Current Average Score				.015*** (1.015)	.013*** (1.013)
Detained				.717*** (2.048)	.824*** (2.280)
-2 Log Likelihood	6385.306	6384.921	6310.945	6132.793	6043.901
Nagelkerke R-Square	.007	.007	.026	.072	.094
N	5587	5587	5587	5587	5587

# Table 7. Coefficients from Logistic Regression of Adjudicated on Covariates:Guilty (1) vs. Informal Probation, Dismissal (0)

*Note*: Numbers in parentheses are odds ratios.

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\* $p \le .05$  \*\* $p \le .01$  \*\*\* $p \le .001$  (two-tailed tests)
percent less likely to be adjudicated guilty than white juveniles. The odds ratio for *American Indian* (Exp(b) = 1.449) indicates that relative to whites, American Indians are 45 percent more likely to be adjudicated. The effect for *Hispanic* is negative but not significant. There is a bivariate race effect in model I, but its effect on the adjudication decision is not uniform across the race variables.

The variable *Metro* is worth noting in model III. The odds ratio for *Metro* indicates that relative to juveniles in rural areas, juveniles from metropolitan jurisdictions are 36 percent less likely to be adjudicated guilty. In the bivariate analysis, I indicated that American Indian juveniles are more likely to live in rural areas, so one could expect American Indians to have greater odds of adjudication in part because they are concentrated in rural areas. Indeed, model III indicates that relative to whites, American Indians are more likely to be adjudicated guilty. In addition, the magnitude of the logit coefficient for *American Indian* is reduced, relative to its size in models I and II, when *Metro* is controlled. In decomposing this race variable, one observes that part of the effect of *American Indian* on *Adjudicated* is due to the concentration of American Indians in rural areas, where juveniles are more likely to be adjudicated guilty.

The direction and significance of the other race coefficients remain fairly consistent in models II through IV. The coefficient for *Hispanic* is negative in models II through IV, and it reaches statistical significance when age and legal variables are included in the equation. Likewise, the coefficient for *Black* remains negative throughout these models, and it is significant in models II and IV. Overall, the data

from these three models suggest that a race effect does exist for blacks, Hispanics, and American Indians. However, for blacks and Hispanics, the effect is one in which they are less likely to be adjudicated guilty than whites.

The final model in Table 7 indicates that a race effect exists for Hispanics and American Indians. Hispanics continue to have lower odds of being adjudicated guilty than white juveniles, and American Indians are 31 percent more likely to be adjudicated guilty than whites. The coefficient for *Black* (b = -.147) failed to reach a level of statistical significance, but it remained negative. Juveniles from cities/towns are more likely than juveniles from rural areas to be adjudicated guilty.

Consistent with model III, juveniles who live in metropolitan jurisdictions are less likely than those in rural areas to be adjudicated. This could explain the negative coefficients for blacks and Hispanics, who are concentrated in metropolitan jurisdictions. For black juveniles, the logit coefficient fails to reach statistical significance in the two models in which *Metro* is controlled. The effect of *Metro* also reduces the magnitude of the logit coefficient for American Indians, who are more likely to reside in rural areas and are therefore more likely to be adjudicated.

Four of the five legal variables are positive and significant. Increases in *Prior Average Score*, *Total Current Counts*, and *Current Average Score* increase the odds of adjudication. Consistent with the literature, the effect of detention on juvenile justice decision-making is evident in this analysis. Juveniles who are detained on an arrest-related detention are 2.3 times more likely to be adjudicated guilty than juveniles who are not detained, after controlling for prior history and severity of the current offense. In sum, there is a race effect for Hispanic and American Indian juveniles. For Hispanics, the race effect is negative.

## Custody

The dependent variable in Table 8 is *Custody*, or the log of the odds of a juvenile being placed in custody. In the first model, blacks and American Indians are more likely than whites to be placed in custody. Blacks are 29 percent more likely to be placed in custody, and American Indians are 58 percent more likely to be placed in custody. There is no difference between Hispanic and white juveniles in their odds of custody. As with the analysis of adjudication, the race effect differs by racial and ethnic minority group.

In models II and III, the coefficients for *Black* and *American Indian* continue to be positive and significant. *American Indian* is also significant in model IV, but *Black* is no longer significant. Hispanic remains insignificant throughout the models. In general, age and the contextual and legal variables are significantly associated with change in the dependent variable. In particular, *Metro* is again negative, and its inclusion in model III appears to reduce the magnitude of the effect of *American Indian*.

The final model indicates that after controlling for age, contextual, and legal variables, there is no race effect in juvenile justice decisions regarding custody. Each of the race coefficients is positive, but none reaches the level of statistical significance. *Age* and *Custody* are inversely related, higher levels of poverty are

Variables	I	II	III	IV	v
Black	.251** (1.285)	.245** (1.277)	.530*** (1.700)	173 (.841)	.201 (1.223)
Hispanic	.027 (1.028)	.024 (1.024)	.146 (1.158)	174 (.840)	.001 (1.001)
American Indian	.458*** (1.581)	.454*** (1.574)	.240* (1.272)	.342** (1.408)	.063 (1.065)
Age		044* (.957)	031 (.970)	169*** (.845)	169*** (.844)
Poverty Status			.020*** (1.020)	—	.015 <b>*</b> (1.015)
Metro			-1.056*** (.348)		-1.483*** (.227)
City/Town			096 (.908)		077 (.926)
Total Prior Counts			_	.168*** (1.183)	.179*** (1.196)
Prior Average Score			_	.010*** (1.010)	.013*** (1.013)
Total Current Counts				.078*** (1.081)	.059** (1.061)
Current Average Score				.012*** (1.013)	.011**** (1.011)
Detained				.602*** (1.825)	.907*** (2.476)
-2 Log Likelihood	5116.572	5111.771	4927.995	4528.867	4245.901
Nagelkerke R-Square	.009	.010	.071	.194	.274
N	4130	4130	4130	4130	4130

# Table 8. Coefficients from Logistic Regression of Custody on Covariates:Custody (1) vs. Probation, Other Disposition (0)

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*Note*: Numbers in parentheses are odds ratios.

\* $p \le .05$  \*\* $p \le .01$  \*\*\* $p \le .001$  (two-tailed tests)

associated with greater odds of custody, and juveniles in metropolitan jurisdictions have lower odds of custody than juveniles in rural areas. Juveniles who were detained are 2.5 times more likely to be placed in custody, and increases in prior counts, current counts, prior average scores, and current average scores increase the likelihood of custody.

## DO THE DATA SUPPORT OR FAIL TO SUPPORT THE HYPOTHESES?

In my earlier summary of the race effects literature, I cited McGuire, who said that "the research record provides only inconsistent support for the notion that race significantly influences the treatment of children of color by the juvenile justice system" (2002:2). The analyses presented in this chapter appear to corroborate the inconsistent nature of the research record. In the following sections, I briefly reiterate my research questions, and I discuss how the data support or fail to support my hypotheses. To briefly summarize, I have categorized my findings in Table 9. **Table 9. Summary of Results** 

Dependent Variable	Is There a Race Effect?	
Detained	Black Juveniles:	Yes
	Hispanic Juveniles:	Yes
	American Indian Juveniles:	Yes
Filed	Black Juveniles:	No
	Hispanic Juveniles:	No
	American Indian Juveniles:	No
Adjudicated	Black Juveniles:	No
	Hispanic Juveniles:	Yes (-)*
	American Indian Juveniles:	Yes
Custody	Black Juveniles:	No
	Hispanic Juveniles:	No
	American Indian Juveniles:	No

*Note*: The race effects refer to differences between each minority group and white juveniles.

\* Hispanic juveniles are less likely to be adjudicated guilty than whites.

## Is There a Race Effect?

In my first hypothesis, I predicted that after controlling for relevant legal, extralegal, and contextual variables, the data would show evidence of a race effect. I designed this hypothesis as a general prediction covering all stages of juvenile case processing. Taking these findings as a whole, the data do support my hypothesis. The analyses indicate a clear race effect in the decision to detain a juvenile, and there is evidence of a race effect in the adjudication decision as well. There is <u>not</u> a single race effect that operates uniformly across the various stages of juvenile case processing and across different racial and ethnic minority groups. Indeed, the race effect varied across these dimensions. I will address these differences in the next two

sections. To summarize my answer to the research question, this dissertation does show evidence of a race effect in juvenile justice decisions.

#### Does a Race Effect Exist at All Decision Points?

In my second hypothesis, I predicted that the race effect would differ by decision point. I expected that race would have a direct effect on some decisions and no direct effect on other decisions. The data support this hypothesis as well. As I indicated in the previous section, the data show evidence of a race effect in decisions to detain and to adjudicate, but not in decisions to file and to order custody. To answer the research question, there is a race effect, but it does not exist at all decision points.

## Does the Race Effect Differ by Minority Group?

In my third hypothesis, I predicted that different minority groups would experience the same race effect at some decision points, and that at other decision points, the race effect would differ by minority group. The data also support this hypothesis. All minority groups had greater odds of being detained than did whites, but the race effect differed for each minority group in the decision to adjudicate. In the decisions to file and to place in custody, the race effect (or lack of one) did not differ by minority group. For blacks, Hispanics, and American Indians, the odds of having a delinquency petition filed and the odds of being placed in custody were equal to the odds for white juveniles. To summarize my answer to the research question, there is some evidence that the race effect differs by minority group.

#### **CHAPTER V -- CONCLUSION**

In this dissertation I have addressed the problem of disproportionate minority contact. I used data from a sample of males in Oklahoma's juvenile justice system to conduct this examination. My goal has been to determine the extent to which a juvenile's race influences the decisions to detain a juvenile, to file a delinquency petition, to adjudicate a juvenile as guilty, and to place a juvenile in custody. To achieve that goal, my objective was to analyze the multivariate effects that race and other extralegal, legal, and contextual variables have on these juvenile justice decisions. My analysis has been guided by a theoretical framework regarding the importance of discretion in juvenile justice decision-making; an empirical framework concerning the effects of legal, extralegal, and contextual variables; and a methodological framework based on recommendations for a research agenda from the National Research Council and Institute of Medicine (2001).

For my analysis, I proposed three hypotheses regarding the effects of race on juvenile justice decisions. The data supported each of these hypotheses. I found that a clear race effect existed in detention decisions, but the race effect was not uniform across all stages of juvenile case processing, nor was it consistent for all minority groups. The data indicated that American Indian juveniles were more likely than whites to be adjudicated guilty, and that Hispanic juveniles were less likely than whites to be adjudicated guilty. In decisions to file delinquency petitions and to place juveniles in custody, the data presented no evidence of direct race effects after controlling for age, contextual variables, and legal variables. In summarizing these findings, I would argue that the evidence regarding the existence and operation of a race effect is consistent with findings in the research literature. Based on a review of the literature, one should not be surprised at the outcome of my analysis. When Pope, Lovell, and Hsia (2002) reviewed 34 published race effect studies, they found that half reported mixed results, such as those found in this dissertation. Several additional studies found the same mixture of support for a race effect. To conclude, I address how this dissertation contributes to the body of knowledge regarding disproportionate minority contact, and I discuss the generalizability of the findings. I also address some directions for future research, as well as some policy implications of these findings. Finally, I provide a few summary statements regarding the social significance of race in the juvenile justice system and the importance of continuing research in this field.

#### **CONTRIBUTIONS TO THE DMC LITERATURE**

In Chapter II I discussed the National Research Council and Institute of Medicine's (2001) recommendation for a comprehensive, systematic, and long-term DMC research agenda. This recommendation became the methodological framework for my dissertation, and I have attempted to address several of the research needs identified by the National Research Council and Institute of Medicine. I have examined a variety of decision points in the juvenile justice system, which helps us understand if and how race effects operate from one decision point to the next. I have examined certain characteristics of juveniles' communities, including poverty status. This increases our knowledge of how contextual factors influence the effects of race on juvenile justice decisions. I also examined differences in urban and rural jurisdictions. My analysis produced useful findings regarding how the concentration of minority groups in different jurisdictions influenced race effects at various decision points.

Perhaps the most important contribution of my dissertation is that I examined a diverse group of racial and ethnic minorities. Considering that a large proportion of DMC studies focus exclusively on black-white comparisons, this dissertation yields important insights into how race effects operate for Hispanic and American Indian juveniles. In particular, the evidence regarding race effects for American Indians, and how these race effects are influenced by the concentration of American Indians in rural areas, is an important contribution of this dissertation.

## HOW GENERALIZABLE ARE THESE FINDINGS?

I wish to make a few statements regarding the generalizability of these findings. One potential criticism of this research is that the data from Oklahoma's juvenile justice system are not representative of typical juvenile delinquent populations. Oklahoma has a larger than average percent of its population living in rural areas, and proportionally, Oklahoma has the largest American Indian population of any state in the nation. These and other factors may cause one to be suspect of inferences that extend beyond this particular state's population.

An additional factor that may affect the generalizability of these findings is the geographic concentration of minorities in the state's metropolitan areas. While Oklahoma does have several large urban cities, these areas are certain to differ from the large metropolitan areas of Houston, Los Angeles, or Miami. These cities, with minority populations much larger than those in Oklahoma's urban areas, may also have much greater geographic concentrations of minority groups in inner cities and downtown areas. To the extent that higher concentrations of minorities represent a threat to majority groups, juvenile justice system actors may act differently in these areas. If concentrations of minority groups in any setting produce a tipping point at which bias and discrimination increase, we may expect to observe differences in the use of discretion by juvenile justice system actors. It is plausible to suggest that the differences in states' racial distributions, as well as variation in the concentrations of minorities in states' metropolitan areas, may reduce the ability to generalize beyond the findings of this study.

I suggest that while Oklahoma is unique in the ways specified above, the findings in this dissertation are no less important in understanding how race is used in discretionary decisions made by juvenile justice system actors. To argue that one may not be able to generalize these findings to other states is to recognize an important facet of the juvenile justice system; namely, that we are not dealing with one singular system, but with a variety of systems across the country. Indeed, within each of these state juvenile justice systems exists a set of other related but distinct systems. I argue that Oklahoma does not have one juvenile justice system; rather, it has different systems and structures in place for each of the decision points discussed in this dissertation. When one conceptualizes a set of juvenile justice systems, it makes theoretical and empirical sense to examine each system in its own right, and to search for commonalities with other systems as a way to generalize. In this way, findings remain valuable and useful, regardless of their generalizability.

## DIRECTIONS FOR FUTURE RESEARCH AND POLICY IMPLICATIONS

For reasons I explained in Chapter II, I based my analyses on a sample of males only. While this decision served important purposes for the dissertation, it is also one of the limitations of my research. Future research should consider how race effects operate among female juvenile offenders as well. Given the evidence regarding an interaction between gender and offense, I would recommend that more specific offense data be used in future analyses, in addition to the legal variables included in this research.

Another limitation of this research is the sole use of dichotomous dependent variables. For some of my analyses, I collapsed multiple decisions into one category. Logistic regression is capable of analyzing variation in ordinal-level variables. Research using ordinal-level dependent variables may find patterns in the data that I did not observe in my analyses.

Future research using these data could also address variation in race effects by county or district. The National Research Council and Institute of Medicine (2001) recommended that local level data be analyzed to unmask problems that might not appear in state-aggregated data. This dataset provides a good opportunity to address this research need.

The effects of detaining juveniles is an ongoing concern of the National Research Council and Institute of Medicine (2001), and my findings suggest that

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detaining a juvenile has significant effects on subsequent juvenile justice decisions. The strong effects of pre-adjudication detention can be a particular problem when minority juveniles are more likely to be detained in the first place. Detention of minorities should therefore be an issue of interest to justice system personnel and to policymakers. If racial bias enters into detention decisions, or if standardized risk assessment instruments are somehow culturally biased and work to the disadvantage of minorities, policymakers should consider how to revise the ways in which detention decisions are made. In other words, policies should address how to better control discretion in detention decisions.

#### **RACE AND THE JUVENILE JUSTICE SYSTEM**

A variety of actors make up a system of juvenile justice, and they are responsible for a variety of decisions. Typically, juvenile justice detention staff are responsible for decisions regarding detention. District attorneys are largely accountable for filing decisions, and much of the responsibility for adjudication and custody decisions lies with judges. With this variety in personnel and stages of juvenile case processing, it should be no surprise that there is not one race effect that operates at all times and in all places.

Human actors bring their own social histories into their jobs, and as Walker (1993) has articulated, these actors often have great discretion in their decisionmaking. The overarching theme of the criminal justice system during the last 50 years has been the efforts to control discretion, but even with controls in place, human actors can and do bring their biases and prejudices into their professional decisions. The result is that at times, racial and ethnic minorities are disadvantaged in the juvenile justice system. In the data for the present analysis, the racial disadvantage appeared to be greatest at detention. As long as racial disadvantage occurs at any stage of juvenile case processing, concerns are warranted regarding the fairness and equality of the juvenile justice system. Crafting a comprehensive and long-term research agenda, as recommended by the National Research Council and Institute of Medicine (2001), will allow researchers to refine explanations of disproportionate minority contact, as well as to develop methods to reduce the overrepresentation of minorities.

To the recommendations of the National Research Council and Institute of Medicine (2001), I would add the necessity of promoting to the public the social science findings regarding disproportionate minority contact. There is often a disjunction between public perception and the knowledge acquired through social science. Sociological perspectives of disproportionate minority contact need to be widely disseminated. To the extent that juvenile justice systems are effective at reducing the influence of race in justice decision-making, the public should be informed of these successes. The public should also have the power to hold their justice systems accountable for fair and equal treatment. To that end, social science can provide the empirical perspective that illuminates hidden pockets of bias and discrimination.

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